

Remedial Investigation of the East 138th Street Works Site Site #V00551

Bronx, New York

Prepared for:

Consolidated Edison Company of New York, Inc.

31-01 20th Avenue - Bldg. 136 Astoria, New York 11105

Prepared by:

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257 West Genesee Street, Suite 400 Buffalo, New York 14202

March 2016

REMEDIAL INVESTIGATION

OF THE

EAST 138^{TH} STREET WORKS FORMER MGP SITE

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MARCH 2016

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Appendix M NYSDEC Division of Fish, Wildlife & Marine Resources NY Natural

Heritage Program Response

LIST OF ACRONYMS AND ABBREVIATIONS

ADT Aquifer Drilling and Testing, Inc.

aka also known as

amsl above mean sea level

ASP Analytical Services Protocol ASTs above ground storage tanks BCP Brownfield Cleanup Program

bgs below ground surface

Blvd. Boulevard

BTEX benzene, toluene, ethylbenzene, xylenes

CC coal carbonization
CD compact disc
cf cubic feet

cm/sec centimeters per second

CN cyanide

CO Certificate of Occupancy

COC chain-of-custody

Con Edison Consolidated Edison Company of New York, Inc.

CPCs contaminants of potential concern CVOCs chlorinate volatile organic compounds

CWG carbureted water gas

cy cubic yards

DEP Department of Environmental Protection

DNAPL dense non-aqueous phase liquid DOT Department of Transportation DUSR Data Usability Summary Report

EE Environmental Easement
Eh Oxidation/Reduction Potential

ELAP Environmental Laboratory Approval Program

EM electromagnetic

Environ Environ International Corporation ESA Environmental Site Assessment

FWRIA Fish and Wildlife Resources Impact Analysis GC/FID gas chromatograph/flame ionization detector

GC/MS gas chromatograph/mass spectrometer

GEI GEI Consultants, Inc.
GPR ground penetrating radar
HASP Health and Safety Plan
HDPE high-density polyethylene

HHEA Human Health Exposure Assessment

HSA hollow stem auger ID inside diameter

IDW investigation derived wastes

Inc. Incorporated

K hydraulic conductivity

L liter

LIST OF ACRONYMS AND ABBREVIATIONS

(Continued)

LLC Limited Liability Corporation
LNAPL light non-aqueous phase liquid
MAHs monocyclic aromatic hydrocarbons

mg/kg milligrams per kilogram (parts per million)

META Meta Environmental, Inc.
MGP manufactured gas plant
MIP membrane interface probe

mL milliliter

MW monitoring well

MOSF Major Oil Storage Facility
MTBE Methyl tert-butyl ether
NAEVA NAEVA Geophysics Inc.
NAPL non-aqueous phase liquid
NAVD North American Vertical Datum
NTU nephelometric turbidity units
NWI National Wetland Inventory

NYC New York City

NYCDEP New York City Department of Environmental Protection

NYCDOT New York City Department of Transportation NYCRR New York Codes, Rules and Regulations

NYS New York State

NYSDEC New York State Department of Environmental Conservation

NYSDOH New York State Department of Health

NYSDOT New York State Department of Transportation

OD outside diameter

OSHA Occupational Safety and Health Administration

PAHs polycyclic aromatic hydrocarbons

PCB polychlorinated biphenyl PEL permissible exposure level

PCE perchloroethene, aka tetrachloroethene or tetrachloroethylene or perchloroethylene

PID photoionization detector ppbv parts per billion by volume PPE personal protective equipment

ppm parts per million

PSC Public Service Commission

PVC polyvinyl chloride

QA/QC quality assurance/quality control
QAPP Quality Assurance Project Plan
RECs recognized environmental conditions

RI Remedial Investigation Roux Associates, Inc. RQD rock quality designation

LIST OF ACRONYMS AND ABBREVIATIONS

(Continued)

SAP Sampling and Analysis Plan

SC Site Characterization

SCGs standards, criteria and guidance

sf square feet

SVI Soil Vapor Intrusion

SVOCs semi-volatile organic compounds

TAL target analyte list

TCE trichloroethene, aka trichloroethylene

TCL target compound list TDS total dissolved solids

TIC tentatively identified compound

TOGS Technical and Operational Guidance Series

TPH Total Petroleum Hydrocarbons

μg/kg micrograms per kilogram (parts per billion) μg/L micrograms per liter (parts per billion)

μg/m³ micrograms per cubic meter
URS URS Corporation – New York

USEPA United States Environmental Protection Agency

USFWS United States Fish and Wildlife Service

UST underground storage tank

VC vinyl chloride

VCA Voluntary Cleanup Agreement VOCs volatile organic compounds Zebra Environmental Inc.

1.0 INTRODUCTION

On behalf of Consolidated Edison Company of New York, Inc. (Con Edison), URS Corporation - New York (URS) presents to the New York State Department of Environmental Conservation (NYSDEC) this Remedial Investigation (RI) Report for the East 138th Street Works Former Manufactured Gas Plant MGP (MGP) Site, herein referred to as "former MGP site" (NYSDEC Site #V00551) located in the Bronx, Bronx County, New York (Figure 1-1). This report presents the results of the Site Characterization (SC) and RI field investigation activities that were conducted from March 2010 through August 2015 on and around properties that were previously occupied by the former MGP site. The project began as a SC investigation and evolved into separate projects: the East 138th Street Works SC Investigation and 295 Locust Avenue RI (Block 2598/Lot46).

The 295 Locust Avenue RI became a priority in 2011 when there was a property ownership transfer and was subsequently managed under the Brownfield Cleanup Program (BCP Site #203053-05-12). The property at 295 Locust Avenue was investigated as a separate RI in 2011 and a RI report was finalized and submitted to NYSDEC in April 2012. An Environmental Easement (EE) for the 295 Locust Avenue site was filed and authorized by NYSDEC on February 22, 2014. The 295 Locust Avenue RI report and EE are included as Appendix A of this submittal on Compact Disk (CD). The NYSDEC recently requested that the East 138th Street Works SC be completed as a RI and finalized based upon the data and information gathered to date.

All SC and RI fieldwork at the former MGP site was conducted pursuant to Voluntary Cleanup Agreement Index #D2-0003-0208 (VCA) between the NYSDEC and Con Edison. With the exception of data obtained from the 295 Locust Avenue RI, data gathered as part of the former MGP site SC/RI are discussed and presented in detail herein. Investigation activities at the properties associated with the former MGP site were performed over a period of several years due to property access issues dating back to 2009. Except as otherwise noted in this report, SC and RI field investigation activities were conducted in conformance with the Site Characterization Investigation Work Plan (URS, March 2008) that was approved by the NYSDEC for the former MGP site.

1.1 Purpose of Report

The purpose of the RI is to evaluate the extent of the contaminants associated with past operations at the former MGP site and impacts from adjacent properties. The information will be used to facilitate the development of appropriate remedial action(s) for the site, if necessary. The specific objectives of the RI are to:

- Determine the subsurface characteristics of the site area, including its geology and hydrogeology;
- Identify the potential sources of contamination at the former MGP site, the migration
 pathways, and actual or potential receptors of contaminants present in the soil and
 groundwater;
- To the extent possible, delineate the areal and vertical extent of the soil and groundwater impacts utilizing appropriate standards, criteria and guidance;
- Collect and evaluate data necessary for a Qualitative Human Health Exposure Assessment (HHEA) and a Fish and Wildlife Resources Impact Analysis (FWIA) for the former MGP site; and
- Provide information to support a Feasibility Study, if necessary, that will develop and
 evaluate potential remedial alternatives for the remediation of any soil and groundwater
 contamination at the former MGP site that poses unacceptable risks to human health
 and/or the environment.

1.2 Site Location and Description

The former MGP site is located in an industrial area of the Port Morris section of the Bronx, New York (Figure 1-1). Figure 1-2 illustrates the buildings that presently occupy the properties and the approximate locations of the former MGP structures that were located on the respective parcels. For the purpose of the RI, the areas for which RI field activities were conducted included the sidewalk areas around the various parcels up to the nearest adjacent curb lines along Rose Feiss Boulevard, East 138th Street, East 139th Street, East 140th Street, and Locust Avenue, as well as interior portions of Jacobs (Jacobs) (Jaco

Block 2591, Lot 46; portions of Block 2597, Lot 1; and portions of Block 2598, Lot 1. The former MGP site is situated on approximately 12 acres and occupied several current-day city blocks between East 138th Street and East 141st Streets, east of the New York, New Haven and Hartford Railroad tracks, and west of the East River in the Port Morris neighborhood (Figures 1-1, 1-2, and Plate 1). The shoreline of the East River downgradient of the former MGP site consists of a steel sheeting bulkhead. Figure 1-2 and Plate 1 illustrate the former MGP structures and current site features. The former MGP was used to manufacture gas from coal and/or oil. The former MGP site consists of eight parcels of land now occupied by commercial/industrial businesses, a bulk fuel terminal, and parking lots. The site area is generally flat lying, at an average elevation of approximately 10 feet above mean sea level (amsl), but slopes gently towards the East River. The site is zoned M3-1, a manufacturing district, designed to accommodate heavy industrial uses. No new residences or community facilities are permitted. Potable water in the Bronx is supplied by the New York City water system and there are no water supply wells reported within one mile of the site. There are a number of businesses and industrial facilities that currently occupy the former MGP site area which are identified in the Manufactured Gas Plant History Report (GEI, 2003). The following sections describe the site operational and ownership history.

1.3 Site History

A summary of the site history is provided below. In brief, the former MGP site was constructed between 1869 and 1879 and operated by Con Edison or its predecessor companies from 1869 to 1968. The summary information below was obtained from the *Manufactured Gas Plant History Report* (GEI, 2003).

Central Gas Lighting Company (formerly Westchester County Gas Lighting Company prior to 1875) initially constructed the East 138th Street Works between 1869 and 1879 on Block 2598, Lot 1. The former plant expanded operations into Block 2597, Lot 1 by the 1880s. In 1897, Central Gas Lighting Company changed its name to Central Union Gas Company, and was a subsidiary to Con Edison by 1910 and merged into Con Edison in 1936. From plant start up through 1891, plant operations generated gas using the coal gas process. In 1892, the plant expanded to include the carbureted water gas processes. Four below-grade gas holders were constructed with capacities

between 75,000 and 2,630,000 cubic feet (cf). Manufactured gas was produced at the plant until 1932 when it was decommissioned in 1934/1935, when almost all of the MGP structures were removed. The former MGP site had a daily capacity of 8,000,000 cf.

1.3.1 Site Ownership

Tables 1 and 2 in the *East 138th Street Works Site Manufactured Gas Plant History Report* (GEI, 2003, included as Appendix B) list the ownership history for each parcel occupied by the former MGP site through 2003. Some information regarding the historical operations conducted on Block 2598, Lot 46 (former Murray Feiss Building) are derived from the Phase II ESA that was prepared by Roux Associates, Inc. (Roux, June 2009) for Locust East 140th Street L.P., a former owner of the Block 2598, Lot 46, and the *East 138th Street Works Site Manufactured Gas Plant History Report* for the other parcels (GEI, 2003). Based upon the above-referenced reports and the current-day information derived from the New York City Open Accessible Space Information System (NYC OASIS) and Digital Tax Map, the 2016 owners of record for the various parcels are designated on the Tax Map of the City of New York for the Borough and County of the Bronx as:

- Block 2590, Lot 51 Walcott Shoe, LLC
- Block 2591, Lot 46 Empire 850 LLC/Paper Enterprises, Inc.
- Block 2592, Lot 35 LEGEIS Realty LLC/Colonial Steel Corporation
- Block 2597, Lot 1 Sprague Operating Resources, LLC
- Block 2598, Lot 1 885 East 138th Street/Carnegie Hotel Cleaners, Ltd
- Block 2598, Lot 46 BPA North LLC/295 Locust Associates
- Block 2598, Lot 62, -Walnut Realty Associates/ANDA Realty, LLC, and
- Block 2598, Lot 66 ANDA Realty, LLC

1.3.2 Past Site Operations

The summary of past site operations was included in the Manufactured Gas Plant History Report (GEI, 2003). Excerpts of the site operational history as prepared by GEI are presented below.

Early History

The former MGP site is located in the Port Morris section of the Bronx. In the mid-19th century, Port Morris was part of the Town of Morrisania, which was part of Westchester County. In March 1859, the first gas franchise (right to produce and distribute gas) was granted to Robert Campbell and Company by the Town of Morrisania and the Town of West Farms. In September 1869, Campbell assigned his gas franchise to the Westchester Gas Lighting Company. Bronx Building Department records indicate that the central portion of Block 2597, Lot 1 was transferred to the Westchester County Gas Lighting Company at that time (September 1869). In 1874, New York City annexed the land west of the Bronx River, which included Morrisania. Westchester County Gas Lighting Company changed its name to Central Gas Lighting Company in April 1875. In 1897, the name was changed to Central Union Gas Company. By 1910, the Central Union Gas Company was a Consolidated Gas Company of New York subsidiary. In 1936, the Central Union Gas Company was merged with and into Con Edison.

Plant Configuration

Figure 1-2 and Plate 1 depict the former MGP site layout and Table 1-1 summarizes the former MGP features at each of the properties. Records reviewed do not indicate when the gas plant was built at East 138th Street. An 1868 Atlas map of the site area shows no MGP structures present on the site. The oldest map depicting the MGP was an 1879 Atlas map that depicts the MGP on Block 2598, Lot 1. Two gas holders and buildings are depicted on the 1879 map. The plant was constructed sometime between 1869 and 1879. Bronx Building Department records indicate that in 1887 Central Gas Lighting Company constructed a building for gas manufacturing on Block 2597, Lot 1 and constructed a purifying house and drying shed on Block 2598, Lot 1. *Brown's Directory* indicates that the early gas plant used a coal gas process on the site.

An 1891 Sanborn Map and an 1893 Atlas map depict the MGP operating on two lots, between Walnut Avenue and the East River and between East 138th and East 139th Streets. A retort house, generating house, coal pockets, coal sheds, and coal yard are shown on Block 2597, Lot 1. A railroad spur is shown through the coal yard. A purifying house,

water gas plant and condenser, meter house, machine shop, and three gas holders are shown on Block 2598, Lot 1. 1897 photographs from *The Great North Side, Borough of the Bronx*, show two gasholders and MGP buildings located at the MGP. Central Union's annual reports indicate that a 576,000 cubic foot (cf) holder was constructed in 1885 at Block 2598, Lot 1, had 3 lifts, was constructed of steel, had a brick pit, and concrete foundation. Bronx Building Department records indicate a 75,000 cf holder with a brick pit was constructed prior to 1888. Central Union's annual reports and Bronx Building Department records indicate a 300,000 cf holder was constructed in 1890, had 3 lifts, was constructed of steel, and had a 22-foot deep brick wall foundation (pit) and concrete foundation. The reports indicate that the 300,000 cf holder was a relief holder.

Review of *Brown's Directory*, Bronx Building Department records, and Sanborn Maps indicate that significant plant expansion took place from the late 1880s to the early 1900s. *Brown's Directory* indicates that the plant added the Lowe carbureted water gas process in 1892, and operated both coal and water gas processes at the plant. A 1907 Public Service Commission (PSC) report indicates that the coal gas plant had a daily capacity of 500,000 cf and the water gas plant had a daily capacity of 8,000,000 cf. The report indicated that the water gas was mixed with the coal gas just before entering the holders.

The 1908 Sanborn Map show Central Union Gas Company as owning and occupying all or a portion of nine of the eleven parcels. A fourth gas holder with a capacity of 2,630,000 cf is shown on the northern portion of Block 2598, Lot 46. Central Union's annual reports indicate this holder was constructed in 1896, had 4 lifts, was constructed of steel, had a brick pit, and concrete foundation. A water gas purifying house and a scrubber house are also shown on Block 2598, Lot 46 on the 1908 Sanborn Map. The 1908 Sanborn indicates that the 75,000 cf holder on Block 2598, Lot 46 on the 1908 map.

A Con Edison insurance map indicated that Block 2592, Lot 35 was used for coal and scrap iron storage, and material storage sheds/buildings were located on this lot. This insurance map indicates that the northern portion of Block 2592, Lot 62 and the western half of Block 2592, Lot 66 were occupied by a few small sheds and a tennis court.

Central Union's 1922 annual report to the PSC indicates the MGP had five water-gas sets that used the Lowe process, and had 20 benches (furnaces) of coal gas works constructed between 1888 and 1919. The MGP had a daily capacity of 8,000,000 cf.

Central Union's 1923 annual report to the PSC was similar to the 1922 report, with some additional auxiliary apparatus installed during 1923. The report indicated that two steel cyanide sludge tanks, 600 and 800 gallons in capacity, were installed at the MGP during 1923. A 1924 aerial photograph confirms the features shown on the Sanborn maps.

The 1930 report to the PSC identified the size of six tar tanks and two gas oil storage tanks at the East 138th Street Works site. The tar tanks were 20,000, 48,000, 48,000, 40,000, 50,000, and 185,000 gallons in size, for a total capacity of 391,000 gallons. The two gas oil tanks (i.e., feedstock oil for the water gas process) had a capacity of 250,000 and 300,000 gallons.

A 1931 report to the PSC indicates that the East 138th Street Works continued to produce gas using both the coal gas and water gas processes. Various reports to the PSC indicate that iron oxide and shavings were used in the purifying process and residual products included coal gas tar, water gas tar, ammoniacal liquor, coke, and drip oil.

According to 1931, 1932, and 1933 reports to the PSC, the MGP stopped producing gas in 1932 and operated as a stand-by plant in 1933. According to Bronx Building Department records, the MGP was decommissioned in 1934/1935. Central Union Gas Company was merged into Con Edison in December of 1936 and the companion East 137th Street Holder Station which was situated on East 137th Street, continued operations subsequent to the shutdown of the MGP.

No MGP operations at the East 138th Street Works are shown on the 1935 Sanborn Maps and almost all MGP structures have been removed from the site. Bronx Building Department records indicate that Central Union demolished all buildings on Block 2597, Lot 1 and Block 2590, Lot 51 in 1934. One building, labeled store house and office, is shown on Block 2591, Lot 46 on the 1935 map.

Post MGP Land Use

The following has been compiled from a review of Sanborn Maps, Bronx Building Department records, city directories, and chain-of-title searches. Records reviewed did not indicate whether buildings constructed after the MGP operated had basements and if subsurface materials were removed during post-MGP site development. A summary for each parcel is provided below.

Block 2590, Lot 51

Bronx Building Department records indicate that Central Union Gas Company demolished all buildings on this lot circa 1934. No structures are shown on the 1935 and 1946 Sanborn Maps. It is unknown what this lot was used for from 1934 to 1946. Con Edison sold this lot in 1946, and according to Bronx Building Department records, a large factory building was constructed on the lot circa 1946. Bronx Building Department records and the 1951 Sanborn Map indicate the building was occupied by The Atlas Baby Carriage Company (Atlas) and a soap manufacturer, and that a 3,000-gallon underground storage tank (UST) was installed in 1947 (the location and contents of the tank is unknown). The building is visible on the 1954 aerial photograph. Bronx Building Department records indicate that in 1960, the building was still occupied by Atlas and also leased to Empire State Dry Cleaners and Launderers. The Bronx Building Department issued a certificate of occupancy (CO) in 1961 for building alterations for the manufacture of baby carriages, a steam laundry, dry cleaning establishment, clothes storage, and office space. The 1968 through 1989 Sanborn Maps do not indicate the building use/occupant, and there were no listings for the lot in the EDR city directory report. The 1996 Sanborn Map indicates an automobile auction company as a building occupant. Automobile service businesses currently occupy the building. The 2016 owner of record is listed as Walcott Shoe LLC (NYC OASIS).

Block 2591, Lot 46

The store house and office (former garage) building was demolished circa 1936. Con Edison sold this lot in 1937 to the Harlem Metal Corporation and it appears that the lot was operated as a scrap metal yard from 1937 to 1959. The 1946 and 1951 Sanborn Maps show

the scrap metal yard with a few small buildings (labeled office, storage, and steel cutting) on the lot. The yard is visible on the 1954 photograph. The lot was sold in 1959 to the Jacklee Corporation, and a large commercial building was constructed in 1960. The building is visible on a 1966 aerial photograph. Bronx Building Department records and the 1968 through 1984 Sanborn Maps indicate Empire Liquor Corporation (warehouse and office) occupied the building from 1960 to the mid-1980s. The 1989 and 1996 Sanborn Maps show the building occupied by Paper Enterprises, Inc. A 1993 city directory listed Best Marketing Reps and Paper Corporation (party supplies) as the building occupant. A 2000 city directory listed Consolidated Paper Company, Paper Enterprises, and Peter Pak as building occupants. The 2016 owner of record is listed as Empire 850 LLC/Paper Enterprises, Inc. (NYC OASIS).

Block 2592, Lot 35

The storage buildings/sheds were removed from this lot circa 1934; no structures are shown on the 1935 and 1946 Sanborn Maps. Con Edison sold this lot to Walnut Avenue Realty Corporation in 1945. It is unknown what this lot was used for from 1935 to circa 1950. The 1951 Sanborn Map and 1954 aerial photograph show a commercial building occupied by Colonial Steel Corporation on the western portion of the lot. A gasoline UST is shown on the interior, southern side of the building. The building was added on to between 1954 and 1966, as the building in the 1966 aerial photograph covers the whole lot. The 1968 through 1996 Sanborn Maps show the building occupied by Colonial Steel. Colonial Steel continues to occupy the building. The 2016 owner of record is listed as LEGEIS Realty LLC/Colonial Steel Corporation (NYC OASIS).

Block 2597, Lot 1

Bronx Building Department records indicate that Central Union demolished all the buildings and structures on this lot circa 1934; no structures are shown on the 1935 and 1946 Sanborn Maps. Bronx Building Department records indicate that in 1937 Con Edison leased this lot (including an office and locker building) to Schiavone-Bonomo Corporation who used it as a junkyard. It is unknown how long this lot was used for a junkyard, or

if there were other uses from 1934 to the late 1940s. Con Edison sold this lot in 1946 to the Petroleum Terminal Corporation. A bulk fuel oil terminal was constructed on this lot in the late 1940s. Large fuel oil tanks and small ancillary buildings were constructed on the southern two- thirds of this lot in the late 1940s. These mounded tanks are shown on the 1951 Sanborn Map and the 1954 aerial photograph. Fuel loading racks were constructed on the northern one-third of this lot sometime between 1954 and 1966. This lot continues to be operated as a bulk fuel oil terminal. The 2016 owner of record is listed as Sprague Operating Resources, LLC. (NYC OASIS).

Block 2598, Lot 1

Central Union Gas Company demolished/removed all structures on this lot circa 1934; no structures are shown on the 1935 and 1946 Sanborn Maps. It is unknown what this lot was used for from 1934 to 1950. Con Edison sold this lot in 1946. In 1947, the AS Beck Shoe Company, Inc. acquired the lot, and according to Bronx Building Department records, constructed a large commercial building on the lot in 1950. Two 5,000-gallon USTs were also installed when the building was constructed. The location of the two tanks is unknown. The 1951 and 1968 Sanborn Maps indicate the building was occupied by A.S. Beck and labeled "shoe warehouse". Bronx Building Department records indicate a CO was issued in 1977 for building alterations, and that the building would be used for a factory, woodworking shop, warehouse, shipping and receiving, parts assembly, and offices. Bronx Building Department records indicate that the two USTs were still located on the site in 1978. The 1978 through 1996 Sanborn Maps indicate the building as a warehouse. Murray Feiss Industries (light fixture manufacturers) occupied the building for a period of time, although it is unknown when they occupied it. A 2000 city directory lists Modem Tech Cleaners as a building occupant that year. A commercial cleaning business was observed to occupy the building during GEI's walkover (GEI, 2003). The 2016 owner of record is listed as 885 east 138th Street/Carnegie Hotel Cleaners, Ltd. (NYC OASIS).

Block 2598, Lot 46

Central Union Gas Company demolished/removed all MGP structures on the northern portion of this lot circa 1934, and Con Edison sold this lot in 1946. No structures or uses are shown on the 1935, 1946, and 1951 Sanborn Maps. No structures are shown on the 1954 aerial photograph. It is unknown what the northern portion of this lot was used for from 1934 to the mid- 1960s. Parked vehicles and a dispenser island canopy are visible on the northern portion of the lot on the 1966 aerial photograph. Aerial photographs and the 1968 through 1996 Sanborn Maps indicate that a filling station and parking area for vehicles and trucks were located on the northern portion of this lot. A building was constructed on the southern portion of this lot (not formerly owned/occupied by the MGP) between 1908 and 1935. 1935 through 1968 Sanborn Maps and city directories indicate this building was occupied by various businesses (building supplies, a private garage and repair business, a metal warehouse, woodworking, millwork, and motor freight business) until the early 1970s. The 1978 through 1996 Sanborn Maps and city directories indicate that Hertz Corporation Truck Rental occupied the building from the early 1970s to the late 1990s. This building was demolished in the late 1990s. A large industrial building was constructed circa 2000 on the entire lot, which was occupied by Murray Feiss Industries, and was recently sold. The 2016 owner of record is listed as BPA North LLC/295 Locust Associates (NYC OASIS).

Block 2598, Lot 62

No structures are shown on the 1935 and 1946 Sanborn Map. It is unknown what this lot was used for from circa 1934 to 1950. Con Edison sold this lot in 1945. A small building labeled office is shown on the center of the lot on the 1951 Sanborn Map. According to a 1954 aerial photograph and the 1968 Sanborn Map, a garage building was constructed in 1954 on the entire lot. City directories indicate this building was occupied by a garage business in the 1960s. Service System Corporation was listed as occupying the building in 1976. Directories and deed information indicates that Steiner Egg Noodle Co./Steiner Foods occupied the building from 1973 to the 1993. It is unknown what this building was used for from the 1993 to 2001. A machine shop and welding shop currently occupy the

building. The 2016 owner of record is listed as Walnut Realty Associates/ANDA Realty LLC (NYC OASIS).

Block 2598, Lot 66

No structures are shown on the 1935 Sanborn Map. It is unknown what this lot was used for from circa 1934 to 1946. A storage building occupied by Griffin Wellpoint Corporation is shown on the lot on the 1946 and 1951 Sanborn Maps. Records reviewed do not indicate what the building was used for from the early 1950s to 2001. A Carting and Demolition Company currently occupy the building. The 2016 owner of record is listed as ANDA Realty, LLC (NYC OASIS).

1.4 Previous Investigations

Previous investigations were conducted at three parcels that were part of the former MGP including Block 2591, Lot 46; Block 2597, Lot 1; and Block 2598, Lot 46. In addition, a subsurface investigation was conducted by The RETEC Group, Inc. in 2007 to support the 36-inch gas main installation along the southern portion of East 138th Street for Con Edison. These investigations are summarized below.

Previous Investigation Results – Block 2591, Lot 46

• No. 4 Fuel Oil Investigation by MC Environmental, LLC, 2010

Ten soil borings were advanced around the perimeter of a 10,000 gallon No. 2 oil UST situated in the interior of the building footprint approximately mid-block along Murray Feiss Blvd. (i.e., approximately 15 feet west of the eastern wall). Borings were advanced to depths between 2 and 16 feet below ground surface (bgs) of the warehouse floor. MC Environmental reported that contaminants associated with a fuel oil spill were found at or below the water table (i.e., approximately 10.5 feet bgs). MC Environmental also reported tar odors and tar present in three of the borings. Excerpts of the MC Environmental, LLC report are included in Appendix B.

<u>Previous Investigation Results – Block 2597, Lot 1</u>

• Subsurface Exploration Borings and Monitoring Wells

Several borings were advanced and monitoring wells installed to assess soil and groundwater conditions at the terminal. Available boring logs and groundwater monitoring well sampling data are included in Appendix B. Results indicate a mixture of fill materials, silts, sands, and gravels, with low concentrations of polycyclic aromatic hydrocarbons (PAHs) detected in MW6 situated on East 139th Street, approximately 100 feet east of Locust Avenue. Excerpts of the information are included in Appendix B.

<u>Previous Investigation Results – Block 2598, Lot 46</u>

- Remedial Investigation of the 295 Locust Avenue (Block 2598/Lot46) Portion of the East 138th Street Works Former MGP Site prepared for Con Edison, by URS Corporation – New York, April 2012.
- Phase I Environmental Site Assessment: 295 Locust Avenue (Former Distribution Center) and 901-903 East 140th Street (Former Parking Lot) Bronx, New York prepared for Locust East 140th L.P., by Roux Associates, Inc., May, 2009.
- Indoor Air Sampling Summary Letter Report Murray Feiss Import Corp., Bronx, NY, prepared by Environ International Corp., April, 2004.
- Environmental Review of Murray Feiss Import Corp., Bronx, NY, prepared by Environ International Corp., March, 2004.
- Manufactured Gas Plant History: East 138th Street Works and East 137th Street Station, Bronx, NY, prepared for Consolidated Edison Company of NY, Inc., by GEI Consultants, Inc., January, 2003.
- Phase I Environmental Site Assessment Murray Feiss Distribution Center 275-295
 Locust Avenue Bronx, NY, prepared by Environmental Planning & Management, Inc.,
 November 1998.

Remedial Investigation – April 2012

The RI Report for the parcel prepared by URS Corporation-New York, dated April 2012, indicated that, based upon the observed distribution of contamination in the site media, it is apparent that multiple sources of contaminants contributed to the nature and extent of commingled contamination. Subsurface soil was found to contain VOCs, SVOCs, pesticides, and metals above Standards, Criteria, and Guidance values (SCGs). In addition to MGP residuals, it is evident that there is onsite contamination from the property's prior use for fuel storage and possibly from vehicle or maintenance shop operations in addition to dry cleaning solvents from a nearby facility. It was determined that contamination is below the warehouse building floor slab and surrounding sidewalks generally at depths greater than three feet below the surface; therefore, no risk to human health from non-intrusive, uncontrolled exposure to subsurface soil exists at the property.

The extent of MGP-related non-aqueous phase liquids (NAPLs) in soil appears to be situated primarily within the former MGP gas holder #4 structure at depths greater than 14 feet beneath the warehouse floor. This eliminates the potential for non-intrusive, uncontrolled exposure to this contamination.

As a result of onsite historic uses as an MGP, truck storage and refueling station with USTs, and nearby adjacent property uses such as a dry cleaning facility, groundwater within the Block 2598, Lot 46 area contains VOCs, SVOCs, and metals in excess of SCGs. The resulting dissolved phase plume is widespread across the parcel but is primarily contaminated with chlorinated volatile organic compounds (CVOCs) which are not related to MGP facilities, as well as fuel-related contamination, based upon the presence of methyl-tert-butyl-ether (MTBE). However, since groundwater is not currently used as a potable water source, nor is there plans for potable or industrial/commercial use of groundwater as this is not authorized by New York City law, no risk to human health from uncontrolled exposure to groundwater exists at the property.

Sub-slab vapors found during the RI were present at levels that are in excess of New York State Department of Health (NYSDOH) Soil Vapor Intrusion (SVI) Guidance levels for chlorinated VOCs.

Based upon the RI results, it was determined that there is potential of exposure to contaminated soil, soil vapor and/or groundwater as a result of future construction activities within the

building or beneath adjacent sidewalks. It was recommended that plans should be implemented that provide guidelines for the performance of intrusive activities including management of soil and groundwater and worker safety.

Phase I Environmental Site Assessment – November 1998

The Phase I Environmental Site Assessment prepared by Environmental Planning and Management, dated November 10, 1998, indicated the presence of petroleum-related contamination in soil and groundwater discovered during the in-place closure of 15 onsite 550-gallon diesel/gasoline USTs (NYSDEC Spill No. 9005051) related to a former filling station. The USTs were removed in 1995 along with 50 cubic yards (cy) of petroleum-contaminated soil. Following completion of the UST removal and soil excavation and disposal, the NYSDEC issued a closure letter on November 16, 1995.

Environmental Review - March 2004

The Environmental Review of the Murray Feiss Import Corporation prepared by Environ International Corporation (Environ), dated March 2004, identified that the subsurface at the property is contaminated due to the presence of former onsite MGP operations, onsite contamination documented during removal of USTs, and potential for impacts from off-site industrial properties within the surrounding area.

Indoor Air Sampling Report – April 2004

An Indoor Air Sampling Report prepared by Environ, dated April 2004, indicated that while two petroleum-related compounds exceeded the highest published background level in indoor air at the property, these levels were below the Permissible Exposure Limits (PELs) established by the Occupational Safety and Health Administration (OSHA). Environ concluded the concentrations did not pose a concern to human health.

Phase I ESA - 2009

The Phase I ESA was conducted by Roux Associates, Inc. (Roux) in 2009. Work completed as part of the Phase I ESA included: information searches from state and federal regulatory agency databases; freedom of information law requests submitted to federal, state and local regulatory agencies; a review of readily available information including historical aerial photographs, historical Sanborn fire insurance maps, and historical topographic maps; City Directory search; lien search; interviews with property representatives; and observations made during site inspections. Based upon information gathered as a result of the Phase I ESA, Roux identified the following recognized environmental conditions (RECs) in connection with the property:

- Petroleum-related soil and groundwater contamination as documented in 1995 during a
 previously completed subsurface investigation following removal of fifteen USTs from
 the property.
- Potential contamination associated with the East 138th Street Works former MGP.
- Identified documented USTs may still be present beneath the former parking lot and property, as indicated in historical Sanborn fire insurance maps. The condition of these USTs is unknown and, therefore, they present a potential environmental hazard to the subsurface.

Although not defined as RECs, Roux also identified the following list of potential environmental concerns that could potentially impact subsurface conditions at the property:

 Other nearby off-site industrial facilities and facilities with USTs with documented releases and impacts to groundwater may have impacted subsurface conditions at the property. These releases may have migrated beneath the property, or pose a threat to impact subsurface soil, groundwater, and soil vapor at the property. These include a dry cleaning facility located at 874 East 139th Street.

- An active NYSDEC spill incident pertaining to the property identified as "Murray Feiss/Former Hertz Rental," listed under NYSDEC Spill No. 0650009. The spill pertains to a Con Edison report concerning the presence of a "light fuel oil" within some of their manholes located on Locust Avenue. Roux concluded the spill is not associated with Con Edison or MGP operations and it is not clear why NYSDEC has associated this spill with the site.
- An unrelated former MGP, located northeast of the property immediately across Locust Avenue along the East River was identified as the Pintsch Gas Facility. This facility was not owned or operated by Con Edison or its predecessor companies, but based on available Sanborn map appears related to the former New York Central and Harlem River Rail Road Company. It contained numerous oil tanks that supplied purified naptha necessary for the Pintsch Gas Process. Contamination concerns similar to coal gas MGP sites are often present at Pintsch Gas Process sites.

Phase II ESA – April 2009

The Phase II ESA fieldwork performed by Roux was conducted in April, 2009. Work completed as part of the Phase II ESA included the installation of ten soil borings to depths of 10 to 20 feet bgs, five of which were converted to monitoring wells, and the collection of ten soil samples, five groundwater samples, four sub-slab vapor samples, four indoor air ambient samples, and one outdoor air sample. Analytical results indicated the following:

Soil

• The only VOCs detected in soil at a concentration exceeding Part 375 commercial or industrial use criteria was tetrachloroethene (PCE) in one sample (MWRX-2 at a depth of 7-8 feet). Appendix B presents the Roux sampling locations and information. PCE is used extensively in the dry-cleaning industry as well as a solvent in various manufacturing operations.

- SVOCs, predominantly PAHs were detected in several soil samples at concentrations
 exceeding Part 375 commercial or industrial criteria. Cyanide was detected above the
 commercial criteria in one soil sample (SBRX-1).
- No coal tar was detected in any soil borings.

Groundwater

- Groundwater samples from all five of the monitoring wells installed as part of the Phase II ESA were found to contain two or more VOCs at concentrations that exceeded Class GA (April 2000) standards including PCE and its degradation products (trichloroethene, cis-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride), and petroleum-related compounds (benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, and MTBE) (Roux, 2009). The highest detections of VOCs (including PCE at 39,000 micrograms per liter μg/L) were detected in the southern portion of the property in groundwater monitoring well MWRX-2, closest to the dry cleaners located across East 139th Street.
- SVOCs exceeded groundwater criteria in four of the five monitoring wells, the majority of which were low-level PAH exceedances in MWRX-5 located in the Former Parking Lot (situated northeast across East 140th Street and not part of the former MGP Site). Naphthalene, acenaphthalene, and/or phenol exceeded criteria in three of the four monitoring wells within and adjacent to the property.

Sub-Slab Vapor and Ambient Air

• Concentrations of VOCs were detected in all sub-slab vapor samples. Detections of relatively consistent VOC concentrations in indoor ambient air samples and outdoor ambient air samples indicated that indoor air quality was being affected more so by the outdoor air than from sub-slab vapor intrusion. Roux concluded that the indoor air VOC concentrations were significantly lower than the VOC concentrations in the sub-slab samples; therefore, the sub-slab VOC concentrations were not impacting indoor air quality.

Previous Investigation Results - Block 2598, Lot 1

An operating dry cleaning facility is located in the northern half of the building situated on this property. The current owners are listed as Carnegie Hotel Cleaners, Ltd. and it is listed as Site #8-25-880 on NYSDEC's Registry of Hazardous Waste Sites. The current status of the facility from the NYSDEC is not available.

East 138th Street Subsurface Investigation Associated with a 36-inch Gas Main

• Subsurface Investigation by The RETEC Group, Inc. in 2007 to support the 36-inch gas main installation along the southern portion of East 138th Street for Con Edison.

Field investigation activities took place in March 2007 to evaluate subsurface conditions along a portion of the gas main installation between Willow and Locust Avenues. The RETEC Group, Inc. completed utility clearance; advanced soil borings; conducted soil, groundwater, Soil Vapor sampling; and conducted a tidal survey. Nine soil borings were advanced using direct-push methods (i.e., SB-01 through SB-09) to depths ranging from 4 feet to 18 feet bgs. Soil borings SB-07 through SB-09 were advanced between the railroad trestle and toward the west of Walnut Avenue, and SB-01 through SB-06 were advanced between Walnut Avenue and Locust Avenue. Temporary well points were installed in SB-01, SB-02, SB-03, SB-04, SB-07, and SB-09 to assess groundwater quality and tidal influence on water levels. A summary of results is provided presented below, and the report prepared by The RETEC Group, Inc. is provided in Appendix B.

Soil

- Soil was characterized as urban fill overlying marine sediments on top of bedrock.
 RETEC reported evidence of contamination in borings SB-02, SB-03, SB-04, SB-07, and SB-09. Detected VOCs included benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), acetone, and 2-butanone.
- SVOCs, predominantly PAHs were detected in several soil samples from SB-02, SB-03, SB-04, and SB-09.

• Coal tar-materials were reported in SB-02 (12.5-16 feet bgs), and coal tar-like odors were reported in SB-02 (8.0-11.5 and 12-12.5 feet bgs), SB-04 (16-18 feet bgs), and SB-09 (6.6-8 feet bgs). Other observations of contamination were petroleum related including petroleum odors as presented in Table 1-1 of the RETEC report.

Groundwater

Groundwater samples from all four of the six temporary monitoring points installed as
part of the investigation from SB-01, SB-02, SB-04, and SB-07). The groundwater
sample from SB-04 reported benzene above the New York State groundwater criterion.
Copper, lead, and nickel were also reported above groundwater standards in SB-02, and
lead in SB-04.

Soil Vapor

 Soil Vapor samples were collected from SB-04, SB-07, and SB-09. Concentrations of VOCs were detected in all Soil Vapor samples. Several VOCs were detected above the NYSDOH typical background concentrations for indoor air, although there is no promulgated reference standard for outdoor air.

Environmental Data Resources Review - October 2015

The Environmental Data Resources (EDR) Report is included in Appendix C. There are numerous spills documented from a variety of sources nearby and throughout the site area as indicated in the database listings in Appendix C. The site and surrounding area has been used and will continue to be used for commercial/manufacturing for the foreseeable future.

1.5 RI Report Organization

This report has eight sections. Section 1 includes background information for the site area. Section 2 includes a description of field activities that occurred during the RI. Section 3 includes a description of the physical characteristics and the local and regional geology and hydrogeology. Section 4 discusses the nature and extent of the contamination at the site. Section 5 discusses

contaminant fate and transport. A qualitative HHRA and FWRIA are provided in Section 6.0. Section 7.0 presents a summary and conclusions. Section 8 contains a list of references cited. Tables, Figures, and Appendices immediately follow the text.

2.0 REMEDIAL INVESTIGATION FIELD ACTIVITIES

Field activities performed during the SCS and RI from March 2010 through August 2015 are discussed below. Field notes are provided in Appendix D. URS conducted the following work tasks during the field investigation:

- Task 1 Utility Clearance
- Task 2 Overburden Soil Borings and Soil Sampling
- Task 3 Overburden and Bedrock Monitoring Well Installation
- Task 4 Well Development
- Task 5 Fluid Level Gauging
- Task 6 Groundwater Sampling
- Task 7 Surveying

2.1 <u>Utility Clearance</u>

Prior to conducting each major phase of intrusive site work utility clearance activities were performed in efforts to eliminate or substantially reduce the potential for damaging subsurface utilities during the field investigation intrusive activities. The utility clearance process entailed:

- Call Dig Safely for Code 753 Markouts;
- Geophysical Survey of Each Intrusive Work Location;
- Site Reconnaissance / Review of Utility Drawings; and
- Hand Excavation

These steps are described below.

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Dig Safely was also contacted (1-800-962-7333) and requested to provide a mark-out by all participating utility companies prior to site reconnaissance, as well as the New York City Department of Environmental Protection (NYCDEP) which does not participate in the one-call system. At each intrusive work location and prior to any intrusive activities, the URS drilling subcontractor obtained all necessary permits (e.g., NYCDOT street opening permits) for conducting intrusive activities around the sidewalks, and perimeter of the various streets throughout the site area. After the subsurface testing locations were clearly marked out, the geophysical surveys were initiated. The geophysical survey activities and results are summarized in the following section. Site reconnaissance activities included representatives of Con Edison, property owners, subcontractors, and URS personnel. Utility drawings/plates for sewer and water were obtained from NYC Department of Environmental Protection (NYCDEP) and gas and electric plates were obtained from Con Edison. All subsurface testing locations were marked with paint and labeled accordingly. All intrusive work locations were hand cleared using vacuum and hand excavation methods to a minimum depth of 5 feet bgs, and is further described in Section 2.3 below. The utility clearance steps were used in combination to establish subsurface testing locations in positions at safe working distances from the utilities.

2.2 Geophysical Survey for Markouts

On January 5, 2011, NAEVA Geophysics, Inc., (NAEVA) mobilized a two person crew with ground penetrating radar (GPR) and electromagnetic (EM) induction equipment to the Block 2591, Lot 46 property and nearby areas. The purpose of the geophysical survey was to delineate detectable subsurface utilities and features to aid in the safer placement of the proposed boring locations. Equipment utilized included a Fisher TW-6 Pipe and Cable Location (electromagnetic metal detector), a Subsite 950 utility locator, a 3M Dynatel 2250 locator, and a Malå RAMAC/GPR system with a 250-megahertz antenna. NAEVA marked utilities and anomalies by spray-painting the outline on the concrete surface as soon as they were located. Several soil borings and monitoring well locations were adjusted as appropriate based on the results of the geophysical investigation, or due to proximity to subsurface utilities. A URS geologist supervised and assisted NAEVA. The complete geophysical survey report is provided in Appendix E.

On December 14, 2011, personnel from Geophysical Applications, Inc. performed a GPR survey and utilized a pipe and cable locator to identify subsurface utilities at and near Block 2597, Lot 1. Equipment utilized included a GSSI model SIR-2000 radar instrument with a 400-megahertz antenna, and a Radio Detection model RD400 pipe and cable locating instrument to detect objects carrying an active 50/60 hertz current under load. Multiple small discrete point targets were identified during the survey. Proposed boring and monitoring well locations were adjusted as necessary to avoid subsurface utilities and potential buried hazards. The complete geophysical survey results and report are included in Appendix E.

2.3 Boring, Monitoring Well, and Sampling Location Hand Clearing

Prior to each field work phase, URS subcontracted driller Zebra Environmental, Inc. (Zebra)to the site to hand clear direct push soil boring and monitoring well locations, with the exception of soil borings SB-41 through SB-44 situated inside the warehouse building located at Block 2598, Lot 1. SB-41 through SB-44 were advanced and completed by Aquifer Drilling & Testing, Inc. (ADT). The locations of direct push soil borings SB-1 through SB-22, SB-32 through SB-44, and monitoring wells MW-01 through MW-07 and MW-11, and the soil borings and monitoring wells completed as part of the 295 Locust Avenue RI are shown on Figure 2-1. The rationale for soil borings and monitoring wells are provided in Table 2-1.

Sidewalk soil boring and monitoring well locations were opened using a cutting saw, pry bars, and jackhammer. Soil boring locations inside buildings were opened using 8- to 12-inch diameter core drills. Each location was then hand cleared to a depth of at least 5 feet using a bucket auger, air knife, post-hole digger, and Vactron®. Investigation derived waste (IDW) materials removed from the subsurface testing locations were placed into 55-gallon drums, labeled, and transported off-site for disposal by a licensed waste hauler to a permitted disposal facility. After the locations were cleared, they were either backfilled with clean sand and temporarily patched with concrete, or drilled as described in the following subsections. Soil from each location was screened with a photoionization detector (PID), and detailed visual inspections were completed and recorded in field notes. Up to two soil samples were typically collected from each hand cleared location for off-site chemical analysis.

Samples were collected from the intervals exhibiting odors, staining, the highest PID reading, or some notable visual impact.

2.4 Soil Borings

All soil borings were completed using direct push drilling methods by either Zebra or ADT. Zebra completed drilling operations at soil boring and monitoring well locations utilizing a track-mounted Geoprobe[®] 6620 DT hydraulic push unit. A 2-inch outside diameter (OD) by 4-foot long acetate lined Macrocore sampler was advanced to obtain soil core samples. The soil sample cores were characterized in detail. The soil borings were advanced to depths ranging approximately 15 feet to 46 feet bgs, due to variations in subsurface stratigraphy and drilling refusal. Refusal was not encountered at all boring locations and soil boring logs are provided in Appendix F.

Upon completion, each soil boring was either backfilled with a bentonite-cement grout (soil borings) or clean sand (monitoring wells). ADT completed soil borings SB-41 through SB-44 inside the warehouse building at Block 2598, Lot 1using a remote, Geoprobe® 410M at SB-41, and a trackmounted Geoprobe® 6610DT hydraulic push unit at SB-42, SB-43, and SB-44. A 2-inch outside diameter (OD) by 5-foot long acetate lined Macrocore sampler was used to advance soil core samplers. The soil sample cores were characterized in detail. The soil borings were advanced to depths ranging approximately 15 feet to 21 feet bgs and soil boring logs are provided in Appendix F. Refusal was not encountered at all boring locations. Upon completion, each soil boring was backfilled with a bentonite-cement grout and the concrete surface was restored in kind.

2.4.1 Sampling and Analysis

Each soil core was characterized in the field based on color, predominant lithology, grain size, moisture content and evidence of contamination (if any), such as odors, staining, NAPL, or total VOC concentrations as indicated by elevated PID readings. Up to five soil samples were collected from each boring. For most soil borings, a sample was collected at the water table and at the bottom of the boring in accordance with the Work Plan. Additional samples were collected from intervals exhibiting physical evidence of contamination and clean intervals below impacts. Soil boring logs are provided in Appendix F.

Chain-of-custody (COC) forms were maintained and accompanied all sample containers to Mitkem Labs of Warwick, Rhode Island. The samples were analyzed for Target Compound List (TCL) VOCs, TCL SVOCs, and Target Analyte List (TAL) metals as listed in Table 2-2, following USEPA SW846 Methods 8260B, 8270C and 6000/7000, respectively. In addition, select subsurface soil samples collected at Block 2598, Lot 46, were also analyzed for TCL pesticides and polychlorinated biphenyls (PCBs) following USEPA SW846 Methods 8081A/8082 at the request of the property owner. Results for these supplemental analytes are presented in the 295 Locust Avenue RI Report (URS, April 2012 – Appendix A), and not included herein.

To assess the potential sources of PAH contamination and fuel-related compounds present throughout the site area, a total of 16 soil samples were sent to META Environmental, Inc. (META) for forensic analysis. Samples were generally selected based upon field screening during drilling and biased to depth intervals that exhibited physical evidence of contamination. The samples were analyzed for hydrocarbon fingerprints and extended PAH analyses/diagnostic ratios as part of the forensics characterization. A COC form was maintained and accompanied all sample containers that were shipped to META.

All IDW generated from the soil borings and monitoring well installation was containerized in 55-gallon drums and picked up by Clean Venture for off-site disposal at a permitted facility.

2.5 Groundwater Monitoring Well Installation

2.5.1 Overburden Monitoring Wells

At each monitoring well location, a soil boring was advanced using the hollow stem auger method with soil core collected by driving Macrocore samplers into the soil (as described above) in advance of the augers and collecting soil samples. Once the augers were advanced to the specified well depth, a well was generally constructed with a 5 to 10 feet long 2-inch inside diameter (ID), Schedule 40 polyvinyl chloride (PVC) well screen and solid riser to grade. A #1 size sand pack was installed from the bottom of the well up to 2 feet above the top of the well screen. A bentonite slurry was then installed around the riser to an elevation of 0.5 foot below grade. Each monitoring well was finished with a locking well cap, an approximately 2-foot square concrete apron, and a flush-mounted curb

box. Security bolts were installed in the well covers to minimize the potential for unauthorized well access. The concrete apron for each well pad was approximately 6 inches thick. Table 2-3 summarizes the well construction information.

Eight shallow monitoring wells (MW-01 through MW-07 and MW-11) were installed. Monitoring well construction details are summarized in Table 2-3. Well construction for several wells varied from the general approach described above in order to comply with location-specific variables, such as overburden thickness and groundwater depth. For example, MW-05 was set between 3 and 20.5 feet bgs to accommodate a longer monitoring interval, and the well screen in MW-07 was set between 4.6 and 9.6 feet bgs. The well screens at the other well locations were nominally set between depths of 3 to 13 feet bgs, straddling the water table surface.

2.5.2 Bedrock Monitoring Wells

Bedrock monitoring wells BW-01 through BW-04 were completed by Glacier Drilling, LLC in December 2011 and January 2012 around the perimeter of Block 2598, Lot 46 at the locations depicted in Figure 2-1 and Plate 2. Bedrock monitoring wells were completed using a truck-mounted CME 55 drilling rig using a 6-7/8 – inch casing and hammer down to the bedrock surface. SQ rock cores and/or roller bit were then used to install a 3- to 5-foot rock socket and to confirm bedrock depth. After the rock socket was completed, a 4-inch ID carbon steel casing was seated to the bottom of the rock socket and grouted in place. After at least 24-hours to allow the grout to cure, drilling continued using a HQ core barrel to completion depth. Rock core samples were characterized in detail for: fractures and fracture orientation; rock type; PID screening; notable characteristics including color and presence or absence of petroleum, chemical, or MGP odors or impacts; sheen on cores or return water and cuttings; rock quality designation (RQD) measurements; and recovered core intervals. The bedrock monitoring wells were then constructed with 10 feet of 2-inch ID, Schedule 40 PVC 0.010-inch slot screen and riser. A 2-foot PVC sump was placed at the bottom of the well screen. The well screens were nominally set between depths of 25 to 35 feet bgs and 39 to 49 feet bgs. A #1 size sand pack was installed from the bottom of the well up to 2 feet above the top of the well screen. A bentonite slurry was then installed around the riser to an elevation of 0.5-foot below grade. Each monitoring well was finished with a locking well cap, a 2-foot square concrete apron, and a flushmounted curb box. Security bolts were installed in the well covers to minimize the potential for unauthorized well access. The concrete apron for each well pad was approximately 6 inches thick. Monitoring well construction logs are provided in Appendix G. Table 2-3 summarizes the well construction information.

2.5.3 Groundwater Monitoring Well Development

At least 24 hours after the monitoring wells were installed, the wells were developed by URS personnel with the pump and surge development method using a ½" diameter HDPE tubing and a surge block and pumping with a peristaltic or hydrolift pump. Prior to well development, a 100-foot long Solinst oil/water interface probe and/or cotton twine with weight were used to check for the presence and thickness of any free product. Because MW-03 and MW-05 contained measurable amounts of light non-aqueous phase liquid (LNAPL), these wells were not developed (Table 2-2). During well development, water quality parameters (pH, specific conductivity, temperature and turbidity) were measured using a Horiba U-22 Multiparameter Meter and a Lamotte 2020 turbidimeter and recorded on well development logs. A monitoring well was considered developed when water quality parameters had stabilized and turbidity was consistently below 50 nephelometric turbidity units (NTUs). Monitoring well development logs may be found in Appendix H. Well development water was collected into DOT approved 55-gallon drums and picked up periodically by Clean Venture for off-site disposal at a permitted facility.

2.6 Groundwater Levels, and NAPL Measurements

Groundwater levels were collected periodically in both the newly-installed monitoring wells and the existing Roux monitoring wells during the field investigation. The water level measurements were used to develop groundwater contour elevation maps. Gauging of fluid levels (i.e., depth to groundwater and NAPL and thickness of accumulated NAPL, (if any) in monitoring wells was performed periodically. Fluid levels were determined using a 100-foot long Solinst oil/water interface probe. Table 2-4 provides a summary of the gauging measurements. Light non-aqueous phase liquid (LNAPL) was encountered in MW-03 and MW-05. These wells are located on East 141st Street and East 138th Street, respectively, and dense non-aqueous phase liquid (DNAPL) was encountered in bedrock monitoring well BW-01, which is located on East 139th Street.

2.7 **Groundwater Sampling**

Between August 15 and 18, 2015, URS collected groundwater samples from monitoring wells MW-01 through MW-07, MW-11, MWMF-1 through MWMF-8, and BW-01 through BW-04 plus quality assurance/quality control (QA/QC) samples. Samples were collected using low-flow sampling procedures. Bedrock monitoring wells BW-01 through BW-04 were also sampled in March 2012, shortly after they were installed. Prior to sample collection for each sampling event, standing water was purged from each well with a Geopump peristaltic pump using dedicated/disposable HDPE tubing. Wells were purged at a rate of approximately 100 to 300 milliliters per minute or less and the purge rate was adjusted to minimize draw down. During the purging of the well, water quality parameters (pH, specific conductivity, temperature, dissolved oxygen, turbidity) were measured using a Horiba U-22 Multi-parameter Instrument with a flow-through cell and a Lamotte 2020 turbidity meter and documented on the purge log. Samples were collected after the water quality parameters stabilized. Purge logs are provided in Appendix I. Purge water was collected into DOT approved 55-gallon drums, and was picked up by Clean Venture for off-site disposal.

All samples were transported under COC via laboratory courier to Mitkem Labs. The samples were analyzed for TCL VOCs, SVOCs, TAL metals, and total cyanide as listed in Table 2-2. In addition, the LNAPL in MW-03 was also sampled for Total Petroleum Hydrocarbons (TPH) during the August 2015 sampling event.

2.8 Slug Testing

At the Block 2598, Lot 46 property, and as part of the 295 Locust Avenue RI, slug testing was conducted on monitoring wells MWMF-1 through MWMF-8 to estimate the horizontal hydraulic conductivity of the overburden. Falling head tests were performed by recording the initial water level in the well, lowering a pressure transducer/datalogger (In-situ MiniTroll) into the well, inserting a decontaminated slug to raise the water level in the well, and recording the water level over time until it returned to the original static level. Rising-head tests were performed immediately following completion of the falling head test. With the slug already in the water column, the static water level was recorded; the slug was then removed, and water level readings were taken as the water level

gradually returned to static condition. Aquifer testing data and results are included in the 295 Locust Avenue RI Report contained in Appendix A and discussed in Section 3.0.

2.9 Investigation Derived Waste Disposal

With the exception of the August 2015 groundwater sampling event, Clean Venture, Inc. was contracted for the pick-up and disposal of all drummed solids and liquids at a permitted disposal facility. AARCO Environmental Services Corporation was contracted for the pick-up and disposal of the drummed liquids in August 2015.

2.10 Site Survey

URS surveyed the areas investigated, including all new soil borings and monitoring wells, and relevant site features for location and elevation. The survey provides 100-scale mapping. All surveying was performed under the supervision of a New York State licensed land surveyor. All vertical control points were referenced to the North American Vertical Datum 1988 (NAVD 1988). Horizontal datum was referenced to the North American Datum of 1983 (NAD83), New York State Plane Coordinate System, Long Island Zone. Copies of survey coordinates, field notes, and Property sketches are provided in Appendix J.

3.0 PHYSICAL CHARACTERISTICS OF THE STUDY AREA AND GEOLOGY

This section discusses the physical characteristics of the site including: demography and land use; surface features; utilities; regional and site geology; groundwater use; slug test results; surface water hydrology; and SCGs.

3.1 <u>Demography and Surrounding Land Use</u>

The former MGP site area is zoned M3-1, an industrial and manufacturing district, and current uses include commercial, manufacturing, and dry cleaning facilities. Land use in the surrounding area is predominantly industrial paper manufacturing, a marble importing facility, steel cutting facilities, the MOSF, dry cleaning facilities, and storage warehouses. The nearest residential area, according to New York City GIS mapping, http://gis.nyc.gov/doitt/nycitymap, is located near the corner of Locust Avenue and East 141st Street. The population of the Bronx is 1,385,108 according to the 2010 Census.

3.2 <u>Surface Features</u>

The site encompasses an area of approximately twelve acres and slopes gently downward from the Bruckner Expressway west of Rose Feiss Blvd. toward the East River. The average elevation ranges from approximately 10 to 20 feet amsl. Surface elevation in the immediate vicinity of the former MGP site is generally flat and ranges only from approximately 8 to 10 feet amsl. The shoreline of the East River downgradient of the former MGP site consists of a steel sheeting bulkhead. Potable water in the Bronx is supplied by the New York City water system.

The various parcels that once were occupied by the former MGP site are nearly completely covered with warehouse buildings, streets and sidewalks, and industrial facilities. Very limited green space is present on the residential properties east of the site area along Locust Avenue near the corner of Locust Avenue and East 141st Street, and in small tree boxes along the sidewalk areas throughout the site.

3.3 <u>Utilities</u>

Utilities on and near the site area include underground water, electric, communication, natural gas, sanitary and storm sewer. Light poles are present within the sidewalk throughout the site area Utility locations detected within and outside of the building(s) investigated in the site area during the course of the geophysical investigation(s) are provided in Appendix E.

Natural gas service is provided to the area by National Grid, and is used in the warehouse buildings. There is a 36-inch high pressure gas line along East 138th Street from Bruckner Boulevard to Locust Avenue and along portions of Locust Avenue and is maintained by Con Edison. Electrical service is supplied by Con Edison. Sanitary waste and wastewater throughout the site area is discharged to the municipal combined sewer. Floor drains within the buildings are all connected to the storm sewer.

3.4 Regional Geology

The former MGP site is located near the border between the New England Uplands and the Atlantic Coastal Lowlands physiographic provinces. The overburden is predominantly comprised of miscellaneous fill, glacial till and recent alluvium including clay, silt, sands, gravel, cobbles, and boulders overlying bedrock. Bedrock consists of the Fordham Gneiss, Middle Proterozoic in age, and the Inwood Marble, Early Ordovician to Early Cambrian in age. The overburden is estimated to be between 4 and approximately 46 feet deep and is comprised of predominantly miscellaneous fill, glacial till and tidal marsh deposits.

The former MGP site is located near a northeast trending geologic contact between the Fordham Gneiss and the Inwood Marble (Fisher et al., 1970). The Fordham Gneiss is subdivided into four Members (A through D). Member A consists of predominantly pinkish white to salmon-red and medium gray gneiss. Member B consists predominantly of black and white banded gneiss. Members C and D are largely undivided comprised of schistose-, hornblende-, amphibolite- and quartz gneiss rocks. The Inwood Marble consists predominantly of calcite and dolomitic marble. Based on the geologic mapping of the area, Member B of the Fordham Gneiss and rocks of the Inwood Marble underlie the western portion of the former MGP site. There is reportedly a northeast trending thrust fault that thrust older rocks of the Manhattan Schist over the younger rocks of the Inwood Marble and

Fordham Gneiss. This thrust fault is mapped in the area of the western boundary of the former MGP site near the railroad tracks northwest of Rose Feiss Boulevard (Fisher et al., 1970).

3.5 <u>Site Geology</u>

Figure 3-1 presents the locations of the monitoring wells and cross sections developed from subsurface information gathered as part of the RI. Cross sections A-A', B-B', C-C', and D-D' are shown on Figures 3-2 through 3-5, respectively. Lithology observed in the soil borings indicated that the site is underlain by a series of unconsolidated sediments overlying bedrock. The overburden includes an upper fill layer, overlying natural alluvial sediments interbedded with sand, silt and sand, gravel, clayey silt, clay, and silty peat and peat.

The fill unit ranges from approximately 5 to 13-foot continuous layer comprised of sand, gravel, rock and brick fragments, and other anthropogenic materials. The fill layer appears to be thickest beneath the warehouse buildings located at Block 2598, Lot 46 and Block 2598, Lot 1. In the area immediately surrounding and within the former gas holder #4 on Block 2598, Lot 46, fill material extends to a maximum depth of 46 feet. The fill materials on Block 2598, Lot 1 around the former gas holders extends to approximately 21 feet bgs.

Throughout the site area, an alluvial sand unit represented by stratified sands of varying textures containing some to no fines is present to the top of bedrock. Three distinct layers were observed within the sand unit at Block 2598, Lot 46. In areas outside the footprint of former gas holder #4 (Plate 1), a layer approximately 2 to 16 feet thick of silt, sand and gravel, continuously underlies the fill layer. A zero to 10-foot thick clayey silt layer, that includes peat and other organic material, is found below the silt, sand and gravel layer over the majority of Block 2598, Lot 46 west of Locust Avenue.

A sand, and silt and sand layer, between zero and 25 feet thick, is present above the top of bedrock in the central portion of Block 2598, Lot 46 (Figure 3-2). A clay wedge, approximately up to 20 feet thick, was found between the silt and peat layer and underlying sand layer west of Rose Feiss Blvd. Interstratified sands with silt, and clay and silt, up to approximately 25 feet thick were observed along the southern portion of Block 2598, Lot 46.

An estimated top of bedrock elevation contour is provided in Figure 3-6. The bedrock surface elevation was estimated based upon drilling refusal obtained at most boring locations, and confirmed bedrock depths at bedrock monitoring wells BW-01 through BW-04. The URS supervising geologist noted at several boring locations the presence of igneous and intrusive rock fragments lodged within the macrocore sampler at refusal depths. The estimated bedrock surface slopes away from the East River, from approximately -10 feet amsl near Locust Avenue to approximately -20 to -25 feet amsl near the intersection of Rose Feiss Boulevard and East 140th Street. The bedrock appears to have been excavated to approximately -33 feet amsl in the vicinity of former gas holder #4, and appears to be approximately -10 feet amsl near gas holders #1 through #3 (Plate 1).

3.6 Groundwater Use and Hydrogeology

The primary hydrogeologic unit identified beneath the investigation area is the upper glacial aquifer. The groundwater within the overburden is present in unconfined conditions and is not used for potable purposes. The water table surface was found to be between approximately 3 and 6 feet bgs depending on the well location and time of year that water level gauging was performed. Classification of groundwater at the site is GA. Several rounds of groundwater levels were obtained during the RI and measurements are generally consistent between rounds. The water levels measured during the August 2015 synoptic gauging were used to develop the shallow overburden and bedrock groundwater contour maps provided in Figures 3-7 through 3-10. These figures show groundwater elevations based on water levels measured during both high and low tide. Water level measurements are included in Table 2-4.

Based on water levels measured on August 11, 2015 during high tide (Figure 3-7), a groundwater mound occurs which is centered beneath Block 2598, Lot 46. Groundwater flows radially away from the mound. A relatively shallow horizontal hydraulic gradient is apparent east of Locust Avenue. For the August 12, 2015 water level round during low tide in the shallow overburden (Figure 3-8), there is a relatively steep hydraulic gradient east of Locust Avenue toward the East River. The groundwater mound situated at Block 2598, Lot 46 was also still present, and horizontal hydraulic gradients are somewhat steeper with very similar groundwater flow directions around the mound as compared to Figure 3-9. Based upon water levels obtained, there is tidal influence in the shallow

overburden groundwater and it is most apparent east of Locust Avenue, but does extend further west to a much lesser degree. Since the East River water level elevations were generally lower than most of the water level measurements recorded in the monitoring wells during low tide, the overall groundwater flow is toward the East River. However, locally and in the immediate area around the Block 2598, Lot 46, there appears to be variations in the direction of groundwater flow. The local deviations to the overall flow (i.e., towards the East River) are likely due to variations in subsurface geology, bedrock topography, and presence of subsurface utilities and structures that may impact localized groundwater flow.

Bedrock wells are only located around the perimeter of Block 2598, Lot 46, and as such, the observations and conclusions are limited to this area. For the August 11, 2015 water level round during high tide in the bedrock (Figure 3-10), groundwater flows from BW-01 and BW-04 towards the west and southwest at Block 2598, Lot 46. Horizontal hydraulic gradients are relatively shallow as there is not much variation across the Block. For the August 12, 2015 water level round during low tide in the bedrock (Figure 3-10), there is very little difference compared to the measurements recorded during high tide, and generally similar groundwater flow direction. Based upon water levels obtained in in bedrock, there is no apparent measurable tidal influence in the bedrock groundwater. Since the East River water level elevations were lower than the water level measurements recorded in the bedrock monitoring wells during low and high tides, the overall groundwater regional flow is expected to be toward the East River.

Vertical hydraulic gradients were calculated at both overburden and bedrock monitoring well pairs located at the site as shown on Table 3-1 (i.e., MWMF-07S/MWMF-07D and MWMF-08/BW-02, and MWMF-05/BW-03). The vertical hydraulic gradients on August 11, 2015 were determined to be flat at MWMF-07S/MWMF-07D (0.0 ft/ft), downward at MWMF-08/BW-02 (0.0217 ft/ft), and upward at MWMF-05/BW-03 (0.0252 ft/ft). Overall, there is no appreciable vertical gradient between groundwater in the overburden and bedrock.

3.7 <u>Slug Test Results</u>

In efforts to assess the hydraulic conductivity of the water table aquifer, rising and falling slug tests were performed in monitoring wells around the perimeter of Block 2598, Lot 46 as part of the

295 Locust Avenue RI in 2011. Slug test results are presented on Table 3-2. Both rising head and falling head slug tests were performed in each monitoring well and analyzed using the Bouwer and Rice Method in the software AQTESOLV (2003). In all cases, the rising head and falling head results were within one order of magnitude of each other. The representative hydraulic conductivity (K) was computed as the geometric mean of the rising and falling head values in each monitoring well. The mean hydraulic conductivity in the overburden ranged from 1.7×10^{-4} cm/sec (MWMF-03) to 3.86×10^{-3} cm/sec (MWMF-07S) with an overall mean K of 8.4×10^{-4} cm/sec for the alluvial sand unit.

3.8 Surface Water and Hydrology

The East River connects long Island Sound to the north with Upper New York Bay to the south and is characterized as a tidal strait. The Bronx River drains into the northern portion of the strait. The East River is classified by NYSDEC as Class I and SB, indicating that the best uses are for secondary contact recreation and fishing, and primary and secondary contact recreation and fishing (6 NYCRR Part 701). These waters are defined by NYSDEC as suitable for fish, shellfish, and wildlife propagation and survival. The NYS DEP classifies the East River use as Classification I, indicating it is safe for secondary contact including boating and fishing, however, there are advisories and restrictions for fishing and shell fishing due to poor water and sediment quality due to past industrial and municipal discharges. The water quality of the East River is impaired due to low dissolved oxygen, contamination with poly chlorinated biphenyls (PCBs), and other toxics from numerous combined sewer outfalls (CSOs), municipal discharges of nutrients, urban storm water runoff, and illegal sanitary connections to storm sewers (NYSDEC – Bronx River/East River Watershed [0203010201]).

Surface water levels within the East River vary depending on the tide. High tides in the East River at Kings Point on August 11, 2011 (on the same day as groundwater elevations were obtained from onsite monitoring wells) were at elevations of 4.82 and 3.85 amsl at 10:30 pm and 9:00 am, respectively; low tides were at elevations of -3.04 and -3.25 feet amsl at 4:18 pm and 4:42 am, respectively (NOAA, 2011).

3.9 Field Observations and Measurements

Qualitative observations noted by the URS field geologist were recorded on the boring logs and are summarized in Tables 3-3 and 3-4. Figures 3-11 and 3-11A depict the qualitative observations at the various properties. These observations included odors and visual field observations of petroleum impacts, undifferentiated chemical odors, and MGP-related impacts (i.e., sheens, NAPL). PID results, observations of staining and odors, and presence of sheens and NAPLS are further summarized below.

- PID readings ranged from non-detect (ND) to as high as 2,620 ppm across the site. The highest PID readings were observed at and near former gas manufacturing structures including the former gas holders #1 and #2, the former water gas plant and tar wells, and ancillary former MGP structures on Block 2598, Lot 1. Lower PID readings in the range of 1 to 85.6 ppm occurred at and near former MGP structures including the pipe racks, gasoline UST, coal shed, and coal storage area, as well as near the known heating oil spill on Block 2591, Lot 46. Minor PID impacts in the range of 1 to 38 ppm were observed near areas adjacent to the former MGP structures at Block 2597, Lot 1. PID readings were elevated in a monitoring well on Block 2592, Lot 35 and appear to be associated with petroleum impacts as there was LNAPL observed in this well. PID observations were also elevated in the range of 1 to 118 ppm in the bedrock monitoring wells located around Block 2598, Lot 46.
- Staining and sheens were observed within and adjacent to the former MGP structures including the water gas plant, gas holders #1 and #2, separators, and water gas condensers on Block 2598, Lot 1. Sheens and petroleum impacts were also observed at locations near the known heating oil UST and spill on Block 2591, Lot 46. A tar coating was observed adjacent to the former tar tanks on Block 2597, Lot 1, and in a few bedrock fractures in bedrock wells BW-01 and BW-02 on Block 2598, Lot 46.
- Odors were generally observed across the site area, and in general, were observed where other impacts were noted including staining, sheens, and NAPLs were observed.
- LNAPL was observed in MW-03 on Block 2592, Lot 35 where 1.3 to 2.3 feet of LNAPL was measured, which is petroleum related. LNAPL coatings were observed in soil borings near the former heating oil UST on Block 2591, Lot 46.Coal tar DNAPL was observed at depths between 5 and 20 feet bgs in soil borings advanced within the footprint of the former gas holders #1 and #2 on Block 2598, Lot 1. Coal tar DNAPL was measured at 2 feet in bedrock well BW-01 on Block 2598, Lot 46.

4.0 NATURE AND EXTENT OF CONTAMINATION

The following sections discuss the results of the soil and groundwater sample analyses for the RI fieldwork at the various properties across the former MGP site. Analytical results for soil, groundwater, indoor air/soil vapor, and outdoor air obtained as part of the 295 Locust Avenue RI (i.e., Block 2598, Lot 46) are summarized in Section 1 of this submittal and the entire RI report is included in Appendix A on CD (URS, April 2012). Block 2598/Lot 46 is currently being managed under Brownfield Cleanup Program (BCP Site #203053-05-12) and an Environmental Easement (EE) for the property was filed and authorized by NYSDEC on February 22, 2014.

4.1 Standards, Criteria and Guidance Values

For each medium analyzed, detected concentrations of individual analytes detected were compared to applicable standards, criteria and guidance values (SCGs). The site-specific SCGs are as follows:

Soil

Two criteria are considered as SCGs for all site soil samples.

- 1. Part 375 unrestricted use criteria are considered to assist in the development of a remedial alternative capable of achieving unrestricted future use, as required by DER-10 Section 4.4 (b) 3 ii; and,
- 2. Part 375 commercial use criteria are considered appropriate for comparison based on current use and anticipated future use.

The respective Soil Cleanup Objectives (SCOs) are included in the soil analytical tables presented herein.

Groundwater

The SCGs for groundwater are the Ambient Water Quality Standards and Guidance Values (AWQSGVs) for Class GA standards and guidance values presented in NYSDEC Technical and J:\Projects\\11175538.00000\WORD\DRAFT\East 138th RI Report\Final East 138th Street Works RI 3 31 2016sh.docx

Operational Guidance Series (TOGS) 1.1.1 (April 2000 and including subsequent revisions). These groundwater AWQSGVs are included on the groundwater analytical tables presented in Section 4.

4.2 Soil Analytical Results

As described in section 4.1, analytical results were compared to Part 375 unrestricted and commercial SCOs. A total of 108 soil samples (plus 6 field duplicates and additional QA/QC samples) were collected from 43 soil boring locations.

The analytical results for the analytes detected in the subsurface soil samples are summarized in Table 4-1. Analytical results exceeding SCOs for the respective criteria are indicated on the table. Table 4-2A and Table 4-2B provide a statistical summary of the detected TCL parameters and comparisons to unrestricted and commercial use criteria, respectively, for all soil samples collected as part of the RI field activities across the various properties and include: the number of detections; the minimum, maximum and average values; and the location and depth of the maximum value. The complete validated analytical results from the RI soil samples are presented in the Data Usability Summary Report (DUSR) in Appendix K, on CD. Data summary tables, Form I and Form Ie (TICs) are provided in the DUSR and include the reporting limit for each non-detected compound.

A summary of the detected analytical results exceeding criteria in the RI soil samples for each parcel investigated as part of this RI Report is presented in Tables 4-3A (Block 2592, Lot 35), 4-3B (Block 2598, Lot 62), 4-3C (Block 2591, Lot 46), 4-3D (Block 2590, Lot 51), 4-3E (Block 2598, Lot 1), and 4-3F (Block 2597, Lot 1). Totals of BTEX, VOCs, PAHs, and SVOCs are provided on Tables 4-3A through 4-3F. Statistical summaries of the detected TCL parameters and comparisons to unrestricted and commercial use criteria for each property are presented in Tables 4-4A through 4-4F and 4-5A through 4-5F, respectively.

The locations of detected VOC and SVOC subsurface soil analytical results that exceeded unrestricted use criteria were observed at: properties north of East 139th Street; at Block 2590, Lot 51; and Block 2597, Lot 1; perimeter of Block 2598, Lot 1; and interior portions of Block 2598, Lot 1 (Figures 4-1, 4-2, 4-3, and 4-4, respectively). A detailed narrative is provided below.

4.2.1 <u>Unrestricted Use Criteria Comparison</u>

Block 2592, Lot 35

Two perimeter soils borings were advanced in sidewalk areas at this property. A total of six soil samples (including duplicates) were collected at multiple depths from MW-03 and SB-06 at this property (Table 4-3A). There were no VOC or SVOC detections above Unrestricted Use SCOs in SB-06. Detections above Unrestricted Use SCOs in MW-03 included VOCs, SVOCs, and metals. VOC detections above SCOs include benzene, xylenes, isopropylylbenzene, and acetone. Detected SVOCs above Unrestricted Use SCOs include PAHs and di-n-butylphthalate. Total BTEX concentrations were reported at 0.0013 mg/kg at SB-06 (4.5-5.5') and 0.66 mg/kg at MW-03 (6-7'), and total VOCs ranged from 0.01 mg/kg in SB-06 (4.5-5.5') to 4.156 mg/kg in MW-03 (6-7'). Detected PAHs ranged from 0.726 mg/kg in SB-06 (4.5-5.5') to 55.42 mg/kg in MW-03 (6-7'). Metals exceeding Unrestricted Use SCOs included aluminum, chromium, copper, iron, mercury, and zinc.

Block 2598, Lot 62

One soil boring was advanced in the sidewalk area at this property. Three soil samples (including duplicates) were collected from MW-04. VOCS were not detected above Unrestricted Use SCOs. Two SVOCs were detected above SCOs including 2-methylnaphthalene at 10 mg/kg, and dinbutylphthalate at 0.11 mg/kg (Table 4-3B). Metals exceeding Unrestricted Use SCOs included aluminum, calcium, and iron.

Block 2591, Lot 46

Seventeen soil borings were advanced in both interior portions and the sidewalk areas at this property. Fifty-three soil samples (including duplicates) were collected from multiple depths at 16 locations throughout this property (Table 4-3C). Detected analytes above Unrestricted Use SCOs included acetone, benzene, ethylbenzene, and xylenes. Acetone is a common laboratory contaminant. BTEX analytes were not detected at 13 sample locations. BTEX analytes were detected at 19 sample intervals at concentrations ranging from 0.0022 mg/kg at SB-35 (9.5-10') to 13.308 mg/kg at SB-37 (8.5-9'). BTEX detections above 1 mg/kg were observed at SB-37 and MW-01. SB-37 is situated near the 10,000 gallon fuel oil UST and MW-01 is adjacent to the former MGP pipe racks. Acetone was

detected above criteria at two locations, SB-37 (max. 0.11 mg/kg from 8.2-9') and SB-39 (5-5.5') at 0.059 mg/kg.

There were numerous exceedances of Unrestricted Use SCOs in RI soil samples for SVOCs, primarily PAHs in the eastern portion of the property near the 10,000 gallon UST (SB-38 – 7.8-8.5'), and in the northwest portion of the property near former MGP structures including the former pipe racks and gasoline UST at various depths (MW-01), and at the highest concentrations at SB-05 (6.5-7') along the southwest edge of the property which is situated near a former MGP coal shed. In general, there were fewer or no exceedances in the central and western central portion of the property. Most individual SVOC exceedances identified on Table 4-3C were PAHs. Cresols, phenol and dinbutylphthalate were the only non-PAH SVOCs detected at four locations and were positively identified above criteria at maximum concentrations exceeding Unrestricted Use SCOs in SB-05 (6.5-7') and SB-32 (3-4').

Detected PAH concentrations above 100 mg/kg were reported at six locations: SB-39 (132.23 mg/kg – 6.7-7.7'); SB-33 (285.6 mg/kg – 10.5-11'); SB-36 (827.8 mg/kg – 3-4'); MW-01 (1,254 mg/kg – 11-12'); SB-38 (3,343 mg/kg – 7.8-8.5'); and SB-05 (5,978 mg/kg – 6.5-7'). SB-33, SB-36, SB-38, and SB-39 are situated near the 10,000 gallon fuel oil UST, and MW-01 and SB-05 are situated adjacent to/near the former MGP pipe racks and gasoline UST, and the former MGP coal shed, respectively. Metals exceeding unrestricted use criteria included aluminum, arsenic, barium, cadmium, calcium, chromium, copper, iron, lead, mercury, nickel, selenium, vanadium, and zinc.

Block 2590, Lot 51

Ten soil samples (including duplicates) were collected from multiple depths at three locations along the eastern sidewalk perimeter of this property (Tables 4-3D and 4-4D). BTEX compounds were detected but no VOCs were detected above Unrestricted Use SCOs. Detected SVOCs above SCOs were all PAHs. Total PAHs ranged from non-detect to 38.772 mg/kg in SB-11 (3-4'). Metals exceeding unrestricted use criteria included aluminum, calcium, copper, chromium, iron, lead, mercury, vanadium, and zinc.

Block 2598, Lot 1

Fourteen soil borings were advanced at this property. Ten soil borings were advanced in perimeter sidewalk areas and 4 soil borings were advanced at interior portions of the warehouse. Three of the four interior borings were advanced within the footprint of each of the former gas holders. Forty-four soil samples (including duplicates) were collected from multiple depths around the property perimeter (Figure 4-3) and southern half of the building interior Figure 4-4).

No VOCs or SVOCs were reported above Unrestricted Use SCOs from five soil samples collected at SB-13 and SB-14 which were situated along the western property perimeter (Table 4-3E). Detected analytes above SCOs included acetone, benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, styrene, and cis-1,2-DCE. BTEX analytes were not detected above SCOs at 4 sample locations. BTEX analytes were detected at sixteen sample intervals at concentrations ranging from 0.0012 mg/kg at SB-16 (3.5-4') to 13,700 mg/kg at SB-44 (10-12'). BTEX detections above 100 mg/kg were observed at MW-05 (312 mg/kg - 20.5-21'), SB-44 (13,700 mg/kg - 10-12'; and 7,190 mg/kg -15-20'), and SB-43 (3,632 mg/kg - 10-12'). Acetone, a common laboratory contaminant, was detected above SCOs at five locations at concentrations ranging from 0.22 mg/kg at SB-08 (7-7.8' and 10.5-11') and 0.076 mg/kg at SB-08 (5-6'). Isopropylbenzene was reported above SCOs at two locations, SB-08 (2.5 mg/kg - 10.5-11') and SB-44 (25 mg/kg - 10-12').

There were numerous exceedances of Unrestricted Use SCOs in RI soil samples for SVOCs, primarily PAHs, around the southern, eastern, northern perimeter of the property, and southern interior of the building. In general, there were fewer or no exceedances of Unrestricted Use SCOs in the central and western central portion of the property. Most individual SVOC exceedances of Unrestricted Use SCOs identified on Table 4-3E were PAHs. Phenol, di-n-butylphthalate, and 1,1-biphenyl, cresols, and 2,6-dinitrotoluene were the only non-PAH SVOCs detected at above of Unrestricted Use SCOs and were positively identified at maximum concentrations exceeding Unrestricted Use SCOs in SB-43 (10-12'), SB-41 (0.5-1'), SB-44 (15-20'), SB-43 (10-12'), and MW-05 (20.5-21'), respectively.

Detected total PAH concentrations above 100 mg/kg were reported at 17 samples from nine locations: SB-15 (2,159.4 mg/kg - 3-3.5'; 214.05 mg/kg - 6-6.5'); SB-42 (1,464.6 mg/kg - 18.5-

19.5'); MW-05 (143.68 mg/kg - 3-3.5'; 113.1 mg/kg - 4.5-5'; 100.14 mg/kg - 15-16'; and 1,118 mg/kg - 20.5-21'); SB-08 (325.09 mg/kg - 10.5-11'); SB-44 (20,238 mg/kg - 10-12'; 146,280 mg/kg - 15-20'); MW-06 (799.4 mg/kg - 10.5-11'); SB-17 (266.31 mg/kg - 3-3.5' and 3,790 mg/kg - 12-12.5'); SB-07 (862.2 mg/kg - 3-4'; 264.11 mg/kg - 4.5-5.5'; 268.5 mg/kg - 13.3-14.2'); and SB-43 (90,880 mg/kg - 10-12'). PAHs were detected at the highest concentrations from samples collected with former gas holders #1 and #2, and along the southern and eastern property perimeter. Metals exceeding Unrestricted Use SCOs included aluminum, arsenic, cadmium, calcium, chromium, cobalt, copper, iron, lead, mercury, nickel, selenium, vanadium, and zinc.

Block 2597, Lot 1

Six soil borings were advanced at perimeter locations around this property. Fifteen soil samples (including duplicates) were collected from multiple depths at six locations along the southern, northern, and western perimeter of this property (Table 4-3F). Acetone was the only VOC detected above Unrestricted Use SCOs and only at SB-19 (5-5.5'). Detected SVOCs above SCOs were PAHs and di-n-butylphthalate. Total PAHs ranged from 0.361mg/kg in SB-18 (8.5-9') to 800.2 mg/kg in SB-21 (10-11'). Metals exceeding Unrestricted Use SCOs included aluminum, barium, calcium, chromium, cobalt, copper, iron, lead, nickel, vanadium, and zinc.

4.2.2 <u>East 138th Street Works Site Metals Summary</u>

Metals exceedances were generally found across the greater East 138th Street former MGP site area. Metals are common constituents in historic fill throughout the greater New York City area. Detected concentrations may reflect the nature of historic fill which was found at various depths across the site area.

4.2.3 <u>Commercial Use Criteria Comparison</u>

A summary of the detected analytical results exceeding Commercial Use SCOs in the RI soil samples for each property investigated as part of this RI Report is presented in Tables 4-3A (Block 2592, Lot 35), 4-3B (Block 2598, Lot 62), 4-3C (Block 2591, Lot 46), 4-3D (Block 2590, Lot 51), 4-3E (Block 2598, Lot 1), and 4-3F (Block 2597, Lot 1). Statistical summaries of the detected TCL

parameters and comparisons to Commercial Use SCOs for each property are presented in Tables 4-5A through 4-5F. The locations of detected VOC and SVOC soil results from samples collected during the RI that exceeded Commercial Use SCOs at properties north of East 139th Street and south of East 139th Street are shown on Figures 4-5 and 4-6, respectively.

There were no VOC exceedances in any samples collected from Block 2592, Lot 35; Block 2598, Lot 62; Block 2591, Lot 46; Block 2590, Lot 51; or Block 2597, Lot 1 (Tables 4-5A through 4-5F and Figures 4-5 and 4-6). BTEX compounds exceeded individual Commercial Use SCOs in only two soil borings (SB-43 and SB-44) at Block 2598, Lot 1. These two borings were advanced within the footprint of former gas holders #2 and #1, respectively (Figure 4-6).

In general, there were very few or no exceedances of Unrestricted Use SCOs for SVOCs at most soil boring locations situated at Block 2592, Lot 35; Block 2598, Lot 62; Block 2590, Lot 51; or Block 2597, Lot 1. PAHs were detected at greater concentrations and frequencies above Commercial Use SCOs at Block 2591, Lot 46; and Block 2598, Lot 1. These locations correspond to the areas near the 10,000 gallon fuel oil UST (note - LNAPL was observed in B-7), former MGP pipe racks, and former MGP coal shed at Block 2591, Lot 46, and the areas within near the footprint of the three former gas holders at Block 2598, Lot 1 (where coal tar was observed in SB-43 and SB-44). Coal tar was also observed in bedrock well BW-01 which is situated to the north at adjacent Block 2598.

SVOCs which exceeded Commercial Use SCOs (Table 4-2B) were generally PAHs including: 3&4-methylphenol (max. 1,100 mg/kg), acenaphthene (max. 1,300 mg/kg), acenaphthylene (max. 9,900 mg/kg), anthracene (max. 3,400 mg/kg), benzo(a)anthracene (max. 2,500 mg/kg), benzo(b)fluoranthene (max. 2,600 mg/kg), benzo(a)pyrene (max. 1,200 mg/kg), benzo(k)fluoranthene (max. 830 mg/kg), chrysene (max. 2,000 mg/kg), dibenz(a,h)anthracene (max. 140 mg/kg), dibenzofuran (max. 700 mg/kg), fluoranthene (max. 7,800 mg/kg), fluorene (max. 4,000 mg/kg), indeno(1,2,3-cd)pyrene (max. 510 mg/kg), naphthalene (max. 74,000 mg/kg), phenanthrene (max. 12,000 mg/kg), and pyrene (6,700 mg/kg). The maximum detected PAH concentrations and greatest frequency of exceedances occurred in SB-43 and/or SB-44 where coal tar was observed at depths between 5 and 20 feet bgs and were located within the footprint of former gas holders #1 and #2 at Block 2598, Lot 1.

There were few exceedances of commercial use criteria for metals. Metals concentrations exceeding commercial use criteria included: arsenic (max. 32.7 mg/kg in SB-38 7.8-8.5'); barium (max. 720 mg/kg in SB-33 3.5-4'); copper (max. 425 mg/kg in MW-05 4.5-6'); lead (max. 1,330 mg/kg in SB-33-23 3.5-4.'); and mercury (max. 4.2 mg/kg in SB-07 3-4').

4.3 RI Forensic Analysis

To assess the potential sources of PAH contamination and fuel-related compounds present at the former MGP operational areas, a total of 16 soil samples and one LNAPL sample were sent to META Environmental for forensic analysis. Hydrocarbon fingerprints and extended PAH analyses/diagnostic ratios, as well as site history and observations made during the RI fieldwork, were evaluated as part of the forensics characterization. The complete META Environmental Forensic Analysis Reports are provided in Appendix L. META reported that the majority of samples were classified as a mixture of pyrogenic and petrogenic materials. Some samples were tentatively identified as generally tar and tar mixtures from a coal carbonization (CC) or carbureted water gas (CWG) manufacturing process, and mixtures of fuel and weathered fuel products determined to be present based upon GC/MS and GC/FID chromatograms.

The 16 soil samples were collected from former MGP operational areas and were biased at locations and depths where there was visual and/or field screening evidence including elevated PID readings, visual observations of chemical impact such as sheens, blebs, presence of coal tar DNAPL, and/or odors characteristic of former MGP operations or petroleum constituents. The LNAPL sample was collected from piezometer B-7 situated on Block 2591, Lot 46 in the immediate vicinity of the 10,000 gallon fuel oil UST. These samples were analyzed for hydrocarbon fingerprints and an expanded list of monocyclic aromatic hydrocarbons (MAHs) and PAHs. Results are provided in Appendix L and summarized below by Block and Lot property.

Block 2592, Lot 35

One soil sample was collected at MW-03 (6-7') which contained LNAPL and MW-03 is situated adjacent to the former anthracite coal storage area. META reported that LNAPL in the soil sample was classified as a mixture of No. 4/5/6 fuel oils.

Block 2591, Lot 46

Four soil samples were collected at locations on this property including SB-02 (4.7-5.3'), SB-38 (7.8-8.5'), SB-39 (5-5.5'), and MW-01 (11-12'). One LNAPL sample was collected from piezometer B-7 adjacent to the 10,000 gallon fuel oil UST. SB-02 was situated adjacent to the 10,000 gallon fuel oil UST; SB-38 and SB-39 were situated within the footprint of a former coal storage area and nearby a former MGP gasoline UST; and MW-01 is near the former pipe racks associated with the former MGP. META reported the sample from SB-02 was No. 6 fuel oil or severely weathered crude oil; SB-38 had similarities with CWG tars; SB-39 had similarities with both No. 6 and crude oil; MW-01 had similarities with CC and CWG tars; and B-7 contained a mixture of petroleum products and coal tars.

Block 2598, Lot 1

Nine samples were collected at locations on this property including SB-07 (adjacent to former water gas plant -13.3-14.2'), SB-16 (adjacent to former governor house - 5-6.5' and 17.5-18'), SB-17 (adjacent to tar well #2 – 5.5-6'), SB-43 (gas holder #2 -10-12'), SB-44 (gas holder #1 – 15-20'), MW-05 (adjacent to gas holder #2 – 4.5-5' and 20.5-21'), and MW-06 (downgradient of gas holder #1 – 10.5-11'). META reported the sample from SB-07 had similarities with CC and coal tar; SB-16 had similarities with CWG tars; SB-17 had similarities with CC and CWG tars; SB-43 was coal tar/creosote; SB-44 was coal tar/creosote; MW-05 had similarities with CWG tars; and MW-06 had similarities with CC and CWG tars.

Block 2597, Lot 1

Two samples were collected at SB-20 (near former retort house -5-5.5') and SB-21 (near former tar tanks -21-22'). META reported the sample from SB-20 had similarities with gas oil and fuel oils; and the sample from SB-21 had similarities with CWG tars.

4.4 **Groundwater Analytical Results**

A summary of the detected analytical results from overburden and bedrock groundwater samples collected from monitoring wells is presented in Tables 4-6 and 4-7, respectively. Results

exceeding TOGS No. 1.1.1 Class GA groundwater criteria are circled. Tables 4-8A, 4-8B, and 4-8C provide statistical summaries of the detected parameters in overburden and bedrock for the RI groundwater samples as follows: the number of detections; the minimum, maximum and average values; and the location of the maximum value. The complete validated analytical results from the RI groundwater samples are presented in the DUSR in Appendix K. Data summary tables, Form I and Form Ie (TICs) are provided in the DUSR and include the reporting limit for each non-detected compound.

Overburden

Groundwater contamination in the overburden can be characterized as generally spread across the site area and is most concentrated in the vicinity of Block 2598, Lot 46 and to a lesser extent, near Block 2598, Lot 1. The locations of detected results for VOCs, SVOCs, and total cyanide that exceeded their respective criteria during the August 2015 sampling event are shown on Figure 4-8. There were no VOCs, SVOCs, or total cyanide detected above criteria in upgradient monitoring well MW-02; monitoring wells MW-04, MWMF-02, and MWMF-07D situated around the perimeter of Block 2598, Lot 46, and MW-07 (URS) situated at Block 2597, Lot 1.

Detected VOCs exceeding criteria included chlorinated VOCs (PCE and its degradation products: TCE, cis- and trans-1,2-dichloroethene; 1,1-dichloroethane; and vinyl chloride; 1,2-dichloroethane, methylene chloride, chloroform, chloroethane), BTEX compounds (total BTEX maximum 6,750 μ g/L in MWMF-08), MTBE (maximum 25 μ g/L in MWMF-01), and isopropylbenzene (maximum 130 μ g/L in MWMF-08). MTBE was detected above criteria in MWMF-01 and MWMF-05. MTBE is a gasoline additive and ubiquitous in urban areas. CVOCs were detected at the greatest frequencies in MWMF-04, nearest to the operating dry cleaners operating across East 139th Street; however, total CVOCs were detected at the highest concentrations (max. total CVOCs) in MW-03 at 6,500 μ g/L. PCE and degradation products were detected at their greatest concentrations in MWMF-04. Other CVOCs included 1,1,2,2-tetrachloroethane (max. 22 μ g/L in MWMF-01) and 1,1,2-trichloroethane (max. 120 μ g/L in MWMF-04). CVOCs are associated with dry cleaning facilities and are not MGP related.

Detected SVOCs included 1,1'-biphenyl (max. 32 μ g/L in MW-05), methylphenol isomers (max. 5.8 μ g/L in MW-05), 2-nitrophenol (max. 3.5 μ g/L in MWMF-04), 2-chlorophenol, MGP-related contaminants naphthalene (max. 5,700 μ g/L in MW-05), acenaphthene (max. 67 μ g/L in MW-01), benzo(a)anthracene (max. 0.97 μ g/L in MW-03), benzo(b)fluoranthene (max. 0.90 μ g/L in MW-03), chrysene (max. 0.92 μ g/L in MW-05), and phenol (max. 6.9 μ g/L in MWMF-08). The greatest concentrations of SVOCs, naphthalene in particular, were detected in monitoring wells east, north and south of former gas holders #1, #2, #3, around Block 2598, Lot 1, and gas holder #4 around Block 2598, Lot 46.

Total cyanide was detected above the groundwater standard at most locations across the former MGP operational area.

Iron, manganese, magnesium, selenium, and sodium exceeded groundwater SCGs in the majority of the groundwater samples. Additionally, lead exceeded the groundwater SCG in MW-03, MW-04, MW-05, and MW-06. Other metals that exceeded criteria were arsenic, barium, beryllium, cadmium, chromium, copper, nickel, thallium, and zinc.

General Overburden Water Quality Parameters

As part of the 295 Locust Avenue RI (URS, 2012), groundwater samples from MWMF-05, MWRX-01, and MWRX-02 were analyzed for total dissolved solids (TDS) and chloride to evaluate the possibility of saline groundwater Class GSA or GSB. Chloride concentrations ranged from 97 mg/L in MWRX-01 to 940 mg/L in MWMF-05. TDS concentrations ranged from 610 mg/L in MWMF-05 to 1,100 mg/L in MWRX-01. New York State guidelines for GSA saline groundwater classification are chloride concentrations above 250 mg/L and TDS concentrations above 1,000 mg/L. At least one of these guidelines was exceeded in each groundwater sample (295 Locust Avenue RI report – Appendix A). Based upon these results, groundwater in the overburden monitoring wells sampled is consistent with NYSDEC's definition of GSA groundwater. Reported concentrations of chloride and TDS in all samples were below NYSDEC guidelines for GSB saline water.

Bedrock - August 2015

Groundwater in the bedrock was assessed at four locations (BW-01 through BW-04) around Block 2598, Lot 46. Contamination in the bedrock is more concentrated compared to overburden (Figure 4-9). Relative to the criteria and overburden results, significantly elevated levels of VOCs were detected in all four wells. Detected VOCs exceeding criteria included trans- and cis-1,2-dichloroethene; 1,1-dichloroethene; 1,2-dichloroethane, and vinyl chloride; 1,2-dichloroethane, BTEX compounds (total BTEX maximum 75,350 μ g/L in BW-03), MTBE (maximum 23 μ g/L in BW-02), and isopropylbenzene (maximum 53 μ g/L in BW-03), styrene (410 μ g/L in BW-04) , and acetone (480 μ g/L in BW-02). Benzene concentrations ranged from 3,100 μ g/L in BW-04 to 72,000 μ g/L in BW-03. The highest concentrations of CVOCs were detected in BW-02 nearest to the dry cleaners operating across East 139th Street.

Detected SVOCs exceeding criteria included 1,1'-biphenyl (max. 33 μ g/L in BW-01), methylphenol isomers (max. 1,960 μ g/L in BW-02), and PAHs naphthalene (max. 6,100 μ g/L in BW-01), acenaphthene (max. 31 μ g/L in BW-04), and phenol (max. 540 μ g/L in BW-02). The greatest concentrations of SVOCs, naphthalene in particular, were detected in monitoring wells BW-01 and BW-02.

Total cyanide detections exceeded the groundwater criterion in BW-01, BW-02, and BW-03 with concentrations ranging from 218 μ g/L in BW-01 to 1,880 μ g/L in BW-02.

Iron, lead, manganese, magnesium, selenium, thallium, nickel, and sodium exceeded groundwater SCGs in bedrock wells. Not all inorganic analytes exceeded criteria at all bedrock well locations.

Bedrock – March 2012

Detected VOCs exceeding criteria included cis-1,2-dichloroethene and vinyl chloride, BTEX compounds (total BTEX maximum 48,100 μ g/L in BW-03), and styrene (4,300 μ g/L in BW-01) (Figure 4-9). Benzene concentrations ranged from 11,000 μ g/L in BW-04 to 44,000 μ g/L in BW-03. The highest concentrations of CVOCs were detected in BW-02 nearest to the dry cleaners operating across East 139th Street.

Detected SVOCs included 1,1'-biphenyl (max. 28 μ g/L in BW-01), methylphenol isomers (max. 3,700 μ g/L in BW-02), naphthalene (max. 7,300 μ g/L in BW-02), and phenol (max. 1,200 μ g/L in BW-02). The greatest concentrations of SVOCs, naphthalene in particular, were detected in monitoring wells BW-01 and BW-02.

Total cyanide detections exceeded the groundwater criterion in BW-01, BW-02, and BW-03 at concentrations ranging from 221 μ g/L in BW-01 to 7,160 μ g/L in BW-02.

Iron, manganese, magnesium, selenium, chromium, and sodium exceeded groundwater SCGs in bedrock wells. Not all inorganic analytes exceeded criteria at all bedrock well locations.

4.5 Summary of Nature and Extent of Contamination

4.5.1 Subsurface Soil

Selected NAPL-stained and NAPL saturated soil samples were identified as fuel oils, tars similar to CC and CWG, and coal tar/creosote. Soil samples from Block 2598, Lot 1 within the footprint of former gas holders #1 and #2 contained the most concentrated and majority of the tars observed. However, CC and CWG tars were also present at Block 2591, Lot 46, and Block 2597, Lot 1 (near the former MGP tar tanks), albeit at much lower frequencies and concentrations. Fuels and fuel oils were also identified via direct observations and through forensic analyses throughout the site area indicating multiple point sources contributed to the observed distribution of these contaminants. Many of the samples contained a mixture of both pyrogenic and petrogenic materials.

There were numerous exceedances in RI soil samples of VOCs for Unrestricted Use SCOs in the site area. VOC detections included BTEX compounds, with the highest concentrations generally reported within and near the former MGP gas holders #1 and #2 on Block 2598, Lot 1 at depths between 5 and 20 feet bgs. Lower concentrations were generally reported at various depths across the site area in and around former MGP structures and petroleum impacted areas at Blocks 2592, Lot 35, Block 2591, Lot 46, and Block 2597, Lot 1. There is a strong correlation between the highest reported BTEX concentrations and boring locations where NAPL-coated soil samples and coal tar were observed. There were numerous exceedances of Unrestricted Use SCOs in RI soil samples for SVOCs, especially PAHs, as compared to unrestricted use criteria across the site area

within and near the former MGP structures and petroleum UST areas at various depths. Metals exceedances as compared to unrestricted criteria were found across the entire site various depths.

There were no VOC exceedances compared to commercial use criteria in any samples collected from Block 2592, Lot 35; Block 2598, Lot 62; Block 2591, Lot 46; Block 2590, Lot 51; or Block 2597, Lot 1. BTEX compounds exceeded individual criteria in only two soil borings (SB-43 and SB-44) both at Block 2598, Lot 1, in the footprint of former gas holders #2 and #1, respectively. SVOCs which exceeded commercial use criteria (Table 4-2B) were generally PAHs. All maximum PAH exceedances occurred in SB-43 or SB-44. In general, there were very few or no exceedances of SVOCs at most soil boring locations situated at Block 2592, Lot 35; Block 2598, Lot 62; Block 2590, Lot 51; or Block 2597, Lot 1. PAHs were detected at greater concentrations and frequencies above Commercial Use SCOs at Block 2591, Lot 46; and Block 2598, Lot 1. These locations correspond to the areas near the 10,000 gallon fuel oil UST where LNAPL was observed in B-7, former MGP pipe racks, and former MGP coal shed at Block 2591, Lot 46, and the areas within near the footprint of the three former gas holders at Block 2598, Lot 1 where coal tar was observed in SB-43 and SB-44. Coal tar was also observed in bedrock well BW-01 which is situated to the north at adjacent Block 2598. There were few exceedances of Commercial Use SCOs for metals compared to Unrestricted Use SCO exceedances for metals.

4.5.2 **Groundwater**

Groundwater quality in the overburden is generally degraded and can be characterized as generally spread across the site, originating from multiple point sources as well from the urban fill that comprises the overburden. Specific source areas include: Block 2592, Lot 35 (i.e., LNAPL in MW-03), Block 2591, Lot 46 (i.e., heating oil UST and former MGP operations), Block 2598, Lot 46 (i.e., former petroleum USTs and MGP operations), Block 2598, Lot 1 (dry cleaning and former MGP operations), and Block 2597, Lot 1 (i.e., MOSF and former MGP operations) and is most concentrated in the vicinity of Block 2598, Lot 46 and near Block 2598, Lot 1. There were no VOCs, SVOCs, or total cyanide detected above Class GA standards in upgradient monitoring well MW-02; monitoring wells MW-04, MWMF-02, and MWMF-07D situated around the perimeter of Block 2598, Lot 46, and MW-07 (URS) situated at Block 2597, Lot 1. Detected VOCs exceeding

Class GA standards included: CVOCs (PCE and its degradation products: TCE, cis- and trans-1,2-dichloroethene; 1,1-dichloroethane; and vinyl chloride); 1,2-dichloroethane, methylene chloride, chloroform, and chloroethane; BTEX compounds; MTBE; and isopropylbenzene. MTBE was detected above Class GA standards in MWMF-01 and MWMF-05, indicating petroleum impacts from non-MGP sources. CVOCs were detected at the greatest frequencies in MWMF-04, nearest to the operating dry cleaners operating across East 139th Street.

Detected SVOCs in the overburden groundwater included 1,1'-biphenyl, methylphenol isomers, 2-nitrophenol, 2-chlorophenol, naphthalene, acenaphthene, benzo(a)anthracene, benzo(b)-fluoranthene, chrysene, and phenol. The greatest concentrations of SVOCs, naphthalene in particular, were detected in monitoring wells east, north and south of former gas holders #1, #2, #3, around Block 2598, Lot 1, and gas holder #4 around Block 2598, Lot 46. Total cyanide was detected above the groundwater standard at most locations across the former MGP operational area. Iron, manganese, magnesium, selenium, and sodium exceeded groundwater SCGs in the majority of the overburden groundwater samples. Additionally, lead exceeded the Class GA groundwater standard in MW-03, MW-04, MW-05, and MW-06. Other metals that exceeded Class GA standards were arsenic, barium, beryllium, cadmium, chromium, copper, nickel, thallium, and zinc.

Groundwater in the bedrock aquifer was assessed via four bedrock monitoring wells at Block 2598, Lot 46. Contamination in the bedrock is significantly more concentrated compared to overburden. Detected VOCs exceeding criteria included trans- and cis-1,2-dichloroethene; 1,1-dichloroethene; 1,2-dichloroethane, and vinyl chloride; 1,2-dichloroethane, BTEX compounds, MTBE, and isopropylbenzene. Benzene concentrations ranged from 3,100 µg/L in BW-04 to 72,000 µg/L in BW-03. The highest concentrations of CVOCs were detected in BW-02 nearest to the dry cleaners operating across East 139th Street. Detected SVOCs exceeding criteria included 1,1'-biphenyl methylphenol isomers, naphthalene, acenaphthene, and phenol. The greatest concentrations of SVOCs, naphthalene in particular, were detected in monitoring wells BW-01 and BW-02. Total cyanide detections exceeded the groundwater criterion in BW-01, BW-02, and BW-03.

5.0 CONTAMINANT FATE AND TRANSPORT

This section describes fate and transport processes that may influence the behavior of the contaminants detected across the site area. The discussion emphasizes the processes that are essential in evaluating potential exposure of human and environmental receptors to the contaminants detected at concentrations above the SCGs. This section presents a general description of fate and transport processes in soil, soil vapor and groundwater, and an identification and description of properties of contaminants detected at the site.

Contaminants identified above SCGs in the soil collected as part of this RI and the 295 Locust included VOCs, SVOCs, pesticides and metals. Contaminants detected in soil vapor samples collected as part of the 295 Locust Avenue RI are VOCs. Contaminants detected above SCGs in groundwater include VOCs, SVOCs, metals, and cyanide.

5.1 General Description of Fate and Transport Mechanisms

This section provides general descriptions of the fate and transport processes that can occur in the environment in which samples were collected as part of the RI. In addition, the site characteristics that can affect these processes are discussed.

5.1.1 Transport Processes

Contaminant transport in the subsurface can occur as movement within the vadose zone (i.e., above the water table), saturated zone (i.e., below the water table), and/or fractures in the underlying bedrock; migration of dissolved contaminants in groundwater; and/or as migration of volatilized contaminants in the soil vapor. The primary transport mechanisms are advection, dispersion, and partitioning of mass.

- Advection occurs when the contaminant is carried along as part of the groundwater or soil vapor flow.
- Dispersion refers to the spreading of the migrating contaminants with or without actual groundwater movement due to diffusion and mechanical mixing created by

non-uniformities in the flow field. Dispersion results in the widening of the affected area.

• Mass partitioning is a process in which contaminants move between different environmental media in response to concentration gradients. For example, contaminants dissolved in groundwater may sorb (i.e., attach) onto soil particles or volatilize into the soil vapor. The process may involve mass transfer in any direction between any of the environmental media. The net result of mass partitioning is the distribution of the contaminant between all phases that remain in physical contact. Typically, mass partitioning acts to inhibit the migration of contaminants in groundwater or soil vapor by immobilizing a part of the mass in the soil matrix (retardation). However, the process may be reversed, resulting in the slow release of the sorbed contamination into the groundwater or soil vapor.

In the vadose zone, the total mass of a contaminant is partitioned between the dissolved phase (soil moisture), the gas phase (soil vapor), and the solid phase (soil matrix). In the saturated zone, the soil vapor phase is absent and the partitioning occurs only between the soil matrix and groundwater. Under equilibrium conditions, each phase contains a fraction of the total contaminant mass present in the system (i.e., total of both phases equal 100 percent of the contaminant mass present). The relative mass fractions are determined by the properties of each contaminant and by the nature of the soil matrix. Equilibrium conditions may be disturbed by phenomena such as migration of contaminated groundwater or soil vapor into an area, or removal of contaminant mass from one of the media through degradation processes or gravity flow. The changes in concentration gradients created by these circumstances result in mass transfer between the media until equilibrium is re-established.

The contaminant mass sorbed onto the soil matrix is essentially immobile, with the exception of contaminants in the topmost soil layer (if present), which can be transported by processes (such as wind or surface runoff) capable of moving soil particles. Sorbed contaminants generally act as a source for the dissolved and vapor phases.

Transport of contaminants dissolved in the soil moisture in the unsaturated zone is generally limited as a result of very low flow rates in the absence of full saturation. The only significant

mechanisms may be driven by water level fluctuations and gravity-driven downward flow during wetweather periods. Such vertical transport of contaminants acts as a source for the saturated zone below.

The contaminant mass contained within groundwater in the saturated zone is more mobile. The primary transport mechanisms for contaminants dissolved in groundwater are advection and dispersion. The magnitude of dispersion is site specific and is generally difficult to measure. Processes similar to those that occur for soil vapor can enable dissolved contaminants to reach a previously uncontaminated area and enter other environmental media.

Contaminants migrating with soil vapor or groundwater constantly interact with the soil matrix. The driving forces behind this process are created by concentration gradients between different phases, and the properties of the contaminants and the soil matrix. Contaminant mass may either sorb from the mobile soil vapor or groundwater onto the soil particles or it may undergo a reverse process of desorption.

In the case of sorption, contaminant mass is transferred from the mobile medium into the immobile soil medium. This phenomenon tends to retard contaminant migration, and is consequently referred to as retardation. The magnitude of the retardation depends on the properties of each contaminant and the soil matrix. The key indicator parameter for the retardation properties of the soil is the organic carbon content. Soils with high organic carbon content sorb dissolved contaminants more readily and create a more significant retardation effect than soils with limited, or no organic carbon content. Desorption is the process of transferring contaminants from the soil matrix into the groundwater or Soil Vapor. As a result, soils containing contaminant mass may act as a source if exposed to the less-contaminated soil vapor or groundwater. Desorption from soil into the soil vapor or groundwater is increasingly inhibited by increasing content of organic carbon in the soil.

5.1.2 Mass Destruction Processes

Most contaminant mass contained within the saturated formation is not exposed to sunlight or the atmosphere. Therefore, abiotic mass destruction processes that rely on the presence of air or exposure to sunlight (such as hydrolysis and photolysis) have little impact within the subsurface and will not be discussed. The most significant mass destruction process that takes place in subsurface environments is microbial degradation. The microbial degradation processes for organic contaminants

that operate in groundwater systems are biological oxidation, reductive dechlorination, and cometabolic degradation.

During degradation, organic compounds may be transformed into daughter forms, which may be recalcitrant or further degradable. Daughter compounds can be either more or less toxic than the parent compounds. If a contaminant degrades into a sequence of degradable daughter compounds, it is ultimately fully metabolized into such compounds as carbon dioxide, methane, water, and chloride (when chlorinated hydrocarbons are degraded).

5.2 Fate and Transport of Site Contaminants

In the past, the site area was used as part of a production facility for manufactured coal gas and carbureted water gas. In addition, historic uses of the various parcels include a motor freight facility, and other commercial operations that utilized USTs to store fuels. A dry cleaning facility is present across within the site area which appears to have contributed PCE and its degradation products including trichloroethene, cis- and trans-1,2-dichloroethene, 1,1-dichloroethane, 1,1-dichloroethene, chloroethane and vinyl chloride to the environment.

This section discusses the possible fate and transport of the contaminants identified at the site.

The properties of these contaminants that will impact their fate and transport are also discussed.

5.2.1 Contaminant Properties

As described in Sections 2.0 and 4.0, several groups of compounds were detected at concentrations above SCGs: VOCs (BTEX, MTBE, acetone, styrene, isopropylbenzene, and chlorinated hydrocarbons), SVOCs (PAHs, biphenyl, dibenzofurans, and phenolics), pesticides, cyanide, and metals. General properties of these groups and NAPL are discussed below.

5.2.1.1 VOCs

VOCs detected at levels above SCGs in soil and groundwater and in soil vapor are indicated on Table 5-1. VOCs readily volatilize into the atmosphere or soil vapor. At the surface, these compounds may decay and/or volatilize upon exposure to sunlight and to the atmosphere. Dissolved

contaminants are transported by advection and dispersion in groundwater. The same processes of advection and dispersion are responsible for the migration of these compounds in the atmosphere or the soil.

BTEX, styrene, and isopropylbenzene were detected in soil and groundwater above SCGs, and in soil vapor. These compounds are volatile and moderately soluble in water. They are readily biodegraded under aerobic conditions and also degrade under anaerobic conditions, albeit at slower rates. They have low to moderate organic carbon-to-water partitioning coefficients and do not readily partition into the soil, making them relatively mobile in the environment.

Acetone, 2-butanone, 2-hexanone and 4-methyl-pentanone are ketones, which are also common laboratory contaminants, and were detected in soil and groundwater above SCGs and/or in soil vapor samples. Ketones are volatile and highly soluble in water. They are characterized by very low organic carbon-to-water partitioning coefficients. The degree to which they sorb into the soil matrix is insignificant and their mobility in the environment is very high. The biodegradability of ketones is generally relatively high and occurs under aerobic conditions.

Carbon disulfide, also a common laboratory contaminant, was detected in groundwater above SCGs and soil vapor samples. It is slightly soluble in water, is relatively mobile in water, and is not expected to sorb well to soil. Carbon disulfide may degrade to a small extent under aerobic conditions.

Pentane isomers (2,2,4-trimethylpentane, 2,3-dimethylpentane, indane, isopentane, 2-methylpentane) were detected in soil vapor samples. These aliphatics are insoluble in water, have high mobility and are not expected to sorb to soil particles. Volatilization is the primary transport process for these aliphatics. They are biodegradable under aerobic conditions.

MTBE was detected in groundwater above SCGs and soil vapor samples. MTBE has a low organic carbon-to-water partitioning coefficient and is relatively soluble in water. The degree to which it sorbs into the soil matrix is insignificant and its mobility in the environment is very high. MTBE biodegrades under aerobic conditions and, to a lesser extent, under anaerobic conditions. MTBE is a known additive in gasoline and is not associated with residual byproducts from MGP sites.

PCE and/or its degradation products (TCE, cis and trans-1,2-dichloroethene, 1,1-dichloroethene, 1,2-dichloroethane, chloroethane, vinyl chloride) were detected in soil and groundwater above SCGs, and in soil vapor. Additional chlorinated VOCs were detected in groundwater above SCGs or soil vapor samples (1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, methylene chloride, 1,2-dichloropropane, chloromethane). These compounds have low to moderate organic carbon-to-water partitioning coefficients and do not readily partition into the soil, making them relatively mobile in the environment. Chlorinated VOCs undergo reductive dechlorination under anaerobic conditions.

5.2.1.2 **SVOCs**

PAHs were detected in soil and groundwater at concentrations above SCGs; however, only acenaphthene and naphthalene were detected in bedrock groundwater at concentrations exceeding SCGs. Generally, PAHs are characterized by low volatility, low solubility in water, and a high organic carbon-to-water partitioning coefficient. As a result, they are relatively immobile, and typically sorb onto the soil matrix. Potential for leaching from soil to groundwater decreases as the compound's molecular weight increases, and such leaching is unlikely even for low molecular weight compounds. As a result, the primary transport mechanism for PAHs is transport mechanically by wind and erosion/particle entrainment. PAHs are hydrocarbons containing two or more fused benzene rings. Their biodegradation rates are relatively low. PAHs with several rings degrade less readily than PAHs with fewer rings.

Phenolic compounds including phenol, 2, 3 & 4-methylphenol (cresols), 2-chlorophenol, 2-nitrophenol and 2,4-dimethylphenol were detected at concentrations above SCGs in soil and/or groundwater. Phenolic compounds are relatively non-volatile, and their solubility in water is high. They do not readily sorb into the soil matrix due to their low organic carbon-to-water partitioning coefficients. As a result, they are highly mobile in the environment. They are relatively biodegradable in anaerobic conditions.

Dibenzofuran concentrations above SCGs were detected in the soil. Dibenzofuran is characterized by low volatility, low solubility in water, and a high organic carbon-to-water partitioning coefficient. As a result, it is relatively immobile, and typically associates with the soil matrix.

Leaching is an unlikely pathway for dibenzofuran. It has a tendency to sorb to soil particles and consequently may be transported mechanically by wind and erosion/particle entrainment. Dibenzofuran is relatively non-biodegradable.

Concentrations of 1,1-biphenyl were detected above SCGs in the groundwater samples. 1,1-biphenyl is relatively non-volatile, and has a relatively high organic carbon-to-water partitioning coefficient. As a result, 1,1-biphenyl has limited mobility in the environment. 1,1-biphenyl is biodegradable.

5.2.1.3 Pesticides

Pesticide (i.e., 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, beta-BHC, dieldrin) concentrations above SCGs were detected in soil samples collected at the 295 Locust Avenue site (Appendix A). Based on the proximity to the 295 Locust Avenue site, it is reasonable to assume these pesticides may also be found at other properties within the former MGP site. 4,4'-DDE is a degradation product of 4,4'-DDT. Pesticides are insoluble in water. They are characterized by low solubility in water and low volatility into air/soil vapor. Pesticides persist under aerobic conditions, but may degrade slightly under anaerobic conditions. They readily sorb onto soil due to a high organic carbon-to-water partitioning coefficient. As a result, pesticides are quite immobile in the environment, and are typically confined to the soil matrix. Pesticides are typically not contaminants of concern at MGP sites.

5.2.1.4 Metals and Cyanide

Metals concentrations above SCGs were detected in soil and/or groundwater samples. These metals include aluminum, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, selenium, sodium, thallium, vanadium, and zinc. Metals are generally persistent. They do not volatilize or degrade. The ultimate preference of metals towards soil sorption or dissolution in water depends mostly on the acidity or alkalinity of the system.

Cyanide is typically found as cyanide salts and ferro- and ferri-cyanide complexes. Cyanide salts consist of a combination of the cyanide anion (CN-) with a cation such as sodium. The transport properties of the cyanide salts depend to a certain degree on the cation associated with the cyanide anion. Typically, the cyanide anion is relatively soluble and thus mobile in groundwater. Under acidic

conditions (i.e., high hydrogen ion concentrations), the cation may be a hydrogen ion, which results in the formation of volatile hydrogen cyanide (HCN), and HCN can migrate as a gas. Cyanide, as an anion, is readily naturally degraded biologically by soil bacteria under aerobic conditions. In contrast, ferricyanide and ferrocyanide are relatively immobile and recalcitrant. In these compounds, cyanide does not exist as an anion, but is rather directly attached, via strong coordinate bonds, to the iron atom. As relatively large nonpolar inorganic compounds, they are not highly soluble, and therefore, these complexes tend to persist in the environment. Under varying pH conditions, cyanide complexes can become free cyanide.

5.2.1.5 **NAPL**

Both LNAPL and DNAPL were observed while drilling and/or gauging groundwater levels in the groundwater monitoring wells during the RI (LNAPL in MW-03, MW-05, and B-7); and DNAPL in BW-01. As indicated on Figure 3-6, during soil boring activities, NAPL-coated soil was observed at various depths within and near the former MGP gas holders in SB-42, SB-43, and SB-44. Staining, MGP odors, blebs, and sheens were observed in MW-01, MW-05, MW-06, SB-05, SB-07, SB-08, SB-11, SB-13, SB-15, SB-16, SB-17, SB-21, SB-32, SB-33, SB-38, SB-42, SB-43, SB-44, BW-01, BW-02, and BW-03.

Coal tar DNAPL is a mixture of many contaminants. Because of its form, it may display different characteristics than its constituents. DNAPL is generally not degradable in the subsurface. The high concentrations of hydrocarbons contained in DNAPL are lethal to microorganisms. However, its constituents may dissolve in water and volatilize, becoming mobile in the environment, and biodegrade. Therefore, DNAPLs residing in the subsurface generally undergo gradual transformation, as volatile and soluble compounds are gradually removed.

NAPL migration depends mostly on its physical properties. LNAPLs typically have a specific gravity below 1 and "float" on the surface of the groundwater table and migrate in response to hydraulic gradients. DNAPLs have a specific gravity above 1 and initially migrate downwards within the aquifer, until they encounter low permeability strata (e.g., clay). At that point, they could migrate under the influence of the slope of the low permeability strata and/or hydraulic gradients. Its mobility is highly variable depending on its viscosity and the nature of the soil or strata in which is it found.

Selected NAPL-stained soil samples collected from the soil borings were sent to META for environmental forensic analyses, which included hydrocarbon fingerprint and extended MAH and PAH analyses. The majority of the samples were classified as a mixture of pyrogenic and petrogenic materials. The tentative source identifications were tars, likely from a coal carbonization (CC) or carbureted water gas (CWG) manufacturing processes, coal tar source materials, and fuel products (e.g., fuel oils, gasoline, kerosene, diesel) determined to be present based on the GC/MS and GC/FID chromatograms.

5.2.2 Summary

As described in Section 4.0, several contaminants were detected at the site above SCGs. VOCs are volatile and highly to moderately soluble in water. Some VOCs are readily biodegraded under aerobic conditions and also degrade under anaerobic conditions, albeit at much slower rates. They have low to moderate organic carbon-to-water partitioning coefficients and do not readily partition into the soil or sediment, making them relatively mobile in the environment. PAHs and furans are relatively immobile, and their biodegradation rates are relatively low. Phenolic compounds are relatively mobile, and relatively biodegradable in anaerobic conditions. 1,1'-Biphenyl is relatively non-volatile, and its solubility in water is relatively low. Due to its relatively high organic carbon sorption coefficient, it readily sorbs into the soil matrix and therefore is not very mobile in the environment. 1,1'-Biphenyl is relatively biodegradable. Pesticides are non-volatilizing, insoluble and immobile, sorbing onto the soil matrix. Metals are recalcitrant, and their ultimate preference towards soil adsorption (immobile state) or dissolution in water (mobile state) depends mostly on the acidity/alkalinity of the system. Cyanide can exist as complex compounds, salts, or as free cyanide. MGP coal tar NAPL is generally recalcitrant.

5.3 Fate and Transport in the Unsaturated Zone

5.3.1 Migration

The surface of the site area is entirely covered by warehouse buildings and sidewalks. A few trees are present in small soil covered areas within the sidewalks throughout the site area. It appears that there is little to no potential for infiltration or fugitive dust emissions from the site in its current

state. Therefore, contaminants that are sorbed to soil in the unsaturated zone have virtually no ability to migrate off-site via erosional processes.

In general, propagation of contaminants in the unsaturated zone is typically dominated by three processes: migration of dissolved phase contaminants with infiltrating precipitation; migration of volatilized contaminants in the soil vapor; and migration of the sorbed contamination with fugitive dust emissions or surface runoff. Contaminants present as separate-phase liquid within the soil or sorbed to the soil may dissolve as precipitation percolates through the unsaturated zone. This occurs during wet weather periods, when the water content exceeds the field capacity of the soil matrix. The flow is mostly gravity-driven and directed downward. Such downward migration through the unsaturated zone may constitute a source of contamination of the saturated zone below.

VOCs enter the soil vapor from soil and/or groundwater through the process of volatilization. Volatilization of VOCs to the soil vapor in the unsaturated zone is expected to occur beneath the onsite buildings. However, the structural floor slabs of the buildings can be effective barriers preventing VOCs from entering indoor air. Other contaminants present in the unsaturated zone (PAHs, phenols, metals) are not readily volatile. As a result, the migration of non-VOC contaminants through the gas phase is likely to be of little significance.

5.3.2 <u>Degradation</u>

Generally, the occurrence and rates of unsaturated zone biodegradation have to be determined by means of field studies, such as respiration tests. However, vadose zone biodegradation is limited by the amount of moisture present in the soil and transport processes between bacteria and contaminants. Sufficient moisture for active biological growth may not be present at all locations where contamination is elevated.

While some VOCs and CVOCs are subject to biodegradation, some SVOCs detected at the site area are generally relatively non-degradable (PAHs, furans). Phenolic compounds are relatively biodegradable in anaerobic conditions. Metals do not degrade. Overall, it is likely that natural degradation of the non-VOC contaminants detected in the site area will not be significant.

5.3.3 Summary

As the water table in the site area is at a depth of approximately 3 to 6 feet bgs, a portion of the bulk mass of contamination in the overburden already lies in the saturated overburden and the bulk mass of contamination represents a continuing source to groundwater and soil vapor. Continued downward migration of contaminants through infiltration induced migration is not anticipated to be significant since the site area is entirely covered by warehouse buildings, sidewalks, and streets.

Rates of contaminant degradation in the unsaturated zone are expected to be relatively low. While VOCs and, to a lesser extent, some other organic parameters (e.g., phenolics) may degrade, most organic compounds detected in the unsaturated zone in the site area (i.e., PAHs, dibenzofurans) are relatively non-degradable. Metals are recalcitrant.

5.4 Fate and Transport in the Saturated Zone

5.4.1 Migration

Contaminant migration in the saturated zone takes place predominantly by means of the transport of the dissolved-phase contamination in groundwater. The controlling factors are the direction of the groundwater flow within the aquifer, the hydraulic gradient, the hydraulic conductivity of the aquifer material, and the chemical composition of the soil matrix. VOCs may also migrate from the groundwater/soil to the soil vapor of the unsaturated zone.

As shown on Figure 3-7 and 3-8, groundwater in the overburden generally flows in a radial pattern away from Block 2598, Lot 46. As discussed in Section 3.6, the hydraulic gradients in the vicinity of the investigation area are relatively flat and shallow in the northern and western portions of the site area. Horizontal hydraulic gradients are steeper during low tide especially east of Locust Avenue. Vertical hydraulic gradients are variable and are generally flat to slightly upward or downward.

Groundwater can also move within bedrock via discrete fractures (secondary porosity). The cross sectional area of the fractures is generally very low in fracture systems, and were observed to be

very small in rock cores from BW-01 through BW-04. Secondary porosities on the order of a fraction of a percent are not uncommon, but could be larger in fault zones.

VOCs, SVOCs, metals, phenolics, and cyanide were detected above SCGs in overburden and bedrock groundwater at the site. While there are multiple potential sources for these contaminants (i.e., MGP-related, petroleum-related, dry cleaner-related), some portion of the contamination, particularly the VOCs (a portion of the BTEX), SVOCs (primarily PAHs), and tars are likely MGP-related. Groundwater contamination in the overburden can be characterized as spread across the site area and is most concentrated along the sidegradient and downgradient edges of Block 2598 Lot 46, and Block 2598, Lot 1. MGP-related contamination appears to be mixed with other sources of BTEX and fuel-related contamination associated with historic uses at the various parcels and USTs, and PCE and other CVOCs from past dry cleaning operations.

5.4.2 Degradation

VOCs may degrade in both aerobic and anaerobic processes, and phenolic compounds may degrade in anaerobic environments. The predominant mechanism for the degradation of chlorinated hydrocarbons, especially PCE, is reductive dechlorination. Significant degradation of the chlorinated solvents is marked by a shift in the relative concentrations of various compounds. As the degradation progresses, the original compound released into the environment breaks down into the daughter product, where successively more chloride atoms are removed from the compound molecule and replaced with hydrogen. In this case, PCE would shift to TCE, then to DCE, then to VC, and finally to ethene. Based upon measurements of oxidation-reduction potential (Eh) during groundwater monitoring well purging, high negative levels of Eh were found to be present, indicating that the aquifer is conducive for reductive dechlorination. (Monitoring Well Purge Logs are presented in Appendix J).

SVOCs (particularly PAHs) and metals are generally recalcitrant; therefore, degradation of these contaminants in the site area is expected to be minimal or insignificant. Cyanide salts can be aerobically biodegradable and cyanide complexes are not readily volatile. HCN as an anion can migrate as a gas.

5.4.3 Migration Summary

Migration in the saturated zone takes place predominantly by means of the transport of the dissolved-phase contamination in groundwater. In the site area, the overburden layer is predominantly fill over an alluvial sand unit with a mean hydraulic conductivity of 8.4×10^{-4} cm/sec. Groundwater flow in the overburden is somewhat radial.

VOCs, SVOCs, metals, phenolics, and cyanide were detected above SCGs in overburden and bedrock groundwater, however, bedrock was more contaminated. VOCs may degrade in both aerobic and anaerobic processes, and phenolic compounds may degrade in anaerobic environments. PCE appears to be degrading in the site area. SVOCs (particularly PAHs), and metals are generally recalcitrant; therefore, degradation of these contaminants is expected to be minimal. PAHs were detected at the greatest frequencies and highest concentrations in areas of NAPL-coated soil. There appears to be a correlation between the highest reported BTEX concentrations in soil and boring locations where NAPL-coated soil samples were observed. Cyanide salts can be aerobically biodegradable and cyanide complexes are not readily volatile. HCN as an anion can migrate as a gas.

In the past, the site area was used as part of a production facility for manufactured gas. In addition, historic property uses at the various parcels include a motor freight facility, and other commercial operations that utilized USTs to store fuels. A dry cleaning facility is present at Block 2598, Lot 1 which may contribute PCE and its degradation products to the environment. The dissolved phase contaminants are likely to persist. BTEX and hydrocarbons will continue to serve as electron donors for anaerobic bacteria to utilize during reductive dechlorination of CVOCs.

6.0 QUALITATIVE HUMAN HEALTH RISK ASSESSMENT AND FISH AND WILDLIFE RESOURCES IMPACT ANALYSIS

This section presents the qualitative HHEA and results of the FWRIA for the site area. This qualitative HHEA uses data and information collected during the RI to assess human health exposure in the immediate and surrounding areas. The qualitative HHEA provides an evaluation of potential adverse health effects under current and potential future site conditions that may result from exposure to contaminants attributable to former activities at the site.

6.1 Identification of Chemicals of Potential Concern

Based upon the analytical data obtained as part of this RI and presented in Section 4, the contaminants of potential concern (CPCs) were selected based on the frequency of detection, range of concentrations, and potential for migration, as well as whether the detected analytes exceeded applicable standards, criteria, or guidance values for the media. A "medium of potential concern" is identified as a physical medium (soil, groundwater, soil vapor) in which one or more contaminants were detected at concentrations exceeding their SCGs.

VOCs, SVOCs and metals were found in most subsurface soil samples collected. Soil analytical results were compared to Part 375 unrestricted use and commercial criteria as presented on Table 4-1. Historic property uses that resulted in petroleum-related contamination and as a former MGP facility contributed to VOC and SVOC contamination. Table 6-1 presents a summary of the VOC, SVOC, and metal CPCs for soil.

Several VOCs, SVOCs, metals, and cyanide were detected in groundwater. For groundwater, the SCGs are the Class GA (groundwater) standards and guidance values presented in NYSDEC TOGS 1.1.1, April 2000 (including subsequent revisions). All chemicals detected in groundwater that exceeded SCGs are considered CPCs. Table 6-1 presents a summary of CPCs for groundwater.

Soil vapor was also sampled during the 295 Locust Avenue RI for Block 2598, Lot 46 and found to be contaminated with VOCs. There are no criteria for soil vapor analytical data; however, the NYSDOH Soil Vapor Guidance Decision Matrix 1 and 2 (NYSDOH, 2006 with 2008 updates) were

utilized to evaluate the potential for soil vapor intrusion by reviewing sub-slab vapor concentrations for the VOCs relevant to the Decision Matrices: TCE, carbon tetrachloride, VC, PCE, 1,1,1-trichloroethene, 1,1-dichloroethene, and cis-1,2-dichloroethene. Detected analytical results were sufficiently high for either TCE, vinyl chloride, PCE, and/or cis-1,2-dichloroethene to indicate the highest level of action recommended: mitigate. These compounds are therefore considered CPCs for soil vapor as indicated on Table 6-1.

6.2 Exposure Pathways

An exposure pathway is the manner by which an individual may come in contact with a contaminant. The elements of a completed exposure pathway include: the contaminated environmental media (i.e., soil, water, or soil vapor); the receptor (e.g., construction worker, employee, public) exposed to the contamination; and the routes of exposure or how the contaminant enters the body (i.e., inhalation, ingestion, and/or absorption through the skin). Tables 6-2 and 6-3 present the exposure pathways assessed for the site under current and future land use scenarios, respectively. Direct contact exposure pathways are not complete for warehouse employees on the various properties or the public under current conditions for soil vapor/indoor air, outdoor air, or groundwater. Potential pathways are complete for construction workers during intrusive activities under current conditions for subsurface soil, soil vapor and groundwater. The exposure pathways for all media are potentially complete for future use conditions, if intrusive activities occur in the site area. The following subsections discuss the rationale for identifying completed exposure pathways.

6.2.1 Soil

The properties are used as commercial facilities. There is no surface soil in the site area since the entire surface of the site is covered by warehouse buildings, streets, and/or sidewalks. The limited soil present around trees planted in the sidewalk areas throughout the site area would be imported topsoil material. While subsurface soil is not accessible to the general public because soil in the site area is entirely covered by warehouse buildings and sidewalks, the only potential complete exposure is for construction workers who could come into contact with contaminated soil during intrusive activities. Therefore, subsurface soil is considered a potentially complete exposure pathway under the

current use scenario for construction workers. Under the future use scenario, intrusive activities from possible construction efforts may result in a completed pathway.

6.2.2 Soil Vapor/Indoor Air

There are currently no employees working within the warehouse building on Block 2598, Lot 46, although the building is being renovated and employees are anticipated to be present at some point in the future. During the Phase II ESA at Block 2598, Lot 46, Roux measured indoor air and concluded that the indoor air VOC concentrations were significantly lower than the VOC concentrations in the sub-slab samples, and therefore, the sub-slab VOC concentrations were not impacting indoor air quality. Therefore, there is not a completed pathway for the current use scenario. In the future use scenario, the potential exists for CPCs detected in the soil and soil vapor beneath the building at Block 2598, Lot 46 as well as other nearby buildings on adjacent properties where CPCs were detected, to migrate into the warehouse buildings. In addition, under the current use scenario, construction workers could come into contact with contaminated soil vapor during intrusive activities. Therefore soil vapor is considered a potentially complete exposure pathway under the current use scenario for construction workers.

6.2.3 Outdoor Air

Since the entire site area is covered by warehouse buildings and/or sidewalks, outdoor air is not impacted under current use conditions. The potential exists for the public to be exposed to contaminants from exposed subsurface soil and/or fugitive dust generated during construction activities. A Site Management Plan (SMP) would provide the requirements for controlling volatilization, erosion, and/or fugitive dust during construction activities.

6.2.4 **Groundwater**

Under the current use scenario, groundwater is not used as a potable water supply (drinking water is supplied to local residents by the City of New York Water Department) or for any other known industrial purposes in the vicinity of the site area. Therefore, it is not a completed exposure pathway under the current use scenario. It is not anticipated that in the future, onsite groundwater

would be used for potable purposes. Construction workers could potentially be exposed to groundwater contaminants during current or future intrusive activities.

6.2.5 Summary

Tables 6-2 and 6-3 present a summary of the potential routes of exposure, the potential receptors, the potential completed pathways, and the mitigation which would eliminate and/or control the potential pathways. Under current conditions, potential pathways are complete for construction workers during intrusive activities for subsurface soil, soil vapor and groundwater. Potentially completed pathways exist for future use for subsurface soil, soil vapor/indoor air, outdoor air, and groundwater for warehouse employees, construction workers and the public.

6.3 Fish and Wildlife Resources Impact Analysis

This FWRIA is part of the RI that has been prepared for the site. The location of the site is shown on Figure 1-1. A close-up aerial view of the site area is presented as Figure 1-2.

The FWRIA follows the guidance provided by the NYSDEC Division of Fish and Wildlife (NYSDEC 1994). The FWRIA is a stepwise process that was developed to determine the nature and extent of ecological impacts from hazardous waste sites in New York State. The objective of Step I of the FWRIA process is to identify fish and wildlife resources that exist on and/or adjacent to the site.

6.3.1 Step I.A – Covertype Map

An aerial photography-based covertype map of the area within a one-half mile radius of the site area is presented as Figure 6-1. The site is zoned M3-1 for an industrial and manufacturing district. The properties are currently used for a variety of commercial purposes. The project area is highly urbanized with commercial, industrial, residential and road and utility development. Land use in the surrounding area is predominantly industrial paper manufacturing, marble importing facility, steel cutting facilities, major oil storage terminal, dry cleaning facilities, and storage warehouses. An active dry cleaning facility (Carnegie Hotel Cleaners, Ltd.) is located in the northern half of Block

2598, Lot 1. The nearest residences are northeast of the site near the corner of Locust Avenue and East 141st Street. Plant communities include limited residential and commercial landscaped areas.

The East River is located immediately east of Block 2597, Lot 1. The East River is classified as a Class I saline surface water by the NYSDEC. The best usages of Class I waters are secondary contact recreation and fishing. These waters are suitable for fish, shellfish, and wildlife propagation and survival. The East River is a State-protected stream.

6.3.2 Step I.B – Description of Fish and Wildlife Resources

6.3.2.1 Fish and Wildlife Resources and Covertypes

There are no NYSDEC Wetlands, Critical Habitats or designated Wild, Scenic or Recreational Rivers mapped within the project area. With the exception of the East River, the project area is composed of the terrestrial-systems-cultural covertype. This covertype includes residential, commercial, industrial, transportation and institutional land uses. Typically associated with this covertype are trees, lawns, landscaping and unmaintained vegetated areas.

6.3.2.2 Fauna Expected within each Covertype and Aquatic Resource

The terrestrial-systems-cultural covertype present in the project area provides limited feeding, resting and breeding habitat for birds and small mammals. During recent RI activities at the site, the only wildlife observed were rock pigeons, house sparrows and gulls. Other species typical of a highly urbanized environment are likely present including Norway rat, house mouse, gray squirrel and several common bird species including European starling, red-tailed hawk, American kestrel and mourning dove. Spring, winter and fall migrant bird species may pass over the project area or rest and feed in the area on a transient basis.

According to the NYSDEC Environmental Resource Mapper, the site is located within the historic range of the American burying beetle (*Nicrophorus americanus*). The site does not provide suitable habitat for the American burying beetle. This species requires natural soil and vegetation resources for propagation.

In a letter dated August 10, 2011, the New York Natural Heritage Program indicated that their database shows records of barn owl, yellow-crowned night heron, and a colonial waterbird nesting area on the North and South Brother Island in the East River (Appendix M).

The United States Fish and Wildlife Service (USFWS) identified the Federally Endangered shortnose sturgeon (*Acipenser brevirostrum*) as present within Bronx County. The USFWS noted that this sturgeon occurs primarily in the Hudson River.

The East River is located immediately east of Block 2597, Lot 1 where an oil-storage facility currently operates and there are several mooring points for large oil/fuel cargo vessels in the East River. The former MGP site has no known impact on fish and wildlife utilizing the East River.

The USFWS National Wetland Inventory (NWI) identifies the East River as an Estuarine wetland. No other wetlands are mapped in the project area. No wetlands are located on or adjacent to the site.

6.3.2.3 Observations of Stress

No atypical biotic conditions such as reduced vegetative growth and density, wildlife mortality, changes in species assemblages and distribution, or the absence of expected biota have been observed at the site.

6.3.3 Step I.C – Description of Fish and Wildlife Resource Values

Because of its location in an urbanized area and the presence of the building and sidewalks which cover the entire surface of the site, the properties situated on the former MGP operational areas provide very limited habitat for urban-dwelling wildlife. The site does not provide any current or potential value to humans as a nature recreation area. The East River is a popular fishing destination renowned for striped bass and bluefish angling.

6.3.4 Step I.D – Identification of Applicable Fish and Wildlife Regulatory Criteria

No Federal or State wetlands or aquatic resources are located on the site. The site does not provide suitable habitat for wildlife other than urban dwelling species. The East River is regulated by

the U.S. Army Corps of Engineers under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act; and the NYSDEC under Section 401 of the Clean Water Act and by the State under the Protection of Waters Program (Article 15 of the ECL).

6.3.5 Summary and Recommendations

The site is located in a highly developed, urbanized area. Plant communities in the area include limited residential and commercial landscaped areas. The results of the FWIA Step I analysis indicate that there is limited potential for wildlife at the site. Because of its location in an urbanized area and the presence of warehouse buildings and sidewalks which cover the entire surface of the site, the site does not provide suitable habitat for wildlife. The site does not provide any current or potential value to humans as a nature recreation area.

7.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

7.1 Summary

7.1.1 Site History

- The MGP operated from 1869 to 1932 and occupied properties between E. 138th Street, East 141st Street, the Bruckner Expressway, and the shoreline of the East River. The area is currently developed and consists of 7 city blocks.
- Block 2598, Lot 46 is currently being managed under the Brownfield Cleanup Program (BCP Site #203053-05-12). This property was investigated as a separate RI in 2011 and a RI report was finalized and submitted to NYSDEC in April 2012. An Environmental Easement (EE) was filed and authorized by NYSDEC on February 22, 2014.
- Gas was produced using both the coal gas and Lowe water gas processes. Gas production occurred on Block 2597, Lot 1 and Block 2598, Lot 1, and Block 2598, Lot 46. Gas produced was stored in holders on Block 2598, Lot 1 and Block 2598, Lot 46. Storage of feed oil feed stocks occurred on Block 2590, Lot 1 and coal was stored on Block 2591, Lot 46 and Block 2592, Lot 35. The remaining blocks were used for various operations such as maintenance and storage.

7.1.2 Geology and Hydrogeology

- Geology beneath the site includes a series of unconsolidated soils overlying bedrock. The key soil lithologies are urban fill, sand, silt and peat, and clay. Bedrock in the area of the site is the Fordham Gneiss.
- Groundwater occurs in the overburden soil and in bedrock. The water table occurs at depths ranging from 3 to 6 feet bgs. Ground water flow in the overburden generally flows from the area of the Bruckner Expressway towards the East River. At the site this regional flow is locally disrupted by the presence of subsurface remnant structures such as holder foundation at Block 2598, Lot 46 and a relatively shallow ridge of bedrock between the Locust Avenue and the East River.
- The East River shoreline has a steel sheeting bulkhead which likely acts as an effective barrier to groundwater migration.
- Tidal influence on overburden groundwater flow is limited to the near-shore area between Locust Avenue and the East River shoreline.

7.1.3 Field Observations and Measurements

- The highest PID readings were observed at and near former gas manufacturing structures including the former gas holders #1 and #2, the former water gas plant and tar wells, and ancillary former MGP structures on Block 2598, Lot 1. Lower PID readings occurred at and near former MGP structures as well as near the known heating oil spill on Block 2591, Lot 46 and near areas adjacent to the former MGP structures at Block 2597, Lot 1. PID readings were elevated in a monitoring well on Block 2592, Lot 35 and appear to be associated with petroleum impacts as there was LNAPL observed in this well. PID observations were also elevated in the bedrock monitoring wells located around Block 2598, Lot 46.
- Odors were generally observed throughout the site area, and in general, were observed where
 other impacts were noted including staining, sheens, and NAPLs.
- Staining and sheens were observed within and adjacent to the former MGP structures including the water gas plant, gas holders #1 and #2, separators, and water gas condensers on Block 2598, Lot 1. Petroleum-related sheens and LNAPL were also observed at locations near the known heating oil UST and spill on Block 2591, Lot 46.
- Fuels and fuel oils were also identified in several subsurface soil samples from borings at Block 2591, Lot 46, Block 2598, Lot 46, Block 2598, Lot 1, and Block 2597, Lot 1.
- LNAPL was observed in MW-03 on Block 2592, Lot 35 where 1.3 to 2.3 feet of LNAPL was measured, which is petroleum related. LNAPL coatings were also observed in soil borings near the former heating oil UST on Block 2591, Lot 46.
- Coal tar coatings were observed in subsurface soil adjacent to the former tar tanks on Block 2597, Lot 1, and in a few bedrock fractures in bedrock wells BW-01 and BW-02 on Block 2598, Lot 46.
- Coal tar/creosote DNAPL was observed at depths between 5 and 20 feet bgs in the soil column advanced within the footprint of gas holders #1 and #2 located on Block 2598, Lot 1, and 2 feet of coal tar DNAPL was observed at the bottom of bedrock well BW-01on Block 2598, Lot 46. Less concentrated CC and CWG tar residuals were also present in several subsurface soil samples from soil borings at Block 2591, Lot 46, and Block 2597, Lot 1.

7.1.4 Nature and Extent of Contamination

Subsurface Soil

- There were no VOC exceedances compared to Commercial Use SCOs in any soil samples collected from Block 2592, Lot 35; Block 2598, Lot 62; Block 2591, Lot 46; Block 2590, Lot 51; or Block 2597, Lot 1. BTEX compounds exceeded individual Commercial Use SCOs in only two soil borings (SB-43 and SB-44) both at Block 2598, Lot 1, within the footprint of former gas holders #2 and #1, respectively.
- PAHs were detected in subsurface soil at greater concentrations and frequencies above Commercial Use SCOs at Block 2591, Lot 46; and Block 2598, Lot 1. These locations correspond to the areas near the 10,000 gallon fuel oil UST where LNAPL was observed in B-7, former MGP pipe racks, and former MGP coal shed at Block 2591, Lot 46, and the areas within and near the footprint of the three former gas holders at Block 2598, Lot 1 where coal tar was observed in SB-43 and SB-44 throughout the boring column.
- There were numerous exceedances in RI soil samples of VOCs for Unrestricted Use SCOs in the site area at various depths. VOC detections included BTEX compounds, with the highest concentrations generally reported at Block 2598, Lot 1 within and near the former MGP gas holders #1 and #2 at depths between 5 and 20 feet bgs. Lower concentrations of BTEX compounds were generally reported at various depths across the entire site area. There were numerous exceedances in RI soil samples for SVOCs, especially PAHs, as compared to Unrestricted Use SCOs across the site area in and adjacent to former MGP structures at various depths. Metals exceedances as compared to unrestricted criteria were found across the entire site various depths and are likely attributable to the nature of fill material throughout the greater NYC area.

Groundwater

- Groundwater contamination in the overburden can be characterized as a generally diffuse plume spread across the entire site area which is most concentrated in the vicinity of Block 2598, Lot 46 and Block 2598, Lot 1. The overall diffuse groundwater plume appears to be a result of multiple point sources originating from the heating oil UST at Block 2591, Lot 46, LNAPL in MW-03 at Block 2592, Lot 35, the known former petroleum operations at Block 2598, Lot 46, and petroleum impacts at Block 2597, Lot 1 mixed with MGP-related impacts from the former MGP gas manufacturing operations at Block 2598, Lot 1, Block 2598, Lot 46, and Block 2597, Lot 1, and CVOCs from the dry cleaning facility that occupies the eastern half of Block 2598, Lot 1.
- Detected VOCs in overburden groundwater exceeding Class GA standards included: CVOCs; BTEX compounds; MTBE; and isopropylbenzene. CVOCs were detected at the greatest frequencies in MWMF-04 on Block 2598, Lot 46, nearest to the commercial dry cleaning operation located across East 139th Street (i.e., on the west side of E. 139th Street). The

greatest concentrations of SVOCs, naphthalene in particular, were detected in monitoring wells east, north and south of former gas holders #1, #2, #3, around Block 2598, Lot 1, and gas holder #4 around Block 2598, Lot 46. Total cyanide and metals were detected above groundwater criteria at most locations across the former MGP operational area.

• Groundwater in the bedrock aquifer was assessed via four bedrock monitoring wells at Block 2598, Lot 46. Concentrations of VOCs and SVOCs detected in bedrock groundwater samples were generally higher than those detected in overburden groundwater samples. Detected VOCs exceeding Class GA standards include CVOCS, BTEX compounds, MTBE, and isopropylbenzene. The highest concentrations of CVOCs were detected in BW-02 nearest to the dry cleaners operating across East 139th Street. The greatest concentrations of SVOCs, naphthalene in particular, were detected in monitoring wells BW-01 and BW-02. Total cyanide detections exceeded the groundwater criterion in BW-01, BW-02, and BW-03.

7.1.5 Exposure Assessment

- The site is currently covered almost entirely by buildings, sidewalks and or roadways and slopes gently from the Bruckner Expressway towards the river.
- Groundwater is not currently used as a potable water source, nor are there plans for potable or
 industrial/commercial use of groundwater as this is not authorized by New York City law, no
 risk to human health from uncontrolled exposure to groundwater exists at the site.
- The observed contamination in both subsurface soil and groundwater is below warehouse building floor slabs and surrounding sidewalks generally at depths greater than 3 feet below the surface; therefore, no risk to human health from non-intrusive, uncontrolled exposure to subsurface soil and groundwater exists across the site area. The only potential exposure pathway is for construction workers during intrusive activities during which they may expose subsurface soil, soil vapor and or groundwater.

7.1.6 Fish and Wildlife Impact Analysis

• The results of the FWRIA indicate that there is limited potential for wildlife at the site. The site is located in a highly developed, urbanized area. Plant communities in the area include limited residential and commercial landscaped areas. Because of its location in an urbanized area and the presence of the warehouse building and sidewalks which cover the entire surface of the site area, the site does not provide suitable habitat for wildlife. The site does not provide any current or potential value to humans as a nature recreation area.

7.2 Conclusions

Based upon the observed distribution of contamination in site media across the site, it is apparent that multiple sources of contaminants have contributed to the nature and extent of

commingled contamination at the various parcels. In addition to MGP residuals, it is evident that there is onsite contamination from other sources including for fuel storage and possibly from vehicle or maintenance shop operations, and dry cleaning facility contributions. The observed contamination is below warehouse building floor slabs and surrounding sidewalks generally at depths greater than 3 feet below the surface; therefore, no risk to human health from non-intrusive, uncontrolled exposure to subsurface soil exists across the site area.

The extent of MGP-related NAPL in soil appears to be situated primarily within the former MGP gas holders #1 and #2 at Block 2598, Lot 1, and gas holder #4 at Block 2598, Lot 46 and is situated beneath impervious warehouse floors. This eliminates the potential for non-intrusive, uncontrolled exposure to this contamination. Block 2598, Lot 46 is considered fully characterized and an Environmental Easement was authorized by NYSDEC in February 2014 (Appendix A).

As a result of onsite historic uses as an MGP, truck storage and refueling station with USTs, and others described in earlier sections of this report, and property uses such as a dry cleaning facility and MOSF, groundwater within the site area contains both chlorinated and fuel-related VOCs, SVOCs, metals, and cyanide in excess of Class GA standards. The resulting dissolved phase plume is generally widespread across the site but is primarily BTEX and CVOC-related, based upon observed concentrations of the chlorinated solvents, as well as fuel-related, based upon the presence of MTBE. Groundwater in the bedrock was assessed at Block 2598, Lot 46 and contamination in the bedrock is more concentrated compared to overburden. However, since groundwater is not currently used as a potable water source, nor is there plans for potable or industrial/commercial use of groundwater as this is not authorized by New York City law, no risk to human health from uncontrolled exposure to groundwater exists at the site.

Based on the results of this RI, it is noted that there is minimal potential for public contact with site contaminants in the current use scenario. However, exposure to contaminated soil, soil vapor or groundwater may occur as a result of construction activities within the buildings or beneath adjacent sidewalks. Plans should be implemented that provide guidelines for the performance of intrusive activities including management of soil and groundwater, air monitoring, and worker safety.

7.3 Recommendations

The recommendations below are proposed based on the findings of the RI and SCS presented herein, in conjunction with previous investigation findings.

Based on the current use and configuration of the site (i.e., it is entirely covered by buildings, concrete sidewalks, and or roadways), there is minimal potential for public contact with subsurface contaminants at the site. However, exposure to contaminated soil, soil vapor or groundwater may occur as a result of construction activities within the buildings or beneath adjacent sidewalks. Plans should be implemented that provide guidelines for the performance of intrusive activities including management of soil and groundwater, air monitoring, and worker safety.

No further action is warranted at this time, with the exception of a Site Management Plan and Institutional Controls (ICs) and or deed restrictions (DRs).

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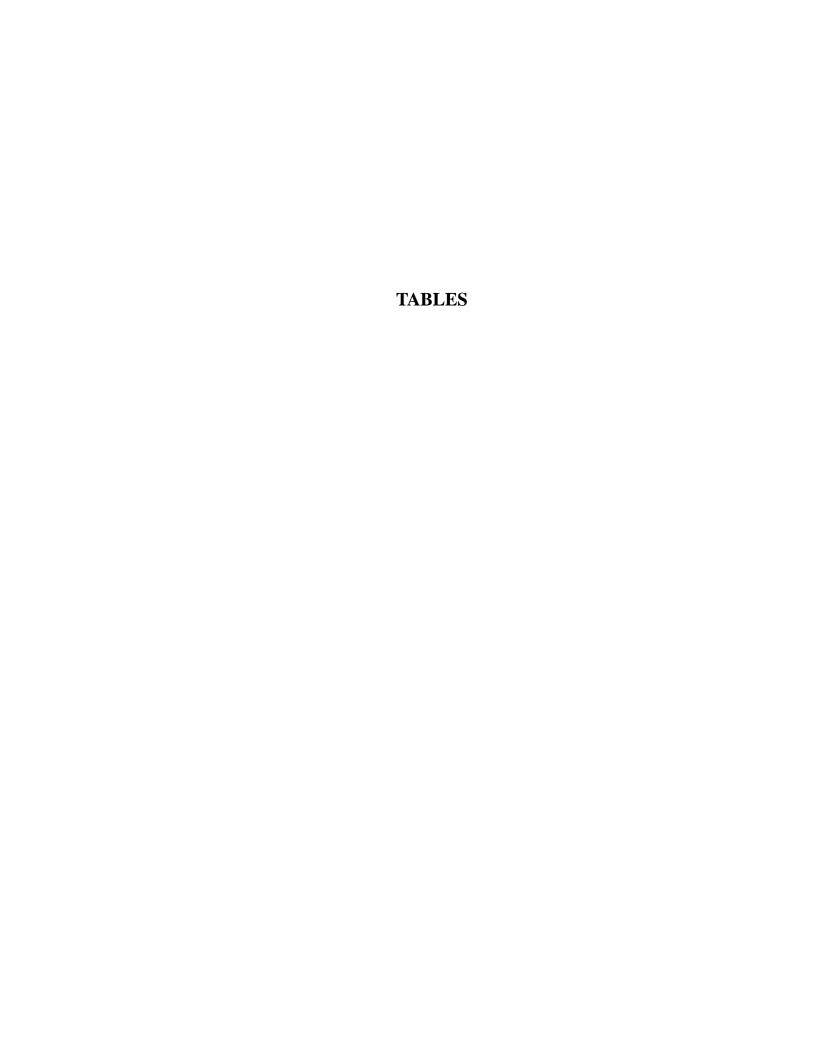


TABLE 1-1 East 138th Street Works Site Former MGP Structures at Block/Lot

1		EAST 138th STREET WOR	KKS FURMER MGP SITE	1			
Block	Lot	Former MGP Structures	Former MGP Use	Present Day Owner*			
	Anthracite Coal Storage Shavings Storage						
		Shavings Storage					
Block 2592	Lot 35	Brick & Cement Shed	Storage	Legis Realty LLC			
		Brick Shed					
		Storage Sheds					
			Storage	Anda Realty LLC			
	Lot 62		Storage	Walnut Realty Associa			
Block 2598							
	Lot 46		Water Gas	295 Locust Associates			
	201 10		- Water Sas	2) o Escast Hissociates			
		^					
		*					
Block 2591	Lot 46		Gasoline/Coal Storage	Empire 850 LLC			
	Gasoline UST (550 gal.) Spare Parts Pipe Racks Lumber Shed Gasoline UST Garage (Storage House) Office Coal Shed Brick and Cement Shed Coal Storage Waste, Oil & Misc Storage Machine Storage Paint Storage Wagons Autos Brick Storage Paint Shop Carpenter Lumber Storage/Print Shop Rigger Shed Machinery Storage Formite Engine Water Gas Meter House						
		*					
		*					
		·					
Block 2590	Lot 51		Oil/Tar Tanks and Site Facilities	Walcot Shoe LLC			
		-					
		•					
		· · · · · · · · · · · · · · · · · · ·					
		,					
		Locker & Mess Hall					
		Pump House					
		Tar AST (20,000 gal.)					
		Oil Tank #1 (250,000 gal.)					
		Drip Oil AST (9,000 gal.)					
		Drip Oil AST (11,000 gal.)	_				
		Drip Oil AST		l			

TABLE 1-1 East 138th Street Works Site Former MGP Structures at Block/Lot

		EAST 138th STREET WORL	KS FORMER MGP SITE	
Block	Lot	Former MGP Structures	Former MGP Use	Present Day Owner*
Block 2598	Lot 1	Coal Gas Purifier Boxes & Houses Water Gas Purifying House Ammonia/Tar Well Machine Shop Coal Scrubber/Gas Condenser House Water Gas Plant Exhaust Engine House Boilerhouse Tar Well (8,037 gal.) Tar Well #2 (1,600 gal.) Gas Holder #1 (300,000 cu. ft.) Relief Holder Calorimeter House Gas Holder #2 (75,000 cu. ft.) Pump House Ammonia AST #1 Ammonia AST #1 Ammonia AST #3 (62,200 gal.) Yard Drip Seperator Proposed Seperator Gas Holder #3 (576,000 cu. ft.) Gas Oil Storage Tank #2 (426,000 gal.) Salt Water Condenser Governor House/Valve House Coal Gas Meter House Water Gas Saltwater/Condensers	Coal Gas/Water Gas Manufacturing Operations	885 East 138th Street
Block 2597	Lot I	Office Coal Yard Generator House Engine Room/Retort House Chimneys Boilers Tar Well Blacksmith & Storage Shed Retort House Ofice and Shop Coke Pockets Coal Pocket Tank House Tar Well (Underground) Oil Tank #1 Rail Spur Tar Tanks Coal Hoist & Tower Pump House Electric House Ash Pocket	Coal Gas Manufacturing Operations	Castle Port Morris ET

^{* 2016} NYC Open Accessible Space Information System

TABLE 2-1 East 138th Street Works Site Soil Boring and Monitoring Well Location Rationale

	EAST	138th STREET WORKS FORMER MGP SITI	E
Location ID	Type	Rationale	Block Location
GD 01	0.11 : / 11 11	Assess soil conditions near former coal	Block 2591, Lot 46
SB-01	Soil boring/soil sampling	storage area and adjacent to former oil shed.	Paper Enterprises, Inc.
GD 02	0 11 1 1 1 11	Assess soil conditions adjacent to a former	Block 2591, Lot 46
SB-02	Soil boring/soil sampling	fuel oil spill.	Paper Enterprises, Inc.
GD 02	0 11 1 1 11	Assess soil conditions adjacent to a former	Block 2591, Lot 46
SB-03	Soil boring/soil sampling	fuel oil spill.	Paper Enterprises, Inc.
SB-04	Coil horing/soil somaling	Assess soil conditions near a former coal	Block 2591, Lot 46
SB-04	Soil boring/soil sampling	storage area.	Paper Enterprises, Inc.
SB-05	Soil horing/goil compling	Assess soil conditions near a former gasoline	Block 2591, Lot 46
3B- 03	Soil boring/soil sampling	UST.	Paper Enterprises, Inc.
SB-06	Soil boring/soil sampling	Assess soil conditions near existing weld and	Block 2592, Lot 35
3D-00	Son bornig/son sampling	machine shop.	Colonial Steel
SB-07	Soil boring/soil sampling	Assess soil conditions near the water gas	Block 2598, Lot 1
3D-07	Son bornig/son sampling	plant.	Commercial Cleaning Business
SB-08	Soil boring/soil sampling	Assess soil conditions adjacent to former gas	Block 2598, Lot 1
5D 00	Son bornig/son sampling	holder #1.	Commercial Cleaning Business
SB-09	Soil boring/soil sampling	Assess soil conditions near former water gas	Block 2590, Lot 51
5D 07	Son bornig/son sampling	meter house.	Automobile Service Business
SB-10	Soil boring/soil sampling	Assess soil conditions adjacent to former gas	Block 2598, Lot 1
5D 10	Son boring/son sampling	holder #3.	Commercial Cleaning Business
SB-11	Soil boring/soil sampling	Assess soil conditions near former oil tank #1.	Block 2590, Lot 51
55 11	Son comig/son sampling		Automobile Service Business
SB-12	Soil boring/soil sampling	Assess soil conditions near former tar tanks in	Block 2590, Lot 51
55 12	son comig/son sampling	pits.	Automobile Service Business
SB-13	Soil boring/soil sampling	Assess soil conditions near former gas holder	Block 2598, Lot 1
		#3.	Commercial Cleaning Business
SB-14	Soil boring/soil sampling	Assess soil conditions adjacent to a former	Block 2598, Lot 1
		leak from a fuel oil tank.	Commercial Cleaning Business
GD 15		Assess soil conditions west of MW-05 along	Block 2598, Lot 1
SB-15	Soil boring/soil sampling	138th Street, where napthalene-like impacts	Commercial Cleaning Business
		were observed.	
CD 16	C = 11 h = 11 11 11	Assess soil conditions east of MW-05 along	Block 2598, Lot 1
SB-16	Soil boring/soil sampling	138th Street, where napthalene-like impacts	Commercial Cleaning Business
		were observed.	Diods 2509 Let 1
SB-17	Soil boring/soil sampling	Assess soil conditions near former tar well #2.	Block 2598, Lot 1 Commercial Cleaning Business
		Assess soil conditions near former generator	Block 2597, Lot 1
SB-18	Soil boring/soil sampling	house.	Sprague Operating Resources
		Assess soil conditions adjacent to and	Block 2597, Lot 1
SB-19	Soil boring/soil sampling	upgradient of former retort house.	Sprague Operating Resources
		Assess soil conditions near the former retort	Block 2597, Lot 1
SB-20	Soil boring/soil sampling	house.	Sprague Operating Resources
		Assess soil conditions within footprint of	Block 2597, Lot 1
SB-21	Soil boring/soil sampling	former tar tanks.	Sprague Operating Resources
		Assess soil conditions within footprint of	Block 2597, Lot 1
SB-22	Soil boring/soil sampling	former tank house.	Sprague Operating Resources
		Assess soil conditions east of MW-01 along	Block 2591, Lot 46
SB-32	Soil boring/soil sampling	East 140th Street.	Paper Enterprises, Inc.
		Assess soil conditions within adjacent to	Block 2591, Lot 46
SB-33	Soil boring/soil sampling	former 550 gal gasoline UST.	Paper Enterprises, Inc.

TABLE 2-1 East 138th Street Works Site Soil Boring and Monitoring Well Location Rationale

EAST 138th STREET WORKS FORMER MGP SITE										
Location ID	Туре	Rationale	Block Location							
CD 24	Coil horing/goil gampling	Assess soil conditions within adjacent to	Block 2591, Lot 46							
SB-34	Soil boring/soil sampling	former fuel oil UST.	Paper Enterprises, Inc.							
GD 25	0.11 . / .1 . 1:	Assess soil conditions within adjacent to	Block 2591, Lot 46							
SB-35	Soil boring/soil sampling	former 550 gal gasoline UST.	Paper Enterprises, Inc.							
an ac	G 11 1 / 11 11	Assess soil conditions south of a former fuel	Block 2591, Lot 46							
SB-36	Soil boring/soil sampling	oil spill.	Paper Enterprises, Inc.							
an an		Assess soil conditions south of gasoline UST	Block 2591, Lot 46							
SB-37	Soil boring/soil sampling	and west of fuel oil spill.	Paper Enterprises, Inc.							
		Assess soil conditions near former 550 gal	Block 2591, Lot 46							
SB-38	Soil boring/soil sampling	gasoline UST.	Paper Enterprises, Inc.							
		Assess soil conditions north of a former fuel	Block 2591, Lot 46							
SB-39	Soil boring/soil sampling	oil spill.	Paper Enterprises, Inc.							
		Assess soil conditions near former coal	Block 2591, Lot 46							
SB-40	Soil boring/soil sampling	storage area.	Paper Enterprises, Inc.							
		Assess soil conditions near former gas holder	Block 2598, Lot 1							
SB-41	Soil boring/soil sampling	_	Commercial Cleaning Business							
		#3. Assess soil conditions near former ammonia	Block 2598, Lot 1							
SB-42	Soil boring/soil sampling		•							
		ASTs.	Commercial Cleaning Business							
SB-43	Soil boring/soil sampling	Assess soil conditions within footprint of	Block 2598, Lot 1							
	0 1 0	former gas holder #2.	Commercial Cleaning Business							
SB-44	Soil boring/soil sampling	Assess soil conditions within footprint of	Block 2598, Lot 1							
		former gas holder #1.	Commercial Cleaning Business							
	Overburden Monitoring	Assess soil conditions and groundwater level	Block 2591, Lot 46							
MW-01	Well	in overburden near former coal storage area.	Paper Enterprises, Inc.							
			1 ,							
	Overburden Monitoring	Assess soil conditions and groundwater level								
MW-02	Well	in overburden upgradient of former Works	Upgradient - East 139th Street							
		site.								
	Overburden Monitoring	Assess soil conditions and groundwater level	Block 2592, Lot 35							
MW-03	Well	in overburden upgradient of/adjacent to	Colonial Steel							
	VV CII	former anthracite coal storage area.	Colonial Steel							
	Overburden Monitoring	Assess groundwater quality in overburden	Block 2598, Lot 62							
MW-04	Well	near existing weld and machine shop.	Walnut Realty Associates							
	Wen	near existing were and machine shop.	Wantut Realty Associates							
	Overburden Monitoring	Assess soil conditions and groundwater level	Block 2598, Lot 1							
MW-05	Well	in overburden adjacent to former gas holder	Commercial Cleaning Business							
	wen	#2.	Commercial Cleaning Business							
	Overburden Monitoring	Assess soil conditions and groundwater level	Block 2598, Lot 1							
MW-06	_	in overburden downgradient of former gas								
	Well	holder #1.	Commercial Cleaning Business							
	Overburden Menitoria	Assess soil conditions and groundwater level	Pleak 2507, Let 1							
MW-07	Overburden Monitoring	in overburden downgradient of former retort	Block 2597, Lot 1							
	Well	house.	Sprague Operating Resources							
	0 1 1 15	Assess soil conditions and groundwater level	DI 1 0501 Y 145							
MW-11	Overburden Monitoring	in overburden adjacent to former coal storage	Block 2591, Lot 46							
	Well	area.	Paper Enterprises, Inc.							
		Assess groundwater conditions and								
BW-01	Bedrock Monitoring Well	groundwater level in bedrock adjacent to	Block 2598, Lot 46							
••		former gas holders.	BPA North LLC/295 Locust Associa							

TABLE 2-1 East 138th Street Works Site Soil Boring and Monitoring Well Location Rationale

	EAST 138th STREET WORKS FORMER MGP SITE											
Location ID	Туре	Rationale	Block Location									
BW-02	Bedrock Monitoring Well	Assess groundwater conditions and groundwater level in bedrock adjacent to former gas holders.	Block 2598, Lot 46 BPA North LLC/295 Locust Associates									
BW-03	Bedrock Monitoring Well	Assess groundwater conditions and groundwater level in bedrock adjacent to former gas holders.	Block 2598, Lot 46 BPA North LLC/295 Locust Associates									
BW-04	Bedrock Monitoring Well	Assess groundwater conditions and groundwater level in bedrock near former gas holders.	Block 2598, Lot 46 BPA North LLC/295 Locust Associates									

TABLE 2-2 SAMPLE ANALYTICAL SUMMARY EAST 138th STREET WORKS SITE

		D 41.1			Parameters			
Location	Matrix	Depth Interval (ft.)	Date Sampled	Volatile Organic Compounds	Semivolatile Organic Compounds	Metals	Total Cyanide	Misc
BW-03	SO	38.5-39.5	1/26/2012	X	X	X	X	
	SO	3.4-4	3/24/2010	X	X	X		
MW-01	SO	4.5-5	3/24/2010	X	X	X		
IVI VV -01	SO	11-12	3/26/2010	X	X	X		Fingerprint/Forensics
	SO	16.5-18	3/26/2010	X	X	X		
	SO	3.5-4.5	4/14/2010	X	X	X		
MW-02	SO	5.5-6	4/30/2010	X	X	X		
	SO	12-12.5	4/30/2010	X	X	X		
	SO	3.5-4.5	4/15/2010	X	X	X		
MW-03	SO	6-7	4/19/2010	X	X	X		Fingerprint/Forensics
	SO	14-15	4/19/2010	X	X	X		
MW-04	SO	3.5-4.5	4/16/2010	X	X	X		
171 77 -04	SO	8.5-9.5	4/20/2010	X	X	X		
	SO	3-3.5	4/26/2010	X	X	X		
MW-05	SO	4.5-5	4/26/2010	X	X	X		Fingerprint/Forensics
141 44 -03	SO	15-16	4/30/2010	X	X	X		
	SO	20.5-21	4/30/2010	X	X	X		Fingerprint/Forensics
MW-06	SO	4-4.5	5/5/2010	X	X	X		
11111 00	SO	10.5-11	5/12/2010	X	X	X		Fingerprint/Forensics
MW-07-URS	SO	4-4.5	12/15/2011	X	X	X		
WW OF CRB	SO	9.8-10.5	12/16/2011	X	X	X		
	SO	3.5-4.5	1/7/2011	X	X	X		
MW-11	SO	5-6	1/7/2011	X	X	X		
	SO	20-21	1/17/2011	X	X	X		
	SO	4.5-5	3/24/2010	X	X	X		
SB-01	SO	5-5.5	3/25/2010	X	X	X		
55 01	SO	8.5-10	3/29/2010	X	X	X		
	SO	33-34	3/29/2010	X	X	X		
	SO	4.7-5.3	3/25/2010	X	X	X		Field Duplicate
SB-02	SO	11.5-13	3/29/2010	X	X	X		
	SO	27-28	3/29/2010	X	X	X		
SB-03	SO	4.5-5.5	3/26/2010	X	X	X		
	SO	28-29	3/29/2010	X	X	X		
	SO	2.5-3.5	4/13/2010	X	X	X		
SB-04	SO	4.2-5	4/13/2010	X	X	X		
	SO	11-12	4/16/2010	X	X	X		
	SO	4-5	4/13/2010	X	X	X		
SB-05	SO	6.5-7	4/16/2010	X	X	X		
	SO	11.5-12	4/16/2010	X	X	X		
SB-06	SO	3-4	4/14/2010	X	X	X		
	SO	4.5-5.5	4/14/2010	X	X	X		Field Duplicate
	SO	3-4	4/14/2010	X	X	X		
SB-07	SO	4.5-5.5	4/14/2010	X	X	X		
	SO	13.3-14.2	4/20/2010	X	X	X		Fingerprint/Forensics
	SO	16-17	4/20/2010	X	X	X		
	SO	3-3.5	4/28/2010	X	X	X		
SB-08	SO	5-6	4/28/2010	X	X	X		
	SO	7-7.5	4/29/2010	X	X	X		
	SO	10.5-11	4/29/2010	X	X	X		
SB-09	SO	4.5-5.5	4/27/2010	X	X	X		
	SO	7-8	4/28/2010	X	X	X		
	SO	3-4	4/26/2010	X	X	X		Field Duplicate
SB-10	SO	5-5.5	4/26/2010	X	X	X		
	SO	11-11.5	4/29/2010	X	X	X		

TABLE 2-2SAMPLE ANALYTICAL SUMMARY EAST 138th STREET WORKS SITE

		D d I d			Parameters			
Location	Matrix	Depth Interval (ft.)	Date Sampled	Volatile Organic Compounds	Semivolatile Organic Compounds	Metals	Total Cyanide	Misc
	SO	3-4	4/28/2010	X	X	X		
SB-11	SO	4.5-5	4/28/2010	X	X	X		
	SO	13-13.5	4/29/2010	X	X	X		
	SO	3.5-4	4/27/2010	X	X	X		
SB-12	SO	4.5-5.5	4/27/2010	X	X	X		Field Duplicate
3D-12	SO	7-8	4/29/2010	X	X	X		
	SO	12-13	4/29/2010	X	X	X		
SB-13	SO	3-4	4/28/2010	X	X	X		
3D-13	SO	15-16	4/29/2010	X	X	X		
	SO	3.5-4	4/28/2010	X	X	X		
SB-14	SO	4.5-5	4/28/2010	X	X	X		
	SO	14.5-15	4/29/2010	X	X	X		
	SO	3-3.5	5/4/2010	X	X	X		
SB-15	SO	6-6.5	5/4/2010	X	X	X		
	SO	22-23	5/4/2010	X	X	X		
	SO	3.5-4	5/5/2010	X	X	X		
SB-16	SO	6-6.5	5/5/2010	X	X	X		Fingerprint/Forensics
3D-10	SO	9-10	5/5/2010	X	X	X		
	SO	17.5-18	5/5/2010	X	X	X		Fingerprint/Forensics
	SO	3-3.5	5/11/2010	X	X	X		
SB-17	SO	5.5-6	5/11/2010	X	X	X		Fingerprint/Forensics
	SO	12-12.5	5/12/2010	X	X	X		
	SO	4-4.5	5/11/2010	X	X	X		
SB-18	SO	5.5-6	5/12/2010	X	X	X		
	SO	8.5-9	5/12/2010	X	X	X		
CD 10	SO	3-4	5/12/2010	X	X	X		Field Duplicate
SB-19	SO	5-5.5	5/12/2010	X	X	X		
	SO	3-3.5	12/15/2011	X	X	X		
SB-20	SO	4.5-5	12/15/2011	X	X	X		
	SO	5-5.5	12/15/2011					Fingerprint/Forensics
	SO	3.5-4	12/15/2011	X	X	X		
SB-21	SO	10-11	12/16/2011	X	X	X		
	SO	21-22	12/16/2011	X	X	X		Fingerprint/Forensics
SB-22	SO	4-4.5	12/15/2011	X	X	X		Field Duplicate
	SO	3-4	1/13/2011	X	X	X		
GD 22	SO	5-6	1/17/2011	X	X	X		
SB-32	SO	9-10	1/17/2011	X	X	X		
	SO	13-14	1/17/2011	X	X	X		
	SO	3.5-4	1/11/2011	X	X	X		
SB-33	SO	10.5-11	1/14/2011	X	X	X		
	SO	13.5-14	1/14/2011	X	X	X		
CD 24	SO	10-11	1/14/2011	X	X	X		
SB-34	SO	20-20.9	1/14/2011	X	X	X		
CD 25	SO	9.5-10	1/18/2011	X	X	X		Field Duplicate
SB-35	SO	17.2-17.8	1/18/2011	X	X	X		
	SO	3-4	1/13/2011	X	X	X		Field Duplicate
SB-36	SO	6.5-7	1/17/2011	X	X	X		
	SO	13.5-14.2	1/17/2011	X	X	X		
	SO	3-4	1/6/2011	X	X	X		
SB-37	SO	8.5-9	1/6/2011	X	X	X		Field Duplicate 1/11/1 (8.2 - 9)
	SO	13.5-14.5	1/11/2011	X	X	X		
	SO	4-5	1/6/2011	X	X	X		
an ac	SO	7.8-8.5	1/11/2011	X	X	X		
SB-38	SO	11-11.5	1/11/2011	X	X	X		
	SO	15.5-16.5	1/11/2011	X	X	X		

TABLE 2-2SAMPLE ANALYTICAL SUMMARY EAST 138th STREET WORKS SITE

		D 41 T 4			Parameters			
Location	Matrix	Depth Interval (ft.)	Date Sampled	Volatile Organic Compounds	I Meta		Total Cyanide	Misc
	SO	3.5-4	1/7/2011	X	X	Х Х		
SB-39	SO	5-5.5	1/7/2011	X	X	X		
30-39	SO	6.7-7.7	1/17/2011	X	X	X		
	SO	14-15	1/17/2011	X	X	X		
SB-40	SO	9.5-10	1/14/2011	X	X	X		
SB-40	SO	13.5-14.5	1/14/2011	X	X	X		
SB-41	SO	0.5-1	2/18/2014	X	X	X		
3D-41	SO	7-9	2/18/2014	X	X	X		
SB-42	SO	0.5-1	2/19/2014	X	X	X		Field Duplicate
SD-42	SO	18.5-19.5	2/21/2014	X	X	X		
SB-43	SO	1-2	2/19/2014	X	X	X		
SD-43	SO	10-12	2/19/2014	X	X			Fingerprint/Forensics
	SO	1.5-2	2/19/2014	X	X	X		
SB-44	SO	10-12	2/21/2014	X	X	X		
	SO	15-20	2/21/2014	X	X			Fingerprint/Forensics

 $X = Analyzed \qquad \qquad \text{--} = Not \ Analyzed$

Table 2-3
Monitoring Well Summary
East 138th Street Works Site

Monitoring Well ID	Install Date	Block/Lot	Northing	Easting	Ground Elevation (Ft AMSL)	PVC Elevation (Ft AMSL)	Steel Casing Elevation (Ft AMSL)	Screen Setting (Ft bgs)	Well Depth (Ft bgs)
MW-01	3/26/2010	Block 2591, Lot 46	232350.2	1009728.4	8.11	7.86	8.11	3.0 to 13.0	15.0
MW-02	4/30/2010	East 139th Street - Upgradient	232319.1	1009366.9	9.00	8.71	9.00	3.5 to 13.5	15.5
MW-03	4/19/2010	Block 2592, Lot 35	232521.2	1009930.3	8.43	8.12	8.43	4.0 to 14.0	16.0
MW-04	4/20/2010	Block 2598, Lot 62	232103.9	1010136.4	8.13	7.74	8.13	3.0 to 13.0	15.0
MW-05	5/4/2010	Block 2598, Lot 1	231695.8	1009773.4	9.48	9.08	9.48	3.0 to 20.5	20.8
MW-06	5/12/2010	Block 2598, Lot 1	231654.2	1009986.3	9.97	9.66	9.97	3.0 to 10.0	10.2
MW-07 (URS)	12/16/2011	Block 2597, Lot 1	231355.2	1010153.7	8.30	7.90	N/A	4.6 to 9.6	10.0
MW-07 (Castle)	Unknown	Block 2597, Lot 1	231556.9	1010408.4	9.79	9.42	N/A	N/A to N/A	10.1
MW-11	1/19/2011	Block 2591, Lot 46	232284.3	1009815	8.05	7.82	8.05	3.0 to 13.0	15.0
MWMF-01	6/16/2011	Block 2598, Lot 46	232141.8	1010003.9	8.33	8.01	8.33	3.0 to 13.0	15.0
MWMF-02	3/15/2011	Block 2598, Lot 46	231854	1010105.9	9.39	9.04	9.39	3.0 to 13.0	15.0
MWMF-03	3/18/2011	Block 2598, Lot 46	231919.4	1009950.5	8.43	8.04	8.43	3.0 to 13.0	15.0
MWMF-04	3/21/2011	Block 2598, Lot 46	231967.9	1009879.8	7.93	7.69	7.93	19.0 to 29.0	29.2
MWMF-05	3/17/2011	Block 2598, Lot 46	232146.8	1009903.1	7.94	7.70	7.94	3.0 to 13.0	15.0
MWMF-06	3/17/2011	Block 2598, Lot 46	232075.2	1009848.8	8.00	7.70	8.00	3.0 to 13.0	15.0
MWMF-07S	3/16/2011	Block 2598, Lot 46	231992.1	1010198	8.95	8.69	8.95	3.2 to 9.2	11.2
MWMF-07D	3/15/2011	Block 2598, Lot 46	231986.4	1010206.1	9.01	8.74	9.01	14.1 to 19.1	19.6
MWMF-08	3/18/2011	Block 2598, Lot 46	231943.1	1009912.9	8.12	7.78	8.12	2.5 to 12.5	14.5
MWRX-01	4/20/2009	Block 2598, Lot 46	231906	1010157.4	9.63	9.34	9.63	3.0 to 9.6	9.6
MWRX-02	4/16/2009	Block 2598, Lot 46	231967.1	1009887.9	8.09	7.72	8.09	9.0 to 19.0	19.0
MWRX-03	4/17/2009	Block 2598, Lot 46	232101.4	1009869.4	8.17	7.73	8.17	3.0 to 9.7	9.7
MWRX-04	4/17/2009	Block 2598, Lot 46	232067.8	1010099.6	8.32	7.91	8.32	3.0 to 9.7	9.7
MWRX-05	4/20/2009	Block 2598, Lot 62	232103.5	1010161	8.32	8.05	8.32	3.0 to 9.7	9.7
BW-01	2/3/2012	Block 2598, Lot 46	231866.5	1010013.6	8.89	8.59	8.89	22.0 to 32.0	34.0
BW-02	2/2/2012	Block 2598, Lot 46	231948.9	1009906.6	8.13	7.58	8.13	37.0 to 47.0	49.0
BW-03	2/2/2012	Block 2598, Lot 46	232140.8	1009898.2	8.01	7.46	8.01	46.0 to 56.0	58.0
BW-04	2/1/2012	Block 2598, Lot 46	232007.9	1010179.3	8.79	8.34	8.79	27.5 to 37.5	39.5

Ft AMSL - elevation in feet above mean sea level

FT bgs - feet below ground surface

Table 2-4 Groundwater Elevation Measurements and NAPL Observations East 138th Street Works Site

						Steel Casing		Water	PID			Water	PID			Water	PID				PID
				Ground	PVC	Elevation (BW-01 -	Depth to Water	Elevation	Headspace		Depth to Water	Elevation	Headspace	е	Depth to Water	Elevation	Headspace		Depth to Water	Water Elevation	
Monitoring Well				Elevation	Elevation	BW-04)	(TOR/Casing)	4/19/11 (Ft	4/19/11	Comments on	(TOR/Casing)	5/4/11 (Ft	5/4/11	Comments on	(TOR/Casing)	7/6/11 (Ft	7/6/11	Comments on	(TOR/Casing)	7/29/11	7/29/11
ID	Block/Lot	Northing	Easting	(Ft AMSL)	(Ft AMSL)	(Ft AMSL)	4/19/11 (Ft)	AMSL)	(ppm)	4/19/11	5/4/11 (Ft)	AMSL)	(ppm)	5/4/11	7/6/11 (Ft)	AMSL)	(ppm)	7/6/11	7/29/11 (Ft)	(Ft AMSL)	(ppm)
	Block 2591, Lot																				
MW-01	46	232350.2	1009728.4	8.11	7.86	8.11	4.51	3.35	0.3	No NAPL	4.74	3.12	N/A	No NAPL	4.79	3.07	5.2	No NAPL	4.90	2.96	0.5
	East 139th Street -	-																			
MW-02	Upgradient	232319.1	1009366.9	9.00	8.71	9.00	5.31	3.40	0.9	No NAPL	5.41	3.30	N/A	No NAPL	5.65	3.06	2.6	No NAPL	5.73	2.98	0.3
																		Thick LNAPL,			
	Block 2592, Lot									Thick petro-like								couldn't detect			
MW-03	35	232521.2	1009930.3	8.43	8.12	8.43	N/A	N/A	78.0	LNAPL	N/A	N/A	N/A	No NAPL	N/A	N/A	61.9	water	N/A	N/A	N/A
	Block 2598, Lot																				
MW-04	62	232103.9	1010136.4	8.13	7.74	8.13	2.73	5.01	0.0	No NAPL	2.85	4.89	N/A	No NAPL	2.95	4.79	6.4	No NAPL	3.05	4.69	2.5
																		Sheen on water,			
										Petroleum odor.				Petroleum Odor.				strong petroleum			
MW-05	Block 2598, Lot 1	231695.8	1009773.4	9.48	9.08	9.48	5.44	3.64	97.4	No NAPL	5.44	3.64	88.8	No NAPL	5.59	3.49	265.0	odor. No NAPL	5.70	3.38	136.5
																		Faint naphthalene-			
MW-06	Block 2598, Lot 1	231654.2	1009986.3	9.97	9.66	9.97	5.54	4.12	61.3	No NAPL	5.68	3.98	N/A	No NAPL	5.74	3.92	5.8	like odor. No NAPL	5.80	3.86	0.2
MW-07 (URS)	Block 2597, Lot 1	231355.2	1010153.7	8.30	7.90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-07 (Castle)	Block 2597, Lot 1	231556.9	1010408.4	9.79	9.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Block 2591, Lot																				
MW-11	46	232284.3	1009815	8.05	7.82	8.05	4.63	3.19	0.2	No NAPL	4.86	2.96	N/A	No NAPL	5.05	2.77	1.4	No NAPL	N/A	N/A	N/A
	Block 2598, Lot																	Faint petroleum			
MWMF-01	46	232141.8	1010003.9	8.33	8.01	8.33	3.04	4.97	2.4	No NAPL	3.32	4.69	N/A	No NAPL	3.43	4.58	12.5	odor. No NAPL	3.44	4.57	1.1
	Block 2598, Lot																				
MWMF-02	46	231854	1010105.9	9.39	9.04	9.39	3.32	5.72	0.8	No NAPL	3.46	5.58	N/A	No NAPL	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Block 2598, Lot															-					
MWMF-03	46	231919.4	1009950.5	8.43	8.04	8.43	1.71	6.33	2.0	No NAPL	1.97	6.07	N/A	No NAPL	2.13	5.91	0.6	No NAPL	2.11	5.93	0.0
										Petro &											
	Block 2598, Lot									Naphthalene								Naphthalene like			
MWMF-04	46	231967.9	1009879.8	7.93	7.69	7.93	3.50	4.19	290.0	Odor. No NAPL	3.69	4.00	N/A	No NAPL	3.71	3.98	58.5	odor. No NAPL	3.62	4.07	147.6
	Block 2598, Lot																	Faint petroleum			
MWMF-05	46	232146.8	1009903.1	7.94	7.70	7.94	4.61	3.09	7.4	No NAPL	4.93	2.77	N/A	No NAPL	4.97	2.73	25.2	odor. No NAPL	5.12	2.58	4.2
	Block 2598, Lot									Slight petroleum								Naphthalene like			
MWMF-06	46	232075.2	1009848.8	8.00	7.70	8.00	6.28	1.42	24.6	odor. No NAPL	6.26	1.44	N/A	No NAPL	6.33	1.37	25.9	odor. No NAPL	6.45	1.25	34.0
	Block 2598, Lot									Petroleum odor.											
MWMF-07S	46	231992.1	1010198	8.95	8.69	8.95	3.74	4.95	107.0	No NAPL	3.98	4.71	N/A	No NAPL	4.06	4.63	31.3	No NAPL	4.19	4.50	13.6
	Block 2598, Lot									Slight petroleum											
MWMF-07D	46	231986.4	1010206.1	9.01	8.74	9.01	3.77	4.97	9.4	odor. No NAPL	3.90	4.84	N/A	No NAPL	4.15	4.59	3.8	No NAPL	4.22	4.52	0.0
	Block 2598, Lot									Naphthalene odor								Naphthalene like			
MWMF-08	46	231943.1	1009912.9	8.12	7.78	8.12	2.80	4.98	169.0	at bottom. No	2.80	4.98	N/A	No NAPL	2.92	4.86	62.5	odor. No NAPL	2.73	5.05	107.3
	Block 2598, Lot																				
MWRX-01	46	231906	1010157.4	9.63	9.34	9.63	4.23	5.11	0.6	No NAPL	4.32	5.02	N/A	No NAPL	N/A	N/A	N/A	N/A	4.60	4.74	0.5
	Block 2598, Lot															•	,	Chemical odor. No			
MWRX-02	46	231967.1	1009887.9	8.09	7.72	8.09	N/A	N/A	N/A	N/A	2.89	4.83	N/A	No NAPL	2.93	4.79	372.0	NAPL	2.97	4.75	415.2
	Block 2598, Lot								<u> </u>				<u> </u>						-	-	
MWRX-03	46	232101.4	1009869.4	8.17	7.73	8.17	6.05	1.68	3.4	No NAPL	6.03	1.70	N/A	No NAPL	6.13	1.60	6.3	No NAPL	6.30	1.43	3.6
	Block 2598, Lot												<u> </u>								1
MWRX-04	46	232067.8	1010099.6	8.32	7.91	8.32	3.12	4.79	6.3	No NAPL	3.27	4.64	N/A	No NAPL	3.22	4.69	4.6	No NAPL	3.15	4.76	14.3
	Block 2598, Lot							-					<u> </u>						-	-	
MWRX-05	62	232103.5	1010161	8.32	8.05	8.32	N/A	N/A	N/A	N/A	2.78	5.27	N/A	No NAPL	N/A	N/A	N/A	N/A	3.10	4.95	7.1
	Block 2598, Lot							· · · · · · · · · · · · · · · · · · ·	<u> </u>				<u> </u>		<u> </u>	,	<u> </u>				
BW-01	46	231866.5	1010013.6	8.89	8.59	8.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BW-02	46	231948.9	1009906.6	8.13	7.58	8.13	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		N/A	N/A	N/A	N/A
DVV-02	Block 2598, Lot	231340.3	1009300.0	0.13	7.50	0.13	IV/ A	IN/A	IN/M	11/1	IV/A	IV/A	11/14	14/7	IV/A	14/74	IN/A	14/7	IN/A	IN/A	IV/A
BW-03	46	232140.8	1009898.2	8.01	7.46	8.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BVV-U3	Block 2598, Lot	232140.6	1003030.2	6.01	7.40	0.01	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	IN/M	IN/A	IN/A	IN/A	IN/ A	IN/A	IN/A	IV/A
BW-04	46	232007 9	1010179.3	8.79	8.34	8.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
D V V = U-4	∓U	232001.3	10101/3.3	0.73	0.34	0.73	13/ 17	11/7	13/ 🗥	1.1/17	14/ /\	11/7	:4/ ^	11/17	11//	11/ //	14/ ^	177	11/ 1	11/ 17	11/7

Ft AMSL - elevation in feet above mean sea level TOR - top of riser

J:\Projects\11175538.00000\EXCEL\East 138th RI Report\RI Report Tables\Table 2-4 Water Levels (KJM Rev).xlsx

Table 2-4 Groundwater Elevation Measurements and NAPL Observations East 138th Street Works Site

Monitoring Well	Block/Lot	Northing	Easting	Ground Elevation (Ft AMSL)	PVC Elevation (Ft AMSL)	Steel Casing Elevation (BW-01 - BW-04) (Ft AMSL)	Comments on 7/29/11	Depth to Water (TOR/Casing) 8/11/15 (Ft)	Water Elevation 8/11/15 (Ft AMSL)	PID Headspace 8/11/15 (ppm)	Comments on 8/11/15 (High Tide)	Depth to Water (TOR/Casing) 8/12/15 (Ft)	Water Elevation 8/12/15 (Ft AMSL)	PID Headspace 8/12/15 (ppm)	Comments on 8/12/15 (Low Tide)
MW-01	46	232350.2	1009728.4	8.11	7.86	8.11	No NAPL	4.90	2.96	0.0	No NAPL	4.77	3.09	N/A	No NAPL
10100 01	East 139th Street	232330.2	1003720.4	0.11	7.00	0.11	NOTALE	4.50	2.50	0.0	INO INALE	7.77	3.03	IV/A	IVO IVAI E
MW-02	Upgradient	232319.1	1009366.9	9.00	8.71	9.00	No NAPL	5.55	3.16	1.9	No NAPL	5.57	3.14	N/A	No NAPL
	2 19. 22.22					0.00		0.00						,	
	Block 2592, Lot										1.34' LNAPL. No				2.15' LNAPL. No
MW-03	35	232521.2	1009930.3	8.43	8.12	8.43	No NAPL	7.15	0.97	4.7	DNAPL	8.40	-0.28	N/A	DNAPL
	Block 2598, Lot														
MW-04	62	232103.9	1010136.4	8.13	7.74	8.13	No NAPL	2.87	4.87	N/A	No NAPL	2.82	4.92	N/A	No NAPL
MW-05	Block 2598, Lot 1	231695.8	1009773.4	9.48	9.08	9.48	No NAPL	5.50	3.58	N/A	No NAPL	5.00	4.08	N/A	No NAPL
							NAPL on bottom of								
MW-06	Block 2598, Lot 1	231654.2	1009986.3	9.97	9.66	9.97	sample tubing	5.70	3.96	0.0	No NAPL	5.58	4.08	N/A	No NAPL
MW-07 (URS)	Block 2597, Lot 1	231355.2	1010153.7	8.30	7.90	N/A	N/A	5.03	2.87	0.0	No NAPL	5.44	2.46	N/A	No NAPL
MW-07 (Castle)	Block 2597, Lot 1	231556.9	1010408.4	9.79	9.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Block 2591, Lot														
MW-11	46	232284.3	1009815	8.05	7.82	8.05	N/A	4.91	2.91	N/A	No NAPL	4.95	2.87	N/A	No NAPL
	Block 2598, Lot														
MWMF-01	46	232141.8	1010003.9	8.33	8.01	8.33	No NAPL	3.30	4.71	1.9	No NAPL	3.36	4.65	N/A	No NAPL
	Block 2598, Lot														
MWMF-02	46	231854	1010105.9	9.39	9.04	9.39	N/A	4.13	4.91	0.0	No NAPL	4.41	4.63	N/A	No NAPL
	Block 2598, Lot														
MWMF-03	46	231919.4	1009950.5	8.43	8.04	8.43	No NAPL	1.77	6.27	0.0	No NAPL	2.07	5.97	N/A	No NAPL
	DI 1.2500 1 1														
144445	Block 2598, Lot	224067.0	4000070.0	7.00	7.00	7.00		21/2	21/2	21/2	21/2	21./2	21./2	21/2	21/2
MWMF-04	46 Block 2598, Lot	231967.9	1009879.8	7.93	7.69	7.93	No NAPL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N 414/N 4 F O F		222146.0	1000002.1	7.04	7.70	7.04	No NADI	4.00	2.70	0.0	No NADI	3.90	3.80	NI/A	No NADI
MWMF-05	46 Block 2598, Lot	232146.8	1009903.1	7.94	7.70	7.94	No NAPL	4.00	3.70	0.0	No NAPL	3.90	3.80	N/A	No NAPL
MWMF-06	46	232075.2	1009848.8	8.00	7.70	8.00	No NAPL	4.00	3.70	0.7	No NAPL	4.12	3.58	N/A	No NAPL
IVIVVIVIF-00	Block 2598, Lot	232073.2	1003040.0	8.00	7.70	8.00	NONAFL	4.00	3.70	0.7	NO NAPL	4.12	3.36	IN/A	NO NAFL
MWMF-07S	46	231992.1	1010198	8.95	8.69	8.95	No NAPL	3.85	4.84	0.0	No NAPL	3.87	4.82	N/A	No NAPL
101001011 075	Block 2598, Lot	231332.1	1010130	0.55	0.03	0.55	NO IVALE	3.03	4.04	0.0	NO NAI E	3.07	4.02	IV/A	IVO IVAI E
MWMF-07D	46	231986.4	1010206.1	9.01	8.74	9.01	No NAPL	3.90	4.84	0.0	No NAPL	3.95	4.79	N/A	No NAPL
	Block 2598, Lot	20130011	101020011	5.02	0., .	3.01		3.30		0.0		5.55	5	11,71	
MWMF-08	46	231943.1	1009912.9	8.12	7.78	8.12	No NAPL	2.90	4.88	5.5	No NAPL	2.97	4.81	N/A	No NAPL
	Block 2598, Lot												-	,	
MWRX-01	46	231906	1010157.4	9.63	9.34	9.63	No NAPL	4.65	4.69	0.0	No NAPL	4.60	4.74	N/A	No NAPL
	Block 2598, Lot														
MWRX-02	46	231967.1	1009887.9	8.09	7.72	8.09	No NAPL	3.10	4.62	90.1	No NAPL	3.11	4.61	N/A	No NAPL
	Block 2598, Lot														
MWRX-03	46	232101.4	1009869.4	8.17	7.73	8.17	No NAPL	4.24	3.49	0.0	No NAPL	4.20	3.53	N/A	No NAPL
	Block 2598, Lot														
MWRX-04	46	232067.8	1010099.6	8.32	7.91	8.32	No NAPL	3.10	4.81	5.0	No NAPL	3.21	4.70	N/A	No NAPL
	Block 2598, Lot]					
MWRX-05	62	232103.5	1010161	8.32	8.05	8.32	No NAPL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Block 2598, Lot]	High Tide, Approx 2'				
BW-01	46	231866.5	1010013.6	8.89	8.59	8.89	N/A	3.70	4.89	423.0	of DNAPL on string	3.77	4.82		N/A
BW-02	46	231948.9	1009906.6	8.13	7.58	8.13	N/A	3.45	4.13	14.3	No NAPL	3.50	4.08	N/A	N/A
	Block 2598, Lot]					
BW-03	46	232140.8	1009898.2	8.01	7.46	8.01	N/A	2.68	4.78	103.2	No NAPL	3.10	4.36	N/A	N/A
	Block 2598, Lot]					
BW-04	46	232007.9	1010179.3	8.79	8.34	8.79	N/A	3.52	4.82	20.0	No NAPL	3.56	4.78	N/A	N/A

Ft AMSL - elevation in feet above mean sea level TOR - top of riser

Table 3-1 Vertical Hydraulic Gradient Calculations East 138th Street Works Site

Well Clusters	Well ID	Date	Measuring Point Reference Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)	Screen Setting (feet bgs)	Ground Elevation (ft amsl)	Midpoint of Screen Elevation (ft amsl)	Vertical Separation (ft)	Vertical Gradient (ft/ft) 3/12/2012 Low Tide	Vertical Gradient (ft/ft) 3/12/2012, High Tide	Vertical Gradient (ft/ft) 8/11/2015 High Tide	Vertical Gradient (ft/ft) 8/12/2015 Low Tide	Vertical Flow Direction
Well Cluster	MWMF-07S	3/12/2012, Low Tide 3/12/2012, High Tide 8/11/2015, High Tide 8/12/2015, Low Tide	8.69 8.69 8.69 8.69	4.47 4.45 3.85 3.87	4.22 4.24 4.84 4.82	3.20 to 9.20 3.20 to 9.20 3.20 to 9.20 3.20 to 9.20	8.95	2.75	10.34	0.0309	(0.0000)	0.0000	0.0029	Down
MWMF-07S/ MWMF-07D	MWMF-07D	3/12/2012, Low Tide 3/12/2012, High Tide 8/11/2015, High Tide 8/12/2015, Low Tide	8.74 8.74 8.74 8.74	4.84 4.50 3.90 3.95	3.90 4.24 4.84 4.79	14.10 to 19.10 14.10 to 19.10 14.10 to 19.10 14.10 to 19.10	9.01	-7.59						
Well Cluster	MWMF-08	8/11/2015, High Tide 8/12/2015, Low Tide	7.78 7.78	2.90 2.97	4.88 4.81	2.50 to 12.50 2.50 to 12.50	8.12	0.62	34.49			0.0217	0.0212	Down
MWMF-08/ BW-02	BW-02	8/11/2015, High Tide 8/12/2015, Low Tide	7.58 7.58	3.45 3.50	4.13 4.08	37.00 to 47.00 37.00 to 47.00	8.13	-33.87						
Well Cluster	MWMF-05	3/12/2012, Low Tide 3/12/2012, High Tide 8/11/2015, High Tide 8/12/2015, Low Tide	7.70 7.70 7.70 7.70	5.62 5.66 4.00 3.90	2.08 2.04 3.70 3.80	3.00 to 13.00 3.00 to 13.00 3.00 to 13.00 3.00 to 13.00	7.94	-0.06	42.93	(0.0412)	(0.0424)	(0.0252)	(0.0130)	Up
MWMF-05/ BW-03	BW-03	3/12/2012, Low Tide 3/12/2012, High Tide 8/11/2015, High Tide 8/12/2015, Low Tide	7.46 7.46 7.46 7.46	3.61 3.60 2.68 3.10	3.85 3.86 4.78 4.36	46.00 to 56.00 46.00 to 56.00 46.00 to 56.00 46.00 to 56.00	8.01	-42.99						

amsl - elevation in feet above mean sea level

Table 3-2Slug Test Results East 138th Street Works Site

295 Locust Avenue - Block 2598, Lot 46 Slug Tests Summary of Results

Well	Hydraulic Conductivity [cm/sec]			
ID	FH	RH	N(**)	Mean (***)
MWMF1	8.52E-04	1.03E-03	2	9.37E-04
MWMF2	8.78E-04	1.06E-03	2	9.65E-04
MWMF3	2.48E-04	1.17E-04	2	1.70E-04
MWMF4	2.62E-04	3.44E-04	2	3.00E-04
MWMF5	8.37E-04	2.72E-04	2	4.77E-04
MWMF6	5.34E-04	1.12E-03	2	7.73E-04
MWMF7S	2.03E-03	3.93E-03	2	2.82E-03
MWMF7S(2)	2.82E-03	5.28E-03	2	3.86E-03
MWMF7S	(Mean of all 4 tests)		4	3.30E-03
MWMF7D	1.43E-03	1.00E-03	2	1.20E-03
MWMF8	3.08E-04	1.23E-04	2	1.95E-04
Geometric Mean of all Overburden MWs				8.38E-04

(**) - number of valid tests

(***) - geometric mean

FH - Falling head test

RH - Rising head test

Notes:

- -For all graphs, normalized head is defined as H(t)/Ho, where H(t) is the displacement measured at time t and Ho is the initial displacement at time t=0.
- -Results that are bold and italicized are considered invalid (see Data Useability sheet).
- -While the geometric mean for both the falling and rising head tests are given, it is understood that the rising head tests more accurately describe the overall hydraulic characteristics of the aquifer. (reference, *The Bouwer and Rice Slug Test An Update*)

					•				•		Boring Observatio	ns	•			<u> </u>
Boring/ Well/	Street		Date(s) Drilled /	Water Table	Bottom of Boring											
Pit # SB-01	Location Rose Feiss	Block/Lot #	Constr. 3/24/2010	(feet bgs 4.5-5) (feet bgs) 34 - refusa		5-10' Silts, sands and gravel @ 5-	10-15' Clay and silty sand.	15-20' Silty sand.	20-25' Silty sand.	25-30' Silty sand, sandy silt	30-35' 35-40' Silty sand and gravel.	40-45'	45-50' 50-55'	55-60'	Comments/ Impacts
	Blvd.	2591/Lot 46 Paper	3/29/2010			PID=1.9	8.5'. PID=3.9 @ 5-5.5' Faint petro	PID=4.7	PID=0.0	PID=0.0	and gravel. PID=0.0	Refusal 34'. PID=0.0				
		Enterprises				No odor.	odor. Grey clay 8.5-10'. Sulfur odor.		Faint sulfur odor.	Faint sulfur odor.	No odor.	No odor.				
						SB-01 (4.5-5')	SB-01 (5-5.5')					SB-01 (33-34')				Petroleum impacts at
						BTEX: 0.0058 ppm VOCs: 0.0058 ppm	BTEX: ND VOCs: 0.0053 ppm					BTEX: ND VOCs: 0.00.5 ppm				water table.
						PAHs: 7.258 ppm	PAHs: 9.946 ppm					PAHs: ND				
						SVOCs: 7.442 ppm	SVOCs: 10.088 ppm SB-01 (8.5-10')					SVOCs: 0.037 ppm				
							BTEX: 0.0047 ppm VOCs: 0.0314 ppm									
							PAHs: 0.190 ppm									
SB-02	Rose Feiss	Block	3/25/2010	4.5	28 - refusa	l Fill.	SVOCs: 0.287 ppm Silts, sands and gravel.		Gray clay and silty sands	s. Clay, sand and silt.	Sands and silts.					Petroleum impacts at
	Blvd.	2591/Lot 46 Paper	3/29/2010			PID=85.5	PID=49.1	10-11.5'. PID=0.6 Slight fuel oil	PID=3.5	PID=0.3	Refusal 28'. PID=0.0					water table.
		Enterprises				Fuel oil odor. LNAPL coating	Strong fuel oil odor.	odor. Gray clay. PID=4.2 @	Sulfur odor in clay.	Sulfur odor in clay.	No odor.					
						on soil grains (4.7-7.3')		11.5-15'. Sulfur odor.								
						SB-02 (4.7-5.3')/ Dup BTEX: 0.0169 ppm		SB-02 (11.5-13') BTEX: 0.0024 ppm			SB-02 (27-28') BTEX: ND					
						VOCs: 0.0885 ppm PAHs: 31.69 ppm		VOCs: 0.0494 ppm PAHs: 0.135 ppm			VOCs: ND PAHs: ND					
						SVOCs: 31.69 ppm		SVOCs: 0.235 ppm			SVOCs: 0.041 ppm					
						Fingerprint - No. 6 Fuel Oil										
SB-03	Rose Feiss Blvd.	Block 2591/Lot 46	3/26/2010 3/29/2010	4.5	29 - refusa	l Fill.	Silts, sands and gravel.	Silts, sands and gravel @ 10-10.5'.	Clay and silty sand.	Silty sand.	Silty sand, silt and gravel. Refusal 29'.					Petroleum impacts at water table.
		Paper Enterprises	0.20.20.0			PID=41.2 @ 4.5' Strong fuel oil odor. LNAPL	PID=35 Fuel oil odor.	PID=7.8 Fuel oil odor. Gray clay 10.5-15'.	PID=2.8 Sulfur odor in clay.	PID=0.0 No odor.	PID=0.0 No odor.					
		Zinorpinoco				coating on soil grains (4.5-	Fuel oil odor.	PID=2.8	Sullur odor in clay.	NO OGOI.	No odor.					
						6.5'). SB-03 (4.5-5.5')					SB-03 (28-29')					
						BTEX: 0.030 ppm VOCs: 0.229 ppm					BTEX: ND VOCs: 0.0081 ppm					
						PAHs: 68.720 ppm SVOCs: 68.720 ppm					PAHs: 0.268 ppm SVOCs: 0.353 ppm					
SB-04	East 139th Street	Block 2591/Lot 46	4/13/2010 4/16/2010	4'	20	Fill.	Silts, sands and gravel.	Gray clay.	Gray clay.							No impacts.
		Paper Enterprises				PID=0.7 No odor.	PID=0.1 No odor.	PID=29.3 Strong sulfur odor.	PID=97.3 Strong sulfur odor.							
						SB-04 (2.5-3.5')		SB-04 (11-12')								
						BTEX: ND VOCs: ND		BTEX: ND VOCs: ND								
						PAHs: 2.615 ppm SVOCs: 2.615 ppm		PAHs: 0.043 ppm SVOCs: 0.077 ppm								
						SB-04 (4.2-5') BTEX: ND										
						VOCs: ND PAHs: 3.194 ppm										
						SVOCs: 3.248 ppm										
SB-05	East 139th Street	Block 2591/Lot 46	4/13/2010 4/16/2010	6.5'	40	Fill.	Silts, sands, gravel and thin organic layer.	Silt, fine sand and gray clay.	Silt, fine sand and gray clay.	Gray clay.	Gray clay over silty fine sand					Undifferentiated chemical odors.
		Paper Enterprises				PID=1.1 No odor.	PID=3.5 Faint undifferented chemical	PID=0.3 Faint sulfur odor.	PID=0.7 Faint sulfur odor.	PID=1.9 Moderate sulfur odor.	PID=35 No odor.	PID=0.2 PID=0.0 No odor.				
						SB-05 (4-5')	odor. SB-05 (6.5-7')	SB-05 (11.5-12')								_
						BTEX: ND VOCs: ND	BTEX: 0.093 ppm VOCs: 0.164 ppm	BTEX: ND VOCs: 0.020 ppm								
						PAHs: 24.684 ppm SVOCs: 24.881 ppm	PAHs: 5,978 ppm SVOCs: 6,276.2 ppm	PAHs: 5.806 ppm SVOCs: 6.266 ppm								
SB-06	Rose Feiss Blvd.	Block 2592/Lot 35	4/14/2010 4/19/2010	4.5'	30 - refusa		Silts, sands, gravel and thin organic layer.	Silty fine sand and gray clay.		Fine sand and gray clay.	Refusal at 30'.					No impacts.
		Colonial Steel				PID=0.8 No odor.	PID=0.1 No odor.	PID=1.3 Faint sulfur odor.	PID=0.0 Faint sulfur odor.	PID=0.1 No odor.	PID=0.1 No odor.					
						SB-06 (3-4') BTEX: ND	SB-06 (4.5-5.5'), dup BTEX: 0.0013									
						VOCs: 0.0276 ppm PAHs: 4.811 ppm	VOCs: 0.0109 ppm PAHs: 0.726 ppm									
						SVOCs: 5.026 ppm	SVOCs: 0.77 ppm									

											Boring Observation	is .						
Boring/	Ctonat		Date(s)	Water	Bottom of													
Well/ Pit #	Street Location	Block/Lot #	Drilled / Constr.	Table (feet bgs)	Boring (feet bgs)	0-5 '	5-10'	10-15'	15-20'	20-25'	25-30'	30-35'	35-40'	40-45'	45-50'	50-55'	55-60'	Comments/ Impacts
SB-07	East 139th	Block	4/14/2010	5'	17 - refusa		Silts, sands and gravel.	Silt and sand.	Silts, sands and gravel.									MGP Impacts.
	Street	2598/Lot 1 Commercial	4/20/2010			PID=0.8	PID=24.6	PID=742	Refusal at 17'. PID=257									Naphthalene odor and sheen.
		Cleaner				Faint undifferented chemical			Moderate naphthalene-									Gricon.
						odor at water table.	Sheen.	odor.	like odor. Sheen (jar shake test).									
						SB-07 (3-4')	SB-07 (4.5-5.5')	SB-07 (13.3-14.2')	SB-07 (16-17')									-
						, ,	, ,	Fingerprint -										
								Similarities w/ CC/coal tar products										
						BTEX: 0.0027 ppm	BTEX: 0.124 ppm	BTEX: 10.12 ppm	BTEX: 2.15 ppm									
						VOCs: 0.0215 ppm PAHs: 862.2 ppm	VOCs: 0.124 ppm PAHs: 264.11 ppm		VOCs: 2.511 ppm PAHs: 5.562 ppm									
						SVOCs: 868.773 ppm	SVOCs: 280.94 ppm		SVOCs: 6.931 ppm									
SB-08	East 138th	Block	4/22/2010	5	11 - refusa	l Fill.	Silts, sands and gravel.	Silts, sands and gravel.										MGP Impacts.
	Street	2598/Lot 1 Commercial	4/29/2010			PID=146	PID=256.	Refusal at 11' PID=215.										Naphthalene odor and sheen.
		Cleaner				Moderate naphthalene odor	Strong naphthalene odor 5-	Strong naphthalene odor										
						45-5'. SB-08 (3-3.5')	10'. SB-08 (5-6')	10-11'. Slight Sheen. SB-08 (10.5-11')										-
						BTEX: ND	BTEX: ND	BTEX: 5.873 ppm										
						VOCs: 0.0092 ppm PAHs: 88.740 ppm	VOCs: 0.076 ppm PAHs: 32.92 ppm	VOCs: 9.528 ppm PAHs: 325.09 ppm										
						SVOCs: 89.627 ppm	SVOCs: 33.44 ppm	SVOCs: 330.41 ppm										
							SB-08 (7-7.5')											
							BTEX: 0.017 ppm VOCs: 0.565 ppm											
							PAHs: 7.078 ppm											
SB 00	Rose Feiss	Block	4/23/2010	4.5	15	Fill.	SVOCs: 7.286 ppm Fill, sand, silt and gravel 5-9'	Gray clay.										No impacts.
35-09	Blvd.	2590/Lot 1	4/23/2010	4.5	15	l' III.	Gray clay 9-10'.	Glay clay.										No impacts.
		Auto Service	4/29/2010			PID=0.4.	PID=0.5	PID=6.1.										
						No odor. SB-09 (4.5-5.5')	Sulfur odor in clay. SB-09 (7-8')	Sulfur odor.										-
						BTEX: ND	BTEX: ND											
						VOCs: ND	VOCs: 0.010 ppm PAHs: ND											
						PAHs: 14.940 ppm SVOCs: 15.516 ppm	SVOCs: 0.024 ppm											
SB-10	East 138th	Block	4/26/2010	5	15	Fill.	Silts, sands and gravel.	Silts, sands, gravel and										No impacts.
	Street	2598/Lot 1 Commercial	4/29/2010			PID=0.6.	PID=0.8.	gray clay. PID=5.6 in clay.										
		Cleaner	4/29/2010			No odor.	No odor.	Sulfur odor in clay.										
						SB-10 (3-4'), dup	SB-10 (5-5.5')	SB-10 (11-11.5')										
						BTEX: 0.0021 ppm VOCs: 0.0105 ppm	BTEX: ND VOCs: 0.0102 ppm	BTEX: 0.024 ppm VOCs: 0.0285 ppm										
						PAHs: 18.904 ppm	PAHs: 0.185 ppm	PAHs: 0.296 ppm										
SB-11	Rose Feiss	Block	4/28/2010	4.5	15	SVOCs: 19.378 ppm Fill.	SVOCs: 0.274 ppm Silts, sands and gravel.Gray	SVOCs: 0.296 ppm Gray clay.										Undifferentiated chemical
05	Blvd.	2590/Lot 1					clay 9.5-10'.											odor.
		Auto Service	4/29/2010			PID=2.2 Undifferented chemical odor	PID=0.4	PID=0.8. Slight sulfur odor.										
						5.2'.		Ť										
						SB-11 (3-4') BTEX: ND	SB-11 (4.5-5') BTEX: ND	SB-11 (13-13.5') BTEX: ND										
1						VOCs: ND	VOCs: 0.036 ppm	VOCs: 0.017 ppm						1				
1						PAHs: 38.772 ppm SVOCs: 39.222 ppm	PAHs: 36.480 ppm SVOCs: 39.827 ppm	PAHs: 0.361 ppm SVOCs: 0.405 ppm						1				
SB-12	Rose Feiss	Block	4/27/2010	4.5	15	Fill.	Silts, sands and gravel.	Silts, sands and						1				Petroleum odor.
1	Blvd.	2590/Lot 1				DID 4.6		gravel.Gray clay 12-15'.						1				
		Auto Service	4/29/2010			PID=1.6. Swampy odor 4-5.5.	PID=1.8 (7-8'). Faint petroleum odor 7-8'.	PID=2.6 in Gray clay. Slight sulfur odor.										
						SB-12 (3.5-4')	SB-12 (7-8')	SB-12 (12-13')]
						BTEX: ND VOCs: ND	BTEX: ND VOCs: 0.018 ppm	BTEX: ND VOCs: 0.0147 ppm										
						PAHs: 2.642 ppm	PAHs: ND	PAHs: 0.485 ppm										
						SVOCs: 2.749 ppm SB-12 (4.5-5.5'), dup	SVOCs: 0.047 ppm	SVOCs: 0.485 ppm										
						BTEX: ND												
						VOCs: 0.011 ppm PAHs: 0.432 ppm												
						SVOCs: 0.552 ppm												
SB-13	Rose Feiss Blvd.	Block 2598/Lot 1	4/28/2010	6	16 - refusa	l Fill.	Silts, sands and gravel (fill).	Sand and gravel (fill).	Silt, sands and gravel (fill). Refusal at 16'									Undifferentiated non- chemical odor.
	Divu.	Commercial	4/29/2010			PID=0.5	PID=0.5	PID=0.4.	PID=0.4									onemical duoi.
		Cleaner				No odor.	No odor.	No odor.	Undifferented non- chemical odor.									
						SB-13 (3-4')			SB-13 (15-16')					1				1
						BTEX: ND VOCs: 0.0059 ppm			BTEX: 0.0367 ppm									
1						PAHs: 0.156 ppm			VOCs: 0.083 ppm PAHs: 3.847 ppm									
		Ì				SVOCs: 0.189 ppm			SVOCs: 5.957 ppm									1

		1		1							Boring Observation	ns						
Boring/			Date(s)	Water	Bottom of						3							
Well/ Pit #	Street Location	Block/Lot #	Drilled / Constr.	Table (feet bgs)	Boring (feet bgs)	0-5 '	5-10'	10-15'	15-20'	20-25'	25-30'	30-35'	35-40'	40-45'	45-50'	50-55'	55-60'	Comments/ Impacts
SB-14	Rose Feiss Blvd.	Block 2598/Lot 1 Commercial Cleaner	4/28/2010 4/29/2010	4.5	15 - refusa		Silts, sands, gravel and organics. PID=1.2 (6-7). Earthy odor in organic-rich	Silts, sands and gravel. Refusal at 15'. PID=0.4. No odor.	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	No impacts.
						SB-14 (3.5-4') BTEX: ND VOCs: 0.012 ppm PAHs: 0.489 ppm SVOCs: 0.580 ppm SB-14 (4.5-5') BTEX: ND VOCs: 0.041 ppm PAHs: 0.472 ppm	layer 6-7'	SB-14 (14.5-15') BTEX: ND VOCs: 0.0081 ppm PAHs: 2.576 ppm SVOCs: 2.637 ppm										_
SB-15	East 138th Street	Block 2598/Lot 1 Commercial Cleaner	5/4/2010	5	23 - refusa	PID=21.2.	Silts, sands and gravel. PID=103 at Strong naphthalene odor 5- 7.5'. Undifferented odor 7.5' to 10'.	Silts, sands and gravel. PID=47.1. Undifferented odor.	PID=105.	Silts, sands and gravel. Refusal at 23'. PID=284. Strong naphthalene odor and sheen.								MGP Impacts. Naphthalene odor and sheen.
						SB-15 (3-3.5') BTEX: ND VOCs: ND PAHs: 2,159.4 ppm SVOCs: 2,293.91 ppm	SB-15 (6-6.5') BTEX: 3.71 ppm VOCs: 3.83 ppm PAHs: 214.05 ppm SVOCs: 220.57 ppm			SB-15 (22-23') BTEX: 59.39 ppm VOCs: 63.2 ppm PAHs: 25.57 ppm SVOCs: 26.021 ppm								
SB-16	East 138th Street	Block 2598/Lot 1 Commercial Cleaner	5/5/2010	6	18 - refusa	Fill. PID=0.4. No odor (no sample 4-5'. SB-16 (3.5-4')	Silts, sands and gravel. PID=24. Moderate naphthalene-like odor 6-6.5'. SB-16 (6-6.5') Fingerprint - Similarities w/ weathered CWG tars	Silts, sands and gravel. PID=30.6. Faint naphthalene odor 12.2-15'. SB-16 (9-10')	Silts, sands and gravel. Refusal at 18'. PID=450. Strong naphthalene odor No sheen. SB-16 (17.5-18') Fingerprint - Similarities w/ CWG									MGP Impacts. Naphthalene odor.
SB-17	Locust	Block	5/11/2010	4.5	12.5 -	BTEX: 0.0012 ppm VOCs: 0.0101 ppm PAHs: 25.49 ppm SVOCs: 26.029 ppm	BTEX: 23.58 ppm VOCs: 24.07 ppm PAHs: 71.65 ppm SVOCs: 72.27 ppm	BTEX: ND VOCs: 0.011 ppm PAHs: 0.027 ppm SVOCs: 0.064 ppm Silts, sands and gravel.	BTEX: 40.51 ppm VOCs: 41.91 ppm PAHs: 86.86 ppm SVOCs: 90.245 ppm									MGP Impacts.
	Aveenue	2598/Lot 1 Commercial Cleaner	5/12/2010		refusal	PID=47.3. Moderate naphthalene-like odor 4.5-5'. SB-17 (3-3.5')	PID=99.3. Strong naphthalene odor. No sheen. SB-17 (5.5-6') Fingerprint - Similarities w/ CC & CWG tars	Refusal at 12.5'. PID=898. Strong naphthalene odor. No sheen. SB-17 (12-12.5')										Naphthalene odor.
CD 40	Louis	Disale 2507/	E (4.4 /20.4.0.	4.5		BTEX: ND VOCs: ND PAHs: 266.31 ppm SVOCs: 267.388 ppm	BTEX: 4.515 ppm VOCs: 4.651 ppm PAHs: 80.87 ppm SVOCs: 91.19 ppm Silts, sands and gravel.	BTEX: 94.7 ppm VOCs: 110.328 ppm PAHs: 3,790 ppm SVOCs: 3,790 ppm										No imposto
SB-18	Locust Avenue	Block 2597/ Lot1 Castle Terminal	5/11/2010 5/12/2010	4.5	9 - refusal	FIII. PID=0.5 No odor. SB-18 (4-4.5') BTEX: ND VOCs: ND PAHs: 1.286 ppm SVOCs: 1.567 ppm	Sitts, sanos and gravei. Refusal at 9'. PID=1.8. No odor. SB-18 (5.5-6') BTEX: ND VOCs: 0.0045 ppm PAHs: 38.88 ppm SVOCs: 39.072 ppm SB-18 (8.5-9') BTEX: ND VOCs: 0.030 ppm PAHs: 0.361 ppm SVOCs: 0.391 ppm											No impacts.
SB-19	Locust Avenue	Block2597/L ot 1 Castle Terminal	5/12/2010	5	5.5 - refusal	Fill. PID=21.7. (4-5') Moderate petroleum odor at 4'. No sheen. SB-19 (3-4'), dup BTEX: ND VOCs: 0.031 ppm PAHs: 2.586 ppm SVOCs: 2.651 ppm	Silts, sands and gravel. Refusal at 5.5'. PID=37.6. Moderate petroleum odor. No sheen. SB-19 (5-5.5') BTEX: 0.013 ppm VOCs: 0.381 ppm PAHs: 13.95 ppm SVOCs: 14.004 ppm											Petroleum odor and sheen.

											Boring Observation	ns						
Boring/	011		Date(s)	Water	Bottom of													
Well/ Pit #	Street Location	Block/Lot #	Drilled / Constr.	Table (feet bgs)	Boring (feet bgs)	0-5 '	5-10'	10-15'	15-20'	20-25'	25-30'	30-35'	35-40'	40-45'	45-50'	50-55'	55-60'	Comments/ Impacts
SB-20	East 138th	Block2597/L	12/15/2011	5	5.5 -	Fill. Gravel top 2" over Silt,	Silts, sands and gravel.											Petroleum odor.
	Street	ot 1 Castle Terminal			refusal	sand and gravel. PID=18.4 @ 4.5-5'	Refusal at 5.5'. PID=2.4.											
						No odor.	Petroleum odor.											
						SB-20 (3-3.5') BTEX: ND	SB-20 (5-5.5') Fingerprint - Similarities w/											
							gas oil, No. 4 Fuel Oils											
						VOCs: 0.009 ppm												
						PAHs: 1.521 ppm SVOCs: 3.082 ppm												
						SB-20 (4-4.5')												
						BTEX: ND VOCs: 0.0228 ppm												
						PAHs: 3.63 ppm												
SB-21	East 138th	Block2597/L	12/15/2011	4.5	22 -	SVOCs: 4.12 ppm Fill. Silts, sand and gravel +	Fill. Cinders to 7.5'. Silts and	Silt & f. sand, tr. Gravel.	Sand and silt.	F-c sand, gravel, some								MGP Impacts.
	Street	ot 1 Castle Terminal			refusal	wood.	f. sand, tr. Clay. No odors.	Wet with sulfur odor.		silt. DNAPL tar coated. Naphthalene odor.								Naphthalene odor.
		Terminal								Refusal at 22'.								
			12/16/2011			PID=0.1 No odor.	PID=4.2. No odor.	PID=4.4. Sulfur odor.	PID=22.9. Sulfur odor.	PID=35.8.								
							No odoi:		Cultur Gdol.	SB-21 (21-22')								
						SB-21 (3.5-4')		SB-21 (10-11')		Fingerprint - Similarities w/ CWG								
						DTEV. ND		DTEV: ND		tars BTEX: ND								
						BTEX: ND VOCs: ND		BTEX: ND VOCs: 0.0171 ppm		VOCs: 0.0131 ppm								
						PAHs: 27.765 ppm SVOCs: 29.899 ppm		PAHs: 800.2 ppm SVOCs: 838.6 ppm		PAHs: 4.327 ppm SVOCs: 5.814 ppm								
SB-22	East 139th		12/15/2011	5	5 - refusal	Fill. Concrete over Silt & f-m		0 0 0 0 3. 0 0 0 0 рр 111		0 0 0 0 3.0 14 ррш								No impacts.
	Street	ot 1 Castle Terminal	12/16/2011			sand, some gravel. PID=0.3.												
						No odor.												_
						SB-22 (4-4.5'), dup BTEX: ND												
						VOCs: 0.0036 ppm PAHs: 3.22 ppm												
						SVOCs: 4.74 ppm												
SB-32	East 140th Street	Block 2591/Lot 46	1/13/2011	5	15	Fill.	Fill. Silts, sands and gravels	Silts, sands and gravels10-11, over clay										MGP impacts. Naphthalene odor.
		Paper				DID of	DID as	11-15'.										
		Enterprises	1/17/2011			PID=0.1 No odors	PID=0.0 Faint naphthalene odor 9-10'.	PID=9.0 in clay. Strong sulfur odor in clay										
						SB-32 (3-4')	SB-32 (5-6')	SB-32 (13-14')										
						BTEX: ND	BTEX: ND	BTEX: ND										
						VOCs: ND PAHs: 92.98 ppm	VOCs: 0.03 ppm PAHs: 12.454 ppm	VOCs: 0.029 ppm PAHs: ND										
						SVOCs: 94.41 ppm	SVOCs: 12.53 ppm	SVOCs: ND										
							SB-32 (9-10') BTEX: 0.0073 ppm											
							VOCs: 0.0528 ppm PAHs: 5.461 ppm											
							SVOCs: 5.997 ppm											
SB-33	Block 2591/Lot 46	Block 2591/Lot 46	1/11/2011	10	20	Fill.	Fill. Silts, sands and gravels	Silts, sands and gravels	Sand 15-15.6', then clay to 20'.				-					Ammonia odor.
	Paper	Paper	1/14/2011			PID=0.0	PID=1.3	PID=13.8 (10-11.6') Ammonia odor 10-11.6'	PID=8.9 in clay.									
	⊏nterprises	Enterprises				No odors SB-33 (3.5-4')	No odors	SB-33 (10.5-11')	Sultur odor in clay.	+				1				†
						BTEX: 0.003 VOCs: 0.0058 ppm		BTEX: 0.0307 ppm VOCs: 0.0585 ppm										
						PAHs: 17.454 ppm		PAHs: 285.6 ppm										
						SVOCs: 17.924 ppm		SVOCs: 303.85 ppm SB-33 (13.5-14')	+									
								BTEX: ND										
								VOCs: 0.014 ppm PAHs: 1.293 ppm										
00.01	DI. '	D/ .	4/40/2244	40		EW.		SVOCs: 1.316 ppm	O'lle and to the	0.14								No. in
SB-34	Block 2591/Lot 46		1/10/2011	10	25	Fill.	Fill. Silts, sands and gravels		Sills, sands and gravels	Silt, some clay and gravel 20-20.9, over clay to 25'.								No impacts.
	Paper	Paper Enterprises				PID=0.1	PID=0.0	PID=0.1	PID=0.1	PID=11.1 in clay.								
	-marph303	- Litter Princes	1,17/2011			No odors	No odors	No odors	No odors	Sulfur odor in clay.								1
								SB-34 (10-11') BTEX: ND		SB-34 (20-20.9') BTEX: ND								
								VOCs: 0.015 ppm		VOCs: 0.017 ppm								
								PAHs: 1.39 ppm SVOCs: 1.39 ppm		PAHs: 1.504 ppm SVOCs: 1.532 ppm								

											Boring Observations	S						
Boring/			Date(s)	Water	Bottom of													
Well/ Pit #	Street Location	Block/Lot #	Drilled / Constr.	Table (feet bgs)	Boring (feet bgs)	0-5 '	5-10'	10-15'	15-20'	20-25'	25-30'	30-35'	35-40'	40-45'	45-50'	50-55'	55-60'	Comments/ Impacts
SB-35	Block	Block	1/10/2011	9.5	20	Fill.	Fill. Silts, sands and gravels	Silts, sands and gravels	Silt, sand and gravels 15		20 00	00 00	00 40	40 40	40.00	00 00	55 55	No impacts.
	2591/Lot 46	2591/Lot 46							17.8', over clay to 20'.									
	Paper Enterprises	Paper Enterprises	1/18/2011			PID=0.0	PID=0.0	PID=0.0	PID=0.0									
	·					No odors	No odors	No odors	No odors									
							SB-35 (9.5-10'), dup BTEX: 0.0022		SB-35 (17.2-17.8') BTEX: ND									
							VOCs: 0.0219 ppm		VOCs: 0.0335 ppm									
							PAHs: 0.626 ppm SVOCs: 0.684 ppm		PAHs: 1.555 ppm SVOCs: 1.555 ppm									
SB-36	Rose Feiss Blvd.	Block 2591/Lot 46	1/13/2011	5	20	Fill.	Silts, sands and gravel.	Silts, sands and gravel 10 13', clay to 15'.	Clay.									No impacts.
	Diva.	Paper	1/17/2011			PID=0.0	PID=0.0	PID=0.0	PID=1.6									
		Enterprises				No odors SB-36 (3-4'), dup	No odors SB-36 (6.5-7')	Faint sulfur odor in clay.	Sulfur odor. SB-36 (13.5-14.2')									
						BTEX: ND	BTEX: 0.0036 ppm		BTEX: ND									
						VOCs: 0.0152 ppm PAHs: 827.8 ppm	VOCs: 0.0274 ppm PAHs: 20.642 ppm		VOCs: 0.019 ppm PAHs: 0.155 ppm									
						SVOCs: 864.108 ppm	SVOCs: 20.935 ppm		SVOCs: 0.155 ppm									
SB-37	Block	Block	1/6/2011	10	20	Fill.	Silts, sands and gravel.	Silts, sands and	Gray clay.									Petroleum odors.
	2591/Lot 46 Paper	2591/Lot 46 Paper	1/11/2011			PID=0.0	PID=138	gravel.Gray clay 14.5'. PID=3.6 in clay.	PID=7.4 in clay.									
	Enterprises	Enterprises				Faint petro. odor 4-5'.	Moderate petroleum odor at	No odors.	Sulfur odor.									_
						SB-37 (3-4') BTEX: ND	SB-37 (8.2-9'), dup BTEX: 13.308 ppm	SB-37 (13.5-14.5') BTEX: ND										
						VOCs: ND	VOCs: 17.7546 ppm	VOCs: 0.013 ppm										
						PAHs: 91.88 ppm	PAHs: 69.2 ppm	PAHs: ND										
SB-38	Block	Block	1/6/2011	10	20	SVOCs: 95.655 ppm	SVOCs: 73.81 ppm Clean sand 5-7.8, silts, sands	SVOCs: ND	Fine sand (15-15.2') and									MGP impacts.
30-30	2591/Lot 46	2591/Lot 46		10	20		and gravel.		gray clay to 20'									Naphthalene odor and
	Paper Enterprises	Paper Enterprises	1/11/2011			PID=1.3 Faint undiff. Chemical odor at	PID=5.3	PID=13.4 Moderate petro. odor at	PID=3.8. Sulfur odor.									petroleum sheen.
	Lineipiises	Lineipiises				3-3.5'. No sheen.	and petroleum odor at 9.8	11'. Slight sheen.	Sullui odol.									
						CD 20 (4 EI)	feet. No sheen.	CD 20 (44 44 EI)	CD 20 (45 5 4C 51)									
						SB-38 (4-5') BTEX: 0.0034 ppm	SB-38 (7.8-8.5') BTEX: 0.1264 ppm	SB-38 (11-11.5') BTEX: ND	SB-38 (15.5-16.5') BTEX: 0.0088 ppm									
						VOCs: 0.0034 ppm	VOCs: 0.2024 ppm	VOCs: 2.3 ppm	VOCs: 0.0914 ppm									
						PAHs: 83.57 ppm SVOCs: 84.575 ppm	PAHs: 3,343 ppm SVOCs: 3,435 ppm	PAHs: 80.9 ppm SVOCs: 82.2 ppm	PAHs: ND SVOCs: ND									
							Fingerprint - Similarities w/											
CD 20	Dana Faina	Disale	1/7/2011	-	25	Fill.	CWG tars	Clavi	City and	Fine soud								Detroloure adere
SB-39	Rose Feiss Blvd.	Block 2591/Lot 46	1///2011	5	25	FIII.	Silts, sands and gravel. Clay at 9.6'.	Clay.	Silty sand.	Fine sand.								Petroleum odors.
		Paper	1/17/2011			PID=0.7.	PID=85.6.	PID=0.0	PID=0.0	PID=0.0								
		Enterprises				No odor. SB-39 (3.5-4')	Strong petroleum odor at 5'. SB-39 (5-5.5')	Sulfur odor. SB-39 (6.7-7.7')	No odor. SB-39 (14-15')	No odor.								_
						BTEX: ND	BTEX: 0.051 ppm		BTEX: ND									
						VOCs: ND PAHs: 29.03 ppm	VOCs: 0.801 ppm PAHs: 86.04 ppm	VOCs: 4.14 ppm	VOCs: 0.0267 ppm PAHs: ND									
						SVOCs: 29.25 ppm	SVOCs: 86.49 ppm	• • • • • • • • • • • • • • • • • • • •	SVOCs: ND									
							Fingerprint - Similarities w/											
							No. 6 Fuel Oils and Crude Oil											
SB-40	Block	Block	01/11/11	9.2	20	Fill.	Fill. Silts, sands cinders and	Silts, sands and gravels.	Clay	†				1			1	Petroleum odors.
	2591/Lot 46 Paper	2591/Lot 46 Paper	01/14/11			PID=0.0	gravel. PID=61.8 at 9.2-10'	PID=14.8 at 10-10.5'	PID=10.4									
	Enterprises		U I/ I 4/ I I			No odor.	Petro odor.	Faint petro odor 10-10.5'.										
								,										
							SB-40 (9.5-10') BTEX: ND	SB-40 (13.5-14.5') BTEX: ND										
							VOCs: ND	VOCs: 0.0362 ppm										
							PAHs: 12.865 ppm	PAHs: 0.092 ppm SVOCs: 0.092 ppm										
SB-41	Block	Block	02/18/14	6.5	17	Fill.	SVOCs: 13.645 ppm Fill. Silts, sands, gravel, and	FILL. brick, no recovery	no recovery. Brick in									Fill.
	2598/Lot 1	2598/Lot 1					brick fragments.	11-17'. Brick in shoe.	shoe.									
	Commercial Cleaner	Commercial Cleaner				PID=1.3 No odor.	PID=2.4 No odor.	PID=0.2	PID=2.0									
	2.23.101	2.23.10.				SB-41 (0.5-1.0')	SB-41 (7-9')	SB-41 (9-11')										7
						BTEX: 0.0092 ppm VOCs: 0.0092 ppm	BTEX: 0.0024 ppm VOCs: 0.0078 ppm	BTEX: NA VOCs: NA										
						PAHs: 0.805 ppm	PAHs: NA	PAHs: 140.09 ppm										
						SVOCs: 9.413 ppm	SVOCs: NA	SVOCs: 140.789 ppm										

											Boring Observation	ns						
Boring/			Date(s)	Water	Bottom of													
Well/	Street	District #	Drilled /	Table	Boring (0.51	5.40	40.45	45.00	00.051	05.00	20.05	05.40	40.45	45.50	50.55	55.00	0
Pit # SB-42	Location Block	Block/Lot # Block	Constr. 02/19/14	(feet bgs) 6.8	(feet bgs)	0-5 ' Fill. Sand, silt, gravel	5-10' Sand and silt.	10-15' Sand and silt, trace	15-20' Sand and silt, trace	20-25'	25-30'	30-35'	35-40'	40-45'	45-50'	50-55'	55-60'	Comments/ Impacts MGP Impacts. Coal tai
3D-42	2598/Lot 1	2598/Lot 1	02/19/14	0.0	20	i III. Gariu, Siit, gravei	Sand and Silt.	gravel.	gravel.									WGF Impacts. Coartai
	Commercial	Commercial	02/21/14			PID=17.1 (@ 0.5-1 ft)	PID=351	PID=1052 (@15ft)	PID=772 @ 20ft									
	Cleaner	Cleaner				MPG odors.	MGP odors.	MGP odors. Slight MGP										
								product coating.	NAPL. Strong MPG odor									
						SB-42 (0.5-1.0'), dup			SB-42 (18.5-19.5')									
						BTEX: ND			BTEX: 33.5 ppm									
						VOCs: 0.012 ppm			VOCs: 39.5 ppm									
						PAHs: 70.79 ppm SVOCs: 71.95 ppm			PAHs: 1,464.6 ppm SVOCs: 1,482.17 ppm									
SB-43	Block	Block	02/19/14	5	12	Fill. Sand and gravel	Fill. Wood.	Fill. Gravel	этоон циали ррш									MGP Impacts. Coal ta
	2598/Lot 1	2598/Lot 1				PID=0.0	PID=123.2	PID=603										
	Commercial Cleaner	Commercial Cleaner				No odor.	Free MGP Product. Strong odors.	5" Free MGP Product										
	Cleaner	Oleaner					odors.	measured down borehole Strong odors.										
						SB-43 (1.0-2.0')		SB-43 (10-12')										
								Fingerprint - Coal										
						BTEX: 0.0014 ppm		Tar/Creosote BTEX: 3,632 ppm										
						VOCs: 0.0045 ppm		VOCs: 3,852 ppm										
						PAHs: 23.1 ppm		PAHs: 90,880 ppm										
00.44	5	B	00/40/44	_		SVOCs: 23.418 ppm	F::: 0 1 1111	SVOCs: 93,560 ppm	F.11 6.11									11001
SB-44	Block 2598/Lot 1	Block 2598/Lot 1	02/19/14	5	21	Fill. Sand, gravel, bricks.	Fill. Sand, gravel, bricks.	Fill. Silts, sands, gravel, and bricks.	Fill. Silts, sands, gravel, and bricks.									MGP Impacts. Coal ta
	Commercial	Commercial	02/20/14			PID=63.7 (@ 2ft)	PID=662	PID=1502	PID=2620									
	Cleaner	Cleaner				faint MGP odor	MGP Product coating. Strong		MGP Product. Strong									
						OD 44 (4 5 0 0))	odors	Strong odors	odors									
						SB-44 (1.5-2.0')		SB-44 (10-12')	SB-44 (15-20') Fingerprint - Coal									
									Tar/Creosote									
						BTEX: 0.0233 ppm		BTEX: 13,700 ppm	BTEX: 7,190 ppm									
						VOCs: 0.0797 ppm		VOCs: 15,025 ppm	VOCs: 8,190 ppm PAHs: 146,280 ppm									
						PAHs: 73.48 ppm SVOCs: 77.82 ppm		PAHs: 20,238 ppm SVOCs: 20,453.35 ppm										
MW-01	East 140th	Block	3/24/10	5	35	Fill	Fill. Cinders, silts, sands and			Gray clay.	Gray clay.	Gray clay and silty						No product or sheen in
	Street	2591/Lot 46					gravel.	10-13'.				sand. Bottom of						well.
		Paper Enterprises	3/26/10			PID=1.2	PID=0.0	PID=4.9 @10-13'	PID=3.6 @ 15-15.5'	PID=30	PID=25-42	boring 35'. PID=18.						
		Litterprises	3/20/10			F1D=1.2	F1D=0.0	moderate petroluem-like		F1D=30	F1D=23-42	FID=10.						Well MW-01 screen 3-1
								odor. Slight sheen	odor									Sump 13 - 15'.
						No odor.	No odor.	PID=2.2 @ 13' in gray	PID=12.8 @ 15.5-20'	Strong sulfur odor.	Strong sulfur odor.	Sulfur odor in clay						
						MW-01 (3.4-4')		clay. No odor. MW-01 (11-12')	Sulfur odor. MW-01 (16.5-18')									MGP
						,		Fingerprint -										impacts.Naphthalene a
								Similarities w/ CC & CO										petroleum odors.
						BTEX: 0.0028 ppm		tars BTEX: 2.45 ppm	BTEX: ND									
						VOCs: 0.0028 ppm		VOCs: 2.516 ppm	VOCs: 0.0165 ppm									
						PAHs: 0.707 ppm		PAHs: 1,254 ppm	PAHs: 4.271 ppm									
						SVOCs: 0.837 ppm		SVOCs:1,341.11 ppm	SVOCs: 4.59 ppm									
						MW-01 (4.5-5') BTEX: ND												
						VOCs: .0052 ppbm												
						PAHs: 1.477 ppm												
MW-02	East 139th	Upgradient	4/14/2010	4.8	35	SVOCs: 1.577 ppm	Sand and gravel.	Sand, silt and gravel.	Sand, silt and gravel.	Sand, silt and gravel.	Gray clay.	Gray clay and peat.						Well screen 3.5-13.5.
	Street	Spyrauloill	7/17/2010	4.0	55		Cana ana graver.	Jana, one and graver.	Sana, on and graver.	Gray clay at 20.5'.	July Sidy.	c.a, oa, and peat.						Sump 13.5-15.5.
			4/30/2010			PID=2.8	PID=36.2.	PID=0.2.	PID=0.3	PID=135	PID=135	PID=137						·
						Faint petroleum odor at 4.8'. MW-02 (3.5-4.5')		No odor.	Sulfur odor.	Strong sulfur odor.	Strong sulfur odor.	Strong sulfur odor.						Petroleum odors.
						MW-02 (3.5-4.5') BTEX: ND	MW-02 (5.5-6') BTEX: 0.0078 ppm	MW-02 (12-12.5') BTEX: ND										
						VOCs: 0.0079 ppm	VOCs: 0.0778 ppm	VOCs: 0.028 ppm										
						PAHs: 3.629 ppm	PAHs: 2.365 ppm	PAHs: ND										
M/W/ O3	East 141st	Block	4/15/2010	6.75	30	SVOCs: 3.723 ppm Fill.	SVOCs: 2.785 ppm Silts, sands and gravels.	SVOCs: ND Sands, gravels and silt.	No recovery	Gray clay.	Gray clay.	+						Well screen 4-14'. Sun
IVIVV-US	Street	2592/Lot 35	4/19/2010	0.75	30	PID=0.9	PID=29.6	PID=2.1	ivo recovery.	PID=23.3.	PID=8.2.							14 to 16'.
		Colonial				No odor.	Strong petroleum odor 6-7'	Faint petroleum odor 10'-		Faint to strong sulfur	Moderate sulfur odor.							
		Steel				MIN 02 /2 5 4 5"	MIM 02 (C 71)	12'.		odor.		<u> </u>						Defendant :
						MW-03 (3.5-4.5')	MW-03 (6-7') Fingerprint - Similarities w/	MW-03 (14-15')										Petroleum odors.
	1	I	1				No. 4/5/6 Fuel Oils											
																		1
						BTEX: ND	BTEX: 0.660 ppm	BTEX: ND										
						BTEX: ND VOCs: ND PAHs: 2.244 ppm		BTEX: ND VOCs: 0.0051 ppm PAHs: ND										

											Boring Observation	ns						
Boring/ Well/	Street		Date(s) Drilled /	Water Table	Bottom of Boring													
Pit#	Location	Block/Lot #	Constr.	(feet bgs)	(feet bgs)	0-5 '	5-10'	10-15'	15-20'	20-25'	25-30'	30-35'	35-40'	40-45'	45-50'	50-55'	55-60'	Comments/ Impacts
MW-04	East 140th Street	Block 2598/Lot 62	4/16/2010	3.5	25	Fill.	Sands, gravels and silt.	Sands and silt over peat over gray silt and clay.	Silt and sand over micaceous silty sand.	No recovery. Running sand.								Well screen 3-13'. Sump
		Machine	4/20/2010			PID=96.7	PID=7.9 Moderate petroleum odor 5-	PID=52.8.	PID=1.9									13 to 15'.
		Shop				Strong petroleum odor.	6'	silt and clay.	Faint sulfur odor in upper silt and sand.									Petroleum odors.
						MW-04 (3.5-4.5'), dup BTEX: 0.0064 ppm	MW-04 (8.5-9.5') BTEX: ND											
						VOCs: 0.4834 ppm	VOCs: 0.0067 ppm											
						PAHs: 20.132 ppm SVOCs: 20.604 ppm	PAHs: ND SVOCs: ND											
MW-05	East 138th	Block	4/26/2010	4.9	21 - refusal		Silts, sands and gravel.	Silts, sands and gravel.	Silts, sands and gravel.	Silts, sands and gravel.								Well screen 3-20.5'. 3-
	Street	2598/Lot1 Commercial	5/4/2010			PID=32.3.	PID=105	PID=230	PID=1200	Refusal at 21'. PID=950.								inch bottom sump.
		Cleaner				Moderate to strong naphthalene-like odor 4.5'.	Strong naphthalene odor 5- 6.5'. Sheen.	Moderate to strong naphthalene odor 14-16'		 Strong naphthalene odor. DNAPL, Sheen. 								MGP impacts. Sheen and
						Slight sheen.	0.5 . Sheen.	Sheen.		,								naphthalene odors.
						MW-05 (3-3.5') BTEX: ND			MW-05 (15 - 16') BTEX: 94.1 ppm	MW-05 (20.5-21') Fingerprint -								
						5,2,1,10			212/tt 0 tt 1 pp	Similarities w/ CWG								
						VOCs: ND			VOCs: 111.78 ppm	tars BTEX: 312 ppm								
						PAHs: 143.68 ppm SVOCs: 145.727 ppm			PAHs: 100.14 ppm SVOCs: 101.88 ppm	VOCs: 355.5 ppm PAHs: 1,118 ppm								
						MW-05 (4.5-5')			3 VOCs. 101.00 ppill	SVOCs: 1,152.11 ppm								
						Fingerprint - Similarities w/ CWG tars												
						ono taro												
						BTEX: 0.611 ppm VOCs: 0.7576 ppm												
						PAHs: 113.1 ppm												
MW-06	Locust	Block	5/5/2010	5.5	11 - refusal	SVOCs: 114.99 ppm Fill.	Silts, sands and gravel.	Silts, sands and gravel.										
	Avenue	2598/Lot1 Commercial						Refusal at 11'. Weathered bedrock.										Well screen 3-10'. 2-inch bottom sump.
		Cleaner	5/12/2010			PID=0.4	PID=176	PID=190										bottom sump.
						No odor.	Strong naphthalene odor 6.5'. Sheen.	Strong naphthalene odor. Sheen 10.5'.										
						MW-06 (4-4.5')	Oneen.	MW-06 (10.5-11')										MGP impacts. Sheen and
								Fingerprint - Similarities w/ CC &										naphthalene odors.
						DTEVAND		CWG tars										
						BTEX: ND VOCs: ND		BTEX: 73.981 ppm VOCs: 76.15 ppm										
						PAHs: 4.714 ppm SVOCs: 4.745 ppm		PAHs: 799.4 ppm SVOCs: 817.42 ppm										
MW-07-	East 138th	Block	12/15/2011	6	10.5	Fill.	Silts, sands and gravel.											Well screen 4.6-9.6'.
URS	Street	2597/Lot 1 Castle Port	12/16/2011			PID=0.1	PID=34											Sump 9.6 to 10'.
		Morris				No odor. MW-07 (4-4.5')	Faint petroleum odor. MW-07 (9.8-10.5')											
						BTEX: ND	BTEX: ND											
						VOCs: 0.00091 ppm PAHs: 3.852 ppm	VOCs: 0.049 ppm PAHs: 0.553 ppm											
101/11	E + 1.100	5	1/7/0011		0.5	SVOCs: 5.328 ppm	SVOCs: 2.173 ppm	000		lo.								
IVIVV-11	East 140th Street	2592/Lot 35	1/7/2011	5	25	Fill.	Silts, sands and gravel.	Silts, sands and gravel.	No Recovery.Sample liquid and ran out of	Clay								Well screen 3-13'. Sump
		Colonial Steel	1/19/2011			PID=0.4	PID=0.0	PID=0.0	spoon. NA	PID=8.9								13 to 15'.
		Older	1713/2011			No odor.	No odor.	No odor.	NA	Sulfur odor.								
						MW-11 (3.5-4.5') BTEX: 0.003 ppm	MW-11 (5-6') BTEX: ND			MW-11 (20-21') BTEX: ND								
						VOCs: 0.0254 ppm	VOCs: 0.0107 ppm PAHs: 16.44 ppm			VOCs: 0.031 ppm								
						PAHs: 11.202 ppm SVOCs: 11.836 ppm	SVOCs: 17.209 ppm			PAHs: 0.169 ppm SVOCs: 0.169 ppm								
BW-01	East 139th Street	Block 2598/Lot 46	1/31/2012	4	34	Fill. Silts and sands	sands, silts, and gravel. Trace organics.	Sands and silt.	Sands, silts, and gravel. Gray gneiss starting at	Gray gneiss.	Gray gneiss.	Gray gneiss.						Well screen 22-32'. Sump
	5.1061	Murray Feiss	s					L	19'.									32 to 34'.
			2/3/2012			PID=0.8 No odor.	PID=0.4 sulfur odor in organics.	PID=0.4 No odor.	PID=30.6 Napthalene odor in rock	PID=1.3 Naphlaene-like odor and		PID=44.5 DNAPL coated core.						MGP Impacts.
									fractures.	DNAPL coatings.	LNAPL in drill water.	LNAPL in drill water.						Naphthalene odor and tar
BW-02	East 139th	Block	1/31/2012	3	49	Fill. Silts, sands, gravel, brick.	Fill. To 8.5' silts sands, gravel.	Silt and peat-like	Silts, sands, and gravel	Silts, sands, and gravel		Il-Gray schist starting a	t No core sample; rollerbi	t Gray gneiss, banded	. Gray gneiss, banded.			coatings.
	Street	2598/Lot 46 Murray Feiss					Sand and gravel 8.5-10	vegetation			sized weathered gray schist bedrock.	31'	drilling.					Well screen 37-47'. Sump
						DID oos	DID 1017	DID coo		515 47 4		DUD 0	DID 0	DID 4.5	DID 45			47 to 49'.
			2/2/2012			PID = 225 Petroleum odor 0.8-5'	PID=1047 Strong naphthalene odor.	PID=300 Undifferentiated chemical	PID = 77 Faint naphthalene-like	PID = 17.1 Faint naphthalene-like	PID = 73.7 Faint naphthalene-like	PID = 2 Faint naphthalene-lik	PID = 0 e No sheen or odor.	PID = 4.5 LNAPL in drill water	PID = 4.5 LNAPL sheen at 47';			
						Naphthalene odor below 5'.	Sheen.	odor.	odor.	odor.	odor.	odor @ 31'.		at 40'. DNAPL and	DNAPL and			MGP Impacts.
														39-40' in fractures.	r naphthalene-like odor 45' in fractures.			Naphthalene odor and tar coatings.

											Boring Observation	ns						
Boring/ Well/	Street		Date(s) Drilled /	Water Table	Bottom of Boring													
Pit #	Location	Block/Lot #	Constr.	(feet bgs)	(feet bgs)	0-5 '	5-10'	10-15'	15-20'	20-25'	25-30'	30-35'	35-40'	40-45'	45-50'	50-55'	55-60'	Comments/ Impacts
BW-03	Rose Feiss Blvd.	2598/Lot 46	1/26/2012	5	58	Fill. To approx. 4'. then Sands, silts, gravel.	Sands, silts, gravel.	Sands, silts, and gravel.	Silts and sands.	No samples collected.	No samples collected.	Roller-bit refusal at 34.5'. Start rock	Weathered gray schist mixed with silt and gravel.		Gray foliated schist.	Gray foliated schist.	Gray banded gneiss.	Well screen 46-56'. Sump
		Murray Feiss	2/2/2012			PID = 1.4 Faint petroleum odor.	PID = 1.4 Faint petroleum odor.		PID = 118.1 Strong Sulphur odor.	PID = NA No sheen, LNAPL, or odors in drill water.	PID = NA No sheen, LNAPL, or odors in drill water.	coring. PID = NA No sheen, LNAPL, o odors in drill water.	'	PID =7.1 Faint napthalene odor at 38'.	PID =0.0 No odor.	PID =0.0 No odor.	PID =0.0 No odor.	56 to 58'. MGP Impacts. Naphthalene odor and tar
								sulfur odor 12.5-15'.					BW-03 (38.5-39.5') BTEX: 0.0419 ppm					coatings.
													VOCs: 0.0474 ppm PAHs: 0.084 ppm SVOCs: 0.324 ppm					
BW-04	East 140th Street	Block 2598/Lot 46	1/25/2012	4	39.5	Fill. Silts, sands, gravel.	Fill. Silt, sand, gravel. To 5.5'. Then Sand and gravel.	•	Sands, silts, and gravel.	Rollerbit refusal at 24.5'	Gray gneiss. PID = 0.2	Gray banded gneiss	Gray banded gneiss. PID = 0.0					Well screen 27.5-37.5'. Sump 37.5 to 39.5'.
		Murray Feiss	2/1/2012			PID = 106 Moderate petroleum odor below 4'.	PID = 108 Petroleum odor to ~7.5' then no odor.		PID = 0.0 No odor.	PID = 0.0 No sheen, LNAPL, or odors in drill water.	No sheen, LNAPL, or odors in drill water.	PID = 0.2 No sheen, LNAPL, o odors in drill water.	No sheen, LNAPL, or odors in drill water.					Petroleum odors.

TABLE 3-4 East 138th Street Works Site Summary of Field Observations and Measurements by Block and Lot

				EAST 138th STREE	T WORKS FORM	ER MGP SITE		
							Boring Sun	nmary
Block	Lot	Former MGP Structures/ Targets	Boring ID	Boring Position Relative to Target	PID Range (ppm)	Staining	NAPL	Comment/ Impact
		Anthracite Coal Storage	MW-03	Adjacent Sidewalk	0.9 to 29.6	None	LNAPL (1.3-	Well screen 4-14'. Sump 14 to 16'; Petroleum Odors.
		Shavings Storage	IVI VV -03	Adjacent Sidewark	0.9 to 29.0	None	2.2')	Well serech 4-14. Sump 14 to 10, 1 choleum Odors.
Block 2592	Lot 35	Brick & Cement Shed						
		Brick Shed	SB-06	Adjacent Sidewalk	0.0 to 1.3	None	None	None.
		Storage Sheds						
	Lot 66	Brick Shed	MW-04	Adjacent Sidewalk	1.9 to 96.7	None	None	Well screen 3-13'. Sump 13 to 15'; Petroleum Odors.
	Lot 62	Brick Shed		.j				1
		Store Houses Shavings Scrubber House	BW-04	Adjacent Sidewalk	0.0 to 108	None		Well screen 27.5-37.5'. Sump 37.5 to 39.5'; Petroleum Odors.
Block 2598	Lot 46	Gas Holder #4 (2,630,000 cu. Ft.)	BW-02	Adjacent Sidewalk	0.0 to 73.7	Tar Coatings 39- 45'	DNAPL Coatings	Well screen 37-47'. Sump 47 to 49'; MGP Impacts. Naphthalene odor and tar coatings at 39 45'.
	Lot 40	Gus 1101de1 # 1 (2,030,000 cd. 1 t.)	BW-03	Adjacent Sidewalk	0.0 to 118.1	None	None	Well screen 46-56'. Sump 56 to 58'; MGP Impacts. Naphthalene odor and tar coatings.
		Water Gas Purifying House	BW-01	Adjacent Sidewalk	0.4 to 44.5	Tar coatings 20- 35'	2' DNAPL in sump	Well screen 22-32'. Sump 32 to 34'; MGP Impacts. Naphthalene odor and tar coatings at 20 35'.
		Fuel Oil UST (230 gal.) Gasoline UST (550 gal.)	SB-34	Near Footprint	0.0 to 11.1	None	None	No Impacts.
		Spare Parts Pipe Racks	MW-01	Adjacent Sidewalk	0.0 to 42	Sheen @ 10-13'	None	No product or sheen in well; Well MW-01 screen 3-13'. Sump 13 - 15'; MGP impacts; Naphthalene and petroleum odors.
		Lumber Shed	SB-32	Adjacent Sidewalk	0.0 to 9.0	None	None	MGP impacts. Naphthalene odor.
		Gasoline UST	SB-33	Near Footprint	0.0 to 13.8	None	None	Ammonia odor.
		Garage (Storage House)	SB-35	Within Footprint	0.0 to 0.0	None	None	No Impacts.
		Office Coal Shed	SB-05	Adjacent Sidewalk	0.0 to 35	None	None	Undifferentiated chemical odors.
		Brick and Cement Shed	SB-04	Adjacent Sidewalk	0.7 to 97.3	None	None	No Impacts.
Block 2591	Lot 46		SB-02	Adjacent Sidewalk	0.0 to 85.5	Coating at 4.7-7.3'	LNAPL Coating	Petroleum impacts at water table.
			SB-03	Adjacent Sidewalk	0.0 to 41.2	Coating at 4.5-6.5'	LNAPL Coating	Petroleum impacts at water table.
			SB-36	Adjacent Sidewalk	0.0 to 1.6	None	None	No Impacts.
		Coal Storage	SB-37	Near Footprint	0.0 to 138	None	None	Petroleum odors.
			SB-38	Within Footprint	1.3 to 13.4	Sheen at 10-15'	None	MGP impacts. Naphthalene odor and petroleum sheen.
			SB-39	Adjacent Sidewalk	0.0 to 85.6	None	None	Petroleum odors.
			SB-40	Within Footprint	0.0 to 61.8	None	None	Petroleum odors.
			MW-11	Adjacent Sidewalk	0.0 to 8.9	None	None	Well screen 3-13'. Sump 13 to 15'.
		Waste, Oil & Misc. Storage	SB-01	Adjacent Sidewalk	0.0 to 4.7	None	None	Petroleum impacts at water table.

TABLE 3-4

East 138th Street Works Site

Summary of Field Observations and Measurements by Block and Lot

]	EAST 138th STREE	T WORKS FORM	ER MGP SITE		
							Boring Sun	nmary
Block	Lot	Former MGP Structures/ Targets	Boring ID	Boring Position Relative to Target	PID Range (ppm)	Staining	NAPL	Comment/ Impact
		Machine Storage						
		Paint Storage						
		Wagons						
		Autos						
		Brick Storage	_					
		Paint Shop	Not Accessible	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable.
		Carpenter						
		Lumber Storage/Print Shop						
		Rigger Shed						
		Machinery Storage						
		Formite Engine						
Block 2590	Lot 51	Water Gas Meter House						
		Cement Storage	SB-09	Adjacent Sidewalk	0.4 to 6.1	None	None	No Impacts.
		Calorimeter House						
		Laboratory Tar Tank in Pits (24,000 gal.)						
		Waste Storage	SB-12	Adjacent Sidewalk	1.6 to 2.6	None	None	Petroleum Odor.
		Locker & Mess Hall	SD-12	Aujacent Sidewark	1.0 to 2.0	None	None	r cuoleum Odol.
		Pump House						
		Tar AST (20,000 gal.)						
		Oil Tank #1 (250,000 gal.)						
		Drip Oil AST (9,000 gal.)	SB-11	Adjacent Sidewalk	0.4 to 2.2	None	None	Undifferentiated chemical odor.
		Drip Oil AST (11,000 gal.)						
		Drip Oil AST						

TABLE 3-4 East 138th Street Works Site

Summary of Field Observations and Measurements by Block and Lot

				EAST 138th STREE	T WORKS FORM	ER MGP SITE		
							Boring Sun	nmary
Block	Lot	Former MGP Structures/ Targets	Boring ID	Boring Position Relative to Target	PID Range (ppm)	Staining	NAPL	Comment/ Impact
		Coal Gas Purifier Boxes & Houses	SB-14	Adjacent Sidewalk	0.4 to 1.2	None	None	No Impacts.
		Water Gas Purifying House Ammonia/Tar Well	Not Accessible	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable.
		Machine Shop Coal Scrubber/Gas Condenser House Water Gas Plant	SB-07	Adjacent Sidewalk	0.8 to 742	Sheen at 15-20'	None	MGP Impacts. Naphthalene odor and sheen.
		Exhaust Engine House		Adjacent Sidewalk				
		Boilerhouse Tar Well (8,037 gal.) Tar Well #2 (1,600 gal.)	SB-17	Adjacent Sidewalk	47.3 to 898	None	None	MGP Impacts. Naphthalene odor.
		Gas Holder #1 (300,000 cu. ft.) Relief Holder	SB-44	Within Footprint	63.7 to 2620	Tar Coating at 5-15'	Coal Tar Product at 15- 20'	MGP Impacts. Coal tar.
			MW-06	Adjacent Sidewalk	0.4 to 190	Sheen at 6.5- 10.5'	None	Well screen 3-10'. 2-inch bottom sump. MGP impacts. Sheen and naphthalene odors.
Block 2598	T -4 1	Calorimeter House Pump House		Adjacent Sidewalk				
BIOCK 2398	Lot 1	Gas Holder #2 (75,000 cu. ft.) Ammonia AST #3 (62,200 gal.)	SB-43	Within Footprint	0.0 to 603	None	Coal Tar Product at 5-15'	MGP Impacts. Coal tar.
		Ammonia AST #1		Adjacent Sidewalk				
		Ammonia AST #2 (60,000 gal.) Yard Drip Separator Proposed Separator	SB-15	Adjacent Sidewalk	21.2 to 284	Sheen at 15-25'	None	MGP Impacts. Naphthalene odor and sheen.
		Gas Holder #3 (576,000 cu. ft.)/ Gas Oil	SB-10	Adjacent Sidewalk	0.6 to 5.6	None	None	No Impacts.
		Storage Tank #2 (426,000 gal.)	SB-13	Adjacent Sidewalk	0.4 to 0.5	None	None	Undifferentiated non-chemical odor.
			SB-41	Within Footprint	0.2 to 2.4	None	None	Fill.
		Salt Water Condenser/ Gas Holders	MW-05	Adjacent Sidewalk	32.3 to 1200	Sheen at 0-20'	Blebs at 20-25'	Well screen 3-20.5'. 3-inch bottom sump. MGP impacts. Sheen and naphthalene odors.
		Governor House/Valve House	SB-16	Adjacent Sidewalk	0.4 to 450	None	None	MGP Impacts. Naphthalene odor.
		Coal Gas Meter House	SB-08	Adjacent Sidewalk	215 to 256	Sheen at 10-15'	None	MGP Impacts. Naphthalene odor and sheen.
		Water Gas Saltwater/Condensers	3D-00	Adjacent Sidewalk	213 to 230	Sheen at 10-13	None	impacts. Ivaphulaielle odor alid sileell.

TABLE 3-4 East 138th Street Works Site

Summary of Field Observations and Measurements by Block and Lot

			I	EAST 138th STREE	Γ WORKS FORM	ER MGP SITE		
							Boring Sun	nmary
Block	Lot	Former MGP Structures/ Targets	Boring ID	Boring Position Relative to Target	PID Range (ppm)	Staining	NAPL	Comment/ Impact
		Generator House						
		Engine Room/Retort House						
		Chimneys	SB-18	Adjacent Perimeter	0.8 to 1.8	None	None	No Impacts.
		Boilers						
		Tar Well						
		Tar Well (Underground) Oil Tank #1	-					
		Coal Hoist & Tower	Not Accessible	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		Pump House	1 tot / teeessible	1 tot / tpplicable	1 tot 7 ipplicable	1 tot 7 ipplicable	1 tot rippiicable	Tot Applicable.
		Office	1					
		Office and Shop	CD 10	A 4: C: d11-	21.7 to 37.6	Nana	Nama	Petroleum odor.
		Blacksmith & Storage Shed	SB-19	Adjacent Sidewalk	21.7 to 37.0	None	None	Petroleum odor.
Block 2597	Lot 1	Coke Pockets	SB-20	Adjacent Perimeter	2.4 to 18.4	None	None	Petroleum odor.
		Retort House	5B 20	ragacent remneter	2.1 to 10.1	Tione	TVOIC	Tetroleum odor.
		Tank House	SB-22	Adjacent Perimeter	0.3	None	None	No Impacts.
		Coal Yard	5D-22	Adjacent Perimeter		None	None	ivo impacts.
		Rail Spur/Tank House		Adjacent Perimeter		Ton Coating at		
			SB-21	-	0.1 to 35.8	Tar Coating at 20-25'	Tar Coatings	MGP Impacts. Naphthalene odor.
		Tar Tanks		Adjacent Perimeter		20-23		
		Coal Pocket						
		Electric House	MW-07-URS	Adjacent Perimeter	0.1 to 34	None	None	Well screen 4.6-9.6'. Sump 9.6 to 10'.
		Ash Pocket						

LNAPL - Light Non-Aqueous Phase Liquid DNAPL - Dense Non-Aqueous Phase Liquid

Loca	ation ID			BW-03	MW-01	MW-01	MW-01	MW-01
San	nple ID			BW-03-(38.5-39.5)	MW-01-(3.4-4)	MW-01-(4.5-5)	MW-01-(11-12)	MW-01-(16.5-18)
M	atrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (f	t)		38.5-39.5	3.4-4.0	4.5-5.0	11.0-12.0	16.5-18.0
Date :	Sampled			01/26/12	03/24/10	03/24/10	03/26/10	03/26/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	unds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.0055 J		0.0052 J	0.030 J	0.0088 J
Benzene	MG/KG	0.06	44	0.034			0.32	
Carbon disulfide	MG/KG	2.7 CP-51	-					0.0077
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390	0.0055			0.34	
Isopropylbenzene	MG/KG	2.3 CP-51	-				0.036 J	
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500				0.39	
Xylene (total)	MG/KG	0.26	500	0.0024	0.0028		1.4 J	
Total BTEX	MG/KG	-	-	0.0419	0.0028	ND	2.45	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0474	0.0028	0.0052	2.516	0.0165

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Loca	tion ID			BW-03	MW-01	MW-01	MW-01	MW-01
Sam	ple ID			BW-03-(38.5-39.5)	MW-01-(3.4-4)	MW-01-(4.5-5)	MW-01-(11-12)	MW-01-(16.5-18)
	ıtrix			Soil	Soil	Soil	Soil	Soil 16.5-18.0 03/26/10
Depth In		t)		38.5-39.5	3.4-4.0	4.5-5.0	11.0-12.0 03/26/10	
Date S	ampled			01/26/12	03/24/10	03/24/10		
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-				14	0.039 J
2,4-Dimethylphenol	MG/KG	-	-				0.50 J	
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-				34 J	0.073 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500				0.29 J	
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500				0.73 J	
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500				52	0.18 J
Acenaphthylene	MG/KG	100	500			0.062 J	23	0.064 J
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500			0.030 J	59	0.21
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6		0.091 J	0.16 J	62	0.23
Benzo(a)pyrene	MG/KG	1	1		0.067 J	0.14 J	49	0.18 J
Benzo(b)fluoranthene	MG/KG	1	5.6		0.077 J	0.19 J	59	0.21
Benzo(g,h,i)perylene	MG/KG	100	500				41	
Benzo(k)fluoranthene	MG/KG	0.8	56		0.034 J	0.065 J	20	0.070 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.11 J	0.13 J	0.10 J		0.054 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-				26	0.066 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			BW-03	MW-01	MW-01	MW-01	MW-01
Sam	ple ID			BW-03-(38.5-39.5)	MW-01-(3.4-4)	MW-01-(4.5-5)	MW-01-(11-12)	MW-01-(16.5-18)
Ma	atrix			Soil	Soil	Soil	Soil	Soil 16.5-18.0 03/26/10
Depth Ir	nterval (f	t)		38.5-39.5	3.4-4.0	4.5-5.0 03/24/10	11.0-12.0	
Date S	Sampled			01/26/12	03/24/10		03/26/10	
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56		0.087 J	0.18 J	50	0.17 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56			0.032 J	21 J	0.044 J
Dibenzofuran	MG/KG	7	350				45	0.16 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.065 J				
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500		0.14 J	0.23	120	0.40
Fluorene	MG/KG	30	500				51	0.19 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6				33 J	
Naphthalene	MG/KG	12	500	0.084 J			270	1.1
Phenanthrene	MG/KG	100	500		0.051 J	0.078 J	190	0.73
Phenol	MG/KG	0.33	500	0.065 J			0.59 J	
Pyrene	MG/KG	100	500		0.16 J	0.31	120	0.42
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	0.084	0.707	1.477	1,254	4.271
Total Semivolatile Organic Compounds	MG/KG	-	-	0.324	0.837	1.577	1,341.11	4.59
Metals								
Aluminum	MG/KG	10000 CP- 51	-	7,310	14,000	5,550	5,040	10,200
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16		3.0	4.0	5.6	6.2
Barium	MG/KG	350	400	93.7	80.7 J	39.4 J	35.5 J	21.8 J
Beryllium	MG/KG	7.2	590	0.54	1.0 J	0.52 J	0.41 J	0.72 J
Cadmium	MG/KG	2.5	9.3		0.24 J	0.34	0.61	0.44
Barium Beryllium	MG/KG MG/KG	350 7.2	400 590		80.7 J 1.0 J	39.4 J 0.52 J	35.5 J 0.41 J	21.8 J 0.72 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

	Location ID			BW-03	MW-01	MW-01	MW-01	MW-01
	Sample ID			BW-03-(38.5-39.5)	MW-01-(3.4-4)	MW-01-(4.5-5)	MW-01-(11-12)	MW-01-(16.5-18)
	Matrix			Soil	Soil	Soil	Soil	Soil
De	pth Interval (fl	:)		38.5-39.5	3.4-4.0	4.5-5.0	11.0-12.0	16.5-18.0
	Date Sampled			01/26/12	03/24/10	03/24/10	03/26/10	03/26/10
Parameter	urameter Units Criteria Criteria (1) (2)							
Metals								
Calcium	MG/KG	10000 CP- 51	-	10,400	2,010 J	156,000 J	2,200 J	2,170 J
Chromium	MG/KG	30	1500	26.5	25.0	13.0	10.8 J	20.9 J
Cobalt	MG/KG	20 CP-51	-	3.8	10.0 J	5.2 J	5.2 J	7.5 J
Copper	MG/KG	50	270	19.5	16.4 J	17.0 J	28.9	10.9
Iron	MG/KG	2000 CP-51	-	15,200	25,500	20,400	29,700	24,600
Lead	MG/KG	63	1000	5.2	51.3 J	29.5 J	20.6 J	10.1 J
Magnesium	MG/KG	-	-	9,500	4,170	7,920	2,450 J	4,930 J
Manganese	MG/KG	1600	10000	175	479 J	439 J	161 J	253 J
Mercury	MG/KG	0.18	2.8		0.045	0.10	0.053	0.019 J
Nickel	MG/KG	30	310	14.9	18.4 J	9.8 J	10.1 J	16.9 J
Potassium	MG/KG	-	-	4,680	1,120	841	694	2,190
Selenium	MG/KG	3.9	1500		2.4		1.4	1.0 J
Silver	MG/KG	2	1500			0.073 J		
Sodium	MG/KG	-	-	570	144	135	1,090	2,800
Thallium	MG/KG	5 CP-51	-	0.48 J	2.2		0.30 J	0.86
Vanadium	MG/KG	39 CP-51	-	28.1	32.2	15.5	11.7 J	25.5 J
Zinc	MG/KG	109	10000	35.8	52.3 J	48.3 J	39.9 J	48.3 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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Loc	ation ID			MW-02	MW-02	MW-02	MW-03	MW-03
Sar	nple ID			MW-02-(3.5-4.5)	MW-02-(5.5-6)	MW-02-(12-12.5)	MW-03-(3.5-4.5)	MW-03-(6-7)
	latrix			Soil	Soil	Soil	Soil 3.5-4.5	Soil
	nterval (f	t)		3.5-4.5	5.5-6.0	12.0-12.5		6.0-7.0
Date	Sampled			04/14/10	04/30/10	04/30/10	04/15/10	04/19/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	unds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.0079 J	0.057 J	0.028 J		0.061 J
Benzene	MG/KG	0.06	44					0.31
Carbon disulfide	MG/KG	2.7 CP-51	-		0.013			0.015 J
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					0.036
Isopropylbenzene	MG/KG	2.3 CP-51	-					2.4 J
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					1.0 J
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					0.020
Toluene	MG/KG	0.7	500		0.0078 J			0.024
Xylene (total)	MG/KG	0.26	500					0.29 J
Total BTEX	MG/KG	-	-	ND	0.0078	ND	ND	0.66
Total Volatile Organic Compounds	MG/KG	-	-	0.0079	0.0778	0.028	ND	4.156

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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Locat	ion ID			MW-02	MW-02	MW-02	MW-03	MW-03
Sam	ple ID			MW-02-(3.5-4.5)	MW-02-(5.5-6)	MW-02-(12-12.5)	MW-03-(3.5-4.5)	MW-03-(6-7)
	trix				Soil 5.5-6.0	Soil 12.0-12.5 04/30/10	Soil	Soil
Depth In		t)		3.5-4.5			3.5-4.5 04/15/10	6.0-7.0
Date S	ampled			04/14/10	04/30/10			04/19/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-		0.087 J			14 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500		0.044 J			1.0 J
Acenaphthylene	MG/KG	100	500	0.055 J	0.11 J		0.12 J	
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	0.11 J	0.044 J		0.047 J	1.7 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.39	0.24		0.20	1.9 J
Benzo(a)pyrene	MG/KG	1	1	0.27 J	0.20 J		0.21 J	1.5 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.31 J	0.31 J		0.20 J	1.8 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.25 J	0.099 J		0.24 J	0.88 J
Benzo(k)fluoranthene	MG/KG	0.8	56	0.13 J	0.11 J		0.15 J	0.90 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.069 J	0.39		0.12 J	1.1 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.025 J				

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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Loca	tion ID			MW-02	MW-02	MW-02	MW-03	MW-03
Sam	ple ID			MW-02-(3.5-4.5)	MW-02-(5.5-6)	MW-02-(12-12.5)	MW-03-(3.5-4.5)	MW-03-(6-7)
M	atrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (f	t)		3.5-4.5	5.5-6.0	12.0-12.5	3.5-4.5	6.0-7.0
Date S	Sampled			04/14/10	04/30/10	04/30/10	04/15/10	04/19/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56	0.33	0.34		0.21	3.1 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.049 J	0.029 J		0.040 J	
Dibenzofuran	MG/KG	7	350					
Di-n-butylphthalate	MG/KG	0.014 CP-51	-		0.030 J		0.021 J	1.6 J
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	0.65	0.024 J		0.29	4.0 J
Fluorene	MG/KG	30	500	0.035 J	0.10 J			4.0 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.17 J	0.084 J		0.15 J	0.64 J
Naphthalene	MG/KG	12	500		0.064 J		0.021 J	
Phenanthrene	MG/KG	100	500	0.36	0.11 J		0.096 J	10 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	0.52	0.37		0.27	7.0 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	3.629	2.365	ND	2.244	52.42
Total Semivolatile Organic Compounds	MG/KG	-	-	3.723	2.785	ND	2.385	55.12
Metals	•							
Aluminum	MG/KG	10000 CP- 51	-	9,900 J	9,510	7,030	8,670 J	10,000
Antimony	MG/KG	12 CP-51	-	1.4 J	2.0			
Arsenic	MG/KG	13	16	3.6	1.3	1.2	2.1	0.78 J
Barium	MG/KG	350	400	125 J	88.8	42.3	72.1 J	53.8 J
Beryllium	MG/KG	7.2	590	0.86 J		0.29 J	0.84 J	1.0 J
Cadmium	MG/KG	2.5	9.3	0.38	0.34	0.11 J	0.34	0.088 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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Loc	ation ID			MW-02	MW-02	MW-02	MW-03	MW-03
Sar	nple ID			MW-02-(3.5-4.5)	MW-02-(5.5-6)	MW-02-(12-12.5)	MW-03-(3.5-4.5)	MW-03-(6-7)
M	latrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (f	t)		3.5-4.5	5.5-6.0	12.0-12.5	3.5-4.5 04/15/10	6.0-7.0 04/19/10
Date	Sampled			04/14/10	04/30/10	04/30/10		
Parameter	arameter Units Criteria Criteria (1) (2)							
Metals								
Calcium	MG/KG	10000 CP- 51	-	37,400 J	27,000 J	1,110 J	4,400 J	2,430
Chromium	MG/KG	30	1500	25.7 J	17.4	12.7	22.3 J	34.4 J
Cobalt	MG/KG	20 CP-51	-	7.6 J	8.7	6.7	9.9 J	7.4 J
Copper	MG/KG	50	270	34.8 J	101	13.1	49.2 J	51.7
Iron	MG/KG	2000 CP-51	=	20,200	24,500	18,800	19,900	19,000
Lead	MG/KG	63	1000	59.3 J	90.5	8.9	41.3 J	8.5
Magnesium	MG/KG	-	-	6,560 J	12,000	2,600	5,400 J	4,270 J
Manganese	MG/KG	1600	10000	236 J	318	1,000	291 J	134 J
Mercury	MG/KG	0.18	2.8	0.019 J	0.092		0.16 J	
Nickel	MG/KG	30	310	19.1 J	18.2	12.2	19.1 J	22.2 J
Potassium	MG/KG	-	-	4,420 J	3,870 J	961 J	3,010 J	2,000
Selenium	MG/KG	3.9	1500	1.6	3.2	1.8	1.9	2.5
Silver	MG/KG	2	1500				0.070 J	0.11 J
Sodium	MG/KG	-	-	452 J	343	175	123 J	291 J
Thallium	MG/KG	5 CP-51	-	1.2			1.8	
Vanadium	MG/KG	39 CP-51	=	36.0 J	34.8	20.9	28.2 J	29.2
Zinc	MG/KG	109	10000	87.7 J	145 J	31.4 J	115 J	213 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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Loca	tion ID			MW-03	MW-04	MW-04	MW-04	MW-05
Sam	ple ID			MW-03-(14-15)	MW-04-(3.5-4.5)	MW-04-(3.5-4.5)	MW-04-(8.5-9.5)	MW-05-(3-3.5)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		14.0-15.0	3.5-4.5 04/16/10	3.5-4.5	8.5-9.5 04/20/10	3.0-3.5 04/26/10
Date S	ampled			04/19/10		04/16/10		
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Volatile Organic Compou	nds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.0051 J	0.020 J	0.012 J	0.0067 J	
Benzene	MG/KG	0.06	44					
Carbon disulfide	MG/KG	2.7 CP-51	-					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.16 J	0.10 J		
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-		0.28 J	0.17 J		
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-		0.017 J			
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500			0.0064 J		
Total BTEX	MG/KG	-	-	ND	ND	0.0064	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0051	0.477	0.2884	0.0067	ND

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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- D Result reported from a secondary dilution analysis.

Locat	ion ID			MW-03	MW-04	MW-04	MW-04	MW-05
Samp	ole ID			MW-03-(14-15)	MW-04-(3.5-4.5)	MW-04-(3.5-4.5)	MW-04-(8.5-9.5)	MW-05-(3-3.5)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		14.0-15.0	3.5-4.5	3.5-4.5	8.5-9.5	3.0-3.5
Date Sa	ampled			04/19/10	04/16/10	04/16/10	04/20/10	04/26/10
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-		9.2 J	10 J		0.27
2-Methylphenol (o-cresol)	MG/KG	0.33	500					0.024 J
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					0.044 J
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500		0.43 J			2.2
Acenaphthylene	MG/KG	100	500		0.31 J			1.8
Acetophenone	MG/KG	-	-					0.12 J
Anthracene	MG/KG	100	500		0.43	0.17 J		3.7 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6		0.14 J	0.22		17
Benzo(a)pyrene	MG/KG	1	1		0.10 J	0.13 J		2.5
Benzo(b)fluoranthene	MG/KG	1	5.6		0.14 J	0.16 J		17
Benzo(g,h,i)perylene	MG/KG	100	500		0.22	0.099 J		7.7
Benzo(k)fluoranthene	MG/KG	0.8	56		0.060 J	0.066 J		2.7
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.084 J	0.044 J	0.052 J		0.31
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					1.1

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Loca	tion ID			MW-03	MW-04	MW-04	MW-04	MW-05
Sam	ple ID			MW-03-(14-15)	MW-04-(3.5-4.5)	MW-04-(3.5-4.5)	MW-04-(8.5-9.5)	MW-05-(3-3.5)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	terval (f	t)		14.0-15.0	3.5-4.5	3.5-4.5	8.5-9.5 04/20/10	3.0-3.5 04/26/10
Date S	ampled			04/19/10	04/16/10	04/16/10		
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56		0.15 J	0.22 J		2.1
Dibenz(a,h)anthracene	MG/KG	0.33	0.56		0.026 J			2.4 J
Dibenzofuran	MG/KG	7	350		0.31 J			0.41
Di-n-butylphthalate	MG/KG	0.014 CP-51	=		0.11 J			0.039 J
Di-n-octylphthalate	MG/KG	100 CP-51	=					
Fluoranthene	MG/KG	100	500		0.30	0.46		31
Fluorene	MG/KG	30	500		0.77 J			1.2
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6		0.13 J	0.073 J		8.8
Naphthalene	MG/KG	12	500		0.54	0.56		0.31
Phenanthrene	MG/KG	100	500		3.8	4.7		13
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500		1.0	1.3		30
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	ND	17.746	18.158	ND	143.68
Total Semivolatile Organic Compounds	MG/KG	-	=	0.084	18.21	18.21	ND	145.727
Metals								
Aluminum	MG/KG	10000 CP- 51	=	9,770	11,500 J	8,910	8,120	9,270
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16		2.2		1.4	12.4
Barium	MG/KG	350	400	81.0 J	71.4 J	83.6 J	46.0 J	120
Beryllium	MG/KG	7.2	590	1.4 J	0.90 J	1.2 J	0.65 J	0.24 J
Cadmium	MG/KG	2.5	9.3	0.14 J	0.33	0.087 J	0.045 J	0.41

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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D - Result reported from a secondary dilution analysis.

	Location ID			MW-03	MW-04	MW-04	MW-04	MW-05
	Sample ID			MW-03-(14-15)	MW-04-(3.5-4.5)	MW-04-(3.5-4.5)	MW-04-(8.5-9.5)	MW-05-(3-3.5)
	Matrix			Soil	Soil 3.5-4.5	Soil	Soil	Soil
De	epth Interval (fi	t)		14.0-15.0		3.5-4.5	8.5-9.5	3.0-3.5
ı	Date Sampled			04/19/10	04/16/10	04/16/10	04/20/10	04/26/10
Parameter	rameter Units Criteria Criteria (2)					Field Duplicate (1-1)		
Metals								
Calcium	MG/KG	10000 CP- 51	-	2,750	6,900 J	14,500	1,450	3,190 J
Chromium	MG/KG	30	1500	27.3 J	27.0 J	22.6 J	14.2 J	24.2
Cobalt	MG/KG	20 CP-51	-	12.2 J	12.3 J	9.6 J	6.3 J	6.8
Copper	MG/KG	50	270	30.9	27.2 J	35.6	9.2	83.5
Iron	MG/KG	2000 CP-51	-	23,300	25,300	22,300	19,700	28,700
Lead	MG/KG	63	1000	5.0	7.8 J	11.6	4.9	250
Magnesium	MG/KG	-	-	6,450 J	6,680 J	11,200 J	2,800 J	3,840
Manganese	MG/KG	1600	10000	281 J	213 J	232 J	213 J	163
Mercury	MG/KG	0.18	2.8		0.013 J			0.38
Nickel	MG/KG	30	310	22.8 J	21.2 J	17.3 J	11.5 J	18.0
Potassium	MG/KG	-	-	3,630	2,200 J	3,060	828	2,360
Selenium	MG/KG	3.9	1500	3.2	2.6	3.7	1.5	2.3
Silver	MG/KG	2	1500			0.12 J	0.087 J	
Sodium	MG/KG	-	-	275 J	118 J	126 J	53.0 J	222
Thallium	MG/KG	5 CP-51	-		1.7			
Vanadium	MG/KG	39 CP-51	-	34.3	35.1 J	31.3	16.1	45.2
Zinc	MG/KG	109	10000	50.3 J	40.0 J	52.4 J	28.5 J	93.8 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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Loc	cation ID			MW-05	MW-05	MW-05	MW-06	MW-06
Sa	mple ID			MW-05-(4.5-5)	MW-05-(15-16)	MW-05-(20.5-21)	MW-06-(4-4.5)	MW-06-(10.5-11)
	Matrix			Soil	Soil	Soil	Soil	Soil
	Interval (fi	t)		4.5-5.0	15.0-16.0	20.5-21.0	4.0-4.5	10.5-11.0
Date	Sampled			04/26/10	04/30/10	04/30/10	05/05/10	05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compounds								
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500			1.3 J		
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.047 J				0.089 J
Benzene	MG/KG	0.06	44	0.047	3.1	21		0.041
Carbon disulfide	MG/KG	2.7 CP-51	-					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390	0.36	29	93		21
Isopropylbenzene	MG/KG	2.3 CP-51	-	0.092 J	0.68 J	2.2 J		0.38 J
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-	0.0076 J				
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-		17	40		1.7 J
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500	0.014	13	28		0.94 J
Xylene (total)	MG/KG	0.26	500	0.19	49	170		52
Total BTEX	MG/KG	-	-	0.611	94.1	312	ND	73.981
Total Volatile Organic Compounds	MG/KG		-	0.7576	111.78	355.5	ND	76.15

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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Locat	ion ID			MW-05	MW-05	MW-05	MW-06	MW-06
Samı	ple ID			MW-05-(4.5-5)	MW-05-(15-16)	MW-05-(20.5-21)	MW-06-(4-4.5)	MW-06-(10.5-11)
	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		4.5-5.0	15.0-16.0	20.5-21.0	4.0-4.5	10.5-11.0
Date Sa	ampled			04/26/10	04/30/10	04/30/10	05/05/10	05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.37 J	1.4	29		15
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-			1.2 J		
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	14	17 J	180	0.058 J	160
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500		0.031 J			
3,3'-Dichlorobenzidine	MG/KG	-	-			0.68 J		
Acenaphthene	MG/KG	20	500	5.4	1.2	22		17 J
Acenaphthylene	MG/KG	100	500	1.3 J	8.4 J	64 J	0.096 J	20 J
Acetophenone	MG/KG	-	-	0.18 J				
Anthracene	MG/KG	100	500	3.2	2.9	24 J	0.050 J	12
Benzaldehyde	MG/KG	-	-	0.33 J				
Benzo(a)anthracene	MG/KG	1	5.6	5.1	2.6	21 J	0.38	13
Benzo(a)pyrene	MG/KG	1	1	3.9	1.9 J	18 J	0.58 J	9.4 J
Benzo(b)fluoranthene	MG/KG	1	5.6	3.3 J	1.4	11 J	0.66 J	10 J
Benzo(g,h,i)perylene	MG/KG	100	500	1.8 J	0.57	4.5 J	0.52	3.8
Benzo(k)fluoranthene	MG/KG	0.8	56	3.0 J	0.73	6.1	0.34	4.0
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.30 J	0.048 J		0.031 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.29 J	0.021 J	0.23 J		0.42 J

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Loca	tion ID			MW-05	MW-05	MW-05	MW-06	MW-06
Sam	ple ID			MW-05-(4.5-5)	MW-05-(15-16)	MW-05-(20.5-21)	MW-06-(4-4.5)	MW-06-(10.5-11)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	iterval (f	t)		4.5-5.0	15.0-16.0	20.5-21.0	4.0-4.5	10.5-11.0
Date S	ampled			04/26/10	04/30/10	04/30/10	05/05/10	05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	5.0	2.6	25	0.41	13 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.50 J	0.19 J	1.2 J	0.15 J	1.2 J
Dibenzofuran	MG/KG	7	350	0.42 J	0.19 J	3.0		2.6
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	7.3	4.9 J	26 J	0.31	20 J
Fluorene	MG/KG	30	500	3.4	4.2 J	31 J	0.020 J	27 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	1.9 J	0.45 J	3.2 J	0.45	3.0 J
Naphthalene	MG/KG	12	500	32	30 J	540	0.20	370
Phenanthrene	MG/KG	100	500	11	14 J	90 J	0.10 J	73
Phenol	MG/KG	0.33	500		0.050 J			
Pyrene	MG/KG	100	500	11	7.1 J	51 J	0.39	43
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	113.1	100.14	1,118	4.714	799.4
Total Semivolatile Organic Compounds	MG/KG	-	-	114.99	101.88	1,152.11	4.745	817.42
Metals	•							
Aluminum	MG/KG	10000 CP- 51	-	16,500	10,500	6,810	13,000	12,600
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	3.9	2.5	0.66 J	3.6 J	
Barium	MG/KG	350	400	75.1	54.9	150	71.9 J	116
Beryllium	MG/KG	7.2	590				0.38 J	
Cadmium	MG/KG	2.5	9.3	0.42	0.23	0.26	0.23	0.30
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Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Locat	ion ID			MW-05	MW-05	MW-05	MW-06	MW-06
Sam	ple ID			MW-05-(4.5-5)	MW-05-(15-16)	MW-05-(20.5-21)	MW-06-(4-4.5)	MW-06-(10.5-11)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		4.5-5.0	15.0-16.0	20.5-21.0	4.0-4.5	10.5-11.0 05/12/10
Date S	ampled			04/26/10	04/30/10	04/30/10	05/05/10	
Parameter	Units Criteria Criteria (1) (2)							
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,650 J	2,280 J	2,240 J	1,230	1,110
Chromium	MG/KG	30	1500	51.5	34.7	25.5	28.8	75.7
Cobalt	MG/KG	20 CP-51	-	18.1	15.6	14.1	6.9 J	8.8
Copper	MG/KG	50	270	425	33.5	34.3	22.2	27.4
Iron	MG/KG	2000 CP-51	=	19,000	18,500	21,300	20,300	29,700
Lead	MG/KG	63	1000	48.1	39.4	8.9	28.2 J	5.3
Magnesium	MG/KG	-	=	4,980	4,600	4,210	4,080 J	8,120
Manganese	MG/KG	1600	10000	122	140	737	145 J	187
Mercury	MG/KG	0.18	2.8	0.070				
Nickel	MG/KG	30	310	39.5	36.6	28.1	16.9 J	41.1
Potassium	MG/KG	-	-	2,710	2,520 J	3,080 J	2,080 J	5,280
Selenium	MG/KG	3.9	1500	2.7	2.0	2.4		2.2
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	=	154	155	191	254 J	178
Thallium	MG/KG	5 CP-51	=					
Vanadium	MG/KG	39 CP-51	-	55.5	40.0	28.8	36.5 J	66.1
Zinc	MG/KG	109	10000	278 J	218 J	41.0 J	57.7 J	51.7

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Loc	ation ID			MW-07-URS	MW-07-URS	MW-11	MW-11	MW-11
Sai	nple ID			MW-7-(4-4.5)	MW-7-(9.8-10.5)	MW-11-(3.5-4.5)	MW-11-(5-6)	MW-11-(20-21)
N	latrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (f	t)		4.0-4.5	9.8-10.5 12/16/11	3.5-4.5	5.0-6.0	20.0-21.0
Date	Sampled			12/15/11		01/07/11	01/17/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	Volatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500			0.021 J	0.0074 J	0.014 J
Benzene	MG/KG	0.06	44			0.0018 J		
Carbon disulfide	MG/KG	2.7 CP-51	-			0.0014 J	0.0033	0.017
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.031			
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500		0.018			
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500			0.0012 J		
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	ND	0.003	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	ND	0.049	0.0254	0.0107	0.031

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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	tion ID			MW-07-URS	MW-07-URS	MW-11	MW-11	MW-11
	ple ID			MW-7-(4-4.5)	MW-7-(9.8-10.5)	MW-11-(3.5-4.5)	MW-11-(5-6)	MW-11-(20-21) Soil
	ıtrix			Soil	Soil	Soil	Soil	
Depth In		t)		4.0-4.5	9.8-10.5	3.5-4.5	5.0-6.0	20.0-21.0
Date S	ampled			12/15/11	12/16/11	01/07/11	01/17/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-			0.045 J	0.050 J	
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-	1.3 J	1.3 J			
2-Methylnaphthalene	MG/KG	0.41 CP-51	-			0.20	0.17 J	
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500			0.039 J	0.035 J	
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500			0.082 J	0.27	
Acenaphthylene	MG/KG	100	500			0.28	0.38	
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	0.088 J	0.18	0.43	0.64	
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.42	0.048 J	0.77	1.2	0.031 J
Benzo(a)pyrene	MG/KG	1	1	0.39		0.70	1.1	
Benzo(b)fluoranthene	MG/KG	1	5.6	0.30		0.84	1.4	
Benzo(g,h,i)perylene	MG/KG	100	500	0.24		0.61	1.2	
Benzo(k)fluoranthene	MG/KG	0.8	56	0.34		0.39	0.57	
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.066 J	0.21	0.16 J	0.11 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-			0.19	0.28	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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- D Result reported from a secondary dilution analysis.

ion ID			MW-07-URS	MW-07-URS	MW-11	MW-11	MW-11
ple ID			MW-7-(4-4.5)	MW-7-(9.8-10.5)	MW-11-(3.5-4.5)	MW-11-(5-6)	MW-11-(20-21)
trix			Soil	Soil 9.8-10.5	Soil	Soil	Soil
terval (f	t)		4.0-4.5		3.5-4.5	5.0-6.0	20.0-21.0
ampled			12/15/11	12/16/11	01/07/11	01/17/11	01/17/11
Units	Criteria (1)	Criteria (2)					
ounds							
MG/KG	1	56	0.38	0.075 J	0.69	1.1	
MG/KG	0.33	0.56	0.074 J		0.12 J	0.19 J	
MG/KG	7	350			0.18 J	0.27	
MG/KG	0.014 CP-51	-	0.11 J	0.11 J		0.024 J	
MG/KG	100 CP-51	-					
MG/KG	100	500	0.57		1.5	2.3	0.048 J
MG/KG	30	500			0.25	0.38	
MG/KG	0.5	5.6	0.21		0.44 J	0.79	
MG/KG	12	500			1.0	0.45	
MG/KG	100	500	0.27		1.3	2.1	0.041 J
MG/KG	0.33	500			0.020 J		
MG/KG	100	500	0.57	0.25	1.6	2.2	0.049 J
MG/KG	-	=	3.852	0.553	11.202	16.44	0.169
MG/KG	=	-	5.328	2.173	11.836	17.209	0.169
MG/KG	10000 CP- 51	-	10,600	11,500	7,770	4,640 J	12,600 J
MG/KG	12 CP-51	-			1.1 J	0.64 J	0.88 J
MG/KG	13	16	1.7		5.2	1.5	12.8
MG/KG	350	400	94.4	48.1	317	37.0 J	28.6 J
MG/KG	7.2	590	0.71	0.69	0.49	0.17 J	0.62 J
MG/KG	2.5	9.3			0.51 J	0.14 J	0.70
	Die ID trix terval (fit ampled Units Dunds MG/KG MG/KG	Description	Trix Trix	MW-7-(4-4.5) MW-7-(4-4.5) trix Soil terval (ft) 4.0-4.5 mpled 12/15/11 Units Criteria (1) Criteria (2)	MW-7-(4-4.5) MW-7-(9.8-10.5)	Die ID	MW-7-(4-4-5) MW-7-(9.8-10.5) MW-11-(3.5-4.5) MW-11-(5-6) MU-11-(5-6) MU-11

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

L	ocation ID			MW-07-URS	MW-07-URS	MW-11	MW-11	MW-11
9	Sample ID			MW-7-(4-4.5)	MW-7-(9.8-10.5)	MW-11-(3.5-4.5)	MW-11-(5-6)	MW-11-(20-21)
	Matrix			Soil	Soil	Soil	Soil	Soil
Dept	h Interval (ft	t)		4.0-4.5	9.8-10.5	3.5-4.5	5.0-6.0	20.0-21.0
Da	te Sampled			12/15/11	12/16/11	01/07/11	01/17/11	01/17/11
Parameter	Units Criteria Criteria (1) (2)							
Metals								
Calcium	MG/KG	10000 CP- 51	-	8,450	3,980	23,700 J	46,100 J	1,800 J
Chromium	MG/KG	30	1500	41.5	69.1	22.1	12.4 J	26.6 J
Cobalt	MG/KG	20 CP-51	-	8.3	8.3	6.7 J	6.3 J	10.4 J
Copper	MG/KG	50	270	44.4	89.2	31.2	15.1	14.1
Iron	MG/KG	2000 CP-51	-	20,500	21,500	15,300 J	12,000 J	48,500 J
Lead	MG/KG	63	1000	26.1	2.7	680 J	37.9 J	12.3 J
Magnesium	MG/KG	-	-	10,100	9,600	3,360	4,380 J	6,370 J
Manganese	MG/KG	1600	10000	280	195	482	259 J	534 J
Mercury	MG/KG	0.18	2.8	0.040 J		0.38	0.096 J	0.97 J
Nickel	MG/KG	30	310	26.8	40.3	17.1	12.5 J	23.7 J
Potassium	MG/KG	-	-	6,170	8,880	3,030	1,030	2,990
Selenium	MG/KG	3.9	1500					
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	1,300	204	199	209	2,620
Thallium	MG/KG	5 CP-51	-	0.65 J	0.90 J			0.54 J
Vanadium	MG/KG	39 CP-51	-	42.8	42.2	22.0	12.5 J	34.8 J
Zinc	MG/KG	109	10000	57.0	44.7	109 J	86.4 J	68.2 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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D - Result reported from a secondary dilution analysis.

Loca	ation ID			SB-01	SB-01	SB-01	SB-01	SB-02
San	nple ID			SB-01-(4.5-5)	SB-01-(5-5.5)	SB-01-(8.5-10)	SB-01-(33-34)	20100 325-FD-1
M	atrix			Soil	Soil	Soil	Soil	Soil
	nterval (f	t)		4.5-5.0	5.0-5.5	8.5-10.0	33.0-34.0	4.7-5.3
Date	Sampled			03/24/10	03/25/10	03/29/10	03/29/10	03/25/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Volatile Organic Compounds								
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500		0.0053 J	0.022 J	0.0055 J	0.012 J
Benzene	MG/KG	0.06	44	0.0058		0.0047 J		0.0079
Carbon disulfide	MG/KG	2.7 CP-51	-			0.0047 J		
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					0.0052 J
Ethylbenzene	MG/KG	1	390					0.0015 J
Isopropylbenzene	MG/KG	2.3 CP-51	-					0.029
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					0.022
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500					0.0074
Total BTEX	MG/KG	-	-	0.0058	ND	0.0047	ND	0.0168
Total Volatile Organic Compounds	MG/KG	-	-	0.0058	0.0053	0.0314	0.0055	0.085

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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Locat	ion ID			SB-01	SB-01	SB-01	SB-01	SB-02
Sam	ple ID			SB-01-(4.5-5)	SB-01-(5-5.5)	SB-01-(8.5-10)	SB-01-(33-34)	20100 325-FD-1
	trix			Soil	Soil	Soil	Soil	Soil
Depth In		t)		4.5-5.0	5.0-5.5	8.5-10.0	33.0-34.0	4.7-5.3
Date S	ampled			03/24/10	03/25/10	03/29/10	03/29/10	03/25/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.046 J	0.037 J			9.6
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.075 J	0.086 J	0.047 J		2.2 J
Acenaphthylene	MG/KG	100	500	0.34	0.45			0.54 J
Acetophenone	MG/KG	-	-	0.031 J				
Anthracene	MG/KG	100	500	0.15 J	0.21			0.85 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.63	0.85	0.049 J		1.4 J
Benzo(a)pyrene	MG/KG	1	1	0.47	0.69	0.042 J		0.78 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.67	1.0			0.59 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.46	0.75			0.79 J
Benzo(k)fluoranthene	MG/KG	0.8	56	0.30	0.41			0.44 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.075 J	0.067 J	0.097 J	0.037 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.031 J	0.034 J			

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-01	SB-01	SB-01	SB-01	SB-02
Sam	ple ID			SB-01-(4.5-5)	SB-01-(5-5.5)	SB-01-(8.5-10)	SB-01-(33-34)	20100 325-FD-1
Ma	atrix			Soil	Soil 5.0-5.5 03/25/10	Soil	Soil	Soil
Depth Ir	nterval (f	t)		4.5-5.0		8.5-10.0 03/29/10	33.0-34.0	4.7-5.3 03/25/10
Date S	Sampled			03/24/10			03/29/10	
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	0.71	0.97	0.052 J		1.1 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.11 J	0.21			0.26 J
Dibenzofuran	MG/KG	7	350	0.047 J	0.041 J			
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	1.2	1.7			1.1 J
Fluorene	MG/KG	30	500	0.060 J	0.082 J			2.7 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.31	0.53			0.64 J
Naphthalene	MG/KG	12	500	0.067 J	0.051 J			0.63 J
Phenanthrene	MG/KG	100	500	0.26	0.32			3.2 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	1.4	1.6			2.6 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	7.258	9.946	0.19	ND	29.42
Total Semivolatile Organic Compounds	MG/KG	-	-	7.442	10.088	0.287	0.037	29.42
Metals								
Aluminum	MG/KG	10000 CP- 51	-	7,260	8,320	13,600 J	5,130	14,500
Antimony	MG/KG	12 CP-51	-		0.72 J			
Arsenic	MG/KG	13	16	3.2	3.8	4.0 J	3.5	2.1
Barium	MG/KG	350	400	120 J	255 J	34.9 J	35.0 J	71.2 J
Beryllium	MG/KG	7.2	590	0.73 J	1.1 J	0.96 J	0.57 J	1.5 J
Cadmium	MG/KG	2.5	9.3	0.48	0.77	0.59 J	0.24	0.86 J
		1	i .		1	1		1

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

	Location ID			SB-01	SB-01	SB-01	SB-01	SB-02
	Sample ID			SB-01-(4.5-5)	SB-01-(5-5.5)	SB-01-(8.5-10)	SB-01-(33-34)	20100 325-FD-1
	Matrix			Soil Soil	Soil	Soil	Soil	
Dep	oth Interval (ft)		4.5-5.0	5.0-5.5	8.5-10.0	33.0-34.0	4.7-5.3
D	ate Sampled			03/24/10	03/25/10	03/29/10	03/29/10	03/25/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Metals								
Calcium	MG/KG	10000 CP- 51	-	17,400 J	6,930 J	2,920 J	1,440 J	1,270 J
Chromium	MG/KG	30	1500	24.7	25.2	27.0 J	20.3 J	31.3
Cobalt	MG/KG	20 CP-51	-	6.3 J	9.8 J	8.7 J	7.9 J	11.8 J
Copper	MG/KG	50	270	122 J	189 J	12.5 J	19.8	38.4 J
Iron	MG/KG	2000 CP-51	-	22,900	32,300	26,300 J	17,100	25,000
Lead	MG/KG	63	1000	186 J	1,190 J	12.7 J	3.7 J	10.4 J
Magnesium	MG/KG	=	=	3,610	4,290	6,780 J	2,990 J	4,370
Manganese	MG/KG	1600	10000	149 J	203 J	383 J	87.1 J	125 J
Mercury	MG/KG	0.18	2.8	0.67	2.6			0.022 J
Nickel	MG/KG	30	310	13.8 J	18.7 J	23.3 J	20.3 J	26.1 J
Potassium	MG/KG	=	=	1,530	1,770	2,920 J	1,820	2,070
Selenium	MG/KG	3.9	1500	1.6	1.9	1.8 J	0.71 J	1.5 J
Silver	MG/KG	2	1500	0.11 J	0.28 J			
Sodium	MG/KG	-	-	107	116	3,470 J	430	126
Thallium	MG/KG	5 CP-51	-	0.41 J	0.83	1.0 J	0.37 J	0.96 J
Vanadium	MG/KG	39 CP-51	-	27.9	37.2	43.7 J	18.9 J	38.4
Zinc	MG/KG	109	10000	140 J	297 J	61.6 J	31.2 J	267 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	ation ID			SB-02	SB-02	SB-02	SB-03	SB-03
San	nple ID			SB-02-(4.7-5.3)	SB-02-(11.5-13)	SB-02-(27-28)	SB-03-(4.5-5.5)	SB-03-(28-29)
M	atrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (f	t)		4.7-5.3	11.5-13.0	27.0-28.0	4.5-5.5	28.0-29.0
Date :	Sampled			03/25/10	03/29/10	03/29/10	03/26/10	03/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	unds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500	0.0014 J				
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.014 J	0.023 J		0.020 J	0.0081 J
Benzene	MG/KG	0.06	44	0.0079	0.0024 J		0.012	
Carbon disulfide	MG/KG	2.7 CP-51	-		0.024 J			
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-	0.0037 J			0.017	
Ethylbenzene	MG/KG	1	390	0.0016 J			0.0060	
Isopropylbenzene	MG/KG	2.3 CP-51	-	0.019			0.082 J	
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-	0.015			0.080 J	
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500	0.0057			0.012 J	
Total BTEX	MG/KG	-	-	0.0152	0.0024	ND	0.03	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0683	0.0494	ND	0.229	0.0081

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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D - Result reported from a secondary dilution analysis.

Locat	ion ID			SB-02	SB-02	SB-02	SB-03	SB-03
Samı	ple ID			SB-02-(4.7-5.3)	SB-02-(11.5-13)	SB-02-(27-28)	SB-03-(4.5-5.5)	SB-03-(28-29)
	trix			Soil Soil Soil Soil		Soil		
Depth In	terval (fi	t)		4.7-5.3	11.5-13.0 03/29/10	27.0-28.0 03/29/10	4.5-5.5 03/26/10	28.0-29.0
Date S	ampled			03/25/10				03/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	10			35	
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	1.7 J			2.7	
Acenaphthylene	MG/KG	100	500	0.55 J				
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	0.95 J			1.5 J	0.021 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	1.4 J			1.7 J	0.036 J
Benzo(a)pyrene	MG/KG	1	1	0.91 J			0.98 J	
Benzo(b)fluoranthene	MG/KG	1	5.6	0.54 J			0.83 J	
Benzo(g,h,i)perylene	MG/KG	100	500	0.99 J			0.86 J	
Benzo(k)fluoranthene	MG/KG	0.8	56	0.54 J			0.76 J	
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-		0.10 J	0.041 J		0.095 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



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- D Result reported from a secondary dilution analysis.

Loca	tion ID			SB-02	SB-02	SB-02	SB-03	SB-03
Sam	ple ID			SB-02-(4.7-5.3)	SB-02-(11.5-13)	SB-02-(27-28)	SB-03-(4.5-5.5)	SB-03-(28-29)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	iterval (f	t)		4.7-5.3	11.5-13.0	27.0-28.0	4.5-5.5	28.0-29.0
Date S	ampled			03/25/10	03/29/10	03/29/10	03/26/10	03/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56	1.2 J			2.6	0.026 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.29 J			0.22 J	
Dibenzofuran	MG/KG	7	350					
Di-n-butylphthalate	MG/KG	0.014 CP-51	=					
Di-n-octylphthalate	MG/KG	100 CP-51	=					
Fluoranthene	MG/KG	100	500	1.1 J	0.035 J		1.8 J	0.045 J
Fluorene	MG/KG	30	500	2.7 J			3.8	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.64 J			0.57 J	
Naphthalene	MG/KG	12	500	0.63 J	0.10 J		1.1 J	
Phenanthrene	MG/KG	100	500	4.4 J			9.7	0.067 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	2.6 J			4.6	0.073 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	=	31.14	0.135	ND	68.72	0.268
Total Semivolatile Organic Compounds	MG/KG	-	÷	31.14	0.235	0.041	68.72	0.363
Metals								
Aluminum	MG/KG	10000 CP- 51	=	15,200	(16,400 J	6,920	9,010	5,720
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	2.0	8.2 J	2.5	3.2	1.6
Barium	MG/KG	350	400	79.2 J	32.8 J	58.1 J	68.3 J	29.3 J
Beryllium	MG/KG	7.2	590	1.1 J	1.1 J	0.52 J	0.92 J	0.58 J
Cadmium	MG/KG	2.5	9.3	1.3 J	0.81 J	0.23	1.5	0.19 J
	1	ı					1	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-02	SB-02	SB-02	SB-03	SB-03
Sam	ple ID			SB-02-(4.7-5.3)	SB-02-(11.5-13)	SB-02-(27-28)	SB-03-(4.5-5.5)	SB-03-(28-29)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		4.7-5.3	11.5-13.0	27.0-28.0	4.5-5.5	28.0-29.0
Date S	ampled			03/25/10	03/29/10	03/29/10	03/26/10	03/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,610 J	2,490 J	1,010 J	2,910 J	1,040 J
Chromium	MG/KG	30	1500	34.2	32.5 J	16.8 J	24.5 J	16.0 J
Cobalt	MG/KG	20 CP-51	-	9.6 J	11.5 J	6.5 J	9.0 J	4.3 J
Copper	MG/KG	50	270	59.9 J	14.1 J	11.9	90.3	18.0
Iron	MG/KG	2000 CP-51	-	24,800	42,200 J	15,700	22,600	10,000
Lead	MG/KG	63	1000	20.1 J	13.6 J	5.2 J	94.4 J	3.3 J
Magnesium	MG/KG	-	-	4,970	7,860 J	2,930 J	3,350 J	2,520 J
Manganese	MG/KG	1600	10000	117 J	443 J	107 J	114 J	70.6 J
Mercury	MG/KG	0.18	2.8	0.085	0.026 J		0.17	
Nickel	MG/KG	30	310	24.3 J	28.0 J	11.7 J	21.2 J	10.2 J
Potassium	MG/KG	-	-	2,550	3,460 J	702	1,770	1,500
Selenium	MG/KG	3.9	1500	1.3		0.83 J	0.68 J	0.83 J
Silver	MG/KG	2	1500	0.13 J				
Sodium	MG/KG	-	-	154	3,400 J	572	122	279
Thallium	MG/KG	5 CP-51	-	1.0	1.4 J	0.39 J	0.50 J	0.27 J
Vanadium	MG/KG	39 CP-51	-	39.6	40.6 J	18.1 J	31.0 J	23.5 J
Zinc	MG/KG	109	10000	154 J	76.2 J	26.3 J	488 J	25.5 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loc	cation ID			SB-04	SB-04	SB-04	SB-05	SB-05
Sa	mple ID			SB-04-(2.5-3.5)	SB-04-(4.2-5)	SB-04-(11-12)	SB-05-(4-5)	SB-05-(6.5-7.0)
1	Matrix			Soil Soil Soil Soil	Soil			
Depth	Interval (fi	t)		2.5-3.5	4.2-5.0 04/13/10	11.0-12.0	4.0-5.0 04/13/10	6.5-7.0
Date	Sampled			04/13/10		04/16/10		04/16/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Comp	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500					0.047 J
Benzene	MG/KG	0.06	44					
Carbon disulfide	MG/KG	2.7 CP-51	-					0.024 J
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					0.040
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					0.019
Xylene (total)	MG/KG	0.26	500					0.034
Total BTEX	MG/KG	-	-	ND	ND	ND	ND	0.093
Total Volatile Organic Compounds	MG/KG	-	-	ND	ND	ND	ND	0.164

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Locat	ion ID			SB-04	SB-04	SB-04	SB-05	SB-05
Samı	ple ID			SB-04-(2.5-3.5)	SB-04-(4.2-5)	SB-04-(11-12)	SB-05-(4-5)	SB-05-(6.5-7.0)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		2.5-3.5	4.2-5.0	11.0-12.0	4.0-5.0	6.5-7.0
Date Sa	ampled			04/13/10	04/13/10	04/16/10	04/13/10	04/16/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-				0.027 J	25 J
2,4-Dimethylphenol	MG/KG	-	-					1.8 J
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-				0.12 J	84 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500					1.1 J
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					3.2 J
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500				0.035 J	250
Acenaphthylene	MG/KG	100	500	0.062 J	0.064 J		0.90	
Acetophenone	MG/KG	-	-				0.026 J	
Anthracene	MG/KG	100	500	0.059 J	0.083 J		0.29	140 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.25	0.29		2.1	390
Benzo(a)pyrene	MG/KG	1	1	0.22	0.22		2.8	290
Benzo(b)fluoranthene	MG/KG	1	5.6	0.30	0.32		2.6	370
Benzo(g,h,i)perylene	MG/KG	100	500	0.21	0.20 J		3.1	160
Benzo(k)fluoranthene	MG/KG	0.8	56	0.091 J	0.091 J		1.7	27 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-		0.054 J	0.034 J	0.069 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-				0.039 J	96 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Loca	tion ID			SB-04	SB-04	SB-04	SB-05	SB-05
Sam	ple ID			SB-04-(2.5-3.5)	SB-04-(4.2-5)	SB-04-(11-12)	SB-05-(4-5)	SB-05-(6.5-7.0)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	nterval (f	t)		2.5-3.5	4.2-5.0	11.0-12.0	4.0-5.0	6.5-7.0
Date S	Sampled			04/13/10	04/13/10	04/16/10	04/13/10	04/16/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	0.26	0.29		1.9	390
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.041 J	0.045 J		0.64	27 J
Dibenzofuran	MG/KG	7	350				0.036 J	170
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	0.35	0.50	0.043 J	2.8	1,100
Fluorene	MG/KG	30	500		0.039 J		0.089 J	170
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.17 J	0.17 J		2.1 J	140 J
Naphthalene	MG/KG	12	500	0.022 J	0.022 J		0.11 J	410
Phenanthrene	MG/KG	100	500	0.20 J	0.34		0.90	1,200
Phenol	MG/KG	0.33	500					1.1 J
Pyrene	MG/KG	100	500	0.38	0.52		2.5	830
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	2.615	3.194	0.043	24.684	5,978
Total Semivolatile Organic Compounds	MG/KG	-	-	2.615	3.248	0.077	24.881	6,276.2
Metals								
Aluminum	MG/KG	10000 CP- 51	-	10,700 J	9,650 J	10,100 J	9,250 J	5,720 J
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	4.3	8.1	8.3	2.3	4.8
Barium	MG/KG	350	400	79.2 J	53.1 J	22.5 J	113 J	94.7 J
Beryllium	MG/KG	7.2	590	1.1 J	0.91 J	0.73 J	0.95 J	0.55 J
Cadmium	MG/KG	2.5	9.3	0.51	0.41	0.29 J	0.35	0.22 J
		1				1		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

	Location ID			SB-04	SB-04	SB-04	SB-05	SB-05
	Sample ID			SB-04-(2.5-3.5)	SB-04-(4.2-5)	SB-04-(11-12)	SB-05-(4-5)	SB-05-(6.5-7.0)
	Matrix			Soil	Soil	Soil	Soil	Soil 6.5-7.0
De	pth Interval (ft)		2.5-3.5	4.2-5.0	11.0-12.0	4.0-5.0	
	Date Sampled			04/13/10	04/13/10	04/16/10	04/13/10	04/16/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Calcium	MG/KG	10000 CP- 51	-	4,100 J	3,570 J	1,300 J	12,000 J	102,000 J
Chromium	MG/KG	30	1500	27.3 J	27.0 J	21.5 J	21.4 J	12.7 J
Cobalt	MG/KG	20 CP-51	-	11.1 J	18.2 J	7.5 J	9.0 J	4.6 J
Copper	MG/KG	50	270	38.6 J	19.0 J	8.3 J	33.5 J	50.3 J
Iron	MG/KG	2000 CP-51	=	33,000	29,000	26,900	22,700	10,900
Lead	MG/KG	63	1000	59.6 J	26.9 J	9.0 J	52.9 J	175 J
Magnesium	MG/KG	=	=	5,850 J	5,370 J	5,210 J	8,120 J	2,820 J
Manganese	MG/KG	1600	10000	250 J	206 J	317 J	246 J	1,150 J
Mercury	MG/KG	0.18	2.8	4.1 J	0.97 J	0.018 J	0.36 J	1.5 J
Nickel	MG/KG	30	310	24.4 J	24.4 J	16.9 J	20.9 J	14.1 J
Potassium	MG/KG	=	-	3,570 J	3,210 J	2,470 J	2,790 J	891 J
Selenium	MG/KG	3.9	1500	3.5	3.6	3.2	3.0	1.1 J
Silver	MG/KG	2	1500	0.15 J	0.12 J	0.16 J	0.10 J	0.20 J
Sodium	MG/KG	-	-	287 J	325 J	3,620 J	295 J	730 J
Thallium	MG/KG	5 CP-51	-	1.7	1.7	2.5	1.7	4.5
Vanadium	MG/KG	39 CP-51	-	33.7 J	31.7 J	26.0 J	26.4 J	14.4 J
Zinc	MG/KG	109	10000	127 J	66.3 J	50.1 J	95.8 J	144 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-05	SB-06	SB-06	SB-06	SB-07
Sam	ple ID			SB-05-(11.5-12)	SB-06-(3-4)	20100414-FD-1	SB-06-(4.5-5.5)	SB-07-(3-4)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		11.5-12.0	3.0-4.0	4.5-5.5	4.5-5.5	3.0-4.0
Date S	ampled	-		04/16/10	04/14/10	04/14/10	04/14/10	04/14/10
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Volatile Organic Compou	nds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.015 J	0.020 J	0.0040 J		0.0058 J
Benzene	MG/KG	0.06	44					0.0015 J
Carbon disulfide	MG/KG	2.7 CP-51	-	0.0050 J				
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl acetate	MG/KG	-	-		0.0064	0.0056		
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500		0.0012 J			
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					0.013
Toluene	MG/KG	0.7	500				0.0013 J	0.0012 J
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	ND	ND	0.0013	0.0027
Total Volatile Organic Compounds	MG/KG	-	=	0.02	0.0276	0.0096	0.0013	0.0215

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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- D Result reported from a secondary dilution analysis.

Locat	ion ID			SB-05	SB-06	SB-06	SB-06	SB-07
Samp	ole ID			SB-05-(11.5-12)	SB-06-(3-4)	20100414-FD-1	SB-06-(4.5-5.5)	SB-07-(3-4)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		11.5-12.0	3.0-4.0 04/14/10	4.5-5.5 04/14/10	4.5-5.5 04/14/10	3.0-4.0 04/14/10
Date Sa	ampled			04/16/10				
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					0.25 J
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-					2.2 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	=					
Acenaphthene	MG/KG	20	500	0.21 J	0.027 J			3.2 J
Acenaphthylene	MG/KG	100	500		0.048 J			38
Acetophenone	MG/KG	-	-					0.35 J
Anthracene	MG/KG	100	500	0.43 J	0.16 J			16 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.27 J	0.44	0.077 J	0.071 J	70
Benzo(a)pyrene	MG/KG	1	1	0.12 J	0.29	0.046 J	0.047 J	66
Benzo(b)fluoranthene	MG/KG	1	5.6	0.16 J	0.34	0.071 J	0.066 J	91
Benzo(g,h,i)perylene	MG/KG	100	500	0.16 J	0.23	0.057 J	0.050 J	64
Benzo(k)fluoranthene	MG/KG	0.8	56	0.072 J	0.11 J	0.040 J	0.030 J	27
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-		0.15 J	0.033 J	0.044 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.11 J	0.042 J			3.2 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Loca	tion ID			SB-05	SB-06	SB-06	SB-06	SB-07
Sam	ple ID			SB-05-(11.5-12)	SB-06-(3-4)	20100414-FD-1	SB-06-(4.5-5.5)	SB-07-(3-4)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	nterval (f	t)		11.5-12.0	3.0-4.0	4.5-5.5	4.5-5.5	3.0-4.0
Date S	Sampled			04/16/10	04/14/10	04/14/10	04/14/10	04/14/10
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56	0.28 J	0.37	0.065 J	0.069 J	65
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.046 J	0.034 J			11 J
Dibenzofuran	MG/KG	7	350	0.35 J	0.023 J			2.7 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					0.073 J
Di-n-octylphthalate	MG/KG	100 CP-51	=					
Fluoranthene	MG/KG	100	500	0.56 J	1.1	0.14 J	0.15 J	160
Fluorene	MG/KG	30	500	0.78 J	0.042 J			5.8 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.078 J	0.16 J	0.039 J	0.037 J	44
Naphthalene	MG/KG	12	500	0.13 J				4.0 J
Phenanthrene	MG/KG	100	500	2.1 J	0.50	0.026 J	0.024 J	55
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	0.41 J	0.96	0.15 J	0.14 J	140
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	5.806	4.811	0.711	0.684	862.2
Total Semivolatile Organic Compounds	MG/KG	-	-	6.266	5.026	0.744	0.728	868.773
Metals								
Aluminum	MG/KG	10000 CP- 51	=	16,400 J	8,650 J	9,310 J	11,900 J	11,700 J
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	5.0 J	1.8	1.2	1.6	8.1
Barium	MG/KG	350	400	54.5 J	91.9 J	73.7 J	80.7 J	212 J
Beryllium	MG/KG	7.2	590	1.1 J	0.93 J	1.0 J	1.1 J	0.93 J
Cadmium	MG/KG	2.5	9.3	0.38 J	0.22 J	0.30	0.31	3.0

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

	Location ID			SB-05	SB-06	SB-06	SB-06	SB-07
	Sample ID			SB-05-(11.5-12)	SB-06-(3-4)	20100414-FD-1	SB-06-(4.5-5.5)	SB-07-(3-4)
	Matrix			Soil	Soil	Soil	Soil	Soil
	oth Interval (ft)		11.5-12.0	3.0-4.0	4.5-5.5	4.5-5.5	3.0-4.0
D	ate Sampled			04/16/10	04/14/10	04/14/10	04/14/10	04/14/10
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,620 J	3,720 J	4,580 J	4,460 J	60,700 J
Chromium	MG/KG	30	1500	35.0 J	22.8 J	28.5 J	28.7 J	29.4 J
Cobalt	MG/KG	20 CP-51	-	18.2 J	10.0 J	10.3 J	11.9 J	6.4 J
Copper	MG/KG	50	270	62.4 J	32.8 J	33.4 J	32.5 J	101 J
Iron	MG/KG	2000 CP-51	-	20,200 J	25,200	22,700	26,400	26,200
Lead	MG/KG	63	1000	20.2 J	33.0 J	7.0 J	9.2 J	265 J
Magnesium	MG/KG	=	=	6,310 J	4,100 J	6,220 J	6,930 J	7,430 J
Manganese	MG/KG	1600	10000	222 J	240 J	194 J	311 J	388 J
Mercury	MG/KG	0.18	2.8	0.13 J	0.19 J	0.024 J	0.021 J	4.2 J
Nickel	MG/KG	30	310	29.3 J	19.3 J	22.9 J	23.6 J	22.7 J
Potassium	MG/KG	-	-	3,610 J	3,660 J	2,840 J	3,130 J	1,910 J
Selenium	MG/KG	3.9	1500	3.8 J	3.4	2.5	3.4	2.2
Silver	MG/KG	2	1500	0.20 J	0.093 J			0.17 J
Sodium	MG/KG	-	-	3,400 J	123 J	159 J	142 J	574 J
Thallium	MG/KG	5 CP-51	-	1.7 J	1.9	1.3 J	2.3 J	1.6
Vanadium	MG/KG	39 CP-51	-	42.0 J	27.7 J	30.9 J	35.9 J	30.3 J
Zinc	MG/KG	109	10000	72.8 J	53.4 J	102 J	64.8 J	165 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-07	SB-07	SB-07	SB-08	SB-08
Sam	ple ID			SB-07-(4.5-5.5)	SB-07-(13.3-14.2)	SB-07-(16-17)	SB-08-(3-3.5)	SB-08-(5-6)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth In	iterval (f	t)		4.5-5.5	13.3-14.2	16.0-17.0	3.0-3.5	5.0-6.0
Date S	ampled			04/14/10	04/20/10	04/20/10	04/28/10	04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compou	Volatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500		0.0091 J	0.031		
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500				0.0092 J	0.076 J
Benzene	MG/KG	0.06	44	0.048	0.84	0.84		
Carbon disulfide	MG/KG	2.7 CP-51	-					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390	0.026	2.1	0.15		
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.014 J			
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-		2.6	0.33		
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500		0.68	0.62		
Xylene (total)	MG/KG	0.26	500	0.050 J	6.5	0.54 J		
Total BTEX	MG/KG	-	-	0.124	10.12	2.15	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.124	12.7431	2.511	0.0092	0.076

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Locat	ion ID			SB-07	SB-07	SB-07	SB-08	SB-08
Samı	ole ID			SB-07-(4.5-5.5)	SB-07-(13.3-14.2)	SB-07-(16-17)	SB-08-(3-3.5)	SB-08-(5-6)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		4.5-5.5	13.3-14.2	16.0-17.0	3.0-3.5	5.0-6.0
Date S	ampled			04/14/10	04/20/10	04/20/10	04/28/10	04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.33 J	3.5 J	0.052 J	0.055 J	
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.21 J	31 J	0.41 J	0.22	0.27 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500		0.077 J			
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500		0.049 J			
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	6.4	2.6 J	0.023 J	0.38	1.8
Acenaphthylene	MG/KG	100	500	6.0	18	0.19 J	3.0	1.7
Acetophenone	MG/KG	-	-				0.072 J	0.21 J
Anthracene	MG/KG	100	500	21	10	0.39	2.5	1.0
Benzaldehyde	MG/KG	-	=					
Benzo(a)anthracene	MG/KG	1	5.6	15	$ \begin{array}{c} 9.4 \end{array} $	0.17 J	7.1	2.4
Benzo(a)pyrene	MG/KG	1	1	12	5.7 J	0.076 J	4.9	1.5 J
Benzo(b)fluoranthene	MG/KG	1	5.6	12	5.7 J	0.071 J	6.2	2.4 J
Benzo(g,h,i)perylene	MG/KG	100	500	8.1	3.2 J	0.068 J	1.7 J	0.97
Benzo(k)fluoranthene	MG/KG	0.8	56	3.7	2.0	0.037 J	3.0 J	1.1
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-			0.033 J	0.43	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	7.3	9.7	1.2	0.17 J	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-07	SB-07	SB-07	SB-08	SB-08
Sam	ple ID			SB-07-(4.5-5.5)	SB-07-(13.3-14.2)	SB-07-(16-17)	SB-08-(3-3.5)	SB-08-(5-6)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		4.5-5.5	13.3-14.2	16.0-17.0	3.0-3.5	5.0-6.0
Date S	ampled			04/14/10	04/20/10	04/20/10	04/28/10	04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56	12	7.8	0.13 J	8.0	3.1
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	2.8 J	1.2		0.93 J	0.32 J
Dibenzofuran	MG/KG	7	350	9.2	6.9 J	0.084 J	0.16 J	0.31 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	49	23	0.37	28	3.5
Fluorene	MG/KG	30	500	15	14	0.52	0.54	2.7
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	6.2	2.9	0.047 J	1.7 J	0.77 J
Naphthalene	MG/KG	12	500	7.7	$\overline{}$	2.1	0.17 J	0.44
Phenanthrene	MG/KG	100	500	51	41	0.64	5.4	0.55
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	36	20	0.32	15	8.4 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	=	=	264.11	268.5	5.562	88.74	32.92
Total Semivolatile Organic Compounds	MG/KG	-	-	280.94	288.726	6.931	89.627	33.44
Metals								
Aluminum	MG/KG	10000 CP- 51	-	9,250 J	6,280	6,970	8,070	9,650
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	1.8	0.21 J	0.38 J	4.4	7.7
Barium	MG/KG	350	400	46.8 J	57.6 J	86.4 J	61.9	65.4
Beryllium	MG/KG	7.2	590	0.66 J	0.89 J	0.91 J	0.18 J	0.33 J
Cadmium	MG/KG	2.5	9.3	0.22 J	0.10 J	0.21	0.14 J	0.46

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

L	ocation ID			SB-07	SB-07	SB-07	SB-08	SB-08
;	Sample ID			SB-07-(4.5-5.5)	SB-07-(13.3-14.2)	SB-07-(16-17)	SB-08-(3-3.5)	SB-08-(5-6)
	Matrix			Soil	Soil	Soil	Soil	Soil 5.0-6.0
Dep	th Interval (ft)		4.5-5.5	13.3-14.2	16.0-17.0	3.0-3.5 04/28/10	
Da	te Sampled			04/14/10	04/20/10	04/20/10		04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Calcium	MG/KG	10000 CP- 51	-	3,090 J	1,390	4,220	58,400 J	925 J
Chromium	MG/KG	30	1500	16.8 J	18.0 J	30.8 J	19.2	17.3
Cobalt	MG/KG	20 CP-51	-	6.9 J	7.4 J	10.1 J	4.1	7.0
Copper	MG/KG	50	270	12.0 J	18.5	28.9	31.1	36.8
Iron	MG/KG	2000 CP-51	-	20,700	17,100	20,100	13,900	27,500
Lead	MG/KG	63	1000	12.6 J	3.1	6.5	107	74.3
Magnesium	MG/KG	-	-	3,050 J	3,620 J	5,520 J	6,150	2,570
Manganese	MG/KG	1600	10000	325 J	140 J	235 J	186	120
Mercury	MG/KG	0.18	2.8	0.052 J			0.55	0.091
Nickel	MG/KG	30	310	12.3 J	16.7 J	28.9 J	11.9	25.8
Potassium	MG/KG	-	-	1,000 J	2,300	3,000	1,300 J	1,270 J
Selenium	MG/KG	3.9	1500	4.0	2.9	3.4	2.3	1.9
Silver	MG/KG	2	1500	0.11 J				
Sodium	MG/KG	-	-	173 J	179 J	179 J	179	125
Thallium	MG/KG	5 CP-51	-	1.7				
Vanadium	MG/KG	39 CP-51	-	18.1 J	22.4	33.3	20.9	25.4
Zinc	MG/KG	109	10000	33.2 J	34.4 J	36.5 J	56.7 J	203 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Lo	cation ID			SB-08	SB-08	SB-09	SB-09	SB-10
Sa	mple ID			SB-08-(7-7.5)	SB-08-(10.5-11)	SB-09-(4.5-5.5)	SB-09-(7-8)	20100426-FD-1
	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (fi	t)		7.0-7.5	10.5-11.0	4.5-5.5	7.0-8.0	3.0-4.0
Date	Sampled			04/29/10	04/29/10	04/27/10	04/28/10	04/26/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Volatile Organic Comp	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.22 J	0.22 J		0.010 J	0.0084 J
Benzene	MG/KG	0.06	44		0.33 J			
Carbon disulfide	MG/KG	2.7 CP-51	-		0.0073 J			
Chloroform	MG/KG	0.37	350	0.020 J	0.028 J			
Cyclohexane	MG/KG	-	-	0.098 J	0.35 J			
Ethylbenzene	MG/KG	1	390		2.6			
Isopropylbenzene	MG/KG	2.3 CP-51	-		2.5 J			
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-	0.21 J	0.55 J			
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500		0.043 J			
Xylene (total)	MG/KG	0.26	500	0.017 J	2.9 J			
Total BTEX	MG/KG	-	-	0.017	5.873	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.565	9.5283	ND	0.01	0.0084

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Locat	ion ID			SB-08	SB-08	SB-09	SB-09	SB-10
Samı	ple ID			SB-08-(7-7.5)	SB-08-(10.5-11)	SB-09-(4.5-5.5)	SB-09-(7-8)	20100426-FD-1
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		7.0-7.5	10.5-11.0	4.5-5.5	7.0-8.0	3.0-4.0
Date Sa	ampled			04/29/10	04/29/10	04/27/10	04/28/10	04/26/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Semivolatile Organic Compo	Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-		4.8			
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-		28	0.21 J		
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.70	26	0.14 J		
Acenaphthylene	MG/KG	100	500	0.16 J	7.5	0.35		
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	0.52 J	15	0.43		
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.61	13	1.3		0.056 J
Benzo(a)pyrene	MG/KG	1	1	0.32 J	13 J	1.1		0.031 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.23 J	8.5 J	0.96 J		0.039 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.10 J	3.3	0.67		0.023 J
Benzo(k)fluoranthene	MG/KG	0.8	56	0.12 J	3.4	1.0 J		0.021 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.088 J		0.46	0.024 J	0.097 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-			0.069 J		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-08	SB-08	SB-09	SB-09	SB-10
Sam	ple ID			SB-08-(7-7.5)	SB-08-(10.5-11)	SB-09-(4.5-5.5)	SB-09-(7-8)	20100426-FD-1
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil 3.0-4.0
Depth In	terval (f	t)		7.0-7.5	10.5-11.0	4.5-5.5	7.0-8.0	
Date S	ampled			04/29/10	04/29/10	04/27/10	04/28/10	04/26/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	0.53	12	1.1		0.043 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.026 J	0.99 J	0.21 J		
Dibenzofuran	MG/KG	7	350	0.12 J	0.52 J	0.047 J		
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	0.50 J	18	2.0		0.080 J
Fluorene	MG/KG	30	500	0.65	15	0.15 J		
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.072 J	2.4 J	0.66 J		
Naphthalene	MG/KG	12	500	0.11 J	74	0.36		
Phenanthrene	MG/KG	100	500	0.53 J	55	1.1		0.041 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	1.9	30	3.2		0.073 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	7.078	325.09	14.94	ND	0.407
Total Semivolatile Organic Compounds	MG/KG	-	-	7.286	330.41	15.516	0.024	0.504
Metals								
Aluminum	MG/KG	10000 CP- 51	-	12,400	11,400	10,200	9,540	14,600 J
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	1.6	0.43 J	2.6	1.3	0.46 J
Barium	MG/KG	350	400	35.5	105	92.6	48.6	96.8
Beryllium	MG/KG	7.2	590	0.42 J			0.30 J	0.26 J
Cadmium	MG/KG	2.5	9.3	0.055 J	0.13 J	0.34	0.054 J	0.27

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



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- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

Locat	tion ID			SB-08	SB-08	SB-09	SB-09	SB-10
Sam	ple ID			SB-08-(7-7.5)	SB-08-(10.5-11)	SB-09-(4.5-5.5)	SB-09-(7-8)	20100426-FD-1
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		7.0-7.5	10.5-11.0	4.5-5.5	7.0-8.0	3.0-4.0
Date S	ampled			04/29/10	04/29/10	04/27/10	04/28/10	04/26/10
Parameter	rameter Units Criteria Criteria (1)							Field Duplicate (1-1)
Metals								
Calcium	MG/KG	10000 CP- 51	-	516 J	1,090 J	13,400 J	896 J	653 J
Chromium	MG/KG	30	1500	23.6	32.3	21.2	15.2	47.9 J
Cobalt	MG/KG	20 CP-51	-	5.5	10.5	7.7	6.4	8.7 J
Copper	MG/KG	50	270	22.9	37.0	42.0	8.9	35.5
Iron	MG/KG	2000 CP-51	-	24,700	28,500	18,500	16,500	33,500
Lead	MG/KG	63	1000	7.5	8.0	70.7	6.9	8.0 J
Magnesium	MG/KG	-	-	3,100	4,700	7,840	2,690	6,890 J
Manganese	MG/KG	1600	10000	203	346	195	287	204 J
Mercury	MG/KG	0.18	2.8			0.16	0.013 J	
Nickel	MG/KG	30	310	25.0	23.8	18.8	11.2	27.6 J
Potassium	MG/KG	-	-	1,210 J	3,340 J	2,040	645 J	3,840 J
Selenium	MG/KG	3.9	1500	1.7	2.8	2.3	1.2	2.3
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	177	221	321	751	121 J
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	36.8	41.5	30.1	21.4	51.0 J
Zinc	MG/KG	109	10000	49.9 J	88.4 J	115 J	30.4 J	79.7 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-10	SB-10	SB-10	SB-11	SB-11
Sam	ple ID			SB-10-(3-4)	SB-10-(5-5.5)	SB-10-(11-11.5)	SB-11-(3-4)	SB-11-(4.5-5)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.0-4.0	5.0-5.5	11.0-11.5	3.0-4.0 04/28/10	4.5-5.0
Date S	ampled	-		04/26/10	04/26/10	04/29/10		04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compou	nds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-		0.0017 J			
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.0044 J	0.0085 J			0.036 J
Benzene	MG/KG	0.06	44			0.024 J		
Carbon disulfide	MG/KG	2.7 CP-51	-			0.0045 J		
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500	0.0021 J				
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	0.0021	ND	0.024	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0065	0.0102	0.0285	ND	0.036

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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- D Result reported from a secondary dilution analysis.

Loca	tion ID			SB-10	SB-10	SB-10	SB-11	SB-11
Sam	ple ID			SB-10-(3-4)	SB-10-(5-5.5)	SB-10-(11-11.5)	SB-11-(3-4)	SB-11-(4.5-5)
	atrix			Soil	Soil	Soil	Soil	Soil
Depth In		t)		3.0-4.0	5.0-5.5	11.0-11.5	3.0-4.0	4.5-5.0
Date S	ampled			04/26/10	04/26/10	04/29/10	04/28/10	04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.049 J		0.086 J	0.034 J	2.5 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500	0.028 J				
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500	0.027 J				
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.13 J			0.038 J	0.11 J
Acenaphthylene	MG/KG	100	500	0.58			1.4	1.5 J
Acetophenone	MG/KG	-	-	0.091 J			0.23	0.36 J
Anthracene	MG/KG	100	500	0.44			0.71	0.51 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	2.0	0.030 J		3.0	2.2 J
Benzo(a)pyrene	MG/KG	1	1	1.9	0.021 J		2.4	1.4 J
Benzo(b)fluoranthene	MG/KG	1	5.6	2.4 J			4.4 J	3.3 J
Benzo(g,h,i)perylene	MG/KG	100	500	1.2			3.1	2.4 J
Benzo(k)fluoranthene	MG/KG	0.8	56	1.8 J			2.6	2.6 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.14 J	0.089 J		0.049 J	2.7
Butylbenzylphthalate	MG/KG	100 CP-51	-					0.040 J
Carbazole	MG/KG	-	-	0.12 J			0.081 J	0.087 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-10	SB-10	SB-10	SB-11	SB-11
Sam	ple ID			SB-10-(3-4)	SB-10-(5-5.5)	SB-10-(11-11.5)	SB-11-(3-4)	SB-11-(4.5-5)
Ma	atrix			Soil	Soil 5.0-5.5	Soil	Soil	Soil 4.5-5.0
Depth Ir	iterval (f	t)		3.0-4.0		11.0-11.5	3.0-4.0	
Date S	ampled			04/26/10	04/26/10	04/29/10	04/28/10	04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	1.6	0.029 J		3.7	3.3 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.11 J			0.86 J	0.72 J
Dibenzofuran	MG/KG	7	350	0.035 J			0.058 J	0.16 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.033 J				
Di-n-octylphthalate	MG/KG	100 CP-51	-				0.032 J	
Fluoranthene	MG/KG	100	500	2.7	0.037 J		5.2	3.4 J
Fluorene	MG/KG	30	500	0.10 J			0.12 J	0.34 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.23 J			2.5 J	1.9 J
Naphthalene	MG/KG	12	500	0.065 J		0.21 J	0.11 J	3.4 J
Phenanthrene	MG/KG	100	500	1.3	0.021 J		1.5	2.7 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	2.3	0.047 J		7.1	4.2 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	18.904	0.185	0.296	38.772	36.48
Total Semivolatile Organic Compounds	MG/KG	-	-	19.378	0.274	0.296	39.222	39.827
Metals	•							
Aluminum	MG/KG	10000 CP- 51	-	9,280 J	14,600	19,400 J	6,340	4,960
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	5.3	0.45 J	12.2 J	7.9	8.2
Barium	MG/KG	350	400	71.2	102	47.3 J	80.1	78.1
Beryllium	MG/KG	7.2	590			0.89 J		
Cadmium	MG/KG	2.5	9.3	0.17 J	0.22 J	0.32 J	0.13 J	0.66
	1	·				1		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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- D Result reported from a secondary dilution analysis.

L	ocation ID			SB-10	SB-10	SB-10	SB-11	SB-11
!	Sample ID			SB-10-(3-4)	SB-10-(5-5.5)	SB-10-(11-11.5)	SB-11-(3-4)	SB-11-(4.5-5)
	Matrix			Soil	Soil 5.0-5.5	Soil	Soil 3.0-4.0	Soil 4.5-5.0
	oth Interval (ft)		3.0-4.0		11.0-11.5		
Da	ate Sampled			04/26/10	04/26/10	04/29/10	04/28/10	04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,690 J	1,090 J	1,590 J	1,010 J	7,160 J
Chromium	MG/KG	30	1500	22.4 J	50.7	37.4 J	20.5	12.5
Cobalt	MG/KG	20 CP-51	-	5.3 J	8.7	13.8 J	4.7	6.6
Copper	MG/KG	50	270	32.9	34.6	18.0 J	55.0	75.1
Iron	MG/KG	2000 CP-51	=	25,000	33,200	53,100 J	30,000	38,100
Lead	MG/KG	63	1000	116 J	7.8	17.6 J	269	142
Magnesium	MG/KG	=	=	3,410 J	7,320	8,910 J	2,480	3,610
Manganese	MG/KG	1600	10000	109 J	197	750 J	112	159
Mercury	MG/KG	0.18	2.8				0.31	0.69
Nickel	MG/KG	30	310	14.1 J	29.7	32.0 J	13.6	13.2
Potassium	MG/KG	=	=	1,700 J	3,820	4,230 J	1,660 J	1,370 J
Selenium	MG/KG	3.9	1500	1.5 J	2.8	1.9 J	2.6	2.0
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	207 J	164	1,550 J	216	957
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	30.0 J	51.7	54.5 J	31.7	20.8
Zinc	MG/KG	109	10000	51.6 J	76.0 J	95.2 J	44.8 J	123 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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- D Result reported from a secondary dilution analysis.

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Loca	tion ID			SB-11	SB-12	SB-12	SB-12	SB-12
Sam	ple ID			SB-11-(13-13.5)	SB-12-(3.5-4)	20100427-FD-1	SB-12-(4.5-5.5)	SB-12-(7-8)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		13.0-13.5	3.5-4.0	4.5-5.5	4.5-5.5 4.5-5.5 04/27/10 04/27/10	7.0-8.0 04/29/10
	ampled			04/29/10	04/27/10	04/27/10		
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Volatile Organic Compou	nds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.017 J		0.0086 J	0.011 J	0.013 J
Benzene	MG/KG	0.06	44					
Carbon disulfide	MG/KG	2.7 CP-51	-					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					0.0050 J
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	ND	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.017	ND	0.0086	0.011	0.018

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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- D Result reported from a secondary dilution analysis.

Locat	ion ID			SB-11	SB-12	SB-12	SB-12	SB-12
Sam	ple ID			SB-11-(13-13.5)	SB-12-(3.5-4)	20100427-FD-1	SB-12-(4.5-5.5)	SB-12-(7-8)
	trix			Soil Soil Soil Soil		Soil		
Depth In		t)		13.0-13.5	3.5-4.0	4.5-5.5 04/27/10	4.5-5.5 04/27/10	7.0-8.0 04/29/10
Date S	ampled			04/29/10	04/27/10			
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.026 J	0.020 J			
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500			0.023 J	0.023 J	
Acenaphthylene	MG/KG	100	500		0.14 J		0.021 J	
Acetophenone	MG/KG	-	-		0.045 J			
Anthracene	MG/KG	100	500		0.042 J			
Benzaldehyde	MG/KG	-	-		0.040 J			
Benzo(a)anthracene	MG/KG	1	5.6	0.033 J	0.15 J		0.031 J	
Benzo(a)pyrene	MG/KG	1	1	0.027 J	0.27		0.037 J	
Benzo(b)fluoranthene	MG/KG	1	5.6	0.032 J	0.35 J		0.056 J	
Benzo(g,h,i)perylene	MG/KG	100	500		0.36		0.040 J	
Benzo(k)fluoranthene	MG/KG	0.8	56		0.25 J		0.026 J	
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.044 J	0.022 J	0.035 J	0.12 J	0.047 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Locat	tion ID			SB-11	SB-12	SB-12	SB-12	SB-12
Sam	ple ID			SB-11-(13-13.5)	SB-12-(3.5-4)	20100427-FD-1	SB-12-(4.5-5.5)	SB-12-(7-8)
	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		13.0-13.5	3.5-4.0	4.5-5.5	4.5-5.5 04/27/10	7.0-8.0
_	ampled			04/29/10	04/27/10	04/27/10		04/29/10
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	0.022 J	0.17 J		0.034 J	
Dibenz(a,h)anthracene	MG/KG	0.33	0.56		0.12 J			
Dibenzofuran	MG/KG	7	350					
Di-n-butylphthalate	MG/KG	0.014 CP-51	=					
Di-n-octylphthalate	MG/KG	100 CP-51	=					
Fluoranthene	MG/KG	100	500	0.047 J	0.11 J	0.027 J	0.035 J	
Fluorene	MG/KG	30	500					
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6		0.39 J		0.045 J	
Naphthalene	MG/KG	12	500	0.12 J	0.026 J		0.037 J	
Phenanthrene	MG/KG	100	500		0.024 J			
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	0.054 J	0.22	0.031 J	0.047 J	
Total Polynuclear Aromatic Hydrocarbons	MG/KG	=	=	0.361	2.642	0.081	0.432	ND
Total Semivolatile Organic Compounds	MG/KG	=	=	0.405	2.749	0.116	0.552	0.047
Metals								
Aluminum	MG/KG	10000 CP- 51	-	11,500	17,300	14,000	11,900	11,800
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	0.79 J	1.6	2.0	1.4	
Barium	MG/KG	350	400	69.1	72.4	85.2 J	141 J	73.6
Beryllium	MG/KG	7.2	590		0.37 J	0.42 J	0.32 J	
Cadmium	MG/KG	2.5	9.3	0.14 J	0.26	0.17 J	0.19 J	0.14 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

L	Location ID				SB-12	SB-12	SB-12	SB-12
:	Sample ID			SB-11-(13-13.5)	SB-12-(3.5-4)	20100427-FD-1	SB-12-(4.5-5.5)	SB-12-(7-8)
	Matrix			Soil Soil Soil Soil	Soil	Soil		
Dep	th Interval (ft	t)		13.0-13.5	3.5-4.0	4.5-5.5	4.5-5.5	7.0-8.0
Da	ate Sampled			04/29/10	04/27/10	04/27/10	04/27/10	04/29/10
Parameter	units Criteria Criteria (1) (2)					Field Duplicate (1-1)		
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,390 J	990 J	1,260 J	1,740 J	2,290 J
Chromium	MG/KG	30	1500	25.1	37.8	23.7	29.9	31.7
Cobalt	MG/KG	20 CP-51	-	8.9	6.8	6.9	8.8	12.9
Copper	MG/KG	50	270	18.9	34.1	17.6	24.9	33.4
Iron	MG/KG	2000 CP-51	-	27,100	34,400	24,300	22,500	30,100
Lead	MG/KG	63	1000	7.4	9.5	8.5	8.9	7.3
Magnesium	MG/KG	-	-	4,180	5,210	4,000	4,490	6,660
Manganese	MG/KG	1600	10000	637	214	261 J	137 J	612
Mercury	MG/KG	0.18	2.8					0.014 J
Nickel	MG/KG	30	310	16.6	22.8	18.2	22.5	24.6
Potassium	MG/KG	-	-	1,760 J	2,650	1,610	2,090	3,960 J
Selenium	MG/KG	3.9	1500	2.6	2.5	1.4 J	1.7	3.1
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	382	279	193	208	177
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	33.9	52.3	33.3	37.1	45.5
Zinc	MG/KG	109	10000	40.8 J	56.5 J	50.9 J	60.1 J	58.0 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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J - The reported concentration is an estimated value. J+ - The reported concntration is an estimated value, with high bias.

D - Result reported from a secondary dilution analysis.

Loca	ation ID			SB-12	SB-13	SB-13	SB-14	SB-14
Sar	nple ID			SB-12-(12-13)	SB-13-(3-4)	SB-13-(15-16)	SB-14-(3.5-4)	SB-14-(4.5-5)
	latrix				Soil	Soil	Soil	
Depth I	nterval (f	t)		12.0-13.0	3.0-4.0	15.0-16.0	3.5-4.0	4.5-5.0
Date	Sampled			04/29/10	04/28/10	04/29/10	04/28/10	04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	unds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.011 J		0.038 J	0.012 J	0.041 J
Benzene	MG/KG	0.06	44			0.0049 J		
Carbon disulfide	MG/KG	2.7 CP-51	-	0.0037		0.0083 J		
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390			0.0089 J		
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500		0.0059			
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500			0.0049 J		
Xylene (total)	MG/KG	0.26	500			0.018 J		
Total BTEX	MG/KG	-	-	ND	ND	0.0367	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0147	0.0059	0.083	0.012	0.041

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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- D Result reported from a secondary dilution analysis.

Locat	ion ID			SB-12	SB-13	SB-13	SB-14	SB-14
Samı	ple ID			SB-12-(12-13)	SB-13-(3-4)	SB-13-(15-16)	SB-14-(3.5-4)	SB-14-(4.5-5)
Ma	trix			Soil Soil Soil	Soil	Soil		
Depth In	terval (f	t)		12.0-13.0	3.0-4.0	15.0-16.0	3.5-4.0	4.5-5.0
Date Sa	ampled			04/29/10	04/28/10	04/29/10	04/28/10	04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-			0.024 J		
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.085 J		0.17 J		
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500			0.090 J		
Acenaphthylene	MG/KG	100	500			0.11 J	0.079 J	
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500			0.18 J	0.026 J	
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6		0.023 J	0.25	0.047 J	0.046 J
Benzo(a)pyrene	MG/KG	1	1		0.026 J	0.17 J	0.038 J	0.037 J
Benzo(b)fluoranthene	MG/KG	1	5.6		0.032 J	0.17 J	0.053 J	0.039 J
Benzo(g,h,i)perylene	MG/KG	100	500		0.024 J	0.084 J		
Benzo(k)fluoranthene	MG/KG	0.8	56			0.087 J	0.027 J	0.025 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-		0.033 J	2.0	0.091 J	0.29
Butylbenzylphthalate	MG/KG	100 CP-51	-			0.027 J		
Carbazole	MG/KG	-	-					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Loca	tion ID			SB-12	SB-13	SB-13	SB-14	SB-14
Sam	ple ID			SB-12-(12-13)	SB-13-(3-4)	SB-13-(15-16)	SB-14-(3.5-4)	SB-14-(4.5-5)
Ma	atrix			Soil	Soil 3.0-4.0	Soil	Soil	Soil
Depth Ir	nterval (f	t)		12.0-13.0		15.0-16.0 04/29/10	3.5-4.0 04/28/10	4.5-5.0 04/28/10
Date S	Sampled			04/29/10	04/28/10			
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56		0.026 J	0.24	0.053 J	0.059 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56			0.022 J		
Dibenzofuran	MG/KG	7	350			0.059 J		
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500			0.53	0.057 J	0.088 J
Fluorene	MG/KG	30	500			0.15 J		
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6		0.025 J	0.064 J		
Naphthalene	MG/KG	12	500	0.40		0.35		
Phenanthrene	MG/KG	100	500			0.65	0.041 J	0.068 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500			0.53	0.068 J	0.11 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	0.485	0.156	3.847	0.489	0.472
Total Semivolatile Organic Compounds	MG/KG	-	-	0.485	0.189	5.957	0.58	0.762
Metals								
Aluminum	MG/KG	10000 CP- 51	-	15,900	15,800	3,870	13,100	12,600
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	10.4	3.4	0.67 J	2.8	2.5
Barium	MG/KG	350	400	31.5	59.3	31.8	58.5	63.7
Beryllium	MG/KG	7.2	590	0.75 J	0.46 J		0.35 J	0.56 J
Cadmium	MG/KG	2.5	9.3	0.28 J	0.29	0.15 J	0.16 J	0.14 J
		·						

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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- D Result reported from a secondary dilution analysis.

	Location ID			SB-12	SB-13	SB-13	SB-14	SB-14
	Sample ID			SB-12-(12-13)	SB-13-(3-4)	SB-13-(15-16)	SB-14-(3.5-4)	SB-14-(4.5-5)
	Matrix			Soil Soil Soil Soil	Soil	Soil		
Dej	oth Interval (fi	:)		12.0-13.0	3.0-4.0	15.0-16.0	3.5-4.0	4.5-5.0
D	ate Sampled			04/29/10	04/28/10	04/29/10	04/28/10	04/28/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,410 J	925 J	31,900 J	1,190 J	1,300 J
Chromium	MG/KG	30	1500	30.0	29.7	11.4	24.7	20.4
Cobalt	MG/KG	20 CP-51	-	11.1	7.1	2.2 J	8.3	8.0
Copper	MG/KG	50	270	13.7	20.6	27.8	28.0	17.7
Iron	MG/KG	2000 CP-51	=	45,800	29,800	6,690	26,300	23,500
Lead	MG/KG	63	1000	15.0	17.5	156	65.8	23.4
Magnesium	MG/KG	=	-	7,830	3,590	4,180	4,120	3,130
Manganese	MG/KG	1600	10000	622	135	135	256	267
Mercury	MG/KG	0.18	2.8			0.37	0.050	0.036 J
Nickel	MG/KG	30	310	25.6	20.7	13.0	16.9	14.8
Potassium	MG/KG	-	-	3,730 J	1,480	548 J	1,510 J	950 J
Selenium	MG/KG	3.9	1500	1.8 J	1.6	1.4 J	1.9	1.5
Silver	MG/KG	2	1500					
Sodium	MG/KG	=	-	5,450	991	473	148	175
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	42.5	36.1	9.1	35.3	29.4
Zinc	MG/KG	109	10000	80.8 J	49.0 J	78.3 J	72.4 J	43.8 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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- D Result reported from a secondary dilution analysis.

Loca	tion ID			SB-14	SB-15	SB-15	SB-15	SB-16
Sam	ple ID			SB-14-(14.5-15)	SB-15-(3-3.5)	SB-15-(6-6.5)	SB-15-(22-23)	SB-16-(3.5-4)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		14.5-15.0	3.0-3.5	6.0-6.5	22.0-23.0	3.5-4.0
Date S	ampled			04/29/10	05/04/10	05/04/10	05/04/10	05/05/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compou	nds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.0081 J		0.041 J		0.0089 J
Benzene	MG/KG	0.06	44			0.13	1.6	
Carbon disulfide	MG/KG	2.7 CP-51	-			0.0071 J		
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390			0.36	22	
Isopropylbenzene	MG/KG	2.3 CP-51	-			0.072 J	0.31 J	
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-				3.5	
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500			0.32	0.79	0.0012 J
Xylene (total)	MG/KG	0.26	500			2.9	35	
Total BTEX	MG/KG	-	-	ND	ND	3.71	59.39	0.0012
Total Volatile Organic Compounds	MG/KG	-	-	0.0081	ND	3.8301	63.2	0.0101

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Locat	ion ID			SB-14	SB-15	SB-15	SB-15	SB-16
Samı	ole ID			SB-14-(14.5-15)	SB-15-(3-3.5)	SB-15-(6-6.5)	SB-15-(22-23)	SB-16-(3.5-4)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		14.5-15.0	3.0-3.5	6.0-6.5	22.0-23.0	3.5-4.0
Date S	ampled	-		04/29/10	05/04/10	05/04/10	05/04/10	05/05/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-		30 J	4.9 J	0.12 J	0.074 J
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.092 J	170 J	31	0.63	0.40
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.062 J	110 J	1.6	0.16 J	0.16 J
Acenaphthylene	MG/KG	100	500	0.068 J	60 J	14 J	1.1	1.2
Acetophenone	MG/KG	-	-		0.56 J		0.12 J	0.085 J
Anthracene	MG/KG	100	500	0.044 J	56 J	4.2 J	0.68	0.74
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.18 J	63 J	4.5 J	1.4	1.5
Benzo(a)pyrene	MG/KG	1	1	0.20 J	46 J	1.9 J	1.6	2.0 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.23 J	50 J	3.5 J	1.9 J	1.9 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.19 J	23 J	1.4	1.6	2.0
Benzo(k)fluoranthene	MG/KG	0.8	56	0.12 J	21 J	2.1	1.7	2.2
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.061 J	0.29 J			0.19 J
Butylbenzylphthalate	MG/KG	100 CP-51	-		0.16 J			
Carbazole	MG/KG	-	-		7.5	0.32	0.054 J	0.058 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-14	SB-15	SB-15	SB-15	SB-16
Sam	ple ID			SB-14-(14.5-15)	SB-15-(3-3.5)	SB-15-(6-6.5)	SB-15-(22-23)	SB-16-(3.5-4)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	nterval (f	t)		14.5-15.0	3.0-3.5	6.0-6.5	22.0-23.0	3.5-4.0
Date S	Sampled			04/29/10	05/04/10	05/04/10	05/04/10	05/05/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	Semivolatile Organic Compounds							
Chrysene	MG/KG	1	56	0.20 J	50 J	4.4 J	1.8	1.8
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.034 J	5.4	0.45 J	0.45 J	0.54 J
Dibenzofuran	MG/KG	7	350		96 J	1.3	0.12 J	0.095 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-				0.037 J	0.037 J
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	0.24	180 J	6.0 J	2.8	2.7
Fluorene	MG/KG	30	500		73 J	7.0 J	0.57	0.42
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.15 J	22 J	1.0	1.2	1.4 J
Naphthalene	MG/KG	12	500	0.33	770	100	0.38	0.23
Phenanthrene	MG/KG	100	500	0.086 J	280 J	20	3.8	2.9
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	0.35	180 J	11 J	3.8	3.4
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	2.576	2,159.4	214.05	25.57	25.49
Total Semivolatile Organic Compounds	MG/KG	-	-	2.637	2,293.91	220.57	26.021	26.029
Metals	•							
Aluminum	MG/KG	10000 CP- 51	-	11,500	12,200	19,400	5,620	9,070
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	1.5	5.6 J	1.0 J	1.7 J	5.7 J
Barium	MG/KG	350	400	63.8	136 J	147 J	48.8 J	111 J
Beryllium	MG/KG	7.2	590	0.39 J			0.30 J	0.37 J
Cadmium	MG/KG	2.5	9.3	0.19	0.55	0.55	0.25	0.92

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

I	Location ID			SB-14	SB-15	SB-15	SB-15	SB-16
	Sample ID			SB-14-(14.5-15)	SB-15-(3-3.5)	SB-15-(6-6.5)	SB-15-(22-23)	SB-16-(3.5-4)
	Matrix			Soil	Soil	Soil 6.0-6.5	Soil 22.0-23.0	Soil
Dep	oth Interval (ft)		14.5-15.0	3.0-3.5			3.5-4.0
Da	ate Sampled			04/29/10	05/04/10	05/04/10	05/04/10	05/05/10
Parameter	Units Criteria Criteria (2)							
Metals								
Calcium	MG/KG	10000 CP- 51	-	3,930 J	1,700	1,960	1,030	17,000
Chromium	MG/KG	30	1500	19.9	34.4 J	46.7 J	24.2 J	24.3 J
Cobalt	MG/KG	20 CP-51	-	8.2	9.1 J	20.9 J	8.2 J	9.3 J
Copper	MG/KG	50	270	32.0	85.7	26.6	25.8	54.2
Iron	MG/KG	2000 CP-51	=	23,000	41,800	22,600	16,700	24,900
Lead	MG/KG	63	1000	45.5	230 J	4.0 J	5.0 J	91.9 J
Magnesium	MG/KG	=	=	3,590	4,670 J	7,580 J	2,990 J	5,240 J
Manganese	MG/KG	1600	10000	463	153 J	1,230 J	164 J	226 J
Mercury	MG/KG	0.18	2.8	0.067	1.3 J			2.1 J
Nickel	MG/KG	30	310	15.3	20.7 J	28.0 J	17.7 J	22.5 J
Potassium	MG/KG	-	-	1,320 J	2,630 J	10,900 J	2,340 J	2,010 J
Selenium	MG/KG	3.9	1500	1.4				
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	750	195	259	224	302
Thallium	MG/KG	5 CP-51	-			1.6		0.52 J
Vanadium	MG/KG	39 CP-51	-	30.7	43.8 J	61.9 J	30.8 J	29.9 J
Zinc	MG/KG	109	10000	68.3 J	96.1 J	84.7 J	35.5 J	113 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Loca	ation ID			SB-16	SB-16	SB-16	SB-17	SB-17
San	nple ID			SB-16-(6-6.5)	SB-16-(9-10)	SB-16-(17.5-18)	SB-17-(3-3.5)	SB-17-(5.5-6)
М	atrix			Soil	Soil 9.0-10.0	Soil	Soil	Soil
Depth I	nterval (f	t)		6.0-6.5		17.5-18.0	3.0-3.5	5.5-6.0
Date 9	Sampled			05/05/10	05/05/10	05/05/10	05/11/10	05/11/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	unds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500		0.011 J			0.040 J
Benzene	MG/KG	0.06	44	0.45 J		3.1		0.025
Carbon disulfide	MG/KG	2.7 CP-51	-					0.022
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390	22		19		1.7
Isopropylbenzene	MG/KG	2.3 CP-51	-	0.49 J		1.4 J		0.074 J
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500	0.54 J		0.41 J		0.19 J
Xylene (total)	MG/KG	0.26	500	0.59 J		18		2.6 J
Total BTEX	MG/KG	-	-	23.58	ND	40.51	ND	4.515
Total Volatile Organic Compounds	MG/KG	-	-	24.07	0.011	41.91	ND	4.651

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. J+ - The reported concntration is an estimated value, with high bias.

D - Result reported from a secondary dilution analysis.

Locat	ion ID			SB-16	SB-16	SB-16	SB-17	SB-17
Samı	ole ID			SB-16-(6-6.5)	SB-16-(9-10)	SB-16-(17.5-18)	SB-17-(3-3.5)	SB-17-(5.5-6)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		6.0-6.5	9.0-10.0	17.5-18.0	3.0-3.5	5.5-6.0
Date S	ampled			05/05/10	05/05/10	05/05/10	05/11/10	05/11/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.10 J		2.7	0.15 J	0.60
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.60		9.0	1.8 J	1.3
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500				0.048 J	
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	1.2	0.027 J	6.6	0.31 J	2.7
Acenaphthylene	MG/KG	100	500	3.1		2.6 J	4.6	3.1
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	2.7		3.3 J	4.0	6.8
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	6.1		2.8 J	22	4.1
Benzo(a)pyrene	MG/KG	1	1	3.0		2.9 J	24	2.7
Benzo(b)fluoranthene	MG/KG	1	5.6	3.5 J		1.7 J	26 J	2.7 J
Benzo(g,h,i)perylene	MG/KG	100	500	1.5		0.81	14	1.4
Benzo(k)fluoranthene	MG/KG	0.8	56	2.8		1.1	13 J	1.4 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.25	0.037 J	0.11 J	0.10 J	0.020 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.13 J		0.096 J	0.38 J	7.1

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



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J - The reported concentration is an estimated value. J+ - The reported concntration is an estimated value, with high bias.

D - Result reported from a secondary dilution analysis.

Locat	ion ID			SB-16	SB-16	SB-16	SB-17	SB-17
Sam	ple ID			SB-16-(6-6.5)	SB-16-(9-10)	SB-16-(17.5-18)	SB-17-(3-3.5)	SB-17-(5.5-6)
Ma	trix			Soil	Soil 9.0-10.0	Soil	Soil	Soil
Depth In	terval (f	t)		6.0-6.5		17.5-18.0	3.0-3.5	5.5-6.0
Date S	ampled			05/05/10	05/05/10	05/05/10	05/11/10	05/11/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
Chrysene	MG/KG	1	56	6.7		2.6 J	22	4.2
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.55 J		0.25 J	3.4 J	0.57
Dibenzofuran	MG/KG	7	350	0.14 J		0.38	0.40 J	2.6
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	11		4.2	47	8.3
Fluorene	MG/KG	30	500	1.2		4.6	1.4 J	3.4
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	1.3		0.60 J	12 J	1.3
Naphthalene	MG/KG	12	500	0.30		22	1.8 J	16
Phenanthrene	MG/KG	100	500	8.1		14	10	7.9
Phenol	MG/KG	0.33	500			0.099 J		
Pyrene	MG/KG	100	500	18		7.8	59	13
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	71.65	0.027	86.86	266.31	80.87
Total Semivolatile Organic Compounds	MG/KG	-	-	72.27	0.064	90.245	267.388	91.19
Metals	•							
Aluminum	MG/KG	10000 CP- 51	-	10,300	15,000	9,300	4,990	11,100
Antimony	MG/KG	12 CP-51	-	0.64 J				
Arsenic	MG/KG	13	16	16.6 J	4.3 J	1.2 J	3.5	0.77
Barium	MG/KG	350	400	73.9 J	75.7 J	87.6 J	50.1	48.4
Beryllium	MG/KG	7.2	590	0.33 J	0.43 J	0.16 J	0.071 J	0.17
Cadmium	MG/KG	2.5	9.3	2.6	0.17 J	0.19 J	0.20 J	0.23

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. J+ - The reported concntration is an estimated value, with high bias.

D - Result reported from a secondary dilution analysis.

Lo	cation ID			SB-16	SB-16	SB-16	SB-17	SB-17
S	ample ID			SB-16-(6-6.5)	SB-16-(9-10)	SB-16-(17.5-18)	SB-17-(3-3.5)	SB-17-(5.5-6)
	Matrix			Soil	Soil	Soil	Soil 3.0-3.5	Soil
	h Interval (fi	:)		6.0-6.5	9.0-10.0	17.5-18.0		5.5-6.0
Dat	e Sampled			05/05/10	05/05/10	05/05/10	05/11/10	05/11/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Calcium	MG/KG	10000 CP- 51	-	5,840	953	1,130	808	1,630
Chromium	MG/KG	30	1500	25.1 J	19.8 J	34.8 J	9.6	19.7
Cobalt	MG/KG	20 CP-51	-	9.3 J	7.2 J	11.3 J	4.7	5.4
Copper	MG/KG	50	270	53.1	15.6	26.5	14.7	19.2
Iron	MG/KG	2000 CP-51	=	113,000	21,300 J	25,000	11,100	26,300
Lead	MG/KG	63	1000	66.6 J	9.0 J	7.5 J	53.1	7.5
Magnesium	MG/KG	-	-	4,260 J	3,460 J	4,870 J	1,320	3,440
Manganese	MG/KG	1600	10000	406 J	156 J	261 J	64.9	265
Mercury	MG/KG	0.18	2.8	\bigcirc 0.70 J	0.0073 J		0.27	0.24
Nickel	MG/KG	30	310	19.7 J	14.9 J	25.1 J	15.4	13.6
Potassium	MG/KG	-	-	2,090 J	923 J	4,550 J	503	1,500
Selenium	MG/KG	3.9	1500				1.3 J	1.4
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	165	201	128	338	572
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	36.2 J	29.7 J	37.5 J	12.8	26.4
Zinc	MG/KG	109	10000	134 J	41.5 J	43.5 J	78.5	36.9

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Loca	ation ID			SB-17	SB-18	SB-18	SB-18	SB-19
San	nple ID			SB-17-(12-12.5)	SB-18-(4-4.5)	SB-18-(5.5-6)	SB-18-(8.5-9)	20100512-FD-1
М	atrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (f	t)		12.0-12.5	4.0-4.5	5.5-6.0	8.5-9.0	3.0-4.0
Date 9	Sampled			05/12/10	05/11/10	05/12/10	05/12/10	05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Volatile Organic Compo	unds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.12 J		0.0045 J	0.030 J	0.031 J
Benzene	MG/KG	0.06	44	5.7 J				
Carbon disulfide	MG/KG	2.7 CP-51	-					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-	0.038 J				
Ethylbenzene	MG/KG	1	390	11				
Isopropylbenzene	MG/KG	2.3 CP-51	-	0.33 J				
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-	0.14 J				
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-	15				
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500	12				
Xylene (total)	MG/KG	0.26	500	66				
Total BTEX	MG/KG	-	-	94.7	ND	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	110.328	ND	0.0045	0.03	0.031

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



^{- =} No standard, criteria or guidance value.

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

Locat	ion ID			SB-17	SB-18	SB-18	SB-18	SB-19
Samp	ole ID			SB-17-(12-12.5)	SB-18-(4-4.5)	SB-18-(5.5-6)	SB-18-(8.5-9)	20100512-FD-1
	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		12.0-12.5	4.0-4.5	5.5-6.0	8.5-9.0	3.0-4.0
Date Sa	ampled			05/12/10	05/11/10	05/12/10	05/12/10	05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	670		1.0		
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	33 J		0.42		
Acenaphthylene	MG/KG	100	500	180 J		6.1	0.049 J	0.065 J
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	64 J		2.7		0.045 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	79 J	0.14 J	2.6	0.042 J	0.23
Benzo(a)pyrene	MG/KG	1	1	41 J	0.17 J	3.0	0.036 J	0.23
Benzo(b)fluoranthene	MG/KG	1	5.6		0.16 J	5.4		0.27 J
Benzo(g,h,i)perylene	MG/KG	100	500		0.14 J	3.1		0.22
Benzo(k)fluoranthene	MG/KG	0.8	56		0.096 J	2.5 J		0.11 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-		0.22	0.17 J	0.030 J	0.065 J
Butylbenzylphthalate	MG/KG	100 CP-51	-		0.019 J			
Carbazole	MG/KG	-	-			0.022 J		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



- = No standard, criteria or guidance value.

Blank cell or ND - Not detected. NA - Not analyzed.

J - The reported concentration is an estimated value. J+ - The reported concntration is an estimated value, with high bias.

D - Result reported from a secondary dilution analysis.

Locat	ion ID			SB-17	SB-18	SB-18	SB-18	SB-19
Sam	ple ID			SB-17-(12-12.5)	SB-18-(4-4.5)	SB-18-(5.5-6)	SB-18-(8.5-9)	20100512-FD-1
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		12.0-12.5	4.0-4.5	5.5-6.0	8.5-9.0	3.0-4.0
Date S	ampled			05/12/10	05/11/10	05/12/10	05/12/10	05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Semivolatile Organic Compo	ounds							
Chrysene	MG/KG	1	56	73 J	0.11 J	1.9	0.032 J	0.20
Dibenz(a,h)anthracene	MG/KG	0.33	0.56		0.036 J	1.4		0.036 J
Dibenzofuran	MG/KG	7	350					
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-		0.042 J			
Fluoranthene	MG/KG	100	500	120 J	0.11 J	1.8	0.040 J	0.39
Fluorene	MG/KG	30	500	120 J		0.48		
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6		0.14 J	2.5 J		0.20 J
Naphthalene	MG/KG	12	500	1,800				
Phenanthrene	MG/KG	100	500	380	0.044 J	0.48	0.042 J	0.10 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	230 J	0.14 J	3.5	0.12 J	0.49
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	3,790	1.286	38.88	0.361	2.586
Total Semivolatile Organic Compounds	MG/KG	-	-	3,790	1.567	39.072	0.391	2.651
Metals								
Aluminum	MG/KG	10000 CP- 51	-	9,170	9,410	10,300	28,600	14,100
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16		1.5			
Barium	MG/KG	350	400	202	72.2	85.6	353	55.7
Beryllium	MG/KG	7.2	590			0.098 J		
Cadmium	MG/KG	2.5	9.3	0.22	0.25	0.31	0.58	0.32

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. J+ - The reported concntration is an estimated value, with high bias.

D - Result reported from a secondary dilution analysis.

Loc	cation ID			SB-17	SB-18	SB-18	SB-18	SB-19
Sa	mple ID			SB-17-(12-12.5)	SB-18-(4-4.5)	SB-18-(5.5-6)	SB-18-(8.5-9)	20100512-FD-1
I	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (fi	t)		12.0-12.5 4.0-	4.0-4.5	5.5-6.0	8.5-9.0	3.0-4.0
Date	Sampled			05/12/10	05/11/10	05/12/10	05/12/10	05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,040	3,750	10,900	3,140	1,770
Chromium	MG/KG	30	1500	39.0	26.0	29.6	\bigcirc	12.1 J
Cobalt	MG/KG	20 CP-51	=	8.6	9.7	11.1	20.9	8.8
Copper	MG/KG	50	270	30.0	33.6	31.0	28.0	56.8
Iron	MG/KG	2000 CP-51	-	25,000	22,600	26,500	46,400	29,400
Lead	MG/KG	63	1000	4.0	11.3	5.9	1.5	12.4
Magnesium	MG/KG	-	-	5,140	5,160	10,600	18,200	7,950
Manganese	MG/KG	1600	10000	135	289	209	386	222
Mercury	MG/KG	0.18	2.8		0.095			0.010 J
Nickel	MG/KG	30	310	40.4	20	35.0	71.8	10.4
Potassium	MG/KG	-	-	3,050	3,010	3,500	16,500	3,860
Selenium	MG/KG	3.9	1500	1.8	1.5	1.4		2.0
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	100	145	131	171	370
Thallium	MG/KG	5 CP-51	-				0.59 J	
Vanadium	MG/KG	39 CP-51	-	36.6	34.6	38.3	127	41.8
Zinc	MG/KG	109	10000	43.1	53.5	49.1	94.7	80.5

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Loca	tion ID			SB-19	SB-19	SB-20	SB-20	SB-21
Sam	ple ID			SB-19-(3-4)	SB-19-(5-5.5)	SB-20-(3-3.5)	SB-20-(4.5-5)	SB-21-(3.5-4)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.0-4.0 05/12/10	5.0-5.5	3.0-3.5	4.5-5.0	3.5-4.0
Date S	ampled				05/12/10	12/15/11	12/15/11	12/15/11
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compou	nds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.016 J	0.24 J		0.014 J	
Benzene	MG/KG	0.06	44					
Carbon disulfide	MG/KG	2.7 CP-51	-		0.019		0.0034 J	
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.065 J			
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-		0.044 J			
Methylene chloride	MG/KG	0.05	500			0.009		
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500		0.013 J			
Total BTEX	MG/KG	-	-	ND	0.013	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	=	0.016	0.381	0.009	0.0174	ND

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Locat	tion ID			SB-19	SB-19	SB-20	SB-20	SB-21
Sam	ple ID			SB-19-(3-4)	SB-19-(5-5.5)	SB-20-(3-3.5)	SB-20-(4.5-5)	SB-21-(3.5-4)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.0-4.0	5.0-5.5	3.0-3.5	4.5-5.0	3.5-4.0
Date S	ampled			05/12/10	05/12/10	12/15/11	12/15/11	12/15/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					0.13 J
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-			1.4 J		1.4 J
2-Methylnaphthalene	MG/KG	0.41 CP-51	-			0.21		0.092 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500					0.17 J
Acenaphthylene	MG/KG	100	500	0.022 J				0.60
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500		1.9		1.3 J	0.84
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.021 J	0.60	0.10 J	0.31	2.8 D
Benzo(a)pyrene	MG/KG	1	1	0.023 J	0.57	0.10 J	0.29	2.9 D
Benzo(b)fluoranthene	MG/KG	1	5.6		0.34 J	0.14 J	0.12 J	2.5
Benzo(g,h,i)perylene	MG/KG	100	500	0.024 J	0.44	0.15 J		1.9
Benzo(k)fluoranthene	MG/KG	0.8	56		0.34 J	0.10 J	0.17 J	2.4
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.046 J	0.054 J	0.061 J		0.084 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					0.23

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. J+ - The reported concntration is an estimated value, with high bias.

D - Result reported from a secondary dilution analysis.

ion ID			SB-19	SB-19	SB-20	SB-20	SB-21
ple ID			SB-19-(3-4)	SB-19-(5-5.5)	SB-20-(3-3.5)	SB-20-(4.5-5)	SB-21-(3.5-4)
trix			Soil	Soil	Soil	Soil	Soil
terval (f	t)		3.0-4.0	5.0-5.5	3.0-3.5	4.5-5.0	3.5-4.0
ampled			05/12/10	05/12/10	12/15/11	12/15/11	12/15/11
Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds							
MG/KG	1	56		1.8	0.098 J	0.22	1.5
MG/KG	0.33	0.56		0.33 J	0.043 J		0.37
MG/KG	7	350				0.49 J	0.14 J
MG/KG	0.014 CP-51	-			0.10 J		0.15 J
MG/KG	100 CP-51	-					
MG/KG	100	500	0.019 J	0.89	0.12 J	0.26	4.0 D
MG/KG	30	500		3.4			0.20
MG/KG	0.5	5.6	0.021 J	0.24 J	0.11 J		1.6
MG/KG	12	500			0.13 J		0.093 J
MG/KG	100	500	0.022 J	1.6	0.11 J	0.41 J	2.3
MG/KG	0.33	500					
MG/KG	100	500	0.023 J	1.5	0.11 J	0.55 J	3.5 D
MG/KG	-	-	0.175	13.95	1.521	3.63	27.765
MG/KG	-	-	0.221	14.004	3.082	4.12	29.899
MG/KG	10000 CP- 51	-	13,900	9,720	13,700	17,400	4,080
MG/KG	12 CP-51	-					4.0
MG/KG	13	16			1.7	1.9	9.6
MG/KG	350	400	57.7	76.2	192	225	66.9
MG/KG	7.2	590			0.80	0.94	0.36
MG/KG	2.5	9.3	0.32	0.27		0.15 J	0.87
	Die ID trix terval (fi ampled Units Dunds MG/KG MG/KG	Description	Trix Trix	SB-19-(3-4) SB-19-(3-4) Itrix Soil Soil Itrix Itrix	SB-19-(3-4) SB-19-(5-5.5)	SB-19-(3-4) SB-19-(5-5.5) SB-20-(3-3.5) Itrix Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil Soil McKik 0.33 0.56 0.33 0.50 McKik Soil Soil Soil Soil Soil McKik Soil Soil Soil Soil Soil Soil McKik Soil Soil Soil Soil Soil Soil Soil McKik Soil Soil	SB-19-(3-4) SB-19-(5-5) SB-20-(3-3-5) SB-20-(4.5-5) trix

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-19	SB-19	SB-20	SB-20	SB-21
Sam	ple ID			SB-19-(3-4)	SB-19-(5-5.5)	SB-20-(3-3.5)	SB-20-(4.5-5)	SB-21-(3.5-4)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	nterval (f	t)		3.0-4.0	5.0-5.5	3.0-3.5	4.5-5.0	3.5-4.0
Date S	Sampled			05/12/10	05/12/10	12/15/11	12/15/11	12/15/11
Parameter	Units Criteria Criteria (1) (2)							
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,660	2,100	3,040	11,500	32,200
Chromium	MG/KG	30	1500	21.9 J	11.9	25.7	71.6	13.9
Cobalt	MG/KG	20 CP-51	-	8.4	9.0	5.7	15.7	3.1
Copper	MG/KG	50	270	51.6	57.8	35.9	32.2	37.1
Iron	MG/KG	2000 CP-51	-	29,500	24,700	26,800	42,800	55,400
Lead	MG/KG	63	1000	9.4	6.3	17.5	13.9	132
Magnesium	MG/KG	-	-	7,240	6,380	8,730	13,000	2,530
Manganese	MG/KG	1600	10000	204	237	241	174	276
Mercury	MG/KG	0.18	2.8	0.0086 J	0.031 J	0.11	0.021 J	0.13
Nickel	MG/KG	30	310	13.0	6.8	19.4	58.2	14.0
Potassium	MG/KG	-	-	3,760	2,550	8,570	7,550	1,190
Selenium	MG/KG	3.9	1500	2.3	1.8			
Silver	MG/KG	2	1500					
Sodium	MG/KG	=	-	326	175	132	112	259
Thallium	MG/KG	5 CP-51	-			1.1	1.2	
Vanadium	MG/KG	39 CP-51	-	45.2	49.6	70.4	99.0	25.5
Zinc	MG/KG	109	10000	74.9	58.3	128	165	159

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-21	SB-21	SB-22	SB-22	SB-32
Sam	ple ID			SB-21-(10-11)	SB-21-(21-22)	20111215-FD-1	SB-22-(4-4.5)	SB-32-(3-4)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth In	nterval (f	t)		10.0-11.0	21.0-22.0	4.0-4.5	4.0-4.5	3.0-4.0
Date S	Sampled			12/16/11	12/16/11	12/15/11	12/15/11	01/13/11
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Volatile Organic Compou	ınds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.010 J	0.0088 J			
Benzene	MG/KG	0.06	44					
Carbon disulfide	MG/KG	2.7 CP-51	-	0.0029				
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500			0.0036		
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	ND	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0129	0.0088	0.0036	ND	ND

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Locat	ion ID	_		SB-21	SB-21	SB-22	SB-22	SB-32
Samı	ple ID			SB-21-(10-11)	SB-21-(21-22)	20111215-FD-1	SB-22-(4-4.5)	SB-32-(3-4)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		10.0-11.0	21.0-22.0	4.0-4.5	4.0-4.5	3.0-4.0
Date S	ampled			12/16/11	12/16/11	12/15/11	12/15/11	01/13/11
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	32				0.14 J
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-		1.4 J	1.3 J	1.3 J	
2-Methylnaphthalene	MG/KG	0.41 CP-51	-					0.42
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					0.050 J
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	120				0.32
Acenaphthylene	MG/KG	100	500	22	0.091 J	0.092 J	0.12 J	2.5
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	60	0.28	0.085 J	0.097 J	2.4
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	39	0.39	0.29	0.30	7.6
Benzo(a)pyrene	MG/KG	1	1	$ \begin{array}{c} 28 \\ \end{array} $	0.55	0.28	0.38	9.2
Benzo(b)fluoranthene	MG/KG	1	5.6	18 J	0.16 J	0.25	0.26	
Benzo(g,h,i)perylene	MG/KG	100	500	12 J	0.26	0.18	0.27	6.4
Benzo(k)fluoranthene	MG/KG	0.8	56	11 J	0.12 J	0.19	0.30	2.5
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-			0.094 J	0.11 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					0.37

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



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- D Result reported from a secondary dilution analysis.

Loca	tion ID			SB-21	SB-21	SB-22	SB-22	SB-32
Sam	ple ID			SB-21-(10-11)	SB-21-(21-22)	20111215-FD-1	SB-22-(4-4.5)	SB-32-(3-4)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		10.0-11.0	21.0-22.0	4.0-4.5	4.0-4.5	3.0-4.0
Date S	ampled			12/16/11	12/16/11	12/15/11	12/15/11	01/13/11
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56	37	0.32	0.24	0.29	7.3
Dibenz(a,h)anthracene	MG/KG	0.33	0.56			0.068 J	0.083 J	1.7
Dibenzofuran	MG/KG	7	350	6.4 J				0.64
Di-n-butylphthalate	MG/KG	0.014 CP-51	-		0.087 J	0.11 J	0.10 J	0.23
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	62	0.23	0.33	0.35	13
Fluorene	MG/KG	30	500	62				0.96
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	8.2 J	0.073 J	0.13 J	0.20	5.4
Naphthalene	MG/KG	12	500	32	0.065 J			0.58
Phenanthrene	MG/KG	100	500	190	0.088 J	0.16 J	0.17 J	7.7
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	99	1.7	0.34	0.40	14
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	800.2	4.327	2.635	3.22	92.98
Total Semivolatile Organic Compounds	MG/KG	-	-	838.6	5.814	4.139	4.73	94.41
Metals								
Aluminum	MG/KG	10000 CP- 51	-	7,980	18,800	8,850	8,200	6,550
Antimony	MG/KG	12 CP-51	-					0.71 J
Arsenic	MG/KG	13	16	4.8	9.0	2.1	2.1	8.2
Barium	MG/KG	350	400	79.3	104	61.8	56.2	144
Beryllium	MG/KG	7.2	590	0.85	2.0	0.63	0.62	0.30
Cadmium	MG/KG	2.5	9.3				0.016 J	1.5

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



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D - Result reported from a secondary dilution analysis.

	Location ID			SB-21	SB-21	SB-22	SB-22	SB-32
	Sample ID			SB-21-(10-11)	SB-21-(21-22)	20111215-FD-1	SB-22-(4-4.5)	SB-32-(3-4)
	Matrix			Soil	Soil	Soil 4.0-4.5	Soil 4.0-4.5	Soil 3.0-4.0
Dej	pth Interval (ft	:)		10.0-11.0	21.0-22.0			
D	ate Sampled			12/16/11	12/16/11	12/15/11	12/15/11	01/13/11
Parameter	· · · · · · · · · · · · · · · · · · ·					Field Duplicate (1-1)		
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,960	2,350	10,300	14,800	22,300 J
Chromium	MG/KG	30	1500	21.2	45.8	26.4	29.3	23.4
Cobalt	MG/KG	20 CP-51	-	4.9	9.1	6.3	6.4	7.5
Copper	MG/KG	50	270	16.4	52.8	28.1	28.8	58.6 J
Iron	MG/KG	2000 CP-51	=	19,800	37,700	17,000	18,200	21,200
Lead	MG/KG	63	1000	6.9	48.8	34.7	41.5	266
Magnesium	MG/KG	-	-	4,440	10,000	8,240	7,430	3,830 J
Manganese	MG/KG	1600	10000	198	515	291	260	248
Mercury	MG/KG	0.18	2.8	0.012 J	0.046	0.066	0.045	0.32 J
Nickel	MG/KG	30	310	11.5	21.7	20.1	20.1	21.9
Potassium	MG/KG	-	-	4,040	10,700	3,700	3,710	1,400
Selenium	MG/KG	3.9	1500					1.7
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	614	2,840	402	385	254
Thallium	MG/KG	5 CP-51	-	0.33 J	0.93 J	0.54 J	0.65 J	
Vanadium	MG/KG	39 CP-51	-	32.6	77.2	31.9	37.0	23.4
Zinc	MG/KG	109	10000	35.2	93.8	51.8	52.8	215 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. J+ - The reported concntration is an estimated value, with high bias.

D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-32	SB-32	SB-32	SB-33	SB-33
Sam	ple ID			SB-32-(5-6)	SB-32-(9-10)	SB-32-(13-14)	SB-33-(3.5-4)	SB-33-(10.5-11)
Ma	itrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		5.0-6.0	9.0-10.0	13.0-14.0	3.5-4.0	10.5-11.0
Date S	ampled			01/17/11	01/17/11	01/17/11	01/11/11	01/14/11
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compou	nds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500		0.0072 J			
Acetone	MG/KG	0.05	500	0.030 J	0.036 J	0.017 J	0.0042 J	0.019 J
Benzene	MG/KG	0.06	44					0.015
Carbon disulfide	MG/KG	2.7 CP-51	-		0.0023	0.012		0.0088
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500				0.0016 J	
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500		0.0020 J			0.0027 J
Xylene (total)	MG/KG	0.26	500		0.0053			0.013
Total BTEX	MG/KG	-	-	ND	0.0073	ND	ND	0.0307
Total Volatile Organic Compounds	MG/KG	-	-	0.03	0.0528	0.029	0.0058	0.0585

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard, criteria or guidance value.

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

Locat	tion ID			SB-32	SB-32	SB-32	SB-33	SB-33
Sam	ple ID			SB-32-(5-6)	SB-32-(9-10)	SB-32-(13-14)	SB-33-(3.5-4)	SB-33-(10.5-11)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		5.0-6.0	9.0-10.0	13.0-14.0	3.5-4.0	10.5-11.0
Date S	ampled			01/17/11	01/17/11	01/17/11	01/11/11	01/14/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.027 J	0.025 J			2.2
2,4-Dimethylphenol	MG/KG	-	-					0.46
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.048 J	0.056 J		0.027 J	5.5
2-Methylphenol (o-cresol)	MG/KG	0.33	500					0.21 J
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					0.57
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.024 J	0.075 J		0.14 J	3.4
Acenaphthylene	MG/KG	100	500	0.50	0.12 J		0.28	8.0
Acetophenone	MG/KG	-	-					0.044 J
Anthracene	MG/KG	100	500	0.15 J	0.24		0.42	14
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.56	0.41		1.6	16
Benzo(a)pyrene	MG/KG	1	1	1.8	0.48		1.6	$ \begin{array}{c} \hline $
Benzo(b)fluoranthene	MG/KG	1	5.6	1.3	0.56		2.0	21
Benzo(g,h,i)perylene	MG/KG	100	500	2.8	0.33		1.0	11
Benzo(k)fluoranthene	MG/KG	0.8	56	0.41	0.24		0.89	4.4
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.026 J	0.081 J		0.27	0.55
Butylbenzylphthalate	MG/KG	100 CP-51	-					0.076 J
Carbazole	MG/KG	-	-		0.21		0.15 J	4.8

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



- = No standard, criteria or guidance value.

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

Loca	tion ID			SB-32	SB-32	SB-32	SB-33	SB-33
Sam	ple ID			SB-32-(5-6)	SB-32-(9-10)	SB-32-(13-14)	SB-33-(3.5-4)	SB-33-(10.5-11)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth In	nterval (f	t)		5.0-6.0	9.0-10.0	13.0-14.0	3.5-4.0	10.5-11.0
Date S	Sampled			01/17/11	01/17/11	01/17/11	01/11/11	01/14/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	0.64	0.38		1.6	15
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.33	0.11 J		0.29	2.9
Dibenzofuran	MG/KG	7	350	0.023 J	0.22		0.050 J	8.9
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					0.040 J
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	0.53	0.66		2.7	39
Fluorene	MG/KG	30	500	0.062 J	0.18 J		0.12 J	11
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	1.7	0.30		0.94	9.4
Naphthalene	MG/KG	12	500	0.15 J	0.32		0.047 J	25
Phenanthrene	MG/KG	100	500	0.25	0.38		1.2	46
Phenol	MG/KG	0.33	500					0.40
Pyrene	MG/KG	100	500	1.2	0.62		2.6	37
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	12.454	5.461	ND	17.454	285.6
Total Semivolatile Organic Compounds	MG/KG	-	-	12.53	5.997	ND	17.924	303.85
Metals								
Aluminum	MG/KG	10000 CP- 51	-	3,690 J	10,100 J	16,700 J	6,300	5,740
Antimony	MG/KG	12 CP-51	-	0.52 J	1.5 J	1.2 J	0.40 J	2.4 J
Arsenic	MG/KG	13	16	2.0	1.8	8.0	6.1	7.3
Barium	MG/KG	350	400	42.3 J	72.3 J	34.5 J	720	118
Beryllium	MG/KG	7.2	590	0.20 J	0.21 J	0.81 J	0.29	0.23
Cadmium	MG/KG	2.5	9.3	0.096 J	0.34	0.64	0.87	2.4

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



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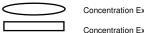
D - Result reported from a secondary dilution analysis.

I	Location ID			SB-32	SB-32	SB-32	SB-33	SB-33
	Sample ID			SB-32-(5-6)	SB-32-(9-10)	SB-32-(13-14)	SB-33-(3.5-4)	SB-33-(10.5-11)
	Matrix			SB-32-(5-6) SB-32-(9-10) SB-32-(13-14) SB-33-(3.5-4) Soil Soil Soil Soil 5.0-6.0 9.0-10.0 13.0-14.0 3.5-4.0 01/17/11 01/17/11 01/17/11 01/11/11	Soil			
Dep	th Interval (ft)		5.0-6.0	9.0-10.0	13.0-14.0	3.5-4.0	10.5-11.0
Da	ate Sampled			01/17/11	01/17/11	01/17/11	01/11/11	01/14/11
Parameter								
Metals								
Calcium	MG/KG	10000 CP- 51	-	7,270 J	1,760 J	2,000 J	61,600 J	23,400 J
Chromium	MG/KG	30	1500	7.9 J	63.2 J	34.7 J	14.3	37.1
Cobalt	MG/KG	20 CP-51	-	3.8 J	9.0 J	11.4 J	4.5	7.5
Copper	MG/KG	50	270	21.9	25.1	15.1	27.5 J	141 J
Iron	MG/KG	2000 CP-51	-	12,900 J	20,600 J	26,900 J	11,200	41,000
Lead	MG/KG	63	1000	99.9 J	7.5 J	19.6 J	1,330	232
Magnesium	MG/KG	-	-	1,350 J	6,210 J	8,020 J	3,680 J	3,110 J
Manganese	MG/KG	1600	10000	125 J	172 J	447 J	182	263
Mercury	MG/KG	0.18	2.8	0.0070 J		0.028 J	0.20 J	0.47 J
Nickel	MG/KG	30	310	11.7 J	35.0 J	29.0 J	13.6	17.6
Potassium	MG/KG	-	-	494	3,100	3,890	1,480	927
Selenium	MG/KG	3.9	1500	0.65 J			0.60 J	0.64 J
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	275	911	4,570	393	472
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	10.4 J	31.4 J	42.2 J	19.8	32.7
Zinc	MG/KG	109	10000	41.0 J	42.5 J	76.7 J	486 J	246 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Locat	ion ID			SB-33	SB-34	SB-34	SB-35	SB-35
Sam	ple ID			SB-33-(13.5-14)	SB-34-(10-11)	SB-34-(20-20.9)	01182011-FD-1	SB-35-(9.5-10.0)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		13.5-14.0	10.0-11.0	20.0-20.9	9.5-10.0	9.5-10.0
Date S	ampled	-		01/14/11	01/14/11	01/14/11	01/18/11	01/18/11
Parameter	Units	Criteria (1)	Criteria (2)				Field Duplicate (1-1)	
Volatile Organic Compou	nds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.014 J	0.015 J	0.012 J	0.012 J	0.018 J
Benzene	MG/KG	0.06	44					
Carbon disulfide	MG/KG	2.7 CP-51	-			0.0050		
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500				0.0017 J	
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					0.0022
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	ND	ND	ND	0.0022
Total Volatile Organic Compounds	MG/KG	-	-	0.014	0.015	0.017	0.0137	0.0202

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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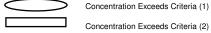
^{- =} No standard, criteria or guidance value.

Locat	tion ID	_		SB-33	SB-34	SB-34	SB-35	SB-35
Sam	ple ID			SB-33-(13.5-14)	SB-34-(10-11)	SB-34-(20-20.9)	01182011-FD-1	SB-35-(9.5-10.0)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		13.5-14.0	10.0-11.0	20.0-20.9	9.5-10.0	9.5-10.0
Date S	ampled			01/14/11	01/14/11	01/14/11	01/18/11	01/18/11
Parameter	Units	Criteria (1)	Criteria (2)				Field Duplicate (1-1)	
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-					
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500		0.020 J			
Acenaphthylene	MG/KG	100	500	0.034 J	0.036 J	0.036 J		
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	0.052 J	0.036 J	0.053 J		
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.11 J	0.11 J	0.11 J	0.060 J	0.052 J
Benzo(a)pyrene	MG/KG	1	1	0.10 J	0.13 J	0.13 J	0.069 J	0.058 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.13 J	0.17 J	0.16 J	0.082 J	0.069 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.066 J	0.092 J	0.085 J	0.056 J	0.057 J
Benzo(k)fluoranthene	MG/KG	0.8	56	0.053 J	0.061 J	0.058 J	0.037 J	0.035 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-				0.058 J	0.033 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



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- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Loca	tion ID			SB-33	SB-34	SB-34	SB-35	SB-35
Sam	ple ID			SB-33-(13.5-14)	SB-34-(10-11)	SB-34-(20-20.9)	01182011-FD-1	SB-35-(9.5-10.0)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		13.5-14.0	10.0-11.0	20.0-20.9	9.5-10.0	9.5-10.0
Date S	ampled			01/14/11	01/14/11	01/14/11	01/18/11	01/18/11
Parameter	Units	Criteria (1)	Criteria (2)				Field Duplicate (1-1)	
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	0.094 J	0.12 J	0.11 J	0.057 J	0.053 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.019 J	0.024 J			
Dibenzofuran	MG/KG	7	350	0.023 J		0.028 J		
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	0.20	0.18 J	0.19 J	0.082 J	0.073 J
Fluorene	MG/KG	30	500	0.034 J		0.036 J		
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.060 J	0.078 J	0.088 J	0.047 J	0.040 J
Naphthalene	MG/KG	12	500	0.021 J	0.033 J	0.088 J		
Phenanthrene	MG/KG	100	500	0.13 J	0.11 J	0.17 J	0.052 J	0.043 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	0.19	0.19	0.19 J	0.083 J	0.076 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	=	1.293	1.39	1.504	0.625	0.556
Total Semivolatile Organic Compounds	MG/KG	=	-	1.316	1.39	1.532	0.683	0.589
Metals								
Aluminum	MG/KG	10000 CP- 51	-	8,430	9,950	15,200	5,580 J	5,690 J
Antimony	MG/KG	12 CP-51	-		0.43 J	0.47 J	0.48 J	0.37 J
Arsenic	MG/KG	13	16	1.7	3.8	11.6		
Barium	MG/KG	350	400	42.8	73.3	33.6	33.7 J	36.9 J
Beryllium	MG/KG	7.2	590	0.55	0.69	0.75	0.45 J	0.41 J
Cadmium	MG/KG	2.5	9.3	0.49	0.93	1.1		0.099 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (2)

^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. J+ - The reported concntration is an estimated value, with high bias.

D - Result reported from a secondary dilution analysis.

Locat	ion ID			SB-33	SB-34	SB-34	SB-35	SB-35
Sam	ple ID			SB-33-(13.5-14)	SB-34-(10-11)	SB-34-(20-20.9)	01182011-FD-1	SB-35-(9.5-10.0)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		13.5-14.0	10.0-11.0	20.0-20.9	9.5-10.0	9.5-10.0
Date S	ampled			01/14/11	01/14/11	01/14/11	01/18/11	01/18/11
Parameter	arameter Units Criteria Criteria (1) (2)						Field Duplicate (1-1)	
Metals								
Calcium	MG/KG	10000 CP- 51	-	20,600 J	15,900 J	1,950 J	46,000 J	31,800 J
Chromium	MG/KG	30	1500	15.9	19.5	30.9	11.1 J	11.4 J
Cobalt	MG/KG	20 CP-51	-	9.3	10.4	10.4	7.4 J	6.2 J
Copper	MG/KG	50	270	15.8 J	36.3 J	16.0 J	16.0	13.5
Iron	MG/KG	2000 CP-51	-	14,400	15,700	34,400	10,400 J	9,110 J
Lead	MG/KG	63	1000	9.0	129	16.2	16.7 J	9.6 J
Magnesium	MG/KG	-	-	14,700 J	8,950 J	7,250 J	29,900 J	21,000 J
Manganese	MG/KG	1600	10000	317	305	469	272 J	461 J
Mercury	MG/KG	0.18	2.8	0.13 J	0.20 J	0.044 J	0.040 J	0.067 J
Nickel	MG/KG	30	310	13.6	22.1	25.0	10.4 J	11.1 J
Potassium	MG/KG	-	-	1,050	1,440	3,710	1,110	1,270
Selenium	MG/KG	3.9	1500	0.92 J	1.2	2.6		
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	468	406	4,360	322	322
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	23.8	26.2	40.1	17.9 J	17.6 J
Zinc	MG/KG	109	10000	41.3 J	86.6 J	71.6 J	38.1 J	33.2 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

Loca	ation ID			SB-35	SB-36	SB-36	SB-36	SB-36
San	nple ID			SB-35-(17.2-17.8)	01132011-FD-1	SB-36-(3-4)	SB-36-(6.5-7)	SB-36-(13.5-14.2)
M	atrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (f	t)		17.2-17.8	3.0-4.0	3.0-4.0	6.5-7.0	13.5-14.2
Date	Sampled			01/18/11	01/13/11	01/13/11	01/17/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Volatile Organic Compo	unds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500	0.0033 J			0.0038 J	
Acetone	MG/KG	0.05	500	0.028 J	0.014 J		0.020 J	0.014 J
Benzene	MG/KG	0.06	44				0.0021 J	
Carbon disulfide	MG/KG	2.7 CP-51	-	0.0022 J	0.0012 J			0.0050
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500				0.0015 J	
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	ND	ND	0.0036	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0335	0.0152	ND	0.0274	0.019

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard, criteria or guidance value.

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

Locat	ion ID			SB-35	SB-36	SB-36	SB-36	SB-36
Sam	ple ID			SB-35-(17.2-17.8)	01132011-FD-1	SB-36-(3-4)	SB-36-(6.5-7)	SB-36-(13.5-14.2)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		17.2-17.8	3.0-4.0	3.0-4.0	6.5-7.0	13.5-14.2
Date S	ampled			01/18/11	01/13/11	01/13/11	01/17/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-		3.6 J	0.94	0.028 J	
2,4-Dimethylphenol	MG/KG	-	-		0.40	0.19		
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-			3.0	0.12 J	
2-Methylphenol (o-cresol)	MG/KG	0.33	500		0.23	0.12 J		
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500		0.64	0.27	0.025 J	
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500		7.5 J	2.0	0.052 J	
Acenaphthylene	MG/KG	100	500		25	6.8	1.4	
Acetophenone	MG/KG	-	=		0.048 J	0.023 J	0.074 J	
Anthracene	MG/KG	100	500	0.068 J	38	11	0.49	
Benzaldehyde	MG/KG	=	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.14 J	58	\bigcirc	1.4	
Benzo(a)pyrene	MG/KG	1	1	0.14 J	$ \begin{array}{c} 50 \end{array} $	14	1.6	
Benzo(b)fluoranthene	MG/KG	1	5.6	0.19 J	66	$\boxed{ 17}$	3.3	
Benzo(g,h,i)perylene	MG/KG	100	500	0.096 J	30	8.3	2.3	
Benzo(k)fluoranthene	MG/KG	0.8	56	0.087 J	21	6.8	1.1	
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-				0.046 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-		12	3.4 J	0.066 J	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-35	SB-36	SB-36	SB-36	SB-36
Sam	ple ID			SB-35-(17.2-17.8)	01132011-FD-1	SB-36-(3-4)	SB-36-(6.5-7)	SB-36-(13.5-14.2)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		17.2-17.8	3.0-4.0	3.0-4.0	6.5-7.0	13.5-14.2
Date S	ampled			01/18/11	01/13/11	01/13/11	01/17/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56	0.13 J	51	14	1.7	
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.031 J	6.3 J	2.5	0.60	
Dibenzofuran	MG/KG	7	350		19	5.5		
Di-n-butylphthalate	MG/KG	0.014 CP-51	-				0.054 J	
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	0.21	130	39	1.6	0.052 J
Fluorene	MG/KG	30	500	0.032 J	26	7.8	0.14 J	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.091 J	27	7.6	2.0 J	
Naphthalene	MG/KG	12	500		21	7.5	0.23	
Phenanthrene	MG/KG	100	500	0.15 J	140	39	0.61	0.055 J
Phenol	MG/KG	0.33	500		0.39	0.15 J		
Pyrene	MG/KG	100	500	0.19 J	120	35	2.0	0.048 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	1.555	827.8	238.3	20.642	0.155
Total Semivolatile Organic Compounds	MG/KG	=	=	1.555	864.108	248.893	20.935	0.155
Metals								
Aluminum	MG/KG	10000 CP- 51	-	14,000 J	8,680	10,800	4,710 J	14,700 J
Antimony	MG/KG	12 CP-51	-	1.3 J	0.66 J	0.86 J	1.7 J	0.67 J
Arsenic	MG/KG	13	16	1.2	3.9	4.2	9.2	11.1
Barium	MG/KG	350	400	59.6 J	73.3	87.9	230 J	28.5 J
Beryllium	MG/KG	7.2	590	0.48 J	0.26	0.35	0.16 J	0.73 J
Cadmium	MG/KG	2.5	9.3	0.40	0.75	0.97	1.0	0.69

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

I	Location ID			SB-35	SB-36	SB-36	SB-36	SB-36
	Sample ID			SB-35-(17.2-17.8)	01132011-FD-1	SB-36-(3-4)	SB-36-(6.5-7)	SB-36-(13.5-14.2)
	Matrix			Soil	Soil	Soil	Soil	B-36-(6.5-7) SB-36-(13.5-14.2) Soil Soil 6.5-7.0 13.5-14.2 01/17/11 01/17/11 11,100 J 1,930 J 15.9 J 31.1 J 4.7 J 11.0 J 85.4 13.9 24,000 J 32,400 J 355 J 13.6 J
Dep	th Interval (fl	:)		17.2-17.8	3.0-4.0	3.0-4.0	6.5-7.0	13.5-14.2
Da	ate Sampled			01/18/11	01/13/11	01/13/11	01/17/11	01/17/11
Parameter	rameter Units Criteria Criteria (1) (2)				Field Duplicate (1-1)			
Metals								
Calcium	MG/KG	10000 CP- 51	-	1,150 J	4,190 J	3,170 J	11,100 J	1,930 J
Chromium	MG/KG	30	1500	27.9 J	23.4	27.0	15.9 J	31.1 J
Cobalt	MG/KG	20 CP-51	-	9.4 J	7.7	8.2	4.7 J	11.0 J
Copper	MG/KG	50	270	17.5	46.9 J	115 J	\int	
Iron	MG/KG	2000 CP-51	-	19,400 J	17,800	20,800	24,000 J	32,400 J
Lead	MG/KG	63	1000	10.9 J	85.1	96.2	355 J	13.6 J
Magnesium	MG/KG	-	-	5,870 J	4,380 J	4,580 J	1,820 J	7,250 J
Manganese	MG/KG	1600	10000	251 J	132	171	166 J	553 J
Mercury	MG/KG	0.18	2.8	0.039 J	0.16 J	0.21 J	0.61 J	0.0090 J
Nickel	MG/KG	30	310	21.2 J	19.2	20.2	13.8 J	25.8 J
Potassium	MG/KG	-	-	2,010	1,790	2,420	1,440	3,360
Selenium	MG/KG	3.9	1500		1.4	1.3 J	0.95 J	
Silver	MG/KG	2	1500				0.37 J	
Sodium	MG/KG	-	-	1,430	194	206	409	3,730
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	=	31.8 J	27.0	34.0	35.3 J	37.8 J
Zinc	MG/KG	109	10000	57.6 J	113 J	(142 J	230 J	72.7 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	ation ID			SB-37	SB-37	SB-37	SB-37	SB-38
Sar	nple ID			SB-37-(3-4)	SB-37-(8.5-9)	SB-37-(8.2-9.0)	SB-37-(13.5-14.5)	SB-38-(4-5)
N	latrix			Soil Soil	Soil	Soil	Soil Soil 8.2-9.0 13.5-14.5	Soil
	nterval (f	t)		3.0-4.0	8.5-9.0			4.0-5.0
Date	Sampled			01/06/11	01/06/11	01/11/11	01/11/11	01/06/11
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Volatile Organic Compo	unds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500			0.0078 J		
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500			0.11 J	0.013 J	
Benzene	MG/KG	0.06	44			0.026 J		0.0016 J
Carbon disulfide	MG/KG	2.7 CP-51	-			0.0088 J		
Chloroform	MG/KG	0.37	350		0.11 J			
Cyclohexane	MG/KG	-	-		2.0	0.49 J		
Ethylbenzene	MG/KG	1	390		2.8	8.6 J		
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.41	0.61 J		
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-		1.6	0.67 J		
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500			0.082 J		0.0018 J
Xylene (total)	MG/KG	0.26	500		0.33 J	4.6 J		
Total BTEX	MG/KG	-	-	ND	3.13	13.308	ND	0.0034
Total Volatile Organic Compounds	MG/KG	-	-	ND	7.25	15.2046	0.013	0.0034

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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- D Result reported from a secondary dilution analysis.

Loca	tion ID			SB-37	SB-37	SB-37	SB-37	SB-38
Sam	ple ID			SB-37-(3-4)	SB-37-(8.5-9)	SB-37-(8.2-9.0)	SB-37-(13.5-14.5)	SB-38-(4-5)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In		t)		3.0-4.0	8.5-9.0	8.2-9.0	13.5-14.5	4.0-5.0
Date S	ampled			01/06/11	01/06/11	01/11/11	01/11/11	01/06/11
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Comp	Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.37				0.071 J
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	1.2				0.43
2-Methylphenol (o-cresol)	MG/KG	0.33	500	0.021 J				0.042 J
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500	0.054 J				0.14 J
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.78	6.1	3.3		0.15 J
Acenaphthylene	MG/KG	100	500	2.7	3.8			3.6
Acetophenone	MG/KG	-	-	0.038 J	0.85 J			0.12 J
Anthracene	MG/KG	100	500	2.9	2.4	1.5		2.0
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	6.3	3.6	0.72 J		7.1
Benzo(a)pyrene	MG/KG	1	1	5.7	2.0 J	0.54 J		6.4
Benzo(b)fluoranthene	MG/KG	1	5.6	7.1	7.1	0.50 J		
Benzo(g,h,i)perylene	MG/KG	100	500	3.8	3.7	0.36 J		7.4
Benzo(k)fluoranthene	MG/KG	0.8	56	1.7	3.5	0.45 J		2.5
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.30	0.36 J			0.15 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	1.1	0.40 J			0.19 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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Loca	tion ID			SB-37	SB-37	SB-37	SB-37	SB-38
Sam	ple ID			SB-37-(3-4)	SB-37-(8.5-9)	SB-37-(8.2-9.0)	SB-37-(13.5-14.5)	SB-38-(4-5)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		3.0-4.0	8.5-9.0	8.2-9.0	13.5-14.5	4.0-5.0
Date S	ampled			01/06/11	01/06/11	01/11/11	01/11/11	01/06/11
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56	5.5	6.9	1.6 J		7.4
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	1.0	1.4 J	0.12 J		1.7
Dibenzofuran	MG/KG	7	350	1.8	3.0	1.7 J		0.21
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.059 J				0.035 J
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	15	3.0	1.5 J		8.7
Fluorene	MG/KG	30	500	2.3	6.2	3.6		0.29
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	3.3	3.2 J	0.29 J		6.0 J
Naphthalene	MG/KG	12	500	3.6	0.80 J	0.54		1.9
Phenanthrene	MG/KG	100	500	15	10	5.8		3.0
Phenol	MG/KG	0.33	500	0.033 J				0.047 J
Pyrene	MG/KG	100	500	14	5.5	2.8 J		14
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	=	91.88	69.2	23.62	ND	83.57
Total Semivolatile Organic Compounds	MG/KG	-	=	95.655	73.81	25.32	ND	84.575
Metals								
Aluminum	MG/KG	10000 CP- 51	-	7,020	3,310	2,670	12,900	9,990
Antimony	MG/KG	12 CP-51	-	2.8 J	1.0 J		0.66 J	1.3 J
Arsenic	MG/KG	13	16	9.2	4.1	3.9	4.2	5.6
Barium	MG/KG	350	400	367	67.4	84.3	31.7	69.3
Beryllium	MG/KG	7.2	590	0.47	0.19 J	0.17 J	0.41	0.40
Cadmium	MG/KG	2.5	9.3	2.4 J	0.12 J	0.39	0.54	0.66 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	ation ID			SB-37	SB-37	SB-37	SB-37	SB-38
San	nple ID			SB-37-(3-4)	SB-37-(8.5-9)	SB-37-(8.2-9.0)	SB-37-(13.5-14.5)	SB-38-(4-5)
	atrix				Soil	oil Soil	Soil 13.5-14.5	Soil
Depth I	nterval (f	t)		3.0-4.0	8.5-9.0	8.2-9.0		4.0-5.0
Date :	Sampled			01/06/11	01/06/11	01/11/11	01/11/11	01/06/11
Parameter						Field Duplicate (1-1)		
Metals								
Calcium	MG/KG	10000 CP- 51	-	20,500 J	567 J	1,870 J	1,060 J	3,630 J
Chromium	MG/KG	30	1500	28.0	13.9	6.8	19.2	22.8
Cobalt	MG/KG	20 CP-51	-	7.3 J	1.5 J	3.3	8.2	4.4 J
Copper	MG/KG	50	270	148	26.7	58.3 J	13.3 J	72.9
Iron	MG/KG	2000 CP-51	-	34,900 J	12,800 J	14,000	20,100	18,200 J
Lead	MG/KG	63	1000	762 J	54.6 J	20.7	7.7	169 J
Magnesium	MG/KG	-	=	4,370	1,080	515 J	3,620 J	5,740
Manganese	MG/KG	1600	10000	333	38.0	61.4	816	156
Mercury	MG/KG	0.18	2.8	1.0	0.44	0.15 J	0.0094 J	0.70
Nickel	MG/KG	30	310	23.0	9.2	6.8	14.5	18.0
Potassium	MG/KG	-	-	2,270	613	1,170	1,010	2,360
Selenium	MG/KG	3.9	1500			1.1	1.2 J	
Silver	MG/KG	2	1500	0.16 J	0.085 J			0.080 J
Sodium	MG/KG	-	-	347	74.2	75.6	916	285
Thallium	MG/KG	5 CP-51	-	0.99	0.56 J			0.47 J
Vanadium	MG/KG	39 CP-51	-	22.9	21.5	13.3	26.2	33.1
Zinc	MG/KG	109	10000	556 J	26.3 J	26.5 J	33.0 J	169 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loc	ation ID			SB-38	SB-38	SB-38	SB-39	SB-39
Sai	mple ID			SB-38-(7.8-8.5)	SB-38-(11-11.5)	SB-38-(15.5-16.5)	SB-39-(3.5-4)	SB-39-(5-5.5)
N	<i>l</i> latrix			Soil	Soil	Soil	Soil	Soil
	Interval (f	t)		7.8-8.5	11.0-11.5	15.5-16.5	3.5-4.0	5.0-5.5
Date	Sampled			01/11/11	01/11/11	01/11/11	01/07/11	01/07/11
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500			0.0057 J		
Acetone	MG/KG	0.05	500	0.019 J		0.032 J		0.059 J
Benzene	MG/KG	0.06	44	0.0074		0.0019 J		0.035
Carbon disulfide	MG/KG	2.7 CP-51	-			0.041		
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					0.091
Ethylbenzene	MG/KG	1	390	0.019				
Isopropylbenzene	MG/KG	2.3 CP-51	-	0.0048	1.0			0.24
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500			0.0022 J		
Methylcyclohexane	MG/KG	-	-	0.0042 J	1.3			0.36
Methylene chloride	MG/KG	0.05	500			0.0017 J		
Styrene	MG/KG	300 CP-51	-	0.048				
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500	0.017		0.0069		0.016 J
Xylene (total)	MG/KG	0.26	500	0.083				
Total BTEX	MG/KG	-	-	0.1264	ND	0.0088	ND	0.051
Total Volatile Organic Compounds	MG/KG	-	-	0.2024	2.3	0.0914	ND	0.801

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Locat	tion ID			SB-38	SB-38	SB-38	SB-39	SB-39
Sam	ple ID			SB-38-(7.8-8.5)	SB-38-(11-11.5)	SB-38-(15.5-16.5)	SB-39-(3.5-4)	SB-39-(5-5.5)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		7.8-8.5	11.0-11.5	15.5-16.5	3.5-4.0	5.0-5.5
Date S	ampled			01/11/11	01/11/11	01/11/11	01/07/11	01/07/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	54 J				
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	520	43			12
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	17	2.6			9.1
Acenaphthylene	MG/KG	100	500	29			0.73 J	
Acetophenone	MG/KG	-	-	24				
Anthracene	MG/KG	100	500	45 J	1.5		0.60 J	4.3
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	150	1.7		2.4	3.4
Benzo(a)pyrene	MG/KG	1	1	65 J	1.4		2.4	1.7 J
Benzo(b)fluoranthene	MG/KG	1	5.6	120	1.2		3.6	1.3 J
Benzo(g,h,i)perylene	MG/KG	100	500	56 J	1.1		1.9 J	0.74 J
Benzo(k)fluoranthene	MG/KG	0.8	56	24	1.1		1.3 J	0.49 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-					0.45 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-				0.22 J	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Locat	tion ID			SB-38	SB-38	SB-38	SB-39	SB-39
Sam	ple ID			SB-38-(7.8-8.5)	SB-38-(11-11.5)	SB-38-(15.5-16.5)	SB-39-(3.5-4)	SB-39-(5-5.5)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	:)		7.8-8.5	11.0-11.5	15.5-16.5	3.5-4.0	5.0-5.5
Date S	ampled			01/11/11	01/11/11	01/11/11	01/07/11	01/07/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	160	2.3		2.5	5.2
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	15	0.33		0.48 J	0.33 J
Dibenzofuran	MG/KG	7	350	14	1.3			
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	190	1.7		4.5	3.8
Fluorene	MG/KG	30	500	88	3.8 J		0.22 J	11
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	44 J	0.87		1.7 J	0.58 J
Naphthalene	MG/KG	12	500	1,100	4.7			
Phenanthrene	MG/KG	100	500	420	10		2.3	23
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	300	3.6 J		4.4	9.1
Total Polynuclear Aromatic Hydrocarbons	MG/KG	=	=	3,343	80.9	ND	29.03	86.04
Total Semivolatile Organic Compounds	MG/KG	-	-	3,435	82.2	ND	29.25	86.49
Metals								
Aluminum	MG/KG	10000 CP- 51	=	2,220	11,600	14,100	6,290	7,180
Antimony	MG/KG	12 CP-51	-	3.2 J	0.38 J		1.2 J	0.99 J
Arsenic	MG/KG	13	16	32.7	1.5	8.6	3.9	1.7
Barium	MG/KG	350	400	88.6	144	31.0	142	58.9
Beryllium	MG/KG	7.2	590	0.039 J		0.72	0.35	0.39
Cadmium	MG/KG	2.5	9.3	2.7	0.78	0.84	1.0 J	1.2 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Locati	ion ID			SB-38	SB-38	SB-38	SB-39	SB-39
Samp	le ID			SB-38-(7.8-8.5)	SB-38-(11-11.5)	SB-38-(15.5-16.5)	SB-39-(3.5-4)	SB-39-(5-5.5)
Mat	trix			Soil	Soil	Soil	Soil	Soil
Depth Int	terval (fi	t)		7.8-8.5	11.0-11.5	15.5-16.5	3.5-4.0	5.0-5.5
Date Sa	ampled			01/11/11	01/11/11	01/11/11	01/07/11	01/07/11
Parameter	rameter Units Criteria Criteria (1) (2)							
Metals								
Calcium	MG/KG	10000 CP- 51	-	725 J	6,630 J	1,720 J	29,000 J	9,230 J
Chromium	MG/KG	30	1500	14.2	15.4	29.1	15.5	25.0
Cobalt	MG/KG	20 CP-51	-	4.8	10.1	10	4.4 J	6.7 J
Copper	MG/KG	50	270	319 J	37.3 J	12.4 J	34.2	35.6
Iron	MG/KG	2000 CP-51	-	62,200	24,100	29,300	10,700 J	16,400 J
Lead	MG/KG	63	1000	275	8.1	12.4	163 J	55.2 J
Magnesium	MG/KG	=	=	1,470 J	5,320 J	6,860 J	2,930	5,420
Manganese	MG/KG	1600	10000	211	554	421	261	151
Mercury	MG/KG	0.18	2.8	0.58 J	0.042 J	0.017 J	0.58	0.32
Nickel	MG/KG	30	310	9.7	11.5	23.7	14.2	21.0
Potassium	MG/KG	=	=	868	6,460	3,070	1,990	2,050
Selenium	MG/KG	3.9	1500	4.2	0.94 J	2.2 J		
Silver	MG/KG	2	1500					
Sodium	MG/KG	=	=	292	270	4,680	281	141
Thallium	MG/KG	5 CP-51	-	0.84 J				
Vanadium	MG/KG	39 CP-51	-	24.1	45.8	37.7	19.0	27.2
Zinc	MG/KG	109	10000	162 J	44.0 J	69.1 J	136 J	130 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-39	SB-39	SB-40	SB-40	SB-41
Sam	ple ID			SB-39-(6.7-7.7)	SB-39-(14-15)	SB-40-(9.5-10)	SB-40-(13.5-14.5)	SB-41 (0.5-1.0)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth In	nterval (f	t)		6.7-7.7	14.0-15.0	9.5-10.0	13.5-14.5	0.5-1.0
Date S	Sampled			01/17/11	01/17/11	01/14/11	01/14/11	02/18/14
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compou	ınds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500				0.0062 J	
Acetone	MG/KG	0.05	500		0.011 J		0.030 J	
Benzene	MG/KG	0.06	44	0.31 J				
Carbon disulfide	MG/KG	2.7 CP-51	-		0.014			
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-	0.43				
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-	1.2				
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-	2.2				
Methylene chloride	MG/KG	0.05	500		0.0017 J			
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500					0.0092 J
Total BTEX	MG/KG	-	-	0.31	ND	ND	ND	0.0092
Total Volatile Organic Compounds	MG/KG	-	-	4.14	0.0267	ND	0.0362	0.0092

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

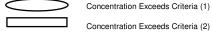
^{- =} No standard, criteria or guidance value.

Locat	ion ID			SB-39	SB-39	SB-40	SB-40	SB-41
Sam	ple ID			SB-39-(6.7-7.7)	SB-39-(14-15)	SB-40-(9.5-10)	SB-40-(13.5-14.5)	SB-41 (0.5-1.0)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		6.7-7.7	14.0-15.0	9.5-10.0	13.5-14.5	0.5-1.0
Date S	ampled			01/17/11	01/17/11	01/14/11	01/14/11	02/18/14
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	$\overline{}$				0.075 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	8.4		2.4	0.020 J	
Acenaphthylene	MG/KG	100	500					0.59
Acetophenone	MG/KG	-	-					0.064 J
Anthracene	MG/KG	100	500	2.6		0.69		0.21 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	1.4 J		0.45		0.65
Benzo(a)pyrene	MG/KG	1	1	0.76 J		0.26		0.74
Benzo(b)fluoranthene	MG/KG	1	5.6	0.88 J		0.25		1.1
Benzo(g,h,i)perylene	MG/KG	100	500			0.14 J		0.85
Benzo(k)fluoranthene	MG/KG	0.8	56	0.43 J		0.078 J		0.48
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-					
Butylbenzylphthalate	MG/KG	100 CP-51	-					0.043 J
Carbazole	MG/KG	-	-	1.0 J				0.071 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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Loca	tion ID			SB-39	SB-39	SB-40	SB-40	SB-41
Sam	ple ID			SB-39-(6.7-7.7)	SB-39-(14-15)	SB-40-(9.5-10)	SB-40-(13.5-14.5)	SB-41 (0.5-1.0)
Ma	itrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		6.7-7.7	14.0-15.0	9.5-10.0	13.5-14.5	0.5-1.0
Date S	ampled			01/17/11	01/17/11	01/14/11	01/14/11	02/18/14
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Chrysene	MG/KG	1	56	1.5 J		0.97		0.86
Dibenz(a,h)anthracene	MG/KG	0.33	0.56			0.059 J		0.17 J
Dibenzofuran	MG/KG	7	350	4.1		0.78		
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					0.26 J
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	2.7		0.70	0.020 J	0.83
Fluorene	MG/KG	30	500	10		2.4		
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.36 J		0.098 J		0.82
Naphthalene	MG/KG	12	500	8.5		0.47	0.052 J	0.090 J
Phenanthrene	MG/KG	100	500	19		2.2		0.34 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	5.7		1.7		1.0
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	132.23	ND	12.865	0.092	8.805
Total Semivolatile Organic Compounds	MG/KG	-	-	137.33	ND	13.645	0.092	9.243
Metals	•							
Aluminum	MG/KG	10000 CP- 51	-	9,440 J	11,200 J	1,330	14,600	2,840
Antimony	MG/KG	12 CP-51	-	1.0 J	0.76 J		0.63 J	0.53 J
Arsenic	MG/KG	13	16	1.3	9.1	2.9	2.5	6.2
Barium	MG/KG	350	400	38.5 J	22.3 J	54.1	87.2	88.1
Beryllium	MG/KG	7.2	590	0.31 J	0.55 J	0.064 J	0.69	0.28
Cadmium	MG/KG	2.5	9.3	0.26	0.49	0.16 J	1.0	0.28

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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D - Result reported from a secondary dilution analysis.

Loc	ation ID			SB-39	SB-39	SB-40	SB-40	SB-41
Sa	mple ID			SB-39-(6.7-7.7)	SB-39-(14-15)	SB-40-(9.5-10)	SB-40-(13.5-14.5)	SB-41 (0.5-1.0)
N	/latrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (fi	t)		6.7-7.7	14.0-15.0	9.5-10.0	13.5-14.5	0.5-1.0
Date	Sampled			01/17/11	01/17/11	01/14/11	01/14/11	02/18/14
Parameter	arameter Units Criteria Criteria (1) (2)							
Metals								
Calcium	MG/KG	10000 CP- 51	-	2,540 J	3,230 J	938 J	1,460 J	21,800
Chromium	MG/KG	30	1500	17.5 J	23.4 J	6.9	41.6	6.2
Cobalt	MG/KG	20 CP-51	-	10.7 J	8.2 J	1.7 J	15.6	22.2
Copper	MG/KG	50	270	15.9	10.1	23.6 J	27.6 J	34.3
Iron	MG/KG	2000 CP-51	-	12,300 J	38,600 J	6,900	33,700	6,550
Lead	MG/KG	63	1000	6.3 J	10.4 J	30.2	10.3	154
Magnesium	MG/KG	=	-	4,280 J	5,830 J	412 J	6,200 J	1,940
Manganese	MG/KG	1600	10000	181 J	388 J	22.6	368	57.0
Mercury	MG/KG	0.18	2.8	0.0098 J	0.0073 J	0.014 J	0.018 J	0.20
Nickel	MG/KG	30	310	20.1 J	19.6 J	6.0	26.8	9.8
Potassium	MG/KG	-	-	1,670	2,620	412	2,770	600
Selenium	MG/KG	3.9	1500			1.4 J	1.5	0.61 J
Silver	MG/KG	2	1500					
Sodium	MG/KG	=	-	185	3,400	93.7	1,500	937
Thallium	MG/KG	5 CP-51	-					0.34 J
Vanadium	MG/KG	39 CP-51	-	22.9 J	31.1 J	8.6	45.2	12.3
Zinc	MG/KG	109	10000	96.3 J	53.4 J	18.9 J	63.2 J	116

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

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Loc	ation ID			SB-41	SB-41	SB-42	SB-42	SB-42
Sai	mple ID			SB-41 (7-9)	SB-41 (9-11)	DUP021914	SB-42 (0.5-1.0)	SB-42 (18.5-19.5)
N	/latrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (f	t)		7.0-9.0	9.0-11.0	0.5-1.0	0.5-1.0	18.5-19.5
Date	Sampled			02/18/14	02/18/14	02/19/14	02/19/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Volatile Organic Compo	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-		NA			
1,2-Dichlorobenzene	MG/KG	1.1	500		NA			
1,2-Dichloroethene (cis)	MG/KG	0.25	500		NA			
2-Butanone	MG/KG	0.12	500		NA			
Acetone	MG/KG	0.05	500	0.0054 J	NA	0.0065 J	0.012 J	
Benzene	MG/KG	0.06	44	0.0024 J	NA			2.5
Carbon disulfide	MG/KG	2.7 CP-51	-		NA			
Chloroform	MG/KG	0.37	350		NA			
Cyclohexane	MG/KG	-	-		NA			
Ethylbenzene	MG/KG	1	390		NA			8.2
Isopropylbenzene	MG/KG	2.3 CP-51	-		NA			1.0
Methyl acetate	MG/KG	-	-		NA			
Methyl tert-butyl ether	MG/KG	0.93	500		NA			
Methylcyclohexane	MG/KG	-	-		NA			
Methylene chloride	MG/KG	0.05	500		NA			
Styrene	MG/KG	300 CP-51	-		NA			5.0
Tetrachloroethene	MG/KG	1.3	150		NA			
Toluene	MG/KG	0.7	500		NA			5.8
Xylene (total)	MG/KG	0.26	500		NA			17
Total BTEX	MG/KG	-	-	0.0024	NA	ND	ND	33.5
Total Volatile Organic Compounds	MG/KG	-	-	0.0078	NA	0.0065	0.012	39.5

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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Locat	ion ID			SB-41	SB-41	SB-42	SB-42	SB-42
Samı	ple ID			SB-41 (7-9)	SB-41 (9-11)	DUP021914	SB-42 (0.5-1.0)	SB-42 (18.5-19.5)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		7.0-9.0	9.0-11.0	0.5-1.0	0.5-1.0	18.5-19.5
Date S	ampled			02/18/14	02/18/14	02/19/14	02/19/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Compo	Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	NA	0.078 J	0.47	0.42	17 J
2,4-Dimethylphenol	MG/KG	-	-	NA				
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-	NA				
2-Chloronaphthalene	MG/KG	-	-	NA				
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	NA	0.69	0.20 J	0.13 J	240 D
2-Methylphenol (o-cresol)	MG/KG	0.33	500	NA				
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500	NA				0.13 J
3,3'-Dichlorobenzidine	MG/KG	-	-	NA				
Acenaphthene	MG/KG	20	500	NA	5.9 D	0.75	0.59	9.0 J
Acenaphthylene	MG/KG	100	500	NA	3.2	4.8 DJ	2.4 J	98 DJ
Acetophenone	MG/KG	-	-	NA				
Anthracene	MG/KG	100	500	NA	4.9 D	3.7 DJ	2.6	32 DJ
Benzaldehyde	MG/KG	-	-	NA				
Benzo(a)anthracene	MG/KG	1	5.6	NA	11 D	4.5 D	2.9	33 DJ
Benzo(a)pyrene	MG/KG	1	1	NA	10 D	3.3 DJ	2.1	21 DJ
Benzo(b)fluoranthene	MG/KG	1	5.6	NA	12 D	4.4 DJ	2.2 J	13 DJ
Benzo(g,h,i)perylene	MG/KG	100	500	NA	9.4 D	2.5 J	1.1 J	6.7 J
Benzo(k)fluoranthene	MG/KG	0.8	56	NA	5.0 D	2.2 J	0.95 J	5.5 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	NA				
Butylbenzylphthalate	MG/KG	100 CP-51	-	NA	0.071 J			
Carbazole	MG/KG	-	-	NA	0.16 J	0.18 J	0.069 J	0.31 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Loca	tion ID			SB-41	SB-41	SB-42	SB-42	SB-42
Sam	ple ID			SB-41 (7-9)	SB-41 (9-11)	DUP021914	SB-42 (0.5-1.0)	SB-42 (18.5-19.5)
Ma	atrix			Soil	Soil 9.0-11.0	Soil	Soil	Soil
Depth Ir	iterval (f	t)		7.0-9.0		0.5-1.0	0.5-1.0	18.5-19.5
Date S	ampled			02/18/14	02/18/14	02/19/14	02/19/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Comp	ounds							
Chrysene	MG/KG	1	56	NA	17 D	5.1 DJ	2.9 J	27 DJ
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	NA	2.2	0.64 J	0.33 J	2.1
Dibenzofuran	MG/KG	7	350	NA	0.27 J	0.41	0.29 J	
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	NA	0.12 J	0.10 J	0.10 J	
Di-n-octylphthalate	MG/KG	100 CP-51	-	NA				
Fluoranthene	MG/KG	100	500	NA	15 D	7.5 DJ	4.0 DJ	38 DJ
Fluorene	MG/KG	30	500	NA	2.1	4.1 D	2.6	41 DJ
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	NA	8.3 D	2.6 J	1.2 J	6.3 J
Naphthalene	MG/KG	12	500	NA	3.3	0.50	0.48	710 D
Phenanthrene	MG/KG	100	500	NA	8.1 D	13 D	8.2 D	140 DJ
Phenol	MG/KG	0.33	500	NA				0.13 J
Pyrene	MG/KG	100	500	NA	22 D	11 DJ	6.6 DJ	42 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	NA	140.09	70.79	41.28	1,464.6
Total Semivolatile Organic Compounds	MG/KG	-	-	NA	140.789	71.95	42.159	1,482.17
Metals								
Aluminum	MG/KG	10000 CP- 51	-	NA	6,100	6,480	7,100	11,100
Antimony	MG/KG	12 CP-51	-	NA			1.7 J	
Arsenic	MG/KG	13	16	NA	13.3	12.0	10.4	1.8
Barium	MG/KG	350	400	NA	64.4	145	135	69.0
Beryllium	MG/KG	7.2	590	NA	0.28	0.44	0.46	
Cadmium	MG/KG	2.5	9.3	NA	0.33			0.46

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



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D - Result reported from a secondary dilution analysis.

	Location ID			SB-41	SB-41	SB-42	SB-42	SB-42
	Sample ID			SB-41 (7-9)	SB-41 (9-11)	DUP021914	SB-42 (0.5-1.0)	SB-42 (18.5-19.5)
	Matrix			Soil	Soil	Soil 0.5-1.0	Soil 0.5-1.0	Soil 18.5-19.5
De	epth Interval (fi	t)		7.0-9.0	9.0-11.0			
1	Date Sampled			02/18/14	02/18/14	02/19/14	02/19/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Metals								
Calcium	MG/KG	10000 CP- 51	-	NA	5,420	4,140	5,080	1,320
Chromium	MG/KG	30	1500	NA	13.2	15.5	24.8 J	48.2
Cobalt	MG/KG	20 CP-51	-	NA	3.1	10.7	13.3	11.1
Copper	MG/KG	50	270	NA	65.4	54.5	53.5	34.0
Iron	MG/KG	2000 CP-51	-	NA	20,500	21,500	18,500	21,700
Lead	MG/KG	63	1000	NA	335	134	144	2.1
Magnesium	MG/KG	-	-	NA	3,860	2,230	2,790	6,580
Manganese	MG/KG	1600	10000	NA	140	128	127	545
Mercury	MG/KG	0.18	2.8	NA	0.28	0.18	0.13	
Nickel	MG/KG	30	310	NA	21.2	15.3	17.7	39.6
Potassium	MG/KG	-	-	NA	719	1,460	1,590	5,120
Selenium	MG/KG	3.9	1500	NA		2.1		0.62 J
Silver	MG/KG	2	1500	NA				0.40 J
Sodium	MG/KG	-	-	NA	479	685	681	168
Thallium	MG/KG	5 CP-51	-	NA				
Vanadium	MG/KG	39 CP-51	-	NA	50.7	24.3	26.6	47.3
Zinc	MG/KG	109	10000	NA	133	103	105	52.2

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

^{- =} No standard, criteria or guidance value.

Loca	tion ID			SB-43	SB-43	SB-44	SB-44	SB-44
Sam	ple ID			SB-43 (1-2)	SB-43 (10-12)	SB-44 (1.5-2)	SB-44 (10-12)	SB-44 (15-20)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth In	iterval (f	t)		1.0-2.0	10.0-12.0	1.5-2.0	10.0-12.0	15.0-20.0
Date S	ampled			02/19/14	02/19/14	02/19/14	02/21/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compou	nds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichlorobenzene	MG/KG	1.1	500					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500			0.0071 J		
Acetone	MG/KG	0.05	500			0.040 J		
Benzene	MG/KG	0.06	44	0.0014 J	1,600	0.0030	2,600	2,000
Carbon disulfide	MG/KG	2.7 CP-51	-					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390		82	0.014	2,600	690
Isopropylbenzene	MG/KG	2.3 CP-51	-			0.0052	25 J	
Methyl acetate	MG/KG	-	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500	0.0031 J		0.0029 J		
Styrene	MG/KG	300 CP-51	-		220	0.0012 J	1,300	1,000
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500		950		3,800	2,500
Xylene (total)	MG/KG	0.26	500		1,000	0.0063	4,700	2,000
Total BTEX	MG/KG	-	-	0.0014	3,632	0.0233	13,700	7,190
Total Volatile Organic Compounds	MG/KG	-	=	0.0045	3,852	0.0797	15,025	8,190

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Locat	ion ID			SB-43	SB-43	SB-44	SB-44	SB-44
Samı	ole ID			SB-43 (1-2)	SB-43 (10-12)	SB-44 (1.5-2)	SB-44 (10-12)	SB-44 (15-20)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		1.0-2.0	10.0-12.0	1.5-2.0	10.0-12.0	15.0-20.0
Date Sa	ampled			02/19/14	02/19/14	02/19/14	02/21/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.040 J	530 J	0.34 J	150 J	1,800
2,4-Dimethylphenol	MG/KG	-	-					
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.15 J	4,700 DJ		4,100 D	28,000 D
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500		1,100 DJ		0.65 J	
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.17 J	950 J	0.84	150 J	1,300
Acenaphthylene	MG/KG	100	500	1.5		2.8	700 J	9,900 DJ
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	0.68	2,800 DJ	4.0 D	360 DJ	3,400
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	1.5	2,500 DJ	5.5 D	230 DJ	1,600
Benzo(a)pyrene	MG/KG	1	1	2.0		3.8 DJ	130 J	1,200
Benzo(b)fluoranthene	MG/KG	1	5.6	2.6	2,600 DJ	3.9 D	99 J	890
Benzo(g,h,i)perylene	MG/KG	100	500	1.9		2.0	35 J	490
Benzo(k)fluoranthene	MG/KG	0.8	56	0.96	830 DJ	2.8	48 J	450
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.097 J				
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.14 J	700 J		5.7	81 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

Locat	ion ID			SB-43	SB-43	SB-44	SB-44	SB-44
Sam	ple ID			SB-43 (1-2)	SB-43 (10-12)	SB-44 (1.5-2)	SB-44 (10-12)	SB-44 (15-20)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		1.0-2.0	10.0-12.0	1.5-2.0	10.0-12.0	15.0-20.0
Date S	ampled			02/19/14	02/19/14	02/19/14	02/21/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
Chrysene	MG/KG	1	56	2.0	2,000 DJ	5.5 D	250 DJ	1,700
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.45		0.58	14	140 J
Dibenzofuran	MG/KG	7	350				59 J	700
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.041 J				
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	2.0	7,800 D	7.4 D	340 DJ	2,700
Fluorene	MG/KG	30	500	0.36 J		3.9 D	710 DJ	4,000 DJ
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	1.9		2.0	42 J	510 J
Naphthalene	MG/KG	12	500	0.73	48,000 D	0.46	11,000 D	74,000 D
Phenanthrene	MG/KG	100	500	1.4	12,000 D	15 D	1,500 DJ	11,000 DJ
Phenol	MG/KG	0.33	500		350 J			
Pyrene	MG/KG	100	500	2.8	6,700 D	13 D	530 DJ	5,000 DJ
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	23.1	90,880	73.48	20,238	146,280
Total Semivolatile Organic Compounds	MG/KG	-	-	23.418	93,560	73.82	20,453.35	148,861
Metals								
Aluminum	MG/KG	10000 CP- 51	-	3,440	NA	11,300	9,910 J	NA
Antimony	MG/KG	12 CP-51	-	0.44 J	NA		1.7 J	NA
Arsenic	MG/KG	13	16	6.8	NA	11.5	30.9	NA
Barium	MG/KG	350	400	99.5	NA	98.2	66.6	NA
Beryllium	MG/KG	7.2	590	0.32	NA	0.47	0.54	NA
Cadmium	MG/KG	2.5	9.3	0.15 J	NA		0.53	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

ı	ocation ID			SB-43	SB-43	SB-44	SB-44	SB-44
	Sample ID			SB-43 (1-2)	SB-43 (10-12)	SB-44 (1.5-2)	SB-44 (10-12)	SB-44 (15-20)
	Matrix			Soil	Soil	Soil	Soil Soil 1.5-2.0 10.0-12.0	Soil
Dep	th Interval (ft	t)		1.0-2.0	10.0-12.0	1.5-2.0		15.0-20.0
Da	ate Sampled			02/19/14	02/19/14	02/19/14	02/21/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Calcium	MG/KG	10000 CP- 51	-	5,810	NA	3,940	7,710	NA
Chromium	MG/KG	30	1500	7.6	NA	25.6	14.5	NA
Cobalt	MG/KG	20 CP-51	-	9.1	NA	10.2	3.7	NA
Copper	MG/KG	50	270	59.8	NA	83.9	123 J	NA
Iron	MG/KG	2000 CP-51	-	10,100	NA	22,600	18,500	NA
Lead	MG/KG	63	1000	76.9	NA	224	306	NA
Magnesium	MG/KG	-	=	1,640	NA	3,960	2,650	NA
Manganese	MG/KG	1600	10000	68.9	NA	159	103	NA
Mercury	MG/KG	0.18	2.8	0.30	NA	0.83	3.7 J+	NA
Nickel	MG/KG	30	310	10.4	NA	26.5	24.7	NA
Potassium	MG/KG	-	-	798	NA	1,910	935 J	NA
Selenium	MG/KG	3.9	1500	1.3 J	NA	1.2 J	5.1	NA
Silver	MG/KG	2	1500		NA			NA
Sodium	MG/KG	-	-	376	NA	285	644 J	NA
Thallium	MG/KG	5 CP-51	=		NA		1.5	NA
Vanadium	MG/KG	39 CP-51	=	14.1	NA	33.0	29.3	NA
Zinc	MG/KG	109	10000	94.9	NA	$\bigcirc 147 \bigcirc$	165	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

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D - Result reported from a secondary dilution analysis.

Parameter	Units	Criteria*	No. of	No. of	Rang	je of Detecti	ions	No.	Location of	Depth
		0	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	134	1	0.002	0.002	0.002	0	SB-10	5-5.5
1,2-Dichlorobenzene	MG/KG	1.1	134	2	0.001	0.008	0.005	0	SB-37	8.2-9
1,2-Dichloroethene (cis)	MG/KG	0.25	134	3	0.009	1.30	0.447	1	MW-05	20.5-21
2-Butanone	MG/KG	0.12	134	6	0.003	0.007	0.006	0	SB-32	9-10
Acetone	MG/KG	0.05	134	86	0.004	0.240	0.030	10	SB-19	5-5.5
Benzene	MG/KG	0.06	134	42	0.001	2,600	148.6	17	SB-44	10-12
Carbon disulfide	MG/KG	2.7 CP-51	134	29	0.001	0.041	0.010	0	SB-38	15.5-16.5
Chloroform	MG/KG	0.37	134	3	0.020	0.110	0.053	0	SB-37	8.5-9
Cyclohexane	MG/KG	-	134	10	0.004	2.00	0.352	0	SB-37	8.5-9
Ethylbenzene	MG/KG	1	134	30	0.002	2,600	120.5	16	SB-44	10-12
Isopropylbenzene	MG/KG	2.3 CP-51	134	31	0.005	25.00	1.32	3	SB-44	10-12
Methyl acetate	MG/KG	-	134	2	0.006	0.006	0.006	0	SB-06	3-4
Methyl tert-butyl ether	MG/KG	0.93	134	1	0.002	0.002	0.002	0	SB-38	15.5-16.5
Methylcyclohexane	MG/KG	-	134	17	0.004	2.20	0.509	0	SB-39	6.7-7.7
Methylene chloride	MG/KG	0.05	134	12	0.0009	0.018	0.004	0	MW-07	9.8-10.5
Styrene	MG/KG	300 CP-51	134	14	0.001	1,300	186.1	2	SB-44	10-12
Tetrachloroethene	MG/KG	1.3	134	2	0.013	0.020	0.017	0	MW-03	6-7
Toluene	MG/KG	0.7	134	36	0.001	3,800	203.2	9	SB-44	10-12
Xylene (total)	MG/KG	0.26	134	37	0.002	4,700	219.7	20	SB-44	10-12

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
		O. House	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
1,1'-Biphenyl	MG/KG	60 CP-51	134	46	0.024	1,800	59.23	3	SB-44	15-20
2,4-Dimethylphenol	MG/KG	-	134	5	0.190	1.80	0.670	0	SB-05	6.5-7
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	134	1	1.20	1.20	1.20	1	MW-05	20.5-21
2-Chloronaphthalene	MG/KG	-	134	7	1.30	1.40	1.34	0	SB-21	21-22
2-Methylnaphthalene	MG/KG	0.41 CP-51	134	73	0.020	2.80E+04	537.5	40	SB-44	15-20
2-Methylphenol (o-cresol)	MG/KG	0.33	134	10	0.021	1.10	0.214	1	SB-05	6.5-7
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	134	19	0.025	1,100	58.25	6	SB-43	10-12
3,3'-Dichlorobenzidine	MG/KG	-	134	1	0.680	0.680	0.680	0	MW-05	20.5-21
Acenaphthene	MG/KG	20	134	79	0.020	1,300	39.97	10	SB-44	15-20
Acenaphthylene	MG/KG	100	134	83	0.021	9,900	136.1	3	SB-44	15-20
Acetophenone	MG/KG	-	134	23	0.023	24.00	1.21	0	SB-38	7.8-8.5
Anthracene	MG/KG	100	134	97	0.021	3,400	74.95	4	SB-44	15-20
Benzaldehyde	MG/KG	-	134	2	0.040	0.330	0.185	0	MW-05	4.5-5
Benzo(a)anthracene	MG/KG	1	134	114	0.021	2,500	48.72	58	SB-43	10-12
Benzo(a)pyrene	MG/KG	1	134	110	0.021	1,200	20.15	54	SB-44	15-20
Benzo(b)fluoranthene	MG/KG	1	134	106	0.032	2,600	43.84	54	SB-43	10-12
Benzo(g,h,i)perylene	MG/KG	100	134	98	0.023	490.0	10.95	2	SB-44	15-20
Benzo(k)fluoranthene	MG/KG	0.8	134	104	0.021	830.0	15.40	50	SB-43	10-12
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	134	81	0.020	2.70	0.192	0	SB-11	4.5-5

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Only Detected Results Reported.

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Butylbenzylphthalate	MG/KG	100 CP-51	134	7	0.019	0.160	0.062	0	SB-15	3-3.5
Carbazole	MG/KG	-	134	56	0.021	700.0	17.40	0	SB-43	10-12
Chrysene	MG/KG	1	134	112	0.022	2,000	45.81	60	SB-43	10-12
Dibenz(a,h)anthracene	MG/KG	0.33	134	86	0.019	140.0	3.32	40	SB-44	15-20
Dibenzofuran	MG/KG	7	134	62	0.023	700.0	18.91	9	SB-44	15-20
Di-n-butylphthalate	MG/KG	0.014 CP- 51	134	28	0.021	1.60	0.138	28	MW-03	6-7
Di-n-octylphthalate	MG/KG	100 CP-51	134	2	0.032	0.042	0.037	0	SB-18	4-4.5
Fluoranthene	MG/KG	100	134	116	0.019	7,800	116.0	10	SB-43	10-12
Fluorene	MG/KG	30	134	79	0.020	4,000	70.57	10	SB-44	15-20
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	134	98	0.021	510.0	10.28	56	SB-44	15-20
Naphthalene	MG/KG	12	134	88	0.021	7.40E+04	1,585	21	SB-44	15-20
Phenanthrene	MG/KG	100	134	110	0.021	1.20E+04	256.4	11	SB-43	10-12
Phenol	MG/KG	0.33	134	13	0.020	350.0	27.16	5	SB-43	10-12
Pyrene	MG/KG	100	134	114	0.023	6,700	131.0	10	SB-43	10-12
Metals										
Aluminum	MG/KG	10000 CP- 51	132	132	1,330	2.86E+04	1.01E+04	60	SB-18	8.5-9
Antimony	MG/KG	12 CP-51	132	38	0.370	4.00	1.14	0	SB-21	3.5-4
Arsenic	MG/KG	13	132	118	0.210	32.70	4.87	4	SB-38	7.8-8.5
Barium	MG/KG	350	132	132	21.80	720.0	90.01	3	SB-33	3.5-4

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
		0	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Beryllium	MG/KG	7.2	132	108	0.039	2.00	0.583	0	SB-21	21-22
Cadmium	MG/KG	2.5	132	121	0.016	3.00	0.502	3	SB-07	3-4
Calcium	MG/KG	10000 CP- 51	132	132	516.0	1.56E+05	9,666	31	MW-01	4.5-5
Chromium	MG/KG	30	132	132	6.20	177.0	26.58	31	SB-18	8.5-9
Cobalt	MG/KG	20 CP-51	132	132	1.50	22.20	8.63	3	SB-41	0.5-1
Copper	MG/KG	50	132	132	8.30	425.0	44.40	35	MW-05	4.5-5
Iron	MG/KG	2000 CP- 51	132	132	6,550	1.13E+05	2.48E+04	132	SB-16	6-6.5
Lead	MG/KG	63	132	132	1.50	1,330	86.29	39	SB-33	3.5-4
Magnesium	MG/KG	-	132	132	412.0	2.99E+04	5,605	0	SB-35	9.5-10
Manganese	MG/KG	1600	132	132	22.60	1,230	277.9	0	SB-15	6-6.5
Mercury	MG/KG	0.18	132	95	0.007	4.20	0.391	37	SB-07	3-4
Nickel	MG/KG	30	132	132	6.00	71.80	20.50	11	SB-18	8.5-9
Potassium	MG/KG	-	132	132	412.0	1.65E+04	2,671	0	SB-18	8.5-9
Selenium	MG/KG	3.9	132	93	0.600	5.10	1.99	3	SB-44	10-12
Silver	MG/KG	2	132	22	0.070	0.400	0.154	0	SB-42	18.5-19.5
Sodium	MG/KG	-	132	132	53.00	5,450	679.0	0	SB-12	12-13
Thallium	MG/KG	5 CP-51	132	46	0.270	4.50	1.14	0	SB-05	6.5-7
Vanadium	MG/KG	39 CP-51	132	132	8.60	127.0	33.49	32	SB-18	8.5-9
Zinc	MG/KG	109	132	132	18.90	556.0	96.02	36	SB-37	3-4

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
	-	01110110	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
1,2,4-Trichlorobenzene	MG/KG	-	134	1	0.002	0.002	0.002	0	SB-10	5-5.5
1,2-Dichlorobenzene	MG/KG	500	134	2	0.001	0.005	0.003	0	SB-37	8.2-9
1,2-Dichloroethene (cis)	MG/KG	500	134	3	0.009	1.30	0.447	0	MW-05	20.5-21
2-Butanone	MG/KG	500	134	6	0.003	0.007	0.006	0	SB-32	9-10
Acetone	MG/KG	500	134	86	0.003	0.240	0.029	0	SB-19	5-5.5
Benzene	MG/KG	44	134	42	0.001	2,600	148.6	3	SB-44	10-12
Carbon disulfide	MG/KG	-	134	29	0.001	0.041	0.010	0	SB-38	15.5-16.5
Chloroform	MG/KG	350	134	3	0.020	0.110	0.053	0	SB-37	8.5-9
Cyclohexane	MG/KG	-	134	10	0.004	2.00	0.328	0	SB-37	8.5-9
Ethylbenzene	MG/KG	390	134	30	0.002	2,600	120.4	2	SB-44	10-12
Isopropylbenzene	MG/KG	-	134	31	0.005	25.00	1.31	0	SB-44	10-12
Methyl acetate	MG/KG	-	134	2	0.006	0.006	0.006	0	SB-06	3-4
Methyl tert-butyl ether	MG/KG	500	134	1	0.002	0.002	0.002	0	SB-38	15.5-16.5
Methylcyclohexane	MG/KG	-	134	17	0.004	2.20	0.489	0	SB-39	6.7-7.7
Methylene chloride	MG/KG	500	134	12	0.0009	0.018	0.004	0	MW-07	9.8-10.5
Styrene	MG/KG	-	134	14	0.001	1,300	186.1	0	SB-44	10-12
Tetrachloroethene	MG/KG	150	134	2	0.013	0.020	0.017	0	MW-03	6-7
Toluene	MG/KG	500	134	36	0.001	3,800	203.2	3	SB-44	10-12
Xylene (total)	MG/KG	500	134	37	0.002	4,700	219.7	3	SB-44	10-12

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
1,1'-Biphenyl	MG/KG	-	134	46	0.024	1,800	59.23	0	SB-44	15-20
2,4-Dimethylphenol	MG/KG		134	5	0.190	1.80	0.670	0	SB-05	6.5-7
2,6-Dinitrotoluene	MG/KG		134	1	1.20	1.20	1.20	0	MW-05	20.5-21
2-Chloronaphthalene	MG/KG		134	7	1.30	1.40	1.34	0	SB-21	21-22
2-Methylnaphthalene	MG/KG	-	134	73	0.020	2.80E+04	537.5	0	SB-44	15-20
2-Methylphenol (o-cresol)	MG/KG	500	134	10	0.021	1.10	0.214	0	SB-05	6.5-7
3&4-Methylphenol (m,p-cresol)	MG/KG	500	134	19	0.025	1,100	58.25	1	SB-43	10-12
3,3'-Dichlorobenzidine	MG/KG	-	134	1	0.680	0.680	0.680	0	MW-05	20.5-21
Acenaphthene	MG/KG	500	134	79	0.020	1,300	39.95	2	SB-44	15-20
Acenaphthylene	MG/KG	500	134	83	0.021	9,900	136.1	2	SB-44	15-20
Acetophenone	MG/KG	-	134	23	0.023	24.00	1.21	0	SB-38	7.8-8.5
Anthracene	MG/KG	500	134	97	0.021	3,400	74.95	2	SB-44	15-20
Benzaldehyde	MG/KG	-	134	2	0.040	0.330	0.185	0	MW-05	4.5-5
Benzo(a)anthracene	MG/KG	5.6	134	114	0.021	2,500	48.72	27	SB-43	10-12
Benzo(a)pyrene	MG/KG	1	134	110	0.021	1,200	20.14	54	SB-44	15-20
Benzo(b)fluoranthene	MG/KG	5.6	134	106	0.032	2,600	43.84	26	SB-43	10-12
Benzo(g,h,i)perylene	MG/KG	500	134	98	0.023	490.0	10.94	0	SB-44	15-20
Benzo(k)fluoranthene	MG/KG	56	134	104	0.021	830.0	15.40	2	SB-43	10-12
bis(2-Ethylhexyl)phthalate	MG/KG	-	134	81	0.020	2.70	0.192	0	SB-11	4.5-5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Parameter	Units	Criteria*	No. of	No. of	Rang	je of Detecti	ons	No.	Location of	Depth
		01110110	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Butylbenzylphthalate	MG/KG	=	134	7	0.019	0.160	0.062	0	SB-15	3-3.5
Carbazole	MG/KG	-	134	56	0.021	700.0	17.40	0	SB-43	10-12
Chrysene	MG/KG	56	134	112	0.022	2,000	45.80	7	SB-43	10-12
Dibenz(a,h)anthracene	MG/KG	0.56	134	86	0.019	140.0	3.32	32	SB-44	15-20
Dibenzofuran	MG/KG	350	134	62	0.023	700.0	18.90	1	SB-44	15-20
Di-n-butylphthalate	MG/KG	-	134	28	0.021	1.60	0.138	0	MW-03	6-7
Di-n-octylphthalate	MG/KG	-	134	2	0.032	0.042	0.037	0	SB-18	4-4.5
Fluoranthene	MG/KG	500	134	116	0.019	7,800	116.0	3	SB-43	10-12
Fluorene	MG/KG	500	134	79	0.020	4,000	70.54	2	SB-44	15-20
Indeno(1,2,3-cd)pyrene	MG/KG	5.6	134	98	0.021	510.0	10.28	17	SB-44	15-20
Naphthalene	MG/KG	500	134	88	0.021	7.40E+04	1,585	8	SB-44	15-20
Phenanthrene	MG/KG	500	134	110	0.021	1.20E+04	256.4	4	SB-43	10-12
Phenol	MG/KG	500	134	13	0.020	350.0	27.16	0	SB-43	10-12
Pyrene	MG/KG	500	134	114	0.023	6,700	131.0	4	SB-43	10-12
Metals										
Aluminum	MG/KG	-	132	132	1,330	2.86E+04	1.01E+04	0	SB-18	8.5-9
Antimony	MG/KG	-	132	38	0.370	4.00	1.14	0	SB-21	3.5-4
Arsenic	MG/KG	16	132	118	0.210	32.70	4.85	3	SB-38	7.8-8.5
Barium	MG/KG	400	132	132	21.80	720.0	89.69	1	SB-33	3.5-4

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
	- Cilito	01110110	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Beryllium	MG/KG	590	132	108	0.039	2.00	0.583	0	SB-21	21-22
Cadmium	MG/KG	9.3	132	121	0.016	3.00	0.501	0	SB-07	3-4
Calcium	MG/KG	-	132	132	516.0	1.56E+05	9,659	0	MW-01	4.5-5
Chromium	MG/KG	1500	132	132	3.40	177.0	26.55	0	SB-18	8.5-9
Cobalt	MG/KG	-	132	132	1.50	22.20	8.62	0	SB-41	0.5-1
Copper	MG/KG	270	132	132	8.30	425.0	44.18	2	MW-05	4.5-5
Iron	MG/KG	-	132	132	6,550	1.13E+05	2.47E+04	0	SB-16	6-6.5
Lead	MG/KG	1000	132	132	1.50	1,330	86.21	2	SB-33	3.5-4
Magnesium	MG/KG	-	132	132	257.6	2.99E+04	5,603	0	SB-35	9.5-10
Manganese	MG/KG	10000	132	132	22.60	1,230	277.7	0	SB-15	6-6.5
Mercury	MG/KG	2.8	132	95	0.007	4.20	0.390	3	SB-07	3-4
Nickel	MG/KG	310	132	132	3.41	71.80	20.48	0	SB-18	8.5-9
Potassium	MG/KG	-	132	132	412.0	1.65E+04	2,667	0	SB-18	8.5-9
Selenium	MG/KG	1500	132	93	0.600	5.10	1.98	0	SB-44	10-12
Silver	MG/KG	1500	132	22	0.070	0.400	0.154	0	SB-42	18.5-19.5
Sodium	MG/KG	-	132	132	38.00	5,450	678.7	0	SB-12	12-13
Thallium	MG/KG	-	132	46	0.270	4.50	1.14	0	SB-05	6.5-7
Vanadium	MG/KG	-	132	132	6.66	127.0	33.44	0	SB-18	8.5-9
Zinc	MG/KG	10000	132	132	13.28	556.0	95.92	0	SB-37	3-4

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	ion ID			MW-03	MW-03	MW-03	SB-06	SB-06
Samı				MW-03-(3.5-4.5)	MW-03-(6-7)	MW-03-(14-15)	SB-06-(3-4)	20100414-FD-1
	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		3.5-4.5	6.0-7.0	14.0-15.0	3.0-4.0	4.5-5.5
	ampled	,		04/15/10	04/19/10	04/19/10	04/14/10	04/14/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Volatile Organic Compour	nds							
Acetone	MG/KG	0.05	500		0.061 J	0.0051 J	0.020 J	0.0040 J
Benzene	MG/KG	0.06	44		0.31			
Carbon disulfide	MG/KG	2.7 CP-51	-		0.015 J			
Ethylbenzene	MG/KG	1	390		0.036			
Isopropylbenzene	MG/KG	2.3 CP-51	-		2.4 J			
Methyl acetate	MG/KG	-	-				0.0064	0.0056
Methylcyclohexane	MG/KG	-	-		1.0 J			
Methylene chloride	MG/KG	0.05	500				0.0012 J	
Tetrachloroethene	MG/KG	1.3	150		0.020			
Toluene	MG/KG	0.7	500		0.024			
Xylene (total)	MG/KG	0.26	500		0.29 J			
Total BTEX	MG/KG	-	-	ND	0.66	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	ND	4.156	0.0051	0.0276	0.0096
Semivolatile Organic Compo	ounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-		14 J			
Acenaphthene	MG/KG	20	500		1.0 J		0.027 J	
Acenaphthylene	MG/KG	100	500	0.12 J			0.048 J	
Anthracene	MG/KG	100	500	0.047 J	1.7 J		0.16 J	
Benzo(a)anthracene	MG/KG	1	5.6	0.20	1.9 J		0.44	0.077 J
Benzo(a)pyrene	MG/KG	1	1	0.21 J	1.5 J		0.29	0.046 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	ion ID			MW-03	MW-03	MW-03	SB-06	SB-06
Samı	ple ID			MW-03-(3.5-4.5)	MW-03-(6-7)	MW-03-(14-15)	SB-06-(3-4)	20100414-FD-1
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.5-4.5	6.0-7.0	14.0-15.0	3.0-4.0	4.5-5.5
Date S	ampled			04/15/10	04/19/10	04/19/10	04/14/10	04/14/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Semivolatile Organic Compo	ounds							
Benzo(b)fluoranthene	MG/KG	1	5.6	0.20 J	1.8 J		0.34	0.071 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.24 J	0.88 J		0.23	0.057 J
Benzo(k)fluoranthene	MG/KG	0.8	56	0.15 J	0.90 J		0.11 J	0.040 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	=	0.12 J	1.1 J	0.084 J	0.15 J	0.033 J
Carbazole	MG/KG	-	=				0.042 J	
Chrysene	MG/KG	1	56	0.21	3.1 J		0.37	0.065 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.040 J			0.034 J	
Dibenzofuran	MG/KG	7	350				0.023 J	
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.021 J	1.6 J			
Fluoranthene	MG/KG	100	500	0.29	4.0 J		1.1	0.14 J
Fluorene	MG/KG	30	500		4.0 J		0.042 J	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.15 J	0.64 J		0.16 J	0.039 J
Naphthalene	MG/KG	12	500	0.021 J				
Phenanthrene	MG/KG	100	500	0.096 J	10 J		0.50	0.026 J
Pyrene	MG/KG	100	500	0.27	7.0 J		0.96	0.15 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	2.244	52.42	ND	4.811	0.711
Total Semivolatile Organic Compounds	MG/KG	-	-	2.385	55.12	0.084	5.026	0.744
Metals								
Aluminum	MG/KG	10000 CP- 51	-	8,670 J	10,000	9,770	8,650 J	9,310 J
Arsenic	MG/KG	13	16	2.1	0.78 J		1.8	1.2

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	ion ID			MW-03	MW-03	MW-03	SB-06	SB-06
Sam	ple ID			MW-03-(3.5-4.5)	MW-03-(6-7)	MW-03-(14-15)	SB-06-(3-4)	20100414-FD-1
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		3.5-4.5	6.0-7.0	14.0-15.0	3.0-4.0	4.5-5.5
Date S	ampled			04/15/10	04/19/10	04/19/10	04/14/10	04/14/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Metals								
Barium	MG/KG	350	400	72.1 J	53.8 J	81.0 J	91.9 J	73.7 J
Beryllium	MG/KG	7.2	590	0.84 J	1.0 J	1.4 J	0.93 J	1.0 J
Cadmium	MG/KG	2.5	9.3	0.34	0.088 J	0.14 J	0.22 J	0.30
Calcium	MG/KG	10000 CP- 51	-	4,400 J	2,430	2,750	3,720 J	4,580 J
Chromium	MG/KG	30	1500	22.3 J	34.4 J	27.3 J	22.8 J	28.5 J
Cobalt	MG/KG	20 CP-51	-	9.9 J	7.4 J	12.2 J	10.0 J	10.3 J
Copper	MG/KG	50	270	49.2 J	51.7	30.9	32.8 J	33.4 J
Iron	MG/KG	2000 CP-51	-	19,900	19,000	23,300	25,200	22,700
Lead	MG/KG	63	1000	41.3 J	8.5	5.0	33.0 J	7.0 J
Magnesium	MG/KG	-	-	5,400 J	4,270 J	6,450 J	4,100 J	6,220 J
Manganese	MG/KG	1600	10000	291 J	134 J	281 J	240 J	194 J
Mercury	MG/KG	0.18	2.8	0.16 J			0.19 J	0.024 J
Nickel	MG/KG	30	310	19.1 J	22.2 J	22.8 J	19.3 J	22.9 J
Potassium	MG/KG	-	-	3,010 J	2,000	3,630	3,660 J	2,840 J
Selenium	MG/KG	3.9	1500	1.9	2.5	3.2	3.4	2.5
Silver	MG/KG	2	1500	0.070 J	0.11 J		0.093 J	
Sodium	MG/KG	-	-	123 J	291 J	275 J	123 J	159 J
Thallium	MG/KG	5 CP-51	-	1.8			1.9	1.3 J
Vanadium	MG/KG	39 CP-51	-	28.2 J	29.2	34.3	27.7 J	30.9 J
Zinc	MG/KG	109	10000	115 J	213 J	50.3 J	53.4 J	102 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	ion ID			SB-06
Sam	ple ID			SB-06-(4.5-5.5)
Ma	trix			Soil
Depth In	terval (fi	t)		4.5-5.5
Date S	ampled			04/14/10
Parameter	Units	Criteria (1)	Criteria (2)	
Volatile Organic Compou	nds			
Acetone	MG/KG	0.05	500	
Benzene	MG/KG	0.06	44	
Carbon disulfide	MG/KG	2.7 CP-51	-	
Ethylbenzene	MG/KG	1	390	
Isopropylbenzene	MG/KG	2.3 CP-51	-	
Methyl acetate	MG/KG	-	-	
Methylcyclohexane	MG/KG	-	-	
Methylene chloride	MG/KG	0.05	500	
Tetrachloroethene	MG/KG	1.3	150	
Toluene	MG/KG	0.7	500	0.0013 J
Xylene (total)	MG/KG	0.26	500	
Total BTEX	MG/KG	-	-	0.0013
Total Volatile Organic Compounds	MG/KG	-	-	0.0013
Semivolatile Organic Compo	ounds			
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	
Acenaphthene	MG/KG	20	500	
Acenaphthylene	MG/KG	100	500	
Anthracene	MG/KG	100	500	
Benzo(a)anthracene	MG/KG	1	5.6	0.071 J
Benzo(a)pyrene	MG/KG	1	1	0.047 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	ion ID			SB-06
Samp	ole ID			SB-06-(4.5-5.5)
Ma	trix			Soil
Depth In	terval (f	t)		4.5-5.5
Date Sa	ampled			04/14/10
Parameter	Units	Criteria (1)	Criteria (2)	
Semivolatile Organic Compo	unds			
Benzo(b)fluoranthene	MG/KG	1	5.6	0.066 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.050 J
Benzo(k)fluoranthene	MG/KG	0.8	56	0.030 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.044 J
Carbazole	MG/KG	-	-	
Chrysene	MG/KG	1	56	0.069 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	
Dibenzofuran	MG/KG	7	350	
Di-n-butylphthalate	MG/KG	0.014 CP-51	=	
Fluoranthene	MG/KG	100	500	0.15 J
Fluorene	MG/KG	30	500	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.037 J
Naphthalene	MG/KG	12	500	
Phenanthrene	MG/KG	100	500	0.024 J
Pyrene	MG/KG	100	500	0.14 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	0.684
Total Semivolatile Organic Compounds	MG/KG	-	-	0.728
Metals				
Aluminum	MG/KG	10000 CP- 51	=	11,900 J
Arsenic	MG/KG	13	16	1.6

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-06
Sam	ple ID			SB-06-(4.5-5.5)
	atrix			Soil
Depth Ir	iterval (f	t)		4.5-5.5
Date S	ampled			04/14/10
Parameter	Units	Criteria (1)	Criteria (2)	
Metals				
Barium	MG/KG	350	400	80.7 J
Beryllium	MG/KG	7.2	590	1.1 J
Cadmium	MG/KG	2.5	9.3	0.31
Calcium	MG/KG	10000 CP- 51	-	4,460 J
Chromium	MG/KG	30	1500	28.7 J
Cobalt	MG/KG	20 CP-51	-	11.9 J
Copper	MG/KG	50	270	32.5 J
Iron	MG/KG	2000 CP-51	-	26,400
Lead	MG/KG	63	1000	9.2 J
Magnesium	MG/KG	-	-	6,930 J
Manganese	MG/KG	1600	10000	311 J
Mercury	MG/KG	0.18	2.8	0.021 J
Nickel	MG/KG	30	310	23.6 J
Potassium	MG/KG	-	-	3,130 J
Selenium	MG/KG	3.9	1500	3.4
Silver	MG/KG	2	1500	
Sodium	MG/KG	-	-	142 J
Thallium	MG/KG	5 CP-51	-	2.3 J
Vanadium	MG/KG	39 CP-51	-	35.9 J
Zinc	MG/KG	109	10000	64.8 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loc	ation ID			MW-04	MW-04	MW-04
Sa	mple ID			MW-04-(3.5-4.5)	MW-04-(3.5-4.5)	MW-04-(8.5-9.5)
N	// atrix			Soil	Soil	Soil
Depth	Interval (f	t)		3.5-4.5	3.5-4.5	8.5-9.5
Date	Sampled			04/16/10	04/16/10	04/20/10
Parameter	Units	Units Criteria (1) Criteria (2) Field Duplicate (1-1)				
Volatile Organic Compo	ounds					
Acetone	MG/KG	0.05	500	0.012 J	0.020 J	0.0067 J
Isopropylbenzene	MG/KG	2.3 CP-51	-	0.10 J	0.16 J	
Methylcyclohexane	MG/KG	-	-	0.17 J	0.28 J	
Styrene	MG/KG	300 CP-51	-		0.017 J	
Xylene (total)	MG/KG	0.26	500	0.0064 J		
Total BTEX	MG/KG	-	-	0.0064	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.2884	0.477	0.0067
Semivolatile Organic Com	pounds					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	10 J	9.2 J	
Acenaphthene	MG/KG	20	500		0.43 J	
Acenaphthylene	MG/KG	100	500		0.31 J	
Anthracene	MG/KG	100	500	0.17 J	0.43	
Benzo(a)anthracene	MG/KG	1	5.6	0.22	0.14 J	
Benzo(a)pyrene	MG/KG	1	1	0.13 J	0.10 J	
Benzo(b)fluoranthene	MG/KG	1	5.6	0.16 J	0.14 J	
Benzo(g,h,i)perylene	MG/KG	100	500	0.099 J	0.22	
Benzo(k)fluoranthene	MG/KG	0.8	56	0.066 J	0.060 J	
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.052 J	0.044 J	
Chrysene	MG/KG	1	56	0.22 J	0.15 J	
Dibenz(a,h)anthracene	MG/KG	0.33	0.56		0.026 J	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	ation ID			MW-04	MW-04	MW-04
San	nple ID			MW-04-(3.5-4.5)	MW-04-(3.5-4.5)	MW-04-(8.5-9.5)
M	latrix			Soil	Soil	Soil
Depth I	nterval (f	t)		3.5-4.5	3.5-4.5	8.5-9.5
Date	Sampled			04/16/10	04/16/10	04/20/10
Parameter	Units	Criteria (1)	Criteria (2)	Field Duplicate (1-1)		
Semivolatile Organic Com	pounds					
Dibenzofuran	MG/KG	7	350		0.31 J	
Di-n-butylphthalate	MG/KG	0.014 CP-51	-		0.11 J	
Fluoranthene	MG/KG	100	500	0.46	0.30	
Fluorene	MG/KG	30	500		0.77 J	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.073 J	0.13 J	
Naphthalene	MG/KG	12	500	0.56	0.54	
Phenanthrene	MG/KG	100	500	4.7	3.8	
Pyrene	MG/KG	100	500	1.3	1.0	
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	18.158	17.746	ND
Total Semivolatile Organic Compounds	MG/KG	-	-	18.21	18.21	ND
Metals						
Aluminum	MG/KG	10000 CP- 51	-	8,910	11,500 J	8,120
Arsenic	MG/KG	13	16		2.2	1.4
Barium	MG/KG	350	400	83.6 J	71.4 J	46.0 J
Beryllium	MG/KG	7.2	590	1.2 J	0.90 J	0.65 J
Cadmium	MG/KG	2.5	9.3	0.087 J	0.33	0.045 J
Calcium	MG/KG	10000 CP- 51	-	14,500	6,900 J	1,450
Chromium	MG/KG	30	1500	22.6 J	27.0 J	14.2 J
Cobalt	MG/KG	20 CP-51	-	9.6 J	12.3 J	6.3 J
Copper	MG/KG	50	270	35.6	27.2 J	9.2

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	tion ID			MW-04	MW-04	MW-04
Sam	ple ID			MW-04-(3.5-4.5)	MW-04-(3.5-4.5)	MW-04-(8.5-9.5)
Ma	atrix			Soil	Soil	Soil
Depth Ir	nterval (f	t)		3.5-4.5	3.5-4.5	8.5-9.5
Date S	ampled			04/16/10	04/16/10	04/20/10
Parameter	Units	Criteria Criteria (2)		Field Duplicate (1-1)		
Metals						
Iron	MG/KG	2000 CP-51	-	22,300	25,300	19,700
Lead	MG/KG	63	1000	11.6	7.8 J	4.9
Magnesium	MG/KG	-	-	11,200 J	6,680 J	2,800 J
Manganese	MG/KG	1600	10000	232 J	213 J	213 J
Mercury	MG/KG	0.18	2.8		0.013 J	
Nickel	MG/KG	30	310	17.3 J	21.2 J	11.5 J
Potassium	MG/KG	-	-	3,060	2,200 J	828
Selenium	MG/KG	3.9	1500	3.7	2.6	1.5
Silver	MG/KG	2	1500	0.12 J		0.087 J
Sodium	MG/KG	-	-	126 J	118 J	53.0 J
Thallium	MG/KG	5 CP-51	-		1.7	
Vanadium	MG/KG	39 CP-51	-	31.3	35.1 J	16.1
Zinc	MG/KG	109	10000	52.4 J	40.0 J	28.5 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Location ID				MW-01	MW-01	MW-01	MW-11
ple ID			MW-01-(3.4-4)	MW-01-(4.5-5)	MW-01-(11-12)	MW-01-(16.5-18)	MW-11-(3.5-4.5)
trix			Soil	Soil	Soil	Soil	Soil
terval (fi	t)		3.4-4.0 03/24/10	4.5-5.0 03/24/10	11.0-12.0	16.5-18.0	3.5-4.5
ampled	-				03/26/10	03/26/10	01/07/11
Units	Criteria (1)	Criteria (2)					
nds							
MG/KG	1.1	500					
MG/KG	0.12	500					
MG/KG	0.05	500		0.0052 J	0.030 J	0.0088 J	0.021 J
MG/KG	0.06	44			0.32		0.0018 J
MG/KG	2.7 CP-51	-				0.0077	0.0014 J
MG/KG	0.37	350					
MG/KG	-	-					
MG/KG	1	390			0.34		
MG/KG	2.3 CP-51	=			0.036 J		
MG/KG	0.93	500					
MG/KG	-	-					
MG/KG	0.05	500					
MG/KG	300 CP-51	-					
MG/KG	0.7	500			0.39		0.0012 J
MG/KG	0.26	500	0.0028		1.4 J		
MG/KG	-	-	0.0028	ND	2.45	ND	0.003
MG/KG	-	-	0.0028	0.0052	2.516	0.0165	0.0254
Compounds Semivolatile Organic Compounds							
MG/KG	60 CP-51	-			14	0.039 J	0.045 J
MG/KG	-	-			0.50 J		
	ple ID trix terval (fi ampled Units MG/KG	Description	Interval Interval	Description MW-01-(3.4-4) Itrix Soil Soil	MW-01-(3.4-4) MW-01-(4.5-5) Mtrix Soil So	Discription Discription	Die ID

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	tion ID			MW-01	MW-01	MW-01	MW-01	MW-11
	ple ID			MW-01-(3.4-4)	MW-01-(4.5-5)	MW-01-(11-12)	MW-01-(16.5-18)	MW-11-(3.5-4.5)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.4-4.0	4.5-5.0 03/24/10	11.0-12.0	16.5-18.0	3.5-4.5
Date S	ampled	-		03/24/10		03/26/10	03/26/10	01/07/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-			34 J	0.073 J	0.20
2-Methylphenol (o-cresol)	MG/KG	0.33	500			0.29 J		
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500			0.73 J		0.039 J
Acenaphthene	MG/KG	20	500			52	0.18 J	0.082 J
Acenaphthylene	MG/KG	100	500		0.062 J	23	0.064 J	0.28
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500		0.030 J	59	0.21	0.43
Benzo(a)anthracene	MG/KG	1	5.6	0.091 J	0.16 J	62	0.23	0.77
Benzo(a)pyrene	MG/KG	1	1	0.067 J	0.14 J	49	0.18 J	0.70
Benzo(b)fluoranthene	MG/KG	1	5.6	0.077 J	0.19 J	59	0.21	0.84
Benzo(g,h,i)perylene	MG/KG	100	500			41		0.61
Benzo(k)fluoranthene	MG/KG	0.8	56	0.034 J	0.065 J	20	0.070 J	0.39
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.13 J	0.10 J		0.054 J	0.16 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-			26	0.066 J	0.19
Chrysene	MG/KG	1	56	0.087 J	0.18 J	50	0.17 J	0.69
Dibenz(a,h)anthracene	MG/KG	0.33	0.56		0.032 J	21 J	0.044 J	0.12 J
Dibenzofuran	MG/KG	7	350			45	0.16 J	0.18 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Fluoranthene	MG/KG	100	500	0.14 J	0.23	120	0.40	1.5

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			MW-01	MW-01	MW-01	MW-01	MW-11
Sam	ple ID	,	,	MW-01-(3.4-4)	MW-01-(4.5-5)	MW-01-(11-12)	MW-01-(16.5-18)	MW-11-(3.5-4.5)
Ma	atrix			Soil	Soil 4.5-5.0	Soil	Soil	Soil
Depth Ir	nterval (f	t)		3.4-4.0		11.0-12.0	16.5-18.0	3.5-4.5
Date S	Sampled	-		03/24/10	03/24/10	03/26/10	03/26/10	01/07/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Fluorene	MG/KG	30	500			51	0.19 J	0.25
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6			33 J		0.44 J
Naphthalene	MG/KG	12	500			270	1.1	1.0
Phenanthrene	MG/KG	100	500	0.051 J	0.078 J	190	0.73	1.3
Phenol	MG/KG	0.33	500			0.59 J		0.020 J
Pyrene	MG/KG	100	500	0.16 J	0.31	120	0.42	1.6
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	0.707	1.477	1,254	4.271	11.202
Total Semivolatile Organic Compounds	MG/KG	-	=	0.837	1.577	1,341.11	4.59	11.836
Metals								
Aluminum	MG/KG	10000 CP- 51	-	14,000	5,550	5,040	10,200	7,770
Antimony	MG/KG	12 CP-51	-					1.1 J
Arsenic	MG/KG	13	16	3.0	4.0	5.6	6.2	5.2
Barium	MG/KG	350	400	80.7 J	39.4 J	35.5 J	21.8 J	317
Beryllium	MG/KG	7.2	590	1.0 J	0.52 J	0.41 J	0.72 J	0.49
Cadmium	MG/KG	2.5	9.3	0.24 J	0.34	0.61	0.44	0.51 J
Calcium	MG/KG	10000 CP- 51	-	2,010 J	156,000 J	2,200 J	2,170 J	23,700 J
Chromium	MG/KG	30	1500	25.0	13.0	10.8 J	20.9 J	22.1
Cobalt	MG/KG	20 CP-51	-	10.0 J	5.2 J	5.2 J	7.5 J	6.7 J
Copper	MG/KG	50	270	16.4 J	17.0 J	28.9	10.9	31.2
Iron	MG/KG	2000 CP-51	-	25,500	20,400	29,700	24,600	15,300 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

L	ocation ID			MW-01	MW-01	MW-01	MW-01	MW-11
9	Sample ID			MW-01-(3.4-4)	MW-01-(4.5-5) Soil	MW-01-(11-12)	MW-01-(16.5-18)	MW-11-(3.5-4.5)
	Matrix			Soil		Soil	Soil	Soil
Dept	th Interval (ft	:)		3.4-4.0	4.5-5.0	11.0-12.0	16.5-18.0	3.5-4.5
Da	te Sampled			03/24/10	03/24/10	03/26/10	03/26/10	01/07/11
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Lead	MG/KG	63	1000	51.3 J	29.5 J	20.6 J	10.1 J	680 J
Magnesium	MG/KG	-	-	4,170	7,920	2,450 J	4,930 J	3,360
Manganese	MG/KG	1600	10000	479 J	439 J	161 J	253 J	482
Mercury	MG/KG	0.18	2.8	0.045	0.10	0.053	0.019 J	0.38
Nickel	MG/KG	30	310	18.4 J	9.8 J	10.1 J	16.9 J	17.1
Potassium	MG/KG	i	-	1,120	841	694	2,190	3,030
Selenium	MG/KG	3.9	1500	2.4		1.4	1.0 J	
Silver	MG/KG	2	1500		0.073 J			
Sodium	MG/KG	-	-	144	135	1,090	2,800	199
Thallium	MG/KG	5 CP-51	-	2.2		0.30 J	0.86	
Vanadium	MG/KG	39 CP-51	-	32.2	15.5	11.7 J	25.5 J	22.0
Zinc	MG/KG	109	10000	52.3 J	48.3 J	39.9 J	48.3 J	109 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loc	ation ID			MW-11	MW-11	SB-01	SB-01	SB-01
	mple ID			MW-11-(5-6)	MW-11-(20-21)	SB-01-(4.5-5)	SB-01-(5-5.5)	SB-01-(8.5-10)
	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (f	t)		5.0-6.0	20.0-21.0 01/17/11	4.5-5.0	5.0-5.5	8.5-10.0
Date	Sampled			01/17/11		03/24/10	03/25/10	03/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	ounds							
1,2-Dichlorobenzene	MG/KG	1.1	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.0074 J	0.014 J		0.0053 J	0.022 J
Benzene	MG/KG	0.06	44			0.0058		0.0047 J
Carbon disulfide	MG/KG	2.7 CP-51	-	0.0033	0.017			0.0047 J
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	=					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	ND	0.0058	ND	0.0047
Total Volatile Organic Compounds	MG/KG	-	-	0.0107	0.031	0.0058	0.0053	0.0314
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.050 J				
2,4-Dimethylphenol	MG/KG	-	-					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Location ID				MW-11	SB-01	SB-01	SB-01
ole ID			MW-11-(5-6)	MW-11-(20-21)	SB-01-(4.5-5)	SB-01-(5-5.5)	SB-01-(8.5-10)
trix			Soil	Soil 20.0-21.0	Soil	Soil	Soil
terval (fi	t)		5.0-6.0		4.5-5.0	5.0-5.5	8.5-10.0
ampled			01/17/11	01/17/11	03/24/10	03/25/10	03/29/10
Units	Criteria (1)	Criteria (2)					
unds							
MG/KG	0.41 CP-51	-	0.17 J		0.046 J	0.037 J	
MG/KG	0.33	500					
MG/KG	0.33	500	0.035 J				
MG/KG	20	500	0.27		0.075 J	0.086 J	0.047 J
MG/KG	100	500	0.38		0.34	0.45	
MG/KG	-	-			0.031 J		
MG/KG	100	500	0.64		0.15 J	0.21	
MG/KG	1	5.6	1.2	0.031 J	0.63	0.85	0.049 J
MG/KG	1	1	1.1		0.47	0.69	0.042 J
MG/KG	1	5.6	1.4		0.67	1.0	
MG/KG	100	500	1.2		0.46	0.75	
MG/KG	0.8	56	0.57		0.30	0.41	
MG/KG	50 CP-51	-	0.11 J		0.075 J	0.067 J	0.097 J
MG/KG	100 CP-51	-					
MG/KG	-	-	0.28		0.031 J	0.034 J	
MG/KG	1	56	1.1		0.71	0.97	0.052 J
MG/KG	0.33	0.56	0.19 J		0.11 J	0.21	
MG/KG	7	350	0.27		0.047 J	0.041 J	
MG/KG	0.014 CP-51	-	0.024 J				
MG/KG	100	500	2.3	0.048 J	1.2	1.7	
	Interest of the control of the contr	New York New York	Note	Merval (ft) Soil	MW-11-(5-6) MW-11-(20-21)	Method M	New New

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

	ation ID			MW-11	MW-11	SB-01	SB-01	SB-01
Sam	nple ID			MW-11-(5-6)	MW-11-(20-21)	SB-01-(4.5-5)	SB-01-(5-5.5)	SB-01-(8.5-10)
M	atrix			Soil	Soil 20.0-21.0	Soil	Soil	Soil
Depth I	nterval (fi	t)		5.0-6.0		4.5-5.0	5.0-5.5	8.5-10.0
Date S	Sampled			01/17/11	01/17/11	03/24/10	03/25/10	03/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Fluorene	MG/KG	30	500	0.38		0.060 J	0.082 J	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.79		0.31	0.53	
Naphthalene	MG/KG	12	500	0.45		0.067 J	0.051 J	
Phenanthrene	MG/KG	100	500	2.1	0.041 J	0.26	0.32	
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	2.2	0.049 J	1.4	1.6	
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	16.44	0.169	7.258	9.946	0.19
Total Semivolatile Organic Compounds	MG/KG	-	-	17.209	0.169	7.442	10.088	0.287
Metals								
Aluminum	MG/KG	10000 CP- 51	-	4,640 J	12,600 J	7,260	8,320	13,600 J
Antimony	MG/KG	12 CP-51	-	0.64 J	0.88 J		0.72 J	
Arsenic	MG/KG	13	16	1.5	12.8	3.2	3.8	4.0 J
Barium	MG/KG	350	400	37.0 J	28.6 J	120 J	255 J	34.9 J
Beryllium	MG/KG	7.2	590	0.17 J	0.62 J	0.73 J	1.1 J	0.96 J
Cadmium	MG/KG	2.5	9.3	0.14 J	0.70	0.48	0.77	0.59 J
Calcium	MG/KG	10000 CP- 51	-	46,100 J	1,800 J	17,400 J	6,930 J	2,920 J
Chromium	MG/KG	30	1500	12.4 J	26.6 J	24.7	25.2	27.0 J
Cobalt	MG/KG	20 CP-51	-	6.3 J	10.4 J	6.3 J	9.8 J	8.7 J
Copper	MG/KG	50	270	15.1	14.1	122 J	189 J	12.5 J
Iron	MG/KG	2000 CP-51	-	12,000 J	48,500 J	22,900	32,300	26,300 J
11011	MG/KG	2000 01 01		12,000 0	48,300 3	22,900	32,300	20,300 3

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			MW-11	MW-11	SB-01	SB-01	SB-01
San	nple ID			MW-11-(5-6)	MW-11-(20-21)	SB-01-(4.5-5)	SB-01-(5-5.5)	SB-01-(8.5-10)
M	latrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (ft	t)		5.0-6.0	20.0-21.0	4.5-5.0	5.0-5.5	8.5-10.0
Date :	Sampled			01/17/11	01/17/11	03/24/10	03/25/10	03/29/10
Parameter								
Metals								
Lead	MG/KG	63	1000	37.9 J	12.3 J	186 J	1,190 J	12.7 J
Magnesium	MG/KG	-	-	4,380 J	6,370 J	3,610	4,290	6,780 J
Manganese	MG/KG	1600	10000	259 J	534 J	149 J	203 J	383 J
Mercury	MG/KG	0.18	2.8	0.096 J	0.97 J	0.67	2.6	
Nickel	MG/KG	30	310	12.5 J	23.7 J	13.8 J	18.7 J	23.3 J
Potassium	MG/KG	-	-	1,030	2,990	1,530	1,770	2,920 J
Selenium	MG/KG	3.9	1500			1.6	1.9	1.8 J
Silver	MG/KG	2	1500			0.11 J	0.28 J	
Sodium	MG/KG	-	-	209	2,620	107	116	3,470 J
Thallium	MG/KG	5 CP-51	-		0.54 J	0.41 J	0.83	1.0 J
Vanadium	MG/KG	39 CP-51	-	12.5 J	34.8 J	27.9	37.2	43.7 J
Zinc	MG/KG	109	10000	86.4 J	68.2 J	140 J	297 J	61.6 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-01	SB-02	SB-02	SB-02	SB-02
Sam	ple ID			SB-01-(33-34)	20100 325-FD-1	SB-02-(4.7-5.3)	SB-02-(11.5-13)	SB-02-(27-28)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth In	nterval (fi	t)		33.0-34.0	4.7-5.3	4.7-5.3	11.5-13.0	27.0-28.0
Date S	Sampled			03/29/10	03/25/10	03/25/10	03/29/10	03/29/10
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Volatile Organic Compou	ınds							
1,2-Dichlorobenzene	MG/KG	1.1	500			0.0014 J		
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.0055 J	0.012 J	0.014 J	0.023 J	
Benzene	MG/KG	0.06	44		0.0079	0.0079	0.0024 J	
Carbon disulfide	MG/KG	2.7 CP-51	-				0.024 J	
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	=		0.0052 J	0.0037 J		
Ethylbenzene	MG/KG	1	390		0.0015 J	0.0016 J		
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.029	0.019		
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	=	-		0.022	0.015		
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500	_	0.0074	0.0057		_
Total BTEX	MG/KG	-	-	ND	0.0168	0.0152	0.0024	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0055	0.085	0.0683	0.0494	ND
Semivolatile Organic Compounds				_				_
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locati	ion ID			SB-01	SB-02	SB-02	SB-02	SB-02
Samp				SB-01-(33-34)	20100 325-FD-1	SB-02-(4.7-5.3)	SB-02-(11.5-13)	SB-02-(27-28)
Mat				Soil	Soil	Soil	Soil	Soil
Depth Int	terval (fi	t)		33.0-34.0	4.7-5.3	4.7-5.3	11.5-13.0	27.0-28.0
Date Sa	ampled	-		03/29/10	03/25/10	03/25/10	03/29/10	03/29/10
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Semivolatile Organic Compo	unds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-		9.6	10		
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
Acenaphthene	MG/KG	20	500		2.2 J	1.7 J		
Acenaphthylene	MG/KG	100	500		0.54 J	0.55 J		
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500		0.85 J	0.95 J		
Benzo(a)anthracene	MG/KG	1	5.6		1.4 J	1.4 J		
Benzo(a)pyrene	MG/KG	1	1		0.78 J	0.91 J		
Benzo(b)fluoranthene	MG/KG	1	5.6		0.59 J	0.54 J		
Benzo(g,h,i)perylene	MG/KG	100	500		0.79 J	0.99 J		
Benzo(k)fluoranthene	MG/KG	0.8	56		0.44 J	0.54 J		
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.037 J			0.10 J	0.041 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					
Chrysene	MG/KG	1	56		1.1 J	1.2 J		
Dibenz(a,h)anthracene	MG/KG	0.33	0.56		0.26 J	0.29 J		
Dibenzofuran	MG/KG	7	350					
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Fluoranthene	MG/KG	100	500		1.1 J	1.1 J	0.035 J	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-01	SB-02	SB-02	SB-02	SB-02
Sam	ple ID			SB-01-(33-34)	20100 325-FD-1	SB-02-(4.7-5.3)	SB-02-(11.5-13)	SB-02-(27-28)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		33.0-34.0	4.7-5.3	4.7-5.3	11.5-13.0	27.0-28.0
Date S	ampled			03/29/10	03/25/10	03/25/10	03/29/10	03/29/10
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Semivolatile Organic Comp	ounds							
Fluorene	MG/KG	30	500		2.7 J	2.7 J		
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6		0.64 J	0.64 J		
Naphthalene	MG/KG	12	500		0.63 J	0.63 J	0.10 J	
Phenanthrene	MG/KG	100	500		3.2 J	4.4 J		
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500		2.6 J	2.6 J		
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	ND	29.42	31.14	0.135	ND
Total Semivolatile Organic Compounds	MG/KG	-	-	0.037	29.42	31.14	0.235	0.041
Metals								
Aluminum	MG/KG	10000 CP- 51	-	5,130	14,500	15,200	16,400 J	6,920
Antimony	MG/KG	12 CP-51	=					
Arsenic	MG/KG	13	16	3.5	2.1	2.0	8.2 J	2.5
Barium	MG/KG	350	400	35.0 J	71.2 J	79.2 J	32.8 J	58.1 J
Beryllium	MG/KG	7.2	590	0.57 J	1.5 J	1.1 J	1.1 J	0.52 J
Cadmium	MG/KG	2.5	9.3	0.24	0.86 J	1.3 J	0.81 J	0.23
Calcium	MG/KG	10000 CP- 51	-	1,440 J	1,270 J	1,610 J	2,490 J	1,010 J
Chromium	MG/KG	30	1500	20.3 J	31.3	34.2	32.5 J	16.8 J
Cobalt	MG/KG	20 CP-51	-	7.9 J	11.8 J	9.6 J	11.5 J	6.5 J
Copper	MG/KG	50	270	19.8	38.4 J	59.9 J	14.1 J	11.9
Iron	MG/KG	2000 CP-51	-	17,100	25,000	24,800	42,200 J	15,700
i		l						

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			SB-01	SB-02	SB-02	SB-02	SB-02
San	nple ID			SB-01-(33-34)	20100 325-FD-1	SB-02-(4.7-5.3)	SB-02-(11.5-13)	SB-02-(27-28)
M	latrix			Soil	Soil	Soil 4.7-5.3	Soil	Soil
Depth I	nterval (fi	:)		33.0-34.0	4.7-5.3		11.5-13.0	27.0-28.0
Date	Sampled			03/29/10	03/25/10	03/25/10	03/29/10	03/29/10
Parameter					Field Duplicate (1-1)			
Metals								
Lead	MG/KG	63	1000	3.7 J	10.4 J	20.1 J	13.6 J	5.2 J
Magnesium	MG/KG	-	-	2,990 J	4,370	4,970	7,860 J	2,930 J
Manganese	MG/KG	1600	10000	87.1 J	125 J	117 J	443 J	107 J
Mercury	MG/KG	0.18	2.8		0.022 J	0.085	0.026 J	
Nickel	MG/KG	30	310	20.3 J	26.1 J	24.3 J	28.0 J	11.7 J
Potassium	MG/KG	ī	-	1,820	2,070	2,550	3,460 J	702
Selenium	MG/KG	3.9	1500	0.71 J	1.5 J	1.3		0.83 J
Silver	MG/KG	2	1500			0.13 J		
Sodium	MG/KG	-	-	430	126	154	3,400 J	572
Thallium	MG/KG	5 CP-51	-	0.37 J	0.96 J	1.0	1.4 J	0.39 J
Vanadium	MG/KG	39 CP-51	-	18.9 J	38.4	39.6	40.6 J	18.1 J
Zinc	MG/KG	109	10000	31.2 J	267 J	154 J	76.2 J	26.3 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

	ation ID			SB-03	SB-03	SB-04	SB-04	SB-04
	nple ID			SB-03-(4.5-5.5)	SB-03-(28-29)	SB-04-(2.5-3.5)	SB-04-(4.2-5)	SB-04-(11-12)
	atrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (f	t)		4.5-5.5	28.0-29.0	2.5-3.5	4.2-5.0	11.0-12.0
Date 9	Sampled			03/26/10	03/29/10	04/13/10	04/13/10	04/16/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	unds							
1,2-Dichlorobenzene	MG/KG	1.1	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.020 J	0.0081 J			
Benzene	MG/KG	0.06	44	0.012				
Carbon disulfide	MG/KG	2.7 CP-51	-					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-	0.017				
Ethylbenzene	MG/KG	1	390	0.0060				
Isopropylbenzene	MG/KG	2.3 CP-51	=	0.082 J				
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-	0.080 J				
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Toluene	MG/KG	0.7	500					
Xylene (total)	MG/KG	0.26	500	0.012 J				
Total BTEX	MG/KG	-	-	0.03	ND	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.229	0.0081	ND	ND	ND
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

	In			OD			1	1 00
	tion ID			SB-03	SB-03	SB-04	SB-04	SB-04
	ple ID			SB-03-(4.5-5.5)	SB-03-(28-29)	SB-04-(2.5-3.5)	SB-04-(4.2-5)	SB-04-(11-12)
	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		4.5-5.5	28.0-29.0	2.5-3.5	4.2-5.0	11.0-12.0
Date S	ampled			03/26/10	03/29/10	04/13/10	04/13/10	04/16/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	$\bigcirc 35 \bigcirc$				
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
Acenaphthene	MG/KG	20	500	2.7				
Acenaphthylene	MG/KG	100	500			0.062 J	0.064 J	
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	1.5 J	0.021 J	0.059 J	0.083 J	
Benzo(a)anthracene	MG/KG	1	5.6	1.7 J	0.036 J	0.25	0.29	
Benzo(a)pyrene	MG/KG	1	1	0.98 J		0.22	0.22	
Benzo(b)fluoranthene	MG/KG	1	5.6	0.83 J		0.30	0.32	
Benzo(g,h,i)perylene	MG/KG	100	500	0.86 J		0.21	0.20 J	
Benzo(k)fluoranthene	MG/KG	0.8	56	0.76 J		0.091 J	0.091 J	
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-		0.095 J		0.054 J	0.034 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					_
Chrysene	MG/KG	1	56	2.6	0.026 J	0.26	0.29	
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.22 J		0.041 J	0.045 J	
Dibenzofuran	MG/KG	7	350					
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Fluoranthene	MG/KG	100	500	1.8 J	0.045 J	0.35	0.50	0.043 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	tion ID			SB-03	SB-03	SB-04	SB-04	SB-04
Sam	ple ID	,	·	SB-03-(4.5-5.5)	SB-03-(28-29)	SB-04-(2.5-3.5)	SB-04-(4.2-5)	SB-04-(11-12)
Ма	trix			Soil Soil Soil Soil	Soil	Soil		
Depth In	terval (ft	t)		4.5-5.5	28.0-29.0	2.5-3.5	4.2-5.0	11.0-12.0
Date S	ampled			03/26/10	03/29/10	04/13/10	04/13/10	04/16/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Fluorene	MG/KG	30	500	3.8			0.039 J	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.57 J		0.17 J	0.17 J	
Naphthalene	MG/KG	12	500	1.1 J		0.022 J	0.022 J	
Phenanthrene	MG/KG	100	500	9.7	0.067 J	0.20 J	0.34	
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	4.6	0.073 J	0.38	0.52	
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	68.72	0.268	2.615	3.194	0.043
Total Semivolatile Organic Compounds	MG/KG	-	-	68.72	0.363	2.615	3.248	0.077
Metals	•							
Aluminum	MG/KG	10000 CP- 51	-	9,010	5,720	10,700 J	9,650 J	10,100 J
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	3.2	1.6	4.3	8.1	8.3
Barium	MG/KG	350	400	68.3 J	29.3 J	79.2 J	53.1 J	22.5 J
Beryllium	MG/KG	7.2	590	0.92 J	0.58 J	1.1 J	0.91 J	0.73 J
Cadmium	MG/KG	2.5	9.3	1.5	0.19 J	0.51	0.41	0.29 J
Calcium	MG/KG	10000 CP- 51	-	2,910 J	1,040 J	4,100 J	3,570 J	1,300 J
Chromium	MG/KG	30	1500	24.5 J	16.0 J	27.3 J	27.0 J	21.5 J
Cobalt	MG/KG	20 CP-51	-	9.0 J	4.3 J	11.1 J	18.2 J	7.5 J
Copper	MG/KG	50	270	90.3	18.0	38.6 J	19.0 J	8.3 J
Iron	MG/KG	2000 CP-51	-	22,600	10,000	33,000	29,000	26,900

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loc	ation ID			SB-03	SB-03	SB-04	SB-04	SB-04
Sa	mple ID			SB-03-(4.5-5.5)	SB-03-(28-29)	SB-04-(2.5-3.5)	SB-04-(4.2-5)	SB-04-(11-12)
N	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (ft	:)		4.5-5.5	28.0-29.0	2.5-3.5	4.2-5.0	11.0-12.0
Date	Date Sampled			03/26/10	03/29/10	04/13/10	04/13/10	04/16/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Lead	MG/KG	63	1000	94.4 J	3.3 J	59.6 J	26.9 J	9.0 J
Magnesium	MG/KG	-	-	3,350 J	2,520 J	5,850 J	5,370 J	5,210 J
Manganese	MG/KG	1600	10000	114 J	70.6 J	250 J	206 J	317 J
Mercury	MG/KG	0.18	2.8	0.17		4.1 J	0.97 J	0.018 J
Nickel	MG/KG	30	310	21.2 J	10.2 J	24.4 J	24.4 J	16.9 J
Potassium	MG/KG	-	=	1,770	1,500	3,570 J	3,210 J	2,470 J
Selenium	MG/KG	3.9	1500	0.68 J	0.83 J	3.5	3.6	3.2
Silver	MG/KG	2	1500			0.15 J	0.12 J	0.16 J
Sodium	MG/KG	-	-	122	279	287 J	325 J	3,620 J
Thallium	MG/KG	5 CP-51	-	0.50 J	0.27 J	1.7	1.7	2.5
Vanadium	MG/KG	39 CP-51	-	31.0 J	23.5 J	33.7 J	31.7 J	26.0 J
Zinc	MG/KG	109	10000	488 J	25.5 J	127 J	66.3 J	50.1 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loc	Location ID			SB-05	SB-05	SB-05	SB-32	SB-32
	mple ID			SB-05-(4-5)	SB-05-(6.5-7.0)	SB-05-(11.5-12)	SB-32-(3-4)	SB-32-(5-6)
	Matrix			Soil	Soil	Soil	Soil	Soil
	Interval (f	t)		4.0-5.0	6.5-7.0	11.5-12.0	3.0-4.0	5.0-6.0
	Sampled	-,		04/13/10	04/16/10	04/16/10	01/13/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compounds		(*/	(-)					
1,2-Dichlorobenzene	MG/KG	1.1	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500		0.047 J	0.015 J		0.030 J
Benzene	MG/KG	0.06	44					
Carbon disulfide	MG/KG	2.7 CP-51	-		0.024 J	0.0050 J		
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390		0.040			
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Toluene	MG/KG	0.7	500		0.019			
Xylene (total)	MG/KG	0.26	500		0.034			
Total BTEX	MG/KG	-	-	ND	0.093	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	ND	0.164	0.02	ND	0.03
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.027 J	25 J		0.14 J	0.027 J
2,4-Dimethylphenol	MG/KG	-	-		1.8 J			
2,7 Dimensiphenoi	MG/KG				1.00			

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-05	SB-05	SB-05	SB-32	SB-32
Sam	ple ID			SB-05-(4-5)	SB-05-(6.5-7.0)	SB-05-(11.5-12)	SB-32-(3-4)	SB-32-(5-6)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		4.0-5.0	6.5-7.0	11.5-12.0	3.0-4.0	5.0-6.0
Date S	ampled			04/13/10	04/16/10	04/16/10	01/13/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.12 J	84 J		0.42	0.048 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500		1.1 J			
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500		3.2 J		0.050 J	
Acenaphthene	MG/KG	20	500	0.035 J	250	0.21 J	0.32	0.024 J
Acenaphthylene	MG/KG	100	500	0.90			2.5	0.50
Acetophenone	MG/KG	-	-	0.026 J				
Anthracene	MG/KG	100	500	0.29	140 J	0.43 J	2.4	0.15 J
Benzo(a)anthracene	MG/KG	1	5.6	2.1	390	0.27 J	7.6	0.56
Benzo(a)pyrene	MG/KG	1	1	2.8	290	0.12 J	9.2	1.8
Benzo(b)fluoranthene	MG/KG	1	5.6	2.6	370	0.16 J		1.3
Benzo(g,h,i)perylene	MG/KG	100	500	3.1	160	0.16 J	6.4	2.8
Benzo(k)fluoranthene	MG/KG	0.8	56	1.7	27 J	0.072 J	2.5	0.41
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.069 J				0.026 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.039 J	96 J	0.11 J	0.37	
Chrysene	MG/KG	1	56	1.9	390	0.28 J	7.3	0.64
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.64	27 J	0.046 J	1.7	0.33
Dibenzofuran	MG/KG	7	350	0.036 J	170	0.35 J	0.64	0.023 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-				0.23	
Fluoranthene	MG/KG	100	500	2.8	1,100	0.56 J	13	0.53

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

						T		
	tion ID			SB-05	SB-05	SB-05	SB-32	SB-32
Sam	ple ID			SB-05-(4-5)	SB-05-(6.5-7.0)	SB-05-(11.5-12)	SB-32-(3-4)	SB-32-(5-6)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	nterval (fi	t)		4.0-5.0	6.5-7.0	11.5-12.0	3.0-4.0	5.0-6.0
Date S	ampled			04/13/10	04/16/10	04/16/10	01/13/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Fluorene	MG/KG	30	500	0.089 J	170	0.78 J	0.96	0.062 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	2.1 J	140 J	0.078 J	5.4	1.7
Naphthalene	MG/KG	12	500	0.11 J	410	0.13 J	0.58	0.15 J
Phenanthrene	MG/KG	100	500	0.90	1,200	2.1 J	7.7	0.25
Phenol	MG/KG	0.33	500		1.1 J			
Pyrene	MG/KG	100	500	2.5	830	0.41 J	14	1.2
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	24.684	5,978	5.806	92.98	12.454
Total Semivolatile Organic Compounds	MG/KG	-	-	24.881	6,276.2	6.266	94.41	12.53
Metals								
Aluminum	MG/KG	10000 CP- 51	-	9,250 J	5,720 J	16,400 J	6,550	3,690 J
Antimony	MG/KG	12 CP-51	-				0.71 J	0.52 J
Arsenic	MG/KG	13	16	2.3	4.8	5.0 J	8.2	2.0
Barium	MG/KG	350	400	113 J	94.7 J	54.5 J	144	42.3 J
Beryllium	MG/KG	7.2	590	0.95 J	0.55 J	1.1 J	0.30	0.20 J
Cadmium	MG/KG	2.5	9.3	0.35	0.22 J	0.38 J	1.5	0.096 J
Calcium	MG/KG	10000 CP- 51	-	12,000 J	102,000 J	1,620 J	22,300 J	7,270 J
Chromium	MG/KG	30	1500	21.4 J	12.7 J	35.0 J	23.4	7.9 J
Cobalt	MG/KG	20 CP-51	-	9.0 J	4.6 J	18.2 J	7.5	3.8 J
Copper	MG/KG	50	270	33.5 J	50.3 J	62.4 J	58.6 J	21.9
Iron	MG/KG	2000 CP-51	-	22,700	10,900	20,200 J	21,200	12,900 J
							$\Big)$	/

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loc	ation ID			SB-05	SB-05	SB-05	SB-32	SB-32
Sai	mple ID			SB-05-(4-5)	SB-05-(6.5-7.0)	SB-05-(11.5-12)	SB-32-(3-4)	SB-32-(5-6)
N	latrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (ft	:)		4.0-5.0	6.5-7.0	11.5-12.0 04/16/10	3.0-4.0	5.0-6.0
Date	Sampled			04/13/10	04/16/10		01/13/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Lead	MG/KG	63	1000	52.9 J	175 J	20.2 J	266	99.9 J
Magnesium	MG/KG	=	-	8,120 J	2,820 J	6,310 J	3,830 J	1,350 J
Manganese	MG/KG	1600	10000	246 J	1,150 J	222 J	248	125 J
Mercury	MG/KG	0.18	2.8	0.36 J	1.5 J	0.13 J	0.32 J	0.0070 J
Nickel	MG/KG	30	310	20.9 J	14.1 J	29.3 J	21.9	11.7 J
Potassium	MG/KG	-	-	2,790 J	891 J	3,610 J	1,400	494
Selenium	MG/KG	3.9	1500	3.0	1.1 J	3.8 J	1.7	0.65 J
Silver	MG/KG	2	1500	0.10 J	0.20 J	0.20 J		
Sodium	MG/KG	-	-	295 J	730 J	3,400 J	254	275
Thallium	MG/KG	5 CP-51	-	1.7	4.5	1.7 J		
Vanadium	MG/KG	39 CP-51	-	26.4 J	14.4 J	42.0 J	23.4	10.4 J
Zinc	MG/KG	109	10000	95.8 J	144 J	72.8 J	215 J	41.0 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			SB-32	SB-32	SB-33	SB-33	SB-33
San	nple ID			SB-32-(9-10)	SB-32-(13-14)	SB-33-(3.5-4)	SB-33-(10.5-11)	SB-33-(13.5-14)
M	latrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (fi	t)		9.0-10.0	13.0-14.0	3.5-4.0	10.5-11.0	13.5-14.0
Date :	Sampled			01/17/11	01/17/11	01/11/11	01/14/11	01/14/11
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	unds							
1,2-Dichlorobenzene	MG/KG	1.1	500					
2-Butanone	MG/KG	0.12	500	0.0072 J				
Acetone	MG/KG	0.05	500	0.036 J	0.017 J	0.0042 J	0.019 J	0.014 J
Benzene	MG/KG	0.06	44				0.015	
Carbon disulfide	MG/KG	2.7 CP-51	-	0.0023	0.012		0.0088	
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500			0.0016 J		
Styrene	MG/KG	300 CP-51	-					
Toluene	MG/KG	0.7	500	0.0020 J			0.0027 J	
Xylene (total)	MG/KG	0.26	500	0.0053			0.013	
Total BTEX	MG/KG	-	-	0.0073	ND	ND	0.0307	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0528	0.029	0.0058	0.0585	0.014
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.025 J			2.2	
2,4-Dimethylphenol	MG/KG	-	-				0.46	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Local	Location ID			SB-32	SB-32	SB-33	SB-33	SB-33
	ple ID			SB-32-(9-10)	SB-32-(13-14)	SB-33-(3.5-4)	SB-33-(10.5-11)	SB-33-(13.5-14)
	trix			Soil	Soil	Soil	Soil	Soil
Depth In		+\		9.0-10.0	13.0-14.0	3.5-4.0	10.5-11.0 01/14/11	13.5-14.0
	ampled	.,		01/17/11	01/17/11	01/11/11		01/14/11
Parameter	I	Criteria	Criteria	01/11/11	0.7.77.1	01/11/11	01/1-1/11	01/1-1/11
raiametei	Units	(1)	(2)					
Semivolatile Organic Compo	ounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.056 J		0.027 J	5.5	
2-Methylphenol (o-cresol)	MG/KG	0.33	500				0.21 J	
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500				0.57	
Acenaphthene	MG/KG	20	500	0.075 J		0.14 J	3.4	
Acenaphthylene	MG/KG	100	500	0.12 J		0.28	8.0	0.034 J
Acetophenone	MG/KG	-	-				0.044 J	
Anthracene	MG/KG	100	500	0.24		0.42	14	0.052 J
Benzo(a)anthracene	MG/KG	1	5.6	0.41		1.6	16	0.11 J
Benzo(a)pyrene	MG/KG	1	1	0.48		1.6	17	0.10 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.56		2.0	21	0.13 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.33		1.0	11	0.066 J
Benzo(k)fluoranthene	MG/KG	0.8	56	0.24		0.89	4.4	0.053 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.081 J		0.27	0.55	
Butylbenzylphthalate	MG/KG	100 CP-51	-				0.076 J	
Carbazole	MG/KG	-	-	0.21		0.15 J	4.8	
Chrysene	MG/KG	1	56	0.38		1.6	15	0.094 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.11 J		0.29	2.9	0.019 J
Dibenzofuran	MG/KG	7	350	0.22		0.050 J	8.9	0.023 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-				0.040 J	
Fluoranthene	MG/KG	100	500	0.66		2.7	39	0.20

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-32	SB-32	SB-33	SB-33	SB-33
Sam	ple ID			SB-32-(9-10)	SB-32-(13-14)	SB-33-(3.5-4)	SB-33-(10.5-11)	SB-33-(13.5-14)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth In	iterval (ft	:)		9.0-10.0	13.0-14.0	3.5-4.0	10.5-11.0	13.5-14.0
Date S	ampled			01/17/11	01/17/11	01/11/11	01/14/11	01/14/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Fluorene	MG/KG	30	500	0.18 J		0.12 J	11	0.034 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.30		0.94	9.4	0.060 J
Naphthalene	MG/KG	12	500	0.32		0.047 J	25	0.021 J
Phenanthrene	MG/KG	100	500	0.38		1.2	46	0.13 J
Phenol	MG/KG	0.33	500				0.40	
Pyrene	MG/KG	100	500	0.62		2.6	37	0.19
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	5.461	ND	17.454	285.6	1.293
Total Semivolatile Organic Compounds	MG/KG	=	-	5.997	ND	17.924	303.85	1.316
Metals								
Aluminum	MG/KG	10000 CP- 51	-	10,100 J	16,700 J	6,300	5,740	8,430
Antimony	MG/KG	12 CP-51	=	1.5 J	1.2 J	0.40 J	2.4 J	
Arsenic	MG/KG	13	16	1.8	8.0	6.1	7.3	1.7
Barium	MG/KG	350	400	72.3 J	34.5 J	720	118	42.8
Beryllium	MG/KG	7.2	590	0.21 J	0.81 J	0.29	0.23	0.55
Cadmium	MG/KG	2.5	9.3	0.34	0.64	0.87	2.4	0.49
Calcium	MG/KG	10000 CP- 51	-	1,760 J	2,000 J	61,600 J	23,400 J	20,600 J
Chromium	MG/KG	30	1500	63.2 J	34.7 J	14.3	37.1	15.9
Cobalt	MG/KG	20 CP-51	-	9.0 J	11.4 J	4.5	7.5	9.3
Copper	MG/KG	50	270	25.1	15.1	27.5 J	141 J	15.8 J
Iron	MG/KG	2000 CP-51	-	20,600 J	26,900 J	11,200	41,000	14,400

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-32	SB-32	SB-33	SB-33	SB-33
Sam	ple ID			SB-32-(9-10)	SB-32-(13-14)	SB-33-(3.5-4)	SB-33-(10.5-11)	SB-33-(13.5-14)
М	atrix			Soil 9.0-10.0	Soil	Soil 3.5-4.0	Soil	Soil
Depth I	nterval (ft	:)			13.0-14.0		10.5-11.0	13.5-14.0
Date S	Sampled			01/17/11	01/17/11	01/11/11	01/14/11	01/14/11
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Lead	MG/KG	63	1000	7.5 J	19.6 J	1,330	232	9.0
Magnesium	MG/KG	-	-	6,210 J	8,020 J	3,680 J	3,110 J	14,700 J
Manganese	MG/KG	1600	10000	172 J	447 J	182	263	317
Mercury	MG/KG	0.18	2.8		0.028 J	0.20 J	0.47 J	0.13 J
Nickel	MG/KG	30	310	35.0 J	29.0 J	13.6	17.6	13.6
Potassium	MG/KG	-	-	3,100	3,890	1,480	927	1,050
Selenium	MG/KG	3.9	1500			0.60 J	0.64 J	0.92 J
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	911	4,570	393	472	468
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	31.4 J	42.2 J	19.8	32.7	23.8
Zinc	MG/KG	109	10000	42.5 J	76.7 J	486 J	246 J	41.3 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	Location ID			SB-34	SB-34	SB-35	SB-35	SB-35
	ple ID			SB-34-(10-11)	SB-34-(20-20.9)	01182011-FD-1	SB-35-(9.5-10.0)	SB-35-(17.2-17.8)
	atrix			Soil	Soil	Soil	Soil	Soil
	nterval (f	t)		10.0-11.0	20.0-20.9	9.5-10.0	9.5-10.0	17.2-17.8
	Sampled	•,		01/14/11	01/14/11	01/18/11	01/18/11	01/18/11
Parameter	T	Criteria	Criteria	4	0,,,,,,	Field Duplicate (1-1)	0.7.107.11	0.7.107.1.
- didilictor	Units	(1)	(2)			, , ,		
Volatile Organic Compo	unds							
1,2-Dichlorobenzene	MG/KG	1.1	500					
2-Butanone	MG/KG	0.12	500					0.0033 J
Acetone	MG/KG	0.05	500	0.015 J	0.012 J	0.012 J	0.018 J	0.028 J
Benzene	MG/KG	0.06	44					
Carbon disulfide	MG/KG	2.7 CP-51	-		0.0050			0.0022 J
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500			0.0017 J		
Styrene	MG/KG	300 CP-51	-					
Toluene	MG/KG	0.7	500				0.0022	
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	ND	ND	0.0022	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.015	0.017	0.0137	0.0202	0.0335
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					
						l		L

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	ion ID			SB-34	SB-34	SB-35	SB-35	SB-35
Samı	ple ID			SB-34-(10-11)	SB-34-(20-20.9)	01182011-FD-1	SB-35-(9.5-10.0)	SB-35-(17.2-17.8)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		10.0-11.0	20.0-20.9	9.5-10.0	9.5-10.0	17.2-17.8
Date S	ampled			01/14/11	01/14/11	01/18/11	01/18/11	01/18/11
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Compo	ounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-					
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
Acenaphthene	MG/KG	20	500	0.020 J				
Acenaphthylene	MG/KG	100	500	0.036 J	0.036 J			
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	0.036 J	0.053 J			0.068 J
Benzo(a)anthracene	MG/KG	1	5.6	0.11 J	0.11 J	0.060 J	0.052 J	0.14 J
Benzo(a)pyrene	MG/KG	1	1	0.13 J	0.13 J	0.069 J	0.058 J	0.14 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.17 J	0.16 J	0.082 J	0.069 J	0.19 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.092 J	0.085 J	0.056 J	0.057 J	0.096 J
Benzo(k)fluoranthene	MG/KG	0.8	56	0.061 J	0.058 J	0.037 J	0.035 J	0.087 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-			0.058 J	0.033 J	
Butylbenzylphthalate	MG/KG	100 CP-51	=					
Carbazole	MG/KG	=	-	_			_	
Chrysene	MG/KG	1	56	0.12 J	0.11 J	0.057 J	0.053 J	0.13 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.024 J				0.031 J
Dibenzofuran	MG/KG	7	350		0.028 J			
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Fluoranthene	MG/KG	100	500	0.18 J	0.19 J	0.082 J	0.073 J	0.21

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-34	SB-34	SB-35	SB-35	SB-35
Sam	ple ID			SB-34-(10-11)	SB-34-(20-20.9)	01182011-FD-1	SB-35-(9.5-10.0)	SB-35-(17.2-17.8)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth In	nterval (ft	t)		10.0-11.0	20.0-20.9	9.5-10.0 01/18/11	9.5-10.0 01/18/11	17.2-17.8 01/18/11
Date S	Sampled			01/14/11	01/14/11			
Parameter	Units	Criteria (1)	Criteria (2)			Field Duplicate (1-1)		
Semivolatile Organic Compounds								
Fluorene	MG/KG	30	500		0.036 J			0.032 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.078 J	0.088 J	0.047 J	0.040 J	0.091 J
Naphthalene	MG/KG	12	500	0.033 J	0.088 J			
Phenanthrene	MG/KG	100	500	0.11 J	0.17 J	0.052 J	0.043 J	0.15 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	0.19	0.19 J	0.083 J	0.076 J	0.19 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	1.39	1.504	0.625	0.556	1.555
Total Semivolatile Organic Compounds	MG/KG	-	-	1.39	1.532	0.683	0.589	1.555
Metals								
Aluminum	MG/KG	10000 CP- 51	-	9,950	15,200	5,580 J	5,690 J	14,000 J
Antimony	MG/KG	12 CP-51	-	0.43 J	0.47 J	0.48 J	0.37 J	1.3 J
Arsenic	MG/KG	13	16	3.8	11.6			1.2
Barium	MG/KG	350	400	73.3	33.6	33.7 J	36.9 J	59.6 J
Beryllium	MG/KG	7.2	590	0.69	0.75	0.45 J	0.41 J	0.48 J
Cadmium	MG/KG	2.5	9.3	0.93	1.1		0.099 J	0.40
Calcium	MG/KG	10000 CP- 51	-	15,900 J	1,950 J	46,000 J	31,800 J	1,150 J
Chromium	MG/KG	30	1500	19.5	30.9	11.1 J	11.4 J	27.9 J
Cobalt	MG/KG	20 CP-51	-	10.4	10.4	7.4 J	6.2 J	9.4 J
Copper	MG/KG	50	270	36.3 J	16.0 J	16.0	13.5	17.5
Iron	MG/KG	2000 CP-51	-	15,700	34,400	10,400 J	9,110 J	19,400 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			SB-34	SB-34	SB-35	SB-35	SB-35
San	nple ID			SB-34-(10-11)	SB-34-(20-20.9)	01182011-FD-1	SB-35-(9.5-10.0)	SB-35-(17.2-17.8)
M	latrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (ft	:)		10.0-11.0	20.0-20.9	9.5-10.0	9.5-10.0	17.2-17.8
Date	Date Sampled			01/14/11	01/14/11	01/18/11	01/18/11	01/18/11
Parameter						Field Duplicate (1-1)		
Metals								
Lead	MG/KG	63	1000	129	16.2	16.7 J	9.6 J	10.9 J
Magnesium	MG/KG	-	-	8,950 J	7,250 J	29,900 J	21,000 J	5,870 J
Manganese	MG/KG	1600	10000	305	469	272 J	461 J	251 J
Mercury	MG/KG	0.18	2.8	0.20 J	0.044 J	0.040 J	0.067 J	0.039 J
Nickel	MG/KG	30	310	22.1	25.0	10.4 J	11.1 J	21.2 J
Potassium	MG/KG	-	-	1,440	3,710	1,110	1,270	2,010
Selenium	MG/KG	3.9	1500	1.2	2.6			
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	406	4,360	322	322	1,430
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	26.2	40.1) 17.9 J	17.6 J	31.8 J
Zinc	MG/KG	109	10000	86.6 J	71.6 J	38.1 J	33.2 J	57.6 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	tion ID			SB-36	SB-36	SB-36	SB-36	SB-37
Sam	ple ID			01132011-FD-1	SB-36-(3-4)	SB-36-(6.5-7)	SB-36-(13.5-14.2)	SB-37-(3-4)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		3.0-4.0	3.0-4.0	6.5-7.0	13.5-14.2	3.0-4.0
Date S	ampled			01/13/11	01/13/11	01/17/11	01/17/11	01/06/11
Parameter	Units	Criteria (1)	Criteria (2)	Field Duplicate (1-1)				
Volatile Organic Compou	nds							
1,2-Dichlorobenzene	MG/KG	1.1	500					
2-Butanone	MG/KG	0.12	500			0.0038 J		
Acetone	MG/KG	0.05	500	0.014 J		0.020 J	0.014 J	
Benzene	MG/KG	0.06	44			0.0021 J		
Carbon disulfide	MG/KG	2.7 CP-51	=	0.0012 J			0.0050	
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Toluene	MG/KG	0.7	500			0.0015 J		
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-		ND	ND	0.0036	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0152	ND	0.0274	0.019	ND
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-	3.6 J	0.94	0.028 J		0.37
2,4-Dimethylphenol	MG/KG	-	-	0.40	0.19			

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

								•
	tion ID			SB-36	SB-36	SB-36	SB-36	SB-37
Sam	ple ID			01132011-FD-1	SB-36-(3-4)	SB-36-(6.5-7)	SB-36-(13.5-14.2)	SB-37-(3-4)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.0-4.0	3.0-4.0	6.5-7.0	13.5-14.2	3.0-4.0
Date S	ampled			01/13/11	01/13/11	01/17/11	01/17/11	01/06/11
Parameter	Units	Criteria (1)	Criteria (2)	Field Duplicate (1-1)				
Semivolatile Organic Compounds								
2-Methylnaphthalene	MG/KG	0.41 CP-51	-		3.0	0.12 J		1.2
2-Methylphenol (o-cresol)	MG/KG	0.33	500	0.23	0.12 J			0.021 J
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500	0.64	0.27	0.025 J		0.054 J
Acenaphthene	MG/KG	20	500	7.5 J	2.0	0.052 J		0.78
Acenaphthylene	MG/KG	100	500	25	6.8	1.4		2.7
Acetophenone	MG/KG	-	-	0.048 J	0.023 J	0.074 J		0.038 J
Anthracene	MG/KG	100	500	38	11	0.49		2.9
Benzo(a)anthracene	MG/KG	1	5.6	$ \begin{array}{c} 58 \end{array} $	17	1.4		6.3
Benzo(a)pyrene	MG/KG	1	1	50	14	1.6		5.7
Benzo(b)fluoranthene	MG/KG	1	5.6	66	17	3.3		7.1
Benzo(g,h,i)perylene	MG/KG	100	500	30	8.3	2.3		3.8
Benzo(k)fluoranthene	MG/KG	0.8	56	21	6.8	1.1		1.7
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-			0.046 J		0.30
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	12	3.4 J	0.066 J		1.1
Chrysene	MG/KG	1	56	51	14	1.7		5.5
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	6.3 J	2.5	0.60		1.0
Dibenzofuran	MG/KG	7	350	19	5.5			1.8
Di-n-butylphthalate	MG/KG	0.014 CP-51	-			0.054 J		0.059 J
Fluoranthene	MG/KG	100	500	130	39	1.6	0.052 J	15
	I.	L	l .		l			1

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loop	Location ID			SB-36	SB-36	SB-36	SB-36	SB-37
	ple ID			01132011-FD-1	SB-36-(3-4)	SB-36-(6.5-7)	SB-36-(13.5-14.2)	SB-37-(3-4)
	trix			Soil	Soil	Soil	Soil	Soil
Depth In		41		3.0-4.0	3.0-4.0	6.5-7.0	13.5-14.2	3.0-4.0
•	ampled	ι)		01/13/11	01/13/11	01/17/11	01/17/11	01/06/11
	ampied	0-111-	0	Field Duplicate (1-1)	01/13/11	01/17/11	01/17/11	01/00/11
Parameter	Units	Criteria (1)	Criteria (2)	Tield Duplicate (1-1)				
Semivolatile Organic Compounds								
Fluorene	MG/KG	30	500	26	7.8	0.14 J		2.3
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	27	7.6	2.0 J		3.3
Naphthalene	MG/KG	12	500	\bigcirc	7.5	0.23		3.6
Phenanthrene	MG/KG	100	500	140	39	0.61	0.055 J	15
Phenol	MG/KG	0.33	500	0.39	0.15 J			0.033 J
Pyrene	MG/KG	100	500	120	35	2.0	0.048 J	14
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	827.8	238.3	20.642	0.155	91.88
Total Semivolatile Organic Compounds	MG/KG	-	-	864.108	248.893	20.935	0.155	95.655
Metals								
Aluminum	MG/KG	10000 CP- 51	-	8,680	10,800	4,710 J	14,700 J	7,020
Antimony	MG/KG	12 CP-51	-	0.66 J	0.86 J	1.7 J	0.67 J	2.8 J
Arsenic	MG/KG	13	16	3.9	4.2	9.2	11.1	9.2
Barium	MG/KG	350	400	73.3	87.9	230 J	28.5 J	367
Beryllium	MG/KG	7.2	590	0.26	0.35	0.16 J	0.73 J	0.47
Cadmium	MG/KG	2.5	9.3	0.75	0.97	1.0	0.69	2.4 J
Calcium	MG/KG	10000 CP- 51	-	4,190 J	3,170 J	11,100 J	1,930 J	20,500 J
Chromium	MG/KG	30	1500	23.4	27.0	15.9 J	31.1 J	28.0
Cobalt	MG/KG	20 CP-51	-	7.7	8.2	4.7 J	11.0 J	7.3 J
Copper	MG/KG	50	270	46.9 J	115 J	85.4	13.9	148
Iron	MG/KG	2000 CP-51	-	17,800	20,800	24,000 J	32,400 J	34,900 J
1	1	1						/

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-36	SB-36	SB-36	SB-36	SB-37
Sam	ple ID			01132011-FD-1	SB-36-(3-4)	SB-36-(6.5-7)	SB-36-(13.5-14.2)	SB-37-(3-4)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	nterval (fi	:)		3.0-4.0	3.0-4.0	6.5-7.0	13.5-14.2	3.0-4.0
Date S	Sampled			01/13/11	01/13/11	01/17/11	01/17/11	01/06/11
Parameter	Units	Criteria (1)	Criteria (2)	Field Duplicate (1-1)				
Metals								
Lead	MG/KG	63	1000	85.1	96.2	355 J	13.6 J	762 J
Magnesium	MG/KG	-	-	4,380 J	4,580 J	1,820 J	7,250 J	4,370
Manganese	MG/KG	1600	10000	132	171	166 J	553 J	333
Mercury	MG/KG	0.18	2.8	0.16 J	0.21 J	0.61 J	0.0090 J	1.0
Nickel	MG/KG	30	310	19.2	20.2	13.8 J	25.8 J	23.0
Potassium	MG/KG	-	-	1,790	2,420	1,440	3,360	2,270
Selenium	MG/KG	3.9	1500	1.4	1.3 J	0.95 J		
Silver	MG/KG	2	1500			0.37 J		0.16 J
Sodium	MG/KG	-	-	194	206	409	3,730	347
Thallium	MG/KG	5 CP-51	-					0.99
Vanadium	MG/KG	39 CP-51	-	27.0	34.0	35.3 J	37.8 J	22.9
Zinc	MG/KG	109	10000	113 J	142 J	230 J	72.7 J	556 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-37	SB-37	SB-37	SB-38	SB-38
Sam	ple ID			SB-37-(8.5-9)	SB-37-(8.2-9.0)	SB-37-(13.5-14.5)	SB-38-(4-5)	SB-38-(7.8-8.5)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	nterval (f	t)		8.5-9.0	8.2-9.0	13.5-14.5	4.0-5.0	7.8-8.5
Date S	Sampled			01/06/11	01/11/11	01/11/11	01/06/11	01/11/11
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Volatile Organic Compou	ınds							
1,2-Dichlorobenzene	MG/KG	1.1	500		0.0078 J			
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500		0.11 J	0.013 J		0.019 J
Benzene	MG/KG	0.06	44		0.026 J		0.0016 J	0.0074
Carbon disulfide	MG/KG	2.7 CP-51	-		0.0088 J			
Chloroform	MG/KG	0.37	350	0.11 J				
Cyclohexane	MG/KG	-	-	2.0	0.49 J			
Ethylbenzene	MG/KG	1	390	2.8	8.6 J			0.019
Isopropylbenzene	MG/KG	2.3 CP-51	-	0.41	0.61 J			0.0048
Methyl tert-butyl ether	MG/KG	0.93	500					
Methylcyclohexane	MG/KG	-	-	1.6	0.67 J			0.0042 J
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					0.048
Toluene	MG/KG	0.7	500		0.082 J		0.0018 J	0.017
Xylene (total)	MG/KG	0.26	500	0.33 J	4.6 J			0.083
Total BTEX	MG/KG	-	-	3.13	13.308	ND	0.0034	0.1264
Total Volatile Organic Compounds	MG/KG	-	-	7.25	15.2046	0.013	0.0034	0.2024
Semivolatile Organic Comp	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-				0.071 J	54 J
2,4-Dimethylphenol	MG/KG	-	-					
	-	•						

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Locat	ion ID			SB-37	SB-37	SB-37	SB-38	SB-38
Sam	ple ID			SB-37-(8.5-9)	SB-37-(8.2-9.0)	SB-37-(13.5-14.5)	SB-38-(4-5)	SB-38-(7.8-8.5)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		8.5-9.0	8.2-9.0	13.5-14.5	4.0-5.0	7.8-8.5
Date S	ampled			01/06/11	01/11/11	01/11/11	01/06/11	01/11/11
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Semivolatile Organic Compo	ounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	=				0.43	520
2-Methylphenol (o-cresol)	MG/KG	0.33	500				0.042 J	
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500				0.14 J	
Acenaphthene	MG/KG	20	500	6.1	3.3		0.15 J	17
Acenaphthylene	MG/KG	100	500	3.8			3.6	29
Acetophenone	MG/KG	=	=	0.85 J			0.12 J	24
Anthracene	MG/KG	100	500	2.4	1.5		2.0	45 J
Benzo(a)anthracene	MG/KG	1	5.6	3.6	0.72 J		7.1	150
Benzo(a)pyrene	MG/KG	1	1	2.0 J	0.54 J		6.4	65 J
Benzo(b)fluoranthene	MG/KG	1	5.6	7.1	0.50 J		11	120
Benzo(g,h,i)perylene	MG/KG	100	500	3.7	0.36 J		7.4	56 J
Benzo(k)fluoranthene	MG/KG	0.8	56	3.5	0.45 J		2.5	24
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.36 J			0.15 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.40 J			0.19 J	
Chrysene	MG/KG	1	56	6.9	1.6 J		7.4	160
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	1.4 J	0.12 J		1.7	15
Dibenzofuran	MG/KG	7	350	3.0	1.7 J		0.21	14
Di-n-butylphthalate	MG/KG	0.014 CP-51	-				0.035 J	
Fluoranthene	MG/KG	100	500	3.0	1.5 J		8.7	190

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-37	SB-37	SB-37	SB-38	SB-38
Sam	ple ID	,		SB-37-(8.5-9)	SB-37-(8.2-9.0)	SB-37-(13.5-14.5)	SB-38-(4-5)	SB-38-(7.8-8.5)
Ma	atrix			Soil	Soil	Soil	Soil	Soil
Depth Ir	nterval (fi	t)		8.5-9.0	8.2-9.0	13.5-14.5	4.0-5.0	7.8-8.5
Date S	Sampled			01/06/11	01/11/11	01/11/11	01/06/11	01/11/11
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Semivolatile Organic Comp	ounds							
Fluorene	MG/KG	30	500	6.2	3.6		0.29	88
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	3.2 J	0.29 J		6.0 J	44 J
Naphthalene	MG/KG	12	500	0.80 J	0.54		1.9	1,100
Phenanthrene	MG/KG	100	500	10	5.8		3.0	420
Phenol	MG/KG	0.33	500				0.047 J	
Pyrene	MG/KG	100	500	5.5	2.8 J		14	300
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	69.2	23.62	ND	83.57	3,343
Total Semivolatile Organic Compounds	MG/KG	-	-	73.81	25.32	ND	84.575	3,435
Metals								
Aluminum	MG/KG	10000 CP- 51	-	3,310	2,670	12,900	9,990	2,220
Antimony	MG/KG	12 CP-51	=	1.0 J		0.66 J	1.3 J	3.2 J
Arsenic	MG/KG	13	16	4.1	3.9	4.2	5.6	32.7
Barium	MG/KG	350	400	67.4	84.3	31.7	69.3	88.6
Beryllium	MG/KG	7.2	590	0.19 J	0.17 J	0.41	0.40	0.039 J
Cadmium	MG/KG	2.5	9.3	0.12 J	0.39	0.54	0.66 J	2.7
Calcium	MG/KG	10000 CP- 51	-	567 J	1,870 J	1,060 J	3,630 J	725 J
Chromium	MG/KG	30	1500	13.9	6.8	19.2	22.8	14.2
Cobalt	MG/KG	20 CP-51	-	1.5 J	3.3	8.2	4.4 J	4.8
Copper	MG/KG	50	270	26.7	58.3 J	13.3 J	72.9	319 J
Iron	MG/KG	2000 CP-51	-	12,800 J	14,000	20,100	18,200 J	62,200
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Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			SB-37	SB-37	SB-37	SB-38	SB-38
San	nple ID			SB-37-(8.5-9)	SB-37-(8.2-9.0)	SB-37-(13.5-14.5)	SB-38-(4-5)	SB-38-(7.8-8.5)
М	latrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (ft	:)		8.5-9.0	8.2-9.0	13.5-14.5	4.0-5.0	7.8-8.5
Date :	Sampled			01/06/11	01/11/11	01/11/11	01/06/11	01/11/11
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Metals								
Lead	MG/KG	63	1000	54.6 J	20.7	7.7	169 J	275
Magnesium	MG/KG	-	-	1,080	515 J	3,620 J	5,740	1,470 J
Manganese	MG/KG	1600	10000	38.0	61.4	816	156	211
Mercury	MG/KG	0.18	2.8	0.44	0.15 J	0.0094 J	0.70	0.58 J
Nickel	MG/KG	30	310	9.2	6.8	14.5	18.0	9.7
Potassium	MG/KG	·	-	613	1,170	1,010	2,360	868
Selenium	MG/KG	3.9	1500		1.1	1.2 J		4.2
Silver	MG/KG	2	1500	0.085 J			0.080 J	
Sodium	MG/KG	-	-	74.2	75.6	916	285	292
Thallium	MG/KG	5 CP-51	-	0.56 J			0.47 J	0.84 J
Vanadium	MG/KG	39 CP-51	-	21.5	13.3	26.2	33.1	24.1
Zinc	MG/KG	109	10000	26.3 J	26.5 J	33.0 J	169 J	162 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			SB-38	SB-38	SB-39	SB-39	SB-39
San	nple ID			SB-38-(11-11.5)	SB-38-(15.5-16.5)	SB-39-(3.5-4)	SB-39-(5-5.5)	SB-39-(6.7-7.7)
М	atrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (fi	t)		11.0-11.5	15.5-16.5	3.5-4.0	5.0-5.5	6.7-7.7
Date :	Sampled			01/11/11	01/11/11	01/07/11	01/07/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compo	unds							
1,2-Dichlorobenzene	MG/KG	1.1	500					
2-Butanone	MG/KG	0.12	500		0.0057 J			
Acetone	MG/KG	0.05	500		0.032 J		0.059 J	
Benzene	MG/KG	0.06	44		0.0019 J		0.035	0.31 J
Carbon disulfide	MG/KG	2.7 CP-51	-		0.041			
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-				0.091	0.43
Ethylbenzene	MG/KG	1	390					
Isopropylbenzene	MG/KG	2.3 CP-51	-	1.0			0.24	1.2
Methyl tert-butyl ether	MG/KG	0.93	500		0.0022 J			
Methylcyclohexane	MG/KG	-	-	1.3			0.36	2.2
Methylene chloride	MG/KG	0.05	500		0.0017 J			
Styrene	MG/KG	300 CP-51	-					
Toluene	MG/KG	0.7	500		0.0069		0.016 J	
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	0.0088	ND	0.051	0.31
Total Volatile Organic Compounds	MG/KG	-	-	2.3	0.0914	ND	0.801	4.14
Semivolatile Organic Com	pounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2,4-Dimethylphenol	MG/KG	-	-					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

	tion ID			SB-38	SB-38	SB-39	SB-39	SB-39
	ple ID			SB-38-(11-11.5)	SB-38-(15.5-16.5)	SB-39-(3.5-4)	SB-39-(5-5.5)	SB-39-(6.7-7.7)
	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In		t)		11.0-11.5	15.5-16.5	3.5-4.0	5.0-5.5	6.7-7.7
Date S	ampled			01/11/11	01/11/11	01/07/11	01/07/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	43			12	70
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
Acenaphthene	MG/KG	20	500	2.6			9.1	8.4
Acenaphthylene	MG/KG	100	500			0.73 J		
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	1.5		0.60 J	4.3	2.6
Benzo(a)anthracene	MG/KG	1	5.6	1.7		2.4	3.4	1.4 J
Benzo(a)pyrene	MG/KG	1	1	1.4		2.4	1.7 J	0.76 J
Benzo(b)fluoranthene	MG/KG	1	5.6	1.2		3.6	1.3 J	0.88 J
Benzo(g,h,i)perylene	MG/KG	100	500	1.1		1.9 J	0.74 J	
Benzo(k)fluoranthene	MG/KG	0.8	56	1.1		1.3 J	0.49 J	0.43 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-				0.45 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-			0.22 J		1.0 J
Chrysene	MG/KG	1	56	2.3		2.5	5.2	1.5 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.33		0.48 J	0.33 J	
Dibenzofuran	MG/KG	7	350	1.3				4.1
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Fluoranthene	MG/KG	100	500	1.7		4.5	3.8	2.7
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Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	Location ID			SB-38	SB-38	SB-39	SB-39	SB-39
	ple ID			SB-38-(11-11.5)	SB-38-(15.5-16.5)	SB-39-(3.5-4)	SB-39-(5-5.5)	SB-39-(6.7-7.7)
	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In		t)		11.0-11.5	15.5-16.5	3.5-4.0	5.0-5.5	6.7-7.7
-	ampled	•		01/11/11	01/11/11	01/07/11	01/07/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
Fluorene	MG/KG	30	500	3.8 J		0.22 J	11	10
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.87		1.7 J	0.58 J	0.36 J
Naphthalene	MG/KG	12	500	4.7				8.5
Phenanthrene	MG/KG	100	500	10		2.3	23	19
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	3.6 J		4.4	9.1	5.7
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	80.9	ND	29.03	86.04	132.23
Total Semivolatile Organic Compounds	MG/KG	-	-	82.2	ND	29.25	86.49	137.33
Metals								
Aluminum	MG/KG	10000 CP- 51	-	11,600	14,100	6,290	7,180	9,440 J
Antimony	MG/KG	12 CP-51	=	0.38 J		1.2 J	0.99 J	1.0 J
Arsenic	MG/KG	13	16	1.5	8.6	3.9	1.7	1.3
Barium	MG/KG	350	400	144	31.0	142	58.9	38.5 J
Beryllium	MG/KG	7.2	590		0.72	0.35	0.39	0.31 J
Cadmium	MG/KG	2.5	9.3	0.78	0.84	1.0 J	1.2 J	0.26
Calcium	MG/KG	10000 CP- 51	-	6,630 J	1,720 J	29,000 J	9,230 J	2,540 J
Chromium	MG/KG	30	1500	15.4	29.1	15.5	25.0	17.5 J
Cobalt	MG/KG	20 CP-51	-	10.1	10	4.4 J	6.7 J	10.7 J
Copper	MG/KG	50	270	37.3 J	12.4 J	34.2	35.6	15.9
Iron	MG/KG	2000 CP-51	-	24,100	29,300	10,700 J	16,400 J	12,300 J
1	<u> </u>							

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			SB-38	SB-38	SB-39	SB-39	SB-39
Sam	nple ID			SB-38-(11-11.5)	SB-38-(15.5-16.5)	SB-39-(3.5-4)	SB-39-(5-5.5)	SB-39-(6.7-7.7)
M	atrix			Soil	Soil	Soil	Soil	Soil
Depth II	nterval (ft	t)		11.0-11.5	15.5-16.5	3.5-4.0	5.0-5.5	6.7-7.7
Date S	Sampled			01/11/11	01/11/11	01/07/11	01/07/11	01/17/11
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Lead	MG/KG	63	1000	8.1	12.4	163 J	55.2 J	6.3 J
Magnesium	MG/KG	-	-	5,320 J	6,860 J	2,930	5,420	4,280 J
Manganese	MG/KG	1600	10000	554	421	261	151	181 J
Mercury	MG/KG	0.18	2.8	0.042 J	0.017 J	0.58	0.32	0.0098 J
Nickel	MG/KG	30	310	11.5	23.7	14.2	21.0	20.1 J
Potassium	MG/KG	-	-	6,460	3,070	1,990	2,050	1,670
Selenium	MG/KG	3.9	1500	0.94 J	2.2 J			
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	270	4,680	281	141	185
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	45.8	37.7	19.0	27.2	22.9 J
Zinc	MG/KG	109	10000	44.0 J	69.1 J	136 J	130 J	96.3 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

	cation ID			SB-39	SB-40	SB-40
S	ample ID			SB-39-(14-15)	SB-40-(9.5-10)	SB-40-(13.5-14.5)
	Matrix			Soil	Soil	Soil
Depti	h Interval (f	t)		14.0-15.0	9.5-10.0	13.5-14.5
Dat	e Sampled			01/17/11	01/14/11	01/14/11
Parameter	Units	Criteria (1)	Criteria (2)			
Volatile Organic Com	pounds					
1,2-Dichlorobenzene	MG/KG	1.1	500			
2-Butanone	MG/KG	0.12	500			0.0062 J
Acetone	MG/KG	0.05	500	0.011 J		0.030 J
Benzene	MG/KG	0.06	44			
Carbon disulfide	MG/KG	2.7 CP-51	-	0.014		
Chloroform	MG/KG	0.37	350			
Cyclohexane	MG/KG	-	-			
Ethylbenzene	MG/KG	1	390			
Isopropylbenzene	MG/KG	2.3 CP-51	-			
Methyl tert-butyl ether	MG/KG	0.93	500			
Methylcyclohexane	MG/KG	-	-			
Methylene chloride	MG/KG	0.05	500	0.0017 J		
Styrene	MG/KG	300 CP-51	-			
Toluene	MG/KG	0.7	500			
Xylene (total)	MG/KG	0.26	500			
Total BTEX	MG/KG	-	-	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	0.0267	ND	0.0362
Semivolatile Organic Co	mpounds					
1,1'-Biphenyl	MG/KG	60 CP-51	-			
2,4-Dimethylphenol	MG/KG	-	-			
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Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-39	SB-40	SB-40
Sam	ple ID			SB-39-(14-15)	SB-40-(9.5-10)	SB-40-(13.5-14.5)
Ma	trix			Soil	Soil	Soil
Depth In	terval (f	t)		14.0-15.0	9.5-10.0	13.5-14.5
Date S	ampled			01/17/11	01/14/11	01/14/11
Parameter	Units	Criteria (1)	Criteria (2)			
Semivolatile Organic Comp	ounds					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-			
2-Methylphenol (o-cresol)	MG/KG	0.33	500			
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500			
Acenaphthene	MG/KG	20	500		2.4	0.020 J
Acenaphthylene	MG/KG	100	500			
Acetophenone	MG/KG	-	-			
Anthracene	MG/KG	100	500		0.69	
Benzo(a)anthracene	MG/KG	1	5.6		0.45	
Benzo(a)pyrene	MG/KG	1	1		0.26	
Benzo(b)fluoranthene	MG/KG	1	5.6		0.25	
Benzo(g,h,i)perylene	MG/KG	100	500		0.14 J	
Benzo(k)fluoranthene	MG/KG	0.8	56		0.078 J	
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-			
Butylbenzylphthalate	MG/KG	100 CP-51	-			
Carbazole	MG/KG	-	-			
Chrysene	MG/KG	1	56		0.97	
Dibenz(a,h)anthracene	MG/KG	0.33	0.56		0.059 J	
Dibenzofuran	MG/KG	7	350		0.78	
Di-n-butylphthalate	MG/KG	0.014 CP-51	-			
Fluoranthene	MG/KG	100	500		0.70	0.020 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loc	ation ID			SB-39	SB-40	SB-40
Sar	nple ID			SB-39-(14-15)	SB-40-(9.5-10)	SB-40-(13.5-14.5)
N	latrix			Soil	Soil	Soil
Depth I	nterval (f	t)		14.0-15.0	9.5-10.0	13.5-14.5
Date	Sampled			01/17/11	01/14/11	01/14/11
Parameter	Units	Criteria (1)	Criteria (2)			
Semivolatile Organic Com	pounds					
Fluorene	MG/KG	30	500		2.4	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6		0.098 J	
Naphthalene	MG/KG	12	500		0.47	0.052 J
Phenanthrene	MG/KG	100	500		2.2	
Phenol	MG/KG	0.33	500			
Pyrene	MG/KG	100	500		1.7	
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	ND	12.865	0.092
Total Semivolatile Organic Compounds	MG/KG	-	-	ND	13.645	0.092
Metals	•					
Aluminum	MG/KG	10000 CP- 51	-	11,200 J	1,330	14,600
Antimony	MG/KG	12 CP-51	-	0.76 J		0.63 J
Arsenic	MG/KG	13	16	9.1	2.9	2.5
Barium	MG/KG	350	400	22.3 J	54.1	87.2
Beryllium	MG/KG	7.2	590	0.55 J	0.064 J	0.69
Cadmium	MG/KG	2.5	9.3	0.49	0.16 J	1.0
Calcium	MG/KG	10000 CP- 51	-	3,230 J	938 J	1,460 J
Chromium	MG/KG	30	1500	23.4 J	6.9	41.6
Cobalt	MG/KG	20 CP-51	-	8.2 J	1.7 J	15.6
Copper	MG/KG	50	270	10.1	23.6 J	27.6 J
Iron	MG/KG	2000 CP-51	-	38,600 J	6,900	33,700

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.



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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

	Location ID			SB-39	SB-40	SB-40	
	Sample ID			SB-39-(14-15)	SB-40-(9.5-10)	SB-40-(13.5-14.5)	
	Matrix			Soil	Soil	Soil	
Dej	oth Interval (f	t)		14.0-15.0	9.5-10.0	13.5-14.5	
D	ate Sampled			01/17/11	01/14/11	01/14/11	
Parameter	Units	Criteria (1)	Criteria (2)				
Metals							
Lead	MG/KG	63	1000	10.4 J	30.2	10.3	
Magnesium	MG/KG	-	-	5,830 J	412 J	6,200 J	
Manganese	MG/KG	1600	10000	388 J	22.6	368	
Mercury	MG/KG	0.18	2.8	0.0073 J	0.014 J	0.018 J	
Nickel	MG/KG	30	310	19.6 J	6.0	26.8	
Potassium	MG/KG	-	-	2,620	412	2,770	
Selenium	MG/KG	3.9	1500		1.4 J	1.5	
Silver	MG/KG	2	1500				
Sodium	MG/KG	-	-	3,400	93.7	1,500	
Thallium	MG/KG	5 CP-51	-				
Vanadium	MG/KG	39 CP-51	-	31.1 J	8.6	45.2	
Zinc	MG/KG	109	10000	53.4 J	18.9 J	63.2 J	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

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	cation ID			SB-09	SB-09	SB-11	SB-11	SB-11
Sa	mple ID			SB-09-(4.5-5.5)	SB-09-(7-8)	SB-11-(3-4)	SB-11-(4.5-5)	SB-11-(13-13.5)
	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (f	t)		4.5-5.5	7.0-8.0	3.0-4.0	4.5-5.0	13.0-13.5
Date	Sampled			04/27/10	04/28/10	04/28/10	04/28/10	04/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Comp	ounds							
Acetone	MG/KG	0.05	500		0.010 J		0.036 J	0.017 J
Carbon disulfide	MG/KG	2.7 CP-51	-					
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Total Volatile Organic Compounds	MG/KG	-	-	ND	0.01	ND	0.036	0.017
Semivolatile Organic Cor	mpounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.21 J		0.034 J	2.5 J	0.026 J
Acenaphthene	MG/KG	20	500	0.14 J		0.038 J	0.11 J	
Acenaphthylene	MG/KG	100	500	0.35		1.4	1.5 J	
Acetophenone	MG/KG	-	-			0.23	0.36 J	
Anthracene	MG/KG	100	500	0.43		0.71	0.51 J	
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	1.3		3.0	2.2 J	0.033 J
Benzo(a)pyrene	MG/KG	1	1	1.1		2.4	1.4 J	0.027 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.96 J		4.4 J	3.3 J	0.032 J
Benzo(g,h,i)perylene	MG/KG	100	500	0.67		3.1	2.4 J	
Benzo(k)fluoranthene	MG/KG	0.8	56	1.0 J		2.6	2.6 J	
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.46	0.024 J	0.049 J	2.7	0.044 J
Butylbenzylphthalate	MG/KG	100 CP-51	-				0.040 J	
Carbazole	MG/KG	-	-	0.069 J		0.081 J	0.087 J	
Chrysene	MG/KG	1	56	1.1		3.7	3.3 J	0.022 J
t								

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

ion ID			SB-09	SB-09	SB-11	SB-11	SB-11
ole ID			SB-09-(4.5-5.5)	SB-09-(7-8)	SB-11-(3-4)	SB-11-(4.5-5) Soil	SB-11-(13-13.5)
trix			Soil	Soil	Soil		Soil
terval (ft	t)		4.5-5.5	7.0-8.0	3.0-4.0	4.5-5.0	13.0-13.5
ampled			04/27/10	04/28/10	04/28/10	04/28/10	04/29/10
Units	Criteria (1)	Criteria (2)					
ounds							
MG/KG	0.33	0.56	0.21 J		0.86 J	0.72 J	
MG/KG	7	350	0.047 J		0.058 J	0.16 J	
MG/KG	100 CP-51	-			0.032 J		
MG/KG	100	500	2.0		5.2	3.4 J	0.047 J
MG/KG	30	500	0.15 J		0.12 J	0.34 J	
MG/KG	0.5	5.6	0.66 J		2.5 J	1.9 J	
MG/KG	12	500	0.36		0.11 J	3.4 J	0.12 J
MG/KG	100	500	1.1		1.5	2.7 J	
MG/KG	100	500	3.2		7.1	4.2 J	0.054 J
MG/KG	-	-	14.94	ND	38.772	36.48	0.361
MG/KG	-	-	15.516	0.024	39.222	39.827	0.405
MG/KG	10000 CP- 51	-	10,200	9,540	6,340	4,960	11,500
MG/KG	13	16	2.6	1.3	7.9	8.2	0.79 J
MG/KG	350	400	92.6	48.6	80.1	78.1	69.1
MG/KG	7.2	590		0.30 J			
MG/KG	2.5	9.3	0.34	0.054 J	0.13 J	0.66	0.14 J
MG/KG	10000 CP- 51	-	13,400 J	896 J	1,010 J	7,160 J	1,390 J
MG/KG	30	1500	21.2	15.2	20.5	12.5	25.1
MG/KG	20 CP-51	-	7.7	6.4	4.7	6.6	8.9
	ble ID trix terval (fi ampled Units Dunds MG/KG MG/KG	Die ID Itrix Iterval (ft) Itrix Iterval (ft) Iterval (Description Description	SB-09-(4.5-5.5) SB-09-(4.5	SB-09-(4.5-5.5) SB-09-(7-8)	Second S	Second

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loc	cation ID			SB-09	SB-09	SB-11	SB-11	SB-11
Sa	mple ID			SB-09-(4.5-5.5)	SB-09-(7-8)	SB-11-(3-4)	SB-11-(4.5-5)	SB-11-(13-13.5)
	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (ft	:)		4.5-5.5	7.0-8.0	3.0-4.0	4.5-5.0	13.0-13.5
Date	Sampled			04/27/10	04/28/10	04/28/10	04/28/10	04/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Copper	MG/KG	50	270	42.0	8.9	55.0	75.1	18.9
Iron	MG/KG	2000 CP-51	-	18,500	16,500	30,000	38,100	27,100
Lead	MG/KG	63	1000	70.7	6.9	269	142	7.4
Magnesium	MG/KG	=	=	7,840	2,690	2,480	3,610	4,180
Manganese	MG/KG	1600	10000	195	287	112	159	637
Mercury	MG/KG	0.18	2.8	0.16	0.013 J	0.31	0.69	
Nickel	MG/KG	30	310	18.8	11.2	13.6	13.2	16.6
Potassium	MG/KG	-	-	2,040	645 J	1,660 J	1,370 J	1,760 J
Selenium	MG/KG	3.9	1500	2.3	1.2	2.6	2.0	2.6
Sodium	MG/KG	-	-	321	751	216	957	382
Vanadium	MG/KG	39 CP-51	-	30.1	21.4	31.7	20.8	33.9
Zinc	MG/KG	109	10000	115 J	30.4 J	44.8 J	123 J	40.8 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

	tion ID			SB-12	SB-12	SB-12	SB-12	SB-12
	ple ID			SB-12-(3.5-4)	20100427-FD-1	SB-12-(4.5-5.5)	SB-12-(7-8)	SB-12-(12-13)
	atrix			Soil	Soil	Soil	Soil	Soil
	nterval (f	t)		3.5-4.0	4.5-5.5	4.5-5.5	7.0-8.0	12.0-13.0
Date S	Sampled			04/27/10	04/27/10	04/27/10	04/29/10	04/29/10
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Volatile Organic Compou	ınds							
Acetone	MG/KG	0.05	500		0.0086 J	0.011 J	0.013 J	0.011 J
Carbon disulfide	MG/KG	2.7 CP-51	-					0.0037
Isopropylbenzene	MG/KG	2.3 CP-51	-				0.0050 J	
Total Volatile Organic Compounds	MG/KG	-	-	ND	0.0086	0.011	0.018	0.0147
Semivolatile Organic Comp	ounds							
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.020 J				0.085 J
Acenaphthene	MG/KG	20	500		0.023 J	0.023 J		
Acenaphthylene	MG/KG	100	500	0.14 J		0.021 J		
Acetophenone	MG/KG	-	-	0.045 J				
Anthracene	MG/KG	100	500	0.042 J				
Benzaldehyde	MG/KG	-	-	0.040 J				
Benzo(a)anthracene	MG/KG	1	5.6	0.15 J		0.031 J		
Benzo(a)pyrene	MG/KG	1	1	0.27		0.037 J		
Benzo(b)fluoranthene	MG/KG	1	5.6	0.35 J		0.056 J		
Benzo(g,h,i)perylene	MG/KG	100	500	0.36		0.040 J		
Benzo(k)fluoranthene	MG/KG	0.8	56	0.25 J		0.026 J		
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.022 J	0.035 J	0.12 J	0.047 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					
Chrysene	MG/KG	1	56	0.17 J		0.034 J		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			SB-12	SB-12	SB-12	SB-12	SB-12
San	nple ID			SB-12-(3.5-4)	20100427-FD-1	SB-12-(4.5-5.5)	SB-12-(7-8)	SB-12-(12-13)
М	atrix			Soil	Soil	Soil	Soil 7.0-8.0	Soil
Depth I	nterval (f	t)		3.5-4.0	4.5-5.5	4.5-5.5		12.0-13.0
Date 9	Sampled			04/27/10	04/27/10	04/27/10	04/29/10	04/29/10
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Semivolatile Organic Comp	oounds							
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.12 J				
Dibenzofuran	MG/KG	7	350					
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	0.11 J	0.027 J	0.035 J		
Fluorene	MG/KG	30	500					
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.39 J		0.045 J		
Naphthalene	MG/KG	12	500	0.026 J		0.037 J		0.40
Phenanthrene	MG/KG	100	500	0.024 J				
Pyrene	MG/KG	100	500	0.22	0.031 J	0.047 J		
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	2.642	0.081	0.432	ND	0.485
Total Semivolatile Organic Compounds	MG/KG	-	-	2.749	0.116	0.552	0.047	0.485
Metals								
Aluminum	MG/KG	10000 CP- 51	-	17,300	14,000	11,900	11,800	15,900
Arsenic	MG/KG	13	16	1.6	2.0	1.4		10.4
Barium	MG/KG	350	400	72.4	85.2 J	141 J	73.6	31.5
Beryllium	MG/KG	7.2	590	0.37 J	0.42 J	0.32 J		0.75 J
Cadmium	MG/KG	2.5	9.3	0.26	0.17 J	0.19 J	0.14 J	0.28 J
Calcium	MG/KG	10000 CP- 51	-	990 J	1,260 J	1,740 J	2,290 J	1,410 J
Chromium	MG/KG	30	1500	37.8	23.7	29.9	31.7	30.0
Cobalt	MG/KG	20 CP-51	-	6.8	6.9	8.8	12.9	11.1
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Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loc	cation ID			SB-12	SB-12	SB-12	SB-12	SB-12
Sa	mple ID			SB-12-(3.5-4)	20100427-FD-1	SB-12-(4.5-5.5)	SB-12-(7-8)	SB-12-(12-13)
I	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (ft	:)		3.5-4.0	4.5-5.5	4.5-5.5	7.0-8.0	12.0-13.0
Date	Sampled			04/27/10	04/27/10	04/27/10	04/29/10	04/29/10
Parameter Units Criteria (1)		Criteria (2)		Field Duplicate (1-1)				
Metals								
Copper	MG/KG	50	270	34.1	17.6	24.9	33.4	13.7
Iron	MG/KG	2000 CP-51	-	34,400	24,300	22,500	30,100	45,800
Lead	MG/KG	63	1000	9.5	8.5	8.9	7.3	15.0
Magnesium	MG/KG	-	-	5,210	4,000	4,490	6,660	7,830
Manganese	MG/KG	1600	10000	214	261 J	137 J	612	622
Mercury	MG/KG	0.18	2.8				0.014 J	
Nickel	MG/KG	30	310	22.8	18.2	22.5	24.6	25.6
Potassium	MG/KG	=	=	2,650	1,610	2,090	3,960 J	3,730 J
Selenium	MG/KG	3.9	1500	2.5	1.4 J	1.7	3.1	1.8 J
Sodium	MG/KG	-	-	279	193	208	177	5,450
Vanadium	MG/KG	39 CP-51	-	52.3	33.3	37.1	45.5	42.5
Zinc	MG/KG	109	10000	56.5 J	50.9 J	60.1 J	58.0 J	80.8 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

J - The reported concentration is an estimated value. Blank cell or ND - Not detected. NA - Not analyzed.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Local	Location ID			MW-05	MW-05	MW-05	MW-05	MW-06
	ple ID			MW-05-(3-3.5)	MW-05-(4.5-5)	MW-05-(15-16)	MW-05-(20.5-21)	MW-06-(4-4.5)
	trix			Soil	Soil 4.5-5.0	Soil	Soil 20.5-21.0 04/30/10	Soil
Depth In	terval (fi	t)		3.0-3.5		15.0-16.0		4.0-4.5
Date S	ampled			04/26/10	04/26/10	04/30/10		05/05/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compounds								
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichloroethene (cis)	MG/KG	0.25	500				1.3 J	
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500		0.047 J			
Benzene	MG/KG	0.06	44		0.047	3.1	21	
Carbon disulfide	MG/KG	2.7 CP-51	=					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390		0.36	29	93	
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.092 J	0.68 J	2.2 J	
Methylcyclohexane	MG/KG	-	-		0.0076 J			
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-			17	40	
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500		0.014	13	28	
Xylene (total)	MG/KG	0.26	500		0.19	49	170	
Total BTEX	MG/KG	-	-	ND	0.611	94.1	312	ND
Total Volatile Organic Compounds			-	ND	0.7576	111.78	355.5	ND
	Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-		0.37 J	1.4	29	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Locat	ion ID			MW-05	MW-05	MW-05	MW-05	MW-06
Samp	ole ID			MW-05-(3-3.5)	MW-05-(4.5-5)	MW-05-(15-16)	MW-05-(20.5-21)	MW-06-(4-4.5)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.0-3.5	4.5-5.0	15.0-16.0	20.5-21.0	4.0-4.5
Date Sa	ampled			04/26/10	04/26/10	04/30/10	04/30/10	05/05/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-				1.2 J	
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.27	\bigcirc	17 J	180	0.058 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500	0.024 J				
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500	0.044 J		0.031 J		
3,3'-Dichlorobenzidine	MG/KG	-	-				0.68 J	
Acenaphthene	MG/KG	20	500	2.2	5.4	1.2	22	
Acenaphthylene	MG/KG	100	500	1.8	1.3 J	8.4 J	64 J	0.096 J
Acetophenone	MG/KG	-	-	0.12 J	0.18 J			
Anthracene	MG/KG	100	500	3.7 J	3.2	2.9	24 J	0.050 J
Benzaldehyde	MG/KG	-	-		0.33 J			
Benzo(a)anthracene	MG/KG	1	5.6	17	5.1	2.6	21 J	0.38
Benzo(a)pyrene	MG/KG	1	1	2.5	3.9	1.9 J	18 J	0.58 J
Benzo(b)fluoranthene	MG/KG	1	5.6	17	3.3 J	1.4	11 J	0.66 J
Benzo(g,h,i)perylene	MG/KG	100	500	7.7	1.8 J	0.57	4.5 J	0.52
Benzo(k)fluoranthene	MG/KG	0.8	56	2.7	3.0 J	0.73	6.1	0.34
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.31	0.30 J	0.048 J		0.031 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	1.1	0.29 J	0.021 J	0.23 J	
Chrysene	MG/KG	1	56	2.1	5.0	2.6	25	0.41
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	2.4 J	0.50 J	0.19 J	1.2 J	0.15 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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 $[\]label{eq:concentration} \textbf{J} - \textbf{The reported concentration is an estimated value}. \quad \textbf{J+} - \textbf{The reported concentration is an estimated value, with high bias}.$

D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	tion ID			MW-05	MW-05	MW-05	MW-05	MW-06
	ple ID			MW-05-(3-3.5)	MW-05-(4.5-5)	MW-05-(15-16)	MW-05-(20.5-21)	MW-06-(4-4.5)
	. atrix			Soil	Soil	Soil	Soil	Soil
Depth II	nterval (f	t)		3.0-3.5	4.5-5.0	15.0-16.0	20.5-21.0	4.0-4.5
	Sampled	,		04/26/10	04/26/10	04/30/10	04/30/10	05/05/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	oounds							
Dibenzofuran	MG/KG	7	350	0.41	0.42 J	0.19 J	3.0	
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.039 J				
Fluoranthene	MG/KG	100	500	31	7.3	4.9 J	26 J	0.31
Fluorene	MG/KG	30	500	1.2	3.4	4.2 J	31 J	0.020 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	8.8	1.9 J	0.45 J	3.2 J	0.45
Naphthalene	MG/KG	12	500	0.31	$\bigcirc 32 \bigcirc$	30 J	540	0.20
Phenanthrene	MG/KG	100	500	13	11	14 J	90 J	0.10 J
Phenol	MG/KG	0.33	500			0.050 J		
Pyrene	MG/KG	100	500	30	11	7.1 J	51 J	0.39
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	=	143.68	113.1	100.14	1,118	4.714
Total Semivolatile Organic Compounds	MG/KG	-	=	145.727	114.99	101.88	1,152.11	4.745
Metals								
Aluminum	MG/KG	10000 CP- 51	-	9,270	16,500	10,500	6,810	13,000
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	12.4	3.9	2.5	0.66 J	3.6 J
Barium	MG/KG	350	400	120	75.1	54.9	150	71.9 J
Beryllium	MG/KG	7.2	590	0.24 J				0.38 J
Cadmium	MG/KG	2.5	9.3	0.41	0.42	0.23	0.26	0.23
Calcium	MG/KG	10000 CP- 51	-	3,190 J	1,650 J	2,280 J	2,240 J	1,230
Chromium	MG/KG	30	1500	24.2	51.5	34.7	25.5	28.8
	_1							

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Lo	ocation ID			MW-05	MW-05	MW-05	MW-05	MW-06
S	ample ID			MW-05-(3-3.5)	MW-05-(4.5-5)	MW-05-(15-16)	MW-05-(20.5-21)	MW-06-(4-4.5)
	Matrix			Soil	Soil	Soil	Soil	Soil
Depti	h Interval (ft	:)		3.0-3.5	4.5-5.0	15.0-16.0	20.5-21.0	4.0-4.5
Dat	te Sampled			04/26/10	04/26/10	04/30/10	04/30/10	05/05/10
Parameter	rameter Units Criteria Criteria (1) (2)							
Metals								
Cobalt	MG/KG	20 CP-51	-	6.8	18.1	15.6	14.1	6.9 J
Copper	MG/KG	50	270	83.5	425	33.5	34.3	22.2
Iron	MG/KG	2000 CP-51	-	28,700	19,000	18,500	21,300	20,300
Lead	MG/KG	63	1000	250	48.1	39.4	8.9	28.2 J
Magnesium	MG/KG	=	=	3,840	4,980	4,600	4,210	4,080 J
Manganese	MG/KG	1600	10000	163	122	140	737	145 J
Mercury	MG/KG	0.18	2.8	0.38	0.070			
Nickel	MG/KG	30	310	18.0	39.5	36.6	28.1	16.9 J
Potassium	MG/KG	-	-	2,360	2,710	2,520 J	3,080 J	2,080 J
Selenium	MG/KG	3.9	1500	2.3	2.7	2.0	2.4	
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	222	154	155	191	254 J
Thallium	MG/KG	5 CP-51	=					
Vanadium	MG/KG	39 CP-51	=	45.2	55.5	40.0	28.8	36.5 J
Zinc	MG/KG	109	10000	93.8 J	278 J	218 J	41.0 J	57.7 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loc	cation ID			MW-06	SB-07	SB-07	SB-07	SB-07
Sa	mple ID			MW-06-(10.5-11)	SB-07-(3-4)	SB-07-(4.5-5.5)	SB-07-(13.3-14.2)	SB-07-(16-17)
	Matrix		Soil	Soil	Soil 3.0-4.0	Soil	Soil	Soil
Depth	Interval (f	t)		10.5-11.0		4.5-5.5	13.3-14.2	16.0-17.0
Date	Sampled	-		05/12/10	04/14/10	04/14/10	04/20/10	04/20/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Comp	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichloroethene (cis)	MG/KG	0.25	500				0.0091 J	0.031
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.089 J	0.0058 J			
Benzene	MG/KG	0.06	44	0.041	0.0015 J	0.048	0.84	0.84
Carbon disulfide	MG/KG	2.7 CP-51	-					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390	\bigcirc^{21}		0.026	2.1	0.15
Isopropylbenzene	MG/KG	2.3 CP-51	-	0.38 J			0.014 J	
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-	1.7 J			2.6	0.33
Tetrachloroethene	MG/KG	1.3	150		0.013			
Toluene	MG/KG	0.7	500	0.94 J	0.0012 J		0.68	0.62
Xylene (total)	MG/KG	0.26	500			0.050 J	6.5	0.54 J
Total BTEX	MG/KG	-	-	73.981	0.0027	0.124	10.12	2.15
Total Volatile Organic Compounds			-	76.15	0.0215	0.124	12.7431	2.511
	Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	15	0.25 J	0.33 J	3.5 J	0.052 J
		<u> </u>	l			1	1	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

1	Location ID				SB-07	SB-07	SB-07	SB-07
				MW-06 MW-06-(10.5-11)	SB-07-(3-4)	SB-07-(4.5-5.5)	SB-07-(13.3-14.2)	SB-07-(16-17)
	ole ID							
	trix			Soil	Soil	Soil	Soil	Soil
Depth In		t)		10.5-11.0	3.0-4.0	4.5-5.5	13.3-14.2	16.0-17.0
Date Sa	ampled			05/12/10	04/14/10	04/14/10	04/20/10	04/20/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	=	160	2.2 J	0.21 J	31 J	0.41 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500				0.077 J	
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500				0.049 J	
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	17 J	3.2 J	6.4	2.6 J	0.023 J
Acenaphthylene	MG/KG	100	500	20 J	38	6.0	18	0.19 J
Acetophenone	MG/KG	-	-		0.35 J			
Anthracene	MG/KG	100	500	12	16 J	21	10	0.39
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	13	70	15	9.4	0.17 J
Benzo(a)pyrene	MG/KG	1	1	9.4 J	66	12	5.7 J	0.076 J
Benzo(b)fluoranthene	MG/KG	1	5.6	10 J	91	12	5.7 J	0.071 J
Benzo(g,h,i)perylene	MG/KG	100	500	3.8	64	8.1	3.2 J	0.068 J
Benzo(k)fluoranthene	MG/KG	0.8	56	4.0	27	3.7	2.0	0.037 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-					0.033 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.42 J	3.2 J	7.3	9.7	1.2
Chrysene	MG/KG	1	56	13 J	65	12	7.8	0.13 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	1.2 J	11 J	2.8 J	1.2	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	ation ID			MW-06	SB-07	SB-07	SB-07	SB-07
San	nple ID			MW-06-(10.5-11)	SB-07-(3-4)	SB-07-(4.5-5.5)	SB-07-(13.3-14.2)	SB-07-(16-17)
М	latrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (fi	t)		10.5-11.0	3.0-4.0	4.5-5.5	13.3-14.2	16.0-17.0
Date :	Sampled			05/12/10	04/14/10	04/14/10	04/20/10	04/20/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Dibenzofuran	MG/KG	7	350	2.6	2.7 J	9.2	6.9 J	0.084 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	=		0.073 J			
Fluoranthene	MG/KG	100	500	20 J	160	49	23	0.37
Fluorene	MG/KG	30	500	27 J	5.8 J	15	14	0.52
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	3.0 J	44	6.2	2.9	0.047 J
Naphthalene	MG/KG	12	500	370	4.0 J	7.7	71	2.1
Phenanthrene	MG/KG	100	500	73	55	51	41	0.64
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	43	140	36	20	0.32
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	799.4	862.2	264.11	268.5	5.562
Total Semivolatile Organic Compounds	MG/KG	=	=	817.42	868.773	280.94	288.726	6.931
Metals								
Aluminum	MG/KG	10000 CP- 51	-	12,600	11,700 J	9,250 J	6,280	6,970
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16		8.1	1.8	0.21 J	0.38 J
Barium	MG/KG	350	400	116	212 J	46.8 J	57.6 J	86.4 J
Beryllium	MG/KG	7.2	590		0.93 J	0.66 J	0.89 J	0.91 J
Cadmium	MG/KG	2.5	9.3	0.30	3.0	0.22 J	0.10 J	0.21
Calcium	MG/KG	10000 CP- 51	-	1,110	60,700 J	3,090 J	1,390	4,220

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

	Location ID			MW-06	SB-07	SB-07	SB-07	SB-07
	Sample ID			MW-06-(10.5-11)	SB-07-(3-4)	SB-07-(4.5-5.5)	SB-07-(13.3-14.2)	SB-07-(16-17)
	Matrix			Soil	Soil	Soil	Soil	Soil
De	epth Interval (ft	t)		10.5-11.0	3.0-4.0	4.5-5.5	13.3-14.2	16.0-17.0
I	Date Sampled			05/12/10	04/14/10	04/14/10	04/20/10	04/20/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Cobalt	MG/KG	20 CP-51	-	8.8	6.4 J	6.9 J	7.4 J	10.1 J
Copper	MG/KG	50	270	27.4	101 J	12.0 J	18.5	28.9
Iron	MG/KG	2000 CP-51	-	29,700	26,200	20,700	17,100	20,100
Lead	MG/KG	63	1000	5.3	265 J	12.6 J	3.1	6.5
Magnesium	MG/KG	-	-	8,120	7,430 J	3,050 J	3,620 J	5,520 J
Manganese	MG/KG	1600	10000	187	388 J	325 J	140 J	235 J
Mercury	MG/KG	0.18	2.8		4.2 J	0.052 J		
Nickel	MG/KG	30	310	41.1	22.7 J	12.3 J	16.7 J	28.9 J
Potassium	MG/KG	-	-	5,280	1,910 J	1,000 J	2,300	3,000
Selenium	MG/KG	3.9	1500	2.2	2.2	4.0	2.9	3.4
Silver	MG/KG	2	1500		0.17 J	0.11 J		
Sodium	MG/KG	-	-	178	574 J	173 J	179 J	179 J
Thallium	MG/KG	5 CP-51	-		1.6	1.7		
Vanadium	MG/KG	39 CP-51	-	66.1	30.3 J	18.1 J	22.4	33.3
Zinc	MG/KG	109	10000	51.7	165 J	33.2 J	34.4 J	36.5 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

	cation ID			SB-08	SB-08	SB-08	SB-08	SB-10
				SB-08 SB-08-(3-3.5)	SB-08 SB-08-(5-6)	SB-08 SB-08-(7-7.5)	SB-08 SB-08-(10.5-11)	20100426-FD-1
	mple ID							
	Matrix		Soil Soil	Soil	Soil	Soil		
	Interval (f	t)		3.0-3.5	5.0-6.0	7.0-7.5	10.5-11.0	3.0-4.0
Date	Sampled			04/28/10	04/28/10	04/29/10	04/29/10	04/26/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Volatile Organic Comp	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.0092 J	0.076 J	0.22 J	0.22 J	0.0084 J
Benzene	MG/KG	0.06	44				0.33 J	
Carbon disulfide	MG/KG	2.7 CP-51	=				0.0073 J	
Chloroform	MG/KG	0.37	350			0.020 J	0.028 J	
Cyclohexane	MG/KG	-	-			0.098 J	0.35 J	
Ethylbenzene	MG/KG	1	390				2.6	
Isopropylbenzene	MG/KG	2.3 CP-51	-				2.5 J	
Methylcyclohexane	MG/KG	-	-			0.21 J	0.55 J	
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500				0.043 J	
Xylene (total)	MG/KG	0.26	500			0.017 J	2.9 J	
Total BTEX	MG/KG	-	-	ND	ND	0.017	5.873	ND
Total Volatile Organic MG/KG -		-	0.0092	0.076	0.565	9.5283	0.0084	
	Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.055 J			4.8	
		1			I.		I.	L

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Locati	ion ID			SB-08	SB-08	SB-08	SB-08	SB-10
Samp	le ID			SB-08-(3-3.5)	SB-08-(5-6)	SB-08-(7-7.5)	SB-08-(10.5-11)	20100426-FD-1
Mat	trix			Soil	Soil	Soil	Soil	Soil
Depth Int	erval (f	t)		3.0-3.5	5.0-6.0	7.0-7.5	10.5-11.0	3.0-4.0
Date Sa	ampled			04/28/10	04/28/10	04/29/10	04/29/10	04/26/10
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Semivolatile Organic Compo	unds							
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.22	0.27 J		$\bigcirc^{28}\bigcirc$	
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.38	1.8	0.70	26	
Acenaphthylene	MG/KG	100	500	3.0	1.7	0.16 J	7.5	
Acetophenone	MG/KG	-	-	0.072 J	0.21 J			
Anthracene	MG/KG	100	500	2.5	1.0	0.52 J	15	
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	7.1	2.4	0.61	$ \begin{array}{c} 13 \end{array} $	0.056 J
Benzo(a)pyrene	MG/KG	1	1	4.9	1.5 J	0.32 J	13 J	0.031 J
Benzo(b)fluoranthene	MG/KG	1	5.6	6.2	2.4 J	0.23 J	8.5 J	0.039 J
Benzo(g,h,i)perylene	MG/KG	100	500	1.7 J	0.97	0.10 J	3.3	0.023 J
Benzo(k)fluoranthene	MG/KG	0.8	56	3.0 J	1.1	0.12 J	3.4	0.021 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.43		0.088 J		0.097 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.17 J				
Chrysene	MG/KG	1	56	8.0	3.1	0.53	12	0.043 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.93 J	0.32 J	0.026 J	0.99 J	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	ation ID			SB-08	SB-08	SB-08	SB-08	SB-10
Sam	nple ID			SB-08-(3-3.5)	SB-08-(5-6)	SB-08-(7-7.5) SB-08-(10.5-11) Soil Soil	20100426-FD-1	
М	atrix			Soil	Soil		Soil	Soil
Depth I	nterval (ft	:)		3.0-3.5	5.0-6.0	7.0-7.5	10.5-11.0	3.0-4.0 04/26/10
Date S	Sampled	-		04/28/10	04/28/10	04/29/10	04/29/10	
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Semivolatile Organic Compounds								
Dibenzofuran	MG/KG	7	350	0.16 J	0.31 J	0.12 J	0.52 J	
Di-n-butylphthalate	MG/KG	0.014 CP-51	-					
Fluoranthene	MG/KG	100	500	28	3.5	0.50 J	18	0.080 J
Fluorene	MG/KG	30	500	0.54	2.7	0.65	15	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	1.7 J	0.77 J	0.072 J	2.4 J	
Naphthalene	MG/KG	12	500	0.17 J	0.44	0.11 J	74	
Phenanthrene	MG/KG	100	500	5.4	0.55	0.53 J	55	0.041 J
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	15	8.4 J	1.9	30	0.073 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	88.74	32.92	7.078	325.09	0.407
Total Semivolatile Organic Compounds	MG/KG	-	-	89.627	33.44	7.286	330.41	0.504
Metals	-							
Aluminum	MG/KG	10000 CP- 51	-	8,070	9,650	12,400	11,400	14,600 J
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	4.4	7.7	1.6	0.43 J	0.46 J
Barium	MG/KG	350	400	61.9	65.4	35.5	105	96.8
Beryllium	MG/KG	7.2	590	0.18 J	0.33 J	0.42 J		0.26 J
Cadmium	MG/KG	2.5	9.3	0.14 J	0.46	0.055 J	0.13 J	0.27
Calcium	MG/KG	10000 CP- 51	-	58,400 J	925 J	516 J	1,090 J	653 J
Chromium	MG/KG	30	1500	19.2	17.3	23.6	32.3	47.9 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

	Location ID			SB-08	SB-08	SB-08	SB-08	SB-10
	Sample ID			SB-08-(3-3.5)	SB-08-(5-6)	SB-08-(7-7.5)	SB-08-(10.5-11)	20100426-FD-1
	Matrix			Soil	Soil	Soil	Soil	Soil
De	pth Interval (ft	:)		3.0-3.5	5.0-6.0	7.0-7.5	10.5-11.0	3.0-4.0 04/26/10
D	ate Sampled			04/28/10	04/28/10	0 04/29/10	04/29/10	
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Metals								
Cobalt	MG/KG	20 CP-51	-	4.1	7.0	5.5	10.5	8.7 J
Copper	MG/KG	50	270	31.1	36.8	22.9	37.0	35.5
Iron	MG/KG	2000 CP-51	-	13,900	27,500	24,700	28,500	33,500
Lead	MG/KG	63	1000	107	74.3	7.5	8.0	8.0 J
Magnesium	MG/KG	=	=	6,150	2,570	3,100	4,700	6,890 J
Manganese	MG/KG	1600	10000	186	120	203	346	204 J
Mercury	MG/KG	0.18	2.8	0.55	0.091			
Nickel	MG/KG	30	310	11.9	25.8	25.0	23.8	27.6 J
Potassium	MG/KG	=	-	1,300 J	1,270 J	1,210 J	3,340 J	3,840 J
Selenium	MG/KG	3.9	1500	2.3	1.9	1.7	2.8	2.3
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	179	125	177	221	121 J
Thallium	MG/KG	5 CP-51	=					
Vanadium	MG/KG	39 CP-51	-	20.9	25.4	36.8	41.5	51.0 J
Zinc	MG/KG	109	10000	56.7 J	203 J	49.9 J	88.4 J	79.7 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loc	Location ID			SB-10	SB-10	SB-10	SB-13	SB-13
	mple ID			SB-10-(3-4)	SB-10-(5-5.5)	SB-10-(11-11.5)	SB-13-(3-4)	SB-13-(15-16)
	Matrix			Soil	Soil	Soil	Soil	Soil
	Interval (f	t)	3.0-4.0 5.0-5.5 11.0-11.5	3.0-4.0	15.0-16.0			
	Sampled	· <u>'</u>		04/26/10	04/26/10	04/29/10	04/28/10	04/29/10
Parameter		Criteria	Criteria	0 1/20/10	0.7207.10	0 1/20/10	0 1/20/10	0.7207.10
T didilicitor	Units	(1)	(2)					
Volatile Organic Comp	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-		0.0017 J			
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.0044 J	0.0085 J			0.038 J
Benzene	MG/KG	0.06	44			0.024 J		0.0049 J
Carbon disulfide	MG/KG	2.7 CP-51	-			0.0045 J		0.0083 J
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					0.0089 J
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500				0.0059	
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500	0.0021 J				0.0049 J
Xylene (total)	MG/KG	0.26	500					0.018 J
Total BTEX	MG/KG	-	-	0.0021	ND	0.024	ND	0.0367
Total Volatile Organic Compounds			-	0.0065	0.0102	0.0285	0.0059	0.083
Semivolatile Organic Compounds								
1,1'-Biphenyl	MG/KG	60 CP-51	-					0.024 J
Total Volatile Organic Compounds Semivolatile Organic Con	MG/KG MG/KG	-	-					0.083

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

	ion ID			SB-10	SB-10	SB-10	SB-13	SB-13
Sam	ple ID			SB-10-(3-4)	SB-10-(5-5.5)	SB-10-(11-11.5)	SB-13-(3-4)	SB-13-(15-16)
	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.0-4.0	5.0-5.5	11.0-11.5	3.0-4.0	15.0-16.0
Date S	ampled			04/26/10	04/26/10	04/29/10	04/28/10	04/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compo	ounds							
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.049 J		0.086 J		0.17 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500	0.028 J				
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500	0.027 J				
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.13 J				0.090 J
Acenaphthylene	MG/KG	100	500	0.58				0.11 J
Acetophenone	MG/KG	-	-	0.091 J				
Anthracene	MG/KG	100	500	0.44				0.18 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	2.0	0.030 J		0.023 J	0.25
Benzo(a)pyrene	MG/KG	1	1	1.9	0.021 J		0.026 J	0.17 J
Benzo(b)fluoranthene	MG/KG	1	5.6	2.4 J			0.032 J	0.17 J
Benzo(g,h,i)perylene	MG/KG	100	500	1.2			0.024 J	0.084 J
Benzo(k)fluoranthene	MG/KG	0.8	56	1.8 J				0.087 J
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.14 J	0.089 J		0.033 J	2.0
Butylbenzylphthalate	MG/KG	100 CP-51	-					0.027 J
Carbazole	MG/KG	-	-	0.12 J				
Chrysene	MG/KG	1	56	1.6	0.029 J		0.026 J	0.24
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.11 J				0.022 J

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

	ation ID			SB-10	SB-10	SB-10	SB-13	SB-13
San	nple ID			SB-10-(3-4)	SB-10-(5-5.5)	SB-10-(11-11.5)	SB-13-(3-4)	SB-13-(15-16)
М	latrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (f	t)		3.0-4.0	5.0-5.5	11.0-11.5	3.0-4.0 04/28/10	15.0-16.0
Date 9	Sampled	•		04/26/10	04/26/10	04/29/10		04/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds		(.,	(-/					
Dibenzofuran	MG/KG	7	350	0.035 J				0.059 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.033 J				
Fluoranthene	MG/KG	100	500	2.7	0.037 J			0.53
Fluorene	MG/KG	30	500	0.10 J				0.15 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.23 J			0.025 J	0.064 J
Naphthalene	MG/KG	12	500	0.065 J		0.21 J		0.35
Phenanthrene	MG/KG	100	500	1.3	0.021 J			0.65
Phenol	MG/KG	0.33	500					
Pyrene	MG/KG	100	500	2.3	0.047 J			0.53
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	18.904	0.185	0.296	0.156	3.847
Total Semivolatile Organic Compounds	MG/KG	-	-	19.378	0.274	0.296	0.189	5.957
Metals	•							
Aluminum	MG/KG	10000 CP- 51	-	9,280 J	14,600	19,400 J	15,800	3,870
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	5.3	0.45 J	12.2 J	3.4	0.67 J
Barium	MG/KG	350	400	71.2	102	47.3 J	59.3	31.8
Beryllium	MG/KG	7.2	590			0.89 J	0.46 J	
Cadmium	MG/KG	2.5	9.3	0.17 J	0.22 J	0.32 J	0.29	0.15 J
Calcium	MG/KG	10000 CP- 51	-	1,690 J	1,090 J	1,590 J	925 J	31,900 J
Chromium	MG/KG	30	1500	22.4 J	50.7	37.4 J	29.7	11.4
		<u> </u>	ı]

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

	Location ID			SB-10	SB-10	SB-10	SB-13	SB-13
	Sample ID			SB-10-(3-4)	SB-10-(5-5.5)	SB-10-(11-11.5)	SB-13-(3-4)	SB-13-(15-16)
	Matrix			Soil	Soil	Soil 11.0-11.5	Soil	Soil 15.0-16.0
Dej	pth Interval (ft	:)		3.0-4.0	5.0-5.5		3.0-4.0 04/28/10	
D	ate Sampled			04/26/10	04/26/10	04/29/10		04/29/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Cobalt	MG/KG	20 CP-51	-	5.3 J	8.7	13.8 J	7.1	2.2 J
Copper	MG/KG	50	270	32.9	34.6	18.0 J	20.6	27.8
Iron	MG/KG	2000 CP-51	-	25,000	33,200	53,100 J	29,800	6,690
Lead	MG/KG	63	1000	116 J	7.8	17.6 J	17.5	156
Magnesium	MG/KG	-	-	3,410 J	7,320	8,910 J	3,590	4,180
Manganese	MG/KG	1600	10000	109 J	197	750 J	135	135
Mercury	MG/KG	0.18	2.8					0.37
Nickel	MG/KG	30	310	14.1 J	29.7	32.0 J	20.7	13.0
Potassium	MG/KG	=	-	1,700 J	3,820	4,230 J	1,480	548 J
Selenium	MG/KG	3.9	1500	1.5 J	2.8	1.9 J	1.6	1.4 J
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	207 J	164	1,550 J	991	473
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	30.0 J	51.7	54.5 J	36.1	9.1
Zinc	MG/KG	109	10000	51.6 J	76.0 J	95.2 J	49.0 J	78.3 J

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

T								
Loc	cation ID			SB-14	SB-14	SB-14	SB-15	SB-15
Sa	mple ID			SB-14-(3.5-4)	SB-14-(4.5-5)	SB-14-(14.5-15)	SB-15-(3-3.5)	SB-15-(6-6.5)
!	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (f	t)		3.5-4.0	4.5-5.0	14.5-15.0	3.0-3.5	6.0-6.5
	Sampled	-		04/28/10	04/28/10	04/29/10	05/04/10	05/04/10
Parameter	1	Criteria	Criteria					
	Units	(1)	(2)					
Volatile Organic Comp	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500	0.012 J	0.041 J	0.0081 J		0.041 J
Benzene	MG/KG	0.06	44					0.13
Carbon disulfide	MG/KG	2.7 CP-51	-					0.0071 J
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390					0.36
Isopropylbenzene	MG/KG	2.3 CP-51	-					0.072 J
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-					
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500					0.32
Xylene (total)	MG/KG	0.26	500					2.9
Total BTEX	MG/KG	-	-	ND	ND	ND	ND	3.71
Total Volatile Organic Compounds			-	0.012	0.041	0.0081	ND	3.8301
	Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-				30 J	4.9 J
					1	I	l	

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Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

			-					
Locat	ion ID			SB-14	SB-14	SB-14	SB-15	SB-15
Samı	ole ID			SB-14-(3.5-4)	SB-14-(4.5-5)	SB-14-(14.5-15)	SB-15-(3-3.5)	SB-15-(6-6.5)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (fi	t)		3.5-4.0	4.5-5.0	14.5-15.0 04/29/10	3.0-3.5	6.0-6.5
Date S	ampled			04/28/10	04/28/10		05/04/10	05/04/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-			0.092 J	170 J	31
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500	_				
3,3'-Dichlorobenzidine	MG/KG	-	-	_				
Acenaphthene	MG/KG	20	500			0.062 J	110 J	1.6
Acenaphthylene	MG/KG	100	500	0.079 J		0.068 J	60 J	14 J
Acetophenone	MG/KG	-	-				0.56 J	
Anthracene	MG/KG	100	500	0.026 J		0.044 J	56 J	4.2 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	0.047 J	0.046 J	0.18 J	63 J	4.5 J
Benzo(a)pyrene	MG/KG	1	1	0.038 J	0.037 J	0.20 J	46 J	1.9 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.053 J	0.039 J	0.23 J	50 J	3.5 J
Benzo(g,h,i)perylene	MG/KG	100	500			0.19 J	23 J	1.4
Benzo(k)fluoranthene	MG/KG	0.8	56	0.027 J	0.025 J	0.12 J	21 J	2.1
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.091 J	0.29	0.061 J	0.29 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-				0.16 J	
Carbazole	MG/KG	-	-				7.5	0.32
Chrysene	MG/KG	1	56	0.053 J	0.059 J	0.20 J	50 J	4.4 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56			0.034 J	5.4	0.45 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

tion ID			SB-14	SB-14	SB-14	SB-15	SB-15
ple ID			SB-14-(3.5-4)	SB-14-(4.5-5)	SB-14-(14.5-15)	SB-15-(3-3.5)	SB-15-(6-6.5)
atrix			Soil	Soil	Soil	Soil	Soil 6.0-6.5
nterval (ft	t)		3.5-4.0	4.5-5.0	14.5-15.0	3.0-3.5	
Sampled			04/28/10	04/28/10	04/29/10	05/04/10	05/04/10
Units	Criteria (1)	Criteria (2)					
ounds							
MG/KG	7	350				96 J	1.3
MG/KG	0.014 CP-51	-					
MG/KG	100	500	0.057 J	0.088 J	0.24	180 J	6.0 J
MG/KG	30	500				73 J	7.0 J
MG/KG	0.5	5.6			0.15 J	22 J	1.0
MG/KG	12	500			0.33	770	100
MG/KG	100	500	0.041 J	0.068 J	0.086 J	280 J	20
MG/KG	0.33	500					
MG/KG	100	500	0.068 J	0.11 J	0.35	(180 J	11 J
MG/KG	-	-	0.489	0.472	2.576	2,159.4	214.05
MG/KG	-	-	0.58	0.762	2.637	2,293.91	220.57
-							
MG/KG	10000 CP- 51	-	13,100	12,600	11,500	12,200	19,400
MG/KG	12 CP-51	-					
MG/KG	13	16	2.8	2.5	1.5	5.6 J	1.0 J
MG/KG	350	400	58.5	63.7	63.8	136 J	147 J
MG/KG	7.2	590	0.35 J	0.56 J	0.39 J		
MG/KG	2.5	9.3	0.16 J	0.14 J	0.19	0.55	0.55
MG/KG	10000 CP- 51	-	1,190 J	1,300 J	3,930 J	1,700	1,960
MG/KG	30	1500	24.7	20.4	19.9	34.4 J	46.7 J
	MG/KG	MG/KG 100	MG/KG	SB-14-(3.5-4) SB-14-(3.5-4) Sarrix Soil Sampled	SB-14-(3.5-4) SB-14-(4.5-5) SB-14-(4.5-5) SB-14-(3.5-4) SB-14-(4.5-5) SB-14-(4.5-5) SB-14-(3.5-4) SB-14-(4.5-5) SB-14-(3.5-4) SB-14-(4.5-5) SB-14-(3.5-4) SB-14-(4.5-5) SB-14-(3.5-4) SB-14-(3.5-4) SB-14-(4.5-5) SB-14-(3.5-4) SB-14-(4.5-5) SB-14-(3.5-4) SB-14-(4.5-5) SB-14-(3.5-4) SB-14-(4.5-5) SB-14-(4.5-5	SB-14-(4.5-4) SB-14-(4.5-5) SB-14-(14.5-15) Sampled O4/28/10 O4/28/10 O4/28/10 Units Criteria (1) (2) MG/KG 7 350	SB-14-(4.5-5) SB-14-(4.5-15) SB-15-(3-3.5) Sampled

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

	Location ID			SB-14	SB-14	SB-14	SB-15	SB-15
	Sample ID			SB-14-(3.5-4)	SB-14-(4.5-5)	SB-14-(14.5-15)	SB-15-(3-3.5)	SB-15-(6-6.5)
	Matrix			Soil	Soil	Soil	Soil	Soil
Dej	pth Interval (fl	:)		3.5-4.0	4.5-5.0	14.5-15.0 04/29/10	3.0-3.5 05/04/10	6.0-6.5
D	ate Sampled			04/28/10	04/28/10			05/04/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Cobalt	MG/KG	20 CP-51	-	8.3	8.0	8.2	9.1 J	20.9 J
Copper	MG/KG	50	270	28.0	17.7	32.0	85.7	26.6
Iron	MG/KG	2000 CP-51	-	26,300	23,500	23,000	41,800	22,600
Lead	MG/KG	63	1000	65.8	23.4	45.5	230 J	4.0 J
Magnesium	MG/KG	-	-	4,120	3,130	3,590	4,670 J	7,580 J
Manganese	MG/KG	1600	10000	256	267	463	153 J	1,230 J
Mercury	MG/KG	0.18	2.8	0.050	0.036 J	0.067	1.3 J	
Nickel	MG/KG	30	310	16.9	14.8	15.3	20.7 J	28.0 J
Potassium	MG/KG	=	-	1,510 J	950 J	1,320 J	2,630 J	10,900 J
Selenium	MG/KG	3.9	1500	1.9	1.5	1.4		
Silver	MG/KG	2	1500					
Sodium	MG/KG	=	-	148	175	750	195	259
Thallium	MG/KG	5 CP-51	-					1.6
Vanadium	MG/KG	39 CP-51	-	35.3	29.4	30.7	43.8 J	61.9 J
Zinc	MG/KG	109	10000	72.4 J	43.8 J	68.3 J	96.1 J	84.7 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loc	cation ID			SB-15	SB-16	SB-16	SB-16	SB-16
Sa	mple ID			SB-15-(22-23)	SB-16-(3.5-4)	SB-16-(6-6.5)	SB-16-(9-10)	SB-16-(17.5-18)
	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (f	t)		22.0-23.0	3.5-4.0	6.0-6.5	9.0-10.0	17.5-18.0
Date	Sampled			05/04/10	05/05/10	05/05/10	05/05/10	05/05/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Comp	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500		0.0089 J		0.011 J	
Benzene	MG/KG	0.06	44	1.6		0.45 J		3.1
Carbon disulfide	MG/KG	2.7 CP-51	-					
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	390	22		22		19
Isopropylbenzene	MG/KG	2.3 CP-51	-	0.31 J		0.49 J		1.4 J
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-	3.5				
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500	0.79	0.0012 J	0.54 J		0.41 J
Xylene (total)	MG/KG	0.26	500	35		0.59 J		18
Total BTEX	MG/KG	-	-	59.39	0.0012	23.58	ND	40.51
Total Volatile Organic Compounds			-	63.2	0.0101	24.07	0.011	41.91
Semivolatile Organic Con	npounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.12 J	0.074 J	0.10 J		2.7
								1

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Locat	tion ID			SB-15	SB-16	SB-16	SB-16	SB-16
Sam	ple ID			SB-15-(22-23)	SB-16-(3.5-4)	SB-16-(6-6.5)	SB-16-(9-10)	SB-16-(17.5-18)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		22.0-23.0	3.5-4.0	6.0-6.5	9.0-10.0	17.5-18.0
Date S	ampled			05/04/10	05/05/10	05/05/10	05/05/10	05/05/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.63	0.40	0.60		9.0
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500					
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	0.16 J	0.16 J	1.2	0.027 J	6.6
Acenaphthylene	MG/KG	100	500	1.1	1.2	3.1		2.6 J
Acetophenone	MG/KG	-	-	0.12 J	0.085 J			
Anthracene	MG/KG	100	500	0.68	0.74	2.7		3.3 J
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	1.4	1.5	6.1		2.8 J
Benzo(a)pyrene	MG/KG	1	1	1.6	2.0 J	3.0		2.9 J
Benzo(b)fluoranthene	MG/KG	1	5.6	1.9 J	1.9 J	3.5 J		1.7 J
Benzo(g,h,i)perylene	MG/KG	100	500	1.6	2.0	1.5		0.81
Benzo(k)fluoranthene	MG/KG	0.8	56	1.7	2.2	2.8		1.1
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-		0.19 J	0.25	0.037 J	0.11 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.054 J	0.058 J	0.13 J		0.096 J
Chrysene	MG/KG	1	56	1.8	1.8	6.7		2.6 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.45 J	0.54 J	0.55 J		0.25 J
		1						

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Parameter	ole ID trix terval (ft	t)		SB-15 SB-15-(22-23) Soil	SB-16 SB-16-(3.5-4)	SB-16 SB-16-(6-6.5)	SB-16 SB-16-(9-10)	SB-16 SB-16-(17.5-18)
Mat Depth Int Date Sa Parameter	trix terval (ft	t)				SB-16-(6-6.5)	SB-16-(9-10)	SB-16-(17.5-18)
Depth Int Date Sa Parameter	erval (ft	i)		Soil				
Date Sa Parameter		t)	1		Soil	Soil	Soil	Soil
Parameter	ampled	Date Sampled			3.5-4.0	6.0-6.5	9.0-10.0	17.5-18.0
				05/04/10	05/05/10	05/05/10	05/05/10	05/05/10
	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
Dibenzofuran	MG/KG	7	350	0.12 J	0.095 J	0.14 J		0.38
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.037 J	0.037 J			
Fluoranthene	MG/KG	100	500	2.8	2.7	11		4.2
Fluorene	MG/KG	30	500	0.57	0.42	1.2		4.6
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	1.2	1.4 J	1.3		0.60 J
Naphthalene	MG/KG	12	500	0.38	0.23	0.30		22
Phenanthrene	MG/KG	100	500	3.8	2.9	8.1		14
Phenol	MG/KG	0.33	500					0.099 J
Pyrene	MG/KG	100	500	3.8	3.4	18		7.8
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	25.57	25.49	71.65	0.027	86.86
Total Semivolatile Organic Compounds	MG/KG	-	-	26.021	26.029	72.27	0.064	90.245
Metals								
Aluminum	MG/KG	10000 CP- 51	-	5,620	9,070	10,300	15,000	9,300
Antimony	MG/KG	12 CP-51	-			0.64 J		
Arsenic	MG/KG	13	16	1.7 J	5.7 J	16.6 J	4.3 J	1.2 J
Barium	MG/KG	350	400	48.8 J	111 J	73.9 J	75.7 J	87.6 J
Beryllium	MG/KG	7.2	590	0.30 J	0.37 J	0.33 J	0.43 J	0.16 J
Cadmium	MG/KG	2.5	9.3	0.25	0.92	2.6	0.17 J	0.19 J
Calcium	MG/KG	10000 CP- 51	-	1,030	17,000	5,840	953	1,130
Chromium	MG/KG	30	1500	24.2 J	24.3 J	25.1 J	19.8 J	34.8 J

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

	Location ID			SB-15	SB-16	SB-16	SB-16	SB-16
	Sample ID			SB-15-(22-23)	SB-16-(3.5-4) Soil 3.5-4.0 05/05/10	SB-16-(6-6.5)	SB-16-(9-10)	SB-16-(17.5-18)
	Matrix			Soil		Soil	Soil	Soil
De	epth Interval (ft	t)		22.0-23.0		6.0-6.5 05/05/10	9.0-10.0	17.5-18.0
	Date Sampled			05/04/10			05/05/10	05/05/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Cobalt	MG/KG	20 CP-51	-	8.2 J	9.3 J	9.3 J	7.2 J	11.3 J
Copper	MG/KG	50	270	25.8	54.2	53.1	15.6	26.5
Iron	MG/KG	2000 CP-51	-	16,700	24,900	113,000	21,300 J	25,000
Lead	MG/KG	63	1000	5.0 J	91.9 J	66.6 J	9.0 J	7.5 J
Magnesium	MG/KG	-	-	2,990 J	5,240 J	4,260 J	3,460 J	4,870 J
Manganese	MG/KG	1600	10000	164 J	226 J	406 J	156 J	261 J
Mercury	MG/KG	0.18	2.8		2.1 J	0.70 J	0.0073 J	
Nickel	MG/KG	30	310	17.7 J	22.5 J	19.7 J	14.9 J	25.1 J
Potassium	MG/KG	-	-	2,340 J	2,010 J	2,090 J	923 J	4,550 J
Selenium	MG/KG	3.9	1500					
Silver	MG/KG	2	1500					
Sodium	MG/KG	-	-	224	302	165	201	128
Thallium	MG/KG	5 CP-51	-		0.52 J			
Vanadium	MG/KG	39 CP-51	-	30.8 J	29.9 J	36.2 J	29.7 J	37.5 J
Zinc	MG/KG	109	10000	35.5 J	113 J	134 J	41.5 J	43.5 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

-								
	cation ID			SB-17	SB-17	SB-17	SB-41	SB-41
	mple ID		_	SB-17-(3-3.5)	SB-17-(5.5-6)	SB-17-(12-12.5)	SB-41 (0.5-1.0)	SB-41 (7-9)
	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (f	t)		3.0-3.5	5.5-6.0	12.0-12.5	0.5-1.0	7.0-9.0
Date	Sampled			05/11/10	05/11/10	05/12/10	02/18/14	02/18/14
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Comp	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-					
1,2-Dichloroethene (cis)	MG/KG	0.25	500					
2-Butanone	MG/KG	0.12	500					
Acetone	MG/KG	0.05	500		0.040 J	0.12 J		0.0054 J
Benzene	MG/KG	0.06	44		0.025	5.7 J		0.0024 J
Carbon disulfide	MG/KG	2.7 CP-51	-		0.022			
Chloroform	MG/KG	0.37	350					
Cyclohexane	MG/KG	-	-			0.038 J		
Ethylbenzene	MG/KG	1	390		1.7	11		
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.074 J	0.33 J		
Methylcyclohexane	MG/KG	-	-			0.14 J		
Methylene chloride	MG/KG	0.05	500					
Styrene	MG/KG	300 CP-51	-			15		
Tetrachloroethene	MG/KG	1.3	150					
Toluene	MG/KG	0.7	500		0.19 J	\bigcirc		
Xylene (total)	MG/KG	0.26	500		2.6 J	66	0.0092 J	
Total BTEX	MG/KG	-	-	ND	4.515	94.7	0.0092	0.0024
Total Volatile Organic Compounds	MG/KG	-	-	ND	4.651	110.328	0.0092	0.0078
Semivolatile Organic Con	npounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.15 J	0.60			NA
		1			1	1		l .

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	tion ID			SB-17	SB-17	SB-17	SB-41	SB-41
Sam	ple ID			SB-17-(3-3.5)	SB-17-(5.5-6)	SB-17-(12-12.5)	SB-41 (0.5-1.0)	SB-41 (7-9)
Ma	trix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.0-3.5	5.5-6.0	12.0-12.5	0.5-1.0	7.0-9.0
Date S	ampled			05/11/10	05/11/10	05/12/10	02/18/14	02/18/14
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-					NA
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	1.8 J	1.3	670	0.075 J	NA
2-Methylphenol (o-cresol)	MG/KG	0.33	500					NA
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500	0.048 J				NA
3,3'-Dichlorobenzidine	MG/KG	-	-					NA
Acenaphthene	MG/KG	20	500	0.31 J	2.7	33 J		NA
Acenaphthylene	MG/KG	100	500	4.6	3.1	180 J	0.59	NA
Acetophenone	MG/KG	-	-				0.064 J	NA
Anthracene	MG/KG	100	500	4.0	6.8	64 J	0.21 J	NA
Benzaldehyde	MG/KG	-	-					NA
Benzo(a)anthracene	MG/KG	1	5.6	22	4.1	79 J	0.65	NA
Benzo(a)pyrene	MG/KG	1	1	24	2.7	41 J	0.74	NA
Benzo(b)fluoranthene	MG/KG	1	5.6	26 J	2.7 J		1.1	NA
Benzo(g,h,i)perylene	MG/KG	100	500	14	1.4		0.85	NA
Benzo(k)fluoranthene	MG/KG	0.8	56	13 J	1.4 J		0.48	NA
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.10 J	0.020 J			NA
Butylbenzylphthalate	MG/KG	100 CP-51	-				0.043 J	NA
Carbazole	MG/KG	-	-	0.38 J	7.1		0.071 J	NA
Chrysene	MG/KG	1	56	22	4.2	73 J	0.86	NA
	1	0.33	0.56	3.4 J	0.57		0.17 J	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

 $[\]label{eq:concentration} \textbf{J} - \textbf{The reported concentration is an estimated value}. \quad \textbf{J+} - \textbf{The reported concentration is an estimated value, with high bias}.$

D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	tion ID			SB-17	SB-17	SB-17	SB-41	SB-41
	ple ID			SB-17-(3-3.5)	SB-17-(5.5-6)	SB-17-(12-12.5)	SB-41 (0.5-1.0)	SB-41 (7-9)
	atrix			Soil	Soil	Soil	Soil	Soil
Depth II	nterval (f	t)		3.0-3.5	5.5-6.0	12.0-12.5	0.5-1.0	7.0-9.0
Date S	Sampled			05/11/10	05/11/10	05/12/10	02/18/14	02/18/14
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Comp	ounds							
Dibenzofuran	MG/KG	7	350	0.40 J	2.6			NA
Di-n-butylphthalate	MG/KG	0.014 CP-51	-				0.26 J	NA
Fluoranthene	MG/KG	100	500	47	8.3	120 J	0.83	NA
Fluorene	MG/KG	30	500	1.4 J	3.4	120 J		NA
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	12 J	1.3		0.82	NA
Naphthalene	MG/KG	12	500	1.8 J	16	1,800	0.090 J	NA
Phenanthrene	MG/KG	100	500	10	7.9	380	0.34 J	NA
Phenol	MG/KG	0.33	500					NA
Pyrene	MG/KG	100	500	59	13	230 J	1.0	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	266.31	80.87	3,790	8.805	NA
Total Semivolatile Organic Compounds	MG/KG	-	-	267.388	91.19	3,790	9.243	NA
Metals								
Aluminum	MG/KG	10000 CP- 51	-	4,990	11,100	9,170	2,840	NA
Antimony	MG/KG	12 CP-51	-				0.53 J	NA
Arsenic	MG/KG	13	16	3.5	0.77		6.2	NA
Barium	MG/KG	350	400	50.1	48.4	202	88.1	NA
Beryllium	MG/KG	7.2	590	0.071 J	0.17		0.28	NA
Cadmium	MG/KG	2.5	9.3	0.20 J	0.23	0.22	0.28	NA
Calcium	MG/KG	10000 CP- 51	-	808	1,630	1,040	21,800	NA
Chromium	MG/KG	30	1500	9.6	19.7	39.0	6.2	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

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D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

ı	Location ID			SB-17	SB-17	SB-17	SB-41	SB-41
	Sample ID			SB-17-(3-3.5)	SB-17-(5.5-6)	SB-17-(12-12.5)	SB-41 (0.5-1.0)	SB-41 (7-9)
	Matrix			Soil	Soil 5.5-6.0 05/11/10	Soil 12.0-12.5 05/12/10	Soil	Soil
Dep	oth Interval (ft)		3.0-3.5			0.5-1.0	7.0-9.0
D	ate Sampled			05/11/10			02/18/14	02/18/14
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Cobalt	MG/KG	20 CP-51	-	4.7	5.4	8.6	22.2	NA
Copper	MG/KG	50	270	14.7	19.2	30.0	34.3	NA
Iron	MG/KG	2000 CP-51	-	11,100	26,300	25,000	6,550	NA
Lead	MG/KG	63	1000	53.1	7.5	4.0	154	NA
Magnesium	MG/KG	=	=	1,320	3,440	5,140	1,940	NA
Manganese	MG/KG	1600	10000	64.9	265	135	57.0	NA
Mercury	MG/KG	0.18	2.8	0.27	0.24		0.20	NA
Nickel	MG/KG	30	310	15.4	13.6	40.4	9.8	NA
Potassium	MG/KG	=	=	503	1,500	3,050	600	NA
Selenium	MG/KG	3.9	1500	1.3 J	1.4	1.8	0.61 J	NA
Silver	MG/KG	2	1500					NA
Sodium	MG/KG	=	=	338	572	100	937	NA
Thallium	MG/KG	5 CP-51	-				0.34 J	NA
Vanadium	MG/KG	39 CP-51	-	12.8	26.4	36.6	12.3	NA
Zinc	MG/KG	109	10000	78.5	36.9	43.1	116	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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- D Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loc	cation ID			SB-41	SB-42	SB-42	SB-42	SB-43
Sa	mple ID			SB-41 (9-11)	DUP021914	SB-42 (0.5-1.0)	SB-42 (18.5-19.5)	SB-43 (1-2)
ı	Matrix			Soil	Soil	Soil	Soil	Soil
Depth	Interval (f	t)		9.0-11.0	0.5-1.0	0.5-1.0	18.5-19.5	1.0-2.0
Date	Sampled			02/18/14	02/19/14	02/19/14	02/21/14	02/19/14
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Volatile Organic Compo	ounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-	NA				
1,2-Dichloroethene (cis)	MG/KG	0.25	500	NA				
2-Butanone	MG/KG	0.12	500	NA				
Acetone	MG/KG	0.05	500	NA	0.0065 J	0.012 J		
Benzene	MG/KG	0.06	44	NA			2.5	0.0014 J
Carbon disulfide	MG/KG	2.7 CP-51	-	NA				
Chloroform	MG/KG	0.37	350	NA				
Cyclohexane	MG/KG	-	-	NA				
Ethylbenzene	MG/KG	1	390	NA			8.2	
Isopropylbenzene	MG/KG	2.3 CP-51	-	NA			1.0	
Methylcyclohexane	MG/KG	-	-	NA				
Methylene chloride	MG/KG	0.05	500	NA				0.0031 J
Styrene	MG/KG	300 CP-51	-	NA			5.0	
Tetrachloroethene	MG/KG	1.3	150	NA				
Toluene	MG/KG	0.7	500	NA			5.8	
Xylene (total)	MG/KG	0.26	500	NA			17	
Total BTEX	MG/KG	-	-	NA	ND	ND	33.5	0.0014
Total Volatile Organic Compounds			-	NA	0.0065	0.012	39.5	0.0045
Semivolatile Organic Con	npounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.078 J	0.47	0.42	17 J	0.040 J
							ı	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

	Location ID			OD **	OD 12	OD 12	OD 12	05 12
				SB-41	SB-42	SB-42	SB-42	SB-43
Samp				SB-41 (9-11)	DUP021914	SB-42 (0.5-1.0)	SB-42 (18.5-19.5)	SB-43 (1-2)
Mat				Soil	Soil	Soil	Soil	Soil
Depth Int	terval (fi	t)		9.0-11.0	0.5-1.0	0.5-1.0	18.5-19.5	1.0-2.0
Date Sa	ampled			02/18/14	02/19/14	02/19/14	02/21/14	02/19/14
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Semivolatile Organic Compo	ounds							
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	=					
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.69	0.20 J	0.13 J	240 D	0.15 J
2-Methylphenol (o-cresol)	MG/KG	0.33	500					
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500				0.13 J	
3,3'-Dichlorobenzidine	MG/KG	-	-					
Acenaphthene	MG/KG	20	500	5.9 D	0.75	0.59	9.0 J	0.17 J
Acenaphthylene	MG/KG	100	500	3.2	4.8 DJ	2.4 J	98 DJ	1.5
Acetophenone	MG/KG	-	-					
Anthracene	MG/KG	100	500	4.9 D	3.7 DJ	2.6	32 DJ	0.68
Benzaldehyde	MG/KG	-	-					
Benzo(a)anthracene	MG/KG	1	5.6	11 D	4.5 D	2.9	33 DJ	1.5
Benzo(a)pyrene	MG/KG	1	1	10 D	3.3 DJ	2.1	21 DJ	2.0
Benzo(b)fluoranthene	MG/KG	1	5.6	12 D	4.4 DJ	2.2 J	13 DJ	2.6
Benzo(g,h,i)perylene	MG/KG	100	500	9.4 D	2.5 J	1.1 J	6.7 J	1.9
Benzo(k)fluoranthene	MG/KG	0.8	56	5.0 D	2.2 J	0.95 J	5.5 J	0.96
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-					0.097 J
Butylbenzylphthalate	MG/KG	100 CP-51	-	0.071 J				
Carbazole	MG/KG	-	-	0.16 J	0.18 J	0.069 J	0.31 J	0.14 J
Chrysene	MG/KG	1	56	17 D	5.1 DJ	2.9 J	27 DJ	2.0
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	2.2	0.64 J	0.33 J	2.1	0.45

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

F								
	ation ID			SB-41	SB-42	SB-42	SB-42	SB-43
San	nple ID			SB-41 (9-11)	DUP021914	SB-42 (0.5-1.0)	SB-42 (18.5-19.5)	SB-43 (1-2)
	atrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (fi	t)		9.0-11.0	0.5-1.0	0.5-1.0	18.5-19.5	1.0-2.0
Date 9	Sampled			02/18/14	02/19/14	02/19/14	02/21/14	02/19/14
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Semivolatile Organic Comp	pounds							
Dibenzofuran	MG/KG	7	350	0.27 J	0.41	0.29 J		
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.12 J	0.10 J	0.10 J		0.041 J
Fluoranthene	MG/KG	100	500	15 D	7.5 DJ	4.0 DJ	38 DJ	2.0
Fluorene	MG/KG	30	500	2.1	4.1 D	2.6	41 DJ	0.36 J
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	8.3 D	2.6 J	1.2 J	6.3 J	1.9
Naphthalene	MG/KG	12	500	3.3	0.50	0.48	710 D	0.73
Phenanthrene	MG/KG	100	500	8.1 D	13 D	8.2 D	140 DJ	1.4
Phenol	MG/KG	0.33	500				0.13 J	
Pyrene	MG/KG	100	500	22 D	11 DJ	6.6 DJ	42 J	2.8
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	=	140.09	70.79	41.28	1,464.6	23.1
Total Semivolatile Organic Compounds	MG/KG	-	=	140.789	71.95	42.159	1,482.17	23.418
Metals								
Aluminum	MG/KG	10000 CP- 51	-	6,100	6,480	7,100	11,100	3,440
Antimony	MG/KG	12 CP-51	-			1.7 J		0.44 J
Arsenic	MG/KG	13	16	13.3	12.0	10.4	1.8	6.8
Barium	MG/KG	350	400	64.4	145	135	69.0	99.5
Beryllium	MG/KG	7.2	590	0.28	0.44	0.46		0.32
Cadmium	MG/KG	2.5	9.3	0.33			0.46	0.15 J
Calcium	MG/KG	10000 CP- 51	-	5,420	4,140	5,080	1,320	5,810
Chromium	MG/KG	30	1500	13.2	15.5	24.8 J	48.2	7.6
		l			I			

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

^{- =} No standard, criteria or guidance value.

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D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Lo	ocation ID			SB-41	SB-42	SB-42	SB-42	SB-43
S	ample ID			SB-41 (9-11)	DUP021914	SB-42 (0.5-1.0)	SB-42 (18.5-19.5)	SB-43 (1-2)
	Matrix			Soil	Soil	Soil	Soil 18.5-19.5	Soil
Dept	h Interval (ft	:)		9.0-11.0	0.5-1.0 02/19/14	0.5-1.0		1.0-2.0
Dat	te Sampled			02/18/14		02/19/14	02/21/14	02/19/14
Parameter	Units	Criteria (1)	Criteria (2)		Field Duplicate (1-1)			
Metals								
Cobalt	MG/KG	20 CP-51	-	3.1	10.7	13.3	11.1	9.1
Copper	MG/KG	50	270	65.4	54.5	53.5	34.0	59.8
Iron	MG/KG	2000 CP-51	-	20,500	21,500	18,500	21,700	10,100
Lead	MG/KG	63	1000	335	134	144	2.1	76.9
Magnesium	MG/KG	=	-	3,860	2,230	2,790	6,580	1,640
Manganese	MG/KG	1600	10000	140	128	127	545	68.9
Mercury	MG/KG	0.18	2.8	0.28	0.18	0.13		0.30
Nickel	MG/KG	30	310	21.2	15.3	17.7	39.6	10.4
Potassium	MG/KG	-	-	719	1,460	1,590	5,120	798
Selenium	MG/KG	3.9	1500		2.1		0.62 J	1.3 J
Silver	MG/KG	2	1500				0.40 J	
Sodium	MG/KG	-	-	479	685	681	168	376
Thallium	MG/KG	5 CP-51	-					
Vanadium	MG/KG	39 CP-51	-	50.7	24.3	26.6	47.3	14.1
Zinc	MG/KG	109	10000	133	103	105	52.2	94.9

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	ation ID			SB-43	SB-44	SB-44	SB-44
Sar	nple ID			SB-43 (10-12)	SB-44 (1.5-2)	SB-44 (10-12)	SB-44 (15-20)
M	latrix			Soil	Soil	Soil	Soil
Depth I	nterval (fi	t)		10.0-12.0	1.5-2.0	10.0-12.0	15.0-20.0
Date	Sampled			02/19/14	02/19/14	02/21/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)				
Volatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	-				
1,2-Dichloroethene (cis)	MG/KG	0.25	500				
2-Butanone	MG/KG	0.12	500		0.0071 J		
Acetone	MG/KG	0.05	500		0.040 J		
Benzene	MG/KG	0.06	44	1,600	0.0030	2,600	2,000
Carbon disulfide	MG/KG	2.7 CP-51	-				
Chloroform	MG/KG	0.37	350				
Cyclohexane	MG/KG	-	-				
Ethylbenzene	MG/KG	1	390	82	0.014	2,600	690
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.0052	25 J	
Methylcyclohexane	MG/KG	-	-				
Methylene chloride	MG/KG	0.05	500		0.0029 J		
Styrene	MG/KG	300 CP-51	-	220	0.0012 J	1,300	1,000
Tetrachloroethene	MG/KG	1.3	150				
Toluene	MG/KG	0.7	500	950		3,800	2,500
Xylene (total)	MG/KG	0.26	500	1,000	0.0063	4,700	2,000
Total BTEX	MG/KG	-	-	3,632	0.0233	13,700	7,190
Total Volatile Organic MG/KG		-	-	3,852	0.0797	15,025	8,190
Semivolatile Organic Compounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	530 J	0.34 J	150 J	1,800

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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- D Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Locat	ion ID				SB-43		SB-44		SB-44		SB-44
Samı	ple ID			;	SB-43 (10-12)		SB-44 (1.5-2)		SB-44 (10-12)		SB-44 (15-20)
	trix				Soil		Soil		Soil		Soil
Depth In	terval (f	t)			10.0-12.0		1.5-2.0		10.0-12.0		15.0-20.0
Date S	ampled				02/19/14		02/19/14		02/21/14		02/21/14
Parameter	Units	Criteria (1)	Criteria (2)								
Semivolatile Organic Compounds											
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	-								
2-Methylnaphthalene	MG/KG	0.41 CP-51	-		4,700 DJ	\supset			4,100 D	X	28,000 D
2-Methylphenol (o-cresol)	MG/KG	0.33	500								
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	500	\bigvee	1,100 DJ	igtriangleup			0.65 J	\setminus	
3,3'-Dichlorobenzidine	MG/KG	-	=								
Acenaphthene	MG/KG	20	500		950 J	ight angle	0.84		150 J	X	1,300
Acenaphthylene	MG/KG	100	500				2.8	(700 J	X	9,900 DJ
Acetophenone	MG/KG	-	-								
Anthracene	MG/KG	100	500		2,800 DJ	ight deg	4.0 D		360 DJ	X	3,400
Benzaldehyde	MG/KG	-	-								
Benzo(a)anthracene	MG/KG	1	5.6	lacksquare	2,500 DJ	ightharpoons	5.5 D	$\langle \! \langle$	230 DJ	X	1,600
Benzo(a)pyrene	MG/KG	1	1				3.8 DJ	\langle	130 J	X	1,200
Benzo(b)fluoranthene	MG/KG	1	5.6	$ \leftarrow $	2,600 DJ	ightharpoons	3.9 D	\langle	99 J	X	890
Benzo(g,h,i)perylene	MG/KG	100	500				2.0		35 J	C	490
Benzo(k)fluoranthene	MG/KG	0.8	56	\bigcirc	830 DJ	\triangleright	2.8	C	48 J	X	450
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-								
Butylbenzylphthalate	MG/KG	100 CP-51	=								
Carbazole	MG/KG	-	-		700 J				5.7		81 J
Chrysene	MG/KG	1	56		2,000 DJ	$\overline{\mathbb{D}}$	5.5 D	1	250 DJ	X	1,700
Dibenz(a,h)anthracene	MG/KG	0.33	0.56			_	0.58	đ	14	ХĪ	140 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

- = No standard, criteria or guidance value.
- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	tion ID			SB-43	SB-44	SB-44	SB-44
Sam	ple ID			SB-43 (10-12)	SB-44 (1.5-2)	SB-44 (10-12)	SB-44 (15-20)
Ma	atrix			Soil	Soil	Soil	Soil
Depth Ir	nterval (f	t)		10.0-12.0	1.5-2.0	10.0-12.0	15.0-20.0
Date S	Sampled			02/19/14	02/19/14	02/21/14	02/21/14
Parameter	Units	Criteria (1)	Criteria (2)				
Semivolatile Organic Comp	ounds						
Dibenzofuran	MG/KG	7	350			59 J	700
Di-n-butylphthalate	MG/KG	0.014 CP-51	-				
Fluoranthene	MG/KG	100	500	7,800 D	7.4 D	340 DJ	2,700
Fluorene	MG/KG	30	500		3.9 D	710 DJ	4,000 DJ
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6		$\bigcirc 2.0 \bigcirc$	42 J	510 J
Naphthalene	MG/KG	12	500	48,000 D	0.46	11,000 D	74,000 D
Phenanthrene	MG/KG	100	500	12,000 D	15 D	1,500 DJ	11,000 DJ
Phenol	MG/KG	0.33	500	350 J			
Pyrene	MG/KG	100	500	6,700 D	13 D	530 DJ	5,000 DJ
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	90,880	73.48	20,238	146,280
Total Semivolatile Organic Compounds	MG/KG	-	-	93,560	73.82	20,453.35	148,861
Metals							
Aluminum	MG/KG	10000 CP- 51	-	NA	11,300	9,910 J	NA
Antimony	MG/KG	12 CP-51	-	NA		1.7 J	NA
Arsenic	MG/KG	13	16	NA	11.5	30.9	NA
Barium	MG/KG	350	400	NA	98.2	66.6	NA
Beryllium	MG/KG	7.2	590	NA	0.47	0.54	NA
Cadmium	MG/KG	2.5	9.3	NA		0.53	NA
Calcium	MG/KG	10000 CP- 51	-	NA	3,940	7,710	NA
Chromium	MG/KG	30	1500	NA	25.6	14.5	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

- = No standard, criteria or guidance value.
- J The reported concentration is an estimated value. J+ The reported concntration is an estimated value, with high bias.
- D Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES EAST 138th STREET WORKS SITE

Loca	tion ID			SB-43	SB-44	SB-44	SB-44
Sam	ple ID			SB-43 (10-12)	SB-44 (1.5-2)	SB-44 (10-12)	SB-44 (15-20)
Ma	atrix			Soil	Soil	Soil	Soil
Depth Ir	nterval (f	t)		10.0-12.0	1.5-2.0	10.0-12.0	15.0-20.0
Date S	Sampled			02/19/14	02/19/14	02/21/14	02/21/14
Parameter	Units	Units Criteria (2)					
Metals							
Cobalt	MG/KG	20 CP-51	-	NA	10.2	3.7	NA
Copper	MG/KG	50	270	NA	83.9	123 J	NA
Iron	MG/KG	2000 CP-51	-	NA	22,600	18,500	NA
Lead	MG/KG	63	1000	NA	224	306	NA
Magnesium	MG/KG	-	-	NA	3,960	2,650	NA
Manganese	MG/KG	1600	10000	NA	159	103	NA
Mercury	MG/KG	0.18	2.8	NA	0.83	3.7 J+	NA
Nickel	MG/KG	30	310	NA	26.5	24.7	NA
Potassium	MG/KG	-	-	NA	1,910	935 J	NA
Selenium	MG/KG	3.9	1500	NA	1.2 J	5.1	NA
Silver	MG/KG	2	1500	NA			NA
Sodium	MG/KG	-	=	NA	285	644 J	NA
Thallium	MG/KG	5 CP-51	-	NA		1.5	NA
Vanadium	MG/KG	39 CP-51	-	NA	33.0	29.3	NA
Zinc	MG/KG	109	10000	NA	147	165	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

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- D Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			MW-07-URS	MW-07-URS	SB-18	SB-18	SB-18
Sam	ple ID			MW-7-(4-4.5)	MW-7-(9.8-10.5)	SB-18-(4-4.5)	SB-18-(5.5-6)	SB-18-(8.5-9)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		4.0-4.5	9.8-10.5	4.0-4.5	5.5-6.0 05/12/10	8.5-9.0
Date S	ampled			12/15/11	12/16/11	05/11/10		05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					
Volatile Organic Compou	nds							
Acetone	MG/KG	0.05	500				0.0045 J	0.030 J
Carbon disulfide	MG/KG	2.7 CP-51	-					
Isopropylbenzene	MG/KG	2.3 CP-51	-		0.031			
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500		0.018			
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	=	ND	ND	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	ND	0.049	ND	0.0045	0.03
Semivolatile Organic Comp	ounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-					
2-Chloronaphthalene	MG/KG	-	-	1.3 J	1.3 J			
2-Methylnaphthalene	MG/KG	0.41 CP-51	-				1.0	
Acenaphthene	MG/KG	20	500				0.42	
Acenaphthylene	MG/KG	100	500				6.1	0.049 J
Anthracene	MG/KG	100	500	0.088 J	0.18		2.7	
Benzo(a)anthracene	MG/KG	1	5.6	0.42	0.048 J	0.14 J	2.6	0.042 J
Benzo(a)pyrene	MG/KG	1	1	0.39		0.17 J	3.0	0.036 J
Benzo(b)fluoranthene	MG/KG	1	5.6	0.30		0.16 J	5.4	
Benzo(g,h,i)perylene	MG/KG	100	500	0.24		0.14 J	3.1	
Benzo(k)fluoranthene	MG/KG	0.8	56	0.34		0.096 J	2.5 J	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1) Concentration Exceeds Criteria (2) - = No standard, criteria or guidance value.

J - The reported concentration is an estimated value; D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			MW-07-URS	MW-07-URS	SB-18	SB-18	SB-18
Sam	nple ID			MW-7-(4-4.5)	MW-7-(9.8-10.5)	SB-18-(4-4.5)	SB-18-(5.5-6)	SB-18-(8.5-9)
М	atrix			Soil	Soil 9.8-10.5	Soil	Soil	Soil
Depth I	nterval (f	t)		4.0-4.5		4.0-4.5	5.5-6.0	8.5-9.0
Date 9	Sampled			12/15/11	12/16/11	05/11/10	05/12/10	05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.066 J	0.21	0.22	0.17 J	0.030 J
Butylbenzylphthalate	MG/KG	100 CP-51	-			0.019 J		
Carbazole	MG/KG	-	=				0.022 J	
Chrysene	MG/KG	1	56	0.38	0.075 J	0.11 J	1.9	0.032 J
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.074 J		0.036 J	1.4	
Dibenzofuran	MG/KG	7	350					
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.11 J	0.11 J			
Di-n-octylphthalate	MG/KG	100 CP-51	-			0.042 J		
Fluoranthene	MG/KG	100	500	0.57		0.11 J	1.8	0.040 J
Fluorene	MG/KG	30	500				0.48	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.21		0.14 J	2.5 J	
Naphthalene	MG/KG	12	500					
Phenanthrene	MG/KG	100	500	0.27		0.044 J	0.48	0.042 J
Pyrene	MG/KG	100	500	0.57	0.25	0.14 J	3.5	0.12 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	3.852	0.553	1.286	38.88	0.361
Total Semivolatile Organic Compounds	MG/KG	-	-	5.328	2.173	1.567	39.072	0.391
Metals	-							
Aluminum	MG/KG	10000 CP- 51	-	10,600	11,500	9,410	10,300	28,600
Antimony	MG/KG	12 CP-51	-					
Arsenic	MG/KG	13	16	1.7		1.5		
							ı	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1) Concentration Exceeds Criteria (2)

- = No standard, criteria or guidance value.

J - The reported concentration is an estimated value; D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

	Location ID			MW-07-URS	MW-07-URS	SB-18	SB-18	SB-18
	Sample ID			MW-7-(4-4.5)	MW-7-(9.8-10.5)	SB-18-(4-4.5)	SB-18-(5.5-6)	SB-18-(8.5-9)
	Matrix			Soil	Soil	Soil	Soil	Soil
De	pth Interval (ft	:)		4.0-4.5	9.8-10.5	4.0-4.5	5.5-6.0	8.5-9.0
D	Date Sampled			12/15/11	12/16/11	05/11/10	05/12/10	05/12/10
Parameter	Units	Criteria (1)	Criteria (2)					
Metals								
Barium	MG/KG	350	400	94.4	48.1	72.2	85.6	353
Beryllium	MG/KG	7.2	590	0.71	0.69		0.098 J	
Cadmium	MG/KG	2.5	9.3			0.25	0.31	0.58
Calcium	MG/KG	10000 CP- 51	-	8,450	3,980	3,750	10,900	3,140
Chromium	MG/KG	30	1500	41.5	69.1	26.0	29.6	$\bigcirc 177 \bigcirc$
Cobalt	MG/KG	20 CP-51	-	8.3	8.3	9.7	11.1	20.9
Copper	MG/KG	50	270	44.4	89.2	33.6	31.0	28.0
Iron	MG/KG	2000 CP-51	-	20,500	21,500	22,600	26,500	46,400
Lead	MG/KG	63	1000	26.1	2.7	11.3	5.9	1.5
Magnesium	MG/KG	=	-	10,100	9,600	5,160	10,600	18,200
Manganese	MG/KG	1600	10000	280	195	289	209	386
Mercury	MG/KG	0.18	2.8	0.040 J		0.095		
Nickel	MG/KG	30	310	26.8	40.3	20	35.0	71.8
Potassium	MG/KG	=	=	6,170	8,880	3,010	3,500	16,500
Selenium	MG/KG	3.9	1500			1.5	1.4	
Sodium	MG/KG	-	-	1,300	204	145	131	171
Thallium	MG/KG	5 CP-51	=	0.65 J	0.90 J			0.59 J
Vanadium	MG/KG	39 CP-51	-	42.8	42.2	34.6	38.3	127
Zinc	MG/KG	109	10000	57.0	44.7	53.5	49.1	94.7

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1) Concentration Exceeds Criteria (2)

- = No standard, criteria or guidance value.

J - The reported concentration is an estimated value; D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Location ID			SB-19	SB-19	SB-19	SB-20	SB-20
			20100512-FD-1	SB-19-(3-4)	SB-19-(5-5.5)	SB-20-(3-3.5)	SB-20-(4.5-5)
			Soil	Soil	Soil	Soil	Soil
	:)		3.0-4.0	3.0-4.0	5.0-5.5	3.0-3.5	4.5-5.0
	<u>, </u>		05/12/10	05/12/10	05/12/10	12/15/11	12/15/11
Units	Criteria (1)	Criteria (2)	Field Duplicate (1-1)				
ds							
MG/KG	0.05	500	0.031 J	0.016 J	0.24 J		0.014 J
MG/KG	2.7 CP-51	-			0.019		0.0034 J
MG/KG	2.3 CP-51	-			0.065 J		
MG/KG	-	-			0.044 J		
MG/KG	0.05	500				0.009	
MG/KG	0.26	500			0.013 J		
MG/KG	-	-	ND	ND	0.013	ND	ND
MG/KG	=	=	0.031	0.016	0.381	0.009	0.0174
ınds							
MG/KG	60 CP-51	-					
MG/KG	=	-				1.4 J	
MG/KG	0.41 CP-51	-				0.21	
MG/KG	20	500					
MG/KG	100	500	0.065 J	0.022 J			
MG/KG	100	500	0.045 J		1.9		1.3 J
MG/KG	1	5.6	0.23	0.021 J	0.60	0.10 J	0.31
MG/KG	1	1	0.23	0.023 J	0.57	0.10 J	0.29
MG/KG	1	5.6	0.27 J		0.34 J	0.14 J	0.12 J
MG/KG	100	500	0.22	0.024 J	0.44	0.15 J	
MG/KG	0.8	56	0.11 J		0.34 J	0.10 J	0.17 J
	mpled Units MG/KG	ix prval (ft) mpled Units Criteria (1) is	Internal Criteria (1) Criteria (2) Criteria	Soil Soil	Soil Soil	Soil Soil	Soil Soil

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1) Concentration Exceeds Criteria (2) - = No standard, criteria or guidance value.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	tion ID			SB-19	SB-19	SB-19	SB-20	SB-20
Sam	ple ID			20100512-FD-1	SB-19-(3-4)	SB-19-(5-5.5)	SB-20-(3-3.5)	SB-20-(4.5-5)
Ma	ıtrix			Soil	Soil	Soil	Soil	Soil
Depth In	terval (f	t)		3.0-4.0	3.0-4.0	5.0-5.5	3.0-3.5	4.5-5.0
Date S	ampled			05/12/10	05/12/10	05/12/10	12/15/11	12/15/11
Parameter	Units	Criteria (1)	Criteria (2)	Field Duplicate (1-1)			_	
Semivolatile Organic Compounds								
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.065 J	0.046 J	0.054 J	0.061 J	
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-					
Chrysene	MG/KG	1	56	0.20		1.8	0.098 J	0.22
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.036 J		0.33 J	0.043 J	
Dibenzofuran	MG/KG	7	350					0.49 J
Di-n-butylphthalate	MG/KG	0.014 CP-51	-				\bigcirc 0.10 J	
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	0.39	0.019 J	0.89	0.12 J	0.26
Fluorene	MG/KG	30	500			3.4		
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	0.20 J	0.021 J	0.24 J	0.11 J	
Naphthalene	MG/KG	12	500				0.13 J	
Phenanthrene	MG/KG	100	500	0.10 J	0.022 J	1.6	0.11 J	0.41 J
Pyrene	MG/KG	100	500	0.49	0.023 J	1.5	0.11 J	0.55 J
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	2.586	0.175	13.95	1.521	3.63
Total Semivolatile Organic Compounds	MG/KG	-	-	2.651	0.221	14.004	3.082	4.12
Metals								
Aluminum	MG/KG	10000 CP- 51	=	14,100	13,900	9,720	13,700	17,400
Antimony	MG/KG	12 CP-51	=					
Arsenic	MG/KG	13	16				1.7	1.9

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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Concentration Exceeds Criteria (1) Concentration Exceeds Criteria (2)

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Lo	ocation ID			SB-19	SB-19	SB-19	SB-20	SB-20
S	ample ID			20100512-FD-1	SB-19-(3-4)	SB-19-(5-5.5)	SB-20-(3-3.5)	SB-20-(4.5-5)
	Matrix			Soil	Soil	Soil	Soil	Soil
Depti	h Interval (ft)		3.0-4.0	3.0-4.0	5.0-5.5	3.0-3.5	4.5-5.0
Dat	e Sampled			05/12/10	05/12/10	05/12/10	12/15/11	12/15/11
Parameter	Units	Criteria (1)	Criteria (2)	Field Duplicate (1-1)				
Metals								
Barium	MG/KG	350	400	55.7	57.7	76.2	192	225
Beryllium	MG/KG	7.2	590				0.80	0.94
Cadmium	MG/KG	2.5	9.3	0.32	0.32	0.27		0.15 J
Calcium	MG/KG	10000 CP- 51	-	1,770	1,660	2,100	3,040	11,500
Chromium	MG/KG	30	1500	12.1 J	21.9 J	11.9	25.7	71.6
Cobalt	MG/KG	20 CP-51	-	8.8	8.4	9.0	5.7	15.7
Copper	MG/KG	50	270	56.8	51.6	57.8	35.9	32.2
Iron	MG/KG	2000 CP-51	-	29,400	29,500	24,700	26,800	42,800
Lead	MG/KG	63	1000	12.4	9.4	6.3	17.5	13.9
Magnesium	MG/KG	-	-	7,950	7,240	6,380	8,730	13,000
Manganese	MG/KG	1600	10000	222	204	237	241	174
Mercury	MG/KG	0.18	2.8	0.010 J	0.0086 J	0.031 J	0.11	0.021 J
Nickel	MG/KG	30	310	10.4	13.0	6.8	19.4	58.2
Potassium	MG/KG	=	-	3,860	3,760	2,550	8,570	7,550
Selenium	MG/KG	3.9	1500	2.0	2.3	1.8		
Sodium	MG/KG	=	-	370	326	175	132	112
Thallium	MG/KG	5 CP-51	=				1.1	1.2
Vanadium	MG/KG	39 CP-51	-	41.8	45.2	49.6	70.4	99.0
Zinc	MG/KG	109	10000	80.5	74.9	58.3	128	165

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1) Concentration Exceeds Criteria (2) - = No standard, criteria or guidance value.

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SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

	IP			SB-21	SB-21	SB-21	SB-22	SB-22
_	cation ID				=	_	_	
	ample ID			SB-21-(3.5-4)	SB-21-(10-11)	SB-21-(21-22)	20111215-FD-1	SB-22-(4-4.5)
	Matrix			Soil	Soil	Soil	Soil	Soil
	h Interval (f	t)		3.5-4.0	10.0-11.0	21.0-22.0	4.0-4.5	4.0-4.5
Dat	e Sampled			12/15/11	12/16/11	12/16/11	12/15/11	12/15/11
Parameter	Units	Criteria (1)	Criteria (2)				Field Duplicate (1-1)	
Volatile Organic Comp	pounds							
Acetone	MG/KG	0.05	500		0.010 J	0.0088 J		
Carbon disulfide	MG/KG	2.7 CP-51	-		0.0029			
Isopropylbenzene	MG/KG	2.3 CP-51	-					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	500				0.0036	
Xylene (total)	MG/KG	0.26	500					
Total BTEX	MG/KG	-	-	ND	ND	ND	ND	ND
Total Volatile Organic Compounds	MG/KG	-	-	ND	0.0129	0.0088	0.0036	ND
Semivolatile Organic Co	mpounds							
1,1'-Biphenyl	MG/KG	60 CP-51	-	0.13 J	32			
2-Chloronaphthalene	MG/KG	-	-	1.4 J		1.4 J	1.3 J	1.3 J
2-Methylnaphthalene	MG/KG	0.41 CP-51	-	0.092 J				
Acenaphthene	MG/KG	20	500	0.17 J	120			
Acenaphthylene	MG/KG	100	500	0.60	22	0.091 J	0.092 J	0.12 J
Anthracene	MG/KG	100	500	0.84	60	0.28	0.085 J	0.097 J
Benzo(a)anthracene	MG/KG	1	5.6	2.8 D	39	0.39	0.29	0.30
Benzo(a)pyrene	MG/KG	1	1	2.9 D	28	0.55	0.28	0.38
Benzo(b)fluoranthene	MG/KG	1	5.6	2.5	18 J	0.16 J	0.25	0.26
Benzo(g,h,i)perylene	MG/KG	100	500	1.9	12 J	0.26	0.18	0.27
Benzo(k)fluoranthene	MG/KG	0.8	56	2.4	11 J	0.12 J	0.19	0.30
		<u> </u>						

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1) Concentration Exceeds Criteria (2) - = No standard, criteria or guidance value.

J - The reported concentration is an estimated value; D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

Loca	ation ID			SB-21	SB-21	SB-21	SB-22	SB-22
San	nple ID			SB-21-(3.5-4)	SB-21-(10-11)	SB-21-(21-22)	20111215-FD-1	SB-22-(4-4.5)
M	atrix			Soil	Soil	Soil	Soil	Soil
Depth I	nterval (f	t)		3.5-4.0	10.0-11.0	21.0-22.0	4.0-4.5	4.0-4.5
Date	Sampled			12/15/11	12/16/11	12/16/11	12/15/11	12/15/11
Parameter	Units	Criteria (1)	Criteria (2)				Field Duplicate (1-1)	
Semivolatile Organic Com	oounds							
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	-	0.084 J			0.094 J	0.11 J
Butylbenzylphthalate	MG/KG	100 CP-51	-					
Carbazole	MG/KG	-	-	0.23				
Chrysene	MG/KG	1	56	1.5	$\bigcirc 37 \bigcirc$	0.32	0.24	0.29
Dibenz(a,h)anthracene	MG/KG	0.33	0.56	0.37			0.068 J	0.083 J
Dibenzofuran	MG/KG	7	350	0.14 J	6.4 J			
Di-n-butylphthalate	MG/KG	0.014 CP-51	-	0.15 J		0.087 J	0.11 J	0.10 J
Di-n-octylphthalate	MG/KG	100 CP-51	-					
Fluoranthene	MG/KG	100	500	4.0 D	62	0.23	0.33	0.35
Fluorene	MG/KG	30	500	0.20	62			
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.6	1.6	8.2 J	0.073 J	0.13 J	0.20
Naphthalene	MG/KG	12	500	0.093 J	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	0.065 J		
Phenanthrene	MG/KG	100	500	2.3	190	0.088 J	0.16 J	0.17 J
Pyrene	MG/KG	100	500	3.5 D	99	1.7	0.34	0.40
Total Polynuclear Aromatic Hydrocarbons	MG/KG	-	-	27.765	800.2	4.327	2.635	3.22
Total Semivolatile Organic Compounds	MG/KG	-	-	29.899	838.6	5.814	4.139	4.73
Metals	•							
Aluminum	MG/KG	10000 CP- 51	-	4,080	7,980	18,800	8,850	8,200
Antimony	MG/KG	12 CP-51	-	4.0				
Arsenic	MG/KG	13	16	9.6	4.8	9.0	2.1	2.1
						ı		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1) Concentration Exceeds Criteria (2) - = No standard, criteria or guidance value.

Blank cell or ND - Not detected. NA - Not analyzed.

J - The reported concentration is an estimated value; D - Result reported from a secondary dilution analysis.

SUMMARY OF DETECTED COMPOUNDS IN RI SOIL SAMPLES **EAST 138th STREET WORKS SITE**

L	ocation ID			SB-21	SB-21	SB-21	SB-22	SB-22
Ş	Sample ID			SB-21-(3.5-4)	SB-21-(10-11)	SB-21-(21-22)	20111215-FD-1	SB-22-(4-4.5)
	Matrix			Soil	Soil	Soil	Soil	Soil
Dep	th Interval (ft)		3.5-4.0	10.0-11.0	21.0-22.0	4.0-4.5	4.0-4.5
Da	te Sampled			12/15/11	12/16/11	12/16/11	12/15/11	12/15/11
Parameter	Units	Criteria (1)	Criteria (2)				Field Duplicate (1-1)	
Metals								
Barium	MG/KG	350	400	66.9	79.3	104	61.8	56.2
Beryllium	MG/KG	7.2	590	0.36	0.85	2.0	0.63	0.62
Cadmium	MG/KG	2.5	9.3	0.87				0.016 J
Calcium	MG/KG	10000 CP- 51	=	32,200	1,960	2,350	10,300	14,800
Chromium	MG/KG	30	1500	13.9	21.2	45.8	26.4	29.3
Cobalt	MG/KG	20 CP-51	-	3.1	4.9	9.1	6.3	6.4
Copper	MG/KG	50	270	37.1	16.4	52.8	28.1	28.8
Iron	MG/KG	2000 CP-51	-	55,400	19,800	37,700	17,000	18,200
Lead	MG/KG	63	1000	132	6.9	48.8	34.7	41.5
Magnesium	MG/KG	1	-	2,530	4,440	10,000	8,240	7,430
Manganese	MG/KG	1600	10000	276	198	515	291	260
Mercury	MG/KG	0.18	2.8	0.13	0.012 J	0.046	0.066	0.045
Nickel	MG/KG	30	310	14.0	11.5	21.7	20.1	20.1
Potassium	MG/KG	=	=	1,190	4,040	10,700	3,700	3,710
Selenium	MG/KG	3.9	1500					
Sodium	MG/KG	-	-	259	614	2,840	402	385
Thallium	MG/KG	5 CP-51	=		0.33 J	0.93 J	0.54 J	0.65 J
Vanadium	MG/KG	39 CP-51	-	25.5	32.6	77.2	31.9	37.0
Zinc	MG/KG	109	10000	$\bigcirc 159 \bigcirc$	35.2	93.8	51.8	52.8

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1) Concentration Exceeds Criteria (2)

- = No standard, criteria or guidance value.

Blank cell or ND - Not detected. NA - Not analyzed.

J - The reported concentration is an estimated value; D - Result reported from a secondary dilution analysis.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
Acetone	MG/KG	0.05	6	4	0.004	0.061	0.023	1	MW-03	6-7
Benzene	MG/KG	0.06	6	1	0.310	0.310	0.310	1	MW-03	6-7
Carbon disulfide	MG/KG	2.7 CP-51	6	1	0.015	0.015	0.015	0	MW-03	6-7
Ethylbenzene	MG/KG	1	6	1	0.036	0.036	0.036	0	MW-03	6-7
Isopropylbenzene	MG/KG	2.3 CP-51	6	1	2.40	2.40	2.40	1	MW-03	6-7
Methyl acetate	MG/KG	-	6	2	0.006	0.006	0.006	0	SB-06	3-4
Methylcyclohexane	MG/KG	-	6	1	1.00	1.00	1.00	0	MW-03	6-7
Methylene chloride	MG/KG	0.05	6	1	0.001	0.001	0.001	0	SB-06	3-4
Tetrachloroethene	MG/KG	1.3	6	1	0.020	0.020	0.020	0	MW-03	6-7
Toluene	MG/KG	0.7	6	2	0.001	0.024	0.013	0	MW-03	6-7
Xylene (total)	MG/KG	0.26	6	1	0.290	0.290	0.290	1	MW-03	6-7
Semivolatile Organic Compounds										
2-Methylnaphthalene	MG/KG	0.41 CP-51	6	1	14.00	14.00	14.00	1	MW-03	6-7
Acenaphthene	MG/KG	20	6	2	0.027	1.00	0.514	0	MW-03	6-7
Acenaphthylene	MG/KG	100	6	2	0.048	0.120	0.084	0	MW-03	3.5-4.5
Anthracene	MG/KG	100	6	3	0.047	1.70	0.636	0	MW-03	6-7
Benzo(a)anthracene	MG/KG	1	6	5	0.071	1.90	0.538	1	MW-03	6-7
Benzo(a)pyrene	MG/KG	1	6	5	0.046	1.50	0.419	1	MW-03	6-7
Benzo(b)fluoranthene	MG/KG	1	6	5	0.066	1.80	0.495	1	MW-03	6-7

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ons	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Benzo(g,h,i)perylene	MG/KG	100	6	5	0.050	0.880	0.291	0	MW-03	6-7
Benzo(k)fluoranthene	MG/KG	0.8	6	5	0.030	0.900	0.246	1	MW-03	6-7
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	6	6	0.033	1.10	0.255	0	MW-03	6-7
Carbazole	MG/KG	-	6	1	0.042	0.042	0.042	0	SB-06	3-4
Chrysene	MG/KG	1	6	5	0.065	3.10	0.763	1	MW-03	6-7
Dibenz(a,h)anthracene	MG/KG	0.33	6	2	0.034	0.040	0.037	0	MW-03	3.5-4.5
Dibenzofuran	MG/KG	7	6	1	0.023	0.023	0.023	0	SB-06	3-4
Di-n-butylphthalate	MG/KG	0.014 CP- 51	6	2	0.021	1.60	0.811	2	MW-03	6-7
Fluoranthene	MG/KG	100	6	5	0.140	4.00	1.14	0	MW-03	6-7
Fluorene	MG/KG	30	6	2	0.042	4.00	2.02	0	MW-03	6-7
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	6	5	0.037	0.640	0.205	1	MW-03	6-7
Naphthalene	MG/KG	12	6	1	0.021	0.021	0.021	0	MW-03	3.5-4.5
Phenanthrene	MG/KG	100	6	5	0.024	10.00	2.13	0	MW-03	6-7
Pyrene	MG/KG	100	6	5	0.140	7.00	1.70	0	MW-03	6-7
Metals										
Aluminum	MG/KG	10000 CP- 51	6	6	8,650	1.19E+04	9,717	1	SB-06	4.5-5.5
Arsenic	MG/KG	13	6	5	0.780	2.10	1.50	0	MW-03	3.5-4.5
Barium	MG/KG	350	6	6	53.80	91.90	75.53	0	SB-06	3-4
Beryllium	MG/KG	7.2	6	6	0.840	1.40	1.05	0	MW-03	14-15

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ons	No.	Location of	Depth
- unumotor	- Cinto	Ornona	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Cadmium	MG/KG	2.5	6	6	0.088	0.340	0.233	0	MW-03	3.5-4.5
Calcium	MG/KG	10000 CP- 51	6	6	2,430	4,580	3,723	0	SB-06	4.5-5.5
Chromium	MG/KG	30	6	6	22.30	34.40	27.33	1	MW-03	6-7
Cobalt	MG/KG	20 CP-51	6	6	7.40	12.20	10.28	0	MW-03	14-15
Copper	MG/KG	50	6	6	30.90	51.70	38.42	1	MW-03	6-7
Iron	MG/KG	2000 CP- 51	6	6	1.90E+04	2.64E+04	2.28E+04	6	SB-06	4.5-5.5
Lead	MG/KG	63	6	6	5.00	41.30	17.33	0	MW-03	3.5-4.5
Magnesium	MG/KG	-	6	6	4,100	6,930	5,562	0	SB-06	4.5-5.5
Manganese	MG/KG	1600	6	6	134.0	311.0	241.8	0	SB-06	4.5-5.5
Mercury	MG/KG	0.18	6	4	0.021	0.190	0.099	1	SB-06	3-4
Nickel	MG/KG	30	6	6	19.10	23.60	21.65	0	SB-06	4.5-5.5
Potassium	MG/KG	-	6	6	2,000	3,660	3,045	0	SB-06	3-4
Selenium	MG/KG	3.9	6	6	1.90	3.40	2.82	0	SB-06	4.5-5.5
Silver	MG/KG	2	6	3	0.070	0.110	0.091	0	MW-03	6-7
Sodium	MG/KG	-	6	6	123.0	291.0	185.5	0	MW-03	6-7
Thallium	MG/KG	5 CP-51	6	4	1.30	2.30	1.83	0	SB-06	4.5-5.5
Vanadium	MG/KG	39 CP-51	6	6	27.70	35.90	31.03	0	SB-06	4.5-5.5
Zinc	MG/KG	109	6	6	50.30	213.0	99.75	2	MW-03	6-7

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
Acetone	MG/KG	0.05	3	3	0.007	0.020	0.013	0	MW-04	3.5-4.5
Isopropylbenzene	MG/KG	2.3 CP-51	3	2	0.100	0.160	0.130	0	MW-04	3.5-4.5
Methylcyclohexane	MG/KG	-	3	2	0.170	0.280	0.225	0	MW-04	3.5-4.5
Styrene	MG/KG	300 CP-51	3	1	0.017	0.017	0.017	0	MW-04	3.5-4.5
Xylene (total)	MG/KG	0.26	3	1	0.006	0.006	0.006	0	MW-04	3.5-4.5
Semivolatile Organic Compounds										
2-Methylnaphthalene	MG/KG	0.41 CP-51	3	2	9.20	10.00	9.60	2	MW-04	3.5-4.5
Acenaphthene	MG/KG	20	3	1	0.430	0.430	0.430	0	MW-04	3.5-4.5
Acenaphthylene	MG/KG	100	3	1	0.310	0.310	0.310	0	MW-04	3.5-4.5
Anthracene	MG/KG	100	3	2	0.170	0.430	0.300	0	MW-04	3.5-4.5
Benzo(a)anthracene	MG/KG	1	3	2	0.140	0.220	0.180	0	MW-04	3.5-4.5
Benzo(a)pyrene	MG/KG	1	3	2	0.100	0.130	0.115	0	MW-04	3.5-4.5
Benzo(b)fluoranthene	MG/KG	1	3	2	0.140	0.160	0.150	0	MW-04	3.5-4.5
Benzo(g,h,i)perylene	MG/KG	100	3	2	0.099	0.220	0.160	0	MW-04	3.5-4.5
Benzo(k)fluoranthene	MG/KG	0.8	3	2	0.060	0.066	0.063	0	MW-04	3.5-4.5
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	3	2	0.044	0.052	0.048	0	MW-04	3.5-4.5
Chrysene	MG/KG	1	3	2	0.150	0.220	0.185	0	MW-04	3.5-4.5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ons	No.	Location of	Depth
		011101111	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Dibenz(a,h)anthracene	MG/KG	0.33	3	1	0.026	0.026	0.026	0	MW-04	3.5-4.5
Dibenzofuran	MG/KG	7	3	1	0.310	0.310	0.310	0	MW-04	3.5-4.5
Di-n-butylphthalate	MG/KG	0.014 CP- 51	3	1	0.110	0.110	0.110	1	MW-04	3.5-4.5
Fluoranthene	MG/KG	100	3	2	0.300	0.460	0.380	0	MW-04	3.5-4.5
Fluorene	MG/KG	30	3	1	0.770	0.770	0.770	0	MW-04	3.5-4.5
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	3	2	0.073	0.130	0.102	0	MW-04	3.5-4.5
Naphthalene	MG/KG	12	3	2	0.540	0.560	0.550	0	MW-04	3.5-4.5
Phenanthrene	MG/KG	100	3	2	3.80	4.70	4.25	0	MW-04	3.5-4.5
Pyrene	MG/KG	100	3	2	1.00	1.30	1.15	0	MW-04	3.5-4.5
Metals										
Aluminum	MG/KG	10000 CP- 51	3	3	8,120	1.15E+04	9,510	1	MW-04	3.5-4.5
Arsenic	MG/KG	13	3	2	1.40	2.20	1.80	0	MW-04	3.5-4.5
Barium	MG/KG	350	3	3	46.00	83.60	67.00	0	MW-04	3.5-4.5
Beryllium	MG/KG	7.2	3	3	0.650	1.20	0.917	0	MW-04	3.5-4.5
Cadmium	MG/KG	2.5	3	3	0.045	0.330	0.154	0	MW-04	3.5-4.5
Calcium	MG/KG	10000 CP- 51	3	3	1,450	1.45E+04	7,617	1	MW-04	3.5-4.5
Chromium	MG/KG	30	3	3	14.20	27.00	21.27	0	MW-04	3.5-4.5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Cobalt	MG/KG	20 CP-51	3	3	6.30	12.30	9.40	0	MW-04	3.5-4.5
Copper	MG/KG	50	3	3	9.20	35.60	24.00	0	MW-04	3.5-4.5
Iron	MG/KG	2000 CP- 51	3	3	1.97E+04	2.53E+04	2.24E+04	3	MW-04	3.5-4.5
Lead	MG/KG	63	3	3	4.90	11.60	8.10	0	MW-04	3.5-4.5
Magnesium	MG/KG	-	3	3	2,800	1.12E+04	6,893	0	MW-04	3.5-4.5
Manganese	MG/KG	1600	3	3	213.0	232.0	219.3	0	MW-04	3.5-4.5
Mercury	MG/KG	0.18	3	1	0.013	0.013	0.013	0	MW-04	3.5-4.5
Nickel	MG/KG	30	3	3	11.50	21.20	16.67	0	MW-04	3.5-4.5
Potassium	MG/KG	-	3	3	828.0	3,060	2,029	0	MW-04	3.5-4.5
Selenium	MG/KG	3.9	3	3	1.50	3.70	2.60	0	MW-04	3.5-4.5
Silver	MG/KG	2	3	2	0.087	0.120	0.104	0	MW-04	3.5-4.5
Sodium	MG/KG	-	3	3	53.00	126.0	99.00	0	MW-04	3.5-4.5
Thallium	MG/KG	5 CP-51	3	1	1.70	1.70	1.70	0	MW-04	3.5-4.5
Vanadium	MG/KG	39 CP-51	3	3	16.10	35.10	27.50	0	MW-04	3.5-4.5
Zinc	MG/KG	109	3	3	28.50	52.40	40.30	0	MW-04	3.5-4.5

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
1,2-Dichlorobenzene	MG/KG	1.1	53	2	0.001	0.008	0.005	0	SB-37	8.2-9
2-Butanone	MG/KG	0.12	53	5	0.003	0.007	0.005	0	SB-32	9-10
Acetone	MG/KG	0.05	53	37	0.004	0.110	0.021	2	SB-37	8.2-9
Benzene	MG/KG	0.06	53	16	0.002	0.320	0.048	2	MW-01	11-12
Carbon disulfide	MG/KG	2.7 CP-51	53	18	0.001	0.041	0.010	0	SB-38	15.5-16.5
Chloroform	MG/KG	0.37	53	1	0.110	0.110	0.110	0	SB-37	8.5-9
Cyclohexane	MG/KG	-	53	7	0.004	2.00	0.434	0	SB-37	8.5-9
Ethylbenzene	MG/KG	1	53	8	0.002	8.60	1.48	2	SB-37	8.2-9
Isopropylbenzene	MG/KG	2.3 CP-51	53	10	0.005	1.20	0.363	0	SB-39	6.7-7.7
Methyl tert-butyl ether	MG/KG	0.93	53	1	0.002	0.002	0.002	0	SB-38	15.5-16.5
Methylcyclohexane	MG/KG	-	53	9	0.004	2.20	0.695	0	SB-39	6.7-7.7
Methylene chloride	MG/KG	0.05	53	4	0.002	0.002	0.002	0	SB-39	14-15
Styrene	MG/KG	300 CP-51	53	1	0.048	0.048	0.048	0	SB-38	7.8-8.5
Toluene	MG/KG	0.7	53	12	0.001	0.390	0.045	0	MW-01	11-12
Xylene (total)	MG/KG	0.26	53	11	0.003	4.60	0.590	3	SB-37	8.2-9
Semivolatile Organic Compounds										
1,1'-Biphenyl	MG/KG	60 CP-51	53	16	0.025	54.00	6.29	0	SB-38	7.8-8.5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
	00	0	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
2,4-Dimethylphenol	MG/KG	-	53	5	0.190	1.80	0.670	0	SB-05	6.5-7
2-Methylnaphthalene	MG/KG	0.41 CP-51	53	25	0.027	520.0	33.60	15	SB-38	7.8-8.5
2-Methylphenol (o-cresol)	MG/KG	0.33	53	7	0.021	1.10	0.288	1	SB-05	6.5-7
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	53	11	0.025	3.20	0.523	4	SB-05	6.5-7
Acenaphthene	MG/KG	20	53	32	0.020	250.0	11.66	2	SB-05	6.5-7
Acenaphthylene	MG/KG	100	53	28	0.034	29.00	3.97	0	SB-38	7.8-8.5
Acetophenone	MG/KG	-	53	10	0.023	24.00	2.53	0	SB-38	7.8-8.5
Anthracene	MG/KG	100	53	38	0.021	140.0	8.82	1	SB-05	6.5-7
Benzo(a)anthracene	MG/KG	1	53	43	0.031	390.0	17.29	21	SB-05	6.5-7
Benzo(a)pyrene	MG/KG	1	53	41	0.042	290.0	12.95	18	SB-05	6.5-7
Benzo(b)fluoranthene	MG/KG	1	53	40	0.069	370.0	17.87	18	SB-05	6.5-7
Benzo(g,h,i)perylene	MG/KG	100	53	36	0.056	160.0	9.67	1	SB-05	6.5-7
Benzo(k)fluoranthene	MG/KG	0.8	53	40	0.034	27.00	3.14	15	SB-05	6.5-7
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	53	26	0.026	0.550	0.136	0	SB-33	10.5-11
Butylbenzylphthalate	MG/KG	100 CP-51	53	1	0.076	0.076	0.076	0	SB-33	10.5-11
Carbazole	MG/KG	-	53	21	0.031	96.00	6.98	0	SB-05	6.5-7
Chrysene	MG/KG	1	53	42	0.026	390.0	17.56	22	SB-05	6.5-7

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ons	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Dibenz(a,h)anthracene	MG/KG	0.33	53	35	0.019	27.00	2.44	13	SB-05	6.5-7
Dibenzofuran	MG/KG	7	53	26	0.023	170.0	10.67	5	SB-05	6.5-7
Di-n-butylphthalate	MG/KG	0.014 CP- 51	53	6	0.024	0.230	0.074	6	SB-32	3-4
Fluoranthene	MG/KG	100	53	46	0.020	1,100	36.85	4	SB-05	6.5-7
Fluorene	MG/KG	30	53	34	0.032	170.0	11.95	3	SB-05	6.5-7
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	53	37	0.040	140.0	7.96	22	SB-05	6.5-7
Naphthalene	MG/KG	12	53	35	0.021	1,100	53.17	5	SB-38	7.8-8.5
Phenanthrene	MG/KG	100	53	43	0.041	1,200	50.28	4	SB-05	6.5-7
Phenol	MG/KG	0.33	53	8	0.020	1.10	0.341	4	SB-05	6.5-7
Pyrene	MG/KG	100	53	43	0.048	830.0	35.94	4	SB-05	6.5-7
Metals										
Aluminum	MG/KG	10000 CP- 51	53	53	1,330	1.67E+04	9,139	21	SB-32	13-14
Antimony	MG/KG	12 CP-51	53	30	0.370	3.20	1.03	0	SB-38	7.8-8.5
Arsenic	MG/KG	13	53	51	1.20	32.70	5.42	1	SB-38	7.8-8.5
Barium	MG/KG	350	53	53	21.80	720.0	92.03	2	SB-33	3.5-4
Beryllium	MG/KG	7.2	53	52	0.039	1.50	0.576	0	SB-02	4.7-5.3
Cadmium	MG/KG	2.5	53	52	0.096	2.70	0.710	1	SB-38	7.8-8.5

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Calcium	MG/KG	10000 CP- 51	53	53	567.0	1.56E+05	1.39E+04	16	MW-01	4.5-5
Chromium	MG/KG	30	53	53	6.80	63.20	22.68	10	SB-32	9-10
Cobalt	MG/KG	20 CP-51	53	53	1.50	18.20	8.12	0	SB-05	11.5-12
Copper	MG/KG	50	53	53	8.30	319.0	45.70	14	SB-38	7.8-8.5
Iron	MG/KG	2000 CP- 51	53	53	6,900	6.22E+04	2.31E+04	53	SB-38	7.8-8.5
Lead	MG/KG	63	53	53	3.30	1,330	132.2	17	SB-33	3.5-4
Magnesium	MG/KG	-	53	53	412.0	2.99E+04	5,601	0	SB-35	9.5-10
Manganese	MG/KG	1600	53	53	22.60	1,150	288.5	0	SB-05	6.5-7
Mercury	MG/KG	0.18	53	48	0.007	4.10	0.390	20	SB-04	2.5-3.5
Nickel	MG/KG	30	53	53	6.00	35.00	18.33	1	SB-32	9-10
Potassium	MG/KG	-	53	53	412.0	6,460	2,052	0	SB-38	11-11.5
Selenium	MG/KG	3.9	53	35	0.600	4.20	1.68	1	SB-38	7.8-8.5
Silver	MG/KG	2	53	14	0.073	0.370	0.158	0	SB-36	6.5-7
Sodium	MG/KG	-	53	53	74.20	4,680	1,055	0	SB-38	15.5-16.5
Thallium	MG/KG	5 CP-51	53	24	0.270	4.50	1.15	0	SB-05	6.5-7
Vanadium	MG/KG	39 CP-51	53	53	8.60	45.80	27.87	8	SB-38	11-11.5
Zinc	MG/KG	109	53	53	18.90	556.0	116.1	18	SB-37	3-4

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
Acetone	MG/KG	0.05	10	7	0.009	0.036	0.015	0	SB-11	4.5-5
Carbon disulfide	MG/KG	2.7 CP-51	10	1	0.004	0.004	0.004	0	SB-12	12-13
Isopropylbenzene	MG/KG	2.3 CP-51	10	1	0.005	0.005	0.005	0	SB-12	7-8
Semivolatile Organic Compounds										
2-Methylnaphthalene	MG/KG	0.41 CP-51	10	6	0.020	2.50	0.479	1	SB-11	4.5-5
Acenaphthene	MG/KG	20	10	5	0.023	0.140	0.067	0	SB-09	4.5-5.5
Acenaphthylene	MG/KG	100	10	5	0.021	1.50	0.682	0	SB-11	4.5-5
Acetophenone	MG/KG	-	10	3	0.045	0.360	0.212	0	SB-11	4.5-5
Anthracene	MG/KG	100	10	4	0.042	0.710	0.423	0	SB-11	3-4
Benzaldehyde	MG/KG	-	10	1	0.040	0.040	0.040	0	SB-12	3.5-4
Benzo(a)anthracene	MG/KG	1	10	6	0.031	3.00	1.12	3	SB-11	3-4
Benzo(a)pyrene	MG/KG	1	10	6	0.027	2.40	0.872	3	SB-11	3-4
Benzo(b)fluoranthene	MG/KG	1	10	6	0.032	4.40	1.52	2	SB-11	3-4
Benzo(g,h,i)perylene	MG/KG	100	10	5	0.040	3.10	1.31	0	SB-11	3-4
Benzo(k)fluoranthene	MG/KG	0.8	10	5	0.026	2.60	1.30	3	SB-11	4.5-5
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	10	9	0.022	2.70	0.389	0	SB-11	4.5-5
Butylbenzylphthalate	MG/KG	100 CP-51	10	1	0.040	0.040	0.040	0	SB-11	4.5-5

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Carbazole	MG/KG	-	10	3	0.069	0.087	0.079	0	SB-11	4.5-5
Chrysene	MG/KG	1	10	6	0.022	3.70	1.39	3	SB-11	3-4
Dibenz(a,h)anthracene	MG/KG	0.33	10	4	0.120	0.860	0.478	2	SB-11	3-4
Dibenzofuran	MG/KG	7	10	3	0.047	0.160	0.088	0	SB-11	4.5-5
Di-n-octylphthalate	MG/KG	100 CP-51	10	1	0.032	0.032	0.032	0	SB-11	3-4
Fluoranthene	MG/KG	100	10	7	0.027	5.20	1.55	0	SB-11	3-4
Fluorene	MG/KG	30	10	3	0.120	0.340	0.203	0	SB-11	4.5-5
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	10	5	0.045	2.50	1.10	3	SB-11	3-4
Naphthalene	MG/KG	12	10	7	0.026	3.40	0.636	0	SB-11	4.5-5
Phenanthrene	MG/KG	100	10	4	0.024	2.70	1.33	0	SB-11	4.5-5
Pyrene	MG/KG	100	10	7	0.031	7.10	2.12	0	SB-11	3-4
Metals										
Aluminum	MG/KG	10000 CP- 51	10	10	4,960	1.73E+04	1.13E+04	7	SB-12	3.5-4
Arsenic	MG/KG	13	10	9	0.790	10.40	4.02	0	SB-12	12-13
Barium	MG/KG	350	10	10	31.50	141.0	77.22	0	SB-12	4.5-5.5
Beryllium	MG/KG	7.2	10	5	0.300	0.750	0.432	0	SB-12	12-13
Cadmium	MG/KG	2.5	10	10	0.054	0.660	0.236	0	SB-11	4.5-5

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ons	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Calcium	MG/KG	10000 CP- 51	10	10	896.0	1.34E+04	3,155	1	SB-09	4.5-5.5
Chromium	MG/KG	30	10	10	12.50	37.80	24.76	2	SB-12	3.5-4
Cobalt	MG/KG	20 CP-51	10	10	4.70	12.90	8.08	0	SB-12	7-8
Copper	MG/KG	50	10	10	8.90	75.10	32.36	2	SB-11	4.5-5
Iron	MG/KG	2000 CP- 51	10	10	1.65E+04	4.58E+04	2.87E+04	10	SB-12	12-13
Lead	MG/KG	63	10	10	6.90	269.0	54.52	3	SB-11	3-4
Magnesium	MG/KG	-	10	10	2,480	7,840	4,899	0	SB-09	4.5-5.5
Manganese	MG/KG	1600	10	10	112.0	637.0	323.6	0	SB-11	13-13.5
Mercury	MG/KG	0.18	10	5	0.013	0.690	0.237	2	SB-11	4.5-5
Nickel	MG/KG	30	10	10	11.20	25.60	18.71	0	SB-12	12-13
Potassium	MG/KG	-	10	10	645.0	3,960	2,152	0	SB-12	7-8
Selenium	MG/KG	3.9	10	10	1.20	3.10	2.12	0	SB-12	7-8
Sodium	MG/KG	-	10	10	177.0	5,450	893.4	0	SB-12	12-13
Vanadium	MG/KG	39 CP-51	10	10	20.80	52.30	34.86	3	SB-12	3.5-4
Zinc	MG/KG	109	10	10	30.40	123.0	66.03	2	SB-11	4.5-5

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
		OT HOLL	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	43	1	0.002	0.002	0.002	0	SB-10	5-5.5
1,2-Dichloroethene (cis)	MG/KG	0.25	43	3	0.009	1.30	0.447	1	MW-05	20.5-21
2-Butanone	MG/KG	0.12	43	1	0.007	0.007	0.007	0	SB-44	1.5-2
Acetone	MG/KG	0.05	43	23	0.004	0.220	0.047	5	SB-08	10.5-11
Benzene	MG/KG	0.06	43	24	0.001	2,600	260.0	14	SB-44	10-12
Carbon disulfide	MG/KG	2.7 CP-51	43	5	0.005	0.022	0.010	0	SB-17	5.5-6
Chloroform	MG/KG	0.37	43	2	0.020	0.028	0.024	0	SB-08	10.5-11
Cyclohexane	MG/KG	-	43	3	0.038	0.350	0.162	0	SB-08	10.5-11
Ethylbenzene	MG/KG	1	43	20	0.009	2,600	180.2	14	SB-44	10-12
Isopropylbenzene	MG/KG	2.3 CP-51	43	15	0.005	25.00	2.30	2	SB-44	10-12
Methylcyclohexane	MG/KG	-	43	4	0.008	0.550	0.227	0	SB-08	10.5-11
Methylene chloride	MG/KG	0.05	43	3	0.003	0.006	0.004	0	SB-13	3-4
Styrene	MG/KG	300 CP-51	43	12	0.001	1,300	217.1	2	SB-44	10-12
Tetrachloroethene	MG/KG	1.3	43	1	0.013	0.013	0.013	0	SB-07	3-4
Toluene	MG/KG	0.7	43	21	0.001	3,800	348.3	9	SB-44	10-12
Xylene (total)	MG/KG	0.26	43	22	0.006	4,700	369.2	16	SB-44	10-12
Semivolatile Organic Compounds										
1,1'-Biphenyl	MG/KG	60 CP-51	43	28	0.024	1,800	92.56	3	SB-44	15-20

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Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
2,6-Dinitrotoluene	MG/KG	0.17 CP-51	43	1	1.20	1.20	1.20	1	MW-05	20.5-21
2-Methylnaphthalene	MG/KG	0.41 CP-51	43	35	0.049	2.80E+04	1,096	20	SB-44	15-20
2-Methylphenol (o-cresol)	MG/KG	0.33	43	3	0.024	0.077	0.043	0	SB-07	13.3-14.2
3&4-Methylphenol (m,p-cresol)	MG/KG	0.33	43	8	0.027	1,100	137.6	2	SB-43	10-12
3,3'-Dichlorobenzidine	MG/KG	-	43	1	0.680	0.680	0.680	0	MW-05	20.5-21
Acenaphthene	MG/KG	20	43	35	0.023	1,300	76.06	7	SB-44	15-20
Acenaphthylene	MG/KG	100	43	36	0.068	9,900	309.8	3	SB-44	15-20
Acetophenone	MG/KG	-	43	10	0.064	0.560	0.185	0	SB-15	3-3.5
Anthracene	MG/KG	100	43	37	0.026	3,400	185.5	3	SB-44	15-20
Benzaldehyde	MG/KG	-	43	1	0.330	0.330	0.330	0	MW-05	4.5-5
Benzo(a)anthracene	MG/KG	1	43	41	0.023	2,500	115.9	30	SB-43	10-12
Benzo(a)pyrene	MG/KG	1	43	40	0.021	1,200	41.01	29	SB-44	15-20
Benzo(b)fluoranthene	MG/KG	1	43	39	0.032	2,600	99.79	30	SB-43	10-12
Benzo(g,h,i)perylene	MG/KG	100	43	36	0.023	490.0	19.36	1	SB-44	15-20
Benzo(k)fluoranthene	MG/KG	0.8	43	38	0.021	830.0	38.17	28	SB-43	10-12
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	43	23	0.020	2.00	0.223	0	SB-13	15-16
Butylbenzylphthalate	MG/KG	100 CP-51	43	4	0.027	0.160	0.075	0	SB-15	3-3.5
Carbazole	MG/KG	-	43	28	0.021	700.0	29.54	0	SB-43	10-12

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Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Chrysene	MG/KG	1	43	41	0.026	2,000	105.8	30	SB-43	10-12
Dibenz(a,h)anthracene	MG/KG	0.33	43	33	0.022	140.0	5.91	23	SB-44	15-20
Dibenzofuran	MG/KG	7	43	28	0.035	700.0	31.70	4	SB-44	15-20
Di-n-butylphthalate	MG/KG	0.014 CP- 51	43	10	0.033	0.260	0.084	10	SB-41	0.5-1
Fluoranthene	MG/KG	100	43	40	0.037	7,800	291.8	6	SB-43	10-12
Fluorene	MG/KG	30	43	33	0.020	4,000	154.5	6	SB-44	15-20
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	43	35	0.025	510.0	19.78	27	SB-44	15-20
Naphthalene	MG/KG	12	43	37	0.065	7.40E+04	3,718	15	SB-44	15-20
Phenanthrene	MG/KG	100	43	40	0.021	1.20E+04	645.6	6	SB-43	10-12
Phenol	MG/KG	0.33	43	4	0.050	350.0	87.57	1	SB-43	10-12
Pyrene	MG/KG	100	43	40	0.047	6,700	331.3	6	SB-43	10-12
Metals										
Aluminum	MG/KG	10000 CP- 51	41	41	2,840	1.94E+04	1.03E+04	21	SB-15	6-6.5
Antimony	MG/KG	12 CP-51	41	5	0.440	1.70	1.00	0	SB-44	10-12
Arsenic	MG/KG	13	41	39	0.210	30.90	5.39	3	SB-44	10-12
Barium	MG/KG	350	41	41	31.80	212.0	87.79	0	SB-07	3-4
Beryllium	MG/KG	7.2	41	29	0.071	0.930	0.430	0	SB-07	3-4
Cadmium	MG/KG	2.5	41	38	0.055	3.00	0.413	2	SB-07	3-4

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Calcium	MG/KG	10000 CP- 51	41	41	516.0	6.07E+04	6,698	5	SB-07	3-4
Chromium	MG/KG	30	41	41	6.20	75.70	27.45	13	MW-06	10.5-11
Cobalt	MG/KG	20 CP-51	41	41	2.20	22.20	9.17	2	SB-41	0.5-1
Copper	MG/KG	50	41	41	12.00	425.0	49.29	12	MW-05	4.5-5
Iron	MG/KG	2000 CP- 51	41	41	6,550	1.13E+05	2.53E+04	41	SB-16	6-6.5
Lead	MG/KG	63	41	41	2.10	335.0	77.47	17	SB-41	9-11
Magnesium	MG/KG	-	41	41	1,320	8,910	4,384	0	SB-10	11-11.5
Manganese	MG/KG	1600	41	41	57.00	1,230	252.2	0	SB-15	6-6.5
Mercury	MG/KG	0.18	41	23	0.007	4.20	0.700	14	SB-07	3-4
Nickel	MG/KG	30	41	41	9.80	41.10	22.31	6	MW-06	10.5-11
Potassium	MG/KG	-	41	41	503.0	1.09E+04	2,351	0	SB-15	6-6.5
Selenium	MG/KG	3.9	41	31	0.610	5.10	2.08	2	SB-44	10-12
Silver	MG/KG	2	41	3	0.110	0.400	0.227	0	SB-42	18.5-19.5
Sodium	MG/KG	-	41	41	100.0	1,550	348.3	0	SB-10	11-11.5
Thallium	MG/KG	5 CP-51	41	6	0.340	1.70	1.21	0	SB-07	4.5-5.5
Vanadium	MG/KG	39 CP-51	41	41	9.10	66.10	34.43	12	MW-06	10.5-11
Zinc	MG/KG	109	41	41	33.20	278.0	88.89	10	MW-05	4.5-5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	je of Detecti	ons	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
Acetone	MG/KG	0.05	15	8	0.005	0.240	0.044	1	SB-19	5-5.5
Carbon disulfide	MG/KG	2.7 CP-51	15	3	0.003	0.019	0.008	0	SB-19	5-5.5
Isopropylbenzene	MG/KG	2.3 CP-51	15	2	0.031	0.065	0.048	0	SB-19	5-5.5
Methylcyclohexane	MG/KG	-	15	1	0.044	0.044	0.044	0	SB-19	5-5.5
Methylene chloride	MG/KG	0.05	15	3	0.004	0.018	0.010	0	MW-07-URS	9.8-10.5
Xylene (total)	MG/KG	0.26	15	1	0.013	0.013	0.013	0	SB-19	5-5.5
Semivolatile Organic Compounds										
1,1'-Biphenyl	MG/KG	60 CP-51	15	2	0.130	32.00	16.07	0	SB-21	10-11
2-Chloronaphthalene	MG/KG	-	15	7	1.30	1.40	1.34	0	SB-20	3-3.5
2-Methylnaphthalene	MG/KG	0.41 CP-51	15	3	0.092	1.00	0.434	1	SB-18	5.5-6
Acenaphthene	MG/KG	20	15	3	0.170	120.0	40.20	1	SB-21	10-11
Acenaphthylene	MG/KG	100	15	9	0.022	22.00	3.24	0	SB-21	10-11
Anthracene	MG/KG	100	15	11	0.045	60.00	6.14	0	SB-21	10-11
Benzo(a)anthracene	MG/KG	1	15	15	0.021	39.00	3.15	3	SB-21	10-11
Benzo(a)pyrene	MG/KG	1	15	14	0.023	28.00	2.64	3	SB-21	10-11
Benzo(b)fluoranthene	MG/KG	1	15	12	0.120	18.00	2.33	3	SB-21	10-11
Benzo(g,h,i)perylene	MG/KG	100	15	12	0.024	12.00	1.58	0	SB-21	10-11
Benzo(k)fluoranthene	MG/KG	0.8	15	12	0.096	11.00	1.47	3	SB-21	10-11
bis(2-Ethylhexyl)phthalate	MG/KG	50 CP-51	15	12	0.030	0.220	0.101	0	SB-18	4-4.5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Butylbenzylphthalate	MG/KG	100 CP-51	15	1	0.019	0.019	0.019	0	SB-18	4-4.5
Carbazole	MG/KG	-	15	2	0.022	0.230	0.126	0	SB-21	3.5-4
Chrysene	MG/KG	1	15	14	0.032	37.00	3.15	4	SB-21	10-11
Dibenz(a,h)anthracene	MG/KG	0.33	15	9	0.036	1.40	0.271	2	SB-18	5.5-6
Dibenzofuran	MG/KG	7	15	3	0.140	6.40	2.34	0	SB-21	10-11
Di-n-butylphthalate	MG/KG	0.014 CP- 51	15	7	0.087	0.150	0.110	7	SB-21	3.5-4
Di-n-octylphthalate	MG/KG	100 CP-51	15	1	0.042	0.042	0.042	0	SB-18	4-4.5
Fluoranthene	MG/KG	100	15	14	0.019	62.00	5.08	0	SB-21	10-11
Fluorene	MG/KG	30	15	4	0.200	62.00	16.52	1	SB-21	10-11
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	15	12	0.021	8.20	1.14	3	SB-21	10-11
Naphthalene	MG/KG	12	15	4	0.065	32.00	8.07	1	SB-21	10-11
Phenanthrene	MG/KG	100	15	14	0.022	190.0	13.99	1	SB-21	10-11
Pyrene	MG/KG	100	15	15	0.023	99.00	7.48	0	SB-21	10-11
Metals										
Aluminum	MG/KG	10000 CP- 51	15	15	4,080	2.86E+04	1.25E+04	9	SB-18	8.5-9
Antimony	MG/KG	12 CP-51	15	1	4.00	4.00	4.00	0	SB-21	3.5-4
Arsenic	MG/KG	13	15	9	1.50	9.60	3.82	0	SB-21	3.5-4
Barium	MG/KG	350	15	15	48.10	353.0	108.5	1	SB-18	8.5-9
Beryllium	MG/KG	7.2	15	10	0.098	2.00	0.770	0	SB-21	21-22

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - UNRESTRICTED USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Cadmium	MG/KG	2.5	15	9	0.016	0.870	0.343	0	SB-21	3.5-4
Calcium	MG/KG	10000 CP- 51	15	15	1,660	3.22E+04	7,460	5	SB-21	3.5-4
Chromium	MG/KG	30	15	15	11.90	177.0	41.53	5	SB-18	8.5-9
Cobalt	MG/KG	20 CP-51	15	15	3.10	20.90	9.05	1	SB-18	8.5-9
Copper	MG/KG	50	15	15	16.40	89.20	41.58	5	MW-07-URS	9.8-10.5
Iron	MG/KG	2000 CP- 51	15	15	1.70E+04	5.54E+04	2.93E+04	15	SB-21	3.5-4
Lead	MG/KG	63	15	15	1.50	132.0	24.73	1	SB-21	3.5-4
Magnesium	MG/KG	-	15	15	2,530	1.82E+04	8,640	0	SB-18	8.5-9
Manganese	MG/KG	1600	15	15	174.0	515.0	265.1	0	SB-21	21-22
Mercury	MG/KG	0.18	15	12	0.009	0.130	0.051	0	SB-21	3.5-4
Nickel	MG/KG	30	15	15	6.80	71.80	25.94	4	SB-18	8.5-9
Potassium	MG/KG	-	15	15	1,190	1.65E+04	5,846	0	SB-18	8.5-9
Selenium	MG/KG	3.9	15	5	1.40	2.30	1.80	0	SB-19	3-4
Sodium	MG/KG	-	15	15	112.0	2,840	504.4	0	SB-21	21-22
Thallium	MG/KG	5 CP-51	15	9	0.330	1.20	0.766	0	SB-20	4.5-5
Vanadium	MG/KG	39 CP-51	15	15	25.50	127.0	53.01	9	SB-18	8.5-9
Zinc	MG/KG	109	15	15	35.20	165.0	79.89	3	SB-20	4.5-5

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
Acetone	MG/KG	500	6	4	0.004	0.061	0.023	0	MW-03	6-7
Benzene	MG/KG	44	6	1	0.310	0.310	0.310	0	MW-03	6-7
Carbon disulfide	MG/KG	-	6	1	0.015	0.015	0.015	0	MW-03	6-7
Ethylbenzene	MG/KG	390	6	1	0.036	0.036	0.036	0	MW-03	6-7
Isopropylbenzene	MG/KG	-	6	1	2.40	2.40	2.40	0	MW-03	6-7
Methyl acetate	MG/KG	-	6	2	0.006	0.006	0.006	0	SB-06	3-4
Methylcyclohexane	MG/KG	-	6	1	1.00	1.00	1.00	0	MW-03	6-7
Methylene chloride	MG/KG	500	6	1	0.001	0.001	0.001	0	SB-06	3-4
Tetrachloroethene	MG/KG	150	6	1	0.020	0.020	0.020	0	MW-03	6-7
Toluene	MG/KG	500	6	2	0.001	0.024	0.013	0	MW-03	6-7
Xylene (total)	MG/KG	500	6	1	0.290	0.290	0.290	0	MW-03	6-7
Semivolatile Organic Compounds										
2-Methylnaphthalene	MG/KG	-	6	1	14.00	14.00	14.00	0	MW-03	6-7
Acenaphthene	MG/KG	500	6	2	0.027	1.00	0.514	0	MW-03	6-7
Acenaphthylene	MG/KG	500	6	2	0.048	0.120	0.084	0	MW-03	3.5-4.5
Anthracene	MG/KG	500	6	3	0.047	1.70	0.636	0	MW-03	6-7
Benzo(a)anthracene	MG/KG	5.6	6	5	0.071	1.90	0.538	0	MW-03	6-7
Benzo(a)pyrene	MG/KG	1	6	5	0.046	1.50	0.419	1	MW-03	6-7
Benzo(b)fluoranthene	MG/KG	5.6	6	5	0.066	1.80	0.495	0	MW-03	6-7

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
	00	011101111	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Benzo(g,h,i)perylene	MG/KG	500	6	5	0.050	0.880	0.291	0	MW-03	6-7
Benzo(k)fluoranthene	MG/KG	56	6	5	0.030	0.900	0.246	0	MW-03	6-7
bis(2-Ethylhexyl)phthalate	MG/KG		6	6	0.033	1.10	0.255	0	MW-03	6-7
Carbazole	MG/KG		6	1	0.042	0.042	0.042	0	SB-06	3-4
Chrysene	MG/KG	56	6	5	0.065	3.10	0.763	0	MW-03	6-7
Dibenz(a,h)anthracene	MG/KG	0.56	6	2	0.034	0.040	0.037	0	MW-03	3.5-4.5
Dibenzofuran	MG/KG	350	6	1	0.023	0.023	0.023	0	SB-06	3-4
Di-n-butylphthalate	MG/KG	-	6	2	0.021	1.60	0.811	0	MW-03	6-7
Fluoranthene	MG/KG	500	6	5	0.140	4.00	1.14	0	MW-03	6-7
Fluorene	MG/KG	500	6	2	0.042	4.00	2.02	0	MW-03	6-7
Indeno(1,2,3-cd)pyrene	MG/KG	5.6	6	5	0.037	0.640	0.205	0	MW-03	6-7
Naphthalene	MG/KG	500	6	1	0.021	0.021	0.021	0	MW-03	3.5-4.5
Phenanthrene	MG/KG	500	6	5	0.024	10.00	2.13	0	MW-03	6-7
Pyrene	MG/KG	500	6	5	0.140	7.00	1.70	0	MW-03	6-7
Metals										
Aluminum	MG/KG	-	6	6	8,650	1.19E+04	9,717	0	SB-06	4.5-5.5
Arsenic	MG/KG	16	6	5	0.780	2.10	1.50	0	MW-03	3.5-4.5
Barium	MG/KG	400	6	6	53.80	91.90	75.53	0	SB-06	3-4
Beryllium	MG/KG	590	6	6	0.840	1.40	1.05	0	MW-03	14-15

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
- aramotor	O.I.I.O	Ontona	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Cadmium	MG/KG	9.3	6	6	0.088	0.340	0.233	0	MW-03	3.5-4.5
Calcium	MG/KG	-	6	6	2,430	4,580	3,723	0	SB-06	4.5-5.5
Chromium	MG/KG	1500	6	6	22.30	34.40	27.33	0	MW-03	6-7
Cobalt	MG/KG	-	6	6	7.40	12.20	10.28	0	MW-03	14-15
Copper	MG/KG	270	6	6	30.90	51.70	38.42	0	MW-03	6-7
Iron	MG/KG	-	6	6	1.90E+04	2.64E+04	2.28E+04	0	SB-06	4.5-5.5
Lead	MG/KG	1000	6	6	5.00	41.30	17.33	0	MW-03	3.5-4.5
Magnesium	MG/KG	-	6	6	4,100	6,930	5,562	0	SB-06	4.5-5.5
Manganese	MG/KG	10000	6	6	134.0	311.0	241.8	0	SB-06	4.5-5.5
Mercury	MG/KG	2.8	6	4	0.021	0.190	0.099	0	SB-06	3-4
Nickel	MG/KG	310	6	6	19.10	23.60	21.65	0	SB-06	4.5-5.5
Potassium	MG/KG	-	6	6	2,000	3,660	3,045	0	SB-06	3-4
Selenium	MG/KG	1500	6	6	1.90	3.40	2.82	0	SB-06	4.5-5.5
Silver	MG/KG	1500	6	3	0.070	0.110	0.091	0	MW-03	6-7
Sodium	MG/KG	-	6	6	123.0	291.0	185.5	0	MW-03	6-7
Thallium	MG/KG	-	6	4	1.30	2.30	1.83	0	SB-06	4.5-5.5
Vanadium	MG/KG	-	6	6	27.70	35.90	31.03	0	SB-06	4.5-5.5
Zinc	MG/KG	10000	6	6	50.30	213.0	99.75	0	MW-03	6-7

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
Acetone	MG/KG	500	3	3	0.007	0.020	0.013	0	MW-04	3.5-4.5
Isopropylbenzene	MG/KG	-	3	2	0.100	0.160	0.130	0	MW-04	3.5-4.5
Methylcyclohexane	MG/KG	-	3	2	0.170	0.280	0.225	0	MW-04	3.5-4.5
Styrene	MG/KG	-	3	1	0.017	0.017	0.017	0	MW-04	3.5-4.5
Xylene (total)	MG/KG	500	3	1	0.006	0.006	0.006	0	MW-04	3.5-4.5
Semivolatile Organic Compounds										
2-Methylnaphthalene	MG/KG	-	3	2	9.20	10.00	9.60	0	MW-04	3.5-4.5
Acenaphthene	MG/KG	500	3	1	0.430	0.430	0.430	0	MW-04	3.5-4.5
Acenaphthylene	MG/KG	500	3	1	0.310	0.310	0.310	0	MW-04	3.5-4.5
Anthracene	MG/KG	500	3	2	0.170	0.430	0.300	0	MW-04	3.5-4.5
Benzo(a)anthracene	MG/KG	5.6	3	2	0.140	0.220	0.180	0	MW-04	3.5-4.5
Benzo(a)pyrene	MG/KG	1	3	2	0.100	0.130	0.115	0	MW-04	3.5-4.5
Benzo(b)fluoranthene	MG/KG	5.6	3	2	0.140	0.160	0.150	0	MW-04	3.5-4.5
Benzo(g,h,i)perylene	MG/KG	500	3	2	0.099	0.220	0.160	0	MW-04	3.5-4.5
Benzo(k)fluoranthene	MG/KG	56	3	2	0.060	0.066	0.063	0	MW-04	3.5-4.5
bis(2-Ethylhexyl)phthalate	MG/KG	-	3	2	0.044	0.052	0.048	0	MW-04	3.5-4.5
Chrysene	MG/KG	56	3	2	0.150	0.220	0.185	0	MW-04	3.5-4.5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
	010	OT HOLL	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Dibenz(a,h)anthracene	MG/KG	0.56	3	1	0.026	0.026	0.026	0	MW-04	3.5-4.5
Dibenzofuran	MG/KG	350	3	1	0.310	0.310	0.310	0	MW-04	3.5-4.5
Di-n-butylphthalate	MG/KG	-	3	1	0.110	0.110	0.110	0	MW-04	3.5-4.5
Fluoranthene	MG/KG	500	3	2	0.300	0.460	0.380	0	MW-04	3.5-4.5
Fluorene	MG/KG	500	3	1	0.770	0.770	0.770	0	MW-04	3.5-4.5
Indeno(1,2,3-cd)pyrene	MG/KG	5.6	3	2	0.073	0.130	0.102	0	MW-04	3.5-4.5
Naphthalene	MG/KG	500	3	2	0.540	0.560	0.550	0	MW-04	3.5-4.5
Phenanthrene	MG/KG	500	3	2	3.80	4.70	4.25	0	MW-04	3.5-4.5
Pyrene	MG/KG	500	3	2	1.00	1.30	1.15	0	MW-04	3.5-4.5
Metals										
Aluminum	MG/KG	-	3	3	8,120	1.15E+04	9,510	0	MW-04	3.5-4.5
Arsenic	MG/KG	16	3	2	1.40	2.20	1.80	0	MW-04	3.5-4.5
Barium	MG/KG	400	3	3	46.00	83.60	67.00	0	MW-04	3.5-4.5
Beryllium	MG/KG	590	3	3	0.650	1.20	0.917	0	MW-04	3.5-4.5
Cadmium	MG/KG	9.3	3	3	0.045	0.330	0.154	0	MW-04	3.5-4.5
Calcium	MG/KG	-	3	3	1,450	1.45E+04	7,617	0	MW-04	3.5-4.5
Chromium	MG/KG	1500	3	3	14.20	27.00	21.27	0	MW-04	3.5-4.5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Cobalt	MG/KG	-	3	3	6.30	12.30	9.40	0	MW-04	3.5-4.5
Copper	MG/KG	270	3	3	9.20	35.60	24.00	0	MW-04	3.5-4.5
Iron	MG/KG	-	3	3	1.97E+04	2.53E+04	2.24E+04	0	MW-04	3.5-4.5
Lead	MG/KG	1000	3	3	4.90	11.60	8.10	0	MW-04	3.5-4.5
Magnesium	MG/KG	-	3	3	2,800	1.12E+04	6,893	0	MW-04	3.5-4.5
Manganese	MG/KG	10000	3	3	213.0	232.0	219.3	0	MW-04	3.5-4.5
Mercury	MG/KG	2.8	3	1	0.013	0.013	0.013	0	MW-04	3.5-4.5
Nickel	MG/KG	310	3	3	11.50	21.20	16.67	0	MW-04	3.5-4.5
Potassium	MG/KG	-	3	3	828.0	3,060	2,029	0	MW-04	3.5-4.5
Selenium	MG/KG	1500	3	3	1.50	3.70	2.60	0	MW-04	3.5-4.5
Silver	MG/KG	1500	3	2	0.087	0.120	0.104	0	MW-04	3.5-4.5
Sodium	MG/KG	-	3	3	53.00	126.0	99.00	0	MW-04	3.5-4.5
Thallium	MG/KG	-	3	1	1.70	1.70	1.70	0	MW-04	3.5-4.5
Vanadium	MG/KG	-	3	3	16.10	35.10	27.50	0	MW-04	3.5-4.5
Zinc	MG/KG	10000	3	3	28.50	52.40	40.30	0	MW-04	3.5-4.5

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
1,2-Dichlorobenzene	MG/KG	500	53	2	0.001	0.008	0.005	0	SB-37	8.2-9
2-Butanone	MG/KG	500	53	5	0.003	0.007	0.005	0	SB-32	9-10
Acetone	MG/KG	500	53	37	0.004	0.110	0.021	0	SB-37	8.2-9
Benzene	MG/KG	44	53	16	0.002	0.320	0.048	0	MW-01	11-12
Carbon disulfide	MG/KG	-	53	18	0.001	0.041	0.010	0	SB-38	15.5-16.5
Chloroform	MG/KG	350	53	1	0.110	0.110	0.110	0	SB-37	8.5-9
Cyclohexane	MG/KG	-	53	7	0.004	2.00	0.434	0	SB-37	8.5-9
Ethylbenzene	MG/KG	390	53	8	0.002	8.60	1.48	0	SB-37	8.2-9
Isopropylbenzene	MG/KG	-	53	10	0.005	1.20	0.363	0	SB-39	6.7-7.7
Methyl tert-butyl ether	MG/KG	500	53	1	0.002	0.002	0.002	0	SB-38	15.5-16.5
Methylcyclohexane	MG/KG	-	53	9	0.004	2.20	0.695	0	SB-39	6.7-7.7
Methylene chloride	MG/KG	500	53	4	0.002	0.002	0.002	0	SB-39	14-15
Styrene	MG/KG	-	53	1	0.048	0.048	0.048	0	SB-38	7.8-8.5
Toluene	MG/KG	500	53	12	0.001	0.390	0.045	0	MW-01	11-12
Xylene (total)	MG/KG	500	53	11	0.003	4.60	0.590	0	SB-37	8.2-9
Semivolatile Organic Compounds										
1,1'-Biphenyl	MG/KG	-	53	16	0.025	54.00	6.29	0	SB-38	7.8-8.5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
	010	01110110	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
2,4-Dimethylphenol	MG/KG	-	53	5	0.190	1.80	0.670	0	SB-05	6.5-7
2-Methylnaphthalene	MG/KG	-	53	25	0.027	520.0	33.60	0	SB-38	7.8-8.5
2-Methylphenol (o-cresol)	MG/KG	500	53	7	0.021	1.10	0.288	0	SB-05	6.5-7
3&4-Methylphenol (m,p-cresol)	MG/KG	500	53	11	0.025	3.20	0.523	0	SB-05	6.5-7
Acenaphthene	MG/KG	500	53	32	0.020	250.0	11.66	0	SB-05	6.5-7
Acenaphthylene	MG/KG	500	53	28	0.034	29.00	3.97	0	SB-38	7.8-8.5
Acetophenone	MG/KG	-	53	10	0.023	24.00	2.53	0	SB-38	7.8-8.5
Anthracene	MG/KG	500	53	38	0.021	140.0	8.82	0	SB-05	6.5-7
Benzo(a)anthracene	MG/KG	5.6	53	43	0.031	390.0	17.29	9	SB-05	6.5-7
Benzo(a)pyrene	MG/KG	1	53	41	0.042	290.0	12.95	18	SB-05	6.5-7
Benzo(b)fluoranthene	MG/KG	5.6	53	40	0.069	370.0	17.87	10	SB-05	6.5-7
Benzo(g,h,i)perylene	MG/KG	500	53	36	0.056	160.0	9.67	0	SB-05	6.5-7
Benzo(k)fluoranthene	MG/KG	56	53	40	0.034	27.00	3.14	0	SB-05	6.5-7
bis(2-Ethylhexyl)phthalate	MG/KG	-	53	26	0.026	0.550	0.136	0	SB-33	10.5-11
Butylbenzylphthalate	MG/KG	-	53	1	0.076	0.076	0.076	0	SB-33	10.5-11
Carbazole	MG/KG	-	53	21	0.031	96.00	6.98	0	SB-05	6.5-7
Chrysene	MG/KG	56	53	42	0.026	390.0	17.56	2	SB-05	6.5-7

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Dibenz(a,h)anthracene	MG/KG	0.56	53	35	0.019	27.00	2.44	12	SB-05	6.5-7
Dibenzofuran	MG/KG	350	53	26	0.023	170.0	10.67	0	SB-05	6.5-7
Di-n-butylphthalate	MG/KG	-	53	6	0.024	0.230	0.074	0	SB-32	3-4
Fluoranthene	MG/KG	500	53	46	0.020	1,100	36.85	1	SB-05	6.5-7
Fluorene	MG/KG	500	53	34	0.032	170.0	11.95	0	SB-05	6.5-7
Indeno(1,2,3-cd)pyrene	MG/KG	5.6	53	37	0.040	140.0	7.96	7	SB-05	6.5-7
Naphthalene	MG/KG	500	53	35	0.021	1,100	53.17	1	SB-38	7.8-8.5
Phenanthrene	MG/KG	500	53	43	0.041	1,200	50.28	1	SB-05	6.5-7
Phenol	MG/KG	500	53	8	0.020	1.10	0.341	0	SB-05	6.5-7
Pyrene	MG/KG	500	53	43	0.048	830.0	35.94	1	SB-05	6.5-7
Metals										
Aluminum	MG/KG	-	53	53	1,330	1.67E+04	9,139	0	SB-32	13-14
Antimony	MG/KG	-	53	30	0.370	3.20	1.03	0	SB-38	7.8-8.5
Arsenic	MG/KG	16	53	51	1.20	32.70	5.42	1	SB-38	7.8-8.5
Barium	MG/KG	400	53	53	21.80	720.0	92.03	1	SB-33	3.5-4
Beryllium	MG/KG	590	53	52	0.039	1.50	0.576	0	SB-02	4.7-5.3
Cadmium	MG/KG	9.3	53	52	0.096	2.70	0.710	0	SB-38	7.8-8.5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Calcium	MG/KG	-	53	53	567.0	1.56E+05	1.39E+04	0	MW-01	4.5-5
Chromium	MG/KG	1500	53	53	6.80	63.20	22.68	0	SB-32	9-10
Cobalt	MG/KG	-	53	53	1.50	18.20	8.12	0	SB-05	11.5-12
Copper	MG/KG	270	53	53	8.30	319.0	45.70	1	SB-38	7.8-8.5
Iron	MG/KG	-	53	53	6,900	6.22E+04	2.31E+04	0	SB-38	7.8-8.5
Lead	MG/KG	1000	53	53	3.30	1,330	132.2	2	SB-33	3.5-4
Magnesium	MG/KG	-	53	53	412.0	2.99E+04	5,601	0	SB-35	9.5-10
Manganese	MG/KG	10000	53	53	22.60	1,150	288.5	0	SB-05	6.5-7
Mercury	MG/KG	2.8	53	48	0.007	4.10	0.390	1	SB-04	2.5-3.5
Nickel	MG/KG	310	53	53	6.00	35.00	18.33	0	SB-32	9-10
Potassium	MG/KG	-	53	53	412.0	6,460	2,052	0	SB-38	11-11.5
Selenium	MG/KG	1500	53	35	0.600	4.20	1.68	0	SB-38	7.8-8.5
Silver	MG/KG	1500	53	14	0.073	0.370	0.158	0	SB-36	6.5-7
Sodium	MG/KG	-	53	53	74.20	4,680	1,055	0	SB-38	15.5-16.5
Thallium	MG/KG	-	53	24	0.270	4.50	1.15	0	SB-05	6.5-7
Vanadium	MG/KG	-	53	53	8.60	45.80	27.87	0	SB-38	11-11.5
Zinc	MG/KG	10000	53	53	18.90	556.0	116.1	0	SB-37	3-4

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ons	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
Acetone	MG/KG	500	10	7	0.009	0.036	0.015	0	SB-11	4.5-5
Carbon disulfide	MG/KG	-	10	1	0.004	0.004	0.004	0	SB-12	12-13
Isopropylbenzene	MG/KG	-	10	1	0.005	0.005	0.005	0	SB-12	7-8
Semivolatile Organic Compounds										
2-Methylnaphthalene	MG/KG	-	10	6	0.020	2.50	0.479	0	SB-11	4.5-5
Acenaphthene	MG/KG	500	10	5	0.023	0.140	0.067	0	SB-09	4.5-5.5
Acenaphthylene	MG/KG	500	10	5	0.021	1.50	0.682	0	SB-11	4.5-5
Acetophenone	MG/KG	-	10	3	0.045	0.360	0.212	0	SB-11	4.5-5
Anthracene	MG/KG	500	10	4	0.042	0.710	0.423	0	SB-11	3-4
Benzaldehyde	MG/KG	-	10	1	0.040	0.040	0.040	0	SB-12	3.5-4
Benzo(a)anthracene	MG/KG	5.6	10	6	0.031	3.00	1.12	0	SB-11	3-4
Benzo(a)pyrene	MG/KG	1	10	6	0.027	2.40	0.872	3	SB-11	3-4
Benzo(b)fluoranthene	MG/KG	5.6	10	6	0.032	4.40	1.52	0	SB-11	3-4
Benzo(g,h,i)perylene	MG/KG	500	10	5	0.040	3.10	1.31	0	SB-11	3-4
Benzo(k)fluoranthene	MG/KG	56	10	5	0.026	2.60	1.30	0	SB-11	4.5-5
bis(2-Ethylhexyl)phthalate	MG/KG	-	10	9	0.022	2.70	0.389	0	SB-11	4.5-5
Butylbenzylphthalate	MG/KG	-	10	1	0.040	0.040	0.040	0	SB-11	4.5-5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Carbazole	MG/KG	-	10	3	0.069	0.087	0.079	0	SB-11	4.5-5
Chrysene	MG/KG	56	10	6	0.022	3.70	1.39	0	SB-11	3-4
Dibenz(a,h)anthracene	MG/KG	0.56	10	4	0.120	0.860	0.478	2	SB-11	3-4
Dibenzofuran	MG/KG	350	10	3	0.047	0.160	0.088	0	SB-11	4.5-5
Di-n-octylphthalate	MG/KG	-	10	1	0.032	0.032	0.032	0	SB-11	3-4
Fluoranthene	MG/KG	500	10	7	0.027	5.20	1.55	0	SB-11	3-4
Fluorene	MG/KG	500	10	3	0.120	0.340	0.203	0	SB-11	4.5-5
Indeno(1,2,3-cd)pyrene	MG/KG	5.6	10	5	0.045	2.50	1.10	0	SB-11	3-4
Naphthalene	MG/KG	500	10	7	0.026	3.40	0.636	0	SB-11	4.5-5
Phenanthrene	MG/KG	500	10	4	0.024	2.70	1.33	0	SB-11	4.5-5
Pyrene	MG/KG	500	10	7	0.031	7.10	2.12	0	SB-11	3-4
Metals										
Aluminum	MG/KG	-	10	10	4,960	1.73E+04	1.13E+04	0	SB-12	3.5-4
Arsenic	MG/KG	16	10	9	0.790	10.40	4.02	0	SB-12	12-13
Barium	MG/KG	400	10	10	31.50	141.0	77.22	0	SB-12	4.5-5.5
Beryllium	MG/KG	590	10	5	0.300	0.750	0.432	0	SB-12	12-13
Cadmium	MG/KG	9.3	10	10	0.054	0.660	0.236	0	SB-11	4.5-5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Calcium	MG/KG	-	10	10	896.0	1.34E+04	3,155	0	SB-09	4.5-5.5
Chromium	MG/KG	1500	10	10	12.50	37.80	24.76	0	SB-12	3.5-4
Cobalt	MG/KG	-	10	10	4.70	12.90	8.08	0	SB-12	7-8
Copper	MG/KG	270	10	10	8.90	75.10	32.36	0	SB-11	4.5-5
Iron	MG/KG	-	10	10	1.65E+04	4.58E+04	2.87E+04	0	SB-12	12-13
Lead	MG/KG	1000	10	10	6.90	269.0	54.52	0	SB-11	3-4
Magnesium	MG/KG	-	10	10	2,480	7,840	4,899	0	SB-09	4.5-5.5
Manganese	MG/KG	10000	10	10	112.0	637.0	323.6	0	SB-11	13-13.5
Mercury	MG/KG	2.8	10	5	0.013	0.690	0.237	0	SB-11	4.5-5
Nickel	MG/KG	310	10	10	11.20	25.60	18.71	0	SB-12	12-13
Potassium	MG/KG	-	10	10	645.0	3,960	2,152	0	SB-12	7-8
Selenium	MG/KG	1500	10	10	1.20	3.10	2.12	0	SB-12	7-8
Sodium	MG/KG	-	10	10	177.0	5,450	893.4	0	SB-12	12-13
Vanadium	MG/KG	-	10	10	20.80	52.30	34.86	0	SB-12	3.5-4
Zinc	MG/KG	10000	10	10	30.40	123.0	66.03	0	SB-11	4.5-5

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
1,2,4-Trichlorobenzene	MG/KG	-	43	1	0.002	0.002	0.002	0	SB-10	5-5.5
1,2-Dichloroethene (cis)	MG/KG	500	43	3	0.009	1.30	0.447	0	MW-05	20.5-21
2-Butanone	MG/KG	500	43	1	0.007	0.007	0.007	0	SB-44	1.5-2
Acetone	MG/KG	500	43	23	0.004	0.220	0.047	0	SB-08	10.5-11
Benzene	MG/KG	44	43	24	0.001	2,600	260.0	3	SB-44	10-12
Carbon disulfide	MG/KG	-	43	5	0.005	0.022	0.010	0	SB-17	5.5-6
Chloroform	MG/KG	350	43	2	0.020	0.028	0.024	0	SB-08	10.5-11
Cyclohexane	MG/KG	-	43	3	0.038	0.350	0.162	0	SB-08	10.5-11
Ethylbenzene	MG/KG	390	43	20	0.009	2,600	180.2	2	SB-44	10-12
Isopropylbenzene	MG/KG	-	43	15	0.005	25.00	2.30	0	SB-44	10-12
Methylcyclohexane	MG/KG	-	43	4	0.008	0.550	0.227	0	SB-08	10.5-11
Methylene chloride	MG/KG	500	43	3	0.003	0.006	0.004	0	SB-13	3-4
Styrene	MG/KG	-	43	12	0.001	1,300	217.1	0	SB-44	10-12
Tetrachloroethene	MG/KG	150	43	1	0.013	0.013	0.013	0	SB-07	3-4
Toluene	MG/KG	500	43	21	0.001	3,800	348.3	3	SB-44	10-12
Xylene (total)	MG/KG	500	43	22	0.006	4,700	369.2	3	SB-44	10-12
Semivolatile Organic Compounds										
1,1'-Biphenyl	MG/KG	-	43	28	0.024	1,800	92.56	0	SB-44	15-20

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ons	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
2,6-Dinitrotoluene	MG/KG	-	43	1	1.20	1.20	1.20	0	MW-05	20.5-21
2-Methylnaphthalene	MG/KG	-	43	35	0.049	2.80E+04	1,096	0	SB-44	15-20
2-Methylphenol (o-cresol)	MG/KG	500	43	3	0.024	0.077	0.043	0	SB-07	13.3-14.2
3&4-Methylphenol (m,p-cresol)	MG/KG	500	43	8	0.027	1,100	137.6	1	SB-43	10-12
3,3'-Dichlorobenzidine	MG/KG	-	43	1	0.680	0.680	0.680	0	MW-05	20.5-21
Acenaphthene	MG/KG	500	43	35	0.023	1,300	76.06	2	SB-44	15-20
Acenaphthylene	MG/KG	500	43	36	0.068	9,900	309.8	2	SB-44	15-20
Acetophenone	MG/KG	-	43	10	0.064	0.560	0.185	0	SB-15	3-3.5
Anthracene	MG/KG	500	43	37	0.026	3,400	185.5	2	SB-44	15-20
Benzaldehyde	MG/KG	-	43	1	0.330	0.330	0.330	0	MW-05	4.5-5
Benzo(a)anthracene	MG/KG	5.6	43	41	0.023	2,500	115.9	17	SB-43	10-12
Benzo(a)pyrene	MG/KG	1	43	40	0.021	1,200	41.01	29	SB-44	15-20
Benzo(b)fluoranthene	MG/KG	5.6	43	39	0.032	2,600	99.79	15	SB-43	10-12
Benzo(g,h,i)perylene	MG/KG	500	43	36	0.023	490.0	19.36	0	SB-44	15-20
Benzo(k)fluoranthene	MG/KG	56	43	38	0.021	830.0	38.17	2	SB-43	10-12
bis(2-Ethylhexyl)phthalate	MG/KG	-	43	23	0.020	2.00	0.223	0	SB-13	15-16
Butylbenzylphthalate	MG/KG	-	43	4	0.027	0.160	0.075	0	SB-15	3-3.5
Carbazole	MG/KG	-	43	28	0.021	700.0	29.54	0	SB-43	10-12

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Chrysene	MG/KG	56	43	41	0.026	2,000	105.8	5	SB-43	10-12
Dibenz(a,h)anthracene	MG/KG	0.56	43	33	0.022	140.0	5.91	17	SB-44	15-20
Dibenzofuran	MG/KG	350	43	28	0.035	700.0	31.70	1	SB-44	15-20
Di-n-butylphthalate	MG/KG	-	43	10	0.033	0.260	0.084	0	SB-41	0.5-1
Fluoranthene	MG/KG	500	43	40	0.037	7,800	291.8	2	SB-43	10-12
Fluorene	MG/KG	500	43	33	0.020	4,000	154.5	2	SB-44	15-20
Indeno(1,2,3-cd)pyrene	MG/KG	5.6	43	35	0.025	510.0	19.78	9	SB-44	15-20
Naphthalene	MG/KG	500	43	37	0.065	7.40E+04	3,718	7	SB-44	15-20
Phenanthrene	MG/KG	500	43	40	0.021	1.20E+04	645.6	3	SB-43	10-12
Phenol	MG/KG	500	43	4	0.050	350.0	87.57	0	SB-43	10-12
Pyrene	MG/KG	500	43	40	0.047	6,700	331.3	3	SB-43	10-12
Metals										
Aluminum	MG/KG	-	41	41	2,840	1.94E+04	1.03E+04	0	SB-15	6-6.5
Antimony	MG/KG	-	41	5	0.440	1.70	1.00	0	SB-42	10-12
Arsenic	MG/KG	16	41	39	0.210	30.90	5.39	2	SB-44	10-12
Barium	MG/KG	400	41	41	31.80	212.0	87.79	0	SB-07	3-4
Beryllium	MG/KG	590	41	29	0.071	0.930	0.430	0	SB-07	3-4
Cadmium	MG/KG	9.3	41	38	0.055	3.00	0.413	0	SB-07	3-4

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Calcium	MG/KG	-	41	41	516.0	6.07E+04	6,698	0	SB-07	3-4
Chromium	MG/KG	1500	41	41	6.20	75.70	27.45	0	MW-06	10.5-11
Cobalt	MG/KG	-	41	41	2.20	22.20	9.17	0	SB-41	0.5-1
Copper	MG/KG	270	41	41	12.00	425.0	49.29	1	MW-05	4.5-5
Iron	MG/KG	-	41	41	6,550	1.13E+05	2.53E+04	0	SB-16	6-6.5
Lead	MG/KG	1000	41	41	2.10	335.0	77.47	0	SB-41	9-11
Magnesium	MG/KG	-	41	41	1,320	8,910	4,384	0	SB-10	11-11.5
Manganese	MG/KG	10000	41	41	57.00	1,230	252.2	0	SB-15	6-6.5
Mercury	MG/KG	2.8	41	23	0.007	4.20	0.700	2	SB-07	3-4
Nickel	MG/KG	310	41	41	9.80	41.10	22.31	0	MW-06	10.5-11
Potassium	MG/KG	-	41	41	503.0	1.09E+04	2,351	0	SB-15	6-6.5
Selenium	MG/KG	1500	41	31	0.610	5.10	2.08	0	SB-44	10-12
Silver	MG/KG	1500	41	3	0.110	0.400	0.227	0	SB-42	18.5-19.5
Sodium	MG/KG	-	41	41	100.0	1,550	348.3	0	SB-10	11-11.5
Thallium	MG/KG	-	41	6	0.340	1.70	1.21	0	SB-07	4.5-5.5
Vanadium	MG/KG	-	41	41	9.10	66.10	34.43	0	MW-06	10.5-11
Zinc	MG/KG	10000	41	41	33.20	278.0	88.89	0	MW-05	4.5-5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of	Depth
T didillotoi	O.I.I.O	Ontona	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Volatile Organic Compounds										
Acetone	MG/KG	500	15	8	0.005	0.240	0.044	0	SB-19	5-5.5
Carbon disulfide	MG/KG	-	15	3	0.003	0.019	0.008	0	SB-19	5-5.5
Isopropylbenzene	MG/KG	-	15	2	0.031	0.065	0.048	0	SB-19	5-5.5
Methylcyclohexane	MG/KG	-	15	1	0.044	0.044	0.044	0	SB-19	5-5.5
Methylene chloride	MG/KG	500	15	3	0.004	0.018	0.010	0	MW-07-URS	9.8-10.5
Xylene (total)	MG/KG	500	15	1	0.013	0.013	0.013	0	SB-19	5-5.5
Semivolatile Organic Compounds										
1,1'-Biphenyl	MG/KG	-	15	2	0.130	32.00	16.07	0	SB-21	10-11
2-Chloronaphthalene	MG/KG	-	15	7	1.30	1.40	1.34	0	SB-20	3-3.5
2-Methylnaphthalene	MG/KG	-	15	3	0.092	1.00	0.434	0	SB-18	5.5-6
Acenaphthene	MG/KG	500	15	3	0.170	120.0	40.20	0	SB-21	10-11
Acenaphthylene	MG/KG	500	15	9	0.022	22.00	3.24	0	SB-21	10-11
Anthracene	MG/KG	500	15	11	0.045	60.00	6.14	0	SB-21	10-11
Benzo(a)anthracene	MG/KG	5.6	15	15	0.021	39.00	3.15	1	SB-21	10-11
Benzo(a)pyrene	MG/KG	1	15	14	0.023	28.00	2.64	3	SB-21	10-11
Benzo(b)fluoranthene	MG/KG	5.6	15	12	0.120	18.00	2.33	1	SB-21	10-11
Benzo(g,h,i)perylene	MG/KG	500	15	12	0.024	12.00	1.58	0	SB-21	10-11
Benzo(k)fluoranthene	MG/KG	56	15	12	0.096	11.00	1.47	0	SB-21	10-11
bis(2-Ethylhexyl)phthalate	MG/KG	-	15	12	0.030	0.220	0.101	0	SB-18	4-4.5

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
			Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Semivolatile Organic Compounds										
Butylbenzylphthalate	MG/KG	-	15	1	0.019	0.019	0.019	0	SB-18	4-4.5
Carbazole	MG/KG	-	15	2	0.022	0.230	0.126	0	SB-21	3.5-4
Chrysene	MG/KG	56	15	14	0.032	37.00	3.15	0	SB-21	10-11
Dibenz(a,h)anthracene	MG/KG	0.56	15	9	0.036	1.40	0.271	1	SB-18	5.5-6
Dibenzofuran	MG/KG	350	15	3	0.140	6.40	2.34	0	SB-21	10-11
Di-n-butylphthalate	MG/KG	-	15	7	0.087	0.150	0.110	0	SB-21	3.5-4
Di-n-octylphthalate	MG/KG	-	15	1	0.042	0.042	0.042	0	SB-18	4-4.5
Fluoranthene	MG/KG	500	15	14	0.019	62.00	5.08	0	SB-21	10-11
Fluorene	MG/KG	500	15	4	0.200	62.00	16.52	0	SB-21	10-11
Indeno(1,2,3-cd)pyrene	MG/KG	5.6	15	12	0.021	8.20	1.14	1	SB-21	10-11
Naphthalene	MG/KG	500	15	4	0.065	32.00	8.07	0	SB-21	10-11
Phenanthrene	MG/KG	500	15	14	0.022	190.0	13.99	0	SB-21	10-11
Pyrene	MG/KG	500	15	15	0.023	99.00	7.48	0	SB-21	10-11
Metals										
Aluminum	MG/KG	-	15	15	4,080	2.86E+04	1.25E+04	0	SB-18	8.5-9
Antimony	MG/KG	-	15	1	4.00	4.00	4.00	0	SB-21	3.5-4
Arsenic	MG/KG	16	15	9	1.50	9.60	3.82	0	SB-21	3.5-4
Barium	MG/KG	400	15	15	48.10	353.0	108.5	0	SB-18	8.5-9
Beryllium	MG/KG	590	15	10	0.098	2.00	0.770	0	SB-21	21-22

^{*}Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

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STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI SOIL SAMPLES - COMMERCIAL USE EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of	Depth
	J	011101112	Samples	Detections	Min	Max	Avg	Exceed	Max Value	Of Max
Metals										
Cadmium	MG/KG	9.3	15	9	0.016	0.870	0.343	0	SB-21	3.5-4
Calcium	MG/KG	-	15	15	1,660	3.22E+04	7,460	0	SB-21	3.5-4
Chromium	MG/KG	1500	15	15	11.90	177.0	41.53	0	SB-18	8.5-9
Cobalt	MG/KG	-	15	15	3.10	20.90	9.05	0	SB-18	8.5-9
Copper	MG/KG	270	15	15	16.40	89.20	41.58	0	MW-07-URS	9.8-10.5
Iron	MG/KG	-	15	15	1.70E+04	5.54E+04	2.93E+04	0	SB-21	3.5-4
Lead	MG/KG	1000	15	15	1.50	132.0	24.73	0	SB-21	3.5-4
Magnesium	MG/KG	-	15	15	2,530	1.82E+04	8,640	0	SB-18	8.5-9
Manganese	MG/KG	10000	15	15	174.0	515.0	265.1	0	SB-21	21-22
Mercury	MG/KG	2.8	15	12	0.009	0.130	0.051	0	SB-21	3.5-4
Nickel	MG/KG	310	15	15	6.80	71.80	25.94	0	SB-18	8.5-9
Potassium	MG/KG	-	15	15	1,190	1.65E+04	5,846	0	SB-18	8.5-9
Selenium	MG/KG	1500	15	5	1.40	2.30	1.80	0	SB-19	3-4
Sodium	MG/KG	-	15	15	112.0	2,840	504.4	0	SB-21	21-22
Thallium	MG/KG	-	15	9	0.330	1.20	0.766	0	SB-20	4.5-5
Vanadium	MG/KG	-	15	15	25.50	127.0	53.01	0	SB-18	8.5-9
Zinc	MG/KG	10000	15	15	35.20	165.0	79.89	0	SB-20	4.5-5

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial.

Location ID			MW-01	MW-02	MW-03	MW-04	MW-05
Sample ID			MW-01	MW-02	MW-03	MW-04	MW-05
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	•	-	•	-
Date Sampled			08/12/15	08/13/15	08/13/15	08/12/15	08/12/15
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,2,2-Tetrachloroethane	UG/L	5					
1,1,2-Trichloroethane	UG/L	1					
1,1-Dichloroethane	UG/L	5					
1,2-Dichloroethane	UG/L	0.6					$\begin{array}{ c c }\hline & 14 \\ \hline & \end{array}$
1,2-Dichloroethene (cis)	UG/L	5			3,800 D		6.8
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50					
Benzene	UG/L	1	$\bigcirc 18 \bigcirc$		$\begin{array}{ c c }\hline 7.8 \\ \hline \end{array}$		480 D
Bromodichloromethane	UG/L	50					
Bromomethane	UG/L	5					
Carbon disulfide	UG/L	60					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Chloromethane	UG/L	5					
Cyclohexane	UG/L	-		2.0	2.7		1.4
Ethylbenzene	UG/L	5	5.5		4.3		640 D
Isopropylbenzene	UG/L	5			2.6		64
Methyl tert-butyl ether	UG/L	10					
Methylcyclohexane	UG/L	-			2.1		2.1
Methylene chloride	UG/L	5					

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

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Location ID			MW-01	MW-02	MW-03	MW-04	MW-05
Sample ID			MW-01	MW-02	MW-03	MW-04	MW-05
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			08/12/15	08/13/15	08/13/15	08/12/15	08/12/15
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Styrene	UG/L	5					
Tetrachloroethene	UG/L	5					
Toluene	UG/L	5	1.6		1.4		150 D
Trichloroethene	UG/L	5					
Vinyl chloride	UG/L	2			2,700 D		
Xylene (total)	UG/L	5			$\bigcirc 29 \bigcirc$		600 D
Total BTEX	UG/L	-	40.1	ND	42.5	ND	1,870
Total Volatile Organic Compounds	UG/L	-	40.1	2	6,549.9	ND	1,958.3
Semivolatile Organic Compounds							
1,1'-Biphenyl	UG/L	5	\bigcirc				32
2,4,6-Trichlorophenol	UG/L	1					
2,4-Dichlorophenol	UG/L	5			1.2 J		
2,4-Dimethylphenol	UG/L	50					
2-Chlorophenol	UG/L	1					
2-Methylnaphthalene	UG/L	-	21		11		640 DJ
2-Methylphenol (o-cresol)	UG/L	1					
2-Nitrophenol	UG/L	1					
3&4-Methylphenol (m,p-cresol)	UG/L	1					5.8
4-Nitrophenol	UG/L	1					
Acenaphthene	UG/L	20	67 DJ	1.0 J		2.3 J	67 J
Acenaphthylene	UG/L	-	3.5 J				38
Acetophenone	UG/L	-					

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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Location ID			MW-01	MW-02	MW-03	MW-04	MW-05
Sample ID			MW-01	MW-02	MW-03	MW-04	MW-05
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			08/12/15	08/13/15	08/13/15	08/12/15	08/12/15
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Anthracene	UG/L	50	5.6		0.89 J		6.9
Benzaldehyde	UG/L	-					
Benzo(a)anthracene	UG/L	0.002			0.97 J		0.95 J
Benzo(a)pyrene	UG/L	ND			0.69 J		0.95 J
Benzo(b)fluoranthene	UG/L	0.002			0.92 J		0.71 J
bis(2-Ethylhexyl)phthalate	UG/L	5	1.0 J	1.2 J			0.83 J
Carbazole	UG/L	-	46 DJ				6.2
Chrysene	UG/L	0.002			1.0 J		0.92 J
Dibenzofuran	UG/L	-	38				4.6 J
Diethylphthalate	UG/L	50					
Dimethylphthalate	UG/L	50	2.6 J	2.6 J	1.7 J	4.2 J	3.1 J
Fluoranthene	UG/L	50	6.6		2.5 J		2.9 J
Fluorene	UG/L	50	31		2.3 J	1.1 J	33
Naphthalene	UG/L	10	570 D				5,700 D
Phenanthrene	UG/L	50	39		6.6		31
Phenol	UG/L	1					3.2 J
Pyrene	UG/L	50	4.4 J		2.3 J		4.2 J
Total Polynuclear Aromatic Hydrocarbons	UG/L	-	748.1	1	29.17	3.4	6,526.53
Total Semivolatile Organic Compounds	UG/L	-	846.7	4.8	32.07	7.6	6,582.26
Metals							
Aluminum	UG/L	-			107 J		6,140
Arsenic	UG/L	25				6.7 J	

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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Location ID			MW-01	MW-02	MW-03	MW-04	MW-05
Sample ID			MW-01	MW-02	MW-03	MW-04	MW-05
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled			08/12/15	08/13/15	08/13/15	08/12/15	08/12/15
Parameter	Units	Criteria*					
Metals							
Barium	UG/L	1000	267	1,790	212	118 J	259
Beryllium	UG/L	3					
Cadmium	UG/L	5					
Calcium	UG/L	-	305,000	281,000	460,000	73,000	85,600
Chromium	UG/L	50			2.3 J	1.1 J	15.8 J
Cobalt	UG/L	-	0.99 J				9.2 J
Copper	UG/L	200	5.8 J	12.2 J	8.5 J		29.0 J
Iron	UG/L	300	23,600	52,300	51,200	16,000	28,500
Lead	UG/L	25		5.9 J	8.4 J		7.7 J
Magnesium	UG/L	35000	131,000	116,000	85,000	19,600	36,900
Manganese	UG/L	300	1,130	2,670	2,050	718	841
Mercury	UG/L	0.7			0.037 J		
Nickel	UG/L	100		2.4 J	17.7 J	2.1 J	20.8 J
Potassium	UG/L	-	61,500	57,100 J	46,400	19,500	11,600
Selenium	UG/L	10	32.8	15.6 J	13.6 J		
Silver	UG/L	50					
Sodium	UG/L	20000	1,360,000	3,030,000	345,000	253,000	160,000
Thallium	UG/L	0.5					
Vanadium	UG/L	-	4.2 J	7.4 J	9.8 J	2.5 J	20.8 J
Zinc	UG/L	2000					24.5 J
Miscellaneous Parameters							
Cyanide, Total	UG/L	200	126		470		482

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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Location ID			MW-06	MW-07-URS	MW-11	MWMF-01	MWMF-02
Sample ID			MW-06	MW-07-URS	MW-11	MWMF-01	MWMF-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			08/13/15	08/12/15	08/12/15	08/12/15	08/13/15
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,2,2-Tetrachloroethane	UG/L	5					
1,1,2-Trichloroethane	UG/L	1					
1,1-Dichloroethane	UG/L	5					
1,2-Dichloroethane	UG/L	0.6				$\overline{}$	
1,2-Dichloroethene (cis)	UG/L	5				2.3	
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50					
Benzene	UG/L	1				340 D	
Bromodichloromethane	UG/L	50					
Bromomethane	UG/L	5					
Carbon disulfide	UG/L	60					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Chloromethane	UG/L	5					
Cyclohexane	UG/L	-				6.0	
Ethylbenzene	UG/L	5	$\bigcirc 47 \bigcirc$			5.0	
Isopropylbenzene	UG/L	5		1.5		$\begin{array}{c} 15 \\ \end{array}$	
Methyl tert-butyl ether	UG/L	10					
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5					

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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Location ID			MW-06	MW-07-URS	MW-11	MWMF-01	MWMF-02
Sample ID			MW-06	MW-07-URS	MW-11	MWMF-01	MWMF-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (1			-	-	-	-	-
Date Sampled			08/13/15	08/12/15	08/12/15	08/12/15	08/13/15
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Styrene	UG/L	5					
Tetrachloroethene	UG/L	5					
Toluene	UG/L	5				2.5	
Trichloroethene	UG/L	5					
Vinyl chloride	UG/L	2				$\bigcirc 3.2 \bigcirc$	
Xylene (total)	UG/L	5	$\bigcirc 37 \bigcirc$			4.4	
Total BTEX	UG/L	-	95	ND	ND	351.9	ND
Total Volatile Organic Compounds	UG/L	-	110	1.5	ND	410.8	ND
Semivolatile Organic Compounds							
1,1'-Biphenyl	UG/L	5					
2,4,6-Trichlorophenol	UG/L	1					
2,4-Dichlorophenol	UG/L	5					
2,4-Dimethylphenol	UG/L	50					
2-Chlorophenol	UG/L	1					
2-Methylnaphthalene	UG/L	-					
2-Methylphenol (o-cresol)	UG/L	1			0.66 J		
2-Nitrophenol	UG/L	1					
3&4-Methylphenol (m,p-cresol)	UG/L	1			0.86 J		
4-Nitrophenol	UG/L	1					
Acenaphthene	UG/L	20	\bigcirc 30	2.4 J	7.0	\bigcirc 30	
Acenaphthylene	UG/L	-	3.1 J				
Acetophenone	UG/L	-					

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

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Location ID			MW-06	MW-07-URS	MW-11	MWMF-01	MWMF-02
Sample ID			MW-06	MW-07-URS	MW-11	MWMF-01	MWMF-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			08/13/15	08/12/15	08/12/15	08/12/15	08/13/15
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Anthracene	UG/L	50	2.2 J			0.62 J	
Benzaldehyde	UG/L	-					
Benzo(a)anthracene	UG/L	0.002					
Benzo(a)pyrene	UG/L	ND					
Benzo(b)fluoranthene	UG/L	0.002					
bis(2-Ethylhexyl)phthalate	UG/L	5		0.73 J	$\bigcirc \qquad \qquad$	2.1 J	1.1 J
Carbazole	UG/L	-	1.4 J		1.2 J	5.1	
Chrysene	UG/L	0.002					
Dibenzofuran	UG/L	-	4.0 J			2.5 J	
Diethylphthalate	UG/L	50					
Dimethylphthalate	UG/L	50	2.4 J	2.3 J	2.0 J	2.2 J	2.9 J
Fluoranthene	UG/L	50	5.7				
Fluorene	UG/L	50	8.7		0.61 J	9.4	
Naphthalene	UG/L	10	\bigcirc 34			8.8	
Phenanthrene	UG/L	50	10				
Phenol	UG/L	1			0.67 J	2.0 J	
Pyrene	UG/L	50	7.7				
Total Polynuclear Aromatic Hydrocarbons	UG/L	-	101.4	2.4	7.61	48.82	ND
Total Semivolatile Organic Compounds	UG/L	-	115.7	5.43	19.6	62.72	4
Metals							
Aluminum	UG/L	-			769		202
Arsenic	UG/L	25					9.8 J

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

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Location ID			MW-06	MW-07-URS	MW-11	MWMF-01	MWMF-02
Sample ID			MW-06	MW-07-URS	MW-11	MWMF-01	MWMF-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (it)		-	-	-	-	-
Date Sampled			08/13/15	08/12/15	08/12/15	08/12/15	08/13/15
Parameter	Units	Criteria*					
Metals							
Barium	UG/L	1000	436	390	486	231	
Beryllium	UG/L	3					
Cadmium	UG/L	5					
Calcium	UG/L	-	295,000	214,000	295,000	163,000	78,100
Chromium	UG/L	50		0.78 J	1.7 J	0.95 J	
Cobalt	UG/L	-			1.7 J	5.5 J	
Copper	UG/L	200			7.5 J	4.4 J	
Iron	UG/L	300	4,560	511	33,000	28,500	9,670
Lead	UG/L	25					
Magnesium	UG/L	35000	32,800	107,000	106,000	19,300	10,700
Manganese	UG/L	300	993	1,420	1,120	720	975
Mercury	UG/L	0.7					
Nickel	UG/L	100	3.4 J	4.4 J	1.4 J	2.2 J	
Potassium	UG/L	-	24,000	43,700	47,300	24,500	8,650
Selenium	UG/L	10	14.2 J	16.7 J	17.3 J		12.2 J
Silver	UG/L	50					
Sodium	UG/L	20000	676,000	1,010,000	825,000	353,000	37,500
Thallium	UG/L	0.5					
Vanadium	UG/L	-	1.7 J	3.0 J	5.6 J	3.6 J	1.8 J
Zinc	UG/L	2000					
Miscellaneous Parameters							
Cyanide, Total	UG/L	200	234		155	898	31.0

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

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Location ID			MWMF-03	MWMF-03	MWMF-04	MWMF-05	MWMF-06
Sample ID			DUPLICATE-081315	MWMF-03	MWMF-04	WMMF-05	MWMF-06
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			08/13/15	08/13/15	08/13/15	08/12/15	08/12/15
Parameter	Units	Criteria*	Field Duplicate (1-1)				
Volatile Organic Compounds							
1,1,2,2-Tetrachloroethane	UG/L	5			22		
1,1,2-Trichloroethane	UG/L	1			120	2.4	
1,1-Dichloroethane	UG/L	5			9.4	1.6	
1,2-Dichloroethane	UG/L	0.6			150 D	\bigcirc	2.0
1,2-Dichloroethene (cis)	UG/L	5	1.4	1.5	450 D	120	13
1,2-Dichloroethene (trans)	UG/L	5			140	2.9	
1,2-Dichloropropane	UG/L	1			5.2		
Acetone	UG/L	50			280 DJ	62 J	27 J
Benzene	UG/L	1	\bigcirc 26 \bigcirc	24	120 D	190 D	\bigcirc 26
Bromodichloromethane	UG/L	50			1.2		
Bromomethane	UG/L	5			140 J		
Carbon disulfide	UG/L	60			\bigcirc 97	110	42
Chlorobenzene	UG/L	5			1.2		
Chloroethane	UG/L	5			\sim 80		
Chloroform	UG/L	7			$\bigcirc 77 \bigcirc$	5.1	
Chloromethane	UG/L	5		1.2	720 D		3.5
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5		1.0	4.8	110	
Isopropylbenzene	UG/L	5	2.7	2.6			
Methyl tert-butyl ether	UG/L	10			8.0	$\begin{array}{c} & & \\ & & \\ & & \end{array}$	
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5			320 D	20	7.8

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

J - The reported concentration is an estimated value; D - Result reported from a secondary dilution analysis.

Location ID			MWMF-03	MWMF-03	MWMF-04	MWMF-05	MWMF-06
Sample ID			DUPLICATE-081315	MWMF-03	MWMF-04	WMMF-05	MWMF-06
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			08/13/15	08/13/15	08/13/15	08/12/15	08/12/15
Parameter	Units	Criteria*	Field Duplicate (1-1)				
Volatile Organic Compounds							
Styrene	UG/L	5					1.0
Tetrachloroethene	UG/L	5			20		
Toluene	UG/L	5			1.8	8.5	2.1
Trichloroethene	UG/L	5			9.6		
Vinyl chloride	UG/L	2			$ \begin{array}{ c c } \hline & 52 \\ \hline \end{array} $	190	6.4
Xylene (total)	UG/L	5				49	
Total BTEX	UG/L	-	26	25	126.6	357.5	28.1
Total Volatile Organic Compounds	UG/L	-	30.1	30.3	2,829.2	920.5	130.8
Semivolatile Organic Compounds							
1,1'-Biphenyl	UG/L	5			2.3 J		
2,4,6-Trichlorophenol	UG/L	1					0.73 J
2,4-Dichlorophenol	UG/L	5					
2,4-Dimethylphenol	UG/L	50					
2-Chlorophenol	UG/L	1					1.2 J
2-Methylnaphthalene	UG/L	-			1.5 J	1.1 J	
2-Methylphenol (o-cresol)	UG/L	1				1.6 J	1.5 J
2-Nitrophenol	UG/L	1			3.5 J		
3&4-Methylphenol (m,p-cresol)	UG/L	1			1.7 J	1.1 J	2.0 J
4-Nitrophenol	UG/L	1			2.3 J		
Acenaphthene	UG/L	20	0.59 J			7.8	0.89 J
Acenaphthylene	UG/L	-				1.0 J	
Acetophenone	UG/L	-			600 D	13	16

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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Location ID			MWMF-03	MWMF-03	MWMF-04	MWMF-05	MWMF-06
Sample ID			DUPLICATE-081315	MWMF-03	MWMF-04	WMMF-05	MWMF-06
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			08/13/15	08/13/15	08/13/15	08/12/15	08/12/15
Parameter	Units	Criteria*	Field Duplicate (1-1)				
Semivolatile Organic Compounds							
Anthracene	UG/L	50					
Benzaldehyde	UG/L	-			180 DJ		2.3 J
Benzo(a)anthracene	UG/L	0.002					
Benzo(a)pyrene	UG/L	ND					
Benzo(b)fluoranthene	UG/L	0.002					
bis(2-Ethylhexyl)phthalate	UG/L	5	0.92 J			0.67 J	
Carbazole	UG/L	-					
Chrysene	UG/L	0.002					
Dibenzofuran	UG/L	-				0.94 J	
Diethylphthalate	UG/L	50					0.50 J
Dimethylphthalate	UG/L	50	2.8 J	2.7 J		4.6 J	3.0 J
Fluoranthene	UG/L	50					
Fluorene	UG/L	50				0.82 J	
Naphthalene	UG/L	10			170 DJ	\bigcirc 37	
Phenanthrene	UG/L	50			0.84 J	4.4 J	
Phenol	UG/L	1			0.64 J	1.3 J	(1.1 J
Pyrene	UG/L	50					
Total Polynuclear Aromatic Hydrocarbons	UG/L	-	0.59	ND	172.34	52.12	0.89
Total Semivolatile Organic Compounds	UG/L	-	4.31	2.7	962.78	75.33	29.22
Metals							
Aluminum	UG/L	-			442,000	95,500	1,810
Arsenic	UG/L	25			47.6		

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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Location ID			MWMF-03	MWMF-03	MWMF-04	MWMF-05	MWMF-06
Sample ID			DUPLICATE-081315	MWMF-03	MWMF-04	WMMF-05	MWMF-06
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled			08/13/15	08/13/15	08/13/15	08/12/15	08/12/15
Parameter	Units	Criteria*	Field Duplicate (1-1)				
Metals							
Barium	UG/L	1000				29.0 J	59.3 J
Beryllium	UG/L	3			41.4	8.5	0.44 J
Cadmium	UG/L	5	1.4 J	1.3 J	10.4		
Calcium	UG/L	-	246,000	240,000	474,000	462,000	271,000
Chromium	UG/L	50			$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\bigcirc 144 \bigcirc$	$\bigcirc 132 \bigcirc$
Cobalt	UG/L	1			930	148	102
Copper	UG/L	200	58.1	54.5	1,520	97.5	52.2
Iron	UG/L	300	2,770	2,840	261,000	1,430,000	594,000
Lead	UG/L	25	33.9	32.5	35.7	40.6	39.9
Magnesium	UG/L	35000	27,200	27,100	812,000	269,000	58,200
Manganese	UG/L	300	1,190	1,200	34,800	13,900	3,930
Mercury	UG/L	0.7			0.10 J		
Nickel	UG/L	100	125	124	3,610	2,340	1,150
Potassium	UG/L	-	38,600	38,400	24,100	82,500	58,800
Selenium	UG/L	10	22.0 J	12.7 J		36.7	44.2
Silver	UG/L	50				11.8 J	7.0 J
Sodium	UG/L	20000	261,000	264,000	5,850,000	1,940,000	462,000
Thallium	UG/L	0.5			37.8	56.2	18.0 J
Vanadium	UG/L	-	15.3 J	15.7 J	502	524	757
Zinc	UG/L	2000	641	608	4,040	4,780	800
Miscellaneous Parameters							
Cyanide, Total	UG/L	200	158	237			144

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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Location ID Sample ID			MWMF-07D MWMF-07D	MWMF-07S MWMF-07S	MWMF-08
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-
Date Sampled	,		08/11/15	08/12/15	08/13/15
Parameter	Units	Criteria*			
Volatile Organic Compounds					
1,1,2,2-Tetrachloroethane	UG/L	5			
1,1,2-Trichloroethane	UG/L	1			
1,1-Dichloroethane	UG/L	5			
1,2-Dichloroethane	UG/L	0.6			39
1,2-Dichloroethene (cis)	UG/L	5	1.4		30
1,2-Dichloroethene (trans)	UG/L	5			1.7
1,2-Dichloropropane	UG/L	1			
Acetone	UG/L	50			140 J
Benzene	UG/L	1			1,700 D
Bromodichloromethane	UG/L	50			
Bromomethane	UG/L	5			
Carbon disulfide	UG/L	60			3.4
Chlorobenzene	UG/L	5			1.0
Chloroethane	UG/L	5			
Chloroform	UG/L	7			
Chloromethane	UG/L	5		1.4	
Cyclohexane	UG/L	-		4.4	2.2
Ethylbenzene	UG/L	5			2,600 D
Isopropylbenzene	UG/L	5		14	130
Methyl tert-butyl ether	UG/L	10			1.4
Methylcyclohexane	UG/L	-		3.7	1.9
Methylene chloride	UG/L	5			2.6

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

J - The reported concentration is an estimated value; D - Result reported from a secondary dilution analysis.

Location ID			MWMF-07D	MWMF-07S	MWMF-08
Sample ID			MWMF-07D	MWMF-07S	MWMF-08
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (f			-	-	-
Date Sampled			08/11/15	08/12/15	08/13/15
Parameter	Units	Criteria*			
Volatile Organic Compounds					
Styrene	UG/L	5			
Tetrachloroethene	UG/L	5			
Toluene	UG/L	5		1.5	450 D
Trichloroethene	UG/L	5			
Vinyl chloride	UG/L	2			15
Xylene (total)	UG/L	5			2,000 D
Total BTEX	UG/L	-	ND	1.5	6,750
Total Volatile Organic Compounds	UG/L	-	1.4	25	7,118.2
Semivolatile Organic Compounds					
1,1'-Biphenyl	UG/L	5			6.1
2,4,6-Trichlorophenol	UG/L	1			
2,4-Dichlorophenol	UG/L	5			
2,4-Dimethylphenol	UG/L	50		1.3 J	10
2-Chlorophenol	UG/L	1			
2-Methylnaphthalene	UG/L	-			140 DJ
2-Methylphenol (o-cresol)	UG/L	1		0.82 J	
2-Nitrophenol	UG/L	1			
3&4-Methylphenol (m,p-cresol)	UG/L	1		1.2 J)
4-Nitrophenol	UG/L	1			
Acenaphthene	UG/L	20			7.6
Acenaphthylene	UG/L	-			2.8 J
Acetophenone	UG/L	-			85 DJ

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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Location ID			MWMF-07D	MWMF-07S	MWMF-08
Sample ID			MWMF-07D	MWMF-07S	MWMF-08
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-
Date Sampled			08/11/15	08/12/15	08/13/15
Parameter	Units	Criteria*			
Semivolatile Organic Compounds					
Anthracene	UG/L	50			
Benzaldehyde	UG/L	-			
Benzo(a)anthracene	UG/L	0.002			
Benzo(a)pyrene	UG/L	ND			
Benzo(b)fluoranthene	UG/L	0.002			
bis(2-Ethylhexyl)phthalate	UG/L	5	0.69 J	5.0	0.66 J
Carbazole	UG/L	-			0.92 J
Chrysene	UG/L	0.002			
Dibenzofuran	UG/L	-			1.0 J
Diethylphthalate	UG/L	50			
Dimethylphthalate	UG/L	50	3.2 J	3.1 J	4.3 J
Fluoranthene	UG/L	50			
Fluorene	UG/L	50			2.1 J
Naphthalene	UG/L	10		9.0	3,800 D
Phenanthrene	UG/L	50			1.5 J
Phenol	UG/L	1		0.77 J	$\bigcirc 6.9 \bigcirc$
Pyrene	UG/L	50			
Total Polynuclear Aromatic Hydrocarbons	UG/L	-	ND	9	3,954
Total Semivolatile Organic Compounds	UG/L	-	3.89	21.19	4,068.88
Metals					
Aluminum	UG/L	-	137 J		
Arsenic	UG/L	25			

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

Flags assigned during chemistry validation are shown.

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Location ID Sample ID			MWMF-07D MWMF-07D	MWMF-07S MWMF-07S	MWMF-08 MWMF-08
Sample ID Matrix			Groundwater	Groundwater	Groundwater
Depth Interval	(ft)		-	-	-
Date Sample			08/11/15	08/12/15	08/13/15
Parameter	Units	Criteria*			
Metals					
Barium	UG/L	1000	643	63.8 J	
Beryllium	UG/L	3			
Cadmium	UG/L	5			
Calcium	UG/L	-	863,000	167,000	455,000
Chromium	UG/L	50			21.2
Cobalt	UG/L	-	31.3 J	1.1 J	
Copper	UG/L	200	5.7 J		16.7 J
Iron	UG/L	300	5,870	5,210	214,000
Lead	UG/L	25	11.6	10.5	18.4
Magnesium	UG/L	35000	217,000	95,100	631,000
Manganese	UG/L	300	37,300	650	38,300
Mercury	UG/L	0.7			
Nickel	UG/L	100	31.4 J	0.86 J	758
Potassium	UG/L	-	30,800	16,700	82,400
Selenium	UG/L	10		20.2 J	28.3 J
Silver	UG/L	50			
Sodium	UG/L	20000	2,480,000	151,000	3,340,000
Thallium	UG/L	0.5	22.3		38.0
Vanadium	UG/L	-		2.2 J	322
Zinc	UG/L	2000	17.0 J		7.0 J
Miscellaneous Parameters					
Cyanide, Total	UG/L	200	7.9 J	26.5 J	252

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

J - The reported concentration is an estimated value; D - Result reported from a secondary dilution analysis.

Location ID			BW-01	BW-01	BW-02	BW-02	BW-02
Sample ID			BW-01	BW-01	03122012-FD-1	BW-02	BW-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			03/12/12	08/13/15	03/12/12	03/12/12	08/13/15
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
1,1-Dichloroethene	UG/L	5					6.8
1,2-Dichloroethane	UG/L	0.6					730 D
1,2-Dichloroethene (cis)	UG/L	5	220	230 J	7,100	6,800	3,600 D
1,2-Dichloroethene (trans)	UG/L	5		3.1			46
4-Methyl-2-pentanone	UG/L	-					9.8 J
Acetone	UG/L	50		28 J			480 J
Benzene	UG/L	1	26,000 D	37,000 D	19,000	19,000	34,000 D
Carbon disulfide	UG/L	60					3.8
Chloromethane	UG/L	5					3.3
Cyclohexane	UG/L	-					3.7
Ethylbenzene	UG/L	5	1,200	2,000 D	1,200	1,100	750 D
Isopropylbenzene	UG/L	5		$\bigcirc 23 \bigcirc$			$\bigcirc 10$
Methyl tert-butyl ether	UG/L	10		9.4			$\bigcirc 23 \bigcirc$
Methylcyclohexane	UG/L	-					3.4
Methylene chloride	UG/L	5					1.2
Styrene	UG/L	5	4,300				
Toluene	UG/L	5	12,000	13,000 D	14,000	13,000	2,600 D
Trichloroethene	UG/L	5					1.0
Vinyl chloride	UG/L	2		66	990	940	2,000 D
Xylene (total)	UG/L	5	5,700	5,000 D	8,600	8,300	4,300 D
Total BTEX	UG/L	-	44,900	57,000	42,800	41,400	41,650
Total Volatile Organic Compounds	UG/L	-	49,420	57,359.5	50,890	49,140	48,572

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis.

 $[\]ensuremath{\mathsf{B}}$ (inoranics) - The reported concentration is an estimated value.

Location ID			BW-01	BW-01	BW-02	BW-02	BW-02
Sample ID			BW-01	BW-01	03122012-FD-1	BW-02	BW-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (fi	:)		-	-	-	-	-
Date Sampled			03/12/12	08/13/15	03/12/12	03/12/12	08/13/15
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Semivolatile Organic Compounds							
1,1'-Biphenyl	UG/L	5	28	33	18		11
2,4-Dimethylphenol	UG/L	50		270 DJ	1,500 J		1,400 D
2-Methylnaphthalene	UG/L	-	510 DJ	480 DJ	330 DJ	310 DJ	220 DJ
2-Methylphenol (o-cresol)	UG/L	1	80 J	170 DJ	1,300 DJ	1,300 DJ	760 DJ
3&4-Methylphenol (m,p-cresol)	UG/L	1	21	47 J	1,300 DJ	2,400 D	1,200 D
3,3'-Dichlorobenzidine	UG/L	5					1.1 J
Acenaphthene	UG/L	20	11	29	5.9 J	5.6 J	3.9 J
Acenaphthylene	UG/L	-	190 DJ	140 J	5.1 J	5.2 J	4.7 J
Acetophenone	UG/L	-					
Anthracene	UG/L	50	7.5 J	4.9 J	5.2 J	5.4 J	2.1 J
bis(2-Chloroethyl)ether	UG/L	1	70 J				
bis(2-Ethylhexyl)phthalate	UG/L	5	0.94 J			0.93 J	2.5 J
Carbazole	UG/L	-	86 J	76 J	10	9.4 J	5.4
Dibenzofuran	UG/L	-	21	25	2.9 J	2.8 J	
Dimethylphthalate	UG/L	50					
Fluoranthene	UG/L	50	3.5 J	2.7 J	1.6 J	1.5 J	0.57 J
Fluorene	UG/L	50	31	35	11	11	0.57 J
Naphthalene	UG/L	10	6,800 D	6,100 D	7,300 D	6,800 D	3,700 D
Phenanthrene	UG/L	50	32	32	14	14	7.3
Phenol	UG/L	1	$\begin{array}{c} 15 \\ \end{array}$	31	1,200 DJ	1,100 DJ	540 DJ
Pyrene	UG/L	50	2.7 J	2.3 J	1.6 J	1.6 J	0.85 J
Total Polynuclear Aromatic Hydrocarbons	UG/L	-	7,587.7	6,825.9	7,674.4	7,154.3	3,939.99
Total Semivolatile Organic Compounds	UG/L	-	7,909.64	7,477.9	13,005.3	11,984.43	7,859.99

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis.

B (inoranics) - The reported concentration is an estimated value.

Location ID			BW-01	BW-01	BW-02	BW-02	BW-02
Sample ID			BW-01	BW-01	03122012-FD-1	BW-02	BW-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (it)		-	-	-	-	-
Date Sampled			03/12/12	08/13/15	03/12/12	03/12/12	08/13/15
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Metals							
Aluminum	UG/L	-	73.0 B			66.6 B	
Arsenic	UG/L	25			10.9 B	9.6 B	
Barium	UG/L	1000	41.0 B		79.3 B	79.8 B	
Cadmium	UG/L	5	1.4 B				
Calcium	UG/L	-	140,000	242,000	230,000	227,000	555,000
Chromium	UG/L	50	2.2 B		4.1 B	4.9 B	10.5 J
Cobalt	UG/L	-	1.8 B	3.2 J	10.9 B	11.0 B	
Copper	UG/L	200		6.9 J			47.6
Iron	UG/L	300	38,400	60,200	3,130	3,130	841,000
Lead	UG/L	25					27.0
Magnesium	UG/L	35000	74,100	136,000	9,580	9,440	315,000
Manganese	UG/L	300	1,780	2,650	45.3 B	44.8 B	68,700
Nickel	UG/L	100	2.1 B	1.5 J	16.6 B	16.7 B	562
Potassium	UG/L	-	28,900 J	35,000	96,000 J	96,100 J	320,000
Selenium	UG/L	10		22.8 J			28.5 J
Silver	UG/L	50					10.8 J
Sodium	UG/L	20000	401,000	569,000	218,000	220,000	2,820,000
Thallium	UG/L	0.5					69.0
Vanadium	UG/L	-		6.6 J	32.3 B	31.9 B	799
Zinc	UG/L	2000					16.7 J
Miscellaneous Parameters							
Cyanide, Total	UG/L	200	221	218	7,160 J	6,870 J	1,880

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

 $\ensuremath{\mathsf{B}}$ (inoranics) - The reported concentration is an estimated value.

^{- =} No standard or guidance value.

J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis.

Location ID			BW-03	BW-03	BW-04	BW-04	BW-04
Sample ID			BW-03	BW-03	BW-04	BW-04	DUPLICATE-081115
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			03/13/12	08/12/15	03/13/12	08/11/15	08/11/15
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
1,1-Dichloroethene	UG/L	5					
1,2-Dichloroethane	UG/L	0.6				82	$\overline{}$
1,2-Dichloroethene (cis)	UG/L	5			1,200	56	54
1,2-Dichloroethene (trans)	UG/L	5					
4-Methyl-2-pentanone	UG/L	-					
Acetone	UG/L	50					
Benzene	UG/L	1	44,000 D	72,000 D	11,000	2,900 D	3,100 D
Carbon disulfide	UG/L	60		1.0 J			
Chloromethane	UG/L	5					
Cyclohexane	UG/L	-		7.0 J			1.0
Ethylbenzene	UG/L	5	2,700	2,600 D	780	1,100 D	1,100 D
Isopropylbenzene	UG/L	5		53 J		$\bigcirc 24 \bigcirc$	$\bigcirc 23 \bigcirc$
Methyl tert-butyl ether	UG/L	10				1.4	1.5
Methylcyclohexane	UG/L	-		4.5 J		1.5	1.4
Methylene chloride	UG/L	5		1.1 J			
Styrene	UG/L	5			2,600	380 D	410 D
Toluene	UG/L	5	$\bigcirc 300 \bigcirc$	100 J	8,000	2,500 D	2,600 D
Trichloroethene	UG/L	5		1.0 J			
Vinyl chloride	UG/L	2			200	$\bigcirc 12 \bigcirc$	$\bigcirc 12 \bigcirc$
Xylene (total)	UG/L	5	1,100	650 D	3,300	1,400 D	1,500 D
Total BTEX	UG/L	-	48,100	75,350	23,080	7,900	8,300
Total Volatile Organic Compounds	UG/L	-	48,100	75,417.6	27,080	8,456.9	8,875.9

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis.

 $[\]ensuremath{\mathsf{B}}$ (inoranics) - The reported concentration is an estimated value.

Location ID			BW-03	BW-03	BW-04	BW-04	BW-04
Sample ID			BW-03	BW-03	BW-04	BW-04	DUPLICATE-081115
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (fi	t)		-	-	-	-	-
Date Sampled			03/13/12	08/12/15	03/13/12	08/11/15	08/11/15
Parameter	Units	Criteria*					Field Duplicate (1-1)
Semivolatile Organic Compounds							
1,1'-Biphenyl	UG/L	5	5.5 J	4.1 J	24	20	19
2,4-Dimethylphenol	UG/L	50		1.7 J		6.1	22
2-Methylnaphthalene	UG/L	-	8.2 J		380 DJ	220 DJ	220 DJ
2-Methylphenol (o-cresol)	UG/L	1	\bigcirc		16	8.1	8.7
3&4-Methylphenol (m,p-cresol)	UG/L	1	23		12	7.9	8.4
3,3'-Dichlorobenzidine	UG/L	5					
Acenaphthene	UG/L	20	18	9.1	13	$\bigcirc 31$	$\bigcirc 28 \bigcirc$
Acenaphthylene	UG/L	-	20	19	170 DJ	84 DJ	80 DJ
Acetophenone	UG/L	-	2.4 J	3.2 J	11	4.8 J	4.8 J
Anthracene	UG/L	50			8.1 J	7.2	6.7
bis(2-Chloroethyl)ether	UG/L	1					
bis(2-Ethylhexyl)phthalate	UG/L	5	0.54 J	0.91 J	0.87 J		0.70 J
Carbazole	UG/L	-	2.6 J	2.3 J	30	18	18
Dibenzofuran	UG/L	-	0.90 J	0.68 J	13	10	9.8
Dimethylphthalate	UG/L	50		2.4 J		3.0 J	5.3
Fluoranthene	UG/L	50			4.0 J	4.6 J	4.4 J
Fluorene	UG/L	50	4.4 J	3.8 J	31	23	21
Naphthalene	UG/L	10	1,200 D	370 D	3,800 D	1,900 D	2,000 D
Phenanthrene	UG/L	50	1.8 J	1.4 J	40 J	39	37
Phenol	UG/L	1	\bigcirc 24 \bigcirc	8.8	7.3 J	9.8	
Pyrene	UG/L	50			4.0 J	5.3	5.3
Total Polynuclear Aromatic Hydrocarbons	UG/L	-	1,252.4	403.3	4,450.1	2,314.1	2,402.4
Total Semivolatile Organic Compounds	UG/L	-	1,324.34	427.39	4,564.27	2,401.8	2,509.1

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis.

B (inoranics) - The reported concentration is an estimated value.

Location ID			BW-03	BW-03	BW-04	BW-04	BW-04
Sample ID			BW-03	BW-03	BW-04	BW-04	DUPLICATE-081115
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (f	t)		-	-	-	-	-
Date Sampled			03/13/12	08/12/15	03/13/12	08/11/15	08/11/15
Parameter	Units	Criteria*					Field Duplicate (1-1)
Metals							
Aluminum	UG/L	-			155 B	529	674
Arsenic	UG/L	25					
Barium	UG/L	1000	97.5 B	60.6 J	139 B	195 J	199 J
Cadmium	UG/L	5					
Calcium	UG/L	-	496,000	474,000	55,100	113,000	114,000
Chromium	UG/L	50	125	0.65 J	1.3 B	2.6 J	3.1 J
Cobalt	UG/L	-	6.9 B	6.0 J	0.97 B		
Copper	UG/L	200		5.0 J			4.2 J
Iron	UG/L	300	3,680	4,240	2,940	5,400	5,590
Lead	UG/L	25		4.2 J			
Magnesium	UG/L	35000	189,000	198,000	48,300	80,100	80,100
Manganese	UG/L	300	434	386	588	1,000	995
Nickel	UG/L	100			7.6 B	3.6 J	3.8 J
Potassium	UG/L	-	49,200 J	40,600	21,100 J	14,500	14,400
Selenium	UG/L	10	18.3 B	26.7 J		15.7 J	15.9 J
Silver	UG/L	50					
Sodium	UG/L	20000	1,760,000	1,940,000	285,000	199,000	204,000
Thallium	UG/L	0.5					
Vanadium	UG/L	-			1.8 B	3.1 J	3.3 J
Zinc	UG/L	2000					21.8
Miscellaneous Parameters							
Cyanide, Total	UG/L	200	1,140	1,140	37.6	20.9	16.0 J

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA

Flags assigned during chemistry validation are shown.

^{- =} No standard or guidance value.

J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis.

 $[\]ensuremath{\mathsf{B}}$ (inoranics) - The reported concentration is an estimated value.

TABLE 4-8A
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN AUGUST 2015 OVERBURDEN GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of
i didiliotoi	Cinto	Ontona	Samples	Detections	Min	Max	Avg	Exceed	Max Value
Volatile Organic Compounds									
1,1,2,2-Tetrachloroethane	UG/L	5	18	1	22.00	22.00	22.00	1	MWMF-04
1,1,2-Trichloroethane	UG/L	1	18	2	2.40	120.0	61.20	2	MWMF-04
1,1-Dichloroethane	UG/L	5	18	2	1.60	9.40	5.50	1	MWMF-04
1,2-Dichloroethane	UG/L	0.6	18	6	2.00	150.0	37.73	6	MWMF-04
1,2-Dichloroethene (cis)	UG/L	5	18	10	1.40	3,800	442.6	6	MW-03
1,2-Dichloroethene (trans)	UG/L	5	18	3	1.70	140.0	48.20	1	MWMF-04
1,2-Dichloropropane	UG/L	1	18	1	5.20	5.20	5.20	1	MWMF-04
Acetone	UG/L	50	18	4	27.00	280.0	127.3	3	MWMF-04
Benzene	UG/L	1	18	11	7.80	1,700	267.5	11	MWMF-08
Bromodichloromethane	UG/L	50	18	1	1.20	1.20	1.20	0	MWMF-04
Bromomethane	UG/L	5	18	1	140.0	140.0	140.0	1	MWMF-04
Carbon disulfide	UG/L	60	18	4	3.40	110.0	63.10	2	MWMF-05
Chlorobenzene	UG/L	5	18	2	1.00	1.20	1.10	0	MWMF-04
Chloroethane	UG/L	5	18	1	80.00	80.00	80.00	1	MWMF-04
Chloroform	UG/L	7	18	2	5.10	77.00	41.05	1	MWMF-04
Chloromethane	UG/L	5	18	5	1.20	720.0	147.4	2	MWMF-04
Cyclohexane	UG/L	-	18	6	1.40	6.00	3.12	0	MWMF-01

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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TABLE 4-8A STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN AUGUST 2015 OVERBURDEN GROUNDWATER SAMPLES EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of
- 4.4			Samples	Detections	Min	Max	Avg	Exceed	Max Value
Volatile Organic Compounds									
Ethylbenzene	UG/L	5	18	9	1.00	2,600	379.7	5	MWMF-08
Isopropylbenzene	UG/L	5	18	10	1.50	130.0	25.84	6	MWMF-08
Methyl tert-butyl ether	UG/L	10	18	4	1.40	25.00	11.85	2	MWMF-01
Methylcyclohexane	UG/L	-	18	4	1.90	3.70	2.45	0	MWMF-07S
Methylene chloride	UG/L	5	18	4	2.60	320.0	87.60	3	MWMF-04
Styrene	UG/L	5	18	1	1.00	1.00	1.00	0	MWMF-06
Tetrachloroethene	UG/L	5	18	1	20.00	20.00	20.00	1	MWMF-04
Toluene	UG/L	5	18	9	1.40	450.0	68.82	3	MWMF-08
Trichloroethene	UG/L	5	18	1	9.60	9.60	9.60	1	MWMF-04
Vinyl chloride	UG/L	2	18	6	3.20	2,700	494.4	6	MW-03
Xylene (total)	UG/L	5	18	7	4.40	2,000	390.6	6	MWMF-08
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	5	18	5	2.30	32.00	11.58	4	MW-05
2,4,6-Trichlorophenol	UG/L	1	18	1	0.730	0.730	0.730	0	MWMF-06
2,4-Dichlorophenol	UG/L	5	18	1	1.20	1.20	1.20	0	MW-03
2,4-Dimethylphenol	UG/L	50	18	2	1.30	10.00	5.65	0	MWMF-08
2-Chlorophenol	UG/L	1	18	1	1.20	1.20	1.20	1	MWMF-06

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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TABLE 4-8A
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN AUGUST 2015 OVERBURDEN GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of
	00	on to no	Samples	Detections	Min	Max	Avg	Exceed	Max Value
Semivolatile Organic Compounds									
2-Methylnaphthalene	UG/L	-	18	6	1.10	640.0	135.8	0	MW-05
2-Methylphenol (o-cresol)	UG/L	1	18	4	0.660	1.60	1.15	2	MWMF-05
2-Nitrophenol	UG/L	1	18	1	3.50	3.50	3.50	1	MWMF-04
3&4-Methylphenol (m,p-cresol)	UG/L	1	18	6	0.860	5.80	2.11	5	MW-05
4-Nitrophenol	UG/L	1	18	1	2.30	2.30	2.30	1	MWMF-04
Acenaphthene	UG/L	20	18	12	0.590	67.00	18.63	4	MW-01
Acenaphthylene	UG/L	-	18	5	1.00	38.00	9.68	0	MW-05
Acetophenone	UG/L	-	18	4	13.00	600.0	178.5	0	MWMF-04
Anthracene	UG/L	50	18	5	0.620	6.90	3.24	0	MW-05
Benzaldehyde	UG/L	-	18	2	2.30	180.0	91.15	0	MWMF-04
Benzo(a)anthracene	UG/L	0.002	18	2	0.950	0.970	0.960	2	MW-03
Benzo(a)pyrene	UG/L	0	18	2	0.690	0.950	0.820	2	MW-05
Benzo(b)fluoranthene	UG/L	0.002	18	2	0.710	0.920	0.815	2	MW-03
bis(2-Ethylhexyl)phthalate	UG/L	5	18	12	0.660	6.60	1.79	1	MW-11
Carbazole	UG/L	-	18	6	0.920	46.00	10.14	0	MW-01
Chrysene	UG/L	0.002	18	2	0.920	1.00	0.960	2	MW-03
Dibenzofuran	UG/L	-	18	6	0.940	38.00	8.51	0	MW-01

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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TABLE 4-8A
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN AUGUST 2015 OVERBURDEN GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of
	00	o i i i i i i i i i i i i i i i i i i i	Samples	Detections	Min	Max	Avg	Exceed	Max Value
Semivolatile Organic Compounds									
Diethylphthalate	UG/L	50	18	1	0.500	0.500	0.500	0	MWMF-06
Dimethylphthalate	UG/L	50	18	17	1.70	4.60	2.92	0	MWMF-05
Fluoranthene	UG/L	50	18	4	2.50	6.60	4.43	0	MW-01
Fluorene	UG/L	50	18	9	0.610	33.00	9.89	0	MW-05
Naphthalene	UG/L	10	18	8	8.80	5,700	1,291	6	MW-05
Phenanthrene	UG/L	50	18	7	0.840	39.00	13.33	0	MW-01
Phenol	UG/L	1	18	8	0.640	6.90	2.07	5	MWMF-08
Pyrene	UG/L	50	18	4	2.30	7.70	4.65	0	MW-06
Metals									
Aluminum	UG/L	-	18	8	107.0	4.42E+05	6.83E+04	0	MWMF-04
Arsenic	UG/L	25	18	3	6.70	47.60	21.37	1	MWMF-04
Barium	UG/L	1000	18	13	29.00	1,790	383.4	1	MW-02
Beryllium	UG/L	3	18	3	0.440	41.40	16.78	2	MWMF-04
Cadmium	UG/L	5	18	3	1.30	10.40	4.37	1	MWMF-04
Calcium	UG/L	-	18	18	7.30E+04	8.63E+05	3.02E+05	0	MWMF-07D
Chromium	UG/L	50	18	10	0.780	771.0	109.1	3	MWMF-04
Cobalt	UG/L	-	18	9	0.990	930.0	136.6	0	MWMF-04

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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TABLE 4-8A
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN AUGUST 2015 OVERBURDEN GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of
	• • • • • • • • • • • • • • • • • • • •		Samples	Detections	Min	Max	Avg	Exceed	Max Value
Metals									
Copper	UG/L	200	18	13	4.40	1,520	144.0	1	MWMF-04
Iron	UG/L	300	18	18	511.0	1.43E+06	1.54E+05	18	MWMF-05
Lead	UG/L	25	18	11	5.90	40.60	22.28	5	MWMF-05
Magnesium	UG/L	35000	18	18	1.07E+04	8.12E+05	1.56E+05	12	MWMF-04
Manganese	UG/L	300	18	18	650.0	3.83E+04	7,995	18	MWMF-08
Mercury	UG/L	0.7	18	2	0.037	0.100	0.069	0	MWMF-04
Nickel	UG/L	100	18	16	0.860	3,610	512.1	6	MWMF-04
Potassium	UG/L	-	18	18	8,650	8.25E+04	3.98E+04	0	MWMF-05
Selenium	UG/L	10	18	13	12.20	44.20	22.04	13	MWMF-06
Silver	UG/L	50	18	2	7.00	11.80	9.40	0	MWMF-05
Sodium	UG/L	20000	18	18	3.75E+04	5.85E+06	1.27E+06	18	MWMF-04
Thallium	UG/L	0.5	18	5	18.00	56.20	34.46	5	MWMF-05
Vanadium	UG/L	-	18	17	1.70	757.0	129.3	0	MWMF-06
Zinc	UG/L	2000	18	8	7.00	4,780	1,365	2	MWMF-05
Miscellaneous Parameters									
Cyanide, Total	UG/L	200	18	13	7.90	898.0	247.8	6	MWMF-01

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

TABLE 4-8B
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN MARCH 2012 BEDROCK GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of
			Samples	Detections	Min	Max	Avg	Exceed	Max Value
Volatile Organic Compounds									
1,2-Dichloroethene (cis)	UG/L	5	5	4	220.0	7,100	3,830	4	BW-02
Benzene	UG/L	1	5	5	1.10E+04	4.40E+04	2.38E+04	5	BW-03
Ethylbenzene	UG/L	5	5	5	780.0	2,700	1,396	5	BW-03
Styrene	UG/L	5	5	2	2,600	4,300	3,450	2	BW-01
Toluene	UG/L	5	5	5	300.0	1.40E+04	9,460	5	BW-02
Vinyl chloride	UG/L	2	5	3	200.0	990.0	710.0	3	BW-02
Xylene (total)	UG/L	5	5	5	1,100	8,600	5,400	5	BW-02
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	5	5	5	5.50	28.00	18.50	5	BW-01
2,4-Dimethylphenol	UG/L	50	5	1	1,500	1,500	1,500	1	BW-02
2-Methylnaphthalene	UG/L	-	5	5	8.20	510.0	307.6	0	BW-01
2-Methylphenol (o-cresol)	UG/L	1	5	5	13.00	1,300	541.8	5	BW-02
3&4-Methylphenol (m,p-cresol)	UG/L	1	5	5	12.00	2,400	751.2	5	BW-02
Acenaphthene	UG/L	20	5	5	5.60	18.00	10.70	0	BW-03
Acenaphthylene	UG/L	-	5	5	5.10	190.0	78.06	0	BW-01
Acetophenone	UG/L	-	5	2	2.40	11.00	6.70	0	BW-04
Anthracene	UG/L	50	5	4	5.20	8.10	6.55	0	BW-04

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

TABLE 4-8B
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN MARCH 2012 BEDROCK GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	Range of Detections		No.	Location of
	-	01110110	Samples	Detections	Min	Max	Avg	Exceed	Max Value
Semivolatile Organic Compounds									
bis(2-Chloroethyl)ether	UG/L	1	5	1	70.00	70.00	70.00	1	BW-01
bis(2-Ethylhexyl)phthalate	UG/L	5	5	4	0.540	0.940	0.820	0	BW-01
Carbazole	UG/L	-	5	5	2.60	86.00	27.60	0	BW-01
Dibenzofuran	UG/L	-	5	5	0.900	21.00	8.12	0	BW-01
Fluoranthene	UG/L	50	5	4	1.50	4.00	2.65	0	BW-04
Fluorene	UG/L	50	5	5	4.40	31.00	17.68	0	BW-04
Naphthalene	UG/L	10	5	5	1,200	7,300	5,180	5	BW-02
Phenanthrene	UG/L	50	5	5	1.80	40.00	20.36	0	BW-04
Phenol	UG/L	1	5	5	7.30	1,200	469.3	5	BW-02
Pyrene	UG/L	50	5	4	1.60	4.00	2.48	0	BW-04
Metals									
Aluminum	UG/L	=	5	3	66.60	155.0	98.20	0	BW-04
Arsenic	UG/L	25	5	2	9.60	10.90	10.25	0	BW-02
Barium	UG/L	1000	5	5	41.00	139.0	87.32	0	BW-04
Cadmium	UG/L	5	5	1	1.40	1.40	1.40	0	BW-01
Calcium	UG/L	-	5	5	5.51E+04	4.96E+05	2.30E+05	0	BW-03
Chromium	UG/L	50	5	5	1.30	125.0	27.50	1	BW-03

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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TABLE 4-8B
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN MARCH 2012 BEDROCK GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Range of Detection		ions	No.	Location of
raidinotor	- Cinto	Gintona	Samples	Samples Detections	Min	Max	Avg	Exceed	Max Value
Metals									
Cobalt	UG/L	-	5	5	0.970	11.00	6.31	0	BW-02
Iron	UG/L	300	5	5	2,940	3.84E+04	1.03E+04	5	BW-01
Magnesium	UG/L	35000	5	5	9,440	1.89E+05	6.61E+04	3	BW-03
Manganese	UG/L	300	5	5	44.80	1,780	578.4	3	BW-01
Nickel	UG/L	100	5	4	2.10	16.70	10.75	0	BW-02
Potassium	UG/L	-	5	5	2.11E+04	9.61E+04	5.83E+04	0	BW-02
Selenium	UG/L	10	5	1	18.30	18.30	18.30	1	BW-03
Sodium	UG/L	20000	5	5	2.18E+05	1.76E+06	5.77E+05	5	BW-03
Vanadium	UG/L	-	5	3	1.80	32.30	22.00	0	BW-02
Miscellaneous Parameters									
Cyanide, Total	UG/L	200	5	5	37.60	7,160	3,086	4	BW-02

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.



TABLE 4-8C
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN AUGUST 2015 BEDROCK GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Range of Detections		No.	Location of	
		on ton a	Samples	Detections	Min	Max	Avg	Exceed	Max Value
Volatile Organic Compounds									
1,1-Dichloroethene	UG/L	5	5	1	6.80	6.80	6.80	1	BW-02
1,2-Dichloroethane	UG/L	0.6	5	3	73.00	730.0	295.0	3	BW-02
1,2-Dichloroethene (cis)	UG/L	5	5	4	54.00	3,600	985.0	4	BW-02
1,2-Dichloroethene (trans)	UG/L	5	5	2	3.10	46.00	24.55	1	BW-02
4-Methyl-2-pentanone	UG/L	-	5	1	9.80	9.80	9.80	0	BW-02
Acetone	UG/L	50	5	2	28.00	480.0	254.0	1	BW-02
Benzene	UG/L	1	5	5	2,900	7.20E+04	2.98E+04	5	BW-03
Carbon disulfide	UG/L	60	5	2	1.00	3.80	2.40	0	BW-02
Chloromethane	UG/L	5	5	1	3.30	3.30	3.30	0	BW-02
Cyclohexane	UG/L	-	5	3	1.00	7.00	3.90	0	BW-03
Ethylbenzene	UG/L	5	5	5	750.0	2,600	1,510	5	BW-03
Isopropylbenzene	UG/L	5	5	5	10.00	53.00	26.60	5	BW-03
Methyl tert-butyl ether	UG/L	10	5	4	1.40	23.00	8.83	1	BW-02
Methylcyclohexane	UG/L	-	5	4	1.40	4.50	2.70	0	BW-03
Methylene chloride	UG/L	5	5	2	1.10	1.20	1.15	0	BW-02
Styrene	UG/L	5	5	2	380.0	410.0	395.0	2	BW-04
Toluene	UG/L	5	5	5	100.0	1.30E+04	4,160	5	BW-01

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

TABLE 4-8C
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN AUGUST 2015 BEDROCK GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detect	ions	No.	Location of
			Samples	Detections	Min	Max	Avg	Exceed	Max Value
Volatile Organic Compounds									
Trichloroethene	UG/L	5	5	2	1.00	1.00	1.00	0	BW-03
Vinyl chloride	UG/L	2	5	4	12.00	2,000	522.5	4	BW-02
Xylene (total)	UG/L	5	5	5	650.0	5,000	2,570	5	BW-01
Semivolatile Organic Compounds									
1,1'-Biphenyl	UG/L	5	5	5	4.10	33.00	17.42	4	BW-01
2,4-Dimethylphenol	UG/L	50	5	5	1.70	1,400	340.0	2	BW-02
2-Methylnaphthalene	UG/L	-	5	4	220.0	480.0	285.0	0	BW-01
2-Methylphenol (o-cresol)	UG/L	1	5	4	8.10	760.0	236.7	4	BW-02
3&4-Methylphenol (m,p-cresol)	UG/L	1	5	4	7.90	1,200	315.8	4	BW-02
3,3'-Dichlorobenzidine	UG/L	5	5	1	1.10	1.10	1.10	0	BW-02
Acenaphthene	UG/L	20	5	5	3.90	31.00	20.20	3	BW-04
Acenaphthylene	UG/L	-	5	5	4.70	140.0	65.54	0	BW-01
Acetophenone	UG/L	-	5	3	3.20	4.80	4.27	0	BW-04
Anthracene	UG/L	50	5	4	2.10	7.20	5.23	0	BW-04
bis(2-Ethylhexyl)phthalate	UG/L	5	5	3	0.700	2.50	1.37	0	BW-02
Carbazole	UG/L	-	5	5	2.30	76.00	23.94	0	BW-01
Dibenzofuran	UG/L	-	5	4	0.680	25.00	11.37	0	BW-01

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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TABLE 4-8C
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN AUGUST 2015 BEDROCK GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	No. of	Rang	e of Detecti	ions	No.	Location of
	-	01110110	Samples	Detections	Min	Max	Avg	Exceed	Max Value
Semivolatile Organic Compounds									
Dimethylphthalate	UG/L	50	5	3	2.40	5.30	3.57	0	BW-04
Fluoranthene	UG/L	50	5	4	0.570	4.60	3.07	0	BW-04
Fluorene	UG/L	50	5	5	0.570	35.00	16.67	0	BW-01
Naphthalene	UG/L	10	5	5	370.0	6,100	2,814	5	BW-01
Phenanthrene	UG/L	50	5	5	1.40	39.00	23.34	0	BW-04
Phenol	UG/L	1	5	5	8.80	540.0	119.9	5	BW-02
Pyrene	UG/L	50	5	4	0.850	5.30	3.44	0	BW-04
Metals									
Aluminum	UG/L	-	5	2	529.0	674.0	601.5	0	BW-04
Barium	UG/L	1000	5	3	60.60	199.0	151.5	0	BW-04
Calcium	UG/L	-	5	5	1.13E+05	5.55E+05	3.00E+05	0	BW-02
Chromium	UG/L	50	5	4	0.650	10.50	4.21	0	BW-02
Cobalt	UG/L	-	5	2	3.20	6.00	4.60	0	BW-03
Copper	UG/L	200	5	4	4.20	47.60	15.93	0	BW-02
Iron	UG/L	300	5	5	4,240	8.41E+05	1.83E+05	5	BW-02
Lead	UG/L	25	5	2	4.20	27.00	15.60	1	BW-02
Magnesium	UG/L	35000	5	5	8.01E+04	3.15E+05	1.62E+05	5	BW-02

^{*}Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.

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TABLE 4-8C
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN AUGUST 2015 BEDROCK GROUNDWATER SAMPLES
EAST 138th STREET WORKS SITE

Parameter	Units	Criteria*	No. of	. of No. of		e of Detect	ions	No.	Location of
T didiliotoi	- Cinto	Ontona	Samples Detections	Min	Max	Avg	Exceed	Max Value	
Metals									
Manganese	UG/L	300	5	5	386.0	6.87E+04	1.47E+04	5	BW-02
Nickel	UG/L	100	5	4	1.50	562.0	142.7	1	BW-02
Potassium	UG/L	-	5	5	1.44E+04	3.20E+05	8.49E+04	0	BW-02
Selenium	UG/L	10	5	5	15.70	28.50	21.92	5	BW-02
Silver	UG/L	50	5	1	10.80	10.80	10.80	0	BW-02
Sodium	UG/L	20000	5	5	1.99E+05	2.82E+06	1.15E+06	5	BW-02
Thallium	UG/L	0.5	5	1	69.00	69.00	69.00	1	BW-02
Vanadium	UG/L	-	5	4	3.10	799.0	203.0	0	BW-02
Zinc	UG/L	2000	5	2	16.70	21.80	19.25	0	BW-04
Miscellaneous Parameters									
Cyanide, Total	UG/L	200	5	5	16.00	1,880	655.0	3	BW-02

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (including April 2000 and June 2004 addenda). Class GA.



TABLE 5-1
CONTAMINANTS EXCEEDING SOIL OR GROUNDWATER SCGS OR DETECTED IN SOIL VAPOR
EAST 138th STREET WORKS SITE

D	Matrix						
Parameter	Subsurface Soil	Groundwater	Soil Vapor				
Volatile Organic Compounds							
1,1,2,2-Tetrachloroethane		Χ					
1,1,2-Trichloro-1,2,2-trifluoroethane			D				
1,1,2-Trichloroethane		Χ					
1,2,4-Trichlorobenzene							
1,1-Dichloroethane		Χ					
1,1-Dichloroethene		Χ	D				
1,2-Dichlorobenzene							
1,2-Dichloroethane		Χ	-				
1,2-Dichloroethene (cis)	X	Χ	D				
1,2-Dichloroethene (trans)		Χ	D				
1,2-Dichloropropane		Χ	-				
1,4-Dichlorobenzene			D				
2,2,4-Trimethylpentane (Isooctane)	NA	NA	D				
2,3-Dimethylpentane	NA	NA	D				
2-Butanone			D				
2-Hexanone			D				
2-Methylpentane			D				
4-Methyl-2-pentanone			D				
Acetone	X	Χ	D				
Benzene	Х	Χ	D				
Bromodichloromethane							
Bromomethane		Χ					
Carbon disulfide		Χ	D				
Chlorobenzene							
Chloroethane		Χ	D				
Chloroform		Χ	D				
Chloromethane		Χ					
Cyclohexane			D				
Dichlorodifluoromethane			D				
Ethylbenzene	X	Χ	D				
Indane	NA	NA	D				
Isopentane	NA	NA	D				
Isopropylbenzene (Cumene)	X	Χ	D				
Methyl acetate							
Methyl tert-butyl ether		Χ	D				
Methylcyclohexane			D				
Methylene chloride		Χ	D				
Styrene	X	Χ	D				
Tetrachloroethene		Χ	D				
Toluene	X	Χ	D				
Trichloroethene		Χ	D				
Trichlorofluoromethane			D				
Vinyl chloride		Χ	D				
Xylene (total)	X	Х	D				
Semivolatile Organic Compounds	· ·						
1,1'-Biphenyl	X	Χ	NA				
2,4,6-Trichlorophenol			NA				
2,4-Dichlorophenol			NA				
2,4-Dimethylphenol		Х	NA NA				
2,6-Dinitrotoluene	X		NA				
2-Chloronaphthalene			NA NA				

TABLE 5-1
CONTAMINANTS EXCEEDING SOIL OR GROUNDWATER SCGS OR DETECTED IN SOIL VAPOR
EAST 138th STREET WORKS SITE

- ·	Matrix						
Parameter	Subsurface Soil	Groundwater	Soil Vapor				
2-Chlorophenol		Χ	NA				
2-Methylnaphthalene	X		NA				
2-Methylphenol (o-cresol)	X	Χ	NA				
2-Nitrophenol		Χ	NA				
3&4-Methylphenol (m,p-cresol)	Х	Χ	NA				
3,3'-Dichlorobenzidine		Χ	NA				
4-Nitrophenol		Χ	NA				
Acenaphthene	Х	Χ	NA				
Acenaphthylene	Х		NA				
Acetophenone			NA				
Anthracene	Х		NA				
Benzaldehyde			NA				
Benzo(a)anthracene	X	Χ	NA				
Benzo(a)pyrene	X	X	NA				
Benzo(b)fluoranthene	X	X	NA				
Benzo(g,h,i)perylene	X		NA NA				
Benzo(k)fluoranthene	X		NA				
bis(2-chloroethyl)ether		Х	NA				
bis(2-Ethylhexyl)phthalate		X	NA NA				
Butylbenzylphthalate			NA NA				
Carbazole			NA NA				
Chrysene	X	Х	NA NA				
Dibenz(a,h)anthracene	X		NA NA				
Dibenzofuran	X		NA NA				
Diethylphthalate			NA NA				
Dimethylphthalate			NA NA				
Di-n-butylphthalate	X		NA NA				
Di-n-octylphthalate			NA NA				
Fluoranthene	X		NA NA				
Fluorene	X		NA NA				
Indeno(1,2,3-cd)pyrene	X		NA NA				
Naphthalene	X	X	NA NA				
Phenanthrene	X		NA NA				
Phenol	X	X	NA NA				
	X		NA NA				
Pyrene Metals	^		INA				
	X		NIA				
Aluminum			NA NA				
Antimony	 X	 X	NA NA				
Arsenic	X	X	NA NA				
Barium							
Beryllium	 V	X	NA				
Cadmium	X	Х	NA NA				
Calcium	X	 V	NA				
Chromium	X	X	NA NA				
Cobalt	X	 V	NA NA				
Copper	X	X	NA NA				
Iron	X	X	NA NA				
Lead	X	X	NA NA				
Magnesium		X	NA				
Manganese		Х	NA				
Mercury	Х		NA				
Nickel	X	Χ	NA				

TABLE 5-1
CONTAMINANTS EXCEEDING SOIL OR GROUNDWATER SCGS OR DETECTED IN SOIL VAPOR
EAST 138th STREET WORKS SITE

Devementer		Matrix					
Parameter	Subsurface Soil	Groundwater	Soil Vapor				
Potassium			NA				
Selenium	X	Χ	NA				
Silver			NA				
Sodium		Χ	NA				
Thallium		Χ	NA				
Vanadium	X		NA				
Zinc	X	Χ	NA				
Miscellaneous							
Chloride	NA	Χ	NA				
Cyanide (total)		Χ	NA				

- -- Not detected or not detected above the applicable standard, criteria or guidance value.
- D Detected in one or more samples. There are no applicable standard, criteria or guidance values.
- NA Not analyzed.
- ND Not Detected
- X Detected above the applicable standard, criteria or guidance value in one or more samples.

TABLE 6-1 CONTAMINANTS OF POTENTIAL CONCERN IN SAMPLES COLLECTED EAST 138th STREET WORKS FORMER MGP SITE

	Matrix					
Parameter	Subsurface Soil	Groundwater	Soil Vapor			
Volatile Organic Compounds			•			
1,1,2,2-Tetrachloroethane		Х				
1,1,2-Trichloroethane		Х				
1,1-Dichloroethane		Х				
1,1-Dichloroethene		Х	D			
1,2-Dichloroethane		Х				
1,2-Dichloroethene (cis)	Х	Х	D			
1,2-Dichloroethene (trans)		Х	D			
1,2-Dichloropropane		Х				
Acetone	Х	Х	D			
Benzene	Х	Х	D			
Bromomethane		Х				
Carbon disulfide		Х	D			
Chloroethane		Х	D			
Chloroform		Х	D			
Chloromethane		Х				
Ethylbenzene	Х	Х	D			
Isopropylbenzene (Cumene)	Х	Х	D			
Methyl tert-butyl ether		Х	D			
Methylene chloride		Х	D			
Styrene	Х	Х	D			
Tetrachloroethene		Х	D			
Toluene	Х	Х	D			
Trichloroethene		Х	D			
Vinyl chloride		Х	D			
Xylene (total)	Х	Х	D			
Semivolatile Organic Compounds						
1,1'-Biphenyl	Х	Х	NA			
2,4-Dimethylphenol		Х	NA			
2,6-Dinitrotoluene	Х		NA			
2-Chlorophenol		Х	NA			
2-Methylnaphthalene	Х		NA			
2-Methylphenol (o-cresol)	Х	Х	NA			
2-Nitrophenol		Х	NA			
3&4-Methylphenol (m,p-cresol)	Х	Х	NA			
3,3'-Dichlorobenzidine		Х	NA			
4-Nitrophenol		Х	NA			
Acenaphthene	Х	Х	NA			
Acenaphthylene	X		NA			
Anthracene	X		NA			
Benzo(a)anthracene	X	Х	NA			
Benzo(a)pyrene	X	X	NA			
Benzo(b)fluoranthene	X	Х	NA			
Benzo(g,h,i)perylene	X		NA			
Benzo(k)fluoranthene	X		NA			
bis(2-chloroethyl)ether		Х	NA			
bis(2-Ethylhexyl)phthalate		X	NA			

TABLE 6-1 CONTAMINANTS OF POTENTIAL CONCERN IN SAMPLES COLLECTED EAST 138th STREET WORKS FORMER MGP SITE

Bawamastan.		Matrix	
Parameter	Subsurface Soil	Groundwater	Soil Vapor
Chrysene	X	Х	NA
Dibenz(a,h)anthracene	X		NA
Dibenzofuran	X		NA
Di-n-butylphthalate	X		NA
Fluoranthene	X		NA
Fluorene	X		NA
Indeno(1,2,3-cd)pyrene	X		NA
Naphthalene	X	Х	NA
Phenanthrene	X		NA
Phenol	X	Х	NA
Pyrene	X		NA
Metals			
Aluminum	X		NA
Arsenic	X	Х	NA
Barium	X	Х	NA
Beryllium		Х	NA
Cadmium	X	Х	NA
Calcium	X		NA
Chromium	X	X	NA
Cobalt	X		NA
Copper	X	X	NA
Iron	X	X	NA
Lead	X	X	NA
Magnesium		X	NA
Manganese		Х	NA
Mercury	X		NA
Nickel	X	X	NA
Selenium	X	Х	NA
Sodium		Χ	NA
Thallium		Χ	NA
Vanadium	X		NA
Zinc	X	Χ	NA
Miscellaneous			
Chloride	NA	X	NA
Cyanide (total)		Χ	NA

NA - Not analyzed.

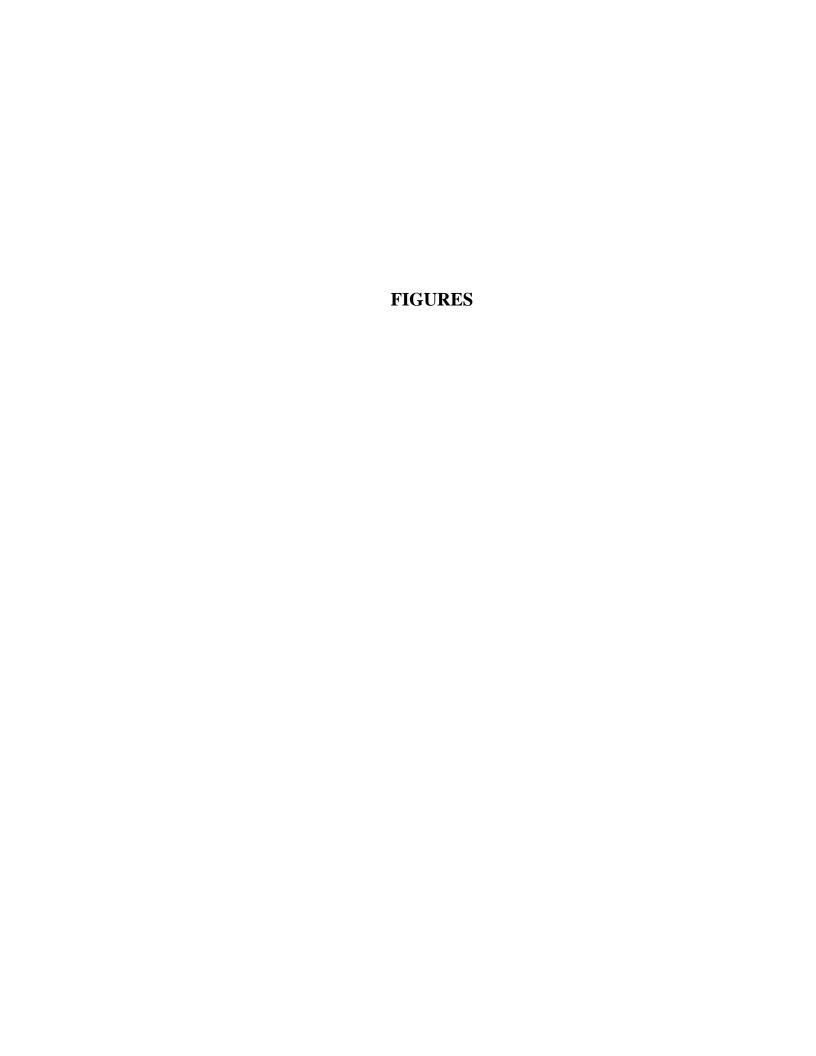
- -- Not detected or not detected above the applicable standard, criteria or guidance value.
- D Detected in one or more soil vapor samples

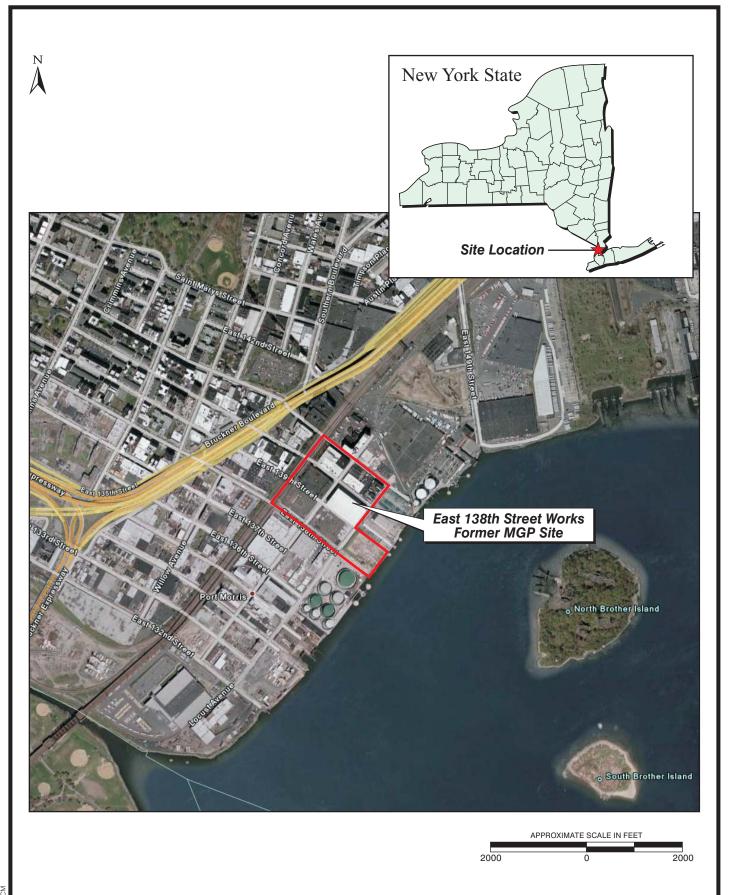
TABLE 6-2 POTENTIAL PATHWAYS OF EXPOSURE CURRENT USE SCENARIOS EAST 138th STREET WORKS FORMER MGP SITE BRONX, NY

Potentially Contaminated Medium	Potential Routes of Exposure	Potential Receptors	Pathway Complete?
Surface Soil	Dermal absorption, ingestion.	Industrial workers, trespassers.	No. All surface soil at the site is covered by buildings or sidewalks.
Subsurface Soil	Dermal absorption, ingestion.	Industrial workers, trespassers.	No. Disturbance of subsurface soil not anticipated under current site conditions since buildings and sidewalks cover the entire area.
Soil Vapor	Inhalation of volatile contaminants from soil that have migrated into structures.	Industrial workers, customers/visitors.	Yes. There is an exisiting structure at the site in which potential exposure is possible, and CPCs were detected in soil beneath the building at Block 2598, Lot 46 and in the overburden groundwater.
Air	Inhalation of volatile contaminants from soil or fugitive dust.	Industrial workers, trespassers.	No. There are no intrusive activities anticipated under current site conditions that would result in potential exposure to contaminants in the subsurface soil or fugitive dust.
Groundwater	Dermal absorption, inhalation.	Industrial workers, trespassers.	No. Exposure to groundwater (i.e., the subsurface) not anticipated under current site conditions.
Groundwater	Ingestion.	Industrial workers, local residents.	No. No current potable water use at or near site.
East River Surface Water	Dermal absorption, ingestion.	Secondary recreational users.	No. The East River is classified as Class I saline marine waters suitable for secondary contact for recreation and fishing - non contact recreational purposes.
East River Sediment	Dermal absorption, ingestion.	Secondary recreational users.	No. The East River is classified as Class I saline marine waters suitable for secondary contact for recreation and fishing - non contact recreational purposes.

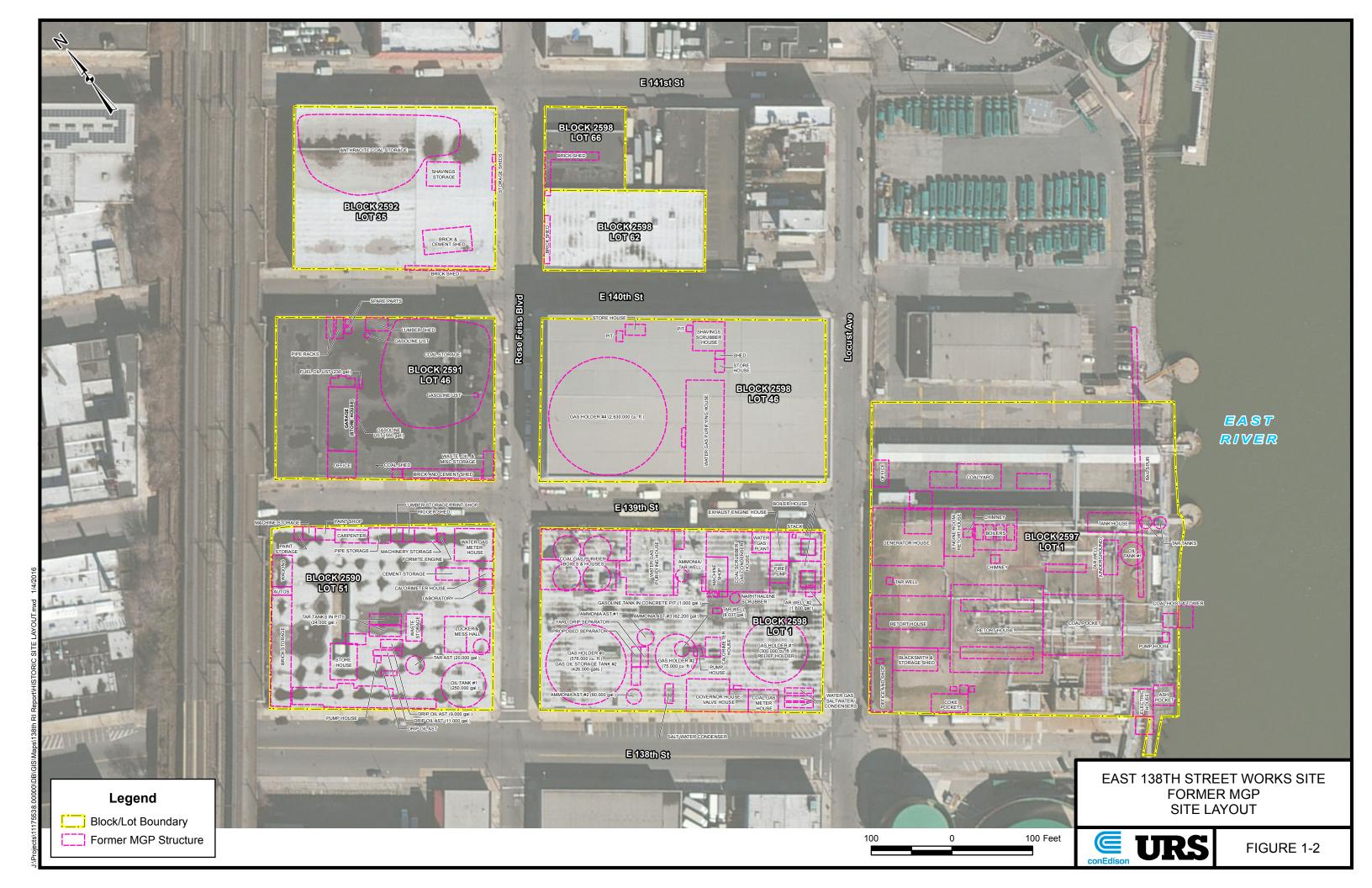
TABLE 6-3 POTENTIAL PATHWAYS OF EXPOSURE FUTURE USE SCENARIO EAST 138th SREET FORMER MGP SITE BRONX, NY

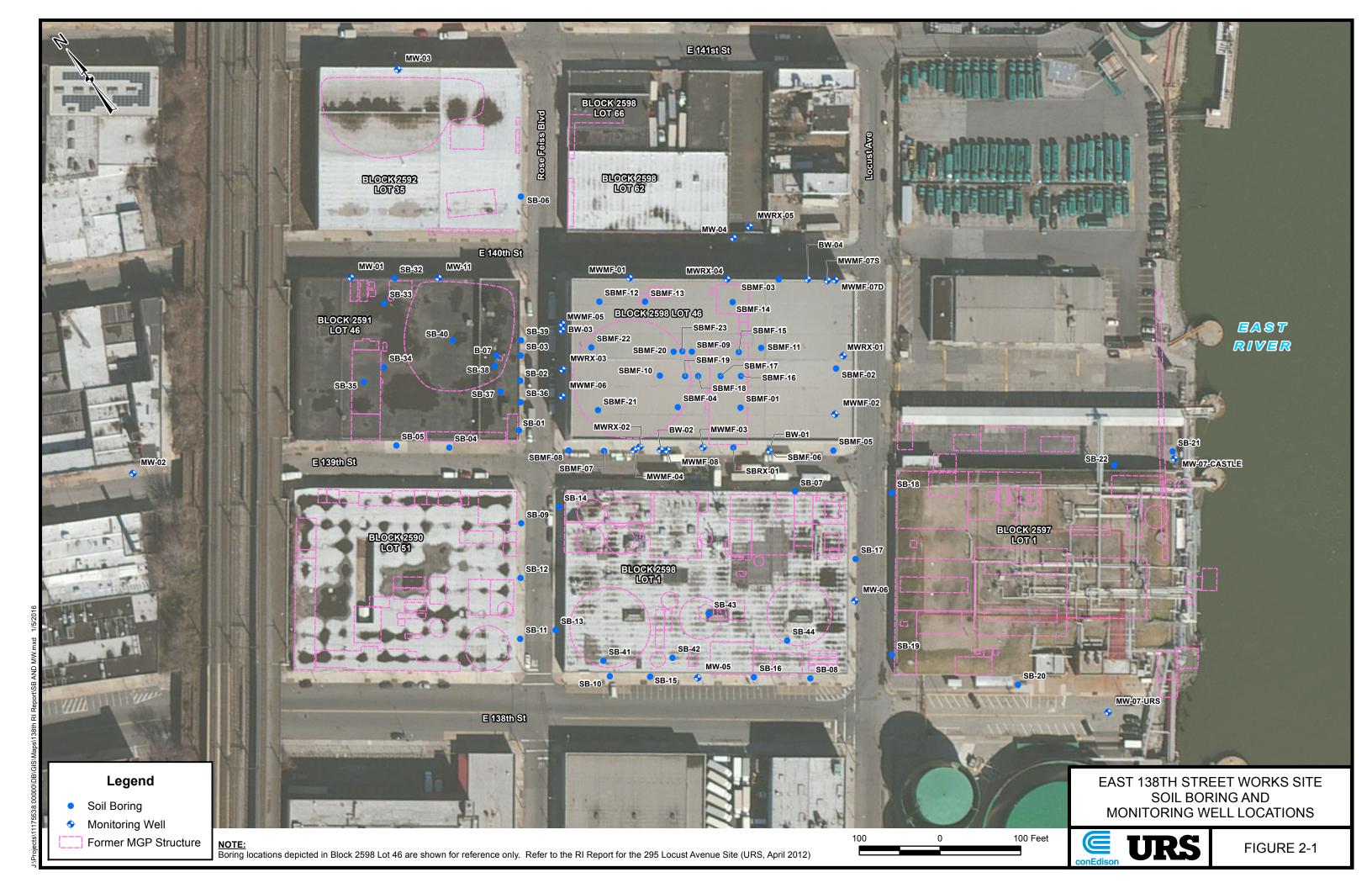
Potentially Contaminated Medium	Potential Routes of Exposure	Potential Receptors	Pathway Complete?
Surface Soil	Dermal absorption, ingestion.	Industrial workers, trespassers.	Yes. Disturbance of surface soil may occur under future site conditions during intrusive activities.
Subsurface Soil	Dermal absorption, ingestion.	Industrial workers, trespassers.	Yes. Disturbance of subsurface soil may occur under future site conditions during intrusive activities.
Soil Vapor	Inhalation of volatile contaminants from soil that have migrated into structures.	Industrial workers, residents.	Yes. There is an exisiting structure at the site in which potential exposure is possible, and CPCs were detected in soil beneath the building at Block 2598, Lot 46 and in the overburden groundwater.
Air	Inhalation of volatile contaminants from soil or fugitive dust.	Industrial workers, trespassers.	Yes. Intrusive activities under future site conditions could result in potential exposure to contaminants in the subsurface soil or fugitive dust.
Groundwater	Dermal absorption, inhalation.	Industrial workers, trespassers.	Yes. Exposure to groundwater (i.e., the subsurface) may occur under future site conditions during intrusive activities.
	Ingestion.	Industrial workers, residents.	No. Due to extensive public water supply systems in the area, no potable water use at or near the site is anticipated.
Surface Water	Dermal absorption, ingestion.	Industrial workers, trespassers, recreational users.	No. The East River is classified as Class I saline marine waters suitable for secondary contact for recreation and fishing - non contact recreational purposes.
Sediment	Dermal absorption, ingestion.	Industrial workers, trespassers, recreational users.	No. The East River is classified as Class I saline marine waters suitable for secondary contact for recreation and fishing - non contact recreational purposes.

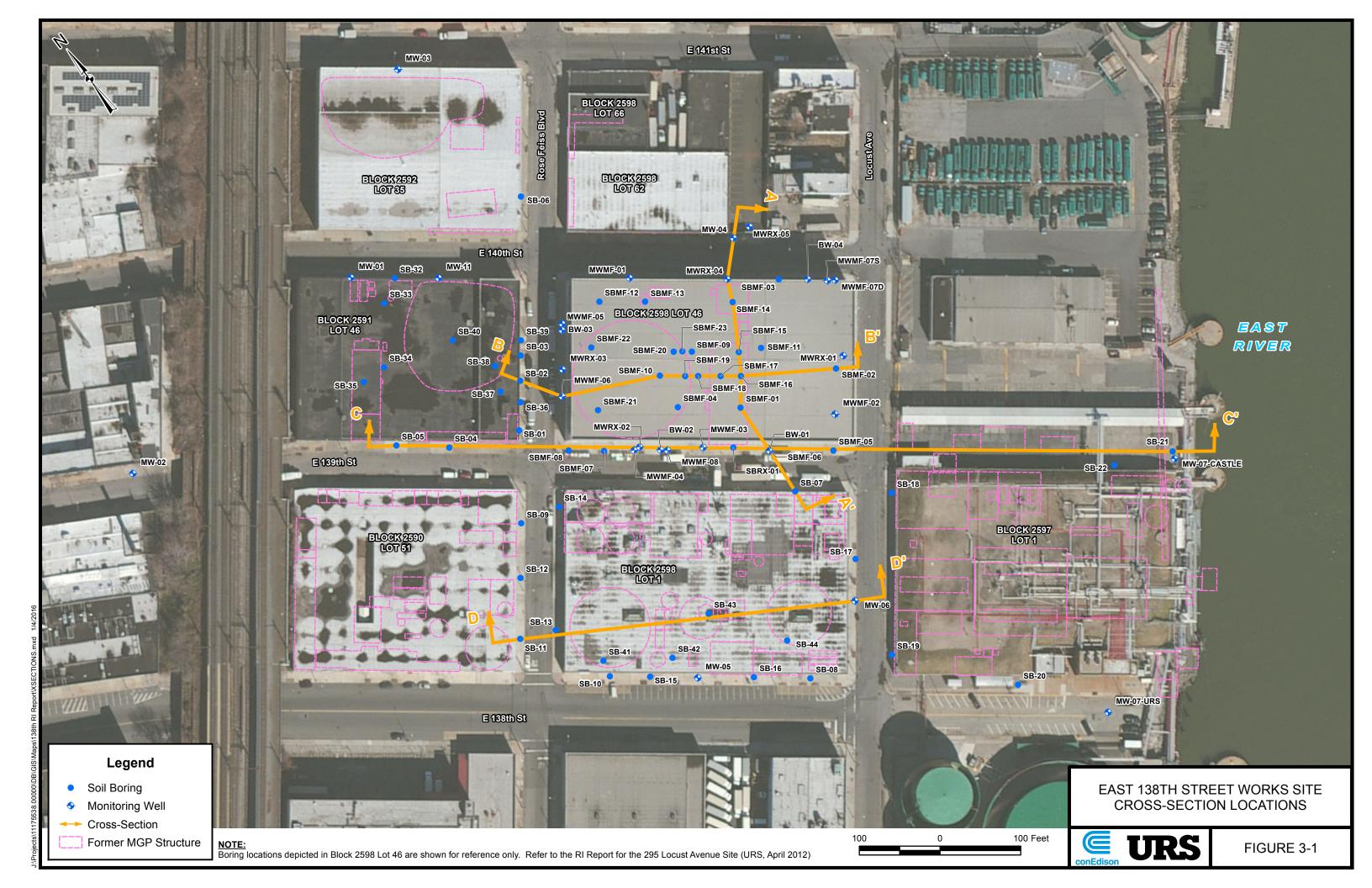


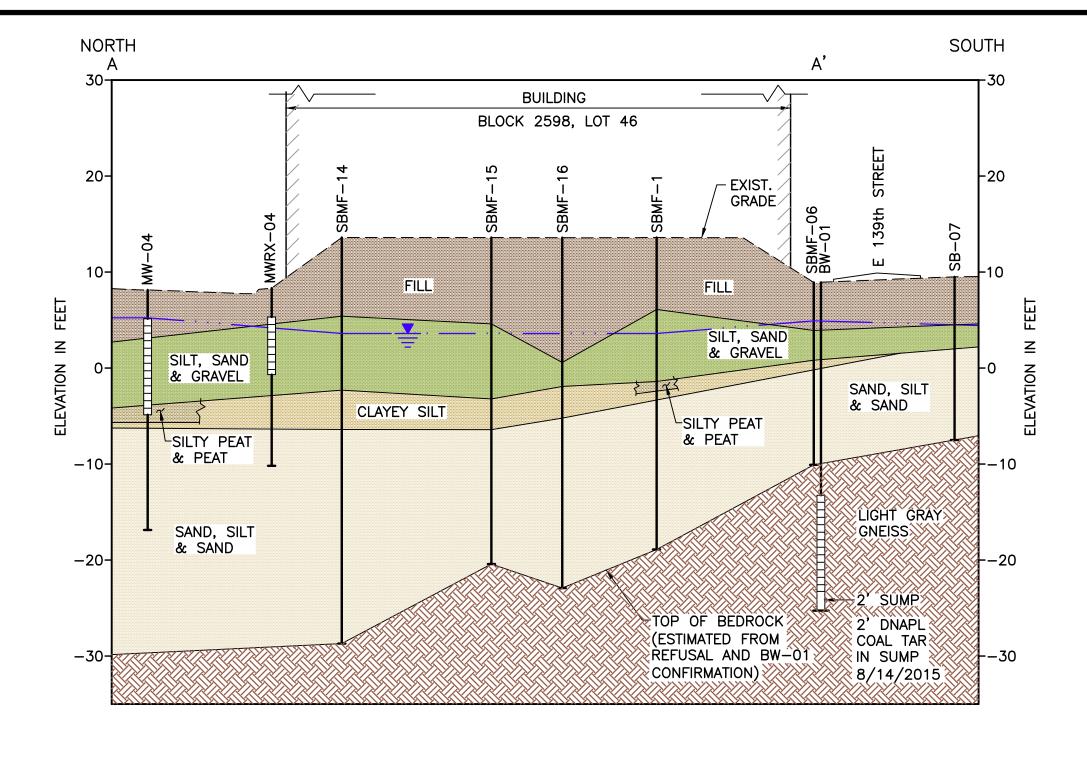






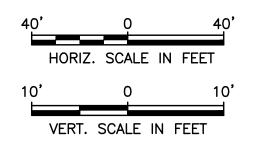






NOTES:

- 1. GEOLOGIC CONDITIONS SHOWN ARE REPRESENTATIVE OF CONDITIONS ENCOUNTERED AT EACH BORING LOCATION TO THE DEPTH DRILLED. EXTRAPOLATIONS BETWEEN BORINGS HAVE BEEN INTERPRETED USING STANDARDLY ACCEPTED GEOLOGIC PRACTICES AND PRINCIPLES. ACTUAL CONDITIONS MAY VARY BETWEEN BORINGS FROM THOSE SHOWN.
- 2. ELEVATIONS BASED ON NORTH AMERICAN VERTICAL DATUM, 1988.
- 3. THE DEPTH TO WATER WAS MEASURED IN ALL WELLS ON MAY 4, 2011.

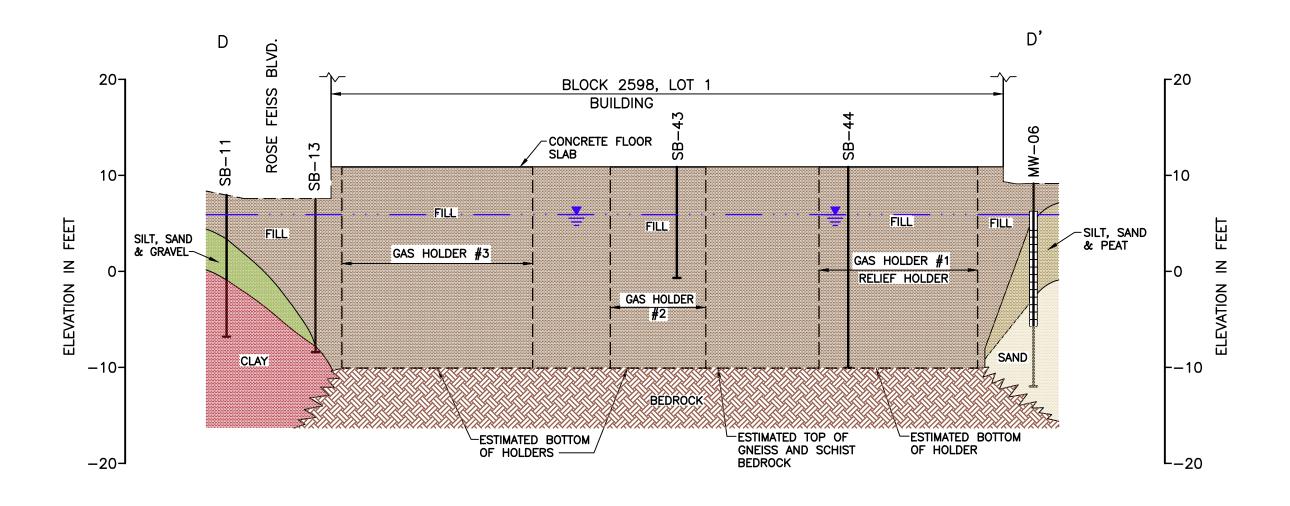


EAST 138th STREET WORKS SITE BLOCK 2598, LOT 46 CROSS-SECTION A-A'



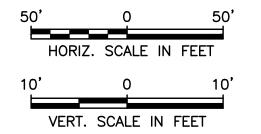


FIGURE 3-2



NOTES:

- 1. GEOLOGIC CONDITIONS SHOWN ARE REPRESENTATIVE OF CONDITIONS ENCOUNTERED AT EACH BORING LOCATION TO THE DEPTH DRILLED. EXTRAPOLATIONS BETWEEN BORINGS HAVE BEEN INTERPRETED USING STANDARDLY ACCEPTED GEOLOGIC PRACTICES AND PRINCIPLES. ACTUAL CONDITIONS MAY VARY BETWEEN BORINGS FROM THOSE SHOWN.
- 2. ELEVATIONS BASED ON NORTH AMERICAN VERTICAL DATUM, 1988.
- 3. THE DEPTH TO WATER WAS MEASURED IN ALL WELLS ON 8/11/2015.

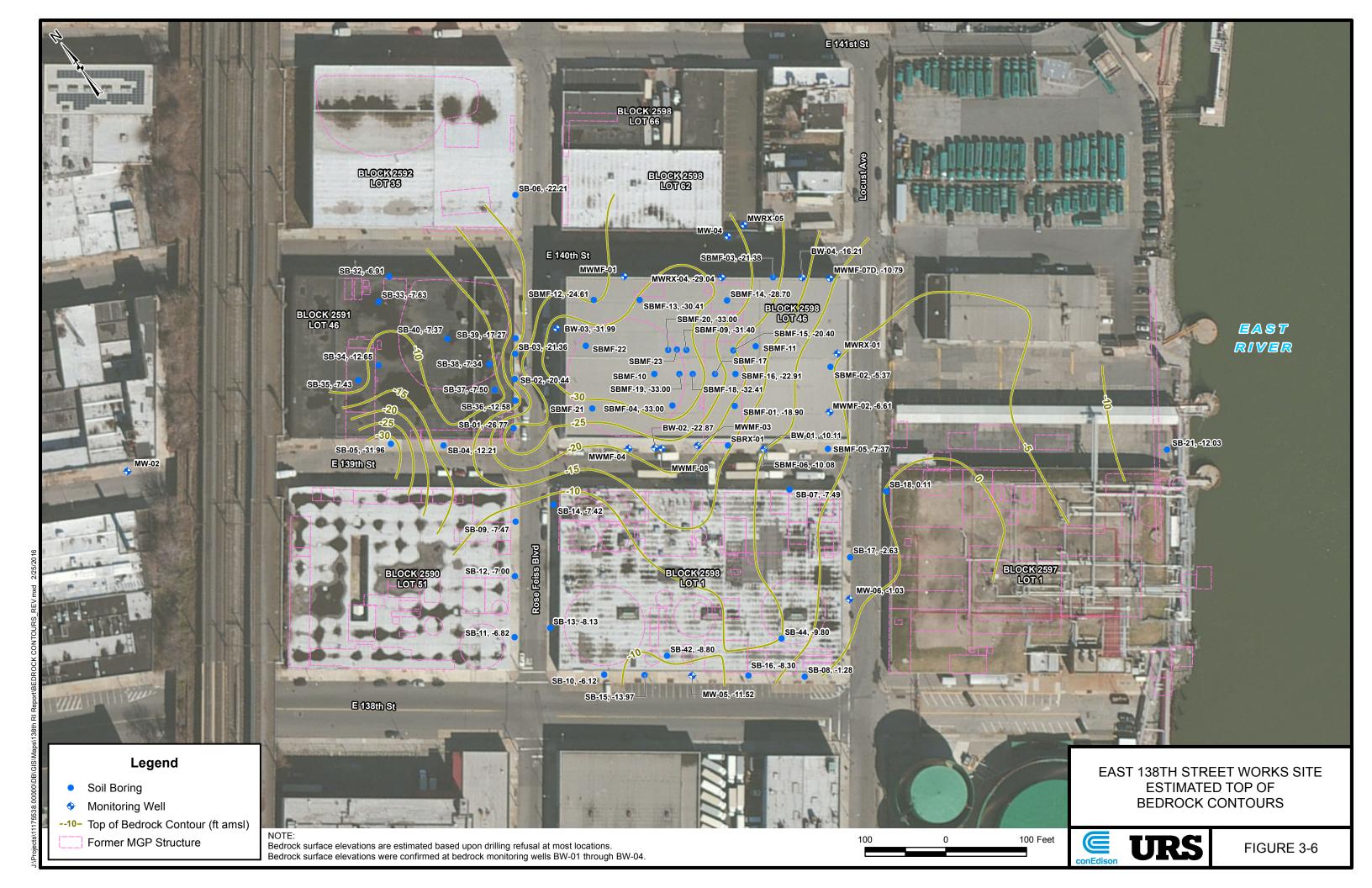


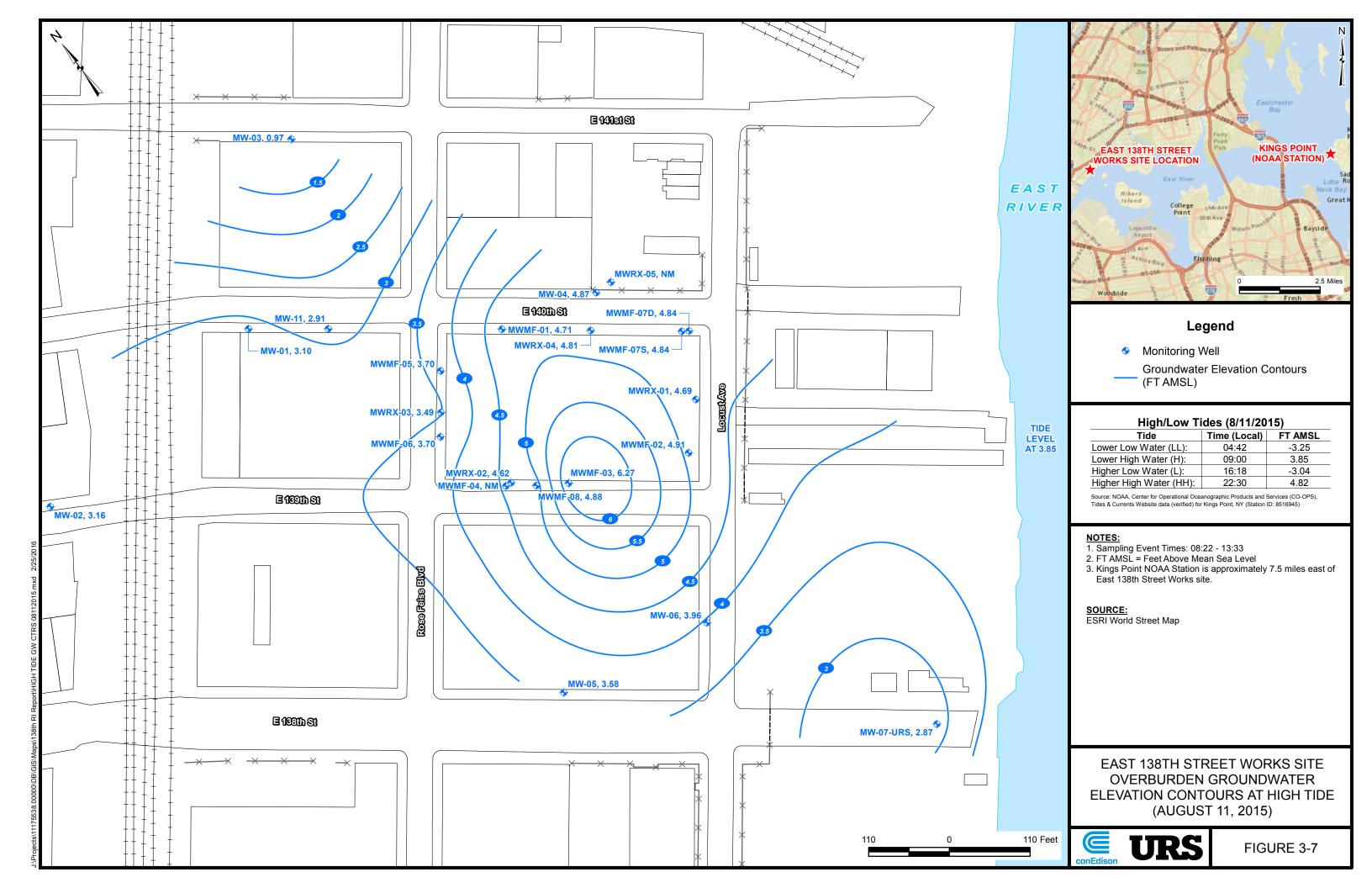
EAST 138th STREET WORKS SITE BLOCK 2598, LOT 1 CROSS—SECTION D—D'

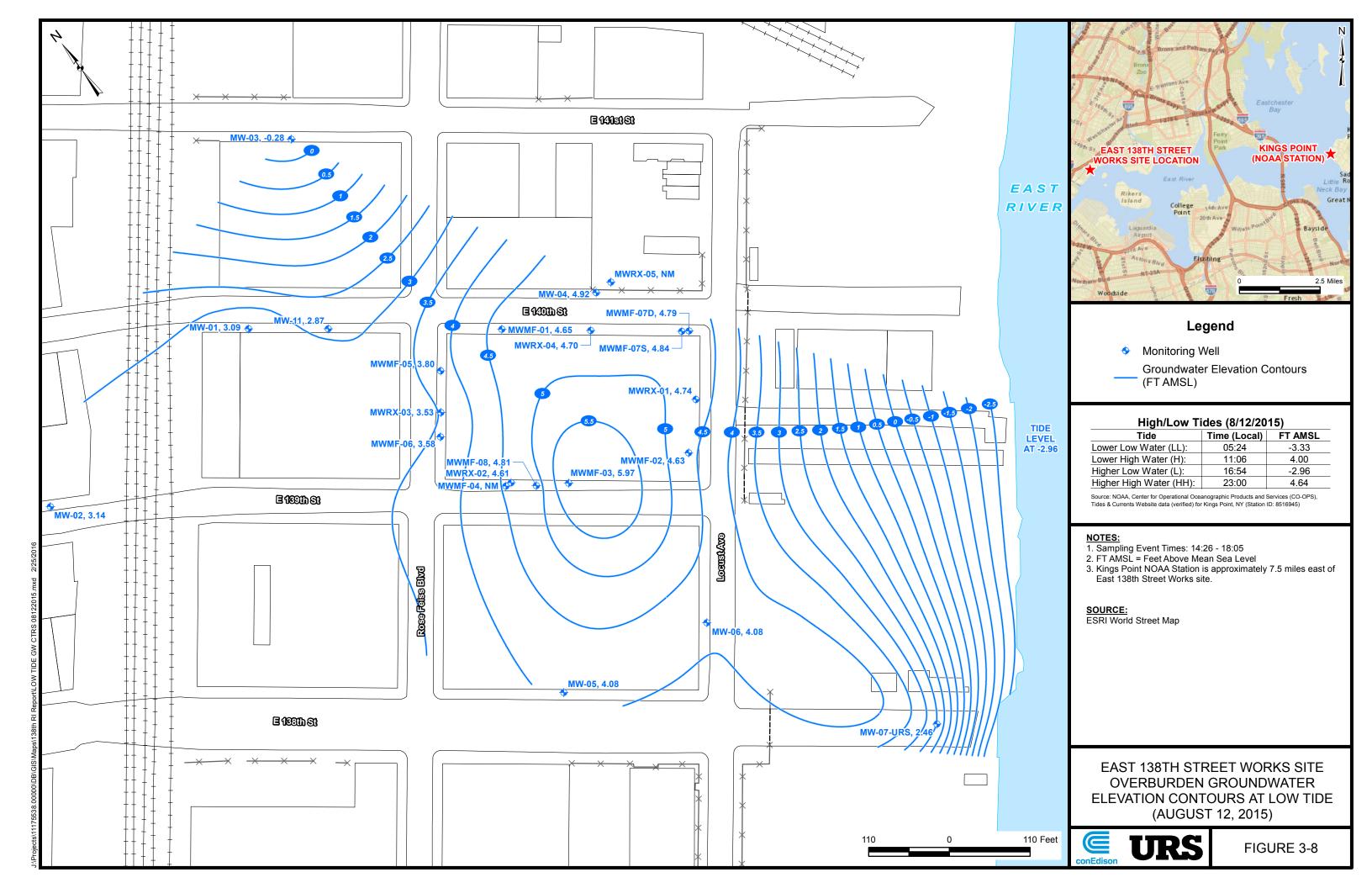


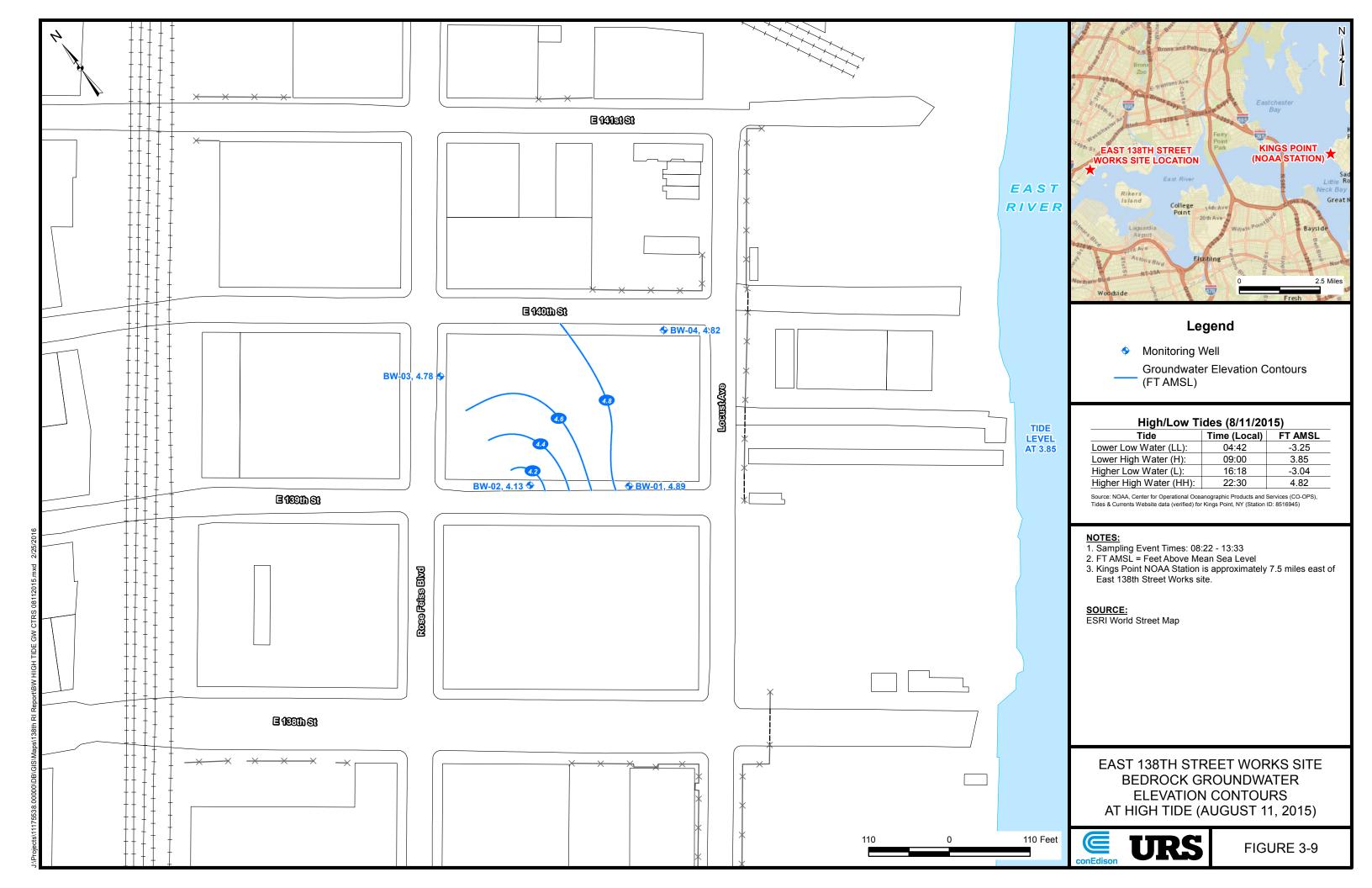


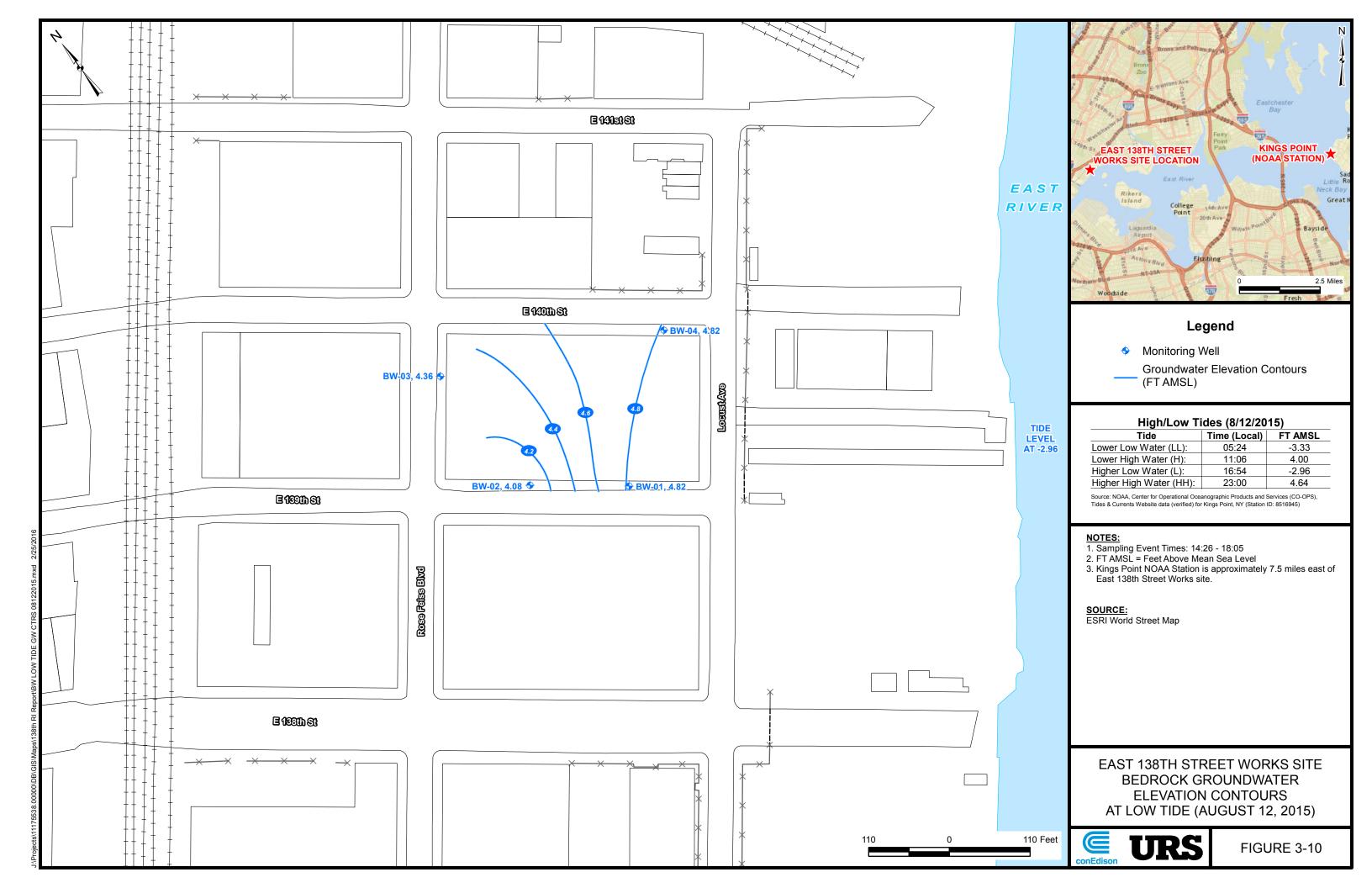
FIGURE 3-5

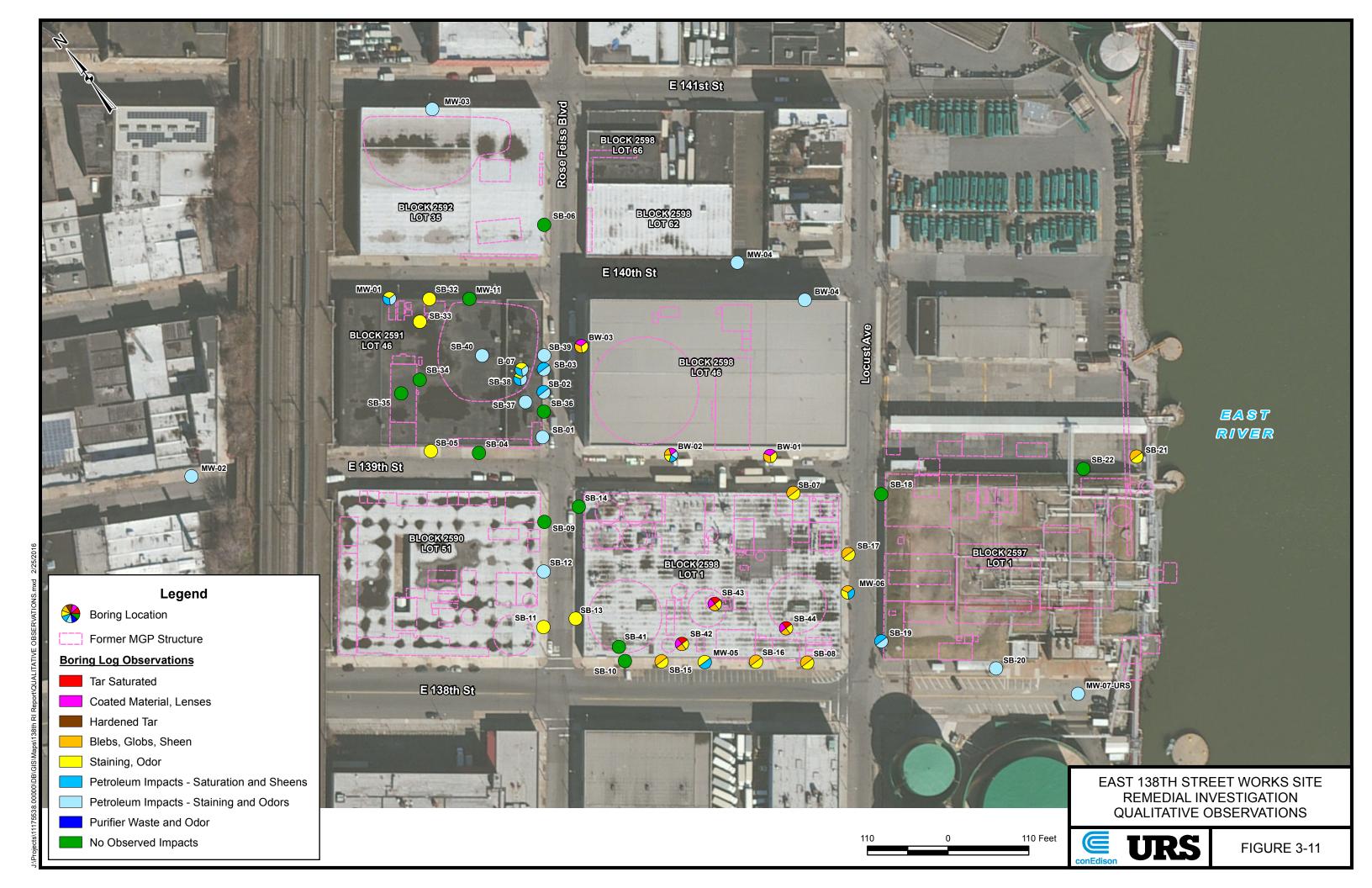


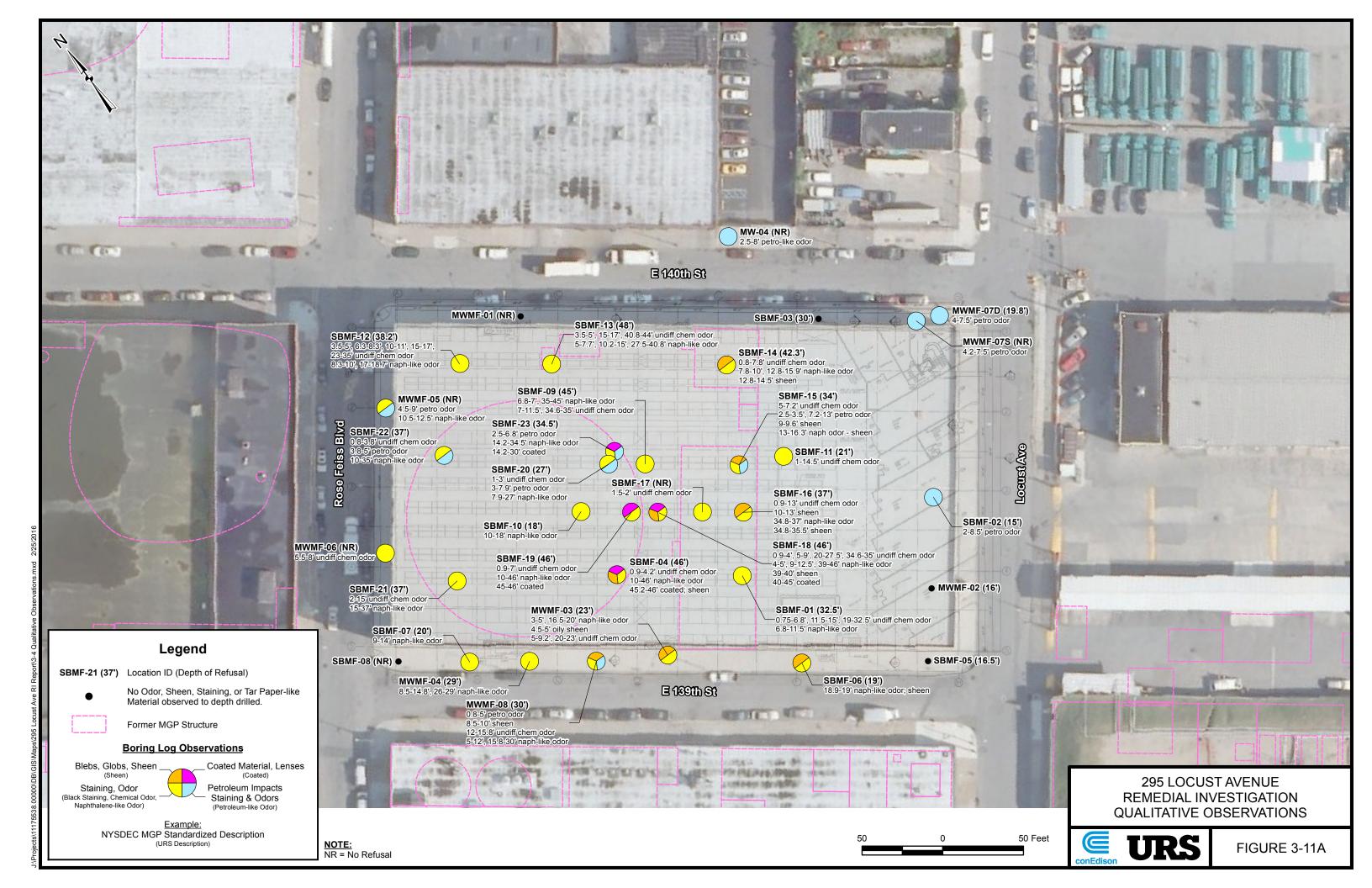


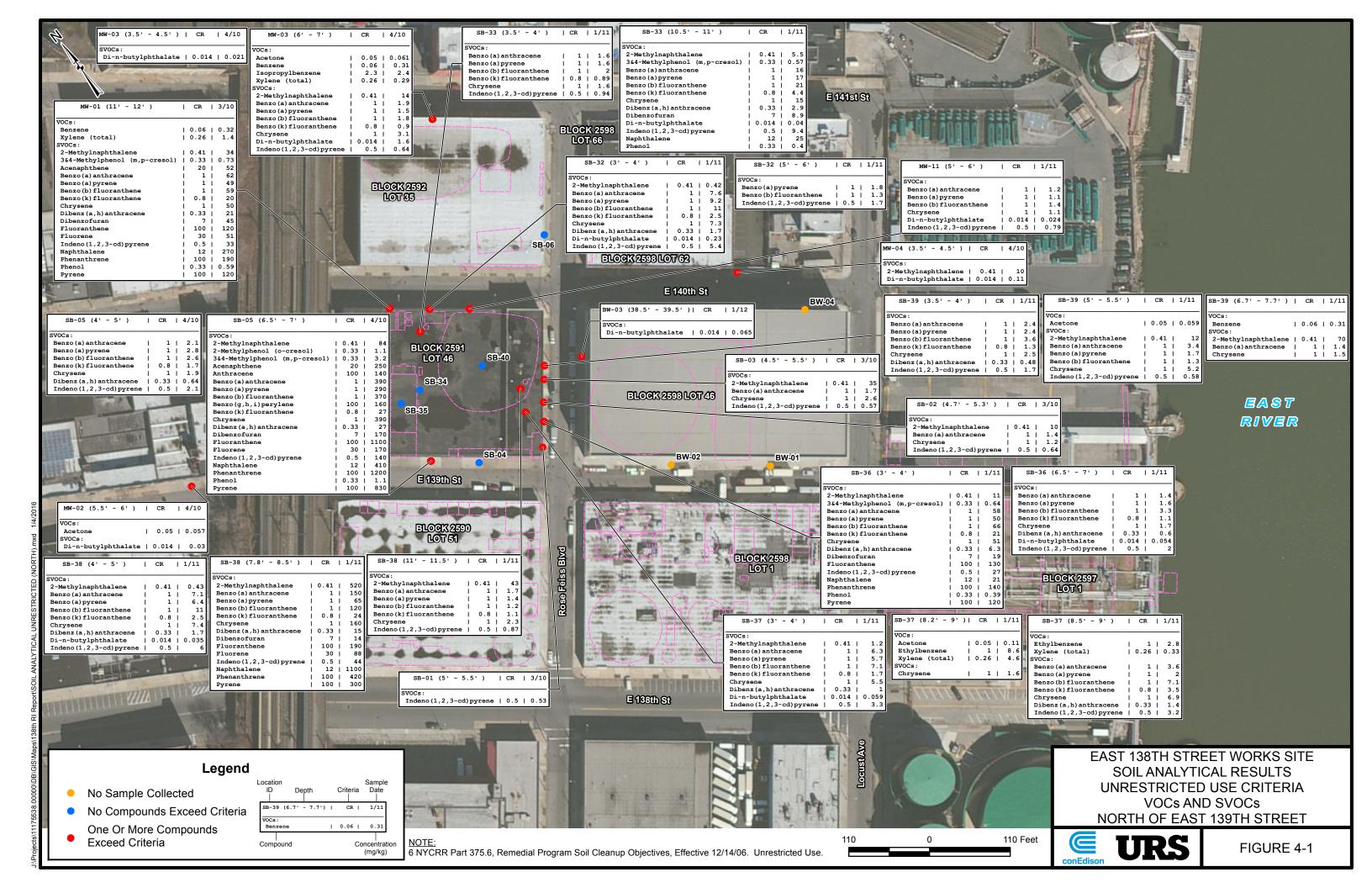


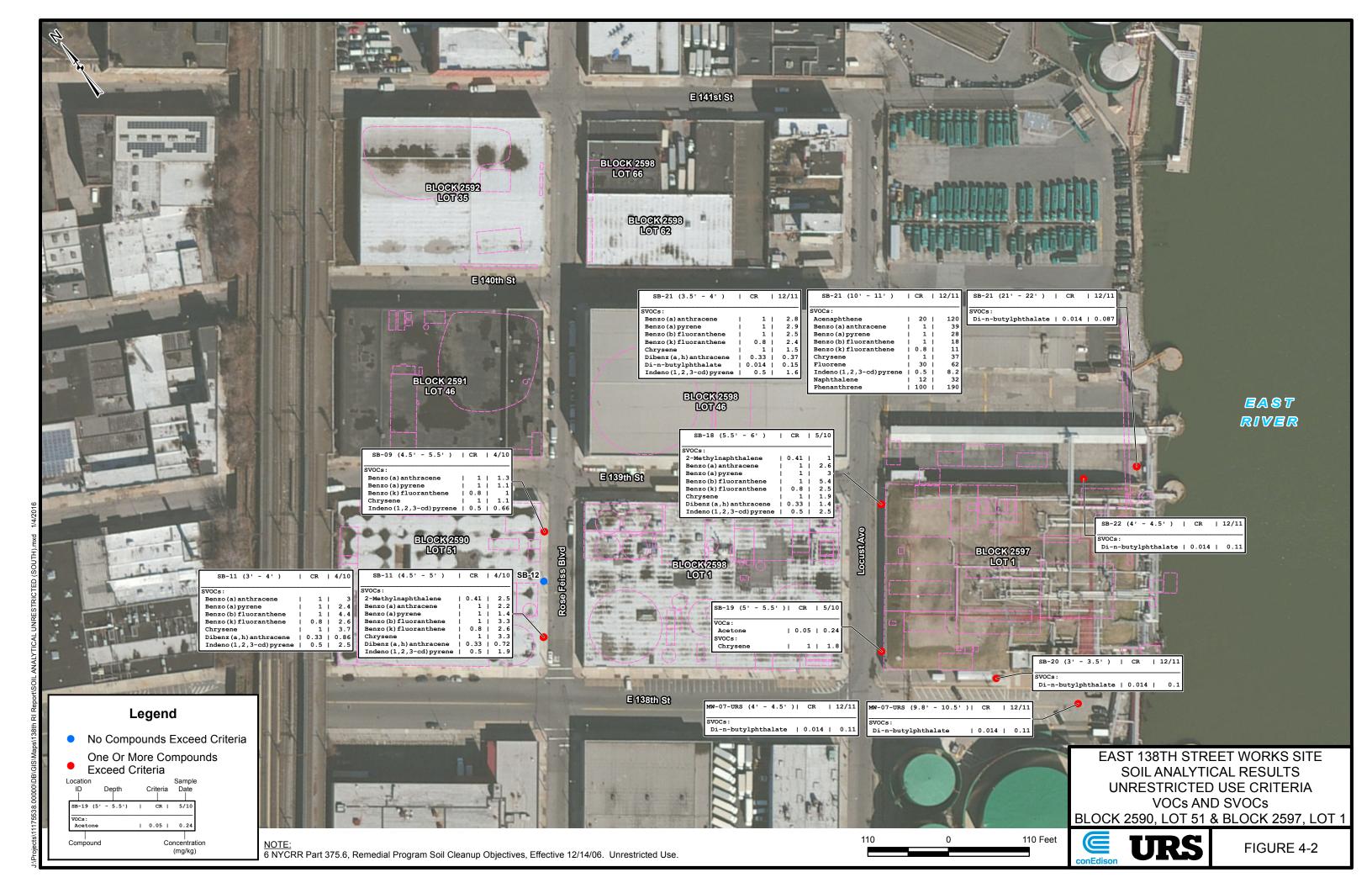


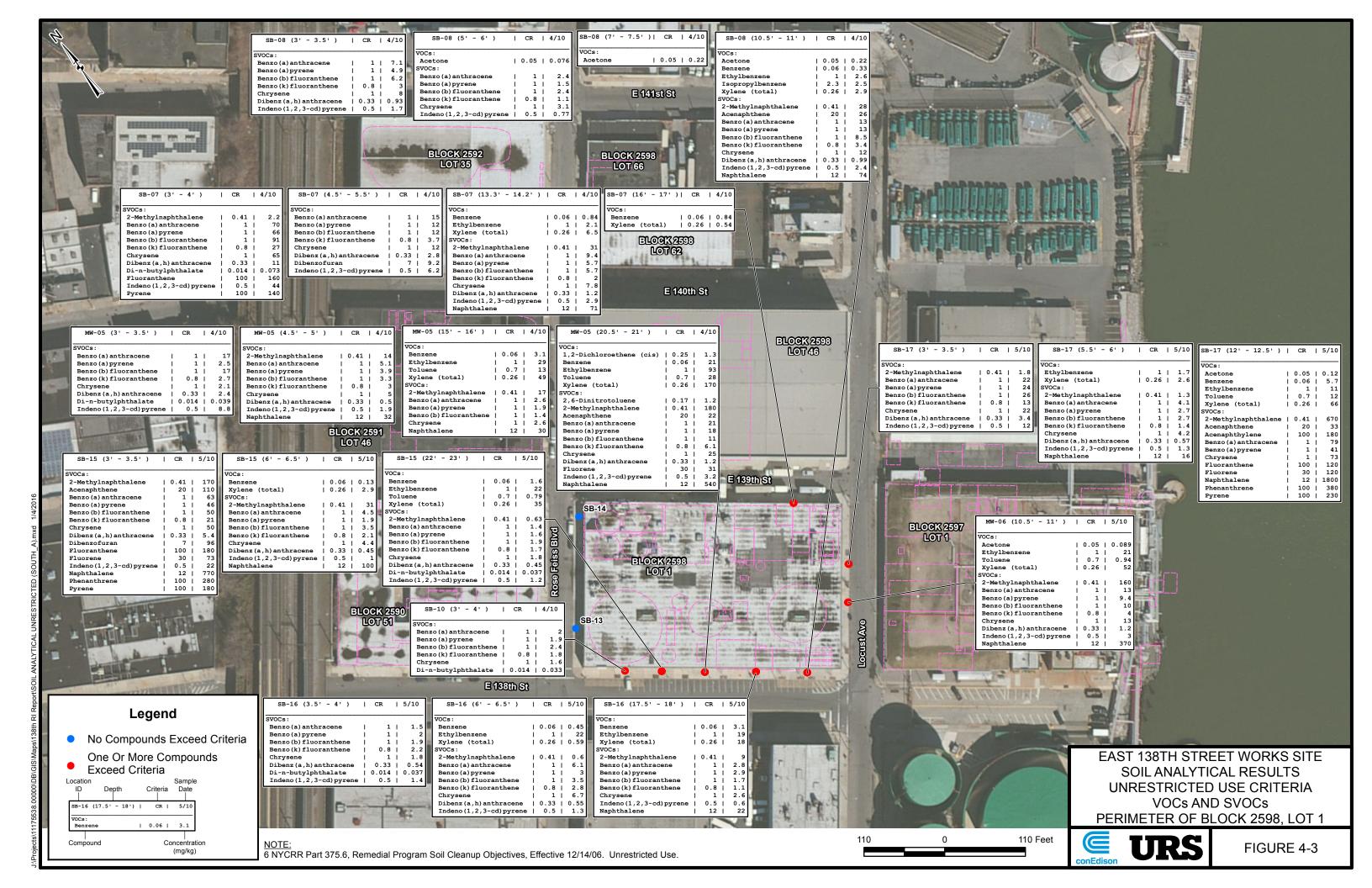


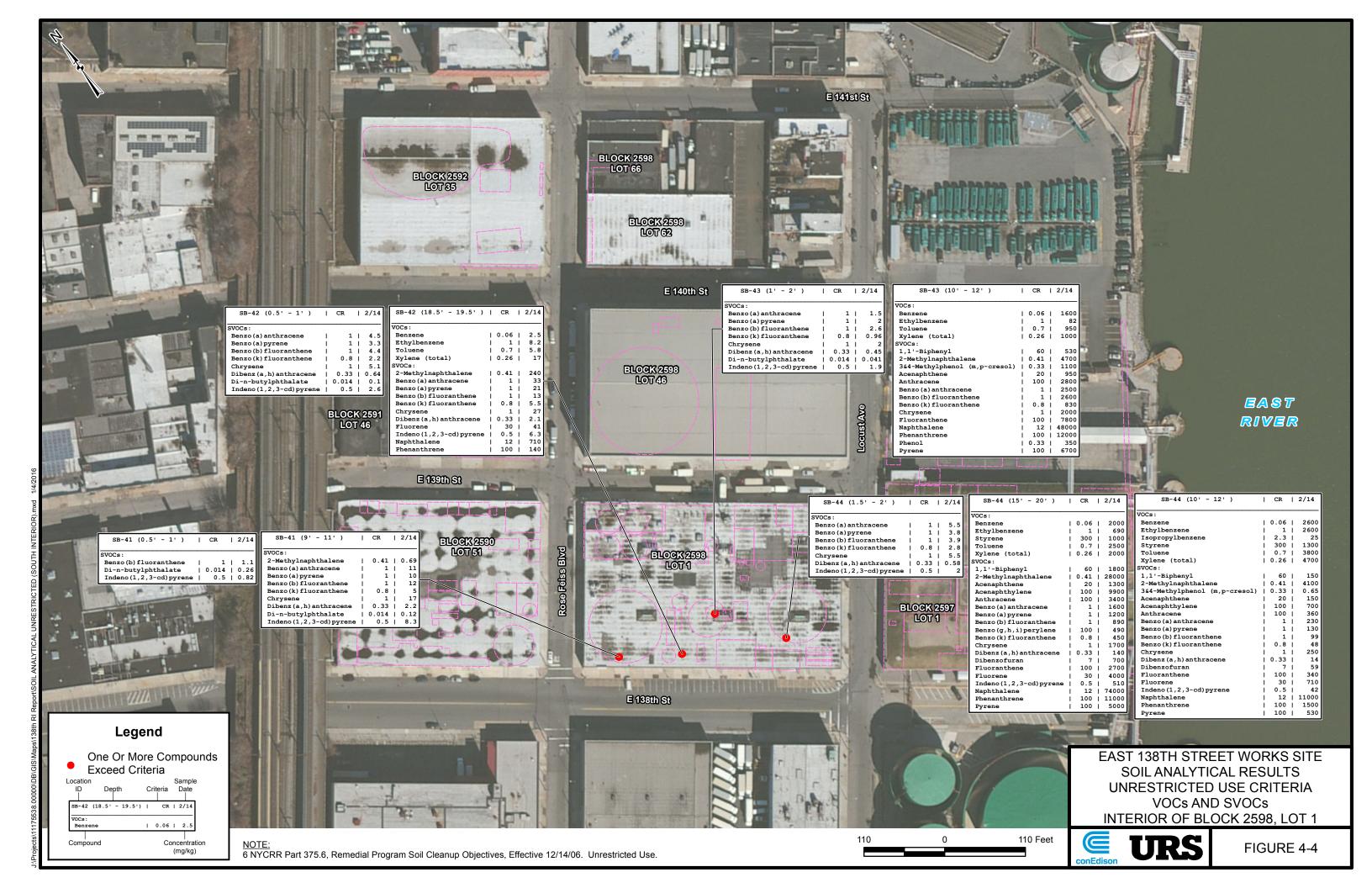


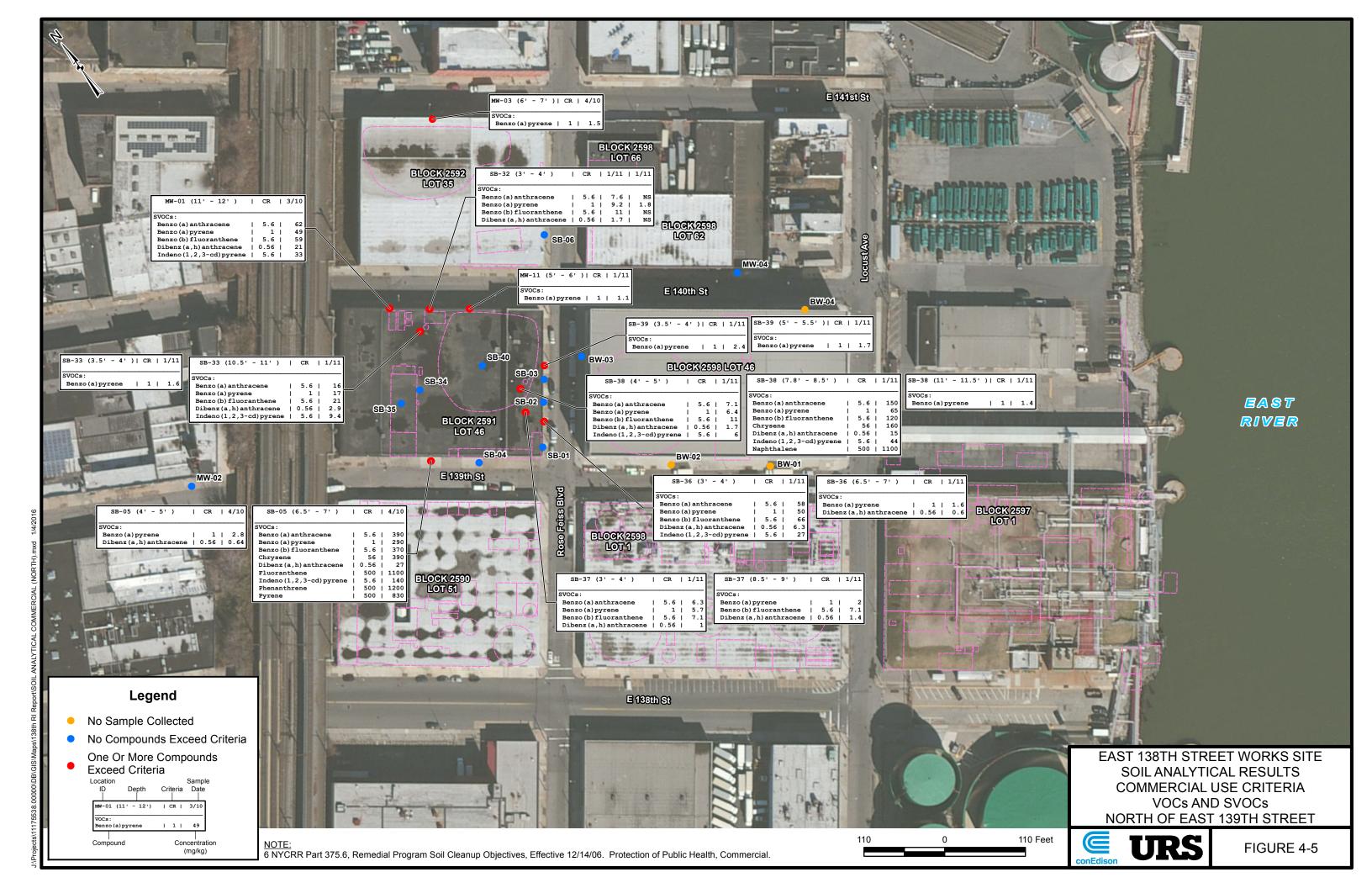


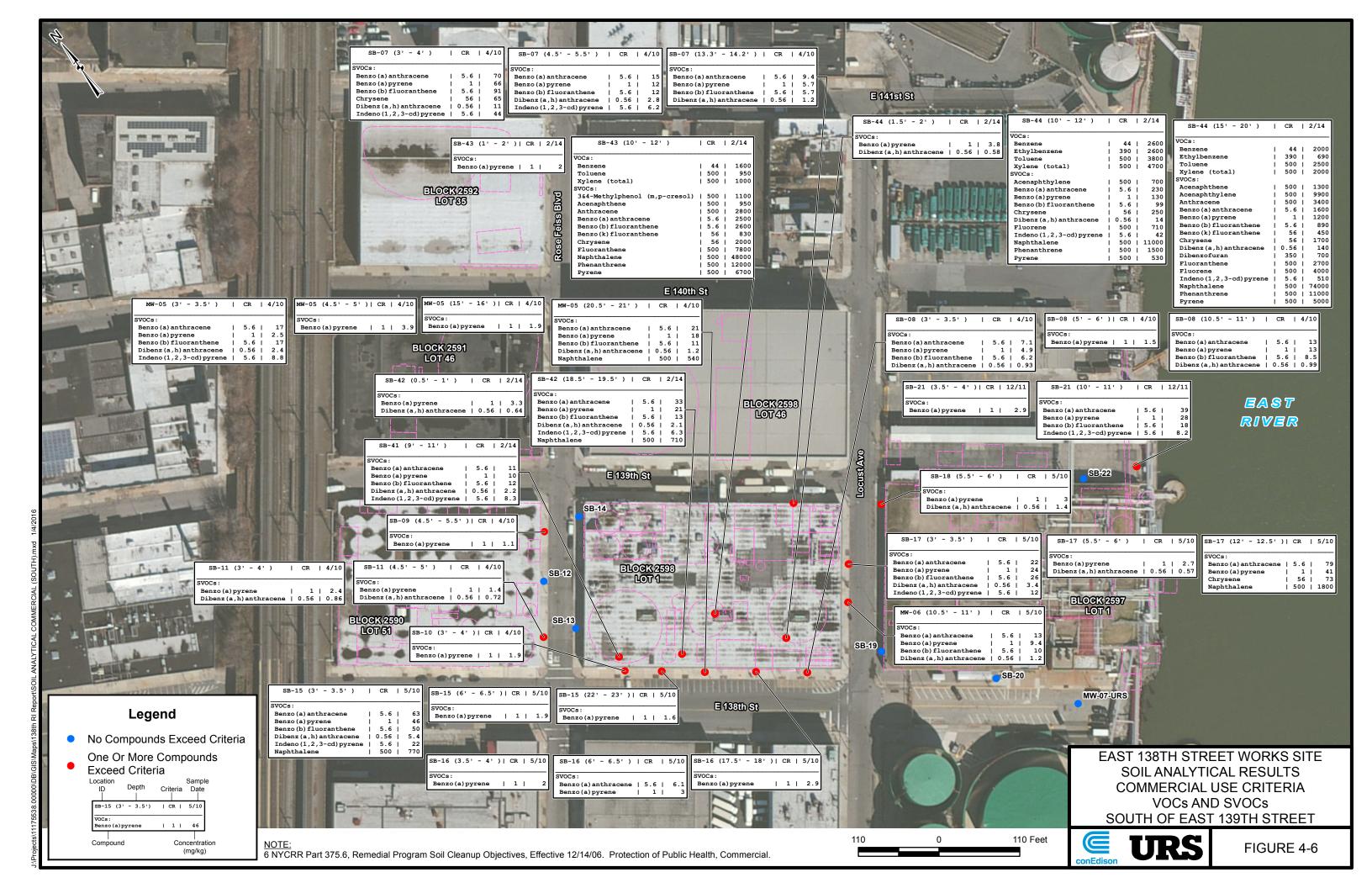


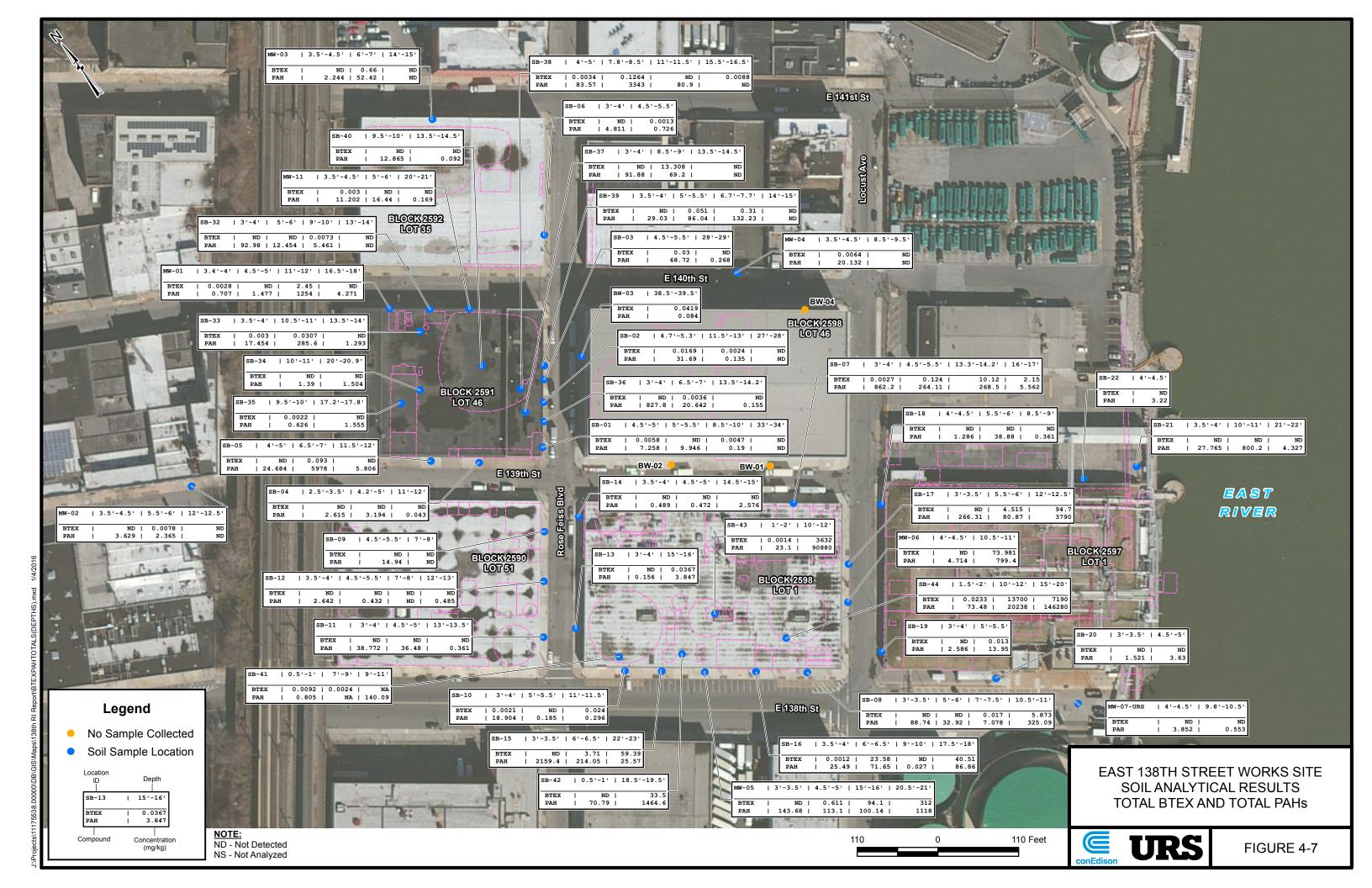


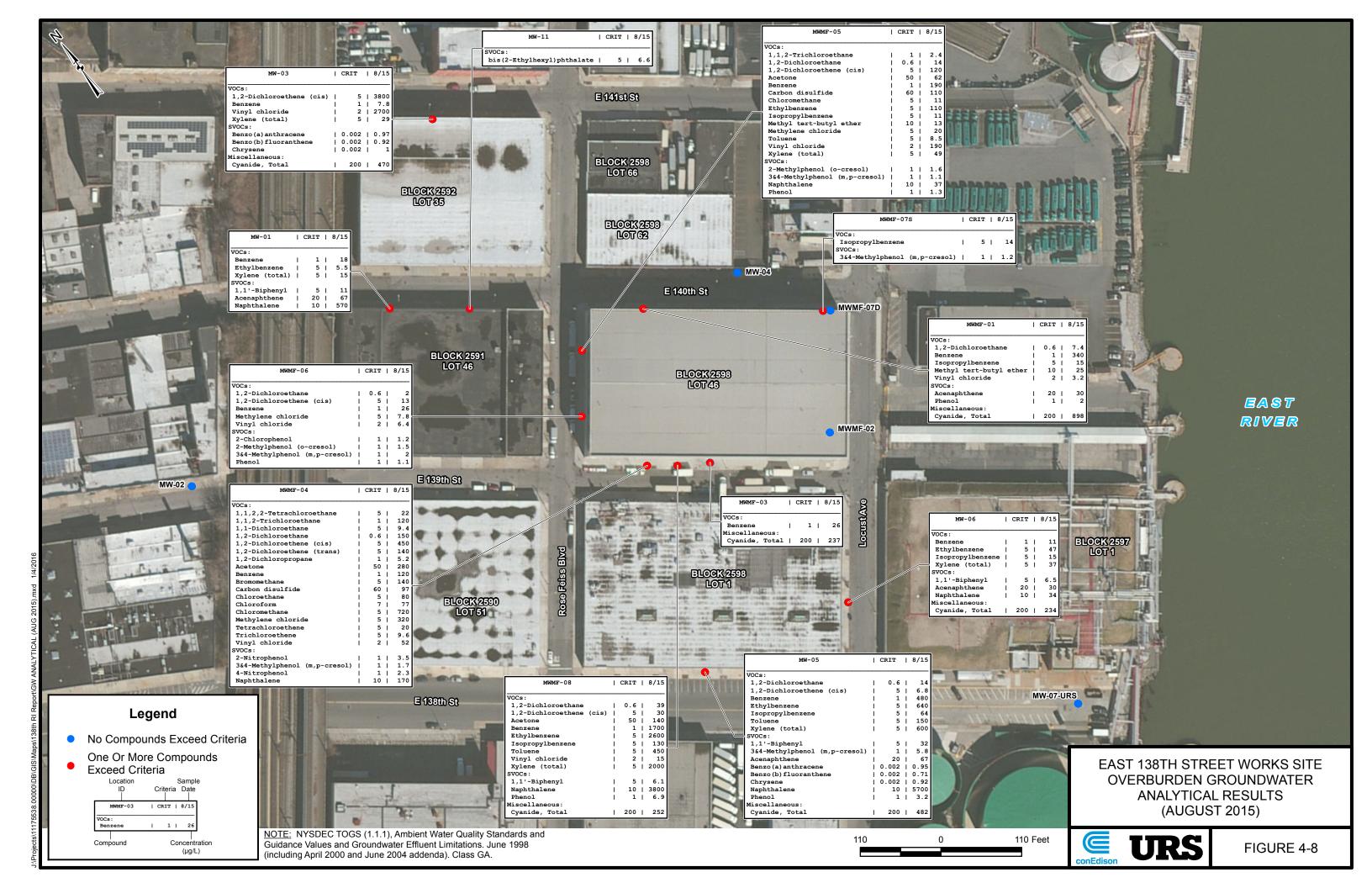


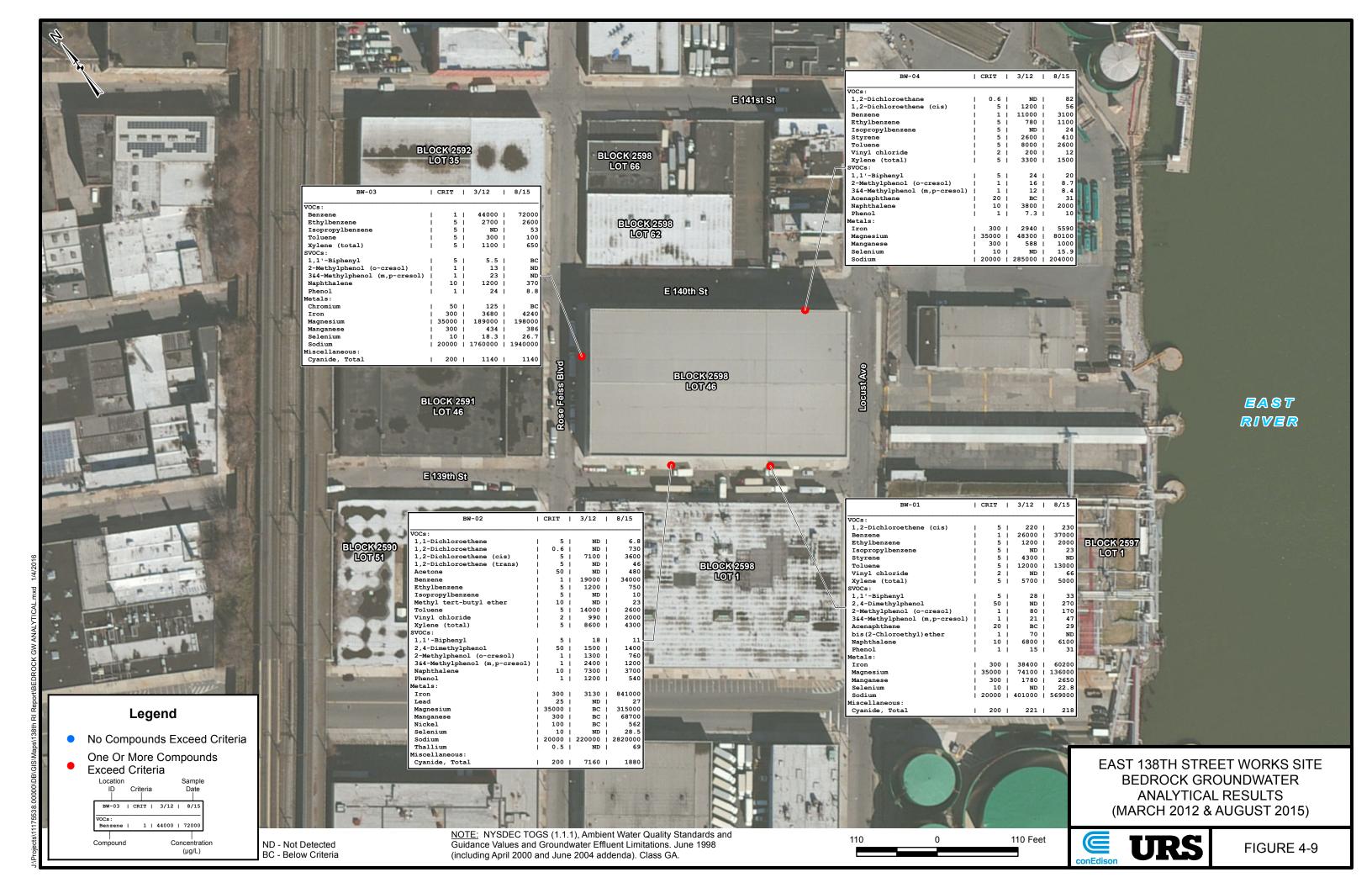




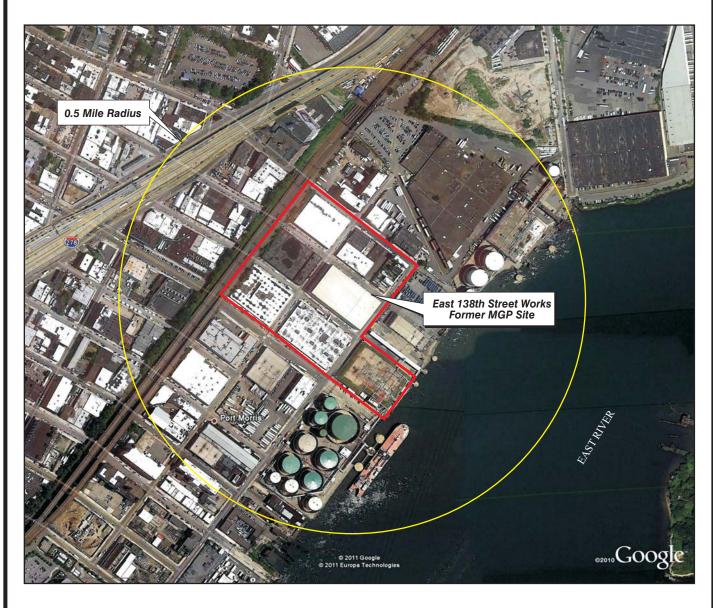


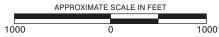




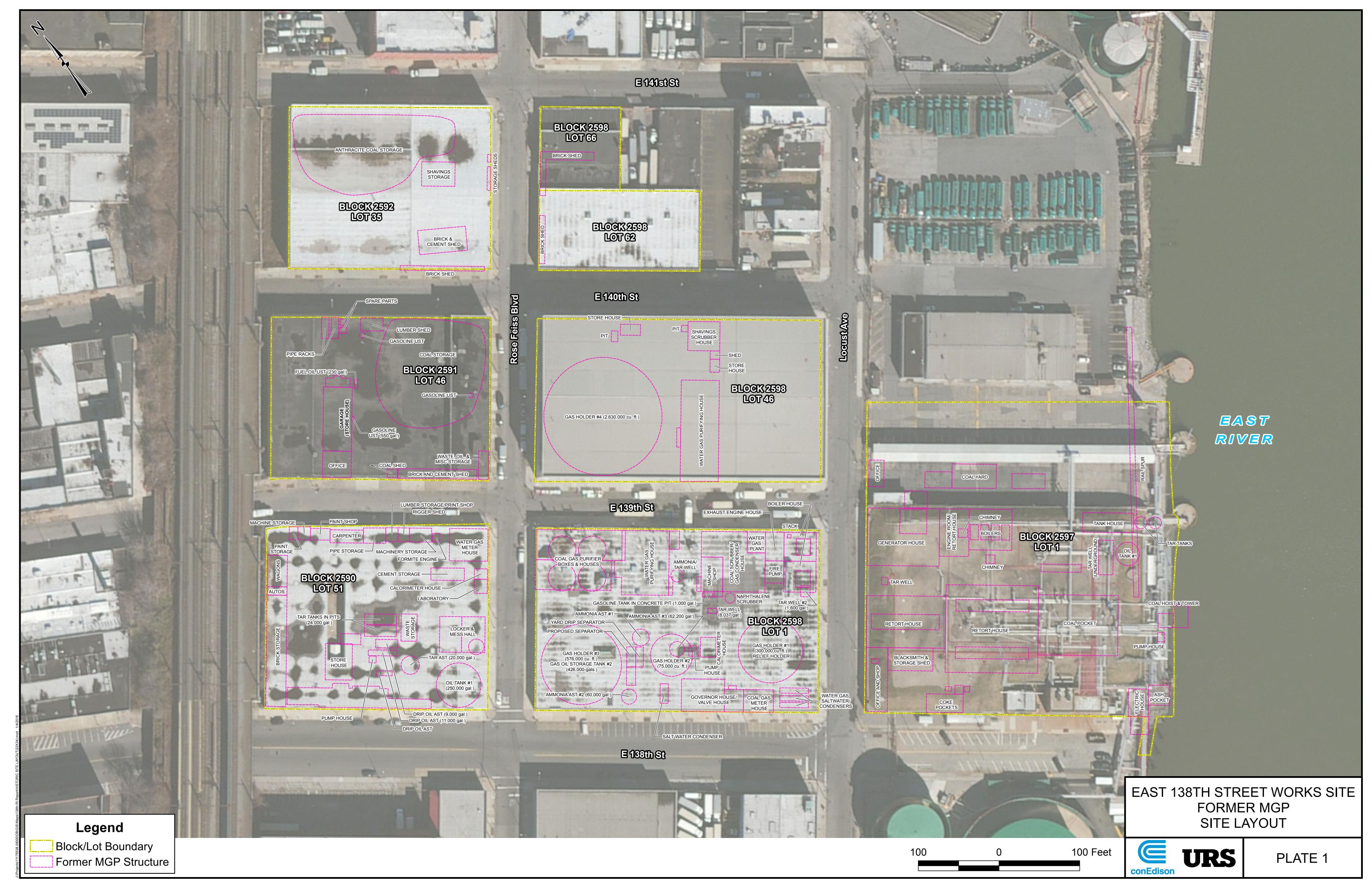














APPENDIX F SOIL BORING LOGS

			UR	2		-4!				BORIN	IG LO	<u>G</u>	
									BORING NO. : BW-01				
	CT/PROJE	CT LOCA		st 138th Str					SHEET: 1 OF 2				
CLIENT	Γ:		Consolidat	ed Edison	Compar	ny of New York	(JOB NO. : 11176159				
BORIN	G CONTRA	CTOR:	Glacier Dri	lling, LLC					NORTHING: 231866.5	EAS	TING: 101	10013.6	
GROUN	NDWATER:				CAS.	. SAMPLER	CORE	TUBE	GROUND ELEVATION:	8.89			
DATE	TIME	LEVEL	L TYPE	TYPE		Macrocore	HQ DATE STARTED: 1/31/12						
				DIA.		2"	4" DATE FINISHED: 2/3/12						
				WT.					DRILLER:	Allan Au	ıgustin		
	Γ	Τ		LENGTH	ıT	10'			GEOLOGIST:	J. Boyd			
				* F	OCKET	PENETROMETER	R READIN	IG	REVIEWED BY:	M. Gutm	nann		
DTII		SA	MPLE	REC%	7	SOIL			MATERIAL		PID		
DEPTH FEET	STRATA	NO.	BLOW	RQD%	COLOR	ROCK			ESCRIPTION	uscs	(PPM)	REMARKS	
	\longmapsto		COUNT		,!	HARDNESS	<u> </u>				(, ,,		
_													
0		1	N/A	100%	Brown	Medium dense	Concre	ete		FILL	0.8	Moist	
-		<i>i</i>			D.O	Modium dones	FII S		fine to medium SAND,		0.0	Wichot	
+		ı			 -				dium gravel. No odor.				
		ı			 -								
4 1		ı			 -	Soft						Wet	
-5-		$\sqcup \bot$			 -	SUIL						vvei	
		2	N/A	100%	 			AND, trac	ce silt and fine gravel. No	SP	0.0		
7 1		ı			 		odor.						
-					 -								
+					 -	Dense			Taint outfur odor	ML	0.4		
4 !		ı			 -	Medium dense			anics. Faint sulfur odor.	SP	0.0		
-10 —	-:	3	N/A	92%	 	Dense	Fine SA odor.	AND, trac	ce organics and silt. No]	0.0		
			IN/A	¥∠70	 	Delige	'		/		0.4		
		ı			 				ce silt. No odor. tled silt, trace fine sand,				
7		ı			 -	Medium dense		1.7-11.9')					
	••••••	1			 -								
+		ı			 -								
-15 —		4	N/A	64%	 -	Dense	Fine S	AND trac	ce fine gravel.	ı	0.4		
4		ı ⁻	14//	0470	 -	Donos	-			SM	0.4		
					 -			medium avel. No o	SAND and SILT, trace odor.				
]			 -		<u>-</u> -						
7 1		ı			 -		and fine	e gravel.	SAND, some to trace silt Faint naphthalene odor		30.6		
+		5	N/A	52.5%	Gray	Broken			a 1/2" black sand lens at		0.0	Bedrock	
-20 —	$\left[\begin{array}{cc} \wedge & \wedge \\ \end{array}\right]$	i			 -		\		/				
4 1	\wedge	i			 -		Light gr	ray fine gractures su	rained gneiss. Banding Ibhorizontal to				
	$\overline{\ \ }$	ı			 -		approxi	cimately 45	5 Degrees off horizontal.				
		ı			 -		fracture	nalene odd es at 23.4	or and sheen in I to 24 '.				
7 1	\wedge	i			 -					ı	0.3	Slight sheen on drill water	
1	777-	6	N/A	96.8%	 -		Light g	ray fine ç	grained gneiss. Banding	ı	1.3	23'-24' and 24'-29'.	
-25 —		. 1	I	l]			I	. L		24-23.	
	<u> </u>												
COM	MENTS: S	ee soil bo	ring log for S	BMF-06 fo	r drilling	dates and othe	r informa	ition.					
Bedro	ock monitori	ing well di	rilled with CM	E HSA drill	ing rig. '	Well adjacent to	ວ soil bori	ing SBMF	-06 drilled 3/14/2011.				

BW-01

Bedrock description from HQ core drilled from 19 to 34 $^{\prime}$ bgs.

TEST BORING LOG Corporation **BORING NO.:** BW-01 PROJECT: East 138th Street Works Site SHEET: 2 OF 2 JOB NO.: 11176159 **CLIENT:** Consolidated Edison Company of New York SAMPLE REC% CONSISTENCY DEPTH COLOR MATERIAL USCS PID REMARKS **STRATA** FEET NO. **BLOW** RQD% ROCK DESCRIPTION (PPM) HARDNESS COUNT -25 and fractures approx. 30 to 40 degrees LNAPL in drill Gray 44.5 off horizontal becoming near vertical at Banded water 24' to Broken 29'. Naphthalene-like odor and DNAPL 29' coating in fractures at 25' and 29'. Rods coated LNAPL in mud tub with sheen N/A 83.3% Entire core N/A Light gray fine grained gneiss. Fractures coated with -30 and banding near vertical to approx. 45 sheen. degrees. Entire core coated with DNAPL Greatest impacts 29'-31' assumed to be from 29' zone and dragged along core as it was drilled. LNAPL in mud tub. Bottom of Boring at 34 feet. -35 -40 -45 -50 -55 COMMENTS: See soil boring log for SBMF-06 for drilling dates and other information. Bedrock monitoring well drilled with CME HSA drilling rig. Well adjacent to soil boring SBMF-06 drilled 3/14/2011. Bedrock description from HQ core drilled from 19 to 34 ' bgs.

BORING NO.:

TEST BORING LOG BORING NO.: PROJECT/PROJECT LOCATION: East 138th Street Works Site OF 2 SHEET: 1 CLIENT: **Consolidated Edison Company of New York JOB NO.:** 11176159 **NORTHING: 231948.9 EASTING:** 1009906.6 **BORING CONTRACTOR:** Glacier Drilling, LLC **GROUNDWATER:** CAS. SAMPLER CORE TUBE **GROUND ELEVATION:** 8.13 1/30/12 **DATE STARTED:** HQ DATE TIME LEVEL **TYPE TYPE** Macrocore 2" 4" **DATE FINISHED:** 2/2/12 DIA. DRILLER: Allan Augustin WT. J. Boyd **GEOLOGIST:** LENGTH 10' M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 0 N/A 100% Concrete Gray Medium dense FILL 225 Moist FILL. SILT and fine to medium SAND, some to trace fine gravel and brick. Petroleum odor 0.8 ft. through 5 ft. Naphthalene odor below 5 ft bgs. Wet N/A 64% Brown Soft SW 1047 Fine to medium SAND, trace fine gravel. Strong naphthalene odor. Sheen. -10 N/A 88% Medium dense ML 300 SILT and peat-like vegetation. Undifferentiated chemical odor. -15 N/A 78% SILT. Faint naphthalene-like odor. Gray 77.0 75.2 Fine SAND. Faint naphthalene-like odor. SW Brown 77.0 Fine to medium SAND, some silt, trace fine gravel. Faint naphthalene-like odor. -20 N/A 66% 17.1 SP Fine SAND. Very faint naphthalene-like odor. SM 12.0 SILT and fine to medium SAND, trace fine gravel. Faint naphthalene-like odor. -25 COMMENTS:

Bedrock monitoring well drilled with CME HSA drilling rig. Well located adjacent to MWMF-08 drilled on 3/18/2011.

BORING NO.:

BW-02

Bedrock description from SQ core drilled from 31' to 36' and from HQ core drilled from 36' to 49' bgs.

Dense SILT and fine SAND, trace fine gravel sized weathered shist bedrock. Naphthalene-like odor.	Bedrock Slight sheen on drill water
CLIENT: Consolidated Edison Company of New York DEPTH FEET SAMPLE REC% COLOR ROCK HARDNESS STRATA NO. BLOW COUNT ROCK HARDNESS Dense SILT and fine SAND, trace fine gravel sized weathered shist bedrock. Naphthalene-like odor. 7 N/A Gray Rock HARDNESS Dense SILT and fine SAND, trace fine gravel sized weathered shist bedrock. Naphthalene-like odor. No samples collected No samples collected Light gray shist rock. Foliated, medium N/A 2.0	Bedrock Slight sheen
STRATA SAMPLE REC% RQD% RQD% RQD% ROCK HARDNESS Blow COUNT ROCK HARDNESS Boll CONSISTENCY ROCK HARDNESS Broken SOIL CONSISTENCY ROCK HARDNESS MATERIAL DESCRIPTION USCS PID (PPM) 73.7 73.7 N/A Broken Light gray shist rock. Foliated, medium N/A 2.0	Bedrock Slight sheen
Pense SILT and fine SAND, trace fine gravel sized weathered shist bedrock. Naphthalene-like odor. 7 N/A Gray No samples collected 8 N/A 30.8% Broken Light gray shist rock. Foliated, medium	Slight sheen
-30 — Froken Broken Light gray shist rock. Foliated, medium N/A 2.0	Slight sheen
No samples collected No samples collected Broken Light gray shist rock. Foliated, medium N/A 2.0	Slight sheen
Light gray shist rock. Foliated, medium	Slight sheen
grained flica fict shist fock with subhorizontal fractures and banding. Faint naphthalene odor at 31 feet.	
No core sample collected. Borehole drilled with a roller bit. Rock very broken, no sheen or odor.	
39-45.33 Medium grained gray gneiss	LNAPL in drill water at 40'.
	LNAPL sheen on fracture at 47'.
-50 — Bottom of boring at 49 feet.	
-55 —	
COMMENTS.	
COMMENTS: Bedrock monitoring well drilled with CME HSA drilling rig. Well located adjacent to MWMF-08 drilled on 3/18/2011. Bedrock description from SQ core drilled from 31' to 36' and from HQ core drilled from 36' to 49' bgs.	

			UR	S co	rnors	ation				BOKI	NG LO	G
PPO IE	CT/DDO IE	CT LOCA	ATION: Ea						BORING NO.: BW-03			
		UI LUCA							SHEET: 1 OF 3 JOB NO.: 11176159			
CLIENT					Compan	ny of New York			NORTHING: 232140.8	EAS	STING: 100	
	G CONTRA		Glacier Di	rilling, LLC		SAMPLER	CORE	TUBE	GROUND ELEVATION:	8.01	TING. 10	
	NDWATER:	1	TVDE	TVDE	CAS.	-	HQ	IUBE	DATE STARTED:	1/26/12		
DATE	TIME	LEVE	L TYPE			Macrocore 2"	4"		DATE STARTED:	2/2/12		
		+		DIA.	-		4			Allan Au	etin	
		+		WT.	+	10'			DRILLER: GEOLOGIST:	J. Boyd		
		+		LENGTH		10'		'		M. Gutn		
	<u> </u>			, r	OCKEIF	PENETROMETER	READIN	.G	REVIEWED BY:	M. Guu	nann	Г
DEPTH		SA	MPLE	REC%	33: 00	SOIL CONSISTENCY		ı	MATERIAL		PID	
FEET	STRATA	NO.	BLOW	RQD%	COLOR	ROCK		DE	ESCRIPTION	USCS	(PPM)	REMARKS
	+	\longrightarrow			\longrightarrow	HARDNESS				——		
0	<u> </u>		51/4	1000/						-		1
		1	N/A	100%	Brown	Medium dense	Concre	ete		FILL	0.6	Moist
		.	ļ	[ļ			fine to medium SAND,			
1		.	ļ	[ļ			l. No odor.			
+		.		[
-		.		[l	
-5-			N/A	600/			SILT a	nd fine to	medium SAND, some	SM	1.4	\^/o+
	- : : - : : : : : : : : : : : : : : : :	2	N/A	68%		ļ			t petroleum odor.			Wet
		.		[
1		.	ļ	[ļ						
-	-::::::::::::::::::::::::::::::::::::::	.	ļ	[ļ						
-		.	ļ	[ļ		P		SW	0.1	
-10 —		3	N/A	76%		 	Fine to	medium	SAND. No odor.		_	
			IN/A	/6%	Black	Dense	Fine to		SAND, trace fine gravel.		45.8	
		.	ļ	[ļ	Modera	ate naphti	halene-like odor.			
1		.	ļ	i	Brown	ļ				ML	118.1	
-	<u> </u>	.		1	- Gray	 	SILT, s	ome orga	anics, trace mollusk sulfur odor.	IVIL	110.1	
-		.	ļ	[ļ	SHEIIS.	Silving 5	ullul odol.			
-15 —	<u> </u>	4	N/A	66%		ļ						
4	<u> </u>	, ⁻	13// 1			 						
		.	ļ	[ļ						
		.	ļ	[ļ						
-	产生产生	.		1		 	Fine S	AND. son	ne silt. Faint sulfur odor.	SM	2.4	
-		.		1		 		,			l	
-20 —	<u> </u>	5	N/A	 		ļ	<u> </u>			N/A		No sheen,
-				[No sam refusal	nples colle at 34.5 fc	ected. Roller bit to eet. Set up for rock core.			NAPL or odor on drill water
				1		 		u. 2	70 33. ap 13. a 1			On ann water
		.	ļ	[ļ						
1		.		1		 						
-		.		1		 						
-25	ļ	1	I	ı I	I					i I		
COMI	MENTS: B	edrock m	onitoring we	Il drilled with	CME HS	SA drilling rig. \	Well loca	ted adjac	ent to MWMF-05			
comp	oleted on 3/1	7/11.										

BW-03

Bedrock description from SQ core drilled from 40 to 48' and from HQ core drilled from 48' to 58' bgs.

TEST BORING LOG Corporation **BORING NO.:** BW-03 PROJECT: East 138th Street Works Site SHEET: 2 OF 3 JOB NO.: 11176159 **CLIENT:** Consolidated Edison Company of New York SAMPLE REC% CONSISTENCY DEPTH COLOR USCS PID REMARKS **MATERIAL STRATA** FEET NO. **BLOW** RQD% ROCK DESCRIPTION (PPM) COUNT **HARDNESS** -25 N/A No odors, NAPI or sheen. -30 N/A 20% Gray Very Broken 0.0 No odors, -35 Weathered schist bedrock mixed with NAPL or 70% soil comprised of silt and rounded sheen. gravel. Faint Naphthalene odor observed at 38 feet. 7.1 Took soil sample at 38.5'-39.5'. -40 N/A 10% Broken 0.0 No odors, Fine to medium grained gneiss. Thin, NAPL or dark gray approximately horizontal sheen. banding to approximately 42.5 'bgs. Core from approx. 42.5 to 45 missing. From approx. 45' to 48' bgs, very fractured medium grained medium gray gneiss. Quartz rich gneiss. -45 N/A 0% Dark Very Broken 0.0 No odors, Dark gray foliated shist. Highly fractured NAPL or gray with fracture orientation approx. sheen. horizontal. No rock pieces greater than -50 3.5 inches. No odors or sheen. Friable. N/A 45% Medium Broken 0.0 No odors. Medium gray shist, foliated, friable. No NAPL or gray. odors or sheen. sheen. -55 Gray medium fine grained gneiss. Dark COMMENTS: Bedrock monitoring well drilled with CME HSA drilling rig. Well located adjacent to MWMF-05 completed on 3/17/11. Bedrock description from SQ core drilled from 40 to 48' and from HQ core drilled from 48' to 58' bgs.

BORING NO.:

			IR	5							
220 15											
PROJECT: East 138th Street Works Site SHEET: 3 OF 3 CLIENT: Consolidated Edison Company of New York JOB NO.: 11176159											
CLIENT: Consolidated Edison Company of New York DEPTH FEET NO. BLOW COUNT RQD% SAMPLE REC% COLOR RQD% COLOR ROCK HARDNESS Broken and light gray banding oriented approximately 45 degrees. No odors or All Andrews Rock Regrees. No odors or All Andrews Recycles Re											
	STRATA		BLOW	Ī	COLOR	CONSISTENCY ROCK		MATERIAL SCRIPTION	uscs		REMARKS
-60 — -	STRATA	NO.	BLOW COUNT	RQD%	Light	ROCK HARDNESS	and light gray ba approximately 45 sheen.	anding oriented 5 degrees. No odors or		(PPM)	No odors, NAPL or sheen.
-80 — - - -85 —											
COM	AENTO. B	odrock n	nonitoring we	all drilled wit	h CME L	SA drilling rig. \	Noll located adjace	ont to MWME 05			
	MENTS: Be leted on 3/1		ionitoring we	ii arilled With	I UNE H	SA UTILLING FIG. V	Well located adjace	EUR TO INIANINIL-02			
			SQ core drill	led from 40	to 48' an	d from HQ core	drilled from 48' to 5	 58' bgs.			

			UΠ	RS	Co	rnore	ation				BORIN	IG LO	<u>G</u>
DDO IE	CT/DDO IE	CTLOC								BORING NO.: BW-04			
	CT/PROJEC	UI LOCA								SHEET: 1 OF 2 JOB NO.: 11176159			
CLIENT							ny of New York	<u> </u>				TINO 10:	10170.0
	G CONTRA		Glacier	r Drillu	ng, LLC					NORTHING: 232007.9		TING: 10	101/9.3
	NDWATER:	1			Т	CAS.		CORE	TUBE	GROUND ELEVATION:	8.79		
DATE	TIME	LEVE	L T	YPE	TYPE		Macrocore	HQ		DATE STARTED:	1/25/12		
		 	\perp		DIA.		2"	4"		DATE FINISHED:	2/1/12	••	
		 	$-\!$		WT.					DRILLER:	Allan Au		
		<u> </u>			LENGTH	<u> </u>	10'			GEOLOGIST:	J. Boyd		
					* F	OCKET	PENETROMETE	R READIN	IG	REVIEWED BY:	M. Gutn	nann	
DEPTH		SA	MPLE		REC%		SOIL		,	MATERIAL		PID	
FEET	STRATA	NO.	BLOW	- 1	RQD%	COLOR	CONSISTENCY ROCK			SCRIPTION	uscs	(PPM)	REMARKS
	\longmapsto	\longrightarrow	COUNT	+			HARDNESS					,	
•													
0	××××	1	N/A		100%	Brown	Medium dense	Concre	ete		FILL	0.0	Moist
1						DIOW.	Wiedium Gonoc	\	CII T and	fine to medium SAND,	' '	0.0	IVIOIS
-										ne gravel. No odor.			
4							Loose						
_						Gray	Soft	Same a odor.	as above	with moderate petroleum		106	Wet
-5 —		2	N/A		58%	Brown	Medium dense	-			SM	108	
-	•••••					וויייטום	Wiedium dense	IV.	nd fine SA um odor.	AND. Moderate	SW		
-								\ .					
-							Loose			SAND and trace fine troleum odor.		0.0	
								L	. – – – – -				
10										se SAND, some fine ured rock. No odor.			
-10 —	0.0.0.4	3	N/A		30%								
-	0.0.0.0.0												
-													
-													
								SILT a	nd fine to	medium SAND, trace	314	2.0	
45							Medium dense		avel. No d		SM	0.0	
-15 —		4	N/A		63%					to medium sand, trace		0.0	
-	====								avel. No d				
-													
-	$\exists ::: \equiv$												
	::::::::::::::::::::::::::::::::::::												
-20 —	=====												
-20 —		5	N/A	٤	No samples					cted. Roller bit to refusal	N/A	0.2	No NAPL, sheen or odor
-					collected.			at 24.5	feet.				in drill water.
-													
-													
-25 —	_	6	N/A	+	18.3%	Gray	Very Broken					0.0	Bedrock
-25		•		-				•					'
2214		-1	· · · · · · · · · · · · · · · · · · ·	ام الحن	والجارية والا	ONAT LI	O A statiliza a via d	W-III I 1000	·	· · · · · · · · · · · · · · · · · · ·	2/4.0/004		
COIVII	MENIS: De	3arock III	onitoring	Well u	rillea witii	CIVIE	SA arilling rig.	Well loca	ted adjac	ent to MWMF-07D drilled or	13/18/201	1.	
	1 1			1.00 - 4	047								
Bedro	ock descripti	on from I	HQ core	drilled	from 24.5	o' to 39.5	' bgs.						

			TID	C				TE	ST BORI	NG LO	G
			UR					BORING NO.: B	W-04		
PROJE				st 138th St				SHEET: 2 OF			
CLIENT	:		Consolida	ted Edison	Compa	ny of New York		JOB NO. : 11176	159	1	
DEPTH	STRATA	S	AMPLE	REC%	COLOR	SOIL CONSISTENCY		MATERIAL	USCS	PID	REMARKS
FEET		NO.	BLOW COUNT	RQD%		ROCK HARDNESS		SCRIPTION		(PPM)	
0.5											
-25	\ \ \ \				Gray	Broken	Gray fine grained	d felsic gneiss. Well nica-rich subhorizont	al N/A	0.0	No NAPL,
	$\wedge \wedge \wedge$	banding.						mod non odbnonzom			sheen or odor in drill water.
	$ \wedge \wedge $										
	$\left[\begin{array}{c} 1 \\ 1 \end{array}\right]$										
20	777-	7	N/A	88.3%			Marillon and Co			0.2	No NAPL,
-30 —	$ \wedge \wedge $						with darker band	e grained felsic gneis ling and fractures at	S		sheen or odor in drill water.
	\wedge						approximately 45	degrees.			
	$\setminus \wedge \setminus$										
	\bigwedge										
-35 —	- 77 - 3	8	N/A	85.8%			Madium avay fin			0.0	No NAPL,
-55	$ \wedge \wedge \rangle$						with alternating I	e grained felsic gneis ighter and darker			sheen or odor in drill water.
	$ \wedge\hat{\ \ } \rangle$						45 degrees.	tures at approximate	ery		
	$\wedge^{\wedge} \wedge$										
	\setminus										
-40 —	/ \ / \						Bottom of Boring	1 21 39 5 feet			
							Dottom of Domig	, at 66.5 lect.			
_											
-45 —											
-50 —											
-55 —											
				<u> </u>							
COM	MENTS: B	edrock r	nonitoring wel	I drilled with	n CME H	SA drilling rig. \	Well located adjace	ent to MWMF-07D dr	illed on 3/18/20	11.	
											
Bedro	ck descript	ion from	HQ core drille	ed from 24.	5' to 39.5	5' bgs.					
									BORING NO	.: BW	-04

TEST BORING LOG MW-01 **BORING NO.:** PROJECT/PROJECT LOCATION: East 138th Street Works Site OF 2 SHEET: 1 CLIENT: **Consolidated Edison Company of New York** JOB NO.: 11176159 NORTHING: 232350.24 **EASTING:** 1009728.42 **Zebra Environmental BORING CONTRACTOR: GROUNDWATER:** SAMPLER CORE TUBE **GROUND ELEVATION:** 8.11 **DATE STARTED:** 03/24/10 LEVEL **TYPE TYPE** DATE TIME Macrocore 6/8/2010 1713 4.94 2" **DATE FINISHED:** 03/26/10 DIA. DRILLER: Peter Eichler WT. J. Boyd **GEOLOGIST:** LENGTH 5' M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** Concrete. Black Loose FILL 0.8 Moist FILL Brown Dense 1.2 FILL. Cinders, some silt, trace brick and wood. No odor. FILL. SILT and fine to medium SAND, trace fine gravel and brick. No odor. FILL 0.0 Wet Loose FILL. Cinders. No odor. Medium dense FILL 0.0 FILL. Fine to medium SAND and fine GRAVEL, some silt. No odor. ML 0.3 SILT, trace fine sand. No odor. Black ML 4 9 SILT, some fine to medium sand and fine gravel. Moderate petroleum-like odor. Slight sheen. ML 2.2 Gray Soft SILT, no odor. CLAY. Faint undifferented chemical CL 3.6 odor. CL 12.8 Clay, some organic material (yellow leaflike material). Sulfur odor. CL 18-42 CLAY. Trace mollusc shells. Sulfur odor.

COMMENTS: Boring advanced with track mounted Geoprobe 6620.

Soil samples collected from 3.1-4', 4.5-5', 11-12', and 18-19' bgs and analyzed for VOCs, SVOCs and TAL metals.

2-inch diameter Schedule 40 PVC 10 slot screen set from 3 to 13 ' bgs.

			UR	\mathbf{S} $_{\mathrm{Go}}$		POPING NO : MW 01						
PROJECT: East 138th Street Works Site IEST BORING LOG BORING NO.: MW-01 SHEET: 2 OF 2												
CLIENT						ny of New York		JOB NO.: 11176159				
CLIENI					Compa	SOIL	•	JOB NO. : 11170100				
DEPTH FEET	STRATA	NO.	BLOW COUNT	REC%	COLOR	CONSISTENCY ROCK HARDNESS	DE	MATERIAL SCRIPTION	uscs	PID (PPM)	REMARKS	
1			000141			HANDINESS						
-25		7										
- - -						Medium dense	Fine SAND, som	e mica flakes. No odor.	SM SP	5.1		
-35 —												
-40 —							End of boring at	50 bys.				
-45 — - - -												
-50 - - -												
-55 —												
_												
			vanced with to				zed for VOCs. SV	OCs and TAL metals.				

MW-01

2-inch diameter Schedule 40 PVC 10 slot screen set from 3 to 13 ' bgs.

TEST BORING LOG BORING NO.: MW-02 PROJECT/PROJECT LOCATION: East 138th Street Works Site OF 2 SHEET: 1 CLIENT: **Consolidated Edison Company of New York** JOB NO.: 11176159 NORTHING: 232319.09 **EASTING:** 1009366.94 **Zebra Environmental BORING CONTRACTOR:** 9.00 **GROUNDWATER:** CAS. SAMPLER CORE TUBE **GROUND ELEVATION: DATE STARTED:** 04/14/2010 LEVEL **TYPE TYPE** DATE TIME Macrocore 6/9/2010 1351 2" **DATE FINISHED:** 04/30/2010 5.78 DIA. DRILLER: **Evan Moraitis** WT. J. Boyd 5' **GEOLOGIST:** LENGTH M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 0 100% Concrete Brown Medium dense FILL 1.3 Moist FILL. Fine to coarse SAND and fine GRAVEL, some silt. No odor. FILL. SILT, some fine to medium sand. Faint petroleum odor. FILL 2.8 Gray 37% SW Fine to coarse SAND and fine GRAVEL. Brown Petroleum odor. Wet SP 4.7 Fine SAND, trace silt and fine gravel. No odor. GP 0.2 Loose Coarse SAND and fine GRAVEL. No odor. 60% SM 0.2 Medium dense Fine SAND, some silt. No odor. Loose SW 0.2 Fine to coarse SAND and fine gravel. 13% Medium dense GM 0.3 SILT, trace fine gravel. Sulfur odor. -20 93% Gray CL 135 CLAY, trace organics (yellow leaf-like material). Strong sulfur odor.

COMMENTS: Boring advanced with track mounted Geoprobe 6620.

Soil samples collected from 3.5-4.5', 5.5-6' and 12-12.5' bgs and analyzed for VOCs, SVOCs and TAL metals.

2-inch diameter Schedule 40 PVC 10 slot screen set from 3.5 to 13.5 ' bgs.

			UR	\mathbf{S} $_{\mathrm{co}}$	rnors	ation			BOKI	NG LO	G	
PROJECT: East 138th Street Works Site IEST BORING LOG BORING NO.: MW-02 SHEET: 2 OF 2												
							,	JOB NO.: 11176159				
CLIENT	:				Compa	ny of New York SOIL	•	JOB NO.: 11170139				
DEPTH	STRATA		AMPLE	REC%	COLOR	CONSISTENCY		MATERIAL	uscs	PID	REMARKS	
FEET		NO.	BLOW COUNT	RQD%		ROCK HARDNESS	DE	SCRIPTION		(PPM)		
				<u> </u>					<u> </u>			
-25 —	/////	_		000/	1				I I	1		
4		6		92%								
_												
1												
-30 —	11111	7		97%			CLAV trace orga	anics (yellow leaf-like	CL	137		
-							material) and mo	ollusc shells. Strong				
-							sulfur odor.					
_												
					Brown		Peat. Slight sulf	ur odor.	Pt	10.1		
-35 —					Gray			anics (yellow leaf-like	CL	120.2		
							material) and mo	ollusc shells. Strong	1			
							sulfur odor.					
							End of boring at	35' bgs.				
1												
-												
-40 —												
4												
_												
1												
-45 —												
-												
-												
_												
_												
-50 —												
-												
-												
-												
4												
-55 —												
COM	MENTS: B	oring ad	vanced with t	rack mounte	ed Geopr	obe 6620.						
							for VOCs, SVOCs	and TAL metals.				

MW-02

2-inch diameter Schedule 40 PVC 10 slot screen set from 3.5 to 13.5 $^{\rm t}$ bgs.

TEST BORING LOG BORING NO.: MW-03 PROJECT/PROJECT LOCATION: East 138th Street Works Site OF 2 SHEET: 1 CLIENT: **Consolidated Edison Company of New York** JOB NO.: 11176159 NORTHING: 232521.22 **EASTING:** 1009930.27 **BORING CONTRACTOR: Zebra Environmental GROUND ELEVATION: GROUNDWATER:** CAS. SAMPLER CORE TUBE 8.43 TYPE **DATE STARTED:** 04/15/2010 DATE TIME LEVEL **TYPE** Macrocore 2" **DATE FINISHED:** 04/19/2010 DIA. DRILLER: **Evan Moraitis** WT. J. Boyd **GEOLOGIST:** 5' LENGTH M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 100% Concrete Concrete Brown Medium dense FILL 0.9 Moist FILL. Fine to coarse SAnd and fine GRAVEL, some silt. No odor. 47% SM Fine SAND and SILT, trace fine gravel. No odor. Wet 29.6 Black SW Fine to coarse SAND, trace silt and fine gravel. Strong petroleum odor. Sheen. Brown SW 11.3 Fine to coarse SAND, trace to some silt and fine gravel. Faint petroleum odor. 60% SW 0.3 Fine to coarse SAND, trace to some silt and fine gravel. No odor. 0% SW No recovery. Fine to coarse SAND, trace to some silt and fine gravel. No odor. SW 4.6 -20 88% Gray Dense CL 23.3 CLAY, trace organics (yellow leaf-like material). Strong sulfur odor. CL 12.2 CLAY. Faint sulfur odor.

COMMENTS: Boring advanced with track mounted Geoprobe 6620.

Soil samples collected from 3.5-4.5', 6-7' and 14-15' bgs and analyzed for VOCs, SVOCs and TAL metals.

2-inch diameter Schedule 40 PVC 10 slot screen set from 4 to 14' bgs.

			UR	Sca	rnor			BORIN	IG LO	<u>G</u>	
PROJE	OT:			st 138th St				BORING NO. : MW-03			
CLIENT						ny of New York	,	SHEET: 2 OF 2 JOB NO.: 11176159			
OLILIA.	·				Compa	SOIL	<u> </u>	10D NO			
DEPTH FEET	STRATA	NO.	AMPLE BLOW	REC% RQD%	COLOR	CONSISTENCY		MATERIAL SCRIPTION	uscs	PID	REMARKS
FEEI		NO.	BLOW COUNT	RQD%		HARDNESS	DE.	SCRIPTION		(PPM)	ı
	•	•									
-25		6		97%		[CLAY, trace orga	anics (vellow leaf-like	CL	8.2	
				l			material) and mo sulfur odor.	anics (yellow leaf-like ollusc shells. Moderate			
				l			Juliui Jugi.				
+				l							
+				l							
-30 —				<u> </u>	 		End of boring at	20' has			
-				l			Ellu oi boiling at	30 bys.			
-				l							
-				l							
-				l							
-35 —				l							
-				l							
-				l							
-				l							
-				l							
-40 —				l							
-				l							
				l							
				l							
				l							
-45 —				l							
]				l							
				l							
				l							
				l							
]				l							
-50 —				l							
				l							
1				l							
1				l							
-				l							
-55 —				l					ı		
_								,			
001	MENTO D	oring ad	vanood with to	rack maunt	ad Gaari						
			vanced with tr				VOCs, SVOCs and	d TAL metals.			

MW-03

2-inch diameter Schedule 40 PVC 10 slot screen set from 4 to 14' bgs.

TEST BORING LOG BORING NO.: MW-04 PROJECT/PROJECT LOCATION: East 138th Street Works Site OF 1 SHEET: 1 CLIENT: **Consolidated Edison Company of New York** JOB NO.: 11176159 NORTHING: 232103.94 **EASTING:** 1010136.43 **Zebra Environmental BORING CONTRACTOR: GROUNDWATER:** CAS. SAMPLER CORE TUBE **GROUND ELEVATION:** 8.13 **DATE STARTED:** 04/16/2010 DATE LEVEL **TYPE TYPE** TIME Macrocore 6/9/2010 0838 2" **DATE FINISHED:** 04/20/2010 3.13 DIA. DRILLER: **Evan Moraitis** WT. J. Boyd **GEOLOGIST:** LENGTH 5' M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 100% Concrete Brown Loose FILL 0.1 Moist FILL 0.1 Fill. Fine to coarse SAND and fine GRAVEL, some silt. No odor. Medium dense FILL 96.7 Gray brown Fill. SILT, some fine to medium sand, FILL 89.2 Wet trace fine gravel. No odor. Fill. Fine to medium SAND, trace silt. Brown GP 7.9 Strong petroleum odor. SP 12 Fill. Fine to medium SAND, trace silt. Strong petroleum odor. Sheen. Fine to medium SAND and fine SP 0.3 GRAVEL, some silt. Moderate petroleum odor. Fine SAND, trace silt. Faint petroleum 100% odor. Fine SAND, trace silt. No odor. Pt 52.8 PEAT. Strong sulfur odor. CLAY and SILT, some organics (yellow Grav Dense CL 34.6 leaf-like material). Strong sulfur odor. ML 1.9 40% Silt and fine SAND. Faint sulfur odor. Fine micaceous SAND, trace silt. No МН Brown Medium dense 0.3 -20 0% No No recovery. Sample flowed out of recovery macrocore liner. End of boring at 25' bgs. -25

COMMENTS: Boring advanced with track mounted Geoprobe 6620.

Soil samples collected from 3.5-4.5' and 8.5-9.5' bgs and analyzed for VOCs, SVOCs and TAL metals.

2-inch diameter Schedule 40 PVC 10 slot screen set from 3 to 13' bgs.

TEST BORING LOG BORING NO.: MW-05 PROJECT/PROJECT LOCATION: East 138th Street Works Site OF 1 SHEET: 1 CLIENT: Consolidated Edison Company of New York JOB NO.: 11176159 NORTHING: 231695.80 **EASTING:** 1009773.41 **Zebra Environmental BORING CONTRACTOR: GROUNDWATER:** SAMPLER CORE TUBE **GROUND ELEVATION:** 9.48 CAS. **DATE STARTED:** 04/26/2010 **TYPE TYPE** DATE TIME **LEVEL** Macrocore 6/9/2010 0804 2" **DATE FINISHED:** 05/04/2010 5.82 DIA. DRILLER: Luke Caballero WT. J. Boyd **GEOLOGIST:** 5' **LENGTH** M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 100% Concrete FILL Concrete. Medium dense 0.9 Brown Moist FILL. Fine to coarse SAND and fine GRAVEL, some silt, trace brick. No odor. FILL. SILT and fine to medium sand, some fine gravel. Moderate to strong FILL 32.3 naphthalene odor. Slight sheen (jar 80% shake test). SW 105 SM 24.8 Soft Wet Fine to coarse SAND and fine gravel, Medium dense SM 19 some silt. Strong naphthalene odor. Black Sheen. Pt 51.9 Brown ML 25.6 SILT and fine SAND, trace fine gravel. Strong naphthalene odor. SM 19 7 Fine SAND, some silt. Strong 85% naphthalene odor. PEAT. Strong naphthalene odor. SM 34.5 SILT, some organic material. Moderate naphthalene odor. SILT and fine SAND. Moderate Black SW 230 naphthalene odor. 57% 1200 Fine SAND, some silt, trace fine gravel. Brown SM 245 Moderate naphthalene odor. Fine to medium SAND, trace silt. Strong naphthalene odor. Sheen. SILT and fine SAND. Strong naphthalene odor. -20 100% SM 950 SILT and fine SAND. Strong naphthalene odor. DNAPL. Refusal at 21' bgs. End of boring at 21' bgs. -25

COMMENTS: Boring advanced with track mounted Geoprobe 7720.

Soil samples collected from 3-3.5', 4.5-5', 15-16', and 20.5-21' bgs and analyzed for VOCs, SVOCs and TAL metals.

2-inch diameter Schedule 40 PVC 10 slot screen set from 3 to 20.5' bgs.

TEST BORING LOG BORING NO.: MW-06 PROJECT/PROJECT LOCATION: East 138th Street Works Site SHEET: 1 OF 1 CLIENT: **Consolidated Edison Company of New York** JOB NO.: 11176159 NORTHING: 231654.24 **EASTING:** 1009986.30 **BORING CONTRACTOR: Zebra Environmental GROUND ELEVATION: GROUNDWATER:** CAS. SAMPLER CORE TUBE 9.97 **DATE STARTED:** 05/05/2010 TYPE DATE TIME LEVEL **TYPE** Macrocore 6/9/2010 0819 2" **DATE FINISHED:** 05/12/2010 5.90 DIA. DRILLER: Luke Caballero WT. J. Boyd **GEOLOGIST:** 5' LENGTH M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL **SAMPLE** REC% PID **MATERIAL DEPTH** CONSISTENCY USCS **STRATA** COLOR REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 100% Concrete Brown Medium dense FILL 0.3 Moist FILL. Fine to coarse SAND and fine gravel. No odor. FILL 0.4 FILL. SILT and fine SAND, trace fine gravel. No odor. 58% GM 184 Black Loose Wet Fine to medium SAND, trace fine gravel and silt. Strong naphthalene odor. -10 Weathered bedrock. Naphthalene odor. 100% Sheen. 190 Dense Bedrock Refusal at 11' bgs. End of boring at 11' bgs. -15 -20 -25

COMMENTS: Boring advanced with track mounted Geoprobe 7720.

Soil samples collected from 4-4.5' and 10.5-11' bgs and analyzed for VOCs, SVOCs and TAL metals.

2-inch diameter Schedule 40 PVC 10 slot screen set from 3 to 10' bgs.

			TID	C			TEST	BORII	NG LO	G		
			UK	S co	pora	tion			BORING NO.: MW-07-	URS		
PROJE	CT/PROJE	CT LOCAT	TION: Eas	st 138th Str	eet Wor	ks Site			SHEET: 1 OF 1			
CLIENT	T:		Consolida	ted Edison	Compan	y of New York	(JOB NO. : 11176159			
BORING	G CONTRA	CTOR:	Zebra Envi	ironmental					NORTHING: 231355.22	EAS	TING: 101	10153.70
GROUN	NDWATER:				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	8.30		
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED:	12/15/1	1	
				DIA.		2"			DATE FINISHED:	12/16/1	1	
				WT.					DRILLER:	John Di		
				LENGTH		5'			GEOLOGIST:	J. Boyd		
				* P	OCKET F	PENETROMETER	R READIN	G	REVIEWED BY:	M. Gutn	nann	
DEDTU		SAN	IPLE	REC%		SOIL			//ATERIAL		PID	
DEPTH FEET	STRATA	NO.	BLOW COUNT	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			SCRIPTION	USCS	(PPM)	REMARKS
	'	•	•	•	•	•			,	•	•	
0-	XXXX	1		100%	Brown	Medium dense	Asphal	t .		FILL	0.0	NA=:-+
+						/	1166		Moist			
-					one layer.							
-					dium SAND, with .0-1.8'.		0.1					
4							L	-	e fine to medium sand			
-5							and fine	e gravel.	Several cobbles. No		0.1	V. Moist
		2		53%			odor.			SM	22.2	
					Black		SILT a	nd fine SA	AND. Faint petroleum gravel 6.0-8.8'.		26.4	Wet
1							odor. i	race ine	graver 6.0-8.8.			
1	<u>- : : - : : : : : : : : : : : : : : : :</u>						/ OU T .		\			
+						Dense		ace fine s		ML	8.4 33.7	
-10 —		3		100%				ome fine			30.9	
1							Refusa End of	l at 10.5' boring at	bgs. 10.5' bgs.			
1												
1												
-												
-15 —												
4												
_												
_]												
-20 —												
1												
-												
-												
4												
-25 🗌												
COM	MENTS: B	oring adva	nced with tr	ack mounted	d Geonro	ohe 7720						

Soil samples collected from 4-4.5' and 9.8-10.5' bgs and analyzed for VOCs, SVOCs and TAL metals.

2-inch diameter Schedule 40 PVC 10 slot screen set from 4.6 to 9.6' bgs.

MW-07-URS **BORING NO.:**

			TID	C					TEST	BORII	NG LO	G
			UR	O Co	rpora	ation			BORING NO.: MW-11			
PROJE	CT/PROJE	CT LOCA	ATION: Eas	st 138th St	reet Wor	rks Site			SHEET: 1 OF 1			
CLIENT	Г:		Consolidat	ed Edison	of New	York			JOB NO. : 11176159			
BORIN	G CONTRA	CTOR:	Zebra Envi	ronmental	<u> </u>				NORTHING: 232284.29	EAS	STING: 100)9815.03
GROUN	NDWATER:				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	8.05		
DATE	TIME	LEVEL	L TYPE	TYPE		Macrocore			DATE STARTED:	1/07/11		
				DIA.		2"			DATE FINISHED:	1/19/11		
				WT.					DRILLER:	Lukas R	Reiss	
				LENGTH	1	5'			GEOLOGIST:	J. Boyd		
				*1	POCKET	PENETROMETER	R READIN	G	REVIEWED BY:	M. Gutm	nann	
		SA	MPLE	REC%		SOIL					515	
DEPTH FEET	STRATA	NO.	BLOW	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			MATERIAL ESCRIPTION	uscs	PID (PPM)	REMARKS
	 					TIAIID.1200	-		+		 	
0-	ļ <u>r</u>	1	———	100%	1	T	т				0	
_		'		100 /6	Brown	Medium dense	Concre	te	/	Fill	0.4	Moist
]				I					ne to medium sand,			
				I			some to	o trace fin	ne gravel. No odor.	,]		
1				I	Crow							
-				I	Gray	'		Silt, trace avel. No d	fine to medium sand and odor.	Fill	0.3	l
-5—	XXXX + + + + + + + + + + + + + + + + + +	2		58%	Brown	Soft-medium				SM	0	Wet
-				-		dense		AND, som No odor.	ne to trace silt, trace fine	·		
_				I		1						
]				ļ						,]		
				I						,]		
1				ļ						,]		
-10 —		3		100%						,]		
-				I		1						
-				I		1						
_				I		1				.		
				I		1				.		
7				I		1				.		
-15 —	T.''.T.''.	4		0%		1	No Rec	covery.			0	l
-				I			1401100	Juvery.		,]		
-				I						,]		
_				I						,]		
				ļ						,]		
				ļ						,]		
-20 —		5		62%	Gray	Stiff	Silty CI	LAY, trace	e organics (yellow-green	CL	8.9	l
-				I		1	plant m	iaterial). S	Strong sulfur odor.			l
-	<u>-</u> +-: - +-: - : -+-: -+			I		1						l
-	-:: ::: :::::::::::::::::::::::::::::::			I						,]		
_	<u> </u>			I						,]		
-25	五:						End of	boring at	25' bgs.		<u> </u>	
-25			_	_							_	

COMMENTS: Boring advanced with track mounted Geoprobe 6600 or 7700.

Soil samples collected from 3.5-4.5', 5-6' and 20-21' bgs and analyzed for VOCs, SVOCs and TAL metals.

 $2"\ diameter\ Schedule\ 40\ PVC\ 10\ slot\ screen\ set\ from\ 3\ to\ 13'\ bgs.\ 2"\ diam.\ Sched.\ 40\ PVC\ sump\ set\ from\ 13\ to\ 15\ '\ bgs$

BORING NO.: MW-11

			T	Т	S coi					TEST	BORIN	NG LO	G
				JR	Col	rpora	ation			BORING NO.: SB-01			
PROJE	CT/PROJE	CT LOC	ATIC	N: Eas	t 138th Str	reet Wor	ks Site			SHEET: 1 OF 2			
CLIENT	Γ:		Co	onsolidate	ed Edison	Compar	ny of New York	k		JOB NO. : 11176159			
BORIN	G CONTRA	CTOR:	Zε	bra Envir	ronmental					NORTHING: 232073.70	EAS	TING: 100)9781.26
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	7.23		
DATE	TIME	LEVE	EL	TYPE	TYPE		Macrocore			DATE STARTED:	03/24/1	0	
					DIA.		2"			DATE FINISHED:	03/29/1	0	
					WT.					DRILLER:	Luke Ca	aballero	
					LENGTH		5'			GEOLOGIST:	J. Boyd		
					* P	OCKET I	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutn	nann	
		S	AMPL	.E	REC%		SOIL					PID	
DEPTH FEET	STRATA	NO.		LOW	- PODO/	COLOR	CONSISTENCY			MATERIAL ESCRIPTION	uscs		REMARKS
1 1			C	OUNT	RQD%		HARDNESS					(PPM)	
	·	·		·	•	·		•		,		•	
0-		1			100	Brown	Medium dense	Sand s	silt and fir	ne gravel. No odor.	Fill	1.9	Moist
-								04.14,	J Q Q	o graven rie ederi			
-													ı
-													ı
													ı
_								Fine to	medium	SAND and fine			Wet
-5—	20.0.0	2			78		Dense			silt. No odor.	GM	3.9	ı
1	<u> </u>							SILT ar	nd fine S	AND. No odor.	SM		ı
-								 		/			ı
-								trace si	ilt. No od	SAND, some fine gravel, lor.			ı
-					-	Gray	Medium dense	Fine S	AND trac	e fine gravel. No odor.	CL		ı
-10 —								\			_		ı
		3			72			Sulfur o		w plant material. Strong		4.7	ı
1													ı
1													ı
-											-	3.0	ı
-	$\pm \pm \pm \pm \pm \pm$						soft	F: 0			MH		ı
-15 —		4			85					e silt, organics (yellow l), and mica flakes. Faint	-	0.0	ı
_		7			05			sulfur o		,		0.0	ı
													ı
													ı
1													ı
	工工工工工								AND, son ulfur odor	ne silt, trace mica flakes.			ı
-20 —		5			92	Brown	Medium dense				SM	0.0	ı
4								Fine SA sulfur of		ne to trace silt. Faint			ı
													ı
													ı
1													ı
-													ı
-25 —							l						
COMI	MENTS: Bo	oring ad	vanc	ed with tra	ck mounte	d Geopre	obe 6600 or 77	00.					
Soil s	amples coll	ected fro	om 4.	.5-5', 5-5.5	5', 8.5-10' a	nd 33-34	4' bgs and anal	yzed for \	/OCs, SV	OCs and TAL metals.			

			UR	S co	rpora	ation		BORING NO.: SB-01	BOKIN	NG LO	<u>G</u>
PROJE	CT:			st 138th St				SHEET: 2 OF 2			
CLIENT						ny of New York		JOB NO.: 11176159			
02.2.7	<u>.</u>				Compa	SOIL	·	00211011			
DEPTH FEET	STRATA	NO.	BLOW COUNT	REC% RQD%	COLOR	CONSISTENCY ROCK HARDNESS	DE	MATERIAL SCRIPTION	USCS	PID (PPM)	REMARKS
-25 —	_ · · · · —					l i	OU.T.,		ſ	1	
-	(6		65	Gray Brown		SILT, trace fine s		GM	0.0	
_					Biowii		Fine to medium and silt. No odo	SAND, trace fine gravel r.	aw		
_											
-30 —											
		7		90		Dense				0.0	
-35 —							Refusal at 34' bg End of boring at	JS.			
							Life of borning at	34 bgs.			
1											
_											
-40 —											
1											
-											
-45 —											
-											
-											
-											
-											
-50 —											
-											
-											
-											
-											
-55 —											
						obe 6600 or 770					
Soil s	amples coll	ected fr	om 4.5-5', 5-5	.5', 8.5-10' a	and 33-3	4' bgs and analy	zed for VOCs, SV	OCs and TAL metals.			

TEST BORING LOG BORING NO.: PROJECT/PROJECT LOCATION: East 138th Street Works Site SHEET: 1 OF 2 CLIENT: **Consolidated Edison Company of New York** JOB NO.: 11176159 NORTHING: 232121.81 **EASTING:** 1009819.31 **BORING CONTRACTOR:** Zebra Environmental **GROUNDWATER:** CAS. SAMPLER CORE TUBE **GROUND ELEVATION:** 7.56 **DATE STARTED:** 3/25/10 DATE TIME LEVEL **TYPE TYPE** Macrocore Date Time GW 2" **DATE FINISHED:** 3/29/10 DIA. Date DRILLER: Luke Caballero Time WT. GW J. Boyd 5' **GEOLOGIST:** LENGTH M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 100% Concrete Moist Concrete Brown medium dense FILL 1.2 FILL. Cinders, sand, trace silt. yellow FILL 1.7 brown FILL. Silt, sand and fine gravel. No odor. Wet SM 85.5 40% SILT and fine to medium SAND, trace to some fine gravel. Fuel oil odor. LNAPL coating on soil grains. Gray Fine to medium SAND and fine GRAVEL, trace silt. Fuel oil odor. Sheen. 82% SW 0.6 Fine SAND, trace silt and fine gravel. Faint fuel oil odor. CL 4.2 Clay, trace organic material (yellow plant material). Strong sulfur odor. 80% 3.5 -20 80% SM 0.3 SILT and fine SAND. Faint sulfur odor. Brown SM 0.0 SILT and fine SAND. No odor. dense

COMMENTS: Boring advanced with track mounted Geoporobe 7720 rig.

Soil samples collected from 4.7-5.3', 11.5-13' and 27-28' bgs. Samples analyzed for VOCs, SVOCs and TAL metals.

			UR	S c。	rpora	ation		BORING NO.: SB-02	BOKIN	IG LO	<u>G</u>
PROJE	CT:			st 138th St				SHEET: 2 OF 2			
CLIENT						ny of New York		JOB NO.: 11176159			
OLILIVI					Compa	SOIL	`	JOB NO. 1	I	I	
DEPTH FEET	STRATA	NO.	BLOW COUNT	REC%	COLOR	CONSISTENCY ROCK HARDNESS		MATERIAL SCRIPTION	USCS	PID (PPM)	REMARKS
-25		6		94%			Weathered shist			0.0	
-30							Refusal at 28' bg End of boring at	gs. 28' bgs.			
-40 — - -											
-45 — - - -											
-50 —											
_											
						orobe 7720 rig. gs. Samples an	nalyzed for VOCs,	SVOCs and TAL metals.			

			T	Т	S co					TEST	BORIN	NG LO	G
			•	JK	O Coi	pora	ation			BORING NO.: SB-03			
PROJE	CT/PROJE	CT LOC	ATIO	N: Eas	t 138th Str	eet Wor	ks Site			SHEET: 1 OF 2			
CLIENT	Г:		Co	nsolidate	ed Edison	Compai	ny of New Yorl	‹		JOB NO. : 11176159			
BORIN	G CONTRA	CTOR:	Ze	bra Envir	onmental					NORTHING: 232146.53	EAS	TING: 100	9838.39
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	7.64		
DATE	TIME	LEVI	EL	TYPE	TYPE		Macrocore			DATE STARTED:	03/26/1	0	
					DIA.		2"			DATE FINISHED:	03/29/1	0	
					WT.					DRILLER:	Luke Ca	aballero	
					LENGTH		5'			GEOLOGIST:	J. Boyd		
					* P	OCKET I	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutn	nann	
			AMPL	F T	REC%		SOIL						
DEPTH FEET	STRATA	NO.	ВІ	LOW	RQD%	COLOR	CONSISTENCY ROCK			MATERIAL SCRIPTION	uscs	PID (PPM)	REMARKS
	COUNT HQD% HARDNESS											(,	
0													
	V V V V	1			100%			Concre	te	,	Concrete		Moist
						yellow brown	Loose to medium dense	FILL (Cinders, s	sand, silt and gravel. No	FILL	0.4	
-						to brown		odor.	J	zana, em ana graren 110			
-	\times							FILL. F	ine to me	edium SAND and fine	FILL	0.4	
4 1								GRAVE	EL, some	silt. No odor.			
-5						Gray				SAND and SILT, some	GM	41.2	Wet
		2			80%	Black	Medium dense		e fine grav soil grain	vel. Fuel oil odor. LNAPL	GW	30.1	
1 1	07075												
-	$\bigcirc - \bigcirc - \bigcirc$					Brown			medium EL. Fuel	SAND and fine	SM	35.5	
-								\					
_										SAND and SILT, trace I oil odor. Sheen.			
-10 —	-::-::												
-10		3			83%	Gray					CL	7.8 2.8	
								Clay, tr	ace orga al). Sulfui	nics (yellow plant r odor.			
-									,				
-													
4													
-15 —													
.		4			75%								
1													
-													
-								Fine C	AND	:lk Nil	SM	0.0	
1	医学医学3							Fine S/	AND, SOII	ne silt. No odor.			
-20 —		-			000/	Drawn	Coff to	-					
		5			83%	Brown	Soft to medium dense						
1													
+ 1	正学王学司												
-													
-25 _	压当完当												
COMI	MENTS: B	oring ad	vance	ed with tra	.ck mounted	d Geopr	obe 6600.						
						•							

Soil samples collected from 4.5-5.5', 13-14', and 28-29' bgs and analyzed for VOCs, SVOCs and TAL metals.

			UR	S co	rpora	ation		BORING NO.: SB-03	BOKIN	NG LO	<u>G</u>	
PROJE	CT:			st 138th St				SHEET: 2 OF 2				
CLIENT						ny of New York	·	JOB NO.: 11176159				
OLILIA			AMPLE	REC%	Oompa	SOIL		OD NO				
DEPTH FEET	STRATA ¹	NO.	BLOW COUNT	RQD%	COLOR	CONSISTENCY ROCK HARDNESS		MATERIAL SCRIPTION	USCS	PID (PPM)	REMARKS	
-25 —												
-25		6		80%								
1					Gray		SILT. No odor.		ML	0.0		
-	<u> </u>				Brown	Dense	Fine to medium	SAND, some silt. No	SM	0.0		
-30 —							Refusal at 29' bg End of boring at	gs. 29' bgs.				
-35 —												
-40 —												
- - -45 —												
-50 —												
-55 —	5—											
1			vanced with troom 4.5-5.5', 1				for VOCs, SVOCs	and TAL metals.				

			T		S coi		4.			TEST	BORIN	IG LO	G		
										BORING NO.: SB-04					
	CT/PROJE	CT LOC								SHEET: 1 OF 1					
CLIENT	Γ:						ny of New Yorl	<u>k</u>		JOB NO. : 11176159					
BORIN	G CONTRA	CTOR:	Ze	∍bra Envir	ronmental				1	NORTHING: 232108.74		TING: 100)9699.10		
GROUN	NDWATER:	1				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	7.79				
DATE	TIME	LEVI	EL	TYPE	TYPE		Macrocore			DATE STARTED:	04/13/20				
					DIA.		2"			DATE FINISHED:	04/16/20				
					WT.					DRILLER:	Luke Ca	ıballero			
					LENGTH		5'			GEOLOGIST:	J. Boyd				
	ļ				* P	OCKET	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutm	ıann			
DEPTH		S	AMPL	-E	REC%		SOIL		Г	MATERIAL		PID			
FEET	STRATA	NO.		OUNT	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			ESCRIPTION	USCS	(PPM)	REMARKS		
	 	\longrightarrow	_		 										
0					:2001						' T				
Ĭ		1			100%	Brown	Loose	Concre	ete	/	Concrete FILL	0.7	Moist		
1	FILL. Cinders, sand, silt and fine gravel. No odor.														
1	FILL. Cinders, sand, silt and fine gravel. No odor.														
	Medium dense														
	Wet														
-5-		2		GM	0.1										
_		_			ce fine gravel and silt. No	Givi	0.1								
								odor.							
7															
							Dense	SILT a	nd CLAY.	. No odor.	CL	0.1			
-									16 -	. 110 000					
-10 —	$\pm:\pm:$	3			50%	Gray	Medium dense	21			CL	29.3			
-		ı				-		Clay, tr	ace orga al). Stron	nics (yellow plant ig sulfur odor.					
-									,						
7															
1															
-15 —		4		+	97%							97.3			
-															
4		.													
_		.													
		.													
7		.													
-20 —								End of	boring at	20' bas.					
+		.								20 090.					
-		.													
-															
]		.													
<u>. </u>															
-25 —	-							4							
	P			ld-th tro	-lmaunta	-1 00001									
	MENTS: B							.,,,,,							
Soil s	amples coll	ected from	om 2.	.5-3.5', 4.2	5' and 11-	·12' bgs	and analyzed to	or VOCs,	SVOCs a	and TAL metals.					

TEST BORING LOG BORING NO.: SB-05 PROJECT/PROJECT LOCATION: East 138th Street Works Site SHEET: 1 OF 2 CLIENT: **Consolidated Edison Company of New York JOB NO.:** 11176159 NORTHING: 232150.15 **EASTING:** 1009648.31 **BORING CONTRACTOR:** Zebra Environmental **GROUNDWATER:** CAS. SAMPLER CORE TUBE **GROUND ELEVATION:** 8.04 **DATE STARTED:** 04/13/2010 DATE TIME LEVEL **TYPE TYPE** Macrocore Date Time GW 2" **DATE FINISHED:** 04/16/2010 DIA. Date DRILLER: Luke Caballero Time WT. GW J. Boyd 5' **GEOLOGIST:** LENGTH M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 100% Concrete Concrete Brown Loose FILL Moist FILL. Sand, silt gravel and brick. No odor. Medium dense 68% Wet FILL. Sand, silt gravel and brick. Faint undifferented chemical odor. FILL 3.5 Soft SM 0.4 SILT and fine SAND. Faint undifferented chemical odor. 0.4 <u>Pt</u> SM Black Peat. No odor. 97% Brown SILT and fine SAND. No odor. CL 0.3 Gray Medium dense Clay. Trace organics (yellow plant material). Faint sulfur odor. 90% 0.7 97% CL 3.5 Clay. Trace mollusc shells. Moderate sulfur odor. COMMENTS: Boring advanced with track mounted Geoprobe 7720.

BORING NO.:

SB-05

Soil samples collected from 4-5', 6.5-7' and 11.5-12' bgs and analyzed for VOCs, SVOCs and TAL metals.

Comment3

			UR	S co	rpora	ation		BORING NO.: SB-05	BURII	NG LO	<u> </u>
PROJE	CT:			st 138th St				SHEET: 2 OF 2			
CLIEN.						ny of New York		JOB NO.: 11176159			
DEPTH	STRATA	S	AMPLE	REC%	COLOR	SOIL CONSISTENCY		•	USCS	PID	REMARKS
FEET	Jillara	NO.	BLOW COUNT	RQD%	002011	ROCK HARDNESS	DE	MATERIAL SCRIPTION		(PPM)	TIZIII/TITO
-25 —											
-25		6		92%							
					Brown				SM	0.2	
-30 —		7		100%	DIOWII		Fine SAND, trac	e silt. No odor.	SIVI	0.2	
4		,		100 /8							
4											
-											
-											
-35 —	<u> </u>	8		100%		Dense	Fine micaceous	SAND. No odor.	MH	0.0	
+							Time militadeous	CAND. NO COOL.			
+											
1											
1											
-40 —							End of boring at	40' bgs.			
-45 —											
-											
4											
4											
4											
-50 —											
+											
+											
+											
1											
-55 —											
							,				
COM	MENTS: B	oring ad	lvanced with tr	rack mounte	ed Geopr	obe 7720.					
							VOCs, SVOCs and	d TAL metals.			
	ment3										

TEST BORING LOG BORING NO.: SB-06 PROJECT/PROJECT LOCATION: East 138th Street Works Site SHEET: 1 OF 2 CLIENT: **Consolidated Edison Company of New York** JOB NO.: 11176159 NORTHING: 232303.44 **EASTING:** 1009957.10 **BORING CONTRACTOR:** Zebra Environmental **GROUNDWATER:** CAS. SAMPLER CORE TUBE **GROUND ELEVATION:** 7.79 **DATE STARTED:** 04/14/2010 DATE TIME LEVEL **TYPE TYPE** Macrocore 2" **DATE FINISHED:** 04/19/2010 DIA. DRILLER: John Diamond WT. J. Boyd 5' **GEOLOGIST:** LENGTH M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. FEET **ROCK** RQD% (PPM) COUNT **HARDNESS** 100% Concrete Concrete Brown Loose FILL 0.6 Moist FILL 0.8 FILL. Fine to coarse SAND and fine GRAVEL, some silt. No odor. Medium dense FILL 0.3 Boulder FILL. SILT and fine to medium SAND, trace fine gravel and brick. No odor. 43% Wet Fine to coarse SAND and fine GRAVEL. Gray GW 0.1 "Swampy" odor. Brown GM 0.0 Fine SAND, some fine gravel. "Swampy" Pt 0.0 100% Gray CL 0.9 PEAT, some silt. No odor. brown SM 1.3 CLAY, trace organics (yellow plant material). "Swampy" odor. Silty SAND. Faint sulfur odor. Soft 97% SM 0.1 Silty SAND. No odor. -20 100% SILT and CLAY. No odor. Dense SC 0.0 yellow Micaceous SILT, some fine sand. No SM 0.0 COMMENTS: Boring advanced with track mounted Geoprobe 7720.

BORING NO.:

SB-06

Soil samples collected from 3-4', 4.5-5.5' and 10-11' bgs and analyzed for VOCs, SVOCs and TAL metals.

			UR	S co	rpora	ation		BORING NO. : SB-06	BOKIN	NG LO	G
PROJE	CT:			st 138th St				SHEET: 2 OF 2			
CLIENT						ny of New York	•	JOB NO.: 11176159			
02:2:::				REC%	Compa	SOIL	•	00211011			
DEPTH FEET	STRATA -	NO.	BLOW COUNT	RQD%	COLOR	CONSISTENCY ROCK HARDNESS		MATERIAL SCRIPTION	uscs	PID (PPM)	REMARKS
-25 — -30 — -40 —50 — -	H	6 G	COUNT	63%	brown to brown	Medium dense	odor. Fine SAND, som Fine micaceous Fine to coarse S	AND, some silt and fragments. No odor.	SM SM	0.1 0.1	
-55 —											
		auto e	hanna e de 1911 e	and	-d C -	-h - 7700					
			lvanced with tr om 3-4', 4.5-5				VOCs, SVOCs and	d TAL metals.			

			TTD	C			TEST	BORIN	IG LO	G				
			UI	S c.	rpora	ition			BORING NO.: SB-07					
PROJE	CT/PROJE	CT LOCA	TION: E	ast 138th St	reet Wor	ks Site			SHEET: 1 OF 1					
CLIENT	' :		Consolid	ated Edison	Compar	ny of New York	(JOB NO. : 11176159					
BORING	G CONTRA	CTOR:	Zebra En	vironmental					NORTHING: 231807.18	EAS	TING: 101	10008.55		
GROUN	IDWATER:				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	9.51				
DATE	TIME	LEVE	L TYP	Е ТҮРЕ		Macrocore			DATE STARTED:	04/14/20	010			
				DIA.		2"			DATE FINISHED:	04/20/20	010			
				WT.					DRILLER:	John Dia	amond			
				LENGTH	ı	5'			GEOLOGIST:	J. Boyd				
				* 1	POCKET F	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutm	nann			
DEDTU		SAI	MPLE	REC%		SOIL			MATERIAL		PID			
DEPTH FEET	STRATA	NO.	BLOW	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			SCRIPTION	uscs	(PPM)	REMARKS		
0 1 100% Concrete Concrete FILL 1.3														
7	$\times\!\!\times\!\!\times$				ine to co	arse sand and fine	FILL	1.3	Moist					
-					, rock and brick. No									
	$\times\!\!\times\!\!\times$						odor.							
-									sand. Faint					
-5—		2		33%			naphth	alene-like	odor.	SM GM	5.5 0.5	Wet		
_		2		33%				coarse S	AND and fine GRAVEL,	Givi	0.5	wei		
							301116 3	iii. INO OC	101.					
										SM	24.6			
1							SAND Strong	and SILT. naphthale	, trace fine gravel. ene-like odor. Sheen.					
1	-::::							·						
-10 —		3		100%	Black		SILTa	nd fina S/	AND. Strong naphthalen-	SM	353			
4	-::				Brown	Soft	like odd		AND. Strong naphthalen-					
4	:													
_							Fine to	coarse S	AND, trace fine gravel.					
_					Black	Dense	Strong	naphthale	ene-like odor. Coated.	SW	277			
-15 —	T. T. T. T.				Brown				ne silt. Strong	SM	742			
-13		4		92%			naphth	alene-like	odor.	SM	257			
1									AND, trace coarse sand Moderate naphthalene-					
1							like odd	or. Sheen	(jar shake test).					
-							\ Refusa	l at 17' bg	is.					
4							End of	boring at	17' bgs.					
-20 —														
-														
]														
_														
-25 —	· · · · · · · · · · · · · · · · · · ·			1						1				
	4ENTS S	vina - d	opood!#-	track mounte	d Cc	ah a 7700								

Soil samples collected from 3-4', 4.5-5.5', 13.3-14.2' and 16-17' bgs and analyzed for VOCs, SVOCs and TAL metals.

			T	Т	S Cor			TEST	BORI	NG LO	G			
			•	JÆ	J Coi	pora	ation			BORING NO.: SB-08				
PROJE	CT/PROJE	CT LOC	ATIO	N: Eas	t 138th Str	eet Wo	rks Site			SHEET: 1 OF 1				
CLIENT	Γ:		Co	onsolidate	ed Edison	Compa	ny of New York	(JOB NO. : 11176159				
BORING	G CONTRA	CTOR:	Ze	bra Envir	onmental					NORTHING: 231611.17	EAS	TING: 100	9884.37	
GROUN	IDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	9.72			
DATE	TIME	LEVI	EL	TYPE	TYPE		Macrocore			DATE STARTED:	04/22/2	010		
					DIA.		2"			DATE FINISHED:	04/29/2	010		
					WT.					DRILLER:	Evan M	oraitis		
					LENGTH		5'			GEOLOGIST:	J. Boyd			
					* P	OCKET	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutn	nann		
		S	AMPL	E	REC%		SOIL					PID		
DEPTH FEET	STRATA	NO.		Low	DODa/	COLOR	CONSISTENCY ROCK			MATERIAL SCRIPTION	uscs		REMARKS	
			CC	DUNT	RQD%		HARDNESS					(PPM)		
		•		•	•							•		
0		1			100%	Brown	Medium dense	Concre	te		FILL	0.7	Moist	
-	Fine to coarse SAND and fine GRAVEL, some silt. No odor.													
-														
-								Fine to	coarse S	SAND and fine GRAVEL,	FILL	1.1		
_								some s		erate naphthalene-like				
-5								odor.			GM	146		
		2			67%			SILT, tr	race fine	sand and fine gravel. ene-like odor.			Wet	
11	T. T. T. T. T							Ollong	Парпинан		014	050		
1								SILT ar	nd fine SA	AND, trace fine gravel. ene-like odor.	SM	256		
-								Strong	парпипан	erie-like odor.				
-	 							Tine to	22222	AND same fine gravel				
-10 —	<u>- : : - : : : : : : : : : : : : : : : :</u>	3			100%			Strong	naphthal	SAND, some fine gravel. ene-like odor. Slight				
		3			100%	Black		sheen.			SW	215		
								Refusa	l at 11' bo	gs.				
								Ena oi	boring at	ii bgs.				
1														
-15 —														
-														
_														
11														
-20 —														
-														
4														
_														
٥- ا														
-25 —				ļ.				•			. '			
COM	MENTS: Bo	oring ad	vance	ed with tra	ck mounted	d Geoor	obe 7720							
								r VOCs.	SVOCs a	nd TAL metals.				

			T	ТО	S Coi			TEST	BORIN	1G FO	G				
					J Coi	rpora	ation			BORING NO.: SB-09					
PROJE	CT/PROJE	CT LOC	ATIO	N: East	138th Str	eet Wo	rks Site			SHEET: 1 OF 1					
CLIENT	Γ:		Co	onsolidate	d Edison	Compa	ny of New York	ĸ		JOB NO. : 11176159					
BORING	G CONTRA	CTOR:	Ze	bra Envir	onmental					NORTHING: 231980.00	EAS	TING : 100)9713.74		
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	7.53				
DATE	TIME	LEVE	ĒL	TYPE	TYPE		Macrocore			DATE STARTED:	04/22/20)10			
					DIA.		2"			DATE FINISHED:	04/29/20)10			
					WT.					DRILLER:	Evan Mo	oraitis			
					LENGTH		5'			GEOLOGIST:	J. Boyd				
					* P	OCKET	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutm	iann			
		S/	AMPL	.E	REC%		SOIL					PID			
DEPTH FEET	STRATA	NO.		LOW	BOD9/	COLOR	CONSISTENCY	1		MATERIAL SCRIPTION	uscs		REMARKS		
			CC	TNUC	RQD%		HARDNESS					(PPM)			
	·	•		,	·	·	,					•			
0		1			100%						Concrete				
+	Brown Medium dense FILL. Brick and cobbles, some fine to coarse sand and fine gravel, trace silt.														
+															
4															
_	FILL. Brick, fine to medium sand and silt. trace fine gravel. No odor. FILL 0.4 Wet														
-5—		2			73%		Soft				GM	0.4	ı		
7							Con		coarse S ilt. No oc	SAND and fine GRAVEL,	GIVI	0.4	ı		
+	$\bigcirc - \bigcirc - \bigcirc$						Medium dense	-			GM	0.4	ı		
4								SILT ar		AND, trace fine gravel.			ı		
4						Gray	Dense				CL	6.1	ı		
-10 —						Gray	Dense	CLAY,	trace orga al). Sulfur	anics (yellow plant		0.1	ı		
-10		3			80%			materia	,i). Sullui	1 0001.			ı		
1													ı		
1													ı		
-													ı		
4													ı		
-15 —															
								End of	boring at	15' bgs.			ı		
11													ı		
7													ı		
-													ı		
-20 —													ı		
_													ı		
													ı		
													ı		
1													ı		
-													ı		
-25 🖳								L							
COMI	MENTS: Bo	oring adv	vance	ed with trac	ck mounte	d Geopr	obe 7720.								
Soil s	amples colle	ected fro	om 4.	5-5.5', and	1 7-8' bgs a	and anal	yzed for VOCs,	SVOCs	and TAL r	metals.					

			T	TD	S coi			TEST	BORIN	1G FO	G				
					J Coi	rpora	ation			BORING NO.: SB-10					
PROJE	CT/PROJE	CT LOC	ATIC)N: East	t 138th Str	eet Wo	rks Site			SHEET: 1 OF 1					
CLIENT	Γ:		Co	onsolidate	d Edison	Compa	ny of New York	•		JOB NO. : 11176159					
BORIN	G CONTRA	CTOR:	Ze	ebra Envir	onmental					NORTHING: 231762.52	EAS	TING: 100)9687.41		
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	8.88				
DATE	TIME	LEVE	EL	TYPE	TYPE		Macrocore			DATE STARTED:	04/26/20)10			
					DIA.		2"			DATE FINISHED:	04/29/20)10			
					WT.					DRILLER:	Evan Mo				
		Τ		 	LENGTH	Τ	5'			GEOLOGIST:	J. Boyd				
				_	* P	OCKET	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutm	iann			
		S/	AMPL	E	REC%		SOIL					PID			
DEPTH FEET	STRATA	NO.		LOW		COLOR	CONSISTENCY			MATERIAL ESCRIPTION	uscs		REMARKS		
			C	OUNT	RQD%		HARDNESS					(PPM)			
		-		•	•	•		ı				•	ı		
0		1			100%	Brown	Medium dense	Concre			Concrete	0.6	Moist		
-	FILL. Fine to coarse SAND and fine Gravel, some silt. No odor.														
-															
	XXXX	GM	0.5	Very moist											
-5-		2			53%					mica flakes. No odor.			Wet		
								Micace	ous SILT	, some fine sand, trace	SM	0.8			
								illie gra	avel. No	odor.					
-															
.															
10 —	7777	3			87%	Gray	Dense	Clay tr	race orna	nics (yellow plant	CL	5.6			
1								materia	al). Sulfur	r odor.					
4															
_							Medium dense	SILT, s	ome fine	sand. No odor.	SM	0.7			
-15 —						Brown		Fine S/	AND, trac	ce silt. No odor.	SM	0.7			
								End of	boring at	15' bgs.					
									-	•					
1															
+															
-															
-20 —															
]															
1															
1															
.25 🖳	<u> </u>							<u> </u>							
COMI	MENTS: Bo	oring adv	vanc	ed with trac	ck mounted	d Geopr	obe 7720.								
Soil s	amples coll	ected fro	om 3-	-4', 5-5.5', <i>i</i>	and 11-11.	.5' bgs a	nd analyzed for	· VOCs, S	SVOCs ar	nd TAL metals.					

			T	Т	S Cor			TEST	BORIN	NG LO	G				
				JA	O Cor	pora		BORING NO.: SB-11							
PROJE	CT/PROJE	CT LOC	ATIO	N: Eas	t 138th Str	eet Wor	ks Site			SHEET: 1 OF 1					
CLIENT	Γ:		Co	nsolidate	ed Edison (Compan	y of New York	(JOB NO. : 11176159					
BORING	G CONTRA	CTOR:	Ze	bra Envir	onmental					NORTHING: 231866.28	EAS	TING: 100	09626.53		
GROUN	IDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	8.18				
DATE	TIME	LEVE	EL	TYPE	TYPE		Macrocore			DATE STARTED:	04/28/2	010			
					DIA.		2"			DATE FINISHED:	04/29/2	010			
					WT.					DRILLER:	Evan M	oraitis			
					LENGTH		5'			GEOLOGIST:	J. Boyd				
					* P	OCKET P	ENETROMETE	READIN	G	REVIEWED BY:	M. Gutn	nann			
		SA	AMPLI	E	REC%		SOIL					DID			
DEPTH FEET	STRATA	NO.		LOW	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			MATERIAL SCRIPTION	USCS	PID (PPM)	REMARKS		
	•	,				'	•				'				
0-		1			100%			Concre	tα		Concrete				
-						Brown	Medium			/	FILL	0.2	Moist		
-	dense. FILL. Fine to coarse SAND and fine GRAVEL, some silt and cinders. No odor. FILL. SILT and fine SAND, some wood pieces. Undifferented chemical odor. Wet														
-	FILL. SILT and fine SAND, some wood pieces. Undifferented chemical odor. Wet														
-5 —	D : D : :	2			GM	0.4	vvei								
+									coarse S ilt. No oc	SAND and fine GRAVEL, dor.					
4								CILTO	ad fina C	AND trace fine group!	GM	0.4			
4	<u> </u>							No odo		AND, trace fine gravel.	SW	0.4			
_					_	0		Fine S/	AND, trac	e fine gravel. No odor.					
-10 —						Gray				anics (yellow plant	CL	0.8			
		3			77%			materia	ıl). Slight	sulfur odor.					
1															
-15 —	11111							Fnd of	boring at	15' bas.					
+								2110 01	bornig at	10 bgo.					
-															
4															
4															
-20 —															
-															
1															
-															
-															
-25 🗌															
COM	MENTS: BO	oring adv	vance	ed with tra	.ck mounted	d Geopro	be 7720.								

Soil samples collected from 3-4', 4.5-5' and 13-13.5' bgs and analyzed for VOCs, SVOCs and TAL metals.

TEST BORING LOG BORING NO.: SB-12 PROJECT/PROJECT LOCATION: East 138th Street Works Site SHEET: 1 OF 1 JOB NO.: 11176159 CLIENT: **Consolidated Edison Company of New York** NORTHING: 231926.52 **EASTING:** 1009672.37 **BORING CONTRACTOR:** Zebra Environmental **GROUND ELEVATION:** 8.00 **GROUNDWATER:** CAS. SAMPLER CORE TUBE 04/27/2010 TYPE **DATE STARTED:** TIME DATE **LEVEL TYPE** Macrocore 2" **DATE FINISHED:** 04/29/2010 DIA. DRILLER: **Evan Moraitis** WT. J. Boyd **GEOLOGIST:** 5' LENGTH M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 100% Concrete Concrete FILL Brown Medium 0.2 Moist dense. FILL. Fine to coarse sand and fine gravel, some silt. No odor. Black FILL 0.4 Brown FILL 1.6 FILL. Cinders. Gray -FILL. Micaceous silt, some fine to SM 1.4 Brown medium sand, trace fine gravel. No Wet Brown SM 0.7 SILT, trace fine to coarse sand. Swampy odor. SM 1.8 Micaceous SILT, some fine sand, trace fne gravel. No odor. SM 0.6 Micaceous SILT, some fine sand, trace fne gravel. Faint petroleum odor. 75% Micaceous SILT, some fine sand, trace fne gravel. No odor. CL 2.6 Gray CLAY, trace organics (yellow plant material). Faint sulfur odor. End of boring at 15' bgs. -20 -25 COMMENTS: Boring advanced with track mounted Geoprobe 7720.

Soil samples collected from 3.5-4', 4.5-5.5', 7-8' and 12-13' bgs and analyzed for VOCs, SVOCs and TAL metals.

		1	r TDC	•			TEST	BORIN	NG LO	G					
		(UR!	Cor		BORING NO.: SB-13									
PROJE	CT/PROJE	CT LOCATI	ON: East	138th Str	eet Work	s Site			SHEET: 1 OF 1						
CLIENT	:	(Consolidate	d Edison	Compan	y of New York	(JOB NO.: 11176159						
BORING	G CONTRA	CTOR: 2	Zebra Enviro	onmental					NORTHING: 231849.03	EAS	TING: 100	9668.47			
GROUN	IDWATER:				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	7.87					
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED:	04/28/2	010				
				DIA.		2"			DATE FINISHED:	04/29/2	010				
				WT.					DRILLER:	Evan M	oraitis				
				LENGTH		5'			GEOLOGIST:	J. Boyd					
				* P	OCKET P	ENETROMETE	R READIN	G	REVIEWED BY:	M. Gutn	nann				
		SAMF	PLE	REC%		SOIL			AATEDIAL		PID				
DEPTH FEET	STRATA	NO I	BLOW	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			MATERIAL SCRIPTION	USCS	(PPM)	REMARKS			
. [•	·	·	·	·	·			·	•					
0		1		100%						FILL					
- - -	Brown. Medium dense. FILL. Fine to coarse SAND and fine GRAVEL, some silt. No odor. FILL. Cobbles, some fine to coarse SAND, fine GRAVEL and silt. No odor.														
-5 —	2 55% SAND, fine GRAVEL and silt. No odor.														
-				fine SAND, some fine	FILL	0.5	Wet								
-									ne fine to coarse sand.	FILL	0.5				
-							No odo	or.		FILL	0.5				
-10 —		0		070/			FILL. F	ine SAND	D, some silt. No odor.	F	0.4				
-		3		37%				Fine to co EL. No od	arse SAND and fine dor.	FILL	0.4				
-15 —		4		75%			GRAVE	EL, some	arse SAND and fine to trace silt. Piece of No odor.	FILL	0.4				
-	XXX						Refusa	l at 16' boboning at	gs.						
-20 —															
-25 —															
СОМ	MENTS: Bo	oring advan	ced with trad	ck mounted	d Geopro	be 7720.									

Soil samples collected from 3-4', and 15-16' bgs and analyzed for VOCs, SVOCs and TAL metals.

			T	ТО	Co			TEST	BORIN	NG LO	G				
			ı		Coi	rpora		BORING NO.: SB-14							
PROJE	CT/PROJE	CT LOC	ATIO	N: East	138th Str	eet Wor	ks Site			SHEET: 1 OF 1					
CLIENT	Γ:		Co	nsolidate	d Edison	Compar	y of New York	(JOB NO. : 11176159					
BORING	G CONTRA	CTOR:	Zel	bra Envir	onmental					NORTHING: 231968.28	EAS	TING: 100	9763.62		
GROUN	IDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	7.58				
DATE	TIME	LEVE	EL	TYPE	TYPE		Macrocore			DATE STARTED:	04/28/20	010			
					DIA.		2"			DATE FINISHED:	04/29/20	010			
					WT.					DRILLER:	Evan M	oraitis			
					LENGTH		5'			GEOLOGIST:	J. Boyd				
					* P	OCKET F	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutn	nann			
		SA	AMPLE	_	REC%		SOIL			MATERIAL		PID			
DEPTH FEET	STRATA	NO.		OW DUNT	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			MATERIAL SCRIPTION	USCS	(PPM)	REMARKS		
. [·	•		•	·	·	·	•							
0-	VVV	1			100%	Brown	Medium dense	Concre	te	,	Concrete. FILL	0.5	Moist		
-	FILL. Fine to coarse SAND and fine GRAVEL some silt. No odor														
-															
-		1122	.	vory molec											
-															
-5				Wet											
	::_	2			50%	Black		fine to		sand, trace fine gravel.	FILL FILL	0.3 1.2			
								<u> </u>							
1						Brown		FILL. S	Silt, some	organics.	FILL	0.8			
-										fine SAND, trace evel and wood. Swampy					
-	=:::::							odor.	u iiile gra	iver and wood. Swampy	SM	0.6			
-10 —		3			58%			SILT. tı	race fine	sand. No odor.					
_	<u> </u>				3070		Loose			SAND and fine GRAVEL,	GM	0.4			
									ilt. No oc						
1	07074									\					
1	· · · · · · · · · · · ·							Fine SA		ne silt and fine gravel.	SM	0.4			
-15 —							Med. dense.								
-								End of	l at 15' bo boring at	gs. 15' bgs.					
-															
11															
-20 —															
-															
-															
4															
<u></u>]															
-25 —															
001	MENTO D	oring of	voro-	+ طائنین ای	ak marinta	d Coon	nho 7700								
COM	MENTS: B	oring adv	vance	eu with trac	ck mounted	u Geopro	DDE 7720.								

Soil samples collected from 3.5-4', 4.5-5' and 14.5-15' bgs and analyzed for VOCs, SVOCs and TAL metals.

			TTR	S co		4!			BORIN	1G LO	G				
							BORING NO. : SB-15								
PROJE	CT/PROJE	CT LOCA	TION: Eas	st 138th Str	eet Wor	ks Site			SHEET: 1 OF 1						
CLIENT	Γ:		Consolida	ted Edison	Compar	y of New Yorl	(JOB NO. : 11176159						
BORIN	G CONTRA	CTOR:	Zebra Envi	ronmental					NORTHING: 231732.03		TING: 100)9726.94			
GROUN	IDWATER:				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	9.03					
DATE	TIME	LEVE	L TYPE	TYPE		Macrocore			DATE STARTED:	05/04/2)10				
				DIA.		2"			DATE FINISHED:	05/04/2)10				
				WT.					DRILLER:	John Di	amond				
				LENGTH		5'			GEOLOGIST:	J. Boyd					
				* P	OCKET F	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutn	ıann				
		SAI	MPLE	REC%		SOIL			AATEDIAL		PID				
DEPTH FEET	STRATA	NO.	BLOW COUNT	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			MATERIAL SCRIPTION	uscs	(PPM)	REMARKS			
			+			HARDNESS	<u> </u>			 		J			
0-		1		100%	1		Г			Concrete					
4	Brown Medium dense. Concrete Concrete Fill 1.7 Moist														
-	FILL. Fine to coarse SAND and fine gravel, trace brick. No odor. FILL. Fine to medium SAND and fine GRAVEL, some silt. Moderate graphtalene oder.														
-	gravel, trace brick. No odor. FILL Fine to medium SAND and fine GRAVEL, some silt. Moderate naphthalene odor. FILL 21.2 SM 103 Wet														
GRAVEL, some silt. Moderate naphthalene odor.															
Black naphthalene odor. FILL 21.2															
				-	Brown					MH	20.1				
							SILT, s like stru odor.	ome orga uctures).	anic material (yellow leaf- Undifferented chemical						
-10 —		3		92%											
-									ne to trace silt. nemical odor.	SM	5.1				
							SILT ar odor.	nd CLAY.	Undifferented chemical	CL SP	10.6 47.1				
-15 —	••••	4		65%			Fine SA odor.	AND. Un	differented chemical	SP	68				
-							Fine SA	AND. Str	ong naphthalene odor.						
-								ilt. Stron	AND and fine GRAVEL, g naphthalene odor.	GM	105				
-20 —	0 0 0	5		83%	Black to brown				SAND and fine gravel. ene odor.	GM	42				
-	0.00.0				Black		some s		and and fine gravel, g naphth. odor. Sheen	GM	284				
-									poring at 23' bgs.						
-25 —															
COMI	MENTS: Bo	oring adva	anced with tr	ack mounted	d Geopro	obe 6620.									

Soil samples collected from 3-3.5', 6-6.5' and 22-23' bgs and analyzed for VOCs, SVOCs and TAL metals.

			T	ТО	Coi			TEST	BORI	NG LO	G				
)K	Col	rpora		BORING NO.: SB-16							
PROJE	CT/PROJE	CT LOC	ATIO	N: Eas	t 138th Str	eet Wor	ks Site			SHEET: 1 OF 1					
CLIENT	Γ:		Co	nsolidate	d Edison	Compan	y of New York	(JOB NO. : 11176159					
BORING	G CONTRA	CTOR:	Zel	bra Envir	onmental					NORTHING: 231654.19	EAS	TING: 100	09829.47		
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	9.70				
DATE	TIME	LEVE	EL	TYPE	TYPE		Macrocore			DATE STARTED:	05/05/2	010			
					DIA.		2"			DATE FINISHED:	05/05/2	010			
					WT.					DRILLER:	John Di	amond			
					LENGTH		5'			GEOLOGIST:	J. Boyd				
					* P	OCKET F	PENETROMETE	R READIN	IG	REVIEWED BY:	M. Gutn	nann			
		SA	AMPLI	E	REC%		SOIL		_			PID			
DEPTH FEET	STRATA	NO.		OW DUNT	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			MATERIAL SCRIPTION	USCS	(PPM)	REMARKS		
. [•		•	·	•	·	•		·		'			
0	XXXX	1			100%	Brown	Medium	Concre	ete		FILL	0.4	Moist		
-						Brown	dense.		Eina ta aa	varea and and fine		0.1	William		
-	FILL. Fine to coarse sand and fine gravel, some silt, cobbles and brick. No odor.														
-	gravel, some silt, cobbles and brick. No														
_															
-5	FILL. Fine to coarse sand, some fine														
~		No odor.	FILL	1.8											
1	0-0-					Black		Fine to	coarse S	SAND and fine GRAVEL.	GW	24	Wet		
-						Brown				halene-like odor.	SM SM	1.1 0.8			
4						Biowii		SILT a	nd fine SA	AND, trace organic	Civi	0.0			
4	至光至光日					Dun avair	Dense.	materia	al. Sulfur	odor.	ML	1.0			
-10 —						Brn-gray	Dense.	Fine S	AND, trac	e silt. No odor.					
-10	正学正学员	3			83%	Brown		Mottled	SILT (br	rown and gray). No odor.	SM	1.7			
	<u> </u>					Brn-gray		//		//	ML	9.1			
1						Brown	Medium	Fine S	AND, SOII	ne silt. No odor.	SW	30.6			
-							dense.	Mottled	SILT (br	own and gray). No odor.					
4						Black				SAND. Faint					
-15 —		4			C10/	Brown		naphth	alene odd	or.	SM	7.4			
		4			61%					coarse SAND, trace fine					
										phthalene odor.					
	07074					Black				SAND and fine GRAVEL, g naphthalene odor.	SW	450			
1	(25:(25:)							\							
-								Refusa	l at 18' boboning at	gs. 18' bgs.					
-20 —									Ü	3					
_															
1															
1															
-															
-25 🖳								L							
COMI	MENTS: Bo	oring adv	/ance	d with tra	ck mounted	d Geopro	be 6620.								

Soil samples collected from 3.5-4', 6-6.5', 9-10' and 17.5-18' bgs and analyzed for VOCs, SVOCs and TAL metals.

			T	Ф	Cor		4.		TEST	BORIN	1G LO	G			
										BORING NO.: SB-17					
PROJE	CT/PROJE	CT LOC								SHEET: 1 OF 1					
CLIENT	Γ:		Cor	nsolidate	d Edison (Compa	ny of New York	(JOB NO. : 11176159					
BORIN	G CONTRA	CTOR:	Zeb	ra Enviro	onmental					NORTHING: 231695.45	EAS	TING : 101	0018.17		
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	9.87				
DATE	TIME	LEVI	EL	TYPE	TYPE		Macrocore			DATE STARTED:	05/11/20)10			
					DIA.		2"			DATE FINISHED:	05/12/20				
					WT.					DRILLER:	Luke Ca	ıballero			
					LENGTH		5'			GEOLOGIST:	J. Boyd				
					* P	OCKET	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutm	ıann			
DEDTU		S	AMPLE		REC%		SOIL			MATERIAL		PID			
DEPTH FEET	STRATA	NO.	BLO		RQD%	COLOR	CONSISTENCY ROCK			SCRIPTION	uscs	(PPM)	REMARKS		
			COL	UNT	114270		HARDNESS				<u> </u>	(,			
0		1			100%			Concre	te						
1	Brown Medium dense Fill 8.3 Moist Fine to coarse SAND and fine GRAVEL, some silt. No odor.														
some silt. No odor.															
-	Fine GRAVEL, some fine to coarse sand														
-	0:0:0:0:				-	Black		, trace	silt. No o	dor.	FILL	14.8			
-5						DIACK				medium SAND, some	ML	47.3			
	l : :	2			85%		Running	\ fine gra	ıvel. Fair	nt naphthalene odor.					
1										to medium sand and fine			Wet		
-							Loose	gravel. Sheen.		e naphthalene odor. /	SW	30.4			
-					-	Brown	Dense	\		SAND trace silt	ML	99.3			
-	::									SAND, trace silt. nalene odor.					
-10 —	=:							SILLS	ome clay	. Strong naphthalene					
		3			93%		Medium dense	odor.	orric olay	. Otrong naphthalene	GM	347			
								Fine to	medium	SAND, some fine gravel					
11	/\ /\					Brn-gold	Dense	and silt	. Strong	naphthalene odor.	Bedrock	898			
-										bedrock. Very ong naphthalene odor.					
-15 —								Refusa	l at 12.5'	bgs.					
								End of	boring at	12.5' bgs.					
1															
-															
-20 —															
-															
1															
-															
-25 —											l				
	MENTS: Bo														
Soil s	amples coll	ected fro	om 3-3	.5', 5.5-6'	and 12-12	2.5' bgs	and analyzed fo	or VOCs,	SVOCs a	and TAL metals.					

			ı	TTD	2			TEST	BORIN	NG LO	G					
Color				UK	O Coi	pora		BORING NO.: SB-18								
BORING CONTRACTOR: Zebra Environmental	PROJE	CT/PROJE	CT LOCAT	ION: Eas	st 138th Str	eet Wor	ks Site			SHEET: 1 OF 1						
CAS. SAMPLE TYPE TYPE MARGOCOPE DATE FINENDED. STATTED. STATT	CLIENT	ī:		Consolidat	ed Edison	Compan	y of New York	(JOB NO. : 11176159						
DATE TIME	BORING	G CONTRA	CTOR:	Zebra Envi	ronmental					NORTHING: 231733.78	EAS	TING: 101	0103.05			
DEPTH FEET STRATA SAMPLE REC% COLOR ROD% ROD% RODGE REVIEWED BY REMARKS RODGE REVIEWED BY REMARKS RODGE ROD	GROUN	IDWATER:				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	9.11					
WIT 5 DRILLER: Luke Caballero GEOLOGIST: J. Boyd	DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED:	05/11/2	010				
LENGTH S GEOLOGIST: J. Boyd					DIA.		2"			DATE FINISHED:	05/12/2	010				
DEPTH FEET STRATA SAMPLE RC% COUNT ROD% COLOR COUNT ROD% COLOR COL					WT.					DRILLER:	Luke Ca	aballero				
DEPTH FEET STRATA NO. BLOW FROM: COUNT ROD'S COUNT ROD					LENGTH		5'			GEOLOGIST:	J. Boyd					
DEPTH FEET STRATA NO. BLOW COUNT ROD'S COLOR CONSISTENCY MATERIAL DESCRIPTION USCS (PM) REMARKS O					* P	OCKET P	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutn	nann				
THATA NO. BLOW COUNT ROD% COLOR CONSISTENT DESCRIPTION USCS (PPM) REMARKS 1 100% Brown Medium dense FILL. Fine to coarse SAND and fine to medium GRAVEL, some sitt. No odor. FILL. SILT, trace fine to coarse sand and fine gravel. No odor. Fill. SILT, trace fine to medium sand and fine gravel. No odor. Fill. 0.4 Moist medium sand and fine gravel. No odor. Dense Weathered bedrock (micaceous). No odor. Refusal at 9' bgs. End of boring at 9' bgs.			SAM	PLE	REC%					AATEDIAI		PID				
SILL, Fine to coarse SAND and fine to medium GRAVEL, some silt. No odor. FILL SILT, trace fine to coarse sand and fine gravel. No odor.		STRATA	NO.		RQD%	COLOR	HUCK				USCS		REMARKS			
SILL, Fine to coarse SAND and fine to medium GRAVEL, some silt. No odor. FILL SILT, trace fine to coarse sand and fine gravel. No odor.																
and fine gravel. No odor. Fill 0.5 Fill 0.4 Fill 0.5 Fil	0_	FILL. Fine to coarse SAND and fine to medium GRAVEL, some silt. No odor. FILL. SILT, trace fine to coarse sand and fine gravel. No odor.														
Fine to coarse SAND, trace fine gravel and silt. No odor. SILT, trace fine to medium sand and fine gravel. No odor. Dense Weathered bedrock (micaceous). No odor. Refusal at 9' bgs. End of boring at 9' bgs.				e fine to coarse sand No odor.	FILL	0.5										
SILT, trace line to medium sand and fine gravel. No odor. Dense Weathered bedrock (micaceous). No odor. Refusal at 9' bgs. End of boring at 9' bgs.	-5 —		2		94%		FILL	0.4	Wet							
Weathered bedrock (micaceous). No odor. Refusal at 9' bgs. End of boring at 9' bgs.	-		-		J470			SILT, tr gravel.	ace fine t No odor.	to medium sand and fine	ML	1.8	WCt			
End of boring at 9' bgs.	-	\wedge \wedge \wedge	ock (micaceous). No	Bedrock	0.3											
	-10 — - - - 15 —							Refusa End of	I at 9' bgs boring at	s. 9' bgs.						
	-20 —															
				1 141 1												

Soil samples collected from 4-4.5', 5.5-6' and 8.5-9' bgs and analyzed for VOCs, SVOCs and TAL metals.

			T	TDG	Cor				TEST	BORIN	NG LO	G			
					D Cor	pora	ition			BORING NO.: SB-19					
PROJE	CT/PROJE	CT LOC	ATIO	N: East	138th Str	eet Wor	ks Site			SHEET: 1 OF 1					
CLIENT	Γ:		Co	nsolidate	d Edison (Compan	y of New York	•		JOB NO. : 11176159					
BORIN	G CONTRA	CTOR:	Zel	bra Enviro	onmental					NORTHING: 231573.64	EAS	TING: 100)9982.67		
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	9.79				
DATE	TIME	LEVE	iL	TYPE	TYPE		Macrocore			DATE STARTED:	05/12/20	010			
					DIA.		2"			DATE FINISHED:	05/12/20				
					WT.					DRILLER:	Luke Ca	aballero			
					LENGTH		5'			GEOLOGIST:	J. Boyd				
					* P	OCKET F	ENETROMETER	READIN	G	REVIEWED BY:	M. Gutm	nann			
		SA	MPLE	E	REC%		SOIL					DID			
DEPTH FEET	STRATA	NO.	BL	_ow		COLOR	CONSISTENCY ROCK			MATERIAL SCRIPTION	uscs	PID	REMARKS		
1		110.	CO	DUNT	RQD%		HARDNESS			John Holl		(PPM)			
		•		•	•	•	'			·	•	•			
0-	1 100% Brown Medium dense GRAVEL, some silt. No odor.														
-															
-	FILL_SILT and fine to medium SAND														
	FILL. SILT and fine to medium SAND, trace fine gravel. No odor.														
	trace fine gravel. No odor.														
	trace fine gravel. No odor. FILL 0.3 FILL 37.6														
-5—															
-								<u> </u>	5 511	/					
-								Refusa End of	l at 5.5' be boring at	gs. 5.5' bgs.					
-									J						
-10 —															
-															
-															
-															
_															
-15 —															
-13 —															
1															
-															
-															
-															
-20 —															
-															
1															
-															
-															
-															
-25 _															
COM	MENTS: Bo	oring adv	/ance	ed with trac	ck mounter	d Geopre	be 7720.								
							d for VOCs, S\	VOCs and	d TAI me	tals.					

			TID	C			TEST	BORII	NG LO	G					
			UR	S co	rpora		BORING NO.: SB-20								
PROJE	CT/PROJE	CT LOCAT	ΓΙΟΝ: Eas	st 138th Str	eet Wor	ks Site			SHEET: 1 OF 1						
CLIENT	Γ:		Consolida	ted Edison	Compan	y of New York	(JOB NO.: 11176159						
BORING	G CONTRA	CTOR:	Zebra Envi	ironmental					NORTHING: 231450.01	EAS	TING: 101	0085.27			
GROUN	IDWATER:				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	9.25					
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED:	12/15/2	011				
				DIA.		2"			DATE FINISHED:	12/16/2	011				
				WT.					DRILLER:	John Di	amond				
				LENGTH		5'			GEOLOGIST:	J. Boyd					
				* P	OCKET F	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutn	nann				
		SAM	IPLE	REC%		SOIL			AATEDIAL		PID				
DEPTH FEET	STRATA	NO.	BLOW COUNT	RQD%	COLOR	CONSISTENCY ROCK HARDNESS			MATERIAL SCRIPTION	USCS	(PPM)	REMARKS			
0	FILL. SILT some fine to medium SAND and fine gravel. No odor. FILL. SILT, trace fine to medium sand and fine gravel. No odor.														
-	FILL. SILT, trace fine to medium sand and fine gravel. No odor. Slight petroleum odor at 4.5' bgs.														
-5-						etroleum	odor at 4.5' bgs.		18.4						
~		2		100%	brown				medium SAND, some		2.4	V. Moist			
-							Refusa	l at 5.5' b	gs.						
-							End of	boring at	5.5° Dgs.						
-10 —															
-															
-															
-15 —															
-15															
-															
-															
-20 —															
-															
-															
-25 —															
COM	MENTS: B	oring adva	nced with tr	ack mounted	d Geonro	ohe 7720									

Soil samples collected from 3-3.5' and 4.5-5' bgs and analyzed for VOCs, SVOCs and TAL metals.

Soil sample collected from 5-5.5'bgs for forensic analyses.

TEST BORING LOG BORING NO.: PROJECT/PROJECT LOCATION: East 138th Street Works Site OF 1 SHEET: 1 CLIENT: **Consolidated Edison Company of New York** JOB NO.: 11176159 NORTHING: 231565.35 **EASTING:** 1010411.96 **BORING CONTRACTOR:** Zebra Environmental **GROUNDWATER:** CAS. SAMPLER CORE TUBE **GROUND ELEVATION:** 9.97 **DATE STARTED:** 12/15/2011 TIME DATE LEVEL **TYPE TYPE** Macrocore 2" **DATE FINISHED:** 12/16/2011 DIA. DRILLER: John Diamond WT. J. Boyd **GEOLOGIST:** 5' LENGTH M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY **STRATA** COLOR USCS REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 0 100% 0 Concrete Brown Medium dense FILL 0.2 Moist FILL. SILT and fine to medium SAND, 0.1 some fine gravel, trace wood. No odor. 44% Black FILL 0.2 FILL. Cinders. No odor. V. Moist to Brown 0.2 SILT and fine SAND, trace fine gravel. Wet No odor. CLAYEY SILT, trace fine sand. No odor Lt. Brn Soft ML 4.2 30% Brown Medium SM 4.4 Dense SILT and fine SAND, trace fine gravel. Sulfur odor. 40% SP 22.9 Fine to medium SAND, trace silt and fine gravel and wood. Sulfur odor Dark SP 0.3 Medium to coarse SAND and fine Brown GRAVEL, trace silt. Sulfur odor. -20 50% SM 35.8 Fine to coarse SAND and fine GRAVEL, some silt. DNAPL coated, naphthalene odor. Refusal at 22' bgs. End of boring at 22' bgs. -25

COMMENTS: Boring advanced with track mounted Geoprobe 7720.

Soil samples collected from 3.5-4', 10-11', 21-22' bgs and analyzed for VOCs, SVOCs and TAL metals.

Soil sample collected from 21-22' bgs also sent for forensic analyses.

			IΠ	S co			TEST	BORIN	IG LO	G					
			UR	Co.	pora		BORING NO.: SB-22								
PROJE	CT/PROJE	CT LOCA	ATION: Ea	st 138th Str	eet Wor	ks Site			SHEET: 1 OF 1						
CLIENT	Γ:		Consolida	ted Edison	Compar	ny of New York	(JOB NO. : 11176159						
BORING	G CONTRA	CTOR:	Zebra Env	rironmental					NORTHING: 231595.52	EAS'	TING: 101	0344.08			
GROUN	NDWATER:				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	9.75					
DATE	TIME	LEVE	L TYPE	TYPE		Macrocore			DATE STARTED:	12/15/20)11				
				DIA.		2"			DATE FINISHED:	12/16/20)11				
				WT.					DRILLER:	John Dia	amond				
				LENGTH		5'			GEOLOGIST:	J. Boyd					
				* P	OCKET I	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutm	ann				
		SA	MPLE	REC%		SOIL									
DEPTH FEET	STRATA	T	BLOW		COLOR	CONSISTENCY			MATERIAL SCRIPTION	uscs	PID	REMARKS			
FEEI		NO.	COUNT	RQD%		ROCK HARDNESS			SORIF HON		(PPM)				
		•		,	1	,			1	•	'				
0-		1		100%		Medium dense	Concre	ite		Concrete	0.2	Moist			
1	XXXX				Brown		<u> </u>			FILL					
-	\bowtie			fine to medium SAND, I, trace brick/wood/rope.											
41				,											
				5'		0.3									
_	-5 - V Moiet														
-3-			gs.			V. Moist									
11							End of	boring at	5.0' bgs.						
-															
-															
-															
-10 —															
11															
1															
+															
-15 —															
4															
11															
-20 —															
1															
25															
-25 —				<u>'</u>						<u>'</u>					
COMM	MENTS: R	oring adv	anced with t	rack mounted	d Georg	obe 7720									
						Se SVOCe and	TAL mot	alc							

TIDC									TEST BORING LOG				
-										BORING NO.: SB-32			
	CT/PROJE	CT LOC								SHEET: 1 OF 1			
CLIENT	Γ: 		Conso	lidate	d Edison	of New	York			JOB NO. : 11176159			
									NORTHING: 232316.84 EASTING: 1009771.32				
GROUN										GROUND ELEVATION:	8.09		
DATE	TIME	LEVE	EL T	YPE	TYPE	<u> </u>	Macrocore			DATE STARTED:	1/13/11		
			\perp		DIA.		2"			DATE FINISHED:	1/17/11		
			$-\!$		WT.					DRILLER:	Lukas F		
					LENGTH		5'			GEOLOGIST:	J. Boyd		
					* P	OCKET	PENETROMETE	R READIN	G	REVIEWED BY:	M. Gutn	nann	
DEPTH		S/	AMPLE		REC%		SOIL			MATERIAL		PID	
FEET	STRATA	NO.	BLOW COUNT		RQD%	COLOR	CONSISTENCY			SCRIPTION	uscs	(PPM)	REMARKS
	 	<u>_</u>	COUN	<u>'</u>			HARDNESS				igsquare	ļ,	
0	_												
"	$\times \times \times \times$	1			100%	Brown	Loose	Concre	ete	,	Fill	0 0.1	Moist
1		1				Diowii	Medium dense) FILL C	:narse sa	nd and and fine gravel	Fill	0.1	l
-		1						(cinder	s). No oc	dor.			
-								FILL. §	SILT and	fine to medium SAND,			
4		1						some fi	ine grave	I and red brick. No odor.			i
-5-													
		2			66%					D, trace fine gravel and	Fill	0	Wet
7		1						red brid	ck. No od	lor.			ı
1											SM	0	ı
-								SILT ar	nd fine SA	AND, trace fine gravel. ne-like odor 9-10'.	Sivi		ı
-	-::-::							lantin	aprilitatei	16-11KE 0001 9-10.			ı
-10 —		3			90%								ı
		١											ı
					C	Gray-Brn	Stiff	Silty Cl	_AY, trace	e organics (yellow-brown	CL	9.0	ı
1								plant m	aterial).	Strong sulfur odor.			ı
-													ı
		1											ı
-15 —													
_								End of	boring at	15' bgs.			ı
													İ
													ı
1													ı
-													ı
-20 —													ı
-													ı
_													ı
		1											ı
													ı
1													İ
-25 —													
							obe 6600 or 77						
Soil s	amples coll	ected fro	om 3-4', 5	-6', 9- ¹	10' and 13	-14' bgs	and analyzed f	or VOCs,	, SVOCs	and TAL metals.			

URS corporation									TEST BORING LOG				
										BORING NO.: SB-33			
PROJECT/PROJECT LOCATION: East 138th Street Works Site										SHEET: 1 OF 1			
CLIENT	Г:		C	onsolidate	ed Edison	of New	York			JOB NO. : 11176159			
BORIN	G CONTRA	CTOR:	Ze	ebra Enivr	onmental					NORTHING: 232299.94	EAS	TING: 100)9742.41
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	12.37		
DATE	TIME	LEVI	EL	TYPE	TYPE		Macrocore			DATE STARTED:	1/11/11		
					DIA.		2"			DATE FINISHED:	1/14/11		
					WT.					DRILLER:	Lukas F		
					LENGTH	1	5'			GEOLOGIST:	J. Boyd		
	* POCKET PENETROMETER READING REVIEWED BY: M.										M. Gutn	nann	
		S	SAMPLE				SOIL			MATERIAL		PID	
DEPTH FEET	STRATA	NO.		BLOW	RQD%	COLOR	CONSISTENCY ROCK	ł		SCRIPTION	USCS	(PPM)	REMARKS
	<u> </u>		C	OUNT	nQD /₀		HARDNESS	<u> </u>	DESCRIPTION				
0		1			100%	Brown	Medium dense	Concre	ete		Fill	0	Moist
-						DIOWII	Medium dense	CUT			FIII	, ,	IVIOISI
-		1								medium SAND, trace ock. No odor.			
4													
		1											
_													
-5-		2			36%		Loose to medium dense					1.3	
+		. [-	Inculum dense					.	
+ !		. [-							
4		1											
10 —	00	3			98%			Fine to	medium	SAND and fine	GM	13.8	Wet
-								GRAVE	ΞL, some	silt. Ammonia-like odor.			-
-										nd fine GRAVEL, trace	GM SM	2.2	
4								silt and	fine sand	d. No odor.	SIVI	1.1	
		ı				 		Fine to	medium	SAND, some to trace silt			
4-		ı				 		and fine	e gravel.	No odor.			
15 —		4			96%	0	Dense	Mediun	n to coars	se SAND. No odor.	SP CL	1.1 8.9	
-						Gray	Stiff	CLAY, trace silt. Sulfur odor.			CL	8.9	
-		ı				 							
-		ı				 							
		ı				 							
20 —													
20								End of	boring at	20' bgs.			
7 1		ı				 							
		ı				 							
		ı				 							
25													
-25 —	-												
				مسد مادنده ا	-1	d C = = = =		700					
							robe 6600 or 77						
Soil s	amples coll	ected fro	om 3.	.5-4', 10.5-	11' and 13	i.5-14' bo	gs and analyzed	d for VOC	s, SVOC	s and TAL metals.			

URS corporation									TEST BORING LOG				
			UR	Co.	rpora	ation			BORING NO.: SB-34				
PROJE	CT/PROJE	CT LOCA	ATION: Ea	st 138th Str	SHEET: 1 OF 1								
CLIENT	Г:		Consolida	ted Edison		JOB NO. : 11176159							
BORIN	G CONTRA	CTOR:	Zebra Env	ironmental	NORTHING: 232236.86	EAS	TING: 100)9694.57					
GROU	NDWATER:				CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	12.35			
DATE	TIME	LEVE	L TYPE	TYPE		Macrocore			DATE STARTED:	1/10/11			
				DIA.		2"			DATE FINISHED:	1/14/11			
				WT.					DRILLER:	Lukas P	Lukas Reiss		
				LENGTH	1	5'			GEOLOGIST:	J. Boyd			
* POCKET PENETROMETER READING REVIEWED BY: M. Gutmann													
		SA	MPLE	REC%		SOIL					PID		
DEPTH FEET	STRATA	NO.	BLOW	DOD9/	COLOR	CONSISTENCY			MATERIAL ESCRIPTION	uscs		REMARKS	
			COUNT	RQD%		HARDNESS					(PPM)		
	ĺ .	·	·	·	·		,			•	·		
0-		1		100%	Brown	Medium dense	Concre	ete		Fill	0.1	Moist	
-				1	DIOWII	Wediam dense	<u> </u>		- CILT and fine to	'''	0.1	WOISt	
-				1					s SILT and fine to some fine gravel and				
4				1			gneiss	cobbles.	No odor				
				1									
_				1									
-5		2		84%									
-				1			,						
				1			FILL.	Cinders.	No odor.	Fill			
4 !				1					ne fine to medium sand,	Fill Fill	0 0		
	T. T. T. T.			1			trace fine gravel. No odor. FILL. Cinders. No odor.			SM	0		
-10 —												Wet	
-10		3		84%			Fine to	Fine to medium SAND, some silt. No odor.				VVet	
7 /	— · — · -			1		Dense	odor.				0		
-	::-			,	Dk Brown	Medium dense	SILT. N	No odor.	/	SM	0.1		
	-::::::::::::::::::::::::::::::::::::::			1			SILT a	nd fine S	AND. No odor.				
4 1	-::			1	Brown	_				SM	0.1		
-15 —		4		16%				SILT and fine to medum SAND, trace fine gravel. No odor.					
	-::	4		10%									
	-::::::::::::::::::::::::::::::::::::::			1									
7				1									
-				1									
-	-::::::::::::::::::::::::::::::::::::::			1									
-20 —		5		86%		Soft	CII T a		. No odou	ML	3.7		
_	工:工:			0070	Gray	Stiff			v. No odor.	CL	11.1		
				1	Gray	Still	CLAY,		llusc shells. Strong		11.1		
				1			Sullar	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
1				1									
-				1			Fnd of	boring at	25' bas				
-25 —	7////						<u>/ Liid 01</u>					<u> </u>	
	<u></u>												
COM	MENTS: Bo	oring adv	anced with tr	ack mounte	d Geopr	obe 6600 or 77	00.						
Soil s	samples coll	ected from	m 10-11' and	20-20.9' bg	s and ar	nalyzed for VOC	Os, SVOC	Cs and TA	L metals.				

URS Corporation									TEST BORING LOG				
URD Corporation									BORING NO.: SB-35				
PROJE	CT/PROJE	CT LOCA	ATION: Eas	t 138th Str	SHEET: 1 OF 1								
CLIENT	Γ:		Consolidate	ed Edison		JOB NO. : 11176159							
BORIN	G CONTRA	CTOR:	Zebra Envi	ronmental					NORTHING: 232237.32	EASTING: 1009663.31			
GROUN	NDWATER:				GROUND ELEVATION:	12.57							
DATE	TIME	LEVEL	L TYPE	TYPE		Macrocore			DATE STARTED:	1/10/11			
				DIA.		2"			DATE FINISHED:	1/18/11			
				WT.				Reiss					
				LENGTH		5'			GEOLOGIST:	J. Boyd			
										M. Gutn	 nann		
		SAI	MPLE	DEC9/		SOIL							
DEPTH	STRATA		BLOW	REC%	COLOR	CONSISTENCY			MATERIAL	USCS	PID	REMARKS	
FEET		NO.	COUNT	RQD%		ROCK HARDNESS		DE	SCRIPTION		(PPM)		
TANDINESS													
0-		1		100%			Τ				0		
_	XXXX	.		10070	Brown	Medium dense	Concre	ete	/	Fill	0	Moist	
									ne to medium sand, trace				
1 1							No odo		ce wood and red brick.				
1 1	\bowtie					I							
-													
-5 —		2		58%									
	$\otimes \otimes \otimes$	2		58%									
1 1													
-							Fine S	AND som	ne silt, trace fine gravel.	SM	0		
-							No odo		ie siit, trace iirie gravei.	OW			
-10 —				200/			Mediur	n to coars	se SAND, trace fine	SW	0	Wet	
		3		82%			gravel. No odor.			SM	0		
							Fine to	coarse S	SAND, some silt, trace				
1	正学正学习							avel. No					
-													
4 1	':					Dense	SILT. s	ome to tr	ace fine sand. No odor.	ML	0		
-15 —										Sh.	8		
	0.000	4		100%		Soft	Micace odor.	ous SILT	, some fine sand. No	SM	0		
1 1							\		AND some to trees silt	ML	0		
1 1									SAND, some to trace silt, ne gravel. No odor.	ML	0		
-	エ:エ:				Gray	Stiff	SILT	No odor.		CL	0		
-	=:エ:エ						\\						
-20 —	エ:エ:						SILT, ti	race fine :	sand and gravel. No				
-							\\	• • • • • • • • • • • • • • • • • • • •					
11							\Silty Cl	LAY. No	odor.				
-							End of	boring at					
-													
4													
-25 —													
-25 —													
		and a second of		-1	10	-1 0000 77							
						obe 6600 or 77							
Soil s	amples coll	ected fror	n 9-10' and 1	7.2-17.8' bo	ງs and a	nalyzed for VO	Cs, SVO	Cs and TA	AL metals.				

URS corporation									TEST BORING LOG				
										BORING NO. : SB-36			
PROJECT/PROJECT LOCATION: East 138th Street Works Site										SHEET: 1 OF 1			
CLIENT	Γ:		Co	onsolidate	ed Edison	of New	York			JOB NO. : 11176159			
BORIN	BORING CONTRACTOR: Zebra Environmental									NORTHING: 232100.51		TING: 100	09803.65
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	7.42		
DATE	TIME	LEVE	EL	TYPE	TYPE		Macrocore			DATE STARTED:	1/13/11		
					DIA.		2"			DATE FINISHED:	1/17/11		
					WT.					DRILLER:	Lukas F		
					LENGTH		5'			GEOLOGIST:	J. Boyd		
					* P	OCKET	PENETROMETE	R READIN	IG	REVIEWED BY:	M. Gutn	M. Gutmann	
DEDTU		SA	AMPL	.E	REC%		SOIL			MATERIAL	PID		
DEPTH FEET	STRATA	NO.		LOW	RQD%	COLOR	CONSISTENCY ROCK			SCRIPTION	uscs	(PPM)	REMARKS
				DUNT		<u> </u>	HARDNESS					(,	
0													
"		1			100%	Brown	Medium dense	Concre	ete.		Fill	0	Moist
11						2.0	ca.a conco	SILTa	nd fine to	medium SAND, some		ŭ	
									avel. No				
+													
1	$\otimes \otimes \otimes$												
-5-		2			40%								14/-+
		2			40%			Mediur	n SAND ((backfill). No odor.	Fill	-	Wet
	××××								SILT and fine to medium SAND, some			0	
11								fine gravel. No odor.					
1													
+ 1													
-10 —		3			70%								
4													
	•••••							Fine S	AND, trac	e silt near bottom of	SM	0	
								interval. No odor.					
	工:工:					Gray-Brn	Stiff			anic material (yellow-	CL	1.6	
1	=:							green	olant mate	erial). Faint sulfur odor.			
15 —	: : ·	4			64%	Gray							
+	二: 二 :二												
+ 1													
4	- : - : : : : : : : : : : : : : : : : :												
	三: 士: 士												
-20 —	士:士:												
-20 —								End of	boring at	20' bgs.			
11													
+ 1													
+ 1													
4 1													
.25 🗌													
COMI	MENTS: Bo	oring adv	vance	ed with tra	ck mounte	d Geopr	obe 6600 or 77	00.					
Soil s	amples coll	ected fro	om 3-	4', 6.5-7' 8	and 13.5-1	4.2' bgs	and analyzed for	or VOCs,	SVOCs	and TAL metals.			

TEST BORING LOG BORING NO.: SB-37 PROJECT/PROJECT LOCATION: East 138th Street Works Site SHEET: 1 OF 1 CLIENT: Consolidated Edison of New York **JOB NO.:** 11176159 NORTHING: 232125.94 **EASTING:** 1009791.45 **BORING CONTRACTOR:** Zebra Environmental **GROUND ELEVATION:** 12.50 **GROUNDWATER:** CAS. SAMPLER CORE TUBE 1/6/2011 **DATE STARTED:** TYPE DATE TIME LEVEL **TYPE** Macrocore 2" **DATE FINISHED:** 1/11/2011 DIA. DRILLER: Lukas Reiss WT. J. Boyd **GEOLOGIST:** 5' LENGTH M. Gutmann * POCKET PENETROMETER READING **REVIEWED BY:** SOIL SAMPLE REC% PID **MATERIAL DEPTH** CONSISTENCY USCS **STRATA** COLOR REMARKS **BLOW** DESCRIPTION NO. **FEET ROCK** RQD% (PPM) COUNT **HARDNESS** 100% Concrete Moist 0 Concrete Brown Medium dense Sand, silt, fine gravel and cinders. Trace wood. Moderate petroleum odor 8.2 to 9.0'. 56% 2.8 Loose 138 Medium dense SM 7.3 SILT and fine SAND, trace fine gravel. Faint petroleum odor. 56% 0.9 Wet SM Soft 0 SILT and fine SAND. No odor. Gray Stiff CL 7.4 CLAY, trace organic material (yellow-66% green plant material). Sulfur odor. End of boring at 20' bgs. COMMENTS: Boring advanced with track mounted Geoprobe 6600 or 7700. Soil samples collected from 3-4', 8.2-9', and 13.5-14.5' bgs and analyzed for VOCs, SVOCs and TAL metals.

BORING NO.:

CLIENT: Consolidated Edison of New York JOS NO. : 11176159	URS corporation									TEST BORING LOG					
CLIENT: Consolidated Edison of New York				UK	Coi	BORING NO.: SB-38									
BORING CONTRACTOR: Zebra Environmental CAS. SAMPLER CORE TUBE GROUND ELEVATION: 12.56	PROJE	CT/PROJE	CT LOCAT	ON: East	t 138th Str	SHEET: 1 OF 1									
Case	CLIENT	Γ:	(Consolidate	ed Edison	of New '	York			JOB NO. : 11176159					
DATE TIME	BORING CONTRACTOR: Zebra Environmental									NORTHING: 232155.44 EASTING: 1009804.98					
DIA 2" DATE FINSHED: 1/11/2011 UKLAS FIESS LukaS FIESS LukaS FIESS LukaS FIESS DEPTH STRATA SAMPLE REC'S ROD'S COLOR CONSTENCY ROC'S HARDNESS REVIEWED BY: M. Gutmann Gutmannn G	GROUN	IDWATER:			GROUND ELEVATION: 12.66										
WT. S DRILLER: LUkas Reiss	DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED:	1/6/201	1			
LENGTH S GEOLOGIST: J. Boyd					DIA.		2"			DATE FINISHED:					
SAMPLE SAMPLE REC% ROD% ROD					WT.					DRILLER:					
DEPTH STRATA NO. BLOW FEET ROD% COUNT ROD% COUNT ROD% COUNT ROD% COUNT ROD% COUNT ROD% ROD% ROD% ROD% ROD% ROD% ROD% ROD%					LENGTH		5'			GEOLOGIST:					
DEPTH FEET STRATA NO. BLOW COUNT NO. BLOW CO					* P	OCKET F		R READIN	G	REVIEWED BY:	M. Gutn	Gutmann			
The count of the c	DEPTH				REC%				N	MATERIAL		PID			
Brown Medium dense Brown Medium dense SILT and fine to medium SAND, some fine gravel. Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.5 Fill 0.5 Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.5 Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.5	STRATA	NO I		RQD%	COLOR	ROCK		DE	SCRIPTION	USCS	(PPM)	REMARKS			
Brown Medium dense Brown Medium dense SILT and fine to medium SAND, some fine gravel. Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.5 Fill 0.5 Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.5 Fill 0.4 The prace Failt naphthalene-like odor. Fill 0.5	•	•	•		•	,					•				
Silt_T and fine to medium SAND, some fine gravel. Faint undifferented chemical odor 3-3.5. Silt_T and fine to medium SAND, some fine gravel. Faint naphthalene-like odor. Fill 0.4	0-		1		100%			Concre	te						
ine gravel. Faint undifferented chemical odor 3-3.5. Loose Clean medium SAND. No odor. Fill 0.4 Sile to medium SAND, some silt, trace fine gravel. No odor. Fill 0.4 Odor. Fill 0.4 Fill 0.5.2 Cinders. No odor. SILT and fine to medium SAND, some fine gravel. Fill 5.3 Wet Silf and fine to medium SAND, some fine gravel. Fill 5.3 Silf and fine to medium SAND, some fill 5.3 Silf and fine to medium SAND, some fill 5.3 Silf and fine to medium SAND, some fill 5.3 Cinders. No odor. SILT and fine to medium SAND, some fill 5.3 Silf and fine to medium SAND, some fill 5.3 Silf and fine to medium SAND, some fill 5.3 Silf and fine to medium SAND, some fill 5.3 Cinders. No odor. SILT and fine to medium SAND, some fill 5.3 Silf and fine fill 5.3 Silf and fill 5.3 Silf an	+					Brown	Medium dense			/ CAND	Fill	1.3	Moist		
Loose Clean medium SAND. No odor. Fill 0	+							fine gra	vel. Faint						
Black Medium dense Black Medium dense Brown Brill 10.4 Brill 0.4 Bril	4							odor 3-	3.5'.						
Black Medium dense Black Medium dense Brown Brill 10.4 Brill 0.4 Bril	4														
Black Medium dense Fine to medium SAND, some silt, trace	-5				1000/										
Black Medium dense fine gravel. Faint naphthalene-like odor. Fill 3.5 Medium SAND, some fine gravel. No odor. Cinders. No odor. SILT and fine to medium SAND, some red bricks and rock, trace fine gravel. Faint petroleum odor and slight sheen. 11-12.5 Gray Stiff SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.			2		100%		Loose	Clean r	medium S	SAND. No odor.	FIII	0			
Black Medium dense fine gravel. Faint naphthalene-like odor. Fill 3.5 Medium SAND, some fine gravel. No odor. Cinders. No odor. SILT and fine to medium SAND, some red bricks and rock, trace fine gravel. Faint petroleum odor and slight sheen. 11-12.5 Gray Stiff SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.		$\otimes \otimes \otimes$													
Medium SAND, some fine gravel. No odor. Cinders. No odor.								Fine to medium SAND, some silt, trace							
Medium SAND, some fine gravel. No odor. Cinders. No odor. SILT and fine to medium SAND, some red bricks and rock, trace fine gravel. Faint petroleum odor. SILT and fine to medium SAND, some fine gravel. Faint petroleum odor and slight sheen. 11-12.5'. 4 60% Gray Stiff SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.	1					Black	Medium dense	fine gra	vel. Fain	it naphthalene-like odor.					
SILT and fine to medium SAND, some red bricks and rock, trace fine gravel. Faint petroleum odor. SILT and fine to medium SAND, some fine gravel. Petroleum odor and slight sheen. 11-12.5'. Gray Stiff SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.	+											_			
SILT and fine to medium SAND, some red bricks and rock, trace fine gravel. Faint petroleum odor. SILT and fine to medium SAND, some fine gravel. Petroleum odor and slight sheen. 11-12.5'. SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.	-10 —		3		56%	Brown		/		/	Fill				
SILT and fine to medium SAND, some red bricks and rock, trace fine gravel. Faint petroleum odor. SILT and fine to medium SAND, some fine gravel. Petroleum odor and slight sheen. 11-12.5'. SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.	-							Cinders	s. No odo	or.	SM	13.4	Wet		
Faint petroleum odor. SILT and fine to medium SAND, some fine gravel. Petroleum odor and slight sheen. 11-12.5'. Gray Stiff SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.	_	-::									J	10.1			
fine gravel. Petroleum odor and slight sheen. 11-12.5'. Gray Stiff SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.								Faint p	etroleum	odor.					
SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.								SILT aı	nd fine to	medium SAND, some					
Gray Stiff SILT, trace fine sand. No odor. CLAY. Trace organic material (yellow-green plant material). Sulfur odor. End of boring at 20' bgs.								fine gra	vel. Petr	oleum odor and slight	ML	2.0			
End of boring at 20' bgs.	-15 —		4		60%	Grav	Stiff	└ └──			CI	3.8			
green plant material). Sulfur odor. End of boring at 20' bgs.	1					Citay	Ctin	\				0.0			
End of boring at 20' bgs.	7							CLAY.	Trace or	ganic material (yellow-					
End of boring at 20' bgs.	-							groon	Jan mate	man). Canal Cach.					
End of boring at 20' bgs.	-														
25	-20 —														
	4							End of	boring at	20' bgs.					
]														
	7														
	-25 —	_						L							

Soil samples collected from 4-5', 7.8-8.5', 11-11.5' and 15.5-16.5' bgs and analyzed for VOCs, SVOCs and TAL metals.

			T	TD(Coi	TEST BORING LOG							
										BORING NO.: SB-39			
	CT/PROJE	CT LOC								SHEET: 1 OF 1			
CLIENT					d Edison	of New	York			JOB NO.: 11176159			
	G CONTRA		Ze	bra Enviro	onmental					NORTHING: 232161.34		TING: 100)9850.12 ————
	NDWATER:	1			1	CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	7.73		
DATE	TIME	LEVE	EL	TYPE	TYPE		Macrocore 2"			DATE STARTED: DATE FINISHED:	1/07/11		
					DIA.		2			DRILLER:	Lukas F		
					WT.		5'			GEOLOGIST:	J. Boyd		
					LENGTH	OCKET	PENETROMETE	D DE ADIN	<u> </u>	REVIEWED BY:	M. Gutn		
					+	OCKETT	SOIL	N READIN	<u>. </u>	REVIEWED BY:	IVI. Gutil		
DEPTH FEET	STRATA	NO.		OW OUNT	REC%	COLOR	CONSISTENCY ROCK HARDNESS			MATERIAL SCRIPTION	uscs	PID (PPM)	REMARKS
	+	 			+		HAIDNESS				+		
0-		1			100%								
4						Brown	Medium dense	Concre		/	Fill	0.7	Moist
- - -									nd fine to avel. No d	medium SAND, some odor.			
-5—	XXXX	2			84%			OU T	1.0	II. OAND	SM	85.6	Wet
- - - -									vel. Stro	medium SAND, some ng petroleum odor.			
-10 — - - - -		3			66%	Gray	Stiff	Silty CI yellow-	AY. Trac green pla	e mollusc shells and nt material. Sulfur odor.	CL	0.1	
-15 — - - -		4			56%	Brown	Soft	Fine S	AND. No	odor.	SP	0	
-20 — - - -		5			76%								
-25 📗								End of	boring at	25' bgs. \			<u> </u>
-20													
СОМІ	MENTS: Bo	oring adv	vance	ed with trac	ck mounted	d Geopre	obe 6600 or 77	00.					

Soil samples collected from 3.5-4', 5-5.5' and 14-15' bgs and analyzed for VOCs, SVOCs and TAL metals.

BORING NO.: SB-39

			T	TP(S coi	TEST BORING LOG							
										BORING NO.: SB-40			
PROJE	CT/PROJE	CT LOC								SHEET: 1 OF 1			
CLIENT	Γ: 		Co	nsolidate	ed Edison	of New	York			JOB NO. : 11176159			
BORIN	G CONTRA	CTOR:	Ze	bra Envir	onmental					NORTHING: 232212.05	EAS	TING: 100)9782.50
GROUN	NDWATER:					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:	12.63		
DATE	TIME	LEVE	EL .	TYPE	TYPE		Macrocore			DATE STARTED:	1/11/11		
					DIA.		2"			DATE FINISHED:	1/14/11		
					WT.	\perp				DRILLER:	Lukas F		
					LENGTH		5'			GEOLOGIST:	J. Boyd		
					* P	OCKET	PENETROMETE	R READIN	I G	REVIEWED BY:	M. Gutm	nann	
DEDTU		SA	AMPLI	E	REC%		SOIL	MATERIAL				PID	
DEPTH FEET	STRATA	NO.	BLOW COUNT		RQD%	COLOR	CONSISTENCY ROCK HARDNESS			ESCRIPTION	USCS	(PPM)	REMARKS
	·	 		-	•		1					'	1
0-	l r	1	—		100%		1					0	
4 1						Brown	Medium dense	Concre	te 	/	Fill	0	Moist
_										fine to medium SAND, ne gravel and cobbles.			
								No odo		io graver and dobbies.			
1													
-5-		2			80%								
-													
4										AND and fine GRAVEL.			
_								some fi		edium sand, trace silt. No	Fill	0.3	
								odor.					
					Ţ	Black				fine SAND, trace coarse	FIII	0.3 61.8	Wet
-10 —	<u> </u>	3			78%			sand.	No odor.	/	ML	14.8	
_						Brown				AND and fine GRAVEL leum odor.	SW 3.3		
							Dense	∫ SILT aı	nd fine S	AND, some coarse sand,		3.3	
1	<u> </u>							trace fi	ne gravel	I. Faint petroleum odor.			
-						Gray		Fine SA	AND, som	ne silt. No odor.	ML	5.4	
-15 —	· — · —	4			70%			SILT. I	Faint sulf	ur odor.			
-		Ì					Soft			nanic material (yellow- erial). Sulfur odor.	CL	10.4	
-20 —													
-								End of	boring at	25' bgs.			
+													
-													
-25													
-25 —	-				•								
COM	MENTS: B	oring adv	vance	ed with trac	ck mounte	d Geopr	robe 6600 or 77	00					
							d analyzed for V		OCs and	TAL metals.			

BORING NO.:

SB-40

Project Location: Bronx, NY

Project Number: 11176159.20000

Log of Boring SB-41

Date (s)	2/18/1	14 -	2/18/14			Lo	gged	M. Das	scoli		Approximate Surface Elevation (feet)			\neg
Drilling Metho	3	Direc					By Dr	illing entractor	ADT			Casing Top Elevation			
Sampl	ling	Macro	осо	res			Dr	ill Rig erator	Chris	Migliore		Screen Type/Slot			
Drill R Type		Geop	rob	e 420M	<u> </u>		Ca	ising pe/Diameter				Gravel Pack Type			\dashv
	dwater	6.5					Gr	oundwater evation				Grout Type/Quantity			
Rema		Samp	oles	collect	ted at 0	.5'-1.0'			AL Meta	ıls, at 7'-9	o' for VOC, and	from 9'-11' for SVOC.			
ELEVATION (ft)	DEPTH (ft. BGL)	SAMPLE ID.	EXTENT	RECOVERY (ft)	PID (ppm)	U.S.C.S.	GRAPHIC LOG		CONTACT DEPTH (ft)	ENV SAMPLE DEPTH	WAIER DEPTH				
	-	1		3	6 1.3 0.1			refractor	wn FILL y brick,	red brick	pieces. Brick at	ckets, few glass, gravel, 18". nd and gravel, no odor.	0.5	X	
	-	MC 2	\bigvee	2	0 0				LL- sand	d, silt, fev		brick, refractory brick at 4'.	3		
	5 - -	MC 3		0.7	0						-	-6.5'. Wet at 6.75'. No odors.	5 7		▼
	-	MC 4	X	1	2.0 2.4 0.1			Black FI at 8.5'-9	LL- crun ' & 10.5-	nbled refi -11', 1"-2	actory brick and pieces of refrac	I red brick, few silt. No odors. tory and red brick.		X	
	10— -	MC 5		0.8	0.2			No reco	very fron	n 11'-17'.	Several attemp	ts made to collect 15'-17',	11		
	-	NR 6 NR 7		0				retractor	у впск р	nece roui	nd in the shoe e	ach time.			
	15— -	MC 8		0	2.0										
	-									Botto	m of borehole at	t 17.0 feet.	17		///
	20														
	- 25— - -														
	_									DG					

Project Location: Bronx, NY
Project Number: 11176159.20000

Log of Boring SB-42

Date (s Drilled	s)	2/19/1	4 -	2/21/14	ļ.		Lo By	ogged M. Dascoli	Approximate Surface Elevation (feet)						
Drilling Method	d	Direct	t Pu	ısh			Dr Co	rilling ADT ontractor	Casing Top Elevation						
Sampli Method	ng I	Macro	COI	res				rill Rig perator Chris Migliore							
Drill Rig Type	g	Geopi	rob	e 6610	DT		Ca Ty	asing pe/Diameter							
Ground Depth	dwater	6.8						roundwater evation							
Remark	ks	Samp	les	collect	ted at 0	.5'-1' a	nd 18.	5'-19.5' for VOC, SVOC, and TAL Metals.							
ELEVATION (ft)	DEPTH (ft. BGL)	SAMPLE ID.	EXTENT	RECOVERY (ft)	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DE	LITHOLOGIC DESCRIPTION OO						
			$\setminus /$		2.0			Concrete Black FILL, coarse sand, fine gravel, few of	copples few silt dry Faint	-0.5	X				
	_		X		1.0	FILL		MGP-like odor. Headspace readings 0.5'-	I'=17.1 pp; 1'-2'=13.6ppm.	- 2		1			
	_	1	\triangle	3	0.7	FILL		Dark brown FILL- coarse sand, gravel, ash odor. Dry.	n, refractory brick at 2.5'. No	-2.5					
	_					FILL		COBBLE							
	5 —							Macro liner stuck in macro and not retrieve	-d	- 5					
	-	MC 2				SM		Recovered 3" from the shoe- Dark gray vf Headspace= 351 ppm.				\			
	10		\ /		183.5	SM		Dark gray, soft, vf SAND, some silt, trace odor, light coating. Wet.	clay, moderate MGP-like	- 10					
	_	MC 3		5	379.6 249.2 259.7	SM		Dark gray, dense, vf SAND, some silt, few odor, light coating. Wet.	clay, moderate MGP-like	11.5					
	15		$/\setminus$		380.1	SM		Dark gray, dense, vf-m SAND, trace silt, tr MGP-like odor, light coating. Wet. Headsp		- 14 - 15					
	15— - -	MC 4		4.8	588 332 160.1 147	SM		dense, vf-m SAND, trace silt, few fine grav throughout. 15'-16' free product in liner, dark bown NA 16'-20' lightly coated to 10% saturation. St	vel. Strong MGP-like odor PL, 20% saturation.	— 15					
	20—		/ \		175	SM		Same as above with weathered rock and r and free product on top of weathered rock MGP-like odor. Headspace at 20'= 772ppr	, dark brown NAPL. Strong _	19 20					
	- - 25— - -							Bottom of borehole at	/						

Project Location: Bronx, NY
Project Number: 11176159.20000

Log of Boring SB-43

Date (s)	2/40/4	14	2/19/14			Lo	gged	M Do	ascoli			Approximate Surface Elevation (feet)			$\overline{}$
Date (Drilled Drilling	נ				•		Ву	Illing		ascon						
Metho	d	Direct					Co	ntractor III Rig	ADT				Casing Top Elevation			
Sampl Metho Drill R		Macro					Op	Operator Chris Mignore Screen Type/Siot								-
Туре			rob	e 6610l	DT			Casing Type/Diameter Gravel Pack Type								
Depth	dwater	5.0					Ele	oundwater evation					Grout Type/Quantity			
Rema	rks	Samp	les		ted at 1	'-2' for	VOC,	C, SVOC, and TAL metals, and at 10'-12' for VOC, SVOC, and fingerprinting.								
ELEVATION (ft)	DEPTH (ft. BGL)	SAMPLE ID.	EXTENT	RECOVERY (ft)	PID (ppm)	U.S.C.S.	GRAPHIC LOG		LITHOLOGIC DESCRIPTION						ENV SAMPLE DEPTH	WATER DEPTH
	_		\ /		0	FILL		Concrete FILL- da		vn drv	coarse	sand and gra	avel, trace silt, ash, no odor.	0.5		
	_				0	FILL			rk brow	vn, dry,			with few refractory brick	'	X	
	_	1	lχ	5	0				— ₃							
	_		$ \rangle$		0	FILL		FILL- dark brown, dry, fine to coarse sand and gravel, red brick pieces, concrete cobbles, refractory brick, no odors.								
	5 —		\bigvee		123.2			EII I WO	od in s	shoo w	ood is o	acted with bl	ack coal tar, strong	<u> </u>		y
	_	MC 2		0.2	123.2	FILL		naphthal wet.	lene od	snoe, w dor, 100	ood is co)% satur	ation and fre	ack coal tar, strong e product of black coal tar,			
	10	MC 3	X	0.5	389 603	FILL		FILL- tra saturatio measure	n. Use	od, fine a weig	gravel. I Ihted stri	Black coal ta ng down the	r free product and 100% borehole, 5" of product	+ 10 - 12		
	15— - 20— - 25—									Вс		borehole at 1	2.0 feet.	12		

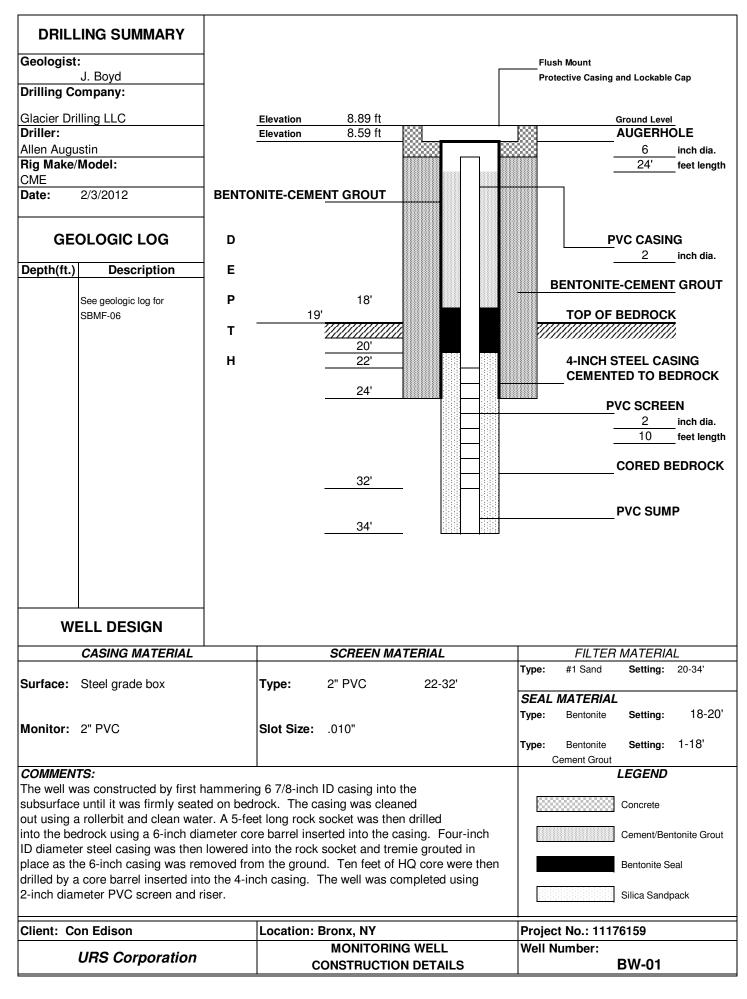
Project Location: Bronx, NY

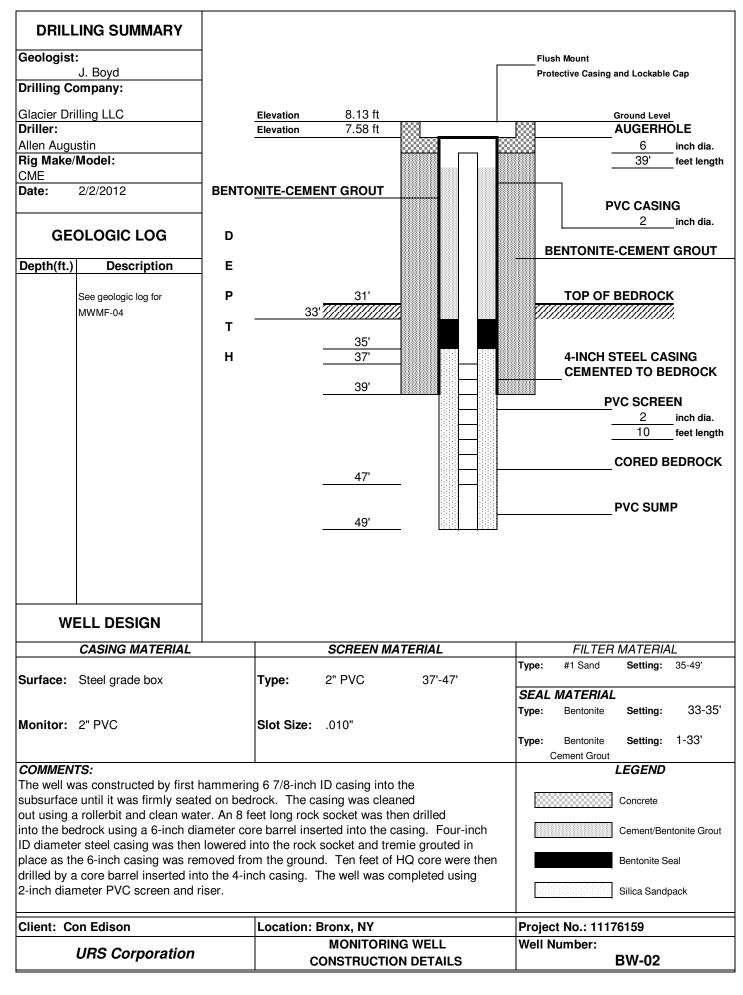
Project Number: 11176159.20000

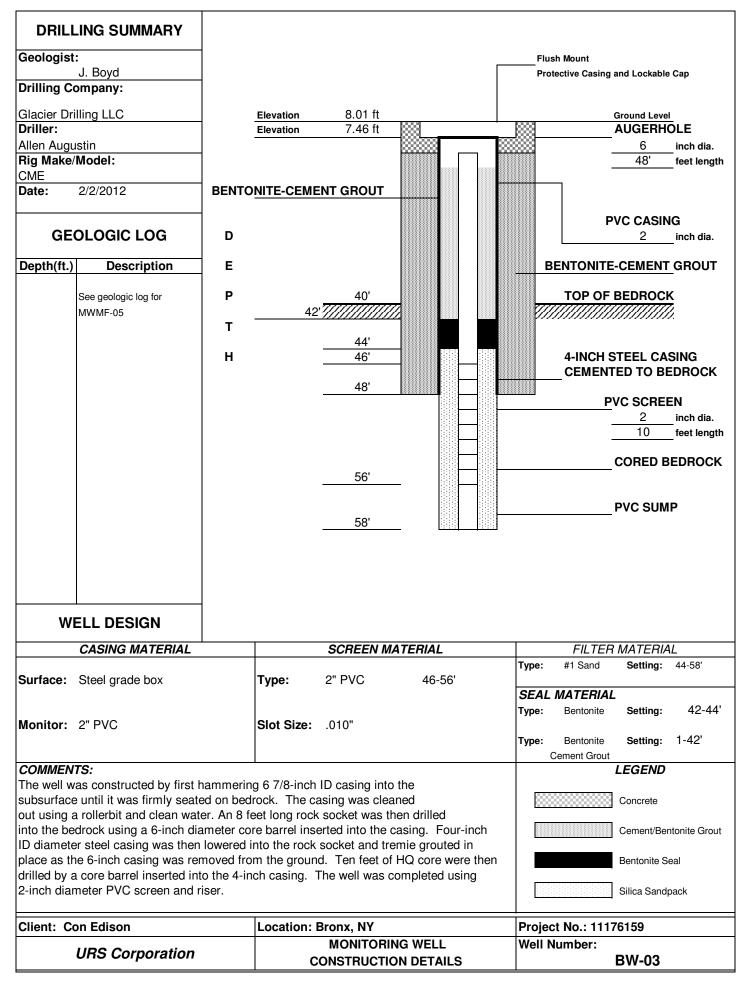
Log of Boring SB-44

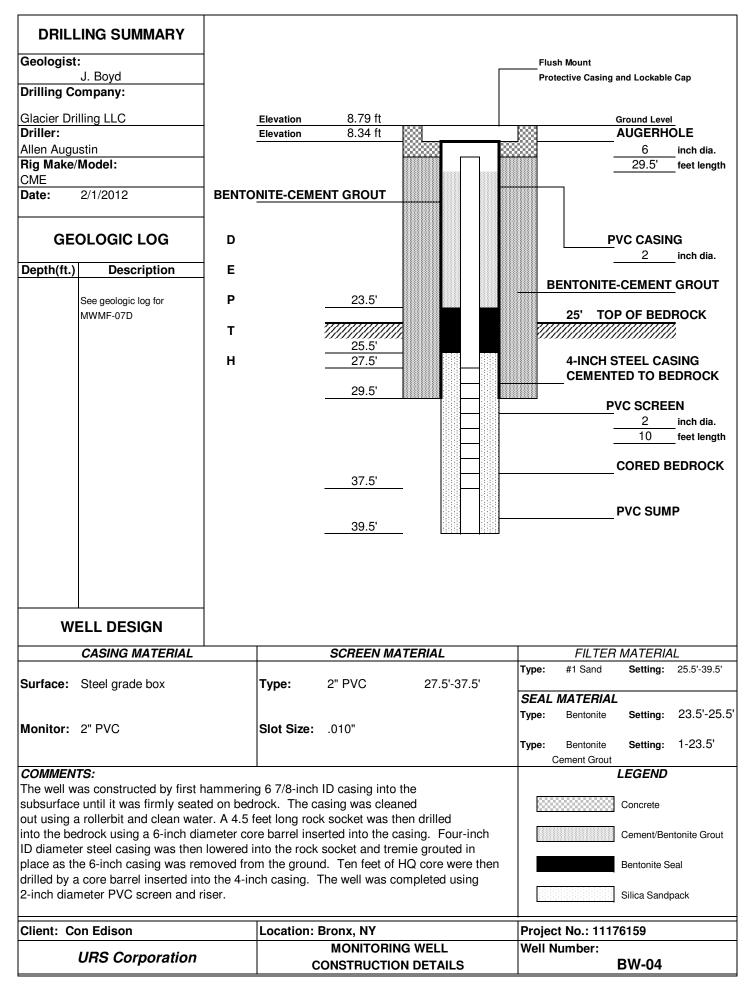
Date (s)	2/19/1	4 -	2/20/14	<u> </u>			gged	M. Dascoli		Approximate Surface		
Drilled Drilling	a	Direct			•		By Dr	illing	ADT		Elevation (feet) Casing Top Elevation		
Metho Sampl	ling	Macro					Dr	ontractor ill Rig	Chris Migliore	<u> </u>	Screen Type/Slot		
Metho Drill R							Ca	perator asing	Onn's Mignore	•	Gravel Pack Type		
Туре	dwater		rob	e 6610	וט		Ту	pe/Ďiameter oundwater			7.		
Depth		5.0					Ele	evation			Grout Type/Quantity		
Rema	rks	Samp	les		ted at 1	.5'-2' a	nd 10'-	-12' for VOC,	SVOC and TAL	. Metals, and 15'-2	0' for VOC, SVOC and finger	printing.	lui I
ELEVATION (ft)	DEPTH (ft. BGL)	SAMPLE ID.	EXTENT	RECOVERY (ft)	PID (ppm)	U.S.C.S.	GRAPHIC LOG			LITHOLOGIC DE	SCRIPTION	CONTACT DEPTH (ft)	ENV SAMPLI DEPTH WATER
			\setminus		0	FILL		Concrete		, some coarse san	nd	0.5	
	_		V		2.2	FILL		FILL- Da	irk brown fine to	coarse sand and	gravel, red brick pieces,	2	
	_	1	lχ	5	27.2				•	bles and bricks.	, Headspace= 63.7 ppm		
	_		$ \rangle$		11.5	FILL							
	5 —				N/A							5	V
	-		\bigvee		443			50% sat	urated. Black co	w silt, trace sand, bating and thin blac	wet. Strong, MGP-like odor, ck product and water		
	-		\mathbb{N}		662			puddling	in macroliners.				
	-	MC 2		2.3		FILL							
	_												
	10-				1502			FILL sa	nd and cobbles	few silt red and re	efractory brick. Strong,	10	
	-		V		664			MGP-like	e odor, 75% sat er puddling in m	urated. Black coati	ng and thin black product		
	-	MC 3	$/\!\setminus$	2.5		FILL		and wate	or padding in in	acromicis.			
	-	IVIC 3		2.5		FILL							
	-												
	15-		\times		2620			FILL- red	d brick fragment	s, gravel, few silt a	and sand. Strong, MGP-like	15	
	-							odor. Bla Note: W	ack 100% coal to hen retrieved the	ar saturation. e 20'-21' sample m	nacro, clean water was		
	-	MC 4		0.2				poured f	rom the top of th	ne sampler.			
	-					FILL							
	-												
	20-	MC 5	X	1	990								
	-								Botto	om of borehole at 2	21.0 feet.	21	
	-												
	-												
	05												
	25—												
	_												
	_												
									TIDO	•			

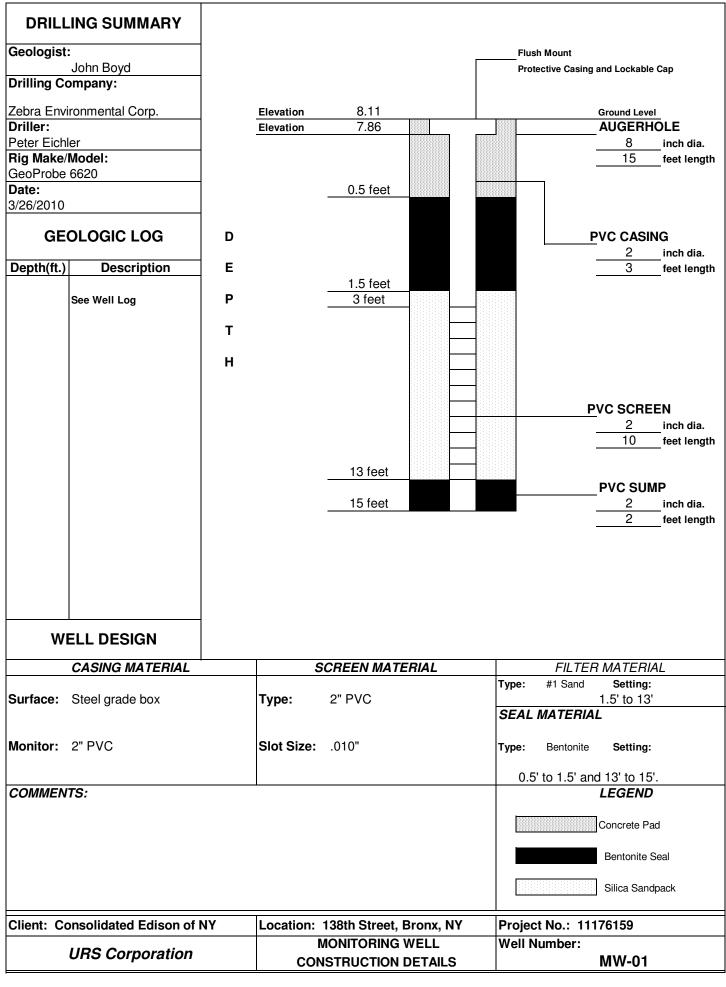
APPENDIX G MONITORING WELL CONSTRUCTION LOGS

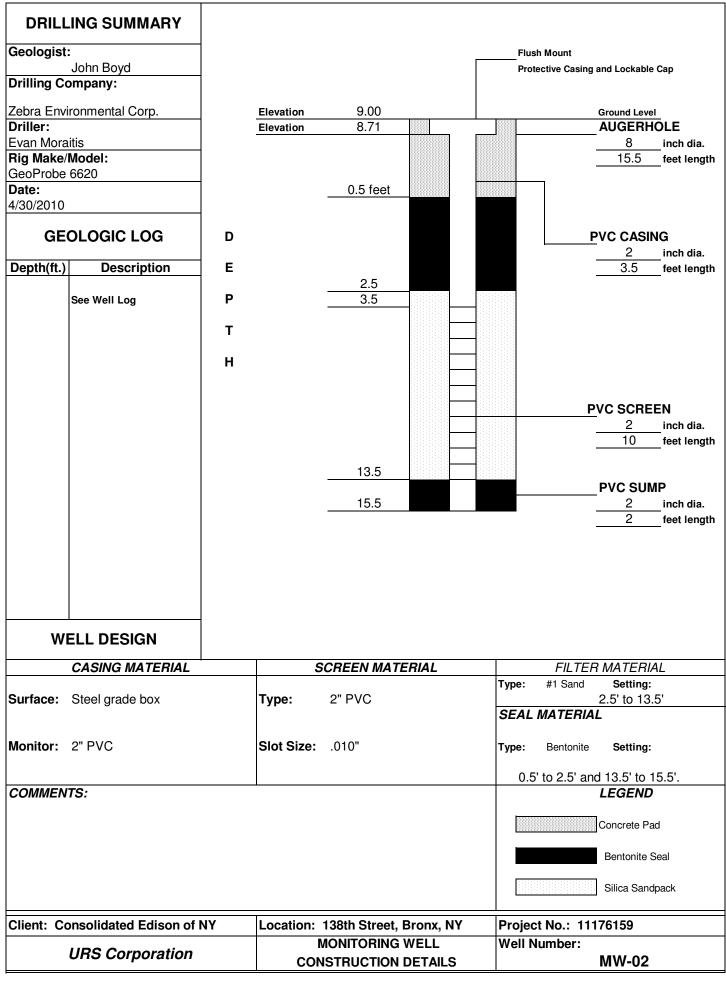


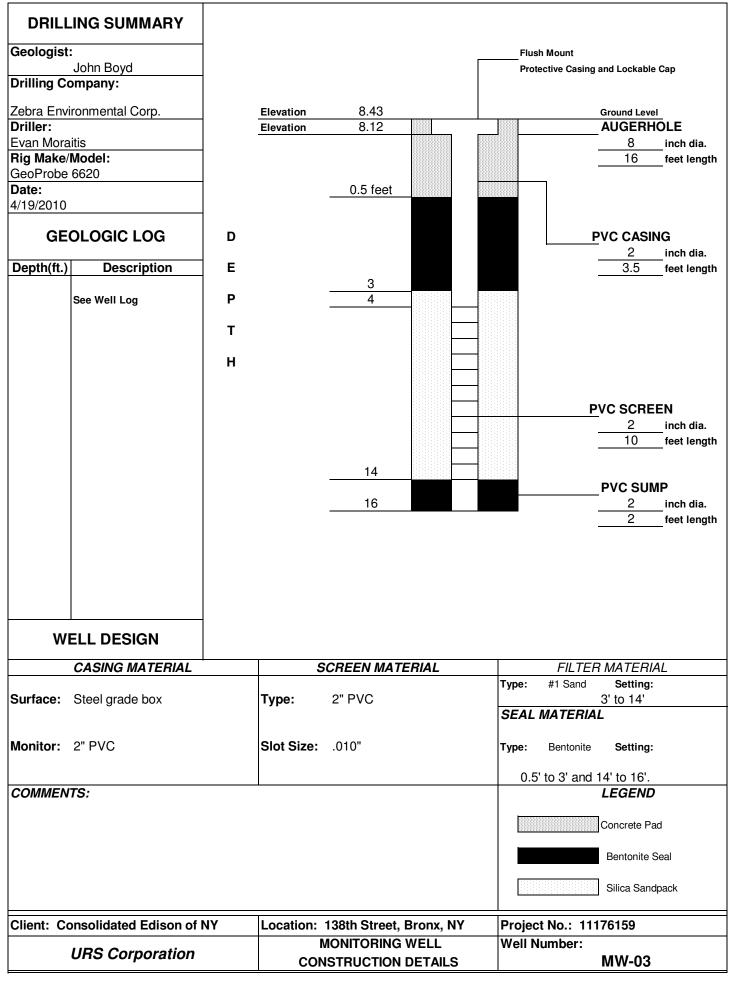


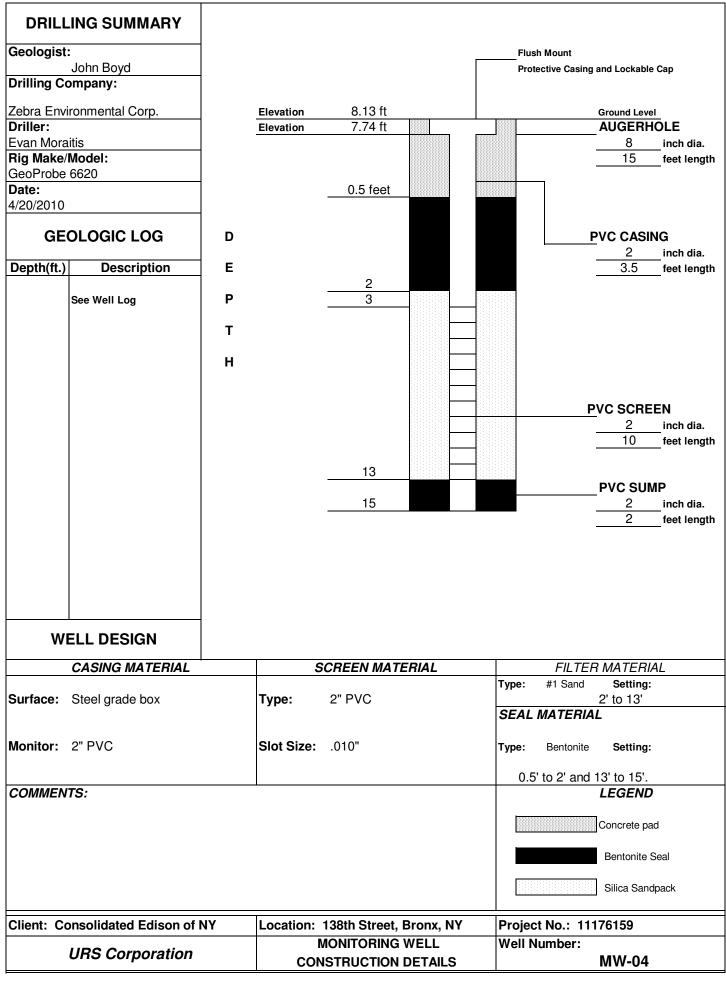


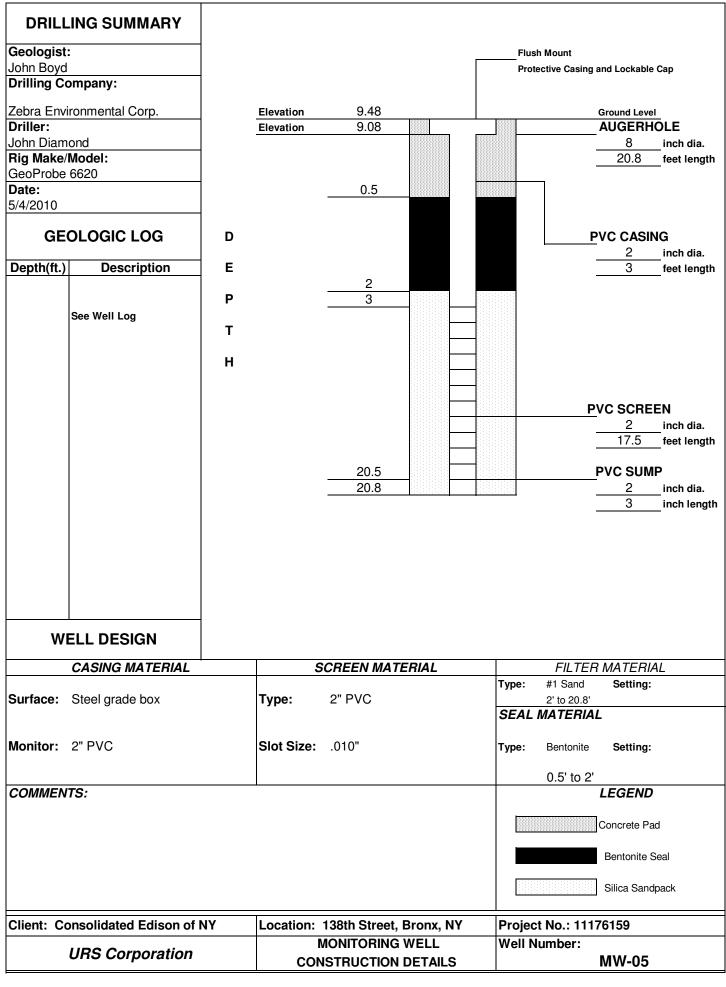


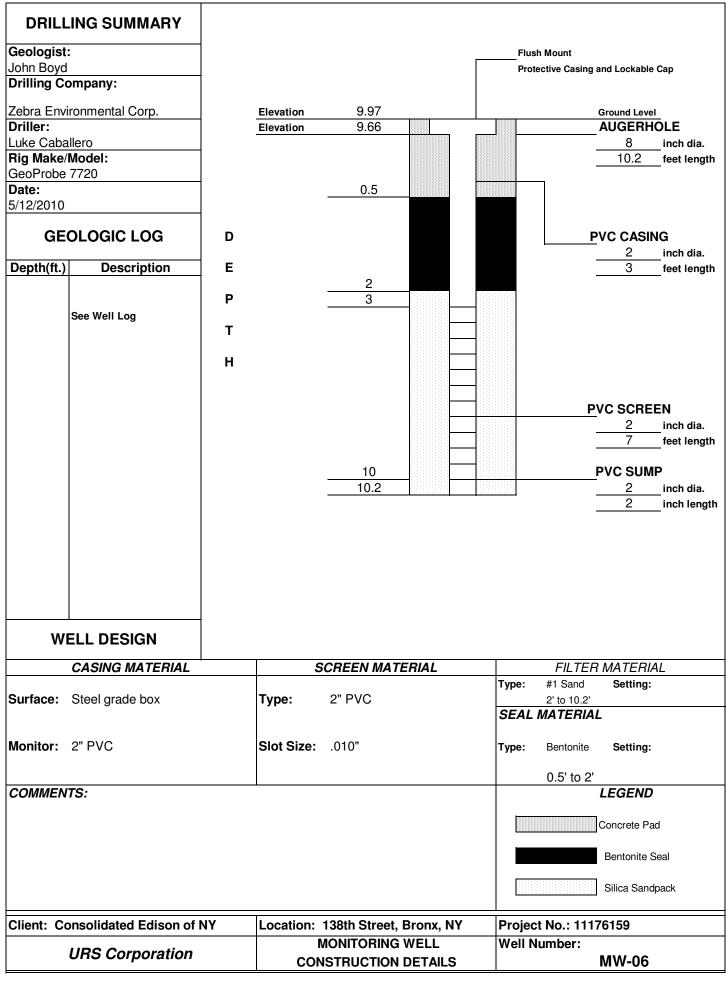


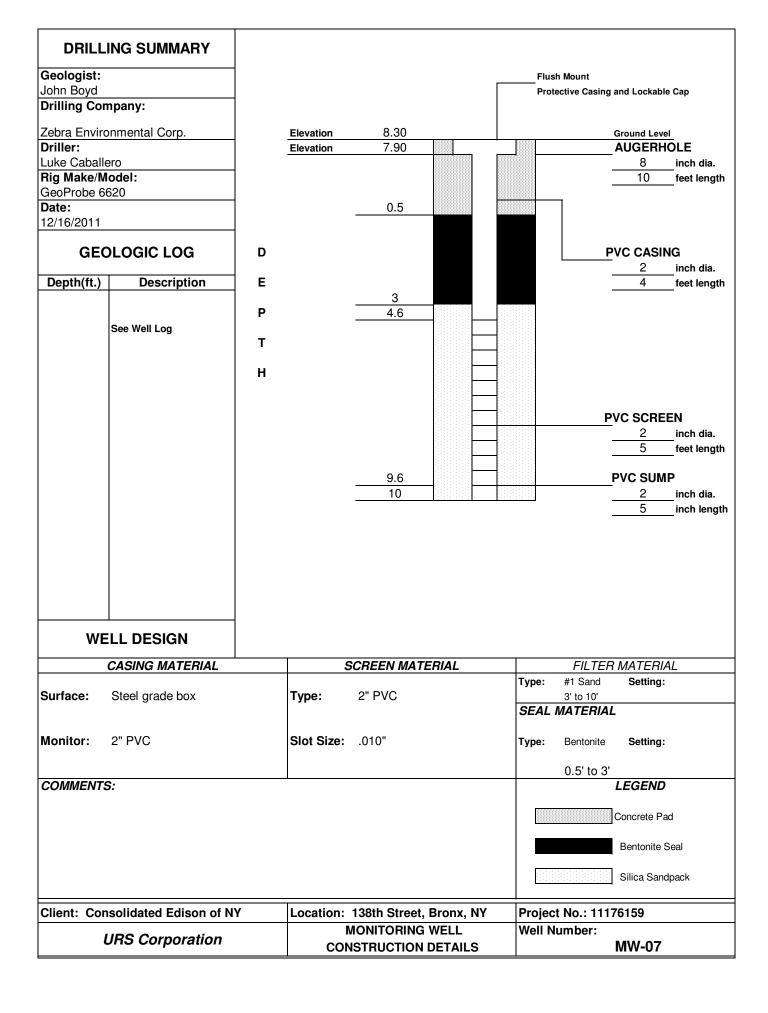


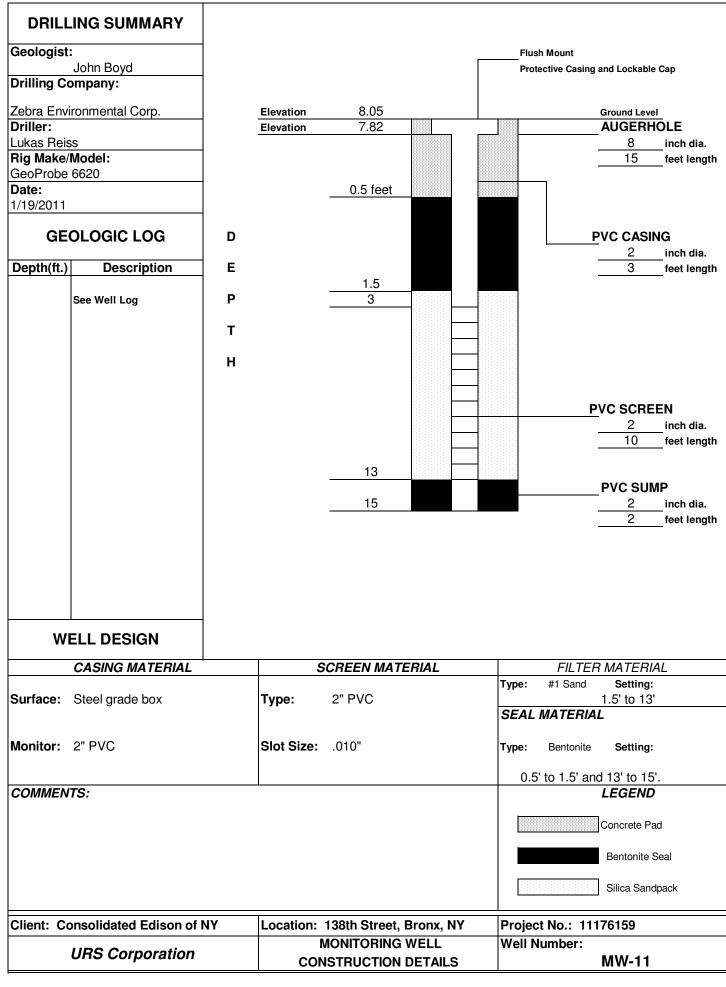












APPENDIX M NYSDEC DIVISION OF FISH, WILDLIFE & MARINE RESOURCES NY NATURAL HERITAGE PROGRAM RESPONSE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish, Wildlife & Marine Resources

625 Broadway, 5th Floor, Albany, New York 12233-4757

Phone: (518) 402-8935 • Fax: (518) 402-8925

Website: www.dec.ny.gov

August 10, 2011



Joe Martens Commissioner

William Trembath URS Corporation 77 Goodell Street Buffalo, NY 14203

Dear Mr. Trembath:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for a One Story Warehouse, site as indicated on the map you provided, located at 295 Locust Street, City and County of the Bronx, New York.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

The enclosed report may be included in documents that will be available to the public. However, any enclosed maps displaying locations of rare species are considered sensitive information, and are intended only for the internal use of the recipient; they should not be included in any document that will be made available to the public, without permission from the New York Natural Heritage Program.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.ht ml.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,

Jean Pietrusiak, Information Services

NYS Department Environmental Conservation

Enc.

cc: Region 2

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Natural Heritage Report on Rare Species and Ecological Communities



NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor, Albany, NY 12233-4757 (518) 402-8935

~The information in this report includes only records entered into the NY Natural Heritage databases as of the date of the report. This report is not a definitive statement on the presence or absence of all rare species or significant natural communities at or in the vicinity of this site.

~Refer to the User's Guide for explanations of codes, ranks and fields.

~Location maps for certain species and communities may not be provided 1) if the species is vulnerable to disturbance, 2) if the location and/or extent is not precisely known, 3) if the location and/or extent is too large to display, and/or 4) if the animal is listed as Endangered or Threatened by New York State.

Natural Heritage Report on Rare Species and Ecological Communities



BIRDS

Nyctanassa violacea

Yellow-crowned Night-Heron Breeding

NY Legal Status: Protected Bird

NYS Rank:

S2 - Imperiled

Office Use 12553

Federal Listing:

EO Rank:

Global Rank: G5 - Secure

Poor

Last Report: County:

2006-05-18

Bronx

Town: Location: New York City (Bronx County) North and South Brother Island

General Quality and Habitat:

The rank is based on the element global ranking form of April 22, 1987. There was an average of one pair per year over the last three years surveyed. The islands are surrounded by highly urbanized areas with various commercial facilities, powerplants, and factories on the shores. The Rikers Island jail complex is to the southeast. South Brother Island is very overgrown with thick vegetation and vines. North Brother Island is undergoing invasive tree species removal, replacing them with native species in The herons were observed nesting in the trees on two saltwater, non-barrier islands. North Brother Island: The nesting areas that surround ruined hospital buildings are thick and vine covered. Nesting trees include black cheery and apple. Major habitat restoration work is going on including removing invasive tree species and planting native ones which are more suitable for nesting. South Brother Island: The nesting areas are very overgrown with Oriental

bittersweet and other vines.

Tyto alba

Barn Owl

NY Legal Status: Protected Bird

NYS Rank:

S1S2 - Critically imperiled

Office Use 2277

Breeding Last Report:

Federal Listing:

Global Rank: G5 - Secure

County:

1984

EO Rank:

Extant

Bronx

Town:

Location:

New York City (Bronx County)

North Brother Island

General Quality The owls nested in the upper stories and attics of the abandoned buildings found on the island.

and Habitat:

OTHER

Colonial Waterbird Nesting Area

NYS Rank:

S3 - Vulnerable

2629

S

Office Use

Federal Listing:

NY Legal Status: Unlisted

Global Rank:

GNR - Not ranked

Last Report:

1995-05-26

EO Rank:

Excellent

County:

Town: Location: New York City (Bronx County) North and South Brother Islands

General Quality There is an average of 1265 pairs/year for 5 years surveyed. Saltwater non-barrier islands. 100%

and Habitat:

cover of deciduous forest. The birds nest in the trees. A gull colony shares the islands.

August 01, 2011

Page 1 of 2

Natural Heritage Report on Rare Species and Ecological Communities



3 Records Processed

More detailed information about many of the rare and listed animals and plants in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org, from NatureServe Explorer at http://www.natureserve.org/explorer, from NYSDEC at http://www.dec.ny.gov/animals/7494.html (for animals), and from USDA's Plants Database at http://plants.usda.gov/index.html (for plants).

More detailed information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org. For descriptions of all community types, go to http://www.dec.ny.gov/animals/29384.html and click on Draft Ecological Communities of New York State.