Prepared for:
Condolidated Edison Co. of New York, Inc.
31-01 20th Avenue, Astoria, NY 11105

Remedial Investigation Report
Operable Unit 1 (OU1)

Former East 21st Street Works – Site # V00536
New York, New York

VCA Index D2—0003-02-08

ENSR Corporation
December 2008
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Executive Summary

As required under the terms of Voluntary Cleanup Agreement Index No. D2-0003-02-08 (VCA) by and between the New York State Department of Environmental Conservation (NYSDEC) and Consolidated Edison Co. of New York, Inc. (Con Edison), this report presents the results and findings of the remedial investigation (RI) that was performed on Con Edison's behalf by ENSR/AECOM, for Operable Unit 1 (OU1) of the East 21st Street Works site (NYSDEC Site #V00536) located in the borough of Manhattan in New York City, New York. Except as otherwise indicated in this report, the RI was conducted in conformance with RETEC's NYSDEC-approved RI Work Plan dated November 3, 2005 and ENSR's NYSDEC-approved supplemental RI Work Plan dated November 15, 2007.

As approved by the NYSDEC, the RI was designed to be an extension of the Site Characterization Study (SCS) that was conducted for the East 21st Street Works site during 2004, and it focused primarily on the horizontal and vertical delineation of previously identified manufactured gas plant (MGP)-related impacts. RI activities were performed at the site from January to June 2006 in accordance with the NYSDEC-approved RI Work Plan (RETEC 2005). The 2006 RI results were presented in the Draft Remedial Investigation Report for the site (RETEC 2006). Based on NYSDEC August 10, 2007 comments on the December 2006 Draft RI Report, the site was divided into operable units and the Draft RI report was finalized as the Interim Remedial Investigation Report (IRIR) on September 11, 2007 (ENSR 2007). Based on the NYSDEC August 10, 2007 comments, ENSR/AECOM, on behalf of Con Edison, developed a supplemental RI Work Plan (ENSR 2007) to further investigate the impacts associated with the site.

This document presents the results of the remedial investigation performed for OU1 of the East 21st Street Works former MGP site. The East 21st Street Works was located within the footprint of the current Peter Cooper Village residential apartment complex in the Borough of Manhattan in New York City, New York. OU1 of the East 21st Street Works site is comprised of MGP-related soil and groundwater impacts within the property boundary of Peter Cooper Village, including immediately adjacent sidewalks up to the curb along surrounding streets. Operable Unit 2 (OU2) consists of adjacent land areas outside of Peter Cooper Village that contain MGP-related soil and groundwater impacts and the East River. Bedrock beneath the site is defined as Operable Unit 3 (OU3) of the East 21st Street Works site. The results of the remedial investigations pertaining to OU2 and OU3 will be presented in separate RI reports.

The East 21st Street Works comprised the former grounds of a MGP that was owned and operated by Con Edison and its corporate predecessors from approximately 1848 until 1945. The East 21st Street Works former MGP site extended from First Avenue to Avenue C between East 20th and East 22nd Streets and encompassed: the southern and central sections of Peter Cooper Village, a residential apartment complex that includes 21 fifteen-story brick apartment buildings, tennis and basketball courts, playgrounds, parks, and landscaped areas.

The East 21st Street Works former MGP was retired in 1945, when the portion of grounds of the MGP were sold to Stuyvesant Town Corporation and the Metropolitan Life Insurance Company (MetLife) for the construction of the Peter Cooper Village housing complex.

The site geology generally consists of five units. These units, from ground surface downward, include fill; a layer of organic clay, silt, and/or peat; a silty sand unit with varying amounts of silt and clay; a unit of dense silt, sand, and gravel; and bedrock. Bedrock is present at shallow depths (within 10 feet of ground surface) in the western portion of the site along First Avenue and at deeper depths (130 feet below ground surface [ft bgs]) in the eastern portion of the site near Avenue C. The top of the bedrock dips steeply to the east in the western portion of the site and relatively gently in the central and eastern portion of the site.

One unconfined, unconsolidated overburden aquifer is present beneath the site. Shallow (5 to 15 ft bgs), intermediate (25 to 35 ft bgs), and deep (50 to 70 ft bgs) zones within the overburden aquifer were evaluated during the investigations. The groundwater flow direction in all of the depth zones is to the east-northeast towards the East River. The vertical gradient between the units is generally downward in the western portion of the site and upward near the East River. The East River is tidally influenced and has measurable effects on adjacent groundwater elevations.

An evaluation was conducted to look for evidence of an oil water underdrain system that may have been installed on the Peter Cooper Village property and to evaluate whether MPG-related impacts are seeping into the site sewers. The evaluation included visual and video inspection of manholes and drains within the areas where the drains would most likely have been installed overlapping areas of shallowest MGP impacts. In general a storm drainage system typical of an urban environment was encountered during this work. A variety of pipe types, sizes, ages and configurations were encountered. In several areas of the system tar seals were used in the original construction of the system. This was typical construction for gravity flows systems built in the early to mid 20th century. No evidence of the oil water underdrain system was found during the investigation. In addition, Con Edison and its contractors have advanced 156 soil borings, 28 monitoring wells and 47 test pits (environmental and water valve) in OU1. The oil water underdrain system or anything resembling it has not been encountered. Discussions with property owner's maintenance personnel have also failed to turn up any evidence of the oil water underdrain system.

Based on site observations and analytical data, it appears that surface soils were imported to the site after the MGP operations ceased, possibly for final grading purposes during the construction of the Peter Cooper Village housing complex. The concentrations of compounds detected in the SCS and RI surface soil samples are considered to be attributable to fill material quality, anthropogenic sources, or naturally occurring sources unrelated to former MGP operations.

Upper fill soil at the site (between 0.2 and 5 ft bgs) is generally distinct from lower fill/natural soils at the site. The upper fill also appears to represent imported fill material brought to the site after closure of the MGP operations. In general, the SCS and RI upper fill soil samples did not exhibit MGP-related materials. MGP-related impacts were only observed within 5 ft bgs in 13 of 231 subsurface investigation locations in OU1. Similar to surface soils, the compounds detected in upper fill materials are considered to be attributable to fill quality, anthropogenic sources, or naturally occurring sources unrelated to the former MGP.

The lower fill/natural soil unit includes fill below 5 ft bgs and natural soils underlying the fill unit. Visible impacts and analytical results indicate that the lower fill/natural soil unit has been impacted by former MGP operations. MGP-related impacts are associated with former gas holder structures in the western portion of the site and are concentrated around former retort, drip tank, and oil tank structures in the eastern portion of the former MGP. The impacts in the lower fill/natural soil include lenses of staining, sheen, oil-like material, and tar-like material that appear to migrate horizontally and vertically along pathways of greater permeability relative to surrounding material. Impacts in the western portion of the overburden materials generally did not extend to depths greater than approximately 20 to 40 ft bgs. Impacts in the eastern portion of the former MGP site were observed as deep as 47ft bgs in overburden soils. The vertical extent of soil the impacts has been defined at the site. The horizontal extent of impacts in the lower fill/natural soil extends to the eastern boundary of OU1 along Avenue C, to the northeastern OU1 boundary along the eastern portion of East 23rd Street, and to the southeastern OU1 boundary along the eastern portion of East 20th Street. The nature and extent of lower fill/natural soil impacts in adjacent off-site areas will be presented in the RI report for OU2.

A bedrock investigation was performed at the site during the RI due to the presence of dense non-aqueous phase liquid (DNAPL), suspected to be MGP in nature, in the Con Edison steam tunnel recently constructed beneath First Avenue. The results of the bedrock investigations will be provided in the RI report for OU3.

Non-aqueous phase liquid (NAPL) was noted in some of the monitoring wells at the site. Due to the presence of NAPL in monitoring wells at the site, Con Edison submitted an Interim Remedial Measure Work Plan for

NAPL Monitoring and Recovery (ENSR 2008a). This work plan was submitted to NYSDEC on August 18, 2008.

Groundwater in the shallow, intermediate, and deep unconfined aquifer zones beneath the site has been impacted by former MGP operations. Groundwater in the intermediate and deep zones has also been impacted by an unidentified source of chlorinated compounds. The greatest MGP-related groundwater impact concentrations were detected in the vicinity of the former gas holders and the former retort, drip/oil tank area, similar to soil impacts. The horizontal extent of the shallow groundwater impacts has been defined by the existing monitoring well network. The general area of intermediate and deep groundwater impacts at the site has also been determined. The lateral extent of groundwater impacts in the intermediate and deep aquifer zones to the northeast, east, and southeast of OU1 has not been specifically defined based on comparison with groundwater standards. The vertical extent of groundwater impacts has also not been fully defined in OU1. However, unless the evaluation of remedial alternatives or the implementation of remedial actions requires that the groundwater in OU1 be more fully delineated, additional field work for delineation is not proposed at this time. If additional groundwater delineation data are necessary for remedial alternative evaluation or remedial action implementation, they would be collected during a pre-design investigation.

Groundwater monitoring data suggest that naturally occurring biodegradation processes, specifically sulfate reduction and/or methanogenesis, are contributing to some reduction in the concentration of organic constituents within the dissolved phase plume in all depth zones within the aquifer at the site. Additional monitoring (both time series and at alternate well locations) will further develop a baseline dataset for long-term evaluation of natural attenuation as a potential supplemental groundwater remedy following active remedial measures at the site.

Soil gas sampling performed during the RI indicates that the soil gas concentrations at the perimeter of the site are lower than the highest soil gas concentrations found at the site during previous investigations. The results from the previous sampling events indicated that the indoor air quality within the residential buildings on the Peter Cooper Village portion of the site, as measured on each sampling day, was not likely to have been adversely impacted by subsurface intrusion of MGP-related vapors. Based on the results of these sampling events, intrusion of vapors emanating from MGP-related material that may be present at the site was not evident. There does not appear to be any need for additional indoor air sampling or soil gas sampling for MGP constituents at this time; however, Con Edison submitted an Interim Remedial Measure Work Plan for Indoor Air Sampling (ENSR 2008b) to continue to evaluate whether air quality within buildings is adversely affected by residuals from historic operations. This work plan was submitted to NYSDEC on August 18, 2008.

A qualitative human health exposure assessment was performed to identify the potential exposure pathways associated with impacted media for workers, residents, and visitors on the Peter Cooper Village property (OU1). For OU1, subsurface maintenance or utility workers who perform subsurface excavation work and/or repairs could possibly be exposed to impacted media and controls are recommended to limit potential exposures in these areas. Additionally, building residents, occupants, visitors, and workers could potentially be exposed to indoor air impacts if sub-slab construction activities are performed and controls are recommended to limit exposure during these activities. Remedial options for these areas will be evaluated in an alternatives analysis report. Exposure of residents of the Peter Cooper Village complex to MGP residuals is considered to be unlikely.

A Draft Interim Site Management Plan (ENSR 2008c) (SMP) was developed and submitted to NYSDEC on August 15, 2008. The SMP specifically details institutional controls enacted on the Peter Cooper Village property to protect maintenance, utility and landscape workers from soil impacts present below 5 feet. The plan outlines procedures for detecting and managing impacted soil and groundwater if they are encountered. While still draft, property owner personnel are currently operating under these procedures.

Based on the combined findings of the SCS and RI, additional investigative work is not recommended for surface soil, upper fill soil, lower fill/natural soil, groundwater, or soil gas for OU1. Additional delineation of

subsurface soil and groundwater impacts that are MGP-related is not necessary to begin remedial alternative development and evaluation for impacts identified in OU1. Impacts have been identified in the lower fill/natural soils and groundwater northeast, east, and southeast of OU1 and within bedrock beneath the site and will be addressed in the RI reports for OU2 and OU3, respectively.

List of Acronyms

µg/kg	microgram per kilogram
µg/L	microgram per liter
µg/mg	microgram per milligram
µg/m^3	microgram per cubic meter
ADT	Aquifer Drilling and Testing, Inc.
ASP	Analytical Service Protocols
Air Toxics	Air Toxics Limited, Inc., Folsom, California
AWQSGVs	Ambient Water Quality Standards or Guidance Values
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CAMP	Community Air Monitoring Plan
CEC	Community Environmental Corporation
COC	Constituents of Concern
COI	Constituents of Interest
Chemtech	Chemtech Laboratories, Mountainside, New Jersey
cm	centimeter
Con Edison	Consolidated Edison Company of New York, Inc.
CRDL	Contract Required Detection Limit
DEP	New York City Department of Environmental Protection
DNAPL	Dense Non-aqueous Phase Liquid
DO	Dissolved Oxygen
DUSR	Data Usability Summary Report
EDC	New York City Economic Development Corporation
ENSR/AECOM	AECOM, Inc. (formerly known as ENSR Corporation)
GC	Gas Chromatograph
GPR	Ground-Penetrating Radar
H&A	Haley & Aldrich, Inc.
HASP	Health and Safety Plan
HSA	Hollow Stem Augers
ICP	Inductively Coupled Plasma
IDW	Investigation-Derived Waste
LCSs	Laboratory Control Standards
LNAPL	Light Non-aqueous Phase Liquid
m	meter
MBVD	Manhattan Borough Vertical Datum
META	Meta Environmental, Inc.
MetLife	Metropolitan Life Insurance Company
MEG	Miller Environmental Group of
mg/kg	milligram per kilogram
mg/L	milligram per liter
MGP	Manufactured Gas Plant
MNA	Monitored Natural Attenuation

MPE	Multi-Phase Extraction
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	Natural Attenuation
NAPL	Non-aqueous Phase Liquid
NCP	National Contingency Plan
NTU	Nephelometric Turbidity Unit
NWMCC	National Water Main Cleaning Company
NYCRR	New York Code of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OLM	Oil-Like Material
ORP	Oxidation/Reduction Potential
PAH	Polycyclic Aromatic Hydrocarbons
PEC	Paragon Environmental Construction, Inc.
PID	Photo-Ionization Detector
PPE	Personal Protective Equipment
ppm	parts per million
PVC	Polyvinyl Chloride
QAPP	Quality Assurance Project Plan
RASR	Remedial Action Selection Report
RETEC	The RETEC Group, Inc.
RI	Remedial Investigation
ROW	Right-of-way
RPDs	Relative Percent Differences
RQD	Rock Quality Designation
RSCOs	Recommended Soil Cleanup Objectives
SCS	Site Characterization Study
SSBVs	Site-Specific Background Values
SVI	Soil Vapor Intrusion
SVOCs	Semi-Volatile Organic Compounds
STL	Severn Trent Laboratories, Inc. of Pittsburgh, Pennsylvania
TAGM	Technical and Administrative Guidance Memorandum
TEA	Terminal Electron Acceptor
TLM	Tar-Like Material
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VOCs	Volatile Organic Compounds

1.0 Introduction

As required under the terms of Voluntary Cleanup Agreement Index No. D2-0003-02-08 (VCA) by and between the New York State Department of Environmental Conservation (NYSDEC) and Consolidated Edison Co. of New York, Inc. (Con Edison), this report presents the results and findings of the remedial investigation (RI) that was performed on Con Edison's behalf by ENSR/AECOM, for the East 21st Street Works site (NYSDEC Site #V00536) located in the Borough of Manhattan in New York City, New York. Except as otherwise indicated in this report, the RI was conducted in conformance with The RETEC Group, Inc.'s (RETEC) NYSDEC-approved RI Work Plan dated November 3, 2005 and ENSR's NYSDEC-approved supplemental RI Work Plan dated November 15, 2007. The RI was also carried out in general accordance with the most recent and applicable guidelines of the NYSDEC, the United States Environmental Protection Agency (USEPA), as well as the National Contingency Plan (NCP).

The RI was designed to be an extension of the Site Characterization Study (SCS) performed on behalf of Con Edison in 2004 by Haley & Aldrich, Inc. (H&A). Data collected during the SCS revealed that additional investigation was necessary due to the presence of manufactured gas plant (MGP) impacts that required further vertical and lateral delineation. RI activities were performed at the site from January to June 2006 in accordance with the NYSDEC-approved RI Work Plan (RETEC 2005). The 2006 RI results were presented in the Draft Remedial Investigation Report for the site (RETEC 2006). Based on NYSDEC August 10, 2007 comments on the December 2006 Draft RI Report, the site was divided into operable units and the Draft RI report was finalized as the Interim Remedial Investigation Report (IRIR) on September 11, 2007 (ENSR 2007). Based on the NYSDEC August 10, 2007 comments, ENSR/AECOM, on behalf of Con Edison, developed a supplemental RI Work Plan (ENSR 2007) to further investigate the impacts associated with the site.

This document presents the results of the remedial investigation activities performed on Operable Unit 1 (OU1) of the East 21st Street Works former MGP site. The East 21st Street Works was located within the footprint of the current Peter Cooper Village residential apartment complex in the Borough of Manhattan in New York City, New York. OU1 of the East 21st Street Works site is comprised of MGP-related soil and groundwater impacts within the property boundary of Peter Cooper Village, including immediately adjacent sidewalks up to the curb along surrounding streets. Operable Unit 2 (OU2) consists of adjacent land areas outside of Peter Cooper Village that contain MGP-related soil and groundwater impacts and the East River. Bedrock beneath the site is defined as Operable Unit 3 (OU3) of the East 21st Street Works site. The results of the remedial investigations pertaining to OU2 and OU3 will be presented in separate RI reports for the East 21st Street Works site.

This RI Report incorporates the findings of other phases of environmental investigation work performed at the site. A Geotechnical Study and Preliminary Environmental Evaluation was completed by Langan Engineering & Environmental Services, P.C. (Langan), in 2001. An evaluation of indoor air and soil gas sampling was performed in the residential apartment buildings at the Peter Cooper Village section of the Site in 2003 and 2004 by RETEC. The SCS was performed by H&A in 2004. Unrelated to the RI activities, valves on water mains servicing the Peter Cooper Village Apartment Complex were replaced between November 2006 and June 2007 as part of a maintenance program for the complex. RETEC provided third-party oversight of the water valve replacement activities on behalf of Con Edison and summarized the quality of soil and groundwater encountered during the activities in a report.

1.1 Purpose of the Remedial Investigation

The goals of the RI were to:

- Further delineate the extent of soil and groundwater impacts associated with former MGP operations.

- Evaluate soil gas conditions at select RI locations.
- Investigate the proposed oil water underdrain system
- Investigate bedrock in the western portion of the site in an attempt to identify the migration pathway of dense non-aqueous phase liquid (DNAPL) from presumed former MGP structures to the Con Edison steam tunnel that was recently constructed beneath First Avenue, including mapping the surface of the top of bedrock. Bedrock has been designated OU3 of the site. A general discussion of bedrock beneath the site is included in this OU1 RI report. Bedrock investigation methodologies and result details will be presented in a separate RI report for OU3.
- Evaluate the potential for MGP impacts to the East River. The area outside of the Peter Cooper Village complex, including the East River to the east of the site has been designated OU2. The investigation methodologies and results for activities performed outside of the OU1 boundary and above bedrock will be presented in a separate RI report for OU2.
- Further develop the dataset necessary to allow preparation of a Alternatives Analysis report for OU1 to evaluate and select possible remedial alternatives for site cleanup.

1.2 Scope of Work

The scope of work for the OU1 RI was defined by the NYSDEC-approved RI Work Plan (RETEC, 2005) and the NYSDEC-approved Supplemental RI Work Plan (ENSR, 2007). The RI included the following tasks:

- Underground utility clearance
- Community air monitoring
- Surface soil sampling and analysis at adjacent off-site locations
- Soil boring advancement and subsurface soil sample collection and analysis
- Advancement and inspection of bedrock cores
- Monitoring well installation and development
- Groundwater level and NAPL thickness measurements
- Groundwater sampling and analysis
- Aquifer conductivity testing
- Tidal influence monitoring
- Soil gas sampling and analysis at perimeter locations
- Additional subsurface utility evaluation
- Oil water underdrain system investigation
- Surveying of new sampling locations
- Management of investigative-derived waste (IDW)

All activities were performed in accordance with the methods specified in the RI work plan and SRI work plan, including the site-specific Quality Assurance Project Plan (QAPP) included in Appendix A of the work plans and the site-specific Health and Safety plan (HASP) included in Appendix B of the work plans.

1.3 Report Organization

The remainder of this RI report is organized into the sections and appendices listed below.

- Section 2 provides a description of the East 21st Street Works former MGP site and surrounding properties, a summary of information regarding site ownership and operational history, and a summary of previous investigations.
- Section 3 provides a description of field investigation activities and sample analyses performed during the RI.
- Section 4 provides a discussion of the site geology and hydrogeology.
- Section 5 provides a discussion of the observations regarding the extent of observed MGP residuals, and a summary of the analytical results for environmental media sampled during the investigation within OU1.
- Section 6 presents a qualitative evaluation of the risk associated with the MGP constituents for OU1 of the site.
- Section 7 presents a summary of and conclusions for OU1 of the RI.
- Section 8 presents recommendations for future activities regarding OU1 of the site.
- Section 9 presents references cited.

Tables and figures are included in the sections immediately following the text of this report.

Appendices to this report include the following:

- Appendix A – Historic site maps
- Appendix B – Boring logs for the RI and previous investigations
- Appendix C – Draft Water Valve Replacement report (June 2007)
- Appendix D – Well development forms
- Appendix E – Groundwater sampling sheets
- Appendix F – Tidal survey data
- Appendix G – Aquifer conductivity data
- Appendix H – Investigation-derived waste manifests
- Appendix I – Oil water underdrain system investigation
- Appendix J – RI and SCS analytical results summary tables and data usability reports

2.0 Site Description and History

2.1 Site Location, Description, and Setting

The grounds of the East 21st Street Works former MGP extended from First Avenue to Avenue C between East 20th and 22nd Streets in the Borough of Manhattan, New York City, New York. Figure 2-1 illustrates the site location on a portion of the Brooklyn, New York quadrangle topographic map. The former MGP was situated within the section of the Peter Cooper Village residential housing complex bounded by East 20th Street to the south, First Avenue to the west, the former East 22nd Street to the north, and Avenue C to the east. This area is designated as Block 978, Lot 1 on the tax map of the City of New York, New York (Langan, 2004).

OU1 of the East 21st Street Works site encompasses the 21 fifteen-story brick apartment buildings, tennis and basketball courts, as well as playground, park, and landscaped areas within the Peter Cooper Village complex including adjacent sidewalks up to the curb along surrounding streets. The current site structures are illustrated on Figure 2-2. All of the Peter Cooper Village apartment buildings reportedly have full basements except for one (390 First Avenue – building number 1) which is constructed with crawl spaces and a central basement corridor. The Peter Cooper Village complex is fenced along its perimeter with several gateways for access to the complex and surrounding streets. The main entrances to the complex are through the security gates/booths along Peter Cooper Road at First Avenue and Avenue C. Except for a portion of one building in the southwestern corner of the Site (350 First Avenue), all of the buildings encompassed by the former MGP are residential. The Peter Cooper Village property was sold to an affiliate of Tishman Speyer Properties, L.P. and Blackrock Realty Advisors, Inc. by Metropolitan Tower Insurance Company, an affiliate of the Metropolitan Tower Insurance Company, an affiliate of the Metropolitan Life Insurance Company (MetLife).

Current surrounding land uses consist of residential, commercial, and institutional. South of the site, on the south side of East 20th Street, is the Stuyvesant Town apartment complex and small commercial operations including a small market, deli, and fitness center. A restaurant is situated on the northeast corner of the First Avenue and East 20th Street intersection (southwestern corner of the site). First Avenue consists of several northbound traffic lanes with an access road with parking and sidewalks along the east side. Commercial establishments such as Dunkin Donuts, Burger King, a pharmacy, etc., are located along the west side of First Avenue across from the site. North of the site along 23rd Street, are institutional facilities including the Special Education Services School, the Veterans Memorial Hospital, Chase Bank, and a public bath house that contains indoor and outdoor pools, gymnasium, and restroom facilities.

The section of Avenue C and the elevated FDR Drive between East 20th and East 21st Streets are situated east of the grounds of the former MGP. Parking areas are located beneath the FDR and a waterfront park, Stuyvesant Cove Park, is situated further east between the parking areas and the East River. The park property is owned by the City of New York and managed by the New York City Economic Development Corporation (EDC). The Community Environmental Corporation (CEC) leases the property from EDC and manages and operates Stuyvesant Cove Park. The park consists of landscaped areas, bike and walking paths, benches and tables. An Environmental Education Building (Solar One) is situated in the northern portion of Stuyvesant Cove Park.

A gasoline station is situated north of Stuyvesant Cove Park, northeast of the site. Previous releases of petroleum products have been documented from a former service station facility with several underground storage tanks (USTs) at this location. Two multi-phase extraction (MPE) systems were installed within Stuyvesant Cove Park between East 18th Street and East 23rd Street to address this contamination and have been decommissioned.

2.2 Site History

2.2.1 Pre-Manufactured Gas Plant

The following information regarding the pre-MGP site history was excerpted from the *Report of Geotechnical Study and Preliminary Environmental Evaluation, Peter Cooper Village, Manhattan*, *New York* prepared by Langan in April 2001 (Langan, 2001).

The site was originally part of the East River with the historic shoreline located approximately 1,500 feet to the northwest of the existing waterfront (approximately First Avenue). The area has undergone extensive filling activities to reclaim the land to the existing elevations. Historic filling along waterfront areas was generally carried out as uncontrolled bulk fills consisting of a wide variety of materials including construction debris, organic soil matter, excavated material from adjacent construction sites, and miscellaneous debris. Therefore, the constituents and in-situ conditions of these materials are highly variable.

2.2.2 Manufactured Gas Plant

Detailed historic information was previously compiled and presented in a report entitled *MGP Research Report, East 21st Street Works* (Langan, 2002). The historical information provided herein was derived from the SCS Report (H&A, 2004) which referenced the MGP Research Report.

The former East 21st Street Works operated circa 1848 to 1945 and was used for gas manufacturing, gas purification, and storage. The location of significant former MGP structures, based on Sanborn maps from 1903 and 1944, are shown on Figure 2-2. Historic site maps are provided in Appendix A. Major gas manufacturing structures included generators, retorts, condensers, scrubbers, purifiers, gas holders, and meter houses.

The north and south boundaries of the former MGP at its most developed state in 1945 reportedly were between the former alignment of East 22nd Street and East 20th Street, respectively, and comprised approximately 14 acres. At that time, Avenue A and Avenue B extended north through the Site above East 20th Street to East 23rd Street, and Avenue C was referred to as Marginal Street or Wharf Street. Consolidated Gas Company reportedly owned the four blocks bounded by East 20th Street and East 22nd Streets and First Avenue and Avenue B, as well as the area between East 20th Street and East 21st Street and Avenue B and Avenue C.

Coal gas manufacturing operations reportedly started with 19 retorts circa 1848 on the northern half of the Site, which may have occupied the area located east of former Avenue A and bounded by former East 21st Street and former East 22nd Street. By 1849, the first telescopic gas holder in New York City reportedly was put into service on the Site. Between 1853 and 1868, the MGP continued to expand. Between 1923 and 1927, the plant capacity was increased with two additional water gas sets.

Between 1890 and 1929, other land uses adjacent to the former MGP to the northeast between East 22nd Street and East 23rd Street at Avenue C included a coal and stone yard, furniture factory, brass foundry, veterinary hospital, chandelier factory, garage, parking lot, and railroad storage yard (Langan 2001). A garage with two 275 gallon gasoline USTs was situated between East 22nd and East 23rd at Avenue A (Langan, 2001).

2.2.3 Post-Manufactured Gas Plant

The grounds of the former East 21st Street Works MGP were sold by Con Edison to Stuyvesant Town Corporation and MetLife in 1944 and 1945, respectively, for development of the Peter Cooper Village Housing Project (Langan, 2002). The Peter Cooper Village residential units were constructed in the late 1940s and are primarily pile supported, although the buildings along First Avenue may be partially supported directly on

shallow bedrock (Langan, 2001). An affiliate of Tishman Speyer Properties, L.P. and Blackrock Realty Advisors, Inc. purchased the Peter Cooper Village property in 2006.

During the construction of Peter Cooper Village, an underdrain system consisting of gravel encased porous 8-inch concrete piping was designed for installation in oil contaminated areas throughout the eastern portion of the site. Based on information provided by Langan (Report of Geotechnical Study and Preliminary Environmental Evaluation, April 21 2001) from a review of available construction drawings, the underdrain was reportedly installed at about the water table for the collection of oil floating on the water table. The underdrain was designed to collect water and oil primarily during high water table periods and discharge to the combined sewer system running through the site (Langan 2001).

2.3 Previous Investigations

Previous investigations performed at the site prior to the RI are summarized in the following sections.

2.3.1 Geotechnical Study and Preliminary Environmental Evaluation

A geotechnical engineering study and preliminary environmental evaluation were completed for proposed construction activities for the Peter Cooper Village property. The geotechnical and environmental field investigation included drilling 23 test borings (LB1 through LB23) and five road cores (LC-1 through LC-5). These locations are illustrated in green on Figure 2-3. Copies of the boring logs for these borings are included in Appendix B of this RI Report. Six soil samples were collected from the borings and analyzed for Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), and Priority Pollutant Metals. Several compounds were detected at concentrations exceeding NYSDEC soil criteria. The laboratory analytical results are provided in Appendix B2 of the *Report of Geotechnical Study and Preliminary Environmental Evaluation* (Langan, 2001).

2.3.2 East 21st Street Site Works Comprehensive Report of Evaluation of Indoor Air and Soil Gas Sampling

An evaluation of the potential for subsurface vapor intrusion at the Peter Cooper Village Apartment property was conducted by RETEC on behalf of Con Edison in June 2003. Additional sampling was conducted in August 2003, March 2004, and April 2004. The overall goal of the work was to ascertain whether air quality within the apartment buildings that lie within and adjacent to the boundary of the former MGP was being adversely affected by residual subsurface impacts that might remain from the former MGP operations. Several samples were collected from ambient air, indoor air, and soil gas. Results from this sampling indicate that the indoor air quality, as measured on the sampling day, was not likely to have been adversely impacted by subsurface intrusion of vapors related to the previous MGP operations at the site. Based on the results of these sampling events, intrusion of vapors emanating from any MGP-related material present at the site does not appear to be evident. The sampling activities and results are presented in the report entitled *East 21st Street Works Site Comprehensive Report of Evaluation of Indoor Air and Soil Gas Sampling for Sampling Dates June 2003, August 2003, and March-May 2004* (RETEC, 2004).

2.3.3 Site Characterization Study

A SCS was completed by H&A in November 2004. The SCS field investigation included 15 test pits, 108 soil borings, and 20 monitoring wells (10 couplets). Figure 2-3 illustrates the SCS sampling locations in purple. A total of 743 soil samples and 20 groundwater samples were collected and analyzed to assess the presence or absence of MGP-related constituents at the site. An evaluation of background soil quality was also performed on the Stuyvesant Town residential apartment complex located south of the site. The investigation found that MGP residuals were present at the site in concentrations exceeding regulatory criteria, and that a remedial investigation was warranted to further delineate impacts and characterize environmental conditions. The findings of the investigation are provided in the report entitled *Site Characterization Report, Former East 21st Street Works Manufactured Gas Plant Site, Peter Cooper Village Housing Development New York, New York*

(H&A 2004). Copies of the test pit and boring logs from the SCS are included in Appendix B of this RI report. Surface soil, subsurface soil, and groundwater analytical results from the SCS are presented in conjunction with the RI analytical results in Section 5 of this RI report.

2.4 Adjacent Site Investigation and Remedial Action at Stuyvesant Cove Park

The Stuyvesant Cove Park property became the subject of investigation in 1995 due to complaints of fumes in an office near the north end of the site and observation of a sheen in the East River. A site investigation was performed and interim remedial measures were implemented by MEG under contract to NYSDEC – Region 2. The investigations focused on the former service station area and tank farm in the northern portion of the site. Two separate MPE systems were installed to address the contamination at the site. This RI report on OU1 includes limited results of groundwater level measurement and quality sampling from four of the monitoring wells installed as part of the Stuyvesant Cove Park investigation. These data are presented in Sections 4 and 5 of this RI report.

2.5 Water Valve Replacement Activities

Unrelated to the RI activities, valves on water mains servicing the Peter Cooper Village Apartment Complex were replaced between November 2006 and June 2007 as part of a maintenance program for the complex. Due to the presence of the former MGP located within the Peter Cooper Village complex, RETEC provided third-party oversight of the water valve replacement activities on behalf of Con Edison. A report was developed and provides a summary of the quality of soil and groundwater encountered in the trenches excavated to access and replace the valves and also provides a summary of the material disposed during the activities. A copy of the Water Valve Replacement report (RETEC 2007) is included as Appendix C of this OU1 RI report. In addition, as requested by NYSDEC in the August 10, 2007 comments on the Draft RI report (RETEC 2006), a figure was developed of the water valve excavation locations overlayed on the environmental investigation locations at the site. This figure is also provided in Appendix C, before the water valve report.

3.0 Remedial Investigation Field Activities

This section provides a description of the methodologies used during the field investigation of the East 21st Street Works former MGP site. The first round of RI field tasks was initiated in January 2006 and completed in June 2006. All of these field activities were conducted in accordance with the methods and procedures specified in the NYSDEC-approved RI Work Plan (RETEC, 2005) for the site. Based on field observations, additional investigative activities were proposed along the north side of East 23rd Street and to the north and south in Stuyvesant Cove Park (in OU2). These activities were approved by NYSDEC on April 10, 2006 and will be detailed in the OU2 RI report. The second round of RI field activities was initiated in February 2008 and completed in September 2008. These activities were performed in accordance with the methods and procedures specified in the NYSDEC-approved Supplemental RI Work Plan (ENSR 2007). One additional boring, 21GH030, was drilled within former gas holder #2 in OU1. Representatives of the NYSDEC, Division of Environmental Remediation of Albany, New York, were on site to observe many of the boring and well installation and sampling activities.

The location and number of samples collected along with the corresponding analytical parameters are presented in the following subsections. Descriptions of all field activities are included by field task and/or environmental media. The locations of the OU1 2006 RI samples are illustrated in blue on Figure 3-1, locations of the OU1 2008 RI samples are illustrated in green on Figure 3-1, and previous investigation locations are illustrated in black on Figure 3-1. Specific tasks performed during the RI included the following:

- Underground utility clearance
- Community air monitoring
- Surface soil sampling and analysis
- Upper fill sampling and analysis
- Lower fill/native soil sampling and analysis
- Bedrock investigation (to be presented in the OU3 RI report)
- Monitoring well installation and development
- Groundwater elevation and NAPL thickness measurements
- Groundwater sampling and analysis
- Evaluation of tidal influence on groundwater elevations
- Aquifer conductivity testing
- Soil gas sampling and analysis
- Oil water underdrain investigation
- Survey of sampling locations
- Management of IDW

3.1 Underground Utility Clearance

Prior to the initiation of intrusive fieldwork, the drilling sub-contractors, Aquifer Drilling and Testing, Inc. (ADT) for the 2006 drilling efforts and Paragon Environmental Construction, Inc. (PEC) for the 2008 drilling efforts contacted Dig Safely New York to arrange for the location and marking of all underground utilities in the vicinity of the proposed test pits, soil gas probes, soil borings, and monitoring well locations, as required by New York Code of Rules and Regulations (NYCRR) Part 753. Where possible, ENSR/AECOM worked directly with the

representatives of each utility company to ensure that all underground lines were properly identified and marked-out.

Utility clearance was performed by NAEVA Geophysics, Inc. (NAEVA) and Advanced Geophysical Services (AGS) under contract to RETEC or ENSR/AECOM. NAEVA and AGS used ground-penetrating radar (GPR) and electro-magnetic (EM) survey methods to scan each proposed investigation location. Plates of gas and steam mains, high tension lines, low tension lines, and composite feeders were provided by Con Edison. Sewer as-builts were prepared and provided by the City of New York Department of Public Works, Division of Sewage Disposal, and Bureau of Sewage Disposal Design. Maps providing the location of water mains were provided by the New York City Department of Environmental Protection (DEP). On-site utility maps were provided by Rose Associates as incorporated in the SCS report (H&A 2004).

Prior to excavating soil borings using a drill rig or geoprobe, each boring location was hand excavated to a minimum depth of 5 ft bgs with 2 ft by 2 ft dimensions. Excavations were performed to locate any utilities that may have been marked incorrectly, are privately owned, have been abandoned, were not known to exist, or were not detectable by surface investigation methods. Hand-clearing was performed by ADT and PEC under contract to RETEC or ENSR/AECOM. ADT and PEC employed a combination of high vacuum extraction, hand-digging with shovels and posthole diggers, and other non-mechanical means.

3.2 Community Air Monitoring

Community air monitoring was performed and documented to provide real-time measurements of total VOCs and particulate (airborne dust) concentrations upwind and downwind of each designated work area during intrusive investigation activities. Site personnel monitored any odors produced during these activities. The monitoring was designed to provide protection to the public downwind of the work area from any potential releases of airborne contaminants due to investigation activities and to document air quality during intrusive activities.

Instrumentation used during the Community Air Monitoring Program (CAMP) was located upwind and downwind of the work area on stands located in the breathing zone. The instruments were calibrated daily and recorded on separate field forms. The instrumentation used during the investigation activities included the following: a photo-ionization detector (PID) 10.6 eV to measure volatiles in parts per million (ppm) and a Dustrak meter to detect the particulate concentrations in milligrams per cubic meter (mg/m3). A Dräeger pump and benzene colorimetric tubes were used to detect the presence of benzene.

The instruments were programmed to log air quality data once per minute during intrusive work activities. Personnel recorded readings and any observations from these instruments every 15 minutes on a separate CAMP field form. If elevated readings were observed, they were noted and the PID used to screen soil samples was placed next to the CAMP PID for direct comparison of readings. If both PIDs indicated sustained elevated readings for 15 minutes, a Dräeger pump with a colorimetric tube was used to test for the presence of benzene. Data from the PID and Dustrak monitors were downloaded to a field laptop computer on a daily basis. The recorded logs were reviewed for any exceedances and downloaded to a daily file with the work area location as the file name.

During the RI, there were several instances where CAMP action levels (PID readings greater than 1 ppm) were reached or exceeded at downwind locations during subsurface investigation activities. Exceedances were generally due to humidity and ambient background conditions. None of the colorimetric benzene tubes indicated the presence of benzene. Based on the air quality monitoring data, the intrusive activities performed during the RI did not negatively impact the air quality at the site.

3.3 Surface Soil Sampling and Analysis

Four surface soil samples were collected during the 2006 RI to evaluate the extent of surface soil impacts noted near the site boundaries during the SCS. No surface soil samples were proposed as part of the

Supplemental RI Work Plan (ENSR 2007). Only one of the RI surface soil samples was collected within OU1. The location of the OU1 surface soil sample is illustrated on Figure 3-1. Table 3-1 summarizes the OU1 surface soil sample designation, depth, date, collection method, rationale, and laboratory analyses. The remaining RI surface soil samples will be presented in the OU2 RI report.

At each surface soil sample location, a 2 ft by 2 ft area was scraped with a stainless steel trowel and samples were collected from 0.0 to 0.2 ft or at 0.5 ft depending on the surface cover. Soil samples to be analyzed for VOCs were placed directly in a jar supplied by Chemtech Laboratories of Mountainside, New Jersey (Chemtech) and sealed. Soil samples for other analyses were homogenized and then placed in jars supplied by Chemtech and sealed. Sample jars were labeled, placed in a cooler with ice, and sent under chain-of-custody protocol by courier to Chemtech.

3.4 Upper Fill Sampling and Analysis

Seven upper fill soil samples were collected during the RI to evaluate the extent of upper fill impacts noted near the site perimeter during the SCS. The RI work plan specified the collection of six upper fill soil samples. One additional sample was collected at 3 ft bgs to characterize odors noted during pre-clearing activities for the installation of monitoring well 23MWD12. No upper fill soil samples were proposed as part of the Supplemental RI work plan. Three of the upper fill sample locations were collected from OU1 and are illustrated on Figure 3-1. Table 3-2 summarizes the sample designation, depth, date, collection method, rationale, and laboratory analyses for the OU1 upper fill samples collected during the RI. The remaining RI upper fill soil samples will be presented in the OU2 RI report.

Upper fill samples were collected from 0.2 to 5 ft bgs during utility clearance activities. Aliquots of soil were collected at 1-foot intervals with a steel trowel to a depth of 2 ft. Sample aliquots were placed in plastic bags and screened with a PID. The steel trowel was decontaminated between each use. A hand auger, posthole digger, or shovel was used to collect soil aliquots at 1-foot intervals from a depth of 2 to 5 ft bgs. The sampling instrument was decontaminated between each sample aliquot collection. Samples were screened with a PID for VOCs. If there was no olfactory or instrument indications of contamination, the sample for VOC analysis was collected by scraping soil from along the side of the utility clearance hole. If there was olfactory or instrument indications of contamination, the soil aliquot exhibiting the highest PID reading was jarred and submitted for VOC analysis. The soils for the remaining analyses were composited and placed in the appropriate sample jars. Sample jars were labeled, placed in a cooler of ice, and sent under chain-of-custody protocol by courier to Chemtech.

Excavated soils that showed evidence of contamination were placed in 55 gallon drums and managed in accordance with Subsection 3.15 of this report. Excavated soils that did not show signs of contamination were placed back in the utility clearance test pit.

3.5 Lower Fill/Natural Soil Sampling and Analysis

During the 2006 RI activities, 18 borings were drilled within OU1 and five were completed as monitoring wells. These borings are summarized in Table 3-3. A total of 23 lower fill/natural soil samples were collected from nine boring locations within OU1 during the 2006 RI activities to further characterize and evaluate the extent of impacts detected during the SCS. Additional sample collection was performed at one monitoring well and four deep (to the top of bedrock) boring locations, relative to the RI work plan (RETEC 2005) based on field conditions. Eleven borings were drilled within OU1 during the 2008 RI activities to advance borings to the top of the bedrock for inspection and coring purposes and to evaluate soil quality in the vicinity of playground and basketball/tennis court areas. A total of 17 lower fill/natural soil samples were collected from seven boring locations within OU1 during the 2008 RI activities. The OU1 lower fill/natural soil sample locations are illustrated on Figure 3-1. Table 3-3 provides a summary of the OU1 soil borings, sample designation, depth, date, collection method, rationale, and laboratory analysis for each lower fill/natural soil sample collected during the 2006 and 2008 RI activities. The lower fill/natural soil samples collected from borings situated outside of the OU1 area will be presented in the OU2 RI report.

The initial RI soil borings were drilled between January 24, 2006 and May 9, 2006. These soil borings were performed by ADT under the supervision of a RETEC geologist or engineer. The supplemental RI soil borings were drilled between March 31, 2008 and May 20, 2008 by Paragon under the supervision of an ENSR/AECOM geologist or engineer. Soil borings were advanced using hollow stem auger (HSA) drilling rigs (truck- and track-mounted variations) or direct-push technology using a geoprobe rig. At certain locations, casing was advanced using drive and wash methods where heaving sands were encountered at depth, as described below. Continuous soil samples were generally collected from a depth of 5 ft to the base of each borehole. The upper 5 ft of each boring was logged continuously during utility clearance. The soils were logged for composition and presence of visual and olfactory impacts and were field screened with a PID for the presence of VOCs. Boring logs and monitoring well construction diagrams are provided in Appendix B of this RI report.

Samples were collected using either a 2-inch or 3-inch outside diameter, 2-foot long split-spoon sampler. Soil samples were collected in advance of the augers or drive casing by driving the split-spoon sampler through the sample interval with a 140 pound hammer on an anvil attached to the drive head on the sampler (via automatic hammer). Blow counts were recorded for every 6-inch interval. Split-spoon sampler refusal was considered 100 blows per 6-inches. Split spoons were decontaminated with Alconox® and water between each sample. The downhole drilling equipment was decontaminated by steam cleaning between each boring.

The site is underlain by saturated sand that frequently complicates continuous split-spoon sampling and boring advancement at depths greater than approximately 30 to 35 ft due to increased pressure at the base of the borehole that causes sand to heave. Heave is a condition that results from sand pushing up into the augers during drilling due to pressure differences. Several steps were taken to collect representative soil samples when heave occurred. The first step was to flush the augers out with water and keep the augers filled with water to add downward pressure in the borehole to balance the upward pressure exerted by the saturated sands at the base of the borehole. If the water pressure was insufficient to prevent further heaving, a mixture of water and either bentonite or Revert® (natural food-grade guar gum polymer) was used to create a drilling 'mud' that is denser than water. This mud mixture created greater downward pressure within the augers to prevent heave. If the mud mixture was also insufficient to prevent heave, the augers were removed and a 3-inch or 4-inch removable casing was pounded into the ground with a pneumatic hammer. The removable casing sufficiently seals off the boring from heaving sands and allows for sample collection with a split-spoon sampler. The casing was advanced using drive and wash methods until non-heaving sand/soil was encountered.

Soil borings advanced by direct-push geoprobe used a 5-foot long steel sampling tube (macro-core sampler) with an acetate liner. New liners were used for each 5-foot sample interval.

Upon completion, boreholes were completed as monitoring wells or tremie-grouted from the base of the boring. IDW was managed in accordance with Subsection 3.15 of this RI report.

In general, three samples were collected from each boring location; one at the depth interval corresponding to adjacent boring impacts for lateral delineation, one at the depth interval with the greatest observed impacts based on olfactory and visual observations and PID readings, and one below the deepest impacts or at the base of the boring to provide vertical delineation information. In the event that olfactory and visual observations and PID readings did not indicate impacts at a location, a sample was collected at the water table interface and bottom of boring.

Soil for VOC analysis was collected directly from the interval exhibiting the highest PID readings when detected. Soil collected for the remaining analyses was sampled across the sample interval. Soil samples were placed in jars, labeled, placed in coolers of ice, and sent under chain-of-custody protocol by courier to Chemtech.

3.6 Bedrock Investigation

A bedrock investigation was performed to try to identify the migration pathway of DNAPL seeping into the Con Edison steam tunnel located approximately 90 ft bgs along the east side of First Avenue, and to define the top of the bedrock surface beneath the site to evaluate whether DNAPL was present and migrating along the surface. During the 2006 RI, four borings were cored to approximately 90 ft bgs along First Avenue. These bedrock borings were identified as 21FA102B through 21FA105B. An additional four borings were drilled with HSA methods to the top of bedrock in the western portion of the site. These borings were identified as 21GH101B through 21GH104B. During the 2008 RI activites, four borings were cored to approximately 90 ft bgs in the northwestern portion of the site (21BR01B, 21BR02B, 21BR03B, and 21BR05B) and four borings were drilled to the top of the bedrock surface in the northwestern portion of the site (21BR04B, 21BR06B, 21BR07B, and 21BR08B). All of these bedrock investigation boring locations are illustrated on Figure 3-1 and boring logs are provided in Appendix B. The data for the overburden at each of these boring locations are included in this RI report for OU1. The bedrock investigation methodology and results will be presented in the OU3 RI report

3.7 Monitoring Well Installation and Development

Twenty-one monitoring wells were installed on and along the perimeter of the site during the 2006 RI activities. Four shallow (S-series) monitoring wells (screened from approximately 5 to 15 ft bgs) and eight intermediate (D-series) monitoring wells (screened from approximately 25 to 35 ft bgs) were installed to expand the existing SCS monitoring well network at similar depth intervals. Nine deep (DD-series) monitoring wells were installed with 10-foot screened intervals situated between approximately 50 and 70 ft bgs to evaluate deep groundwater quality in an attempt to provide vertical delineation of groundwater impacts at the site. In addition, eight groundwater grab samples were collected from two separate borings north of the site for additional groundwater delineation data. Six monitoring wells were installed in OU2 during the 2008 RI activities to further delineate the extent of MGP-related groundwater impacts. Two D-series monitoring wells and two nested pairs consisting of D-series and DD-series wells were installed. The OU1 monitoring well locations are illustrated on Figure 3-1. Table 3-4 summarizes the OU1 and OU2 RI monitoring well and groundwater grab sample designation, screened interval, date installed, location rationale, and subsequent groundwater sampling method and laboratory analyses. The groundwater level and analytical results for both OU1 and OU2 wells are presented in Section 5 of this OU1 RI report to enable presentation of groundwater elevation contours, groundwater quality results, and a limited evaluation of groundwater natural attenuation parameters.

Borings for monitoring well installation were advanced with HSA techniques as described in Subsection 3.5 above. At locations where well pairs or triplets were installed, continuous soil sampling using split-spoon samplers was performed only during the advancement of the borehole for the deepest monitoring well at that location. Soil inspection and logging of split-spoon samples was performed in accordance with the method described in Subsection 3.5 above. Borings drilled for the installation of shallower wells at coincident locations were not continuously sampled with split spoons. Boring log and monitoring well construction diagrams are provided in Appendix B.

All monitoring wells installed during the 2006 and 2008 RI activities are constructed of 2-inch diameter schedule 40 polyvinyl chloride (PVC) with 10-foot sections of 0.020-inch slot screens and 2-foot sediment sumps. A sand pack extends from the base of each well screen to at least 1-foot above the top of the screened interval. The sand pack is overlain by a 2-foot bentonite seal and the remaining annular space is filled with grout to within approximately 1-foot of ground surface. Flush-mounted limited access road boxes were used to complete the wells and the surface surrounding the well was restored to pre-drilling conditions.

Monitoring wells were developed a minimum of 24 hours after well installation (following NYSDEC protocol) to remove fine sediments from within the well, well screen, sand pack, and aquifer to promote good hydraulic connection between the well and the formation. Various techniques were used for well development, including surging using a plunger, one and two stage downhole centrifugal pumps, and a peristaltic pump. The plunger

was a handmade design that consisted of PVC pipe with a gasket and valve on one end and tubing on the other end that directed development water into a drum.

For wells with large amounts of sediment in the sump, a two stage centrifugal pump was used for surging, then for purging water for well development. For wells with measurable product that needed to be developed, the product was first removed using a dedicated bailer or dedicated tubing connected to a peristaltic pump to the extent practicable. The product and water purged was containerized. The depth to product was measured to assure all product was removed prior to development and then a one or two stage whale pump or a peristaltic pump was used to develop the wells.

Monitoring well 21MWDD04 was installed via mud rotary using Revert® and permanent casing. Prior to development, a solution of bleach and water was pumped into the well to break down the Revert®. After the solution was allowed to react with the Revert® for 24 hours, the well was developed using a two stage whale pump.

Monitoring well EBMWD14 was developed by bailing product and groundwater.

All of the wells installed as part of the RI were developed until approximately 10 well volumes of water were removed or until turbidity was low (less than 50 Nephelometric Turbidity Unit [NTU]) and groundwater pH, temperature, and conductivity parameters stabilized. Water quality data monitored during well development are summarized on the well development forms provided in Appendix D. All of the development water was containerized in 55-gallon closed top drums and managed in accordance with Subsection 3.15.

3.8 Groundwater Sampling and Analysis

Three types of groundwater sampling were performed during the 2006 RI activities. Groundwater samples were collected on April 12, 2006 from three monitoring wells (EBMWDD18, 21MWDD03, and 23MWDD12) and analyzed for VOCs under a quick-turnaround timeframe to help determine additional sampling locations and appropriate well screened intervals. Groundwater grab samples were collected between April 27 and May 9, 2006 from specific depth intervals during the advancement of borings AC101 and 23N101 to provide additional groundwater quality and delineation data. Groundwater samples were collected between May 16 and May25, 2006 from 45 monitoring wells comprised of the 20 wells installed during the SCS, the 21 wells installed during the RI, and four shallow wells (LR02, LR08, LR11, and LR17) installed by others in Stuyvesant Cove Park. A summary of the groundwater sampling performed during the 2006 RI is provided in Table 3-5.

During the 2008 RI activities, groundwater samples were collected from 35 of the previously sampled monitoring wells and from the six newly installed monitoring wells. Unlike the 2006 groundwater sampling event, groundwater samples were not collected from monitoring wells which contained indications of NAPL during the 2008 RI groundwater sampling event. Monitoring well LR11 could not be located and was not sampled during the 2008 sampling effort. A summary of the groundwater sampling performed during the 2008 RI is also provided in Table 3-5.

The groundwater grab samples collected from borings AC101 and 23N101 were collected via stainless steel temporary screen points from the depth intervals summarized in Table 3-5. The screen point was advanced to the desired depth using direct-push technologies, the screen sleeve was retracted 2 to 4 ft, depending on the apparatus, and tubing was placed through the geoprobe rods. A peristaltic pump was attached to the tubing and groundwater was drawn through the tubing into sample jars. In the shallow depth intervals where sufficient recharge was available, the borehole was purged until the water attained visual clarity prior to collecting the sample. In deeper depth intervals, recharge was poor and there was barely sufficient volume to fill the VOC sample vials, so purging could not be performed. Sample jars were labeled, placed in coolers containing ice, and sent under chain-of-custody protocols by courier to Chemtech for VOC analyses.

Groundwater samples were collected from 45 monitoring wells between May 16 and May 25, 2006 as summarized in Table 3-5. Groundwater samples were collected from 41 monitoring wells between August 27, 2008 and September 25, 2008. Monitoring wells were purged and groundwater samples were collected using a peristaltic pump and low-flow sampling methodologies. Prior to purging and sampling the depth to water and presence/thickness of NAPL were measured to the nearest 0.01 of a foot in each monitoring well. Tubing (and for the deep DD-series wells, a foot valve) was placed at the approximate midpoint of the screened interval unless NAPL was observed/detected in the well. If NAPL was observed in the well during the 2006 sampling event, the tubing intake was placed approximately 2 ft above the NAPL. Monitoring wells in which NAPL was noted during the 2006 groundwater sampling efforts include 21MWD03, 21MWDD04, 21MWD07, 23MWD12, 23MWDD12, EBMWD14, EBMWDD15, and LR08. During the purging and sampling of monitoring wells 21MWDD04 and EBMWDD15, the intake was placed above the screened interval to avoid entraining NAPL. Groundwater samples were not collected from wells in which NAPL was noted during the 2008 groundwater sampling event. Monitoring wells in which NAPL was noted in 2008 include 21MWD03, 21MWD04. 21MWDD04, 21MWD07, 21MWD10, 23MWD12, EBMWD14, EBMWDD15, and EBMWD18.

Groundwater purge rates were set below the maximum sustainable flow rate to ensure that the water table remained within 0.3 ft of the initial depth to water reading in the well. During purging activities, groundwater was passed through a Horiba U-22 flow-through cell which contained probes to measure the water temperature, pH, conductivity, and oxidation-reduction potential. Samples of water discharging from the cell were collected at 5-minute intervals and analyzed for turbidity using a LaMotte® 2020 turbidity meter. After passing through the cell, the water was discharged and temporarily contained in 5 gallon buckets. The purged water was later transferred to 55 gallon closed top drums and managed in accordance with Subsection 3.15.

Groundwater samples were collected in appropriate glassware once the water quality parameters had stabilized. Sample jars were labeled, wrapped in plastic, placed in coolers with ice, and sent by courier to Chemtech under chain-of-custody protocol. In addition, groundwater samples were collected from 17 monitoring wells and analyzed for parameters to evaluate the potential for intrinsic bioremediation/natural attenuation of groundwater impacts in the Site area during the 2006 sampling event. The wells from which samples were collected for the intrinsic bioremediation/natural attenuation evaluation in 2006 include 21MWS01, 21MWD01, 21MWS03, 21MWD03, 21MWDD03, 21MWD07, 21MWS11, 21MWD11, 23MWS12, 23MWD12, 23MWDD12, EBMW13D, EBMW13DD, 20MWS16, 20MWD16, 23MWDD20, and LR02. The wells from which samples were collected for the intrinsic bioremediation/natural attenuation evaluation in 2008 included 21MWS01, 21MWD01, 21MWD03, 21MWDD03, 23MWS11, 23MWD11, 23MWS12, 23MWDD12, EBMWD13, EBMWDD13, EBMWD15, 20MWS16, 20MWD16, EBMWD18, 23MWDD20, EBMWD24, EBMWDD24, EBMWD25, and EBMWDD25. Groundwater sampling sheets for the April 2006, May 2006, and August through September 2008 groundwater sampling events are compiled and presented in Appendix E.

The groundwater samples collected from monitoring wells EMBWDD18, 21MWDD08, and 23MWDD12 for quick-turnaround VOC analysis in 2006 were collected using the low-flow methodology described above. These samples were shipped to New England Testing Laboratories of North Providence, Rhode Island for VOC analysis.

Purged groundwater was containerized in 55 gallon closed top drums and managed in accordance with Subsection 3.15

3.9 Groundwater Elevation and Nonaqueous Phase Liquid Thickness Measurements

Depth to water measurements were collected from the majority of the monitoring wells on April 7, 2006, May 4, 2006, and during groundwater sampling activities between May 16 and 25, 2006. The April 7, 2006 event was performed while evaluating the condition of monitoring wells installed during the SCS to determine whether additional development would be necessary prior to groundwater sampling events. The May 4, 2006 survey was conducted to help select wells to be used during the tidal survey and aquifer conductivity testing. A

complete round of depth to water measurements and NAPL presence/thickness measurements was also performed in the 45 monitoring well network on June 12, 2006. Depth to water measurements and presence of NAPL were recorded during the groundwater sampling events performed between August 27 and September 29, 2008. A complete round of depth to water measurements and NAPL presence/thickness was also performed in the 50 well monitoring network (original 45 wells except for LR11 which could not be located plus the six monitoring wells installed in 2008) on September 24, 2008. These depths were measured using electronic water level meters and/or oil-water interface probes. The May 4, 2006, June 12, 2006, and September 24, 2008 depth to water measurements and resulting groundwater elevations were compiled along with other well construction details and are presented in Subsection 4.5. These data were used to develop groundwater contour maps and evaluate groundwater flow directions at the site as presented and discussed in Subsection 4.5.

During the RI, the presence/absence and thickness of NAPL was also measured and recorded for the site monitoring wells. NAPL removal efforts were performed in monitoring wells 21MWD03, 21MWD04, 21MWD07, 21MWD10, 23MWD12, EBMWD14, and EBMWDD15 in 2006. These NAPL observations and removal efforts are summarized in Subsection 5.4.1.3.

3.10 Tidal Survey

A tidal survey was conducted in 14 wells and the East River in order to assess the extent of tidal influence on groundwater at the East 21st Street Works former MGP Site. Prior to beginning the long-term tidal survey, a pilot test was run for approximately two hours on June 6, 2006, to determine the optimum measurement frequency and to ensure proper set up of the equipment for the full scale test.

Water levels and temperatures were measured using an In-Situ miniTROLL® placed within the screened section of the wells over an approximate 52-hour period. The full scale tidal survey began between 20:00 and 22:00 on June 6, 2006 and was completed on June 9, 2006 between 06:40 and 07:40. The following wells were monitored, in addition to the East River: 21MWD02, 21MWDD03, 21MWS05, 21MWD05 21MWD06, 21MWD08, 23MWS12, 23MWDD12, EBMWD13, EBMWDD13, EBMWD18, 23MWD20, LR02, and LR08.

The miniTROLLs® were connected to a cable and placed within the 14 monitoring wells to a depth where they would remain immersed in water over the course of the test. The wells were covered to keep rain from entering the casing during the test. Excess cable was wrapped around and secured to the well casing to prevent the miniTROLL® from slipping. The curb box was then cleaned and secured to prevent leakage. The test wells were inspected on June 7, 2006 to ensure that the wells were not being influenced by rain.

The miniTROLL® set in the East River provided direct measurement of the tidal fluctuation adjacent to the Site and was set near the Solar One building in Stuyvesant Cove Park. In order to prevent wave damage to the miniTROLL® unit over the course of the survey, a 2-inch slotted PVC standpipe was secured to the fence at the edge of the bulkhead and the miniTROLL® was placed at a depth of 13.5 ft (from the top of the guardrail) inside the standpipe. The cable connected to the miniTROLL® was secured to the well cap used to cover the standpipe to prevent slippage. Excess cable was folded down and threaded back into the standpipe.

Removal of the miniTROLLs® occurred between 06:40 and 07:40 on June 9, 2006. Prior to stopping the test, the miniTROLLs® were connected to a pocket PC, the test data downloaded, and a final reading of temperature and water level was recorded for each well and the river. Data from the miniTROLL® placed in 21MW06D was downloaded following its return to Pine Environmental due to an elastomer connection problem encountered while trying to download the data.

The results of the tidal survey are presented in Subsection 4.5.1. The tidal survey raw data are provided in Appendix F.

3.11 Aquifer Conductivity Testing

Aquifer conductivity testing was performed at the site by conducting slug tests at five locations: 21MWS03/DD03, 21MWS08/D08/DD08, 21MWS09/D09, 23MWS12/DD12, and EBMW13D. Aquifer conductivity testing was performed in general accordance with the RI Work Plan. The shallow (S-series) wells were stressed using a weighted PVC slug since the water table was within the screened interval and the intermediate (D-series) and deep (DD-series) wells were stressed with a pneumatic pressure device. Each well in the cluster was stressed separately and water levels were allowed to equilibrate between tests. Each test was repeated between two and four times in each well following return to equilibrium levels. Water levels were monitored in the well being stressed and the adjacent wells in the cluster, except 21MWD03 and 23MWD12 which contained NAPL.

The conductivity data were logged and recorded using miniTROLLs® and downloaded to a pocket PC and then transferred to office computers. The data were analyzed by the Bouwer and Rice method (1989) to calculate aquifer hydraulic conductivity values for each depth interval within the overburden aquifer. The aquifer conductivity test data and evaluation are compiled and presented in Appendix G and discussed in Subsection 4.5.2.

3.12 Soil Gas Sampling and Analysis

Soil gas samples were collected from eight locations along the northern, western, and southern boundaries of the site during the 2006 RI field activities in general accordance with the RI Work Plan. Of these eight samples, five were collected in OU1. The OU1 soil gas sample locations are illustrated on Figure 3-1. Soil gas samples were collected following utility clearance processes. Two outside ambient air samples were collected from the breathing zone during the soil gas sampling activities. Following apparatus set-up and purging procedures using a helium shroud, soil gas samples were collected over a one-hour period at each location using Summa canisters. The soil gas and outdoor air samples were shipped via overnight courier service under chain-of-custody protocol to Air Toxics Limited, Inc. (Air Toxics) of Folsom, California. The samples were analyzed for VOCs and other parameters by USEPA Method TO-15. Table 3-6 provides a summary of the OU1 soil gas sample designation, date, depth, collection method, rationale, and analyses for the soil gas samples collected during the RI. The anticipated depth of sample collection in the 2006 RI work plan was modified in the field based on perched water conditions at some locations. Additionally, the sample planned for the 23GH102 location was shifted westward to the 23GH101 location due to perched water conditions which caused water to be entrained in the sample. The OU1 soil gas results are discussed in Subsection 5-7. The soil gas results for the samples collected in OU2 will be presented in the OU2 RI report.

3.13 Analytical Program

3.13.1 Chemical Analyses

The majority of the soil and groundwater samples collected during the 2006 RI were analyzed for:

- VOCs by USEPA SW-846 Method 8260B
- SVOCs by USEPA SW-846 Method 8270C
- Metals by USEPA SW-846 6000/7000 Series
- Total cyanide by USEPA SW-846 Method 9012A
- Available cyanide by USEPA MCAWW 1277

These analyses, except for available cyanide, were performed by Chemtech in accordance with NYSDEC Analytical Services Protocol (ASP). Available cyanide analyses were performed by Severn Trent Laboratories, Inc. (STL) of Pittsburgh, Pennsylvania.

A subset of groundwater samples collected from monitoring wells EBMWDD18, 23MWDD12, and 21MWDD03 were analyzed under a quick-turnaround time frame for VOCs only using USEPA SW-846 Method 8260B by New England Testing Laboratories of North Providence, Rhode Island.

The groundwater samples collected for intrinsic bioremediation or monitored natural attenuation (MNA) parameters including nitrate, sulfate, sulfide, total iron and manganese, dissolved iron and manganese, alkalinity, dissolved gasses (nitrogen, oxygen, methane, carbon dioxide) were analyzed by Microseeps, Inc. of Pittsburgh, Pennsylvania.

The soil gas and ambient air samples collected during the RI were analyzed for VOCs plus naphthalene, 2-methylpentane, isopentane, 2,3-dimethylpentane, isooctane, indene, indan, thiophane, and helium using USEPA Method TO-15. These analyses were performed by Air Toxics.

Based on the results of the 2006 RI and the 2004 SCS, the majority of the soil and groundwater samples collected during the 2008 RI were analyzed for:

- VOCs by USEPA SW-846 Method 8260B
- SVOCs by USEPA SW-846 Method 8270C

These analyses were performed by Chemtech in accordance with NYSDEC Analytical Services Protocol (ASP). The groundwater samples collected for intrinsic bioremediation or monitored natural attenuation (MNA) parameters were analyzed by Microseeps, Inc. of Pittsburgh, Pennsylvania.

3.14 Management of Investigation-Derived Waste

The management of IDW was performed by RETEC and ENSR/AECOM field personnel during the RI activities at the site. Waste generated during the RI included soil cuttings, decontamination fluids, groundwater purge and development water, and construction and debris material (C&D), including personal protection equipment (PPE). All of the waste was containerized in either closed-top (liquid) or open-top (soil and C&D) 55-gallon drums. The drums were collected at the end of each day and transported to the equipment storage area underneath FDR Drive. Drums were labeled and composite samples were collected for waste characterization analysis by Chemtech. Samples submitted to the laboratory for analysis were requested for a 5-day turnaround time to expedite disposal. Clean Earth of North Jersey, Inc. provided transport and disposal of the drums.

A field log was developed and maintained to keep track of the number of drums, waste type, and designation. Table 3-7 provides a summary of the date, manifest number, and the total number and type of drums included on the manifest for the waste that was generated and disposed during the RI field activities. The waste generated during the investigation was separated as per waste profiling with the transport/disposal facility (Clean Earth of North Jersey, Inc.). The manifests for the IDW are located in Appendix H.

3.15 Survey of Remedial Investigation Sampling Locations and Basemap Development

The 2006 RI sample locations were surveyed by a surveyor licensed in the State of New York. The 2006 RI sample locations were tied into the site map prepared by H&A during the SCS. That map is based on the Borough of Manhattan Vertical Datum which is equivalent to +2.75 United States Geologic Survey (USGS) Vertical Datum of 1929. Elevations were surveyed to the nearest 0.01 foot. The SCS site map was developed from surveys conducted by Leonard J. Strandberg & Associates, Inc., Freeport, New York in 2002 on behalf of Mathews-Nielsen Landscape Architects, New York, New York and Rose Associates (Strandberg, 2002). The 2006 RI locations were tied into the site plan using coordinates provided for previously installed monitoring wells, fixed utility locations (lights), and buildings on the Peter Cooper Village property. Surveyed property features were referenced to the Borough of Manhattan Horizontal Coordinate System.

The 2008 RI sample locations were surveyed by Geod, Inc. These locations were surveyed in the 1983 North American Datum (NAD 83) Long Island Lambert Zone of the New York State Plane Coordinate System and were referenced to the 1988 North American Vertical Datum (NAVD88). 2006 RI boring logs were revised to reflect these datums. A table was generated for previous investigation boring logs (2004 SCS borings and Langan borings) which presents the Manhattan Borough Datum coordinates and corresponding Long Island Lambert (NAD83) and NAVD88 coordinates. This table is presented before the 2004 SCS boring logs in Appendix B.

3.16 Subsurface Utility Evaluation

After the 2006 intrusive fieldwork was completed, RETEC compiled all of the available service utility maps to mark the location of underground utilities on the site and surrounding public streets. The purpose of this work was to evaluate utilities as migration pathways for subsurface impacts. Service utilities included are water mains, electrical ducts, gas mains, sewer drain, storm sewer, telephone lines, fiber optic cables, and steam mains. In addition to the utility location program undertaken in anticipation of invasive activities, several site visits by RETEC personnel were performed to evaluate site utilities.

The utility plates used during the investigation were combined with the utility plan developed during the SCS and is presented in Figure 3-2. However, while the utility locations shown were estimated based on the available information, the majority could not be field verified. Given the age/nature of utility systems and the records in this area, additional utilities not shown on the records may exist and some information shown may be inaccurate. It is recommended that a localized utility investigation be performed prior to design of invasive remedial measures. This would likely be performed as part of a pre-design investigation.

The utility map illustrates one line for multiple diameter mains for a service line, for visual reference only. Due to the size and nature of the utility records for this area, detailed utility drawings are not provided in this document; however, a copy of all utility drawings used in this investigation is available upon request from either Con Edison or ENSR/AECOM.

The depths of impacts were compared to the depths of the service utilities. The investigation looked at various depth intervals to see pathways of the impacts. The chosen depth intervals were 0 to 10 ft, 10 to 20 ft, and 20 to 40 ft. The service utilities were divided out in these intervals according to their depths.

3.17 Oil Water Underdrain System Investigation

ENSR/AECOM conducted an evaluation of a proposed oil water underdrain system as part of the 2008 RI of OU1. The evaluation was conducted on May 2, 2008, May 14, 2008, May 15, 2008 and May 28, 2008 to look for evidence of an oil water underdrain system that may have been installed on the Peter Cooper Village property and to evaluate whether MGP-related impacts are seeping into the site sewers.

The evaluation included visual inspection of manholes and drains within the areas of the site where the drains would most likely have been installed based on the design plan of the proposed underdrain system and areas of shallowest MGP-related impacts. Figure 3-3 illustrates the proposed oil water underdrain system, storm sewers, manholes, yard drains, environmental investigation locations and water valve replacement excavations in the eastern portion of OU1. Video inspection footage was collected along the eastern portion of the 48-inch circular, brick, storm sewer line that extends from 22nd Street eastward and along the 36-inch circular, concrete drain running from the northwest corner of Building No. 9 eastward across the site. Video inspection was performed by National Water Main Cleaning Company (NWMCC) under the direction of ENSR/AECOM personnel using a combination of crawling and floating cameras. Footage was recorded on DVD's, photographs were taken as requested by ENSR/AECOM personnel, and inspection reports were generated by NWMCC per section between manholes (MH). The results of the investigation are discussed in Subsection 4.2 of this report.

4.0 Field Investigation Results

This section presents a summary of the field measurements and observations made during the RI and the SCS of OU1 of the East 21st Street Site Works former MGP site. Included is a discussion of the topography and drainage, geology, and hydrogeology of the Site.

4.1 Regional Geology

The site is located on the southern end of the Manhattan Prong, a northeast-trending, highly eroded sequence of metamorphosed schists and gneisses, within the Taconic Sequence (or Hartland Formation). The Taconic Sequence consists of aluminum-rich schists, including the Manhattan Schist, granofels, and metavolcanic rocks previously deposited on the ocean crust and subsequently accreted onto North America during the Medial Ordovician Taconic orogeny (Merguerian, 1996). The structurally highest, upper schist unit in the Manhattan Schist is predominantly gray-weathering, fine- to coarse-grained, well-layered muscovite-quartz-biotite-plagioclase-kyanite-garnet schist, with some gneiss, thin- to massive granofels, and cm- and m-scale layers of greenish amphibolite and garnet (Merguerian, 1996). This unit, underlying most of the southern half of Manhattan, is lithologically identical to the Cambrian and Ordovician Hartland Formation found in western Connecticut and Massachusetts.

According to the SCS report (H&A 2004), Baskerville's bedrock and engineering geologic map (1994) indicates that the site is situated on the eastern side of an anticline axis between the eastern and western faults that bound Cameron's Line, a major regional northeast-trending fault that exhibits complex structural geology. The bedrock strike of the anticline is expected to be approximately north-northeast and the dip direction is expected to be approximately south-southeast.

4.2 Topography and Drainage

The general topography of the site is relatively flat, but slopes towards the east as indicated on Figure 4-1. During a rain event, infiltration is absorbed into the green space across the site. Surface runoff not absorbed is directed to storm sewer curb inlets. The drainage system is comprised of an intercept sewer, trunk storm sewer lines, smaller local storm sewer lines, curb inlets, and wet weather overflow outfalls.

The storm sewer system is comprised of curb inlets that drain to the smaller local lines which in turn discharge to the larger trunk lines. The trunk lines and smaller storm lines form a complex web of storm drain lines that ultimately discharge to the intercept sewer under dry weather conditions. The intercept sewer discharges to the Newtown Creek waste water treatment plant, which discharges treated wastewater to the East River.

The intercept sewer is 108 inches in diameter and appears to flow south down First Avenue, east on 20th Street, and then south again on Avenue C. As it passes the site, storm and sanitary sewer lines drain into it.

During wet weather events overflow chambers allow local storm water to flow to the East River at three outfall locations adjacent to the site rather than to the intercept sewer. The ratio of storm water discharge to outfalls and the intercept sewer is unknown; however, it is likely that the bulk of the local storm water discharges to the outfalls adjacent to the site during heavy precipitation events. The outfalls are permitted under the New York State Pollution Discharge Elimination System (NYSPDES) permit #00262004. The outfall identification numbers and locations are located on Figure 3-2. From observations during several precipitation events the system appears effective at controlling runoff.

The majority of the known subsurface utilities are located in the 0 to 10 ft depth range, except for the 108-inch intercepting sewer that is included in the 20 to 40 ft depth range, with a noted depth of 25 to 35 ft bgs, and several of the storm sewer overflow lines in the 10 to 20 ft depth range. Given the depth of the water table and the known impacts, it is unlikely that significant preferential migration is currently occurring through any of the

shallow utilities or utility bedding. The 10 to 20 ft depth storm sewer overflow lines may present a potential migration pathway; however, given the torturous path from the Site to the river, it is unlikely. The deeper sewer interceptor does not appear to traverse significant MGP-related impacts and therefore is not a likely preferential pathway.

4.2.1 Oil Water Underdrain System Investigation

An evaluation was conducted on May 2, 2008, May 14, 2008, May 15, 2008, and May 28, 2008 to look for evidence of an oil water underdrain system that may have been installed on the Peter Cooper Village property and to evaluate whether tar-like material (TLM) or oil-like material (OLM) are seeping into the sewers.

An underdrain system consisting of gravel encased porous 8-inch concrete piping was designed for installation in oil contaminated areas throughout the eastern portion of the site prior to Peter Cooper Village construction/development. Appendix I contains a copy of the underdrain system plan that was prepared for the Peter Cooper Village Board of Design by Clarke, Rapuano & Holleran in 1947 and illustrates potential locations and construction details of the underdrain system, including that the drains should generally be placed 5 to 7 ft below finished grade. The plan notes that the underdrains will only be installed at locations specified by a representative of the Metropolitan Life Insurance Company (Met Life) and a handwritten note states that red lines on the drawing indicate the first recommendation for installation of the porous tile drainage. However, the plan is black and white and the recommendations are not evident.

The evaluation included visual inspection of manholes and drains within the areas where the drains would most likely have been installed overlapping areas of shallowest OLM/TLM impacts. The inspection consisted of two phases; Phase 1 was a visual inspection of the manholes/yard drains from the surface and Phase 2 was a video camera inspection of each of the pipes entering or leaving manholes.

The evaluation program focused on the areas of the system indentified in Figure 1 of Appendix I. Each manhole and yard drain was given a unique identification in Figure 1 of Appendix I. Table 1 in Appendix I references the specifics of the drainage system. A photo log of the inspection program is included in Appendix I as well.

4.2.1.1 Phase 1: Manhole Visual Inspection

Field observations from each manhole are included in Appendix I. All manholes are associated with either a 48-inch circular, brick, storm sewer line that extends from 22nd Street eastward across the site or a 36-inch circular, concrete, storm drain that extends from the northwest corner of Building No. 9 eastward across the site. All manholes have inlets and outlets related to the main sewer line or drain line. Two manholes, manhole # 8 and manhole # 11, have tie-ins unrelated to these inlets and outlets. Manhole # 8 has an 8-inch active red, clay pipe from the northwest at a depth of approximately7 ft bgs, along with an 8-inch capped red, clay pipe from the north at a depth of approximately 7 ft bgs. Manhole #8 had a pipe that appeared to have oil-like staining on it during the initial evaluation. Video inspection was utilized to trace the northwest tie-in to yard drain # 9 and footage revealed no visible impacts. Video inspection of the north tie-in was not possible, as the pipe was capped; however, the tie-in likely originates from yard drain # 6 and is not part of an underdrain system. Manhole # 11 has an 8-inch active clay red, pipe from the south at a depth of approximately 3.2ft bgs, along with an 8-inch capped red clay, pipe from the east at a depth of approximately 4.6ft bgs. Both tie-ins to manhole # 11 are shallower than the depth range proposed for the underdrain system.

Field observations from each yard drain are included in Appendix I. Two types of tie-ins were visible in yard drains: 8-inch black, corrugated PVC and 8-inch red, clay. Clay pipes were observed at depths ranging from 4.5-5 ft bgs. Corrugated pipes were observed at depths ranging from 2-4 ft bgs. No visible impacts were observed within yard drains.

4.2.1.2 Phase 2: Video Inspection

Video inspection footage was collected by National Water Main Cleaning Company (NWMCC) under the direction of ENSR/AECOM personnel using a combination of crawling and pontoon cameras. Footage was recorded on DVDs, photographs were taken as requested by ENSR/AECOM personnel and inspection reports were generated by NWMCC per section between manholes (MH). Inspection reports are included as Appendix I.

Footage was taken between manhole # 1 and manhole # 5 along the 48-inch circular, brick, storm sewer line that extends from 22nd Street eastward. There are 20 tie-ins between manhole # 1 and manhole # 2 of which five are active and the remaining are capped. The location of tie-ins is summarized in Table 1 of Appendix I. All tie ins between manhole # 1 and manhole # 2 are at the water level (18-24inches) except the tie-in located 23.5 ft into the segment and the tie-in located 40.1 ft into the segment, which enter the pipe two-thirds of the way up the wall. There is also a pipe crossing the ceiling of the sewer pipe at 30.4 ft into the segment. Other notable features in this section include plant material at 56.2 ft into the segment. No visible impacts were observed in this section.

There are four tie-ins between manhole # 2 and manhole # 3, two of which are active. Tie-ins are at the water level (4.2 ft, 9.6 ft), in the ceiling of the pipe (26.8 ft) and two-thirds of the way up the wall (54.9 ft). Other notable features in this section include wall deposits (20 ft into segment), concrete (29.6 ft into segment) and missing mortar (53 ft into segment). Toward the end of the section the sewer line takes a bend to the left. No evidence of OLM or TLM was visible in this section.

There is one tie-in between manhole # 3 and manhole # 4 (4.1 ft into segment). The tie-in is active and enters the sewer two-thirds of the way up the wall. Other notable features in this section include plant material located 11.8 ft into the segment and exposed wood on the pipe wall located 16.3 ft into the segment. Toward the end of the segment the sewer line changes material and shape to a 48-inch concrete square pipe.

There are three tie-ins between manhole # 4 and manhole # 5, two of which enter the pipe two-thirds of the way up the wall (31.9 ft and 55.4 ft into segment) and the other from the top of the pipe (93.2 ft into segment). The tie-in at 31.9 ft is the only active tie-in of the segment. This segment has some cracks (2.8 ft and 81.7 ft into segment), exposed wood (10.3 ft into segment), patches of erosion (40.1 ft into segment), and black sealant material (81.7 ft and 103.4 ft into segment). However, no TLM or OLM was observed with these features or in any portion of the segment.

The segment between manhole # 5 and manhole # 6 was not examined because access was not possible through manhole # 5 or manhole # 6 because the camera clearance was exceeded by the water level. Footage was taken between manhole # 8 and manhole # 12 along the 36-inch circular, concrete drain running from the northwest corner of Building No. 9 eastward across the site. There are three tie-ins between manhole # 8 and manhole # 7 (8.6 ft, 42.3 ft and 47.6 ft into the segment) entering the pipe two-thirds of the way up the wall. All of the tie-ins are capped. Footage of this and other segments in the drain pipe includes an examination of each joint. Joints are spaced 3 ft apart and sealed with a black material. All joints had integrity, except the joint located 75.2 ft into the segment from MH#7 to MH#10. The joint at that location shows visible infiltration with a mound of deposition. There was no evidence that this or any other joints in the drain line are a migration pathway for OLM or TLM.

There are three tie-ins between manhole # 7 and manhole # 10 (25.4 ft, 42.5 ft, and 45.5 ft into the segment) entering the pipe two-thirds of the way up the wall. The tie-in located 25.4 ft into the segment is capped; where as the remaining tie-ins are active. Other notable features in this section include plant material at 100 and 114.4 ft into the segment and an infiltration mound located 75.2 ft into the segment as discussed previously. No visible impacts were observed in this segment.

There are two tie-ins between manhole # 10 and manhole # 11 (140.2 ft and 143.8 ft into the segment) that enter the drain line two-thirds of the way up the wall. Both tie-ins are active. Other notable features in this

section include plant material located 18 ft, 129.1ft and 148.9 ft into the segment. No visible impacts were observed in this segment.

Footage of the segment between manhole # 11 and manhole # 12 is incomplete. Footage was first attempted via access through manhole # 11. However, an obstacle was encountered 37 ft into the pipe. There are no notable features in the resulting footage. Footage was then attempted through manhole # 12, but an obstacle was encountered at 24.3 ft. In this segment plant material was observed 9 ft, 11.2 ft and 19 ft into the segment. No OLM or TLM was observed in the inspected portions of the pipe between manhole # 11 and manhole # 12.

Drain line footage was attempted from manhole # 12 toward the river (manhole # 13), however, an obstacle was encountered during the inspection at 11.1ft that prevented further footage. No tie-ins are present in this portion of the line. This segment had several joints with plant material (7.1 ft and 9.4 ft into the segment). No visible impacts were observed in the 11.1 ft that were inspected.

Video footage of the inspection work is available and can be provided to interested parties.

In general a storm drainage system typical of an urban environment was encountered during the above work. A variety of pipe types, sizes, ages and configurations were encountered. In several areas of the system tar seals were used in the original construction of the system. This was typical construction for gravity flows systems built in the early to mid 20th century. The tar seals are noted in several of the photos in Appendix I. The site drainage and sewer system appears intact and to be functioning well.

In addition to the above inspection work Con Edison and its contractors have advanced 156 soil borings, 28 monitoring wells and 47 test pits (environmental and water valve) in OU1. In none of these cases was the oil water underdrain system or anything resembling it encountered. Discussions with property owner's maintenance personnel have also failed to turn up any evidence of the oil water underdrain system.

Given the lack of evidence found during inspection of the storm drain and sewer systems on the site, as well as years of invasive activities, it is unlikely that if installed, the oil water underdrain is currently acting as a migration pathway. ENSR/AECOM was unable to confirm the installation of the oil water underdrain system.

4.3 Site Geology

Information concerning the site stratigraphy and hydrogeology were obtained from observations made during the installation of RI soil borings and monitoring wells and from the SCS Report (H&A 2004). Seven geologic cross sections (A-A' through G-G') were developed based on boring log data. The geologic cross section locations are illustrated on Figure 4-2 and the cross sections are provided on Figures 4-3 through 4-9. Boring logs and well construction diagrams on which these cross sections are based are provided in Appendix B.

As shown on the boring logs and cross sections, the site geology generally consists of five units from ground surface downward including:

- Fill
- A layer of organic clay, silt, and/or peat
- A silty sand unit with varying amounts of silt and clay
- A unit of dense silt, sand, and gravel
- Bedrock

The site geology was described in detail in the SCS Report (H&A 2004) by depositional environment. The RI borings encountered subsurface material consistent with that described in the SCS Report. As such, much of

the geologic information below is excerpted from the SCS report with additional detail or modifications provided from observations made during the RI field activities.

4.3.1 Fill Unit

The fill material beneath the site typically consists of intermixed sand, silt, and gravel with varying amounts of wood, brick, concrete, boulders, ash, cinders, glass, and metal fragments and pieces. Clinker-like material and ash-like material were occasionally observed in the samples.

The depth of fill at the site ranged from approximately 6 ft near First Avenue to 43 ft in former gas holder #7 in the southwestern portion of the site. In general, the fill depth is shallow in the western portion of the site near First Avenue and deep to the east towards the East River, with the exception of locations with deep subsurface foundations or deep construction-like gas holders. Fill in the western portion of the site likely reflects man-made disturbances to pre-existing natural soils from historical building construction along First Avenue.

The soils further east of First Avenue seem to reflect bulk filling activities that progressed into and over former intertidal areas of the East River to create land, as indicated by the frequent presence of an organic soil horizon below the fill material. The depth of the fill increases to the east across the site and generally ranges from 6.5 to 17 ft bgs between First Avenue and former Avenue A, and between 18 and 33 ft bgs between former Avenue A and Avenue C. Except for the fill associated with gas holder #7, the deepest fill zones were encountered in the northeast portion of the former MGP site in the vicinity of the former drip/oil tanks and retorts. This progression of increased fill thickness to the east is evident on cross sections A-A', B-B', D-D', E-E', and G-G′.

As noted in the SCS report, an upper layer of fill, approximately 5 feet thick, was observed over the majority of the site and appears to represent fill material imported to the site during the construction of Peter Cooper Village to re-grade the property and prepare it for landscaping. The upper fill unit was generally distinct from the deeper, lower, MGP-impacted fill and native soil. The difference was based on appearance (red brown sands with minor silt and gravel), general absence of significant quantities of construction debris (such as metal, wood, brick, ash, concrete, or cinder), very limited observations of discrete MGP or other commingled impacts (i.e., stained soils discoloration, significant odors, hardened TLM, clinker-like material, or tarry material), and the absence of significantly elevated PID readings.

4.3.2 Organic Clay, Silt, and/or Peat Unit

Organic soils consisting of clay, silt and occasionally peat, were frequently encountered beneath the fill, generally between approximately 11 and 34 ft bgs, and where present varied in thickness from 0.5 to 20 ft. The organic silt and clay were generally described as soft to very soft, brown to black, and occasionally containing organic peat, plant fibers or shell fragments, and exuding a hydrogen sulfide odor.

Due to the filling activities in some areas of the site, the organic deposits are missing or appeared substantially disturbed, such that they were considered part of the overlying fill material. In these areas, the top of the organic clay unit is shown as a dashed line on cross sections B-B′ and D-D′. Sometimes the organic soil was described as gray to brown silty sand, occasionally containing shell fragments and could be associated with estuarine deposits. The organic soil is illustrated on the various cross sections as organic clay, clay, silt and clay, and peat.

A relatively thick, fairly continuous section of organic materials (organic clay, sand and clay, silt and sand, and silt and clay) are illustrated in the western portion of the site, beneath the former gas holder area, and are in contrast to the relatively thin and discontinuous layer(s) of organic material in the eastern portion of the site where thicker fill zones were encountered in the vicinity of the drip/oil tanks and retorts and coal houses, on cross sections A-A', B-B', and C-C′. On the western side of the site, along First Avenue where shallow bedrock was encountered, the organic material is essentially absent except at one boring, 21FA102B, where a thin lens of clay was noted as illustrated on cross section F-F'.

4.3.3 Silty Sand Unit

The silty sand unit encountered beneath the site is typically red brown to gray fine sands, silty fine sands, and sandy silts with occasional clay laminations or thin clay layers. These deposits are interpreted to be glaciolacustrine in origin and were generally encountered between 18 and 43 ft bgs and extended to a depth of approximately 150 ft bgs at boring 21BR08B in the central/western portion of the site and approximately 120 ft bgs at boring 21OT001C in the eastern portion of the former MGP site. These sediments are interbedded and lensed throughout the site. However, there is a slight trend of sandier sediments in the west and finer grained more silty sediments in the east, especially deeper in the sequence, based on a review of cross sections B-B', and D-D'. There also appears to be a trend of finer grained sediments at depth as illustrated on cross sections D-D', and E-E.

4.3.4 Dense Silt, Sand, and Gravel Unit

At the deep boring locations, more dense silt, sand, and gravel materials were encountered beneath the silty sands and overlying bedrock. These deposits are considered to be glacial fluvial or glacial till in origin and were encountered in SCS borings 21GH027A (113.5 ft bgs), 21BR001 (116.6 ft bgs) and 21OT001C (120.0 ft bgs); and RI borings 21GH101B (92 ft bgs), 21GH102B (46 ft bgs), 21GH103B (79 ft bgs), 21GH104B (116 ft bgs), and 21BR08B (146 ft bgs).

4.3.5 Bedrock

Four borings were drilled to the top of bedrock (21GH101B through 21GH104B) and four borings were cored into bedrock (21FA102B through 21FA105B) during the 2006 RI. Four borings were drilled to the top of bedrock (21BR04B, 21BR06B, 21BR07B, and 21BR08B) and four borings were cored into bedrock (21BR01B, 21BR02B, 21BR03B, and 21BR05B) during the 2008 RI. Several borings advanced during the SCS encountered bedrock along the western portion of the site and three borings were advanced to the top of bedrock (21GH027A, 21BR001, and 21OT001C). In addition, several borings were drilled to the top of bedrock by the Giles Drilling Corporation for Starrett Brothers and Eken in the mid-1940s in support of constructing the Peter Cooper Village Complex (New York City Building Department). These historic boring logs were reviewed and the elevation of the top of bedrock data were used in conjunction with the RI and SCS boring data to generate the top of bedrock contour map illustrated on Figure 4-10.

As illustrated on Figure 4-10 and cross sections A-A′ and B-B′, the top of bedrock dips steeply from an elevation of approximately 10 ft above NAVD88 at the western edge of the site along First Avenue eastward, towards the East River to an elevation of approximately -118 ft NAVD88 near Avenue C. The top of the bedrock surface dips more steeply in the western portion of the site and more gently in the eastern portion of the site. There appears to be a depression in the top of the bedrock surface in the western portion of the Peter Cooper Village property at boring HB-12 where the top of bedrock was encountered at an elevation of approximately -148 ft NAVD88. The bedrock surface east of this depression is relatively flat and gently rises to the east-northeast from an elevation of approximately -130 to -100 ft NAVD88. In the southeastern portion of Peter Cooper Village, it appears that the top of the bedrock surface is also relatively flat and gently rises to the northwest from an elevation of approximately -125 to -100 ft NAVD88.

The rock mass classification of the bedrock cores was based on the Rock Quality Designation (RQD), which is defined as the sum of the cumulative length of core pieces longer than 0.33 ft divided by the total length of the core run. The total length of the core run includes all lost core sections, however, any mechanical breaks caused by the drilling process or in extracting the core from the core barrel are ignored in the calculation. A calculated RQD of <25% is classified as very poor, 25-50% is poor, 50-75% is fair, 75-90% is good, and 90-100% is excellent. RQD is used as a standard parameter in drill core logging and has been used to identify low-quality rock zones. The eight bedrock cores taken during the 2006 and 2008 investigations had RQDs ranging from 13 to 100%, very poor to excellent, with the majority of the “very poor” classification coming in the upper part of the bedrock. The general trend was towards a classification of “excellent” with depth, indicating fewer fractures and bedrock fragments with depth. Bedrock is discussed further in the OU3 RI Report.

4.4 Regional Hydrogeology

There are no surface water bodies located on the site. The East River is the closest surface water body to the site and is approximately 300 feet east/northeast of the eastern boundary of the former MGP. The East River is classified by the NYSDEC as a Class I saline surface water which is used for ship traffic, but not contact recreational purposes. Class I saline surface waters are also designated for fishing, however, numerous New York State Department of Health (NYSDOH) health advisories exist for consumption of fish caught in the East River. The west shoreline of the East River in the vicinity of the site is listed in the National Wetlands Inventory (Langan, 2002).

The NYSDEC groundwater classification for the site area is GA (aesthetic – fresh waters). The regional groundwater flow is assumed to mimic the area surface topography which slopes gently from the west to the east-northeast. The East River is tidally influenced and has measurable effects on adjacent groundwater elevations. Depending on the tide, the East River may recharge the unconfined overburden aquifer or the aquifer may discharge to the river.

The site area receives city-supplied drinking water which is supplied by upstate reservoirs.

4.5 Site Hydrogeology

Twenty-one monitoring wells were installed during the 2006 RI, six monitoring wells were installed during the 2008 RI, and 20 monitoring wells were installed during the SCS to evaluate groundwater conditions at the site. Table 4-1 provides a summary of the monitoring well designations, installation dates, screened intervals, top of casing elevations and groundwater elevation measurements. In addition to the 47 monitoring wells installed as part of the environmental investigation of the former MGP site, four monitoring wells, installed as part of separate investigative and remedial actions within Stuyvesant Cove Park, were monitored during the RI and are included on Table 4-1.

One unconfined, unconsolidated overburden aquifer was encountered beneath the site during the investigations. Although a discontinuous and varying thickness organic clay/silt unit was frequently encountered beneath the site, a confining unit within the unconsolidated sediments above the bedrock is not present with the possible exception of the basal till unit encountered in deep borings above the bedrock surface. This inference is based on the density and lack of notable impacts of this material compared to shallower soils.

As illustrated on Table 4-1 the monitoring wells are screened at three general depth zones within the unconfined overburden aquifer beneath the site. The shallow zone wells (S-series) are generally screened between approximately 5 and 15 ft bgs. The intermediate zone wells (D-series) are generally screened between approximately 25 and 35 ft bgs. The deep zone wells (DD-series) have 10-foot screened intervals generally situated between 50 and 70 ft bgs. No deep, DD-series wells were installed during the SCS. The four Stuyvesant Cove Park monitoring wells (LR02, LR08, LR11, and LR17) are shallow series wells and were used to provide shallow groundwater data in the vicinity of intermediate and deep wells installed during the 2006 RI.

Water level data collected on April 19, 2004 during the SCS, May 4 and June 12, 2006 during the 2006 RI, and on September 24, 2008 during the 2008 supplemental RI were converted to groundwater elevations using surveyed well elevations and are presented on Table 4-1. Groundwater elevation contour maps for the April 19, 2004 measurement event are presented in the SCS report (Figures 7 and 8). Groundwater elevation contour maps for the shallow, intermediate, and deep zones for the May 2006, June 2006, and September 2008 groundwater measurement events are illustrated on Figure 4-11.

As illustrated on this figure, groundwater flow direction in all three overburden aquifer zones is to the east-northeast towards the East River. Occasionally, it appears that tidal affects (discussed in Subsection 4.5.1) on groundwater levels may result in groundwater elevations that cause elevation contours to bend sharply and

somewhat unrealistically as illustrated on the panels for the June 2006 and September 2008 intermediate zone. The groundwater elevation for monitoring well 21MWS10 in September 2008 was anomalously high and was not used to generate the groundwater elevation contours on the September 2008 shallow zone panel of Figure 4-11.

Horizontal hydraulic gradients for the three aquifer zones were calculated for the May 4, 2006, June 12, 2006, and September 24, 2008 gauging events. For the shallow zone, three flow paths perpendicular to groundwater flow were selected including the path between 21MWS01 and 23MWS12, the path between 21MWS06 and LR08, and the path between 20MWS16 and 21MWS05. Horizontal hydraulic gradients along these paths ranged between 0.0028 ft/ft to 0.0076 ft/ft. The average horizontal gradient for both the May and June 2006 gauging event was 0.006 ft/ft, and for the September 2008 gauging event was 0.004 ft/ft. The data show little variation over time.

For the intermediate aquifer zone, three flow paths were also selected, including one path between wells 21MWD01 and EBMWD13, one between 21MWD02 and EBMWD14, and one path between 20MWD16 and EBMWD15. Horizontal hydraulic gradients along these paths ranged between 0.0008 ft/ft to 0.005 ft/ft. The average horizontal gradient for both the May and June 2006 gauging events was 0.002 ft/ft and for the September 2008 gauging event was 0.003 ft/ft. and are less than the shallow aquifer zone horizontal hydraulic gradients. Similar to the shallow zone, the horizontal hydraulic gradient data in the intermediate zone were relatively consistent over time.

In the deep aquifer zone, one flow path crossing the entire site was selected between well 21MWDD08 and EBMWDD13. The horizontal hydraulic gradient for both the May and June 2006 events were 0.0027 ft/ft and 0.0030 ft/ft, respectively, with an average of 0.0029 ft/ft. The horizontal hydraulic gradient for the September 24, 2008 event was 0.0028 ft/ft.

The vertical hydraulic gradient between the shallow and intermediate zones is generally downward in the western portion of the site and upward near the East River, as is evident from the groundwater elevations provided in Table 4-1 and the vertical gradient summary table presented on Table 4-2. This finding is consistent with a conceptual model showing groundwater discharge to the East River in the absence of tidal influence. The vertical gradient between the intermediate and deep zone wells is small and inconsistent between measurement events. The vertical gradient is greater between the shallow and intermediate zones than it is between the intermediate and the deep zones, and wells in the western portion of the site show a steeper gradient than the wells in the eastern portion of the site.

Specifically, the vertical gradients were downward between all shallow and intermediate well pairs with the exception of the two well pairs (23MWS/D12 and 21MWS/D05) located closest to the East River. Downward vertical gradients were consistent between gauging events and ranged between 0.05 ft/ft to 0.33 ft/ft. Vertical gradients in the shallow to intermediate zone are more than one order of magnitude greater than the average horizontal gradient in the shallow and intermediate zones. Between the intermediate and deep aquifer zones, vertical gradients showed more variability over time and were lower in magnitude, ranging between 0.00 ft/ft to 0.08 ft/ft. Compared to horizontal gradients in both the intermediate and deep zones, the vertical gradients were consistent at the low end and higher by approximately one order of magnitude on the high end of the range. Combined, the overall findings are consistent with a conceptual model showing intermediate groundwater recharge from shallower zones across the central portion of the site, with a transition of intermediate to shallow recharge near the eastern site boundary with ultimate discharge to the East River. Tidal influence and good hydraulic connection between zones are suspected to be the main reasons why vertical gradients shift between upward and downward in some well pairs, particularly 23MW12S/D and the intermediate and deep zone well pairs (Table 4-2).

4.5.1 East River Tidal Influence on Groundwater Elevations

A tidal survey was conducted in 14 wells and the East River to assess the extent of tidal influence on unconfined aquifer groundwater elevations at the site. The water level and temperature were measured using an *In-Situ* miniTROLL® placed within the screened section of the wells over roughly a 52 hour period. Data charts illustrating groundwater elevation fluctuations relative to tidal fluctuations are shown on Figure 4-12. Tidal survey data are compiled in Appendix F.

The well points used during the tidal survey are color-coded by depth interval on Figure 4-12; the shallow well points (S-series) are colored green, the intermediate well points (D-series) are colored blue, and the deep well points (DD-series) are colored red. Tidal influence was measured in nine of the 14 wells surveyed. As illustrated on Figure 4-12, groundwater elevations are influenced by tidal fluctuations in the shallow, intermediate, and deep unconfined aquifer zones. The tidal influence was observed furthest away from the river (approximately 950 ft) in the deep wells. The influence of tidal fluctuations on shallow groundwater elevations was not observed further than approximately 50 ft west of the East River. Tidal influence in the shallow aquifer is likely limited by the sea wall construction along Stuyvesant Cove Park. Tide fluctuations were not observed in the intermediate unconfined aquifer zone further than approximately 300 ft west of the East River.

The average time lag for observing a change in groundwater elevation relative to a change in tide was calculated for each well where tidal influences were measured and is summarized in the table below.

Well ID	Distance due West of East River (feet)	Average Time Lag	Average Magnitude of Change (feet)
23MWDD20	470	179 min.	0.337
EBMWDD13	72	37 min.	1.597
23MWDD12	228	79 min.	0.922
23MWDD03	950	252 min.	0.124
21MWD05	222	84 min.	0.841
EBMWD18	42	54 min.	1.076
EBMWD13	60	49 min.	1.422
LR02	48	119 min.	1.102
LR08	36	141 min.	0.451

As expected in the deep and intermediate wells, the average time lag increases and the magnitude of groundwater elevation change decreases with increased distance from the river. The tidal fluctuations in the East River resulted in changes in groundwater elevations in the shallow zone ranging between 0.4 and 1.1 ft and are difficult to relate to distance from the river based on the relatively small area (within 50 ft) of the shallow zone that was influenced by the tides. The sea wall along the East River likely interferes with tidal fluctuations measured in the shallow aquifer zone.

4.5.2 Aquifer Hydraulic Conductivity and Seepage Velocity Calculations

Single well slug tests were performed at five monitoring well cluster locations: 21MWS03/DD03, 21MWS08/D08/DD08, 21MWS09/D09, 23MWS12/DD12, and EBMWD13/DD13. The data were evaluated using the Bouwer and Rice Method (1989) to estimate the hydraulic conductivity of the aquifer material. Table 4-3 provides a summary of the wells tested; the type of material within the screened intervals, the test and solution methods, and the estimated range of hydraulic conductivity values. The slug test data, recovery curves, and hydraulic conductivity calculations are provided in Appendix G.

The estimated hydraulic conductivity values for the shallow overburden aquifer zone were relatively consistent and ranged from 16.1 to 25.9 ft per day (ft/day), with a geometric mean value of 21.1 ft/day. These values are

consistent with the type of material within the shallow well screened intervals which consisted of fill materials of sand, silt, gravel, and brick that are relatively permeable.

The estimated hydraulic conductivity values in the intermediate and deep zones of the unconfined aquifer varied between locations and can be explained by type of material within the screened interval. The intermediate zone estimated hydraulic conductivities ranged between 0.85 and 41.7 ft/day and reflected permeability differences between clay/silt/sand/peat units versus fine sand/sand and gravel units. The hydraulic conductivities estimated from the testing performed in the deep wells range from 0.26 to 20.92 ft/day and also reflected variation in material within the screened intervals. In general, the hydraulic conductivity values estimated for clay/silt/sand zones within the intermediate and deep zones were consistent. The lowest hydraulic conductivities were estimated for finer grained clayey sediments (23MWDD12) and the highest hydraulic conductivities were estimated for the coarse sand and gravel sediments (EBMWD13).

Water levels were monitored in the adjacent wells making up well clusters during each single well slug test. There were no measured effects on water levels in adjacent wells screened both above and below the test well during the testing events.

Groundwater seepage velocities in each aquifer zone were calculated using measured horizontal hydraulic gradients and estimated hydraulic conductivity values using a modification of Darcy's Law:

$$V = Ki/n$$

where:

V=Groundwater Seepage Velocity (ft/day)

i=Horizontal Hydraulic Gradient (ft/ft)

K=Hydraulic Conductivity (ft/day), and

n=Porosity of Aquifer Sediments.

Average horizontal hydraulic gradients (i) for the shallow, intermediate, and deep aquifer zone were 0.005 ft/ft, 0.002 ft/ft, and 0.003 ft/ft, respectively. The mean hydraulic conductivity value (K) for the shallow aquifer was 21.1 ft/day. Given the significant variability in K values noted, the range of K values for the intermediate zone was 0.85 to 41.7 ft/day, and the range of K values for the deep aquifer zone was 0.26 to 20.9 ft/day. An estimated porosity value of 30% was used for each aquifer zone, which is typical for sandy material. Using the above equation, horizontal groundwater seepage velocity within the shallow aquifer zone is calculated to be approximately 0.35 ft/day. Using the range of K values, horizontal groundwater seepage velocities for the intermediate zone range from 5.7×10^{-2} ft/day to 0.28 ft/day. For the deep aquifer zone, groundwater seepage velocities are calculated to range between approximately 2.6×10^{-2} ft/day to 0.21 ft/day.

5.0 Analytical Results and Subsurface Observations

This section presents and describes the analytical results for the soil, groundwater, and soil gas samples collected during the RI and the SCS as well as the visible MGP-related impacts noted during subsurface intrusive activities. Analytical results tables for the surface soil, upper fill soil, lower fill/natural soil, groundwater, and soil gas samples collected during the RI and the SCS are presented in the following subsections. The soil gas analytical results from previous investigations are not included in this RI report. The analytical results were compared to applicable NYSDEC guidance values or standards. The discussion is presented by environmental media following the discussion of analytical data quality and validation results.

5.1 Data Quality Evaluation

To meet the data quality objectives for this RI project, NYSDEC ASP were used and Category B deliverable packages were prepared by the laboratory for the analyses. Summary result pages from the full Category B data deliverable packages (Form 1s), including data validation qualifiers for the samples collected as part of the RI, are compiled on a compact disk included in Appendix J. During the 2006 RI, surface soil, subsurface soil, and soil gas samples were collected from January 19 to May 9, 2006 and groundwater samples were collected between May 16 and May 25, 2006. During the 2008 RI, subsurface soil and groundwater samples were collected between March and September 2008.

Comprehensive data packages were submitted by Chemtech and STL-Pittsburgh Laboratories for the soil and groundwater samples for validation by a qualified chemist. Data Usability Summary Reports (DUSRs) were prepared by RETEC and ENSR/AECOM for the soil samples and the groundwater samples. The DUSRs for this project are included in Appendix I. Data was validated according to method specifications and the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, EPA540/R-99/008, October 1999 and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, EPA540-R-04-004, October 2004, as they apply to the analytical methods employed.

Organic data quality was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance, internal standards, initial and continuing calibrations, surrogate recoveries, matrix spike/matrix spike duplicate (MS/MSD) samples, MS/MSD relative percent differences (RPDs), laboratory control standards (LCSs), laboratory blanks, field duplicates, compound identification, and compound quantitation.

Inorganic data quality was evaluated by reviewing the following parameters: holding times, initial and continuing calibrations, contract required detection limit (CRDL) standard recoveries, MS/MSD samples, LCSs, laboratory duplicates, Inductively Coupled Plasma (ICP) interference check sample results, ICP serial dilution results, laboratory blanks, and field duplicates.

As part of the data validation process, the laboratory report sheets and the analytical result tables were revised to include the data validation qualifiers to indicate the limits of data usability. A glossary of USEPA-defined organic and inorganic data qualifiers and their definitions are provided as notes on the analytical result tables. Overall, the data are considered to be usable and any noted data qualifications will not affect site decisions.

5.2 Surface Soil

The surface of the site is covered by 15-story apartment buildings, grass and landscaped areas, asphalt roads and walkways, concrete, cobblestones, playgrounds, and tennis and basketball courts. As noted in the SCS and observed in the RI, the surface soil and upper fill soil at the site appear generally distinct from the MGP-impacted lower fill/natural soil. Based on historical site information, the surface soils were imported to the site after the MGP operations ceased, possibly for final grading purposes during the construction of Peter Cooper Village. As concluded in the SCS Report, it is considered likely that the elevated concentrations of SVOCs, polynuclear aromatic hydrocarbons (PAHs), and metals observed in the background study surface soils and in

the site surface soils are attributable to the imported fill quality, anthropogenic sources, and/or naturally occurring sources that are not related to the former MGP operations (H&A, 2004). During the 2006 RI, four surface soil samples were collected to the west, south, and east of the site to evaluate soil quality along the perimeter of the site where elevated concentrations of compounds were noted during the SCS. One of the four samples was collected from OU1 and is summarized in Table 3-1.

Analytical results for VOCs, SVOCs, metals, and total and available cyanide in OU1 surface soil are provided in Tables 5-1 and 5-2. One hundred and five surface soil samples were collected and analyzed during the SCS, the results of which are provided in Table 5-1. One surface soil sample was collected from OU1 and analyzed during the 2006 RI and the results are provided in Table 5-2. Tables 5-1 and 5-2 include only analytes that were detected in at least one surface soil sample. A table summarizing the results of every analyte analyzed during the SCS is provided as Table 1 in Appendix J. A table summarizing the results of every analyte analyzed in the surface soil sample collected from OU1 during the 2006 RI is provided as Table 2 in Appendix J. The surface soil analytical results were compared to the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) Recommended Soil Cleanup Objectives (RSCOs) and Site-Specific Background Values (SSBVs) developed during the SCS. For details regarding the development of the SSBVs, refer to Subsection 5.4 of the SCS report (H&A, 2004). Figures 5-1A and 5-1B illustrate the SCS surface soil analytical results and Figure 5-2 illustrates the RI surface soil analytical results.

Only two occurrences of a VOC concentration exceeding its RSCO were detected during the SCS (benzene at 0.072 mg/kg in 21GH007 and acetone at 0.21 mg/kg in 21PF001). All of the SCS and RI surface soil samples were below the RSCO total VOC criteria of 10 mg/kg. VOCs were not detected in the RI surface soil sample collected from OU1.

Many SVOCs, mostly PAHs, were detected in the SCS surface soil samples, some at concentrations exceeding RSCOs as summarized on Table 5-1 and illustrated on Figures 5-1A/1B. The OU1 RI surface soil sample did not contain detectable concentrations of PAHs as shown on Table 5-2 and Figure 5-2. All of the SCS and RI surface soil samples were below the total SVOC RSCO of 500 mg/kg.

The metals detected in site surface soils exceeding RSCOs or SSBVs included aluminum, arsenic, beryllium, cadmium, calcium, chromium, copper, iron, magnesium, manganese, mercury, nickel, silver, sodium, and zinc. The concentrations of the metals detected in the RI surface soil sample are consistent with the concentrations of metals detected in the SCS surface soil samples.

Nine SCS surface soil samples contained concentrations of cyanide exceeding the SSBV of 0.705 mg/kg. Cyanide concentrations ranged from 0.74 to 12.1 mg/kg in the SCS surface soil samples. A low concentration of available cyanide was detected in the OU1 RI surface soil sample.

The concentrations of compounds detected in the OU1 RI surface soil sample are consistent with or lower than the concentrations of compounds detected in the SCS surface soil samples. The detected surface soil concentrations are considered to be attributable to fill material quality, anthropogenic sources, or naturally occurring sources unrelated to former MGP operations.

5.3 Upper Fill Soil

The upper fill soil is considered to be 0.2 to 5 ft bgs and, as noted in the SCS and observed in the RI, is generally distinct from the deeper, lower, MGP-impacted fills and natural soils. The distinction is based on the general absence of construction-type debris, the limited observation of MGP or other impacts, and the absence of elevated PID readings. The upper fill was noted over the majority of the site and the SCS concluded that it appeared to represent imported fill material brought to the site after closure of MGP operations (H&A, 2004). During the RI, three upper fill soil samples were collected from OU1 to further evaluate the quality of this soil horizon as summarized in Table 5-2.

Analytical results for VOCs, SVOCs, metals, and total and available cyanide in upper fill soil are included in Tables 5-3 and 5-4. One hundred and three upper fill soil samples were collected and analyzed during the SCS, the results of which are provided in Table 5-3. Three upper fill soil samples were collected from OU1 and analyzed during the RI and the results are provided in Table 5-4. Tables 5-3 and 5-4 include only analytes that were detected in at least one upper fill or lower fill/natural soil sample. A table summarizing the results of every analyte analyzed in the upper fill soil samples during the SCS is provided as Table 3 in Appendix J. A table summarizing the results of every analyte analyzed in the OU1 upper fill soil samples during the RI is provided as Table 4 in Appendix J. The upper fill soil analytical results were compared to the NYSDEC TAGM RSCOs and SSBVs developed during the SCS. For details regarding the development of the SSBVs, refer to Subsection 5.4 of the SCS Report (H&A, 2004). Figure 5-3 illustrates the SCS upper fill soil analytical results and Figure 5-4 illustrates the OU1 RI upper fill soil analytical results. In addition, the distribution of total VOCs and total SVOCs exceeding RSCOs are illustrated by depth interval on Figures 5-5 and 5-6, respectively. The upper left panel of each of these figures illustrates the distribution of these compounds in soils between 0.2 and 10 ft bgs.

Detected VOC concentrations in SCS and RI upper fill soils did not exceed individual RSCOs or the total VOC RSCO of 10 mg/kg. As illustrated on Figure 5-5, there were only eight locations in the 0.2 to 10 ft bgs depth zone where total VOCs were detected at concentrations exceeding 10 mg/kg. At all of these locations, the samples that contained concentrations greater than the total VOC RSCO were collected from depths greater than 5 ft bgs.

As noted in the SCS report and as illustrated on Figure 5-3, SVOC concentrations exceeding RSCOs were noted in less than half of the SCS upper fill soil samples and were generally limited to a few individual PAHs. The SCS report stated that the range of concentrations and types of PAHs detected in upper fill soils at the site were similar to the results of the soil data collected for the site background evaluation, with the exception of a few samples where the results were within one order of magnitude higher in concentration. The OU1 RI upper fill SVOC results follow the same pattern. Detected SVOC concentrations did not exceed the total SVOC RSCO of 500 mg/kg. As shown on Figure 5-6, there were only six locations in the 0.2 to 10 ft bgs depth range where total SVOCs were detected at concentrations exceeding 500 mg/kg. At all of these locations, the samples that contained concentrations greater than the total SVOC RSCO were collected from depths greater than 5 ft bgs.

Several metals were detected at concentrations exceeding the RSCOs or SSBVs in both the SCS and RI upper fill soil samples as illustrated on Figures 5-3 and 5-4 and Tables 5-3 and 5-4. The SCS report concluded that the range of concentrations and types of metals detected in upper fill soils at the site were similar to the results from the background soil study area, with the exception of a few samples where the results were less than one order of magnitude higher in concentration (H&A, 2004). The RI upper fill soil sample results are generally consistent with the SCS findings.

The concentrations of compounds detected in the RI upper fill soil samples are consistent with or lower than the concentrations of compounds detected in the SCS upper fill soil samples. The RI upper fill soil samples were also consistent with the SCS upper fill soil samples in appearance and generally did not exhibit MGP-related materials. The detected upper fill soil concentrations are considered to be attributable to fill material quality, anthropogenic sources, or naturally occurring sources unrelated to former MGP operations.

5.4 Lower Fill/Natural soil

The lower fill/natural soil unit includes fill below 5 ft bgs and natural soils underlying the fill unit. Visible impacts and analytical results indicate that the lower fill/natural soil unit has been impacted by former MGP operations. The distribution of the visible impacts and the analytical results for the lower fill/natural soil unit is illustrated on several figures and tables within this subsection. Additionally, cross sections A-A' through G-G' (Figures 4-3 through 4-9) illustrate visible impacts and provide a summary of analytical results.

5.4.1 Visible Impacts

Tables 5-5 and 5-6 summarize visible impacts noted during the SCS and RI drilling activities, respectively. These impacts were summarized from a review of the boring logs that are provided in Appendix B. These tables were used to generate Figures 5-7 and 5-8 that illustrate the distribution of stained soils and/or soils with sheen and the distribution of soils that are visibly impacted with OLM and/or TLM, respectively.

5.4.1.1 Stained Soils

As illustrated on Figure 5-7, stained soils and/or soils exhibiting a sheen were observed in lower fill/natural soils across the majority of the site. There appears to be a strip of relatively non-impacted lower fill/natural soil in the center of the site in the vicinity of former Avenue A. This finding is consistent with the general lack of former MGP structures in this area of the site.

The stains and sheen in the western portion of the site are within or near the former gas holders and ranged in depth between approximately 7 and 40 ft bgs. The impacts noted at boring 21GH013 indicate slight black staining or sheen to a depth of 63 ft bgs. No other boring in the vicinity of 21GH013 encountered staining or sheen to this depth. Based on the description of the impacts at depth in this boring and the drilling difficulties (added water to the borehole for increased pressure), it is likely that these impacts were related to shallower impacts.

The soils with observed sheen and stain in the eastern portion of the site are also relatively widespread, especially along the southeastern part of the Site where the former purifiers and coal houses were situated. Lower fill/natural soils with limited staining and/or sheen were noted along the northern edge of the site along the western portion of the south side of East 23rd Street. Cross section E'E' illustrates the visible impacts along the northern edge of the site.

In their August 10, 2007 comment letter, NYSDEC requested that the playground, basketball court, and tennis/bocce ball court areas within OU1 be investigated to evaluate whether sources of MGP impacts are present beneath these surfaces. The property owner, Tishman Speyer, requested that the surfaces of the courts and playground area not be disrupted with drilling activities. Additional borings (21BR06B/21BB01, 21BR07B/21BB02, 21BR08B/21PG01, 21PG02, 21TC01, and 21TC02) were drilled adjacent to these park areas during the 2008 RI. Lenses of staining were observed adjacent to the playground/court areas in all of these borings between 8 and 25 ft bgs. These findings are consistent with the other subsurface MGP impacts noted during previous investigations of the site.

5.4.1.2 Oil-Like Material/Tar-Like Material Impacted Soils

Figure 5-8 provides a generalization of the OLM and TLM visible impacts observed in the subsurface of the site by depth interval. Observations of OLM and TLM include lenses of material with OLM and/or TLM blebs, globules, residual, or saturation. The data used to develop Figure 5-8 does not indicate that the full thickness of each depth zone illustrated was saturated with OLM/TLM. Refer to Tables 5-5 and 5-6 and the boring logs in Appendix B for a detailed description of visible impacts observed at specific locations.

As illustrated on Figure 5-8, relatively shallow, 10 to 20 ft bgs OLM/TLM impacts were noted in soils beneath the former retort, drip tank, and oil tank area in the northeastern portion of the former MGP. This area of shallower impacts is surrounded by an area of deeper, 20 to 40 ft bgs OLM/TLM impacts that appears to have migrated downward and horizontally from the shallower impacts in the retort, drip tank/oil tank area. Deeper OLM/TLM lenses (greater than 40 ft bgs) were observed in borings in the southeastern portion of the former retort, drip tank/oil tank area and east-southeastward to Avenue C. Visible impacts in the eastern portion of the former MGP site were observed as deep as 47 ft bgs. These impacts are also evident on cross sections A-A', B-B', and D-D'.

A smaller relatively shallow area of OLM/TLM impacts was also noted between 10 and 20 ft bgs along the southern boundary of the site in the vicinity of the former purifiers. These impacts generally did not extend deeper than 20 ft bgs in this area.

Further west, the majority of observed OLM/TLM impacts are situated within and adjacent to former gas holder structures. All of the former holders were encountered during the SCS test pit and/or boring activities and contained varying compositions of debris and soils impacted with stain, sheen, and OLM/TLM. One area of intermediate depth (20 to 40 ft bgs) OLM/TLM impacts is situated around former gas holder #2. A boring, 21GH030, was drilled in former gas holder #2 during the 2008 RI activities. OLM/TLM impacts were not observed in boring 21GH030. Impacts in the western portion of the overburden materials generally did not extend to depths greater than approximately 20 to 40 ft bgs. Additional borings (21BR06B/21BB01, 21BR07B/21BB02, 21BR08B/21PG01, 21PG02, 21TC01, and 21TC02) were drilled adjacent to these park areas during the 2008 RI. OLM was only noted in one of these borings, 21TC02, between 16 and 30 ft bgs and was present in the form of blebs and lenses. This finding is consistent with the other subsurface MGP impacts noted during previous investigations of the site.

The extent of the visible OLM/TLM impacts in lower fill/natural soils at the site have been defined to the west (cross section F-F'), and extend to the eastern portion of the northern OU1 boundary (cross sections E-E' and G-G'), and along the southern edge of OU1. Visible OLM/TLM impacts extend to the northeastern, southeastern, and eastern limits of OU1.

5.4.1.3 NAPL in Monitoring Wells

Measured NAPL (both LNAPL and DNAPL) in various monitoring wells is presented in Table 5-7. NAPL was detected at measurable thicknesses in monitoring wells 21MWD03, 21MWD04, 21MWDD04, 21MWD07, 21MWD10, and 23MWD12. Quantities of NAPL have been removed from all of these wells except 21MWDD04 where the greatest thickness was measured. At this location, NAPL could not be removed by pumping due to high viscosity and increased depth to NAPL.

Approximately 3.8 ft of NAPL was measured in the base of 21MWD03 on March 31, 2006. A peristaltic pump was used to remove approximately 4 gallons of water and 1 gallon of NAPL from this well on March 31, 2006. During subsequent gauging events, on April 7 and June 12, 2006, NAPL thickness in this well was measured to be 1.5 and 3.2 ft, respectively. NAPL was also removed from 21MWD04 in March 2006. Approximately 1 gallon of NAPL was bailed from 21MWD04. Subsequent gauging events indicate that approximately 1 to 2 feet of NAPL is present in the base of the well. Field observations indicate that the majority of the NAPL is denser than water and likely related to former MGP operations at the site

Trace amounts of NAPL, both LNAPL and DNAPL, were also indicated in monitoring wells 21MWS10 and 23MWDD12.

Due to the presence of NAPL in monitoring wells at the site, Con Edison directed ENSR/AECOM to develop an Interim Remedial Measure Work Plan for NAPL Monitoring and Recovery at the site. This work plan was submitted to NYSDEC for review on August 18, 2008.

5.4.2 Correlation of Visible Impacts and Analytical Results

As is typical at former MGP sites, the analytical results for the site correlate well with the observed visible impacts. Figures 5-5 and 5-6 illustrate the distribution of total VOCs and total SVOCs exceeding NYSDEC RSCOs by depth interval across the site. The majority of the total VOC and total SVOC exceedances of RSCOs were detected in the 10 to 20 ft and 20 to 40 ft depth zones, and were concentrated in the northeastern portion of the former MGP in the vicinity of the former retorts, drip tanks, and oil tanks and in the western portion of the former MGP within and adjacent to former gas holders. The 20 to 40 ft depth zone also contains total VOCs and total SVOCs at concentrations exceeding their RSCOs in the southeastern portion of the site in the former scrubber/purifier area and the in former oil tank area.

As shown in Figures 5-5 and 5-6, the horizontal delineation of total VOC and total SVOC exceedances of RSCOs has been generally defined in the lower fill/natural soils along the north, west, and southern limits of OU1. Total VOCs and SVOCs exceeding the RSCO are present along the northeastern, eastern, and southeastern limits of OU1. The vertical extent of lower fill/natural soil total VOC and total SVOC exceedances of RSCOs has been defined at the site as is evident by the green rings in the lower right panel of Figures 5-5 and 5-6.

5.4.3 Analytical Results

Analytical results for VOCs, SVOCs, metals, and total and available cyanide in lower fill/natural soil are included in Tables 5-3 and 5-4. Three hundred and eighty-eight lower fill/natural soil samples were collected and analyzed during the SCS, the results of which are provided in Table 5-3. Twenty-three lower fill/natural soil samples were collected from OU1 and analyzed during the 2006 RI and 18 lower fill/natural soil samples were collected and analyzed during the 2008 RI. These RI results are provided in Table 5-4. Tables 5-3 and 5-4 include only analytes that were detected in at least one upper fill or lower fill/natural soil sample. A table summarizing the results of every analyte analyzed in the lower fill/natural soil samples during the SCS is provided as Table 3 in Appendix J. A table summarizing the results of every analyte analyzed in the OU1 lower fill/natural soil samples during the RI is provided as Table 4 in Appendix J. The lower fill/natural soil analytical results were compared to the NYSDEC TAGM RSCOs and SSBVs developed during the SCS. For details regarding the development of the SSBVs, refer to Subsection 5.4 of the SCS Report (H&A, 2004).

5.4.3.1 Volatile Organic Compounds and Semi-Volatile Organic Compounds

Figure 5-9 illustrates the results of VOC analyses and Figures 5-10A through 5-10C illustrate the results of the SVOC analyses for the lower fill/natural soil samples collected during the SCS. As illustrated on these figures and discussed in subsection 5.5.3 of the SCS report, VOCs and SVOCs were detected in lower fill/natural soil samples at concentrations exceeding RSCOs at the majority of the locations investigated at the site. The predominant VOCs that exceeded their respective RSCOs were the BTEX compounds, and the predominant SVOCs that exceeded their respective RSCOs were PAHs, which is common at MGP sites. The distribution of the exceedances of the VOCs and SVOCs as presented on Figures 5-9 and 5-10A/B/C and discussed in the SCS report coincide with the visible impact and analytical correlation discussions provided in Subsections 5.4.1 and 5.4.2 above.

The purpose of the OU1 RI lower fill/natural soil sampling was to further delineate the extent of MGP-related impacts detected during the SCS and to evaluate soil quality in the vicinity of the basketball court, tennis/bocce ball court, and playground areas within Peter Cooper Village as requested in the NYSDEC August 10, 2008 comment letter. The VOC, SVOC, metal, and cyanide analytical results for the OU1 RI lower fill/natural soil samples are presented in Table 5-4. Because the predominant VOCs detected at the site during the SCS were BTEX compounds, and the predominant SVOCs detected at the site during the SCS were PAHs, Figure 5-11 illustrates the BTEX and PAH analytical results for the OU1 lower fill/natural soil samples collected during the RI. Figure 5-11 presents total VOC and total SVOC concentrations which include but are not limited to BTEX and PAHs, respectively. Therefore, the total VOC and total SVOC concentrations illustrated on Figure 5-11 may be greater than the sum of the individual BTEX and PAH concentrations reported on Figure 5-11.

As illustrated on Figure 5-11, the horizontal and vertical extent of VOCs and SVOCs generally have been defined along the southwestern, western, and northwestern perimeters of OU1. In the northeast portion of OU1 at 23RE102 and 23RE101/23MWS/D/DD12, total VOC and/or total SVOC concentrations in soils exceed their respective RSCOs in samples collected between 22 and 30 ft bgs. The vertical extent of these impacts was defined at each of these locations.

Along the eastern limit of OU1 adjacent to Avenue C, lower fill/natural soil analytical results indicate the presence of VOCs and SVOCs at concentrations exceeding RSCOs. Concentrations of VOCs and SVOCs in soils between 5 and 10 ft bgs along the eastern border of the former MGP site along the west side of Avenue C were as high as 754 mg/kg and 2702 mg/kg, respectively in 21DT004 (5-7). The lower fill/natural soil VOC

and SVOC analytical exceedances along the eastern limit do not extend deeper than approximately 47 ft bgs with vertical confirmation samples containing concentrations of VOCs and SVOCs below RSCOs collected from depths ranging between 49 and 51 ft bgs. Lower fill/natural soil samples collected from areas adjacent to playground/court areas contained similar concentrations of VOCs and SVOCs as surrounding areas of the site.

5.4.3.2 Metals and Cyanide

Metal concentrations in SCS and RI lower fill/natural soil samples exceed RSCOs and/or SSBVs. Figure 5-12 illustrates and Table 5-3 summarizes the metal analytical results for the SCS lower fill/natural soil samples. Table 5-4 includes the metal analytical results for the OU1 RI lower fill/natural soil samples. A review of the metal results indicates that many metals are present in the lower fill/natural soil, frequently at concentrations exceeding SSBVs. The most common metals are aluminum, calcium, magnesium, potassium, and sodium. The data do not indicate a trend of elevated metal concentrations associated with specific areas at the site or with specific depth zones between sampling locations.

The SCS report focused on elevated concentrations of arsenic and lead as these metals may be associated with former MGP operations as well as other sources. The seven arsenic concentrations detected above the SSBV in the SCS lower fill/natural soil samples ranged from 14 to 41.1 mg/kg. Arsenic was detected in all but six OU1 lower fill/natural soil samples collected during the RI at concentrations below the SSBV of 13.63 mg/kg. Lead was detected at concentrations exceeding the lead SSBV of 237.2 mg/kg in 13 of the SCS lower fill/natural soil samples. The lead concentrations in the SCS lower fill/natural soil samples ranged from 283 to 1,620 mg/kg. Lead was detected in all of the OU1 RI lower fill/natural soil samples; however, none of the samples contained concentrations above the SSBV of 237.2 mg/kg.

Lower fill/natural soil sample cyanide analytical results are also summarized in Tables 5-3 and 5-4. Figures 5-11 and 5-12 illustrate the distribution of the cyanide analyses for the OU1 lower fill/natural soil samples collected during the RI and the SCS, respectively. The cyanide concentrations detected in the SCS lower fill/natural soils generally ranged from 0.75 to 2.6 mg/kg which is well within the range of the background samples collected for the site. One SCS sample (21PF006) collected from a depth of 13 to 15 ft bgs in the former purifier area contained cyanide at a concentration of 387 mg/kg. Total cyanide was detected in two of the OU1 RI lower fill/natural soil samples. The detected total cyanide concentrations detected in the OU1 RI lower fill/natural soil samples ranged from 0.854 to 1.6 mg/kg. Available cyanide concentrations were reported for 13 of the OU1 RI lower fill/natural soil samples. The available cyanide analytical results were compromised by interferences and, based on a comparison with total cyanide concentrations, do not reflect available cyanide concentrations in the lower fill/natural soil at the site.

5.5 Bedrock Quality

A bedrock investigation was performed at the site during the RI due to the presence of DNAPL suspected to be MGP in nature in the Con Edison steam tunnel recently constructed beneath First Avenue. The bedrock investigation methodologies and results will be presented in the RI report for OU3.

5.6 Groundwater Quality

During the 2006 RI, groundwater quality beneath the site was assessed through the collection and laboratory analysis of groundwater samples from 45 well locations and two direct-push grab sample locations, as discussed in Section 3.8. During the 2008 RI activities, groundwater samples were collected from 35 of the previously sampled monitoring wells and from the six newly installed monitoring wells. Table 5-8 includes a summary of all compounds detected during the SCS and the RI, broken down by BTEX, VOCs, PAHs, SVOCs, metals, and cyanide (total and available). Figure 5-13 presents a summary of typical MGP constituents of interest (COI), including BTEX, PAHs, phenols, and cyanide, detected during the SCS sampling in 2004 and the OU1 RI sampling in 2006 and 2008. Due to the pervasive detection of metals, many above NYSDEC Ambient Water Quality Standards or Guidance Values (AWQSGVs) (typically iron,

magnesium, manganese, and sodium) metals results are not included for purposes of discussion as they are not inferred to be related to former MGP operations at the site. This finding is based partially upon reviewing metals results from the most highly impacted wells in each aquifer zone, which revealed a suite of detected metals similar to other site wells including those containing non-detectable COI concentrations.

The groundwater discussion presented below includes limited groundwater quality data from monitoring wells located outside of the limits of OU1. These data are presented on Table 5-8 and several figures to provide a more complete evaluation of the groundwater quality and to allow a limited evaluation of natural attenuation in the site vicinity.

The following subsections provide a summary and discussion of the COI results for each aquifer zone, followed by a baseline natural attenuation (NA) evaluation for each aquifer zone. The presence of free-phase NAPL is also discussed in relation to the analytical findings.

5.6.1 Shallow Zone (5-15 ft bgs)

A total of 21 shallow zone groundwater samples were collected during the 2006 RI and 17 shallow zone groundwater samples were collected during the 2008 RI. In addition, 11 shallow zone samples were collected in 2004 by H&A during the SCS work in 2004. In summary, the typical compounds detected in the shallow aquifer at the water table include low to moderate concentrations of BTEX, PAHs, and total cyanide with lesser detections and concentrations of other VOC and SVOC compounds (Table 5-8). Of the detections, the primary COI that were detected above AWQSGVs included BTEX and PAHs, as expected for a former MGP site.

Because benzene is one of the most common compounds associated with MGP residues and is also one of the most soluble VOCs, iso-concentration contours for benzene were prepared for the shallow zone. The 2006 benzene results are presented on Figure 5-14A and the 2008 benzene results are presented on Figure 514B. Groundwater elevation contours for the shallow aquifer zone are shown on Figure 4-11 for comparison purposes. As shown on Figures 5-14A and 5-14B, benzene concentrations are highest in the former gas holder area in the western portion of the site and in the eastern portion of the site near the former oil tanks and drip tanks. These findings are consistent with visual observations and soil results. They are also consistent with soil gas data in that there is generally a zone of relatively less impacted groundwater at the water table across much of the site due to contaminant location (generally isolated at depth) and downward vertical gradients between the water table and deep aquifer zones. This combination helps to limit the migration of soil vapor from deeper impact zones into the vadose zone.

Also outlined on Figures 5-14A and 5-14B are colored symbols designed to present a rapid visual summary of whether any VOC, SVOC, or total cyanide result was greater than AWQSGVs. Locations where NAPL was detected are also identified on the figure. As shown, the shallow groundwater plume extends past the limits of OU1 to the east and possibly to the north-northeast (Figure 5-14B).

Lastly, comparison of 2004 and 2006 data in shallow wells, where available, revealed that equal or decreasing concentrations of VOCs were noted in 60% of the wells (6 of 10) and equal or decreasing concentrations of total PAHs were noted in 100% of the wells (10 of 10 wells) [Table 5-8]. Comparison of 2006 and 2008 groundwater quality data in shallow wells indicates that equal or decreasing concentrations of VOCs were noted in 82% of the wells (14 of 17 wells). Benzene concentrations increased one to two orders of magnitude between the 2006 and 2008 sampling events in monitoring wells 21MWS04, 21MWS09, and 23MWS12. Concentrations of SVOCs remained similar in 88% of the wells (15 of 17 wells) between 2006 and 2008. SVOC concentrations increased one order of magnitude between 2006 and 2008 in monitoring wells 21MWS04 and 21MWS08.

5.6.2 Intermediate Zone (25-35 ft bgs)

A total of 20 intermediate zone groundwater samples were collected during the 2006 RI and 15 intermediate zone groundwater samples were collected in the 2008 RI. In addition, nine intermediate zone samples were collected in 2004 by H&A during the SCS work. The highest concentrations of COI were detected in this zone compared to the water table and deeper aquifer zone. NAPL was also detected in several wells as summarized in Table 5-7. In summary, the typical compounds detected in the intermediate aquifer zone include moderate to high concentrations of BTEX, PAHs, and total cyanide with lesser detections and concentrations of other VOC and SVOC compounds (Table 5-8). Of the detections, the primary COI that were detected above AWQSGVs included BTEX, PAHs, and occasionally phenols and styrene. This finding is generally consistent with the shallow aquifer zone and with typical MGP sites. In addition, several intermediate zone wells contained chlorinated VOCs from a non-MGP source (Table 5-8).

Benzene iso-concentration contours were also prepared for the intermediate zone for the 2006 data (Figure 5-15A) and the 2008 data (Figure 5-15B). Groundwater contours for the intermediate aquifer zone are shown on Figure 4-11 for comparison purposes. Unlike the 2006 groundwater sampling event, groundwater samples were not collected from monitoring wells which contained indications of NAPL during the 2008 groundwater sampling event. Therefore, 2008 benzene concentrations are not available for developing benzene iso-concentration contours at seven monitoring well locations. The 2008 benzene iso-concentration contours illustrated on Figure 5-15B were generated using the 2006 benzene concentrations at the seven wells that contained NAPL indications in 2008 and are dashed to indicate approximate location. Benzene concentrations are not posted at wells with NAPL indication on Figure 5-15B since the wells were not sampled in 2008.

As shown on Figures 5-15A and 5-15B, benzene concentrations are highest in the former gas holder area in the western portion of the site, extending to the northeast in the direction of groundwater flow. These findings are consistent with visual observations and soil results.

Also outlined on Figures 5-15A and 5-15B are colored symbols designed to present a rapid visual summary of whether any VOC, SVOC, or total cyanide result was greater than AWQSGVs. Locations where free-phase NAPL was detected are also identified on the figure. The source of the free-phase NAPL can be traced to two primary former MGP source areas, including the former gas holder area in the western portion of the site and the former drip tanks/tar separator/oil tank area in the eastern portion of the site. In addition, chlorinated compounds, unrelated to former MGP operations, appear to be prevalent along the southern portion of OU1 and to the south of OU1. As shown, groundwater impacts in the intermediate zone extend to the northern, eastern, and southern limits of OU1.

Lastly, comparison of 2004 and 2006 data in intermediate wells, where available, revealed that equal or decreasing concentrations of VOCs were noted in 100% of the wells (8 of 8) and equal or decreasing concentrations of total PAHs were noted in 100% of the wells (8 of 8 wells) [Table 5-8]. Comparison of the 2006 and 2008 data in the intermediate wells, where available, indicate that equal or decreasing concentrations of VOCs were noted in 91% of the wells (10 out of 11 where trend data are available). The concentration of benzene increased from not detected in 2006 to 9.9 ug/L in 2008 in monitoring 21MWD11. Comparison of the 2006 and 2008 data revealed equal or decreasing SVOC concentrations in 100% of the wells (11 of 11 wells).

5.6.3 Deep Zone (50-70 ft bgs)

A total of 16 deep zone groundwater samples were collected during the 2006 RI and 9 deep zone groundwater samples were collected during the 2008 RI. No deep zone samples were collected in 2004 during SCS work. Moderate to high concentrations of COI were detected in the deep aquifer zone. NAPL was also detected in three wells during the 2006 RI and one well during the 2008 RI. Similar to the shallower aquifer zones, the typical compounds detected in the deep aquifer zone were BTEX, PAHs, and total cyanide with lesser detections and concentrations of other VOC and SVOC compounds (Table 5-8). Of the detections, the primary COI that were detected above AWQSGVs included BTEX, PAHs, and occasionally phenols, styrene,

and isopropylbenzene. This finding is also generally consistent with the shallower aquifer zones and with typical MGP sites. In addition, some deep zone wells contained chlorinated VOCs from a non-MGP source (Table 5-8).

Benzene iso-concentration contours were also prepared for the deep zone (Figures 5-16A and 5-16B). Groundwater contours for the deep aquifer zone are shown on Figure 4-11 for comparison purposes. As shown on Figures 5-16A and 5-16B, benzene concentrations are highest in the former gas holder area in the western portion of the site and the former drip tank area near the eastern site boundary. Visible impacts and soil analytical impacts generally do not extend deeper than 20 to 40 ft bgs in the western portion of the site. The deep groundwater impacts in the western portion of the site are likely due to downward groundwater gradients and shallower soil impacts. The deep groundwater impacts in the eastern portion of the site can also be attributed to overlying soil impacts, however, the soil impacts extend as deep as 47 ft bgs near Avenue C.

Figures 5-16A and 5-16B use colored symbols to designate areas in which VOC, SVOC, or total cyanide results exceeded AWQSGVs. Locations where free-phase NAPL was detected are also identified on the figure. The source of the free-phase NAPL in the deep zone is likely related to the former retorts and drip/oil tanks in the eastern portion of the site. As shown, groundwater impacts in the deep zone extend to the northeastern, eastern, and southeastern limits of OU1.

The vertical extent of groundwater impacts was not determined within OU1 at monitoring wells 21MWDD03, 21MWDD04, or 21MWDD08. Based on the distribution of subsurface soil impacts, the OU1 deep groundwater impacts in the western portion of the site are consistent with the magnitude and distribution of the downward vertical hydraulic gradient data and shallower source areas. The magnitude of the vertical hydraulic gradients between the intermediate and deep aquifer zones are significantly lower than the gradients between the shallow and intermediate zones, and occasionally are upward. These vertical groundwater gradients may help to reduce the concentrations of compounds with depth. In the eastern portion of the site, the deep impacts are less related to vertical gradients and more reflective of closer proximity to deeper soil impacts.

Lastly, comparison of 2006 and 2008 data in the deep wells, where available, revealed that equal or decreasing concentrations of VOCs were noted in 43% of the wells (3 of 7 where trend data area available). VOC concentrations increased in four of the deep wells (21MWDD03, 21MWDD08, EBMWDD14, and 23MWDD20) between 2006 and 2008. SVOC concentrations in the deep zone samples collected from 2006 and 2008 decreased or stayed the same in 86% of the wells (6 of 7 wells) and increased in one well (EBMWDD14).

5.6.4 Natural Attenuation Evaluation

Geochemical indicators of NA were measured and evaluated in groundwater during the May 2006 and August/September 2008 groundwater sampling event. Intrinsic biodegradation refers to the removal of environmental contaminants in soil and groundwater through the activity of naturally-occurring microbial populations without the imposition of active, engineered systems or processes. Intrinsic biodegradation is one of several NA mechanisms by which environmental contaminants may be attenuated in the environment. Other such mechanisms include sorption, dissolution, volatilization, and physical/chemical decomposition (i.e., hydrolysis, photolysis). In terms of mass reduction, intrinsic biodegradation is the primary NA mechanism that degrades dissolved organics in groundwater. The following subsections provide a discussion of these parameters and how they correlate with dissolved organic impacts at the Site.

When dissolved oxygen (DO) is present in groundwater at sites impacted by non-chlorinated organic contaminants, microorganisms will preferentially use oxygen as a terminal electron acceptor as they oxidize the organic compounds to carbon dioxide and water. Low levels of DO in groundwater reflect the oxygen consumed during the biodegradation of organic compounds. Low oxidation reduction potential (ORP) measurements indicate that there has been a depletion of oxygen due to increased microbial activities, resulting in reduced conditions. When oxygen is not present or has been consumed, microorganisms may use

available alternative electron acceptors (ferric iron, manganese, nitrate, sulfate, and carbon dioxide) to metabolize organic compounds. In the course of this process, electron acceptors are converted to their respective reduced forms (ferrous iron, dissolved manganese, sulfide, nitrogen, and methane), which are then released as byproducts of the metabolic processes. Consequently, measuring the concentrations of potential electron acceptors and their reduced by-products and comparing them to concentrations of dissolved organic constituents, often reveals a pattern indicative of biodegradation activity and provides information on which electron acceptors are "active" at a site.

A summary of the terminal electron acceptor (TEA) and metabolic byproduct data collected as part of the RI (both field and laboratory results) are presented on Table 5-9. Despite expected variability in the data, given the site location (urban setting and urban fill), the results indicate that DO, sulfate, and carbon dioxide (consumed through methanogenisis) are the primary TEAs used by microbes at the site to degrade dissolved phase COI. Alkalinity results are also indicative of reducing conditions within the dissolved plume and support the TEA and metabolic byproduct data distributions. This finding is based on generalized trends in the concentrations of these TEAs and byproducts compared to groundwater flow direction and dissolved COI concentrations within each aquifer zone. A brief discussion of the NA results for each aquifer zone is provided in the following sections.

5.6.4.1 Shallow Aquifer Zone (5-15 ft bgs)

A total of six shallow wells were sampled for TEAs and their byproducts to evaluate the presence of intrinsic biodegradation during both the May 2006 and August/September 2008 sampling events. These wells included upgradient wells 21MWS01 and 23MWS11, cross gradient well 20MWS16, and dissolved plume wells 21MWS03 and 23MWS12, and downgradient well LR02. A summary of the key TEA data is shown on Figure 5-17. As outlined on the figure, the distribution of dissolved oxygen (DO), nitrate, sulfate, dissolved iron, dissolved manganese carbon dioxide, and methane in upgradient and cross gradient wells compared to source area and dissolved plume wells shows a pattern indicative of anaerobic conditions within the plume. For example, average DO, nitrate, sulfate, carbon dioxide, and methane concentrations are lower in plume wells than in outlying areas, while microbial byproducts such as dissolved iron and manganese and methane are elevated in plume wells compared to outlying areas. Alkalinity is also increased within the plume wells, which further supports the presence of reducing conditions within the plume. Considered together, these findings suggest that biodegradation of organic COI are creating anaerobic (methanogenic) conditions within the impacted areas of the shallow aquifer zone.

5.6.4.2 Intermediate Aquifer Zone (25-35 ft bgs)

A total of up to eleven intermediate wells were sampled for TEAs and their byproducts to evaluate the presence of intrinsic biodegradation during both the May 2006 and August/September 2008 sampling events. These wells included upgradient well 21MWD01, cross gradient wells 23MWD11 and 20MWD16; dissolved plume wells 21MWD03, 21MWD07, 23MWD12, and EBMWD13 EBMWD15, and EBMWD18; and downgradient wells EBMWD24 and EBMWD25. A summary of the key TEA data is shown on Figure 5-18. Similar to the shallow zone, sulfate concentrations are generally depleted within the plume compared to outlying areas. There is also some evidence that average dissolved iron concentrations are elevated within the plume wells compared to downgradient wells. Methane concentrations are also elevated within the area of the dissolved phase plume compared to outlying wells. Combined, the overall pattern of data suggest that biodegradation of organic COI is creating anaerobic (methanogenic) conditions within the impacted areas. This finding is also consistent with chlorinated VOC data detected at select wells which shows that reductive dechlorination is occurring in the anaerobic environment of the intermediate aquifer.

5.6.4.3 Deep Aquifer Zone (50-70 ft bgs)

A total of seven deep wells were sampled for TEAs and their byproducts to evaluate the presence of intrinsic biodegradation. These wells were 21MWDD03, 23MWDD12, 23MWDD20, EBMWDD13, EBMWDD18, EBMWDD24, and EBMWDD25. Wells 23MWDD20 and EBMWDD13 are not impacted by the dissolved

phase plume. A summary of the key TEA data is shown on Figure 5-19. Methane concentrations from this zone were elevated at plume wells 21MWDD03 and 23MWDD12 compared to outlying wells. No other discernable patterns were noted in the remaining geochemical data. One reason may be that wells screened in the lower portion of the aquifer zone may contain mixed geochemical signatures due to varying well depths and vertical gradients within the aquifer. Despite the less conclusive data from this zone, available methane data suggest that biodegradation of organic COI is creating anaerobic (methanogenic) conditions within the impacted areas of this aquifer zone.

5.6.4.4 Summary

The groundwater monitoring data suggest that naturally occurring biodegradation processes, specifically sulfate reduction and/or methanogenesis, are contributing to some reduction in the concentration of organic constituents within the dissolved phase plume in all aquifer zones at the Site. Additional monitoring (both time series and at alternate well locations) will further develop this baseline dataset for long-term evaluation of NA as a potential supplemental groundwater remedy following active remedial measures at the site.

5.7 Soil Gas Analytical Results

An evaluation of the potential for subsurface vapor intrusion at the Peter Cooper Village Apartment property was conducted by RETEC in June 2003. Additional sampling was performed in August 2003, March 2004, and April 2004. The overall goal of the work was to ascertain whether air quality within the apartment buildings that lie within and adjacent to the boundary of the former MGP was being adversely affected by residual subsurface impacts from the former MGP operations. Based on the results of the sampling events, it was concluded that intrusion of vapors emanating from MGP-related material was not evident.

Although vapor intrusion from MGP-related material was not evident in the buildings at the site, additional soil gas samples were collected along the perimeter of the site during the RI to evaluate the extent and assess the potential migration of soil gas impacts. The OU1 soil gas sample locations are illustrated on Figure 3-1 and include three samples along East 23rd Street (23SG101, 23SG102, and 23SG103) and two samples along First Avenue (FASG101 and FASG102). Two ambient air samples were also collected and analyzed for comparison with the soil gas sample results. Table 5-10 illustrates the OU1 RI soil gas and ambient air sample results.

A tracer gas (helium) was used to determine the integrity of the seal around the soil gas probe during sampling. The samples contained helium at concentrations far below the 20% NYSDOH Guidance standard, indicating that excellent sample integrity was achieved.

The five soil gas samples had VOC concentrations that are within the range of the soil gas concentrations found during the soil gas sampling conducted previously at this site. Sample 23SG103 contained the highest VOC concentrations, with m/p xylenes measured at 1,400 µg/m3. These VOC concentrations are lower than the highest concentrations detected in the soil gas samples during the previous investigations at this site. For example, toluene was detected in the subslab soil gas sample from Building 2 at a concentration of 3,000 µg/m3.

Indan, which has been associated with known MGP-related vapors at other sites, was detected in three of these samples (FASG101, FASG103, and 23SG101). Similarly, indene was detected at FASG102.

Several compounds that are not related to the former MGP operations at the site, including tetrachloroethene and trichloroethene, were detected in one of the eight samples (FASG102) at concentrations above those typically found in urban soil gas based on RETEC's experience.

Results from this sampling event indicate that the soil gas concentrations at the perimeter of the site are lower than the highest soil gas concentrations found at the site during previous investigations. The results from the previous sampling events indicated that the indoor air quality, as measured on each sampling day, was not

likely to have been adversely impacted by subsurface intrusion of MGP-related vapors. Based on the results of these sampling events, intrusion of vapors emanating from any MGP-related material that may be present at the site was not evident. There does not appear to be any need for additional indoor air sampling or soil gas sampling for MGP constituents at this time; however Con Edison directed ENSR/AECOM to develop an Interim Remedial Measure work plan for Indoor Air Sampling at the site to continue to evaluate whether air quality within the buildings is adversely affected by residual impacts from historic operations. This work plan was submitted to NYSDEC for review on August 18, 2008.

6.0 Qualitative Human Health Exposure Assessment

This section integrates the data and information gathered during the RI and provides a qualitative assessment of the potential for exposure to MGP-related contaminants that are associated with the environmental conditions encountered at the site. This assessment was performed by identifying potential sources, migration routes for the constituents of concern (COC) discussed in Section 5, potential receptors, and potential exposure pathways at and in the vicinity of the site. The assessment follows guidelines specified in the *NYSDEC DER-10 Draft Technical Guidance for Site Investigation and Remediation* (NYSDEC, 2002).

6.1 Site Setting

A description of the site is presented in Section 2.1. OU1, is comprised of the lands bounded by the south side of East 23rd Street to the north, by the north side of East 20th Street to the south, by the west side of Avenue C to the east, and by the east side of First Avenue to the west. This area encompasses the historic boundary of the former East 21st Street MGP Works and the former MGP's gas production, purification, and storage facilities and structures.

The majority of these lands consist of the Peter Cooper Village which is a residential apartment building complex. The complex is comprised of apartment buildings that are surrounded by grass-covered and landscaped areas, paved recreational areas, playgrounds, and paved walkways and roadways. With one exception, all of the apartment buildings have full basements. The complex is fenced along its perimeter with several gateways for access from the surrounding streets. A commercial building, located at the corner of East 20th Street and First Avenue, is also present within the footprint of the former MGP process area. This building is accessed from the city streets, and is outside of the Peter Cooper Village complex. A discussion of potential pathways and receptors for this building area is included in the OU1 assessment.

6.2 Exposure Assessment

Exposure is the process by which humans come into contact with COC in their environment. Humans can be exposed to COC in a variety of environmental media including surface soil, subsurface soil, surface water, sediment, groundwater, and air. Exposure to these media can occur through several routes including ingestion, dermal contact, and inhalation. The exposure assessment identifies pathways by which humans are potentially exposed to COC. The assessment includes the following:

1) Development of a conceptual site model
2) Discussion of potential sources
3) Discussion of potential release mechanisms
4) Identification of potential human receptors and receptor-specific exposure pathways

Although the potential for exposure to MGP residuals for OU1 includes an evaluation of the potential for exposure to COCs via drinking impacted site groundwater, the City of New York obtains drinking water from sources located in upstate areas. Other than an evaluation of potential incidental ingestion of impacted groundwater during subsurface repair or construction activities, this pathway is not further discussed in this exposure assessment. The NYSDEC groundwater classification for the site area is GA (aesthetic-fresh waters). The management of groundwater impacted by site-related residuals will be addressed in the alternatives analysis report.

6.2.1 Conceptual Site Model

Figure 6-1 presents the conceptual model for the OU1 RI investigation area. Included on the figure is information regarding the known or potential sources of COC, the identified release mechanisms, and the

affected source media. The potential migration pathways, the exposure media, and the potential exposure routes are identified. Note that the exposure routes are considered potential unless there is an on-going or documented exposure.

Information regarding the potential receptors identified in each area of interest is presented on Table 6-1.

6.2.2 Potential Sources of Residuals

The sources of environmental impact for the site are residual materials associated with the former MGP structures and process areas. Exposure to surface soil could be a potential exposure pathway; however, the upper 5 ft of soil is believed to have been imported to the site following cessation of the MGP operations, and the concentrations of COC in the surface soil samples collected at the site are generally within the site background study values (H&A, 2004) with total PAH concentrations less than 500 ppm. Hydrocarbon materials, including NAPL, have been observed in subsurface soil of the site. Volatile and semi-volatile compounds in these materials have leached to groundwater and the dissolved groundwater plume extends from the site to the east with likely discharge to the East River. In the MGP-impacted areas, the lower molecular weight hydrocarbons could also volatilize and migrate into ambient and/or indoor air.

6.2.3 Potential Release Mechanisms

As shown on Table 6-1, there are several potential release mechanisms by which the constituents identified in the soil and groundwater may be transported to other media. Each mechanism is considered for the identified media and potential receptor group. Potential release mechanisms for soil include the following:

1) **Fugitive Dust.** Constituents in surface and subsurface soil could be a potential source for fugitive dust via physical disturbance.
2) **Volatilization.** Volatile constituents may potentially be transported from subsurface soil by volatilizing into soil-pore space and eventually emanate into ambient or indoor air.
3) **Leaching.** Constituents in surface or subsurface soil could potentially leach to groundwater.

There are three mechanisms by which constituents in groundwater can be transported to other media. These migration pathways include the following:

1) **Adsorption.** Constituents in groundwater may be sorbed onto subsurface soils.
2) **Volatilization to Ambient Air.** Volatile constituents in groundwater may potentially desorb into soil gas and be transported into ambient or indoor air.
3) **Extraction.** Constituents in groundwater may migrate to other media by extraction and use of impacted groundwater.

Each of these potential release mechanisms is evaluated for each potential receptor group on Table 6-1.

6.2.4 Potential Human Receptors and Exposure Pathways

This section discusses the identified potential receptors and the potential that the receptor may be exposed to Site-related residuals.

6.2.4.1 Operable Unit 1 Receptors

An exposure pathway analysis for receptors in OU1 is summarized in Table 6-1. The analysis includes an identification of each potential receptor group, a listing of each potential exposure media and potential pathway, and a rationale for inclusion or exclusion of each potential receptor in the consideration of remedial actions in the alternatives analysis report. Each of the OU1 receptor groups, and the potential exposure pathways, are identified on Table 6-1. Potential receptor groups and potential exposure pathways that may exist for OU1 are discussed below.

Apartment Building Resident

A resident of the apartment buildings could potentially be exposed to MGP-related COC by the inhalation of impacted indoor air. The results of the soil vapor intrusion (SVI) evaluation sampling performed in each of the buildings at the site indicate that the concentrations of COC in indoor air that could possibly be MGP-related were attributable to other sources within the buildings rather than MGP residuals. Therefore, the potential for a resident to be exposed to air impacted by MGP-related COC is considered to be low under standard conditions.

There are unique considerations when working inside buildings on this site during planned and emergency utility work that involve cutting or drilling into concrete slabs in the basements of site buildings. There is the possibility to temporarily come into contact with potentially MGP and Non-MGP impacted soil and groundwater under the sub-grade concrete slab in the basements of the buildings in OU1. The existing, intact basement floor structures in apartment buildings in OU1 have proven to be effective barriers to stop the migration of subsurface vapors into buildings. Utility or other work that involves cutting or drilling into concrete slabs in the basements of buildings within OU1 may provide a potential pathway for subsurface vapors into these buildings. The potential for a resident to be exposed to air impacted by MGP-related COC during sub-slab activities is considered to be low and any potential exposure would be limited in duration and preventive measures would be used during sub-slab activities. However, the inhalation of VOCs by apartment building residents pathway is considered to be potentially complete and will be addressed in the alternatives analysis report. Additionally, a draft Interim Site Management Plan (ENSR 2008c) has been developed for the site and includes guidance to engineers and contractors for implementing procedures during projects that involve drilling or cutting through the basement slabs to prevent and control the potential for subsurface vapors entering and impacting the indoor air environment of these buildings.

As indicated above, it is believed that surface soil and the upper 5 ft of subsurface soil have been imported to the site following cessation of the MGP operations. Sampling and analysis of surface soils has indicated that the concentrations of VOCs and SVOCs are low and similar to background concentrations. Surface soils at the site are grass-covered or landscaped and the potential for residents to come into contact with surface soils is low. For these reasons, the potential for a resident to be exposed to COCs in surface soil is considered to be low.

Commercial Building Occupant

The commercial building located at the corner of East 20th Street and First Avenue is present within the footprint of the former MGP process area. An occupant of the building could potentially be exposed to MGP-related COC by the inhalation of impacted indoor air. The results of the SVI evaluation sampling performed in this building indicated that the concentrations of COC in indoor air that could possibly be MGP-related are low. Therefore, the potential for an occupant to be exposed to air impacted with MGP-related COC is considered to be low under standard conditions. Similar to the apartment building resident, sub-slab construction within the building may provide a potential pathway for subsurface vapors into the building. Therefore, the inhalation of VOCs by commercial building occupants pathway is considered to be potentially complete and will be addressed in the alternatives analysis report and by the interim site management plan. Since this area is outside of the Peter Cooper Village complex, the potential for an occupant to be exposed to impacted subsurface soil is also low.

Maintenance Workers

A maintenance worker at the commercial building or Peter Cooper Village complex could be involved in indoor and/or outdoor maintenance or construction activities. Based on a reconnaissance of the site buildings, none of the buildings have sumps that contain impacted groundwater. Based on the results of the SVI sampling performed in each of the site buildings (including the commercial building), concentrations of COC in indoor air

are within the range considered to be typical of residential buildings at uncontaminated sites or are attributable to non-MGP sources. Therefore, the potential for a maintenance worker to be exposed to groundwater or air impacted with MGP-related COC is considered to be low under standard conditions. However, sub-slab construction within buildings may provide a potential pathway for subsurface vapors into the building. Therefore, the inhalation of VOCs by indoor maintenance workers pathway is considered to be potentially complete and will be addressed in the alternatives analysis report and by the interim site management plan.

Another potential exposure pathway for outdoor maintenance workers is via direct contact with impacted soils (i.e., incidental ingestion, dermal contact, and inhalation of volatiles or particulates) while performing light maintenance activities such as lawn care or landscaping. However, the concentrations of MGP-related COC in surface soils are low, and the soil is covered with grass or landscaping materials. The period of time that a worker would be in contact with subsurface soils is anticipated to be minimal. For these reasons, the potential for an outdoor maintenance worker to be exposed to MGP-related COC in surface and subsurface soils is considered to be low.

Subsurface Outdoor Maintenance or Utility Workers

Outdoor maintenance workers and subsurface utility workers could potentially be exposed to soil containing NAPL and other COC in subsurface soil and groundwater via incidental ingestion, dermal contact, and inhalation of volatiles or particulates if subsurface excavation work is needed to repair or replace underground features such as gas, water or sewer lines, or other utilities or structures at the site. NAPL-impacted subsurface soil was observed in the eastern and southeastern areas of the site in depths less than 20 ft bgs. Impacted groundwater is present in portions of the site in depths ranging from approximately 4 to 70 ft bgs. Only properly trained personnel should complete subsurface work at the site using methods specified in a site-specific HASP, until the area has been cleared of impacted materials.

Site Visitors and Pedestrians

Site visitors and pedestrians could potentially contact surface soil in the landscaped areas of the site, or inhale impacted indoor air while visiting site buildings or surrounding areas. As indicated above, the potential for exposure for each of these media is considered to be low under standard conditions. However, a site visitor could potentially be exposed to impacts to indoor air if sub-slab construction occurs in the building that they visit. Therefore, the inhalation of VOCs by site visitors pathway is considered to be potentially complete and will be addressed in the alternatives analysis report and by the site management plan.

6.3 Conclusions

For OU1, subsurface maintenance or utility workers who perform excavation and/or repair work on the site could possibly be exposed to NAPL, impacted soil, and/or groundwater. A Draft Site Management Plan (ENSR 2008c) (SMP) was developed and submitted to NYSDEC on August 15, 2008. The SMP specifically details institutional controls enacted on the Peter Cooper Village property to protect residents, maintenance, utility and landscape workers from soil impacts present below 5 feet. The plan outlines procedures for detecting and managing impacted air, soil and groundwater if they are encountered. While still draft, property owner personnel are currently operating under these procedures. Therefore, subsurface work should only be performed by properly trained personnel, using methods specified in the draft Site Management Plan (ENSR 2008c).

7.0 Summary and Conclusions

Based on site observations and analytical data, surface soils were imported to the site after the MGP operations ceased, possibly for final grading purposes during the construction of Peter Cooper Village. The upper fill also generally appears to represent imported fill material brought to the site after closure of the MGP operations. The concentrations of compounds detected in the SCS and RI surface soil and upper fill samples were generally consistent with site-background soil concentrations and are considered to be attributable to fill material quality, anthropogenic sources, or sources unrelated to former MGP operations.

No evidence of the oil water underdrain system was found during the investigation. Con Edison and its contractors have advanced 156 soil borings, 28 monitoring wells and 47 test pits (environmental and water valve) in OU1. The oil water underdrain system or anything resembling it has not been encountered. Discussions with property owner's maintenance personnel have also failed to turn up any evidence of the oil water underdrain system.

Lower fill/natural soil has been impacted by former MGP operations. MGP-related impacts are associated with former gas holder structures in the western portion of the site and are concentrated around former retort, drip tank, and oil tank structures in the eastern portion of the former MGP. The impacts in the lower fill/natural soil include lenses of staining, sheen, OLMI, and TLM that appear to migrate horizontally and vertically along pathways of greater permeability relative to surrounding material. Impacts in the western portion of the overburden materials generally did not extend to depths greater than approximately 20 to 40 ft bgs. Impacts in the eastern portion of the former MGP site were observed as deep as 47 ft bgs in overburden soils. The vertical extent of soil impacts has been defined at the site. The horizontal extent of impacts in the lower fill/natural soil extends to the eastern boundary of OU1 along Avenue C, to the northeastern OU1 boundary along the eastern portion of East 23rd Street, and to the southeastern OU1 boundary along the eastern portion of East 20th Street. The nature and extent of lower fill/natural soil impacts in adjacent off-site areas will be presented in the RI report of OU2.

NAPL was noted in some of the monitoring wells at the site. Due to the presence of NAPL in monitoring wells at the site, Con Edison submitted an Interim Remedial Measure work plan for NAPL Monitoring and Recovery (ENSR 2008a). This work plan was submitted to NYSDEC on August 18, 2008.

Groundwater in the shallow, intermediate, and deep unconfined aquifer zones beneath the site has been impacted by former MGP operations. Groundwater in the intermediate and deep zones has also been impacted by an unidentified source of chlorinated compounds. The horizontal extent of the shallow groundwater impacts has been defined by the existing monitoring well network. The general area of intermediate and deep groundwater impacts at the site has been determined. The lateral extent of groundwater impacts in the intermediate and deep aquifer zones reaches to the northeast, east, and southeast of OU1 has not been specifically defined based on comparison with groundwater standards. The vertical extent of groundwater impacts has also not been fully defined in OU1. However, unless the evaluation of remedial alternatives or the implementation of remedial actions requires that the groundwater in the area be more fully delineated, additional fieldwork for delineation is not proposed at this time. If additional groundwater delineation data are necessary for remedial alternative evaluation or remedial action implementation, they would be collected during a pre-design investigation.

Soil gas sampling performed during the RI indicates that the soil gas concentrations at the perimeter of the site are lower than the highest soil gas concentrations found at the site during previous investigations. The results from the previous sampling events indicated that the indoor air quality, as measured on each sampling day, was not likely to have been adversely impacted by subsurface intrusion of MGP-related vapors. Based on the results of these sampling events, intrusion of vapors emanating from MGP-related material that may be present at the site was not evident. There does not appear to be any need for additional indoor air sampling or

soil gas sampling for MGP constituents at this time; however, an Interim Remedial Measure work plan for Indoor Air Monitoring was developed and submitted to NYSDEC on August 18, 2008.

A qualitative human health exposure assessment was performed to identify the potential exposure pathways associated with impacted media for workers, residents, and visitors in OU1. For OU1, subsurface maintenance or utility workers who perform subsurface excavation work and/or repairs could possibly be exposed to impacted media and controls are recommended to limit potential exposures in these areas. Additionally, building residents, occupants, visitors, and workers could potentially be exposed to indoor air impacts if sub-slab construction activities are performed and controls are recommended to limit exposure during these activities. Therefore, subsurface work should only be performed by properly trained personnel, using methods specified in the draft interim SMP (ENSR 2008c). Remedial options for these areas will be evaluated in a alternatives analysis report. Exposure of residents and visitors to MGP residuals is considered to be unlikely.

Based on the combined findings of the SCS and RI, additional investigative work is not recommended for surface soil, upper fill soil, soil gas, lower fill/natural soil, or groundwater within OU1. Additional delineation of subsurface soil and groundwater MGP-related impacts is not necessary to begin remedial alternative development and evaluation for impacts identified within OU1.

8.0 Recommendations

Based on the combined findings of the SCS and RI, the following activities are recommended for the site:

- The general delineation of subsurface soil and groundwater impacts associated with the former MGP within OU1 has been completed to a sufficient degree to begin the evaluation of appropriate remedial technologies and the development and evaluation of remedial alternatives for the impacts identified at the site for inclusion in an alternatives evaluation report. It is recommended that the remedial action evaluation for OU1 be initiated. If additional delineation data are necessary for remedial alternative evaluation or remedial action implementation, it is recommended that they be collected during a pre-design investigation.

- Implement the Interim Remedial Measure work plan for NAPL Monitoring and Recovery

- Implement the Interim Remedial Measure work plan for Indoor Air Monitoring

- Perform subsurface work with properly trained personnel and using methods specified in the draft interim SMP

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Appendices on Compact Disk

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Appendix A	Historical Maps
Appendix B	Boring Logs for the RI and Previous Investigations
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Appendix E	Groundwater Sampling Sheets
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Appendix J	RI and SCS Analytical Results Summary Tables Data Usability Report Summaries

Tables

Table 3-1
Summary of OU1 Surface Soil Samples
Former East 21st Street Works, New York, NY

Sample ID	Depth Interval (ft bgs)	Date Collected	Sample Collection Method	Sample Rationale	Laboratory Analysis
21FA100(0.5)	0.5	1/19/2006	Stainless steel trowel	Delineate soil conditions west of 21FA002.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)

Notes:
ft bgs = feet below ground surface
VOCs + 10 TICs - TCL volatile organic compounds plus 10 tentatively identified compounds using USEPA Method 8260B
SVOCs +20 TICs - TCL semivolatile organic compounds plus 20 tentatively identified compounds using USEPA Method 8270C
TCL - Target Compound List
Cn - Cyanide, total and available using USEPA Methods 9012 A and MCAWW 1677, respectively.
TAL Metals - Target Analyte List Metals using USEPA Methods 6010 and 7471.

Table 3-2
Summary of OU1 Upper Fill Soil Samples
Former East 21st Street Works, New York, NY

Sample ID	Depth Interval (ft bgs)	Date Collected	Sample Collection Method	Sample Rationale	Laboratory Analysis
21FA101(0.5-4.5)	0.5-4.5	1/19/2006	Stainless steel trowel/ hand auger/posthole digger	Delineate soil conditions west of 21GH014.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
23MWD12(3)	3	1/20/2006	Stainless steel trowel/ hand auger/posthole digger	Characterize odor noted at 3 feet bgs during the preclearing activities for monitoring well 23MWD12.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
23RE101(0.2-5)	0.2-5.0	1/20/2006	Stainless steel trowel/ hand auger/posthole digger	Delineate soil conditions north and east of 21RE001.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)

Notes:
ft bgs = feet below ground surface
VOCs 10 TICs - TCL volatile organic compounds plus 10 tentatively identified compounds using USEPA Method 8260B
SVOCs 20 TICs - TCL semivolatile organic compounds plus 20 tentatively identified compounds using USEPA Method 8270C
TCL - Target Compound List
Cn - Cyanide, total and available using USEPA Methods 9012 A and MCAWW 1677, respectively.
TAL Metals - Target Analyte List Metals using USEPA Methods 6010 and 7471.

Table 3-3
OU1 Boring Summary and Lower Fill-Natural Soil Sampling Rationale
Former East 21st Street Works, New York, NY

Sample ID	Depth Interval (ft bgs)	Date Collected or Drilled	Sample Collection Method	Boring Location or Sample Rationale	Laboratory Analysis
2006 RI OU1 Borings and Wells					
21FA102B	NS	2/15/2006	Split Spoon	Provide qualitative evaluation of overburden quality along the western site boundary from boreholes to be cored into bedrock	Analytical samples not collected from this location
21FA103B	NS	2/8/2006	Split Spoon	Provide qualitative evaluation of overburden quality along the western site boundary from boreholes to be cored into bedrock	Analytical samples not collected from this location
21FA104B	NS	3/6/2006	Split Spoon	Provide qualitative evaluation of overburden quality along the western site boundary from boreholes to be cored into bedrock	Analytical samples not collected from this location
21FA105B	NS	1/31/2006	Split Spoon	Provide qualitative evaluation of overburden quality along the western site boundary from boreholes to be cored into bedrock	Analytical samples not collected from this location
21GH101B(19-21)	19-21	2/27/2006	Split spoon	Characterize ash-like material.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH101B(21-25)	21-25	2/27/2006	Split spoon	Evaluate quality of soil beneath ash-like material.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH101B(41-43)	41-43	3/7/2006	Split spoon	Determine vertical extent of OLM blebs encountered between 35 and 39 ft bgs in this boring.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH101B(106-108)	106-108	3/7/2006	Split spoon	Determine soil quality at the top of bedrock.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH102B(31-35)	31-35	2/24/2006	Split spoon	Evaluate soil quality of the silt and peat layer and to characterize the hydrogen sulfide.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH102B(45-47)	45-47	2/24/2006	Split spoon	Determine soil quality at the top of bedrock.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH103B(14-16)	14-16	2/17/2006	Split spoon	Characterize quality of soils with relatively high PID readings and strong hydrocarbon like odors.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH103B(56-58)	56-58	2/17/2006	Split spoon	Characterize quality of deeper soils with hydrocarbon like odor.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH103B(79-83)	79-83	2/27/2006	Split spoon	Characterize quality of deeper soils with hydrocarbon like odor.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH103B(82.5-83.5)	82.5-83.5	2/22/2006	Split spoon	Determine soil quality at the top of bedrock.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH104B(45-47)	45-47	3/8/2006	Split spoon	Collected soil sample of first spoon collected for this boring and to characterize soil with slight tar like odor.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21GH104B(51-53)	51-53	3/8/2006	Split spoon	Evaluate soil quality beneath soil containing tar like odors.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)

Table 3-3
OU1 Boring Summary and Lower Fill-Natural Soil Sampling Rationale
Former East 21st Street Works, New York, NY

Sample ID	Depth Interval (ft bgs)	Date Collected or Drilled	Sample Collection Method	Boring Location or Sample Rationale	Laboratory Analysis
21GH104B(125-127)	125-127	3/16/2006	Split spoon	Determine soil quality at the top of bedrock.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21MWDD03	NS	3/9/2006	Split Spoon	Evaluate overburden quality at deep well locations to be paired with shallower wells.	Analytical samples not collected from this location
21MWDD04	NS	3/21/2006	Split Spoon	Evaluate overburden quality at deep well locations to be paired with shallower wells.	Analytical samples not collected from this location
21MWDD08(37-39)	37-39	3/17/2006	Split spoon	Characterize the TLM and OLM blebs noted in this interval.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
21MWDD08(47-49)	47-49	3/17/2006	Split spoon	Determine the vertical extent of overlying impacts.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
23GH101(21-23)	21-23	2/22/2006	Split spoon	Evaluate soil conditions north of previously drilled GH-series borings	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
23GH101(33-37)	23-27	2/22/2006	Split spoon	Evaluate soil conditions north of previously drilled GH-series borings and to document soil quality at the total depth of the boring.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
23GH102(31-33)	31-33	2/22/2006	Split spoon	Evaluate soil conditions north of previously drilled GH and AB-series borings and to characterize soil quality at the depth interval where an OLM bleb was noted in this boring.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total only due to limited sample volume)
23GH102(33-35)	33-35	2/22/2006	Split spoon	Evaluate soil conditions north of previously drilled GH and AB-series borings and to evaluate the vertical extent of shallower OLM bleb.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
23GH102(37-39)	37-39	2/22/2006	Split spoon	Evaluate soil conditions north of previously drilled GH and AB-series borings and to evaluate the vertical extent of shallower OLM bleb.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total only due to limited sample volume)
23RE101(21-29)	21-29	2/17/2006	Split spoon	Evaluate soil conditions north and east of RE and AB-series borings and to characterize visible TLM/OLM impacts.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
23RE102(22.5-23)	22.5-23	1/24/2006	Split spoon	Evaluate soil conditions north and east of RE and AB-series borings and to characterize OLM impacts.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)
23RE102(24.7-25)	24.7-25	1/24/2006	Split spoon	Evaluate soil conditions north and east of RE and AB-series borings and to document soil quality at the total depth of the boring below OLM impacts.	VOCs + 10 TICs, SVOCs + 20 TICs, TAL Metals, Cn (total and available)

Table 3-3
OU1 Boring Summary and Lower Fill-Natural Soil Sampling Rationale
Former East 21st Street Works, New York, NY

Sample ID	Depth Interval (ft bgs)	Date Collected or Drilled	Sample Collection Method	Boring Location or Sample Rationale	Laboratory Analysis
2008 OU1 RI Borings					
21BR01B	NS	5/21/2008	Split Spoon	Evaluate overburden quality at locations where the presence/absence of impacts at the top of bedrock was being investigated.	Analytical samples not collected from this location
21BR02B	NS	4/22/2008	Split Spoon	Evaluate overburden quality at locations where the presence/absence of impacts at the top of bedrock was being investigated.	Analytical samples not collected from this location
21BR03B	NS	4/16/2008	Split Spoon	Evaluate overburden quality at locations where the presence/absence of impacts at the top of bedrock was being investigated.	Analytical samples not collected from this location
21BR04B	NS	4/8/2008	Split Spoon	Evaluate overburden quality at locations where the presence/absence of impacts at the top of bedrock was being investigated.	Analytical samples not collected from this location
21BR05B	NS	4/17/2008	Split Spoon	Evaluate overburden quality at locations where the presence/absence of impacts at the top of bedrock was being investigated.	Analytical samples not collected from this location
21BR06B/21BB01(12-14)	12-14	3/31/2008	Split spoon	Evaluate subsurface soil quality near the basketball court and investigate overburden quality for visible OLM/TLM between the former holders and First Avenue and to characterize sheen and naphthalene odors noted from 12.3 to 14ft bgs in this boring.	VOCs and SVOCs
21BR06B/21BB01(16-18)	16-18	3/31/2008	Split spoon	Evaluate subsurface soil quality near the basketball court and investigate overburden quality for visible OLM/TLM between the former holders and First Avenue and to evaluate vertical extent of overlying impacts.	VOCs and SVOCs
21BR06B/21BB01(56-58)	56-58	3/31/2008	Split spoon	Evaluate subsurface soil quality near the basketball court and investigate overburden quality for visible OLM/TLM between the former holders and First Avenue and to evaluate soil quality at the overburden bedrock interface.	VOCs and SVOCs
21BR07B/21BB02 (18-20)	18-20	4/3/2008	Split spoon	Investigate overburden quality in the basketball court area for visible OLM/TLM between the former holders and First Avenue and to characterize observed staining and naphthalene odor.	VOCs and SVOCs
21BR07/B21BB02 (46-49.4)	46-49.4	4/3/2008	Split spoon	Investigate overburden quality in the basketball court area for visible OLM/TLM between the former holders and First Avenue and to evaluate soil quality at the overburden bedrock interface.	VOCs and SVOCs
21BR08B/21PG01(25-26)	25-26	4/23/2008	Split spoon	Evaluate subsurface soil quality near the playground and characterize odor and stain observed at 25.2 ft bgs.	VOCs and SVOCs

Table 3-3
OU1 Boring Summary and Lower Fill-Natural Soil Sampling Rationale
Former East 21st Street Works, New York, NY

Sample ID	Depth Interval (ft bgs)	Date Collected or Drilled	Sample Collection Method	Boring Location or Sample Rationale	Laboratory Analysis
21BR08B/21PG01(30-32)	30-32	4/23/2008	Split spoon	Evaluate subsurface soil quality near the playground area.	VOCs and SVOCs
21BR08B/21PG01(42-44)	42-44	4/24/2008	Split spoon	Evaluate subsurface soil quality near the playground area.	VOCs and SVOCs
21PG02 (16-17.3)	16-17.3	4/17/2008	Split spoon	Evaluate subsurface soil quality near the playground area.	VOCs and SVOCs
21PG02 (17.3-20)	17.3-20	4/17/2008	Split spoon	Evaluate subsurface soil quality near the playground area.	VOCs and SVOCs
21PG02 (36-40)	36-40	4/17/2008	Split spoon	Evaluate subsurface soil quality near the playground area and the bottom of the boring.	VOCs and SVOCs
21TC01 (8-12)	8-12	4/7/2008	Split spoon	Evaluate subsurface soil quality near the tennis court area and to characterize staining and odor impacts.	VOCs and SVOCs
21TC01 (21-24)	21-24	4/7/2008	Split spoon	Evaluate subsurface soil quality near the tennis court area and evaluate the vertical extent of overlying impacts.	VOCs and SVOCs
21TC01 (38-40)	38-40	4/7/2008	Split spoon	Evaluate subsurface soil quality near the tennis court area and at the base of the boring.	VOCs and SVOCs
21TC02 (20-24)	20-24	4/8/2008	Split spoon	Evaluate subsurface soil quality near the bocce ball area and characterize OLM impacts.	VOCs and SVOCs
21TC02 (42-44)	42-44	4/8/2008	Split spoon	Evaluate subsurface soil quality near the bocce ball area, evaluate the vertical extent, and evaluate soil quality at the base of the boring.	VOCs and SVOCs
21GH030 (17.3-20)	17.3-20	5/20/2008	Split spoon	Evaluate fill/soil quality in former gas holder #2.	VOCs and SVOCs

Notes:
NS = Not Sampled

Table 3-4
Summary of RI Monitoring Well Installation and Groundwater Grab Samples
Former East 21st Street Works, New York, NY

Monitoring Well ID	Screen Depth (feet bgs)	Date Installed	Groundwater Sampling Rationale
OU1 Monitoring Well Information			
21MWDD03	50-60	3/9/2006	Evaluate deep overburden groundwater and possible NAPL beneath former source areas along the estimated center-line of deep overburden groundwater plume where no data previously existed. Evaluate deep groundwater quality to help guide subsequent boring installation and sampling and monitoring well construction.
21MWDD04	61-71	3/21/2006	Evaluate deep overburden groundwater and possible NAPL beneath former source areas near estimated center-line of intermediate overburden groundwater plume where no deep data previously existed.
21MWDD08	48-58	3/27/2006	Evaluate deep overburden groundwater beneath former source areas along the estimated center-line of deep overburden groundwater plume where no data previously existed.
23MWS11	3-13	2/22/2006	Evaluate northern extent of shallow groundwater impacts to the northeast of monitoring well 21MWS09.
23MWD11	25-35	2/22/2006	Evaluate northern extent of intermediate groundwater impacts to the northeast of monitoring well 21MWD09.
23MWS12	2-12	2/21/2006	Determine shallow groundwater conditions northeast and downgradient of the former MGP and to the northeast of monitoring well 21MWS07.
23MWD12	25-35	2/16/2006	Determine intermediate groundwater conditions northeast and downgradient of the former MGP and to the northeast of monitoring well 21MWD07.
23MWDD12	50-60	2/21/2006	Determine deep groundwater conditions downgradient of the former MGP and to the northeast of 21MWS07 and 21MWD07. Evaluate deep overburden groundwater quality along estimated center-line of intermediate overburden groundwater plume where no data previously existed. Evaluate deep groundwater quality to help guide subsequent boring installation and sampling and monitoring well construction.

Table 3-4
Summary of RI Monitoring Well Installation and Groundwater Grab Samples
Former East 21st Street Works, New York, NY

Monitoring Well ID	Screen Depth (feet bgs)	Date Installed	Groundwater Sampling Rationale
OU2 Monitoring Well Information			
EBMWD13	25-35	4/6/2006	Determine groundwater conditions downgradient of the former MGP and to the northeast of monitoring wells 21MWS04, 21MWD04, 21MWS07, 21MWD07, 21MWS10, and 21MWD10. Evaluate potential for site impacts on the East River.
EBMWDD13	59-69	4/7/2006	Determine deep overburden groundwater conditions downgradient of the former MGP and along the estimated center-line of the deep overburden groundwater plume where no data previously existed. Evaluate potential for site impacts on the East River.
EBMWD14	25-35	4/3/2006	Determine groundwater conditions downgradient of the former MGP and to the northeast of monitoring wells 21MWS04 and 21MWD04. Evaluate potential for site impacts on the East River.
EBMWDD14	60-70	3/30/2005	Determine groundwater conditions downgradient of the former MGP and to the northeast of monitoring wells 21MWS04, 21MWD04, and 21MWDD04. Evaluate deep overburden groundwater quality east of where NAPL is present at 21MWD04 and 21MWDD04. Evaluate potential for site impacts on the East River.
EBMWD15	25-35	4/4/2006	Determine groundwater conditions downgradient of the former MGP and to the east of monitoring wells 21MWS04, 21MWD04, 21MWS10, and 21MWD10. Evaluate potential for site impacts on the East River.
EBMWDD15	59-69	4/4/2006	Determine groundwater conditions downgradient of the former MGP and to the southeast of monitoring wells 21MWS04 and 21MWD04. Evaluate deep overburden groundwater quality east of where NAPL is present at 21MWD04 and 21MWDD04 where no data previously existed. Evaluate potential for site impacts on the East River.
20MWS16	5-15	3/7/2006	Determine shallow groundwater conditions south of former MGP and monitoring well 21MWS06.
20MWD16	25-35	3/7/2006	Determine intermediate groundwater conditions south of former MGP and monitoring well 21MWD06.
20MWS17	5-15	3/23/2006	Determine shallow groundwater conditions south of former MGP and monitoring well 21MWS08.

Table 3-4
Summary of RI Monitoring Well Installation and Groundwater Grab Samples
Former East 21st Street Works, New York, NY

Monitoring Well ID	Screen Depth (feet bgs)	Date Installed	Groundwater Sampling Rationale
20MWD17	25-35	3/23/2006	Determine intermediate groundwater conditions south of former MGP and monitoring well 21MWD08.
EBMWD18	**25-35**	4/6/2006	Determine groundwater conditions downgradient of the former MGP and to the east of monitoring wells 21MWS05 and 21MWD05. Evaluate potential for site impacts on the East River.
EBMWDD18	**50-60**	3/29/2006	Determine deep overburden groundwater conditions downgradient of the former MGP and to the east of monitoring wells 21MWS05 and 21MWD05 where no data previously existed. Evaluate potential for site impacts on the East River. Evaluate deep groundwater quality to help guide subsequent boring installation and sampling and monitoring well construction.
23MWDD20	50-60	5/3/2006	Determine groundwater conditions north-northwest of deeper groundwater impacts in 21MWDD03 and 23MWDD12.
LR17	3-13	5/25/2006	Determine type of oil
AC101(13-15)	NA	4/27/2006	Determine impacts to shallow groundwater north of 23MWS12.
AC101(28-30)	NA	4/27/2006	Determine impacts to intermediate groundwater north of 23MWD12.
AC101(58-60)	NA	4/28/2006	Determine impacts to deep groundwater north of 23MWDD12.
AC101(60-64)	NA	5/9/2006	Determine vertical extent of groundwater impacts north-northeast of the site.
AC101(66-70)	NA	5/5/2006	Determine vertical extent of groundwater impacts north-northeast of the site.
23N101(15-19)	NA	5/3/2006	Determine shallow groundwater impacts north-northeast of 23MW11S and north-northwest of 23GH102.
23N101(32-35)	NA	5/5/2006	Determine intermediate groundwater impacts north-northeast of 23MWD11 and north-northwest of 23GH102.
23N101(56-60)	NA	5/5/2006	Determine vertical extent of groundwater impacts to the north of the western portion of the site.

Table 3-4
Summary of RI Monitoring Well Installation and Groundwater Grab Samples
Former East 21st Street Works, New York, NY

Monitoring Well ID	Screen Depth (feet bgs)	Date Installed	Groundwater Sampling Rationale
23MWD22	26-36	8/7/2008	Evaluate extent of groundwater impacts to the northeast
20MWD23	25-35	5/22/2008	Evaluate southern extent of intermediate groundwater impacts
EBMWD24	25-35	5/22/2008	Evaluate southern extent of intermediate groundwater impacts
EBMWDD24	60-70	6/27/2008	Evaluate southern and vertical extent of deep groundwater impacts
EBMWD25	26-36	9/9/2008	Evaluate southern extent of intermediate groundwater impacts
EBMWDD25	63-73	9/5/2008	Evaluate southern and vertical extent of deep groundwater impacts

Notes:
ft bgs = feet below ground surface
S - Shallow water table wells
D - Intermediate overburden wells
DD - Deep overburden wells
NA - Not applicable
VOCs - TCL volatile organic compounds using USEPA Method 8260B
SVOCs - TCL semivolatile organic compounds using USEPA Method 8270C
Cn - Cyanide, total and available using USEPA Methods 9012 A and MCAWW 1677, respecti
TAL Metals - Target Analyte List Metals using USEPA Methods 6010 and 7471.
MNA Parameters Include:
nitrate, sulfate, sulfide, total iron and manganese, dissolved iron and manganese, alkalinity, dissolved gasses (nitogen, oxygen, methane, carbon dioxide)

Table 3-5
Summary of RI Groundwater Sampling
Former East 21st Street Works, New York, NY

Monitoring Well ID	Screen Depth (feet bgs)	Date Installed	Groundwater Sampling Rationale	Groundwater Sampling	
				Method (date)	Laboratory Analysis
OU1 Monitoring Well Information					
21MWS01	5-15	3/19/04	Upgradient shallow groundwater quality	Low flow (5/23/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (08/28/2008)	VOCs, SVOCs, MNA
21MWD01	23-23	3/22/04	Upgradient intermediate groundwater quality	Low flow (5/23/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (08/28/2008)	VOCs, SVOCs, MNA
21MWS02	5-15	3/11/04	Characterize shallow groundwater impacts	Low flow (5/16/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (08/29/2008)	VOCs, SVOCs
21MWD02	25-35	3/11/04	Characterize intermediate groundwater impacts	Low flow (5/16/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (08/29/2008)	VOCs, SVOCs
21MWS03	5-15	3/12/04	Characterize shallow groundwater impacts along presumed plume centerline	Low flow (5/23/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/02/2008)	VOCs, SVOCs, MNA
21MWD03	25-35	3/12/04	Characterize intermediate groundwater impacts where NAPL is present along presumed plume centerline	Low flow (5/23/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
21MWDD03	50-60	3/9/06	Evaluate deep groundwater quality to help guide subsequent boring installation and sampling and monitoring well construction.	Grab (4/12/2006)	VOCs
			Evaluate vertical extent of groundwater impacts along presumed plume centerline	Low flow (5/23/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/02/2008)	VOCs, SVOCs, MNA
21MWS04	3-13	3/8/04	Characterize shallow groundwater impacts along presumed plume centerline	Low flow (5/25/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (09/02/2008)	VOCs, SVOCs
21MWD04	25-35	3/8/04	Characterize intermediate groundwater impacts where NAPL is present along presumed plume centerline	Low flow (5/25/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
21MWDD04	61-71	3/21/06	Evaluate vertical extent of groundwater impacts along presumed plume centerline	Low flow (5/25/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
21MWS05	3-13	3/12/04	Evaluate downgradient shallow groundwater quality	Low flow (5/17/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (09/04/2008)	VOCs, SVOCs
21MWD05	26-36	3/11/04	Evaluate downgradient intermediate groundwater quality	Low flow (5/17/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (09/04/2008)	VOCs, SVOCs
21MWS06	4-14	3/10/04	Characterize shallow groundwater impacts	Low flow (5/17/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (08/29/2008)	VOCs, SVOCs
21MWD06	25-35	3/10/04	Characterize intermediate groundwater impacts	Low flow (5/17/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (08/29/2008)	VOCs, SVOCs
21MWS07	4-14	3/9/04	Characterize shallow groundwater impacts	Low flow (5/18/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)

Table 3-5
Summary of RI Groundwater Sampling
Former East 21st Street Works, New York, NY

Monitoring Well ID	Screen Depth (feet bgs)	Date Installed	Groundwater Sampling Rationale	Groundwater Sampling	
				Method (date)	Laboratory Analysis
~~21MWS07~~	~~4-14~~	~~3/9/04~~	~~Characterize shallow groundwater impacts~~	Low flow (09/11/2008)	VOCs, SVOCs
21MWD07	25-35	3/9/04	Characterize intermediate groundwater impacts	Low flow (5/23/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
21MWS08	6-16	3/12/04	Characterize shallow groundwater impacts	Low flow (5/24/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (08/28/2008)	VOCs, SVOCs
21MWD08	25-35	3/12/04	Characterize intermediate groundwater impacts	Low flow (5/24/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (08/28/2008)	VOCs, SVOCs
21MWDD08	48-58	3/27/06	Evaluate vertical extent of groundwater impacts along presumed plume centerline	Low flow (5/24/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (09/02/2008)	VOCs, SVOCs
21MWS09	5-15	2/3/04	Characterize shallow groundwater impacts	Low flow (5/17/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (08/29/2008)	VOCs, SVOCs
21MWD09	25-35	2/3/04	Characterize intermediate groundwater impacts	Low flow (5/17/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (08/28/2008)	VOCs, SVOCs
21MWS10	6-16	3/5/04	Characterize shallow groundwater impacts	Low flow (5/18/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (09/02/2008)	VOCs, SVOCs
21MWD10	25-35	3/5/04	Characterize intermediate groundwater impacts	Low flow (5/19/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
23MWS11	3-13	2/22/06	Evaluate northern extent of groundwater impacts to the northeast of well MW-09 pair.	Low flow (5/25/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/08/2008)	VOCs, SVOCs, MNA
23MWD11	25-35	2/22/06	Evaluate northern extent of intermediate groundwater impacts	Low flow (5/25/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/08/2008)	VOCs, SVOCs, MNA
23MWS12	2-12	2/21/06	Evaluate northeastern extent and characterize shallow groundwater impacts	Low flow (5/22/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/08/2008)	VOCs, SVOCs, MNA
23MWD12	25-35	2/16/06	Evaluate northeastern extent and characterize intermediate groundwater impacts	Low flow (5/22/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
23MWDD12	50-60	2/21/06	Evaluate deep groundwater quality to help guide subsequent boring installation and sampling and monitoring well construction.	Grab (4/12/2006)	VOCs
			Evaluate northeastern extent and characterize deep groundwater impacts	Low flow (5/22/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
			Evaluate vertical extent of groundwater impacts along presumed plume centerline	Low flow (09/08/2008)	VOCs, SVOCs, MNA

Table 3-5
Summary of RI Groundwater Sampling
Former East 21st Street Works, New York, NY

Monitoring Well ID	Screen Depth (feet bgs)	Date Installed	Groundwater Sampling Rationale	Groundwater Sampling	
				Method (date)	Laboratory Analysis
OU2 Monitoring Well Information					
EBMWD13	25-35	4/6/06	Evaluate downgradient intermediate groundwater quality	Low flow (5/22/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
EBMWDD13	59-69	4/7/06	Evaluate vertical extent of groundwater impacts	Low flow (5/22/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/03/2008)	VOCs, SVOCs, MNA
EBMWD14	25-35	4/3/06	Evaluate downgradient intermediate groundwater quality	Low flow (5/19/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
EBMWDD14	60-70	3/31/06	Evaluate downgradient vertical extent of impacts	Low flow (5/19/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
			Evaluate vertical extent of groundwater impacts	Low flow (08/27/2008)	VOCs, SVOCs
EBMWD15	25-35	4/4/06	Evaluate downgradient intermediate groundwater quality	Low flow (5/24/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (09/03/2008)	VOCs, SVOCs, MNA
EBMWDD15	59-69	4/4/06	Evaluate downgradient vertical extent of impacts	Low flow (5/24/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
20MWS16	5-15	3/7/06	Evaluate southern extent of shallow groundwater impacts	Low flow (5/24/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/09/2008)	VOCs, SVOCs, MNA
20MWD16	25-35	3/7/06	Evaluate southern extent of intermediate groundwater impacts	Low flow (5/24/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/09/2008)	VOCs, SVOCs, MNA
20MWS17	5-15	3/23/06	Evaluate southern extent of shallow groundwater impacts	Low flow (5/18/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (09/05/2008)	VOCs, SVOCs
20MWD17	25-35	3/23/06	Evaluate southern extent of intermediate groundwater impacts	Low flow (5/18/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (09/05/2008)	VOCs, SVOCs
EBMWD18	**25-35**	4/6/06	Evaluate downgradient intermediate groundwater quality	Low flow (5/18/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
EBMWDD18	50-60	3/29/06	Evaluate deep groundwater quality to help guide subsequent boring installation and sampling and monitoring well construction.	Grab (4/12/2006)	VOCs
			Evaluate downgradient vertical extent of impacts	Low flow (5/18/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
			Evaluate vertical extent of groundwater impacts	Low flow (09/04/2008)	VOCs, SVOCs, MNA
23MWDD20	50-60	5/3/06	Evaluate northern extent of deep groundwater impacts	Low flow (5/25/2006)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/08/2008)	VOCs, SVOCs, MNA
23MWD22	26-36	8/7/08	Characterize shallow groundwater impacts	Low flow (09/26/2008)	VOCs, SVOCs
20MWD23	25-35	5/22/08	Evaluate southern extent and characterize intermediate groundwater impacts	Low flow (09/29/2008)	VOCs, SVOCs
EBMWD24	25-35	6/27/08	Evaluate southern extent and characterize intermediate groundwater impacts	Low flow (09/25/2008)	VOCs, SVOCs, MNA (9/26/08)
EBMWDD24	60-70	6/27/08	Evaluate vertical extent of groundwater impacts	Low flow (09/25/2008)	VOCs, SVOCs, MNA (9/26/08)
EBMWD25	26-36	9/9/08	Evaluate southern extent and characterize intermediate groundwater impacts	Low flow (09/25/2008)	VOCs, SVOCs, MNA (9/26/08)

Table 3-5
Summary of RI Groundwater Sampling
Former East 21st Street Works, New York, NY

Monitoring Well ID	Screen Depth (feet bgs)	Date Installed	Groundwater Sampling Rationale	Groundwater Sampling	
				Method (date)	Laboratory Analysis
EBMWDD25	63-73	9/5/08	Evaluate vertical extent of groundwater impacts	Low flow (09/25/2008)	VOCs, SVOCs, MNA (9/26/08)
LR02	4-14	3/16/05	Evaluate downgradient shallow groundwater quality	Low flow (5/22/06)	VOCs, SVOCs, MNA, TAL Metals, Cn (total and available)
				Low flow (09/04/2008)	VOCs, SVOCs
LR08	4-14	3/17/05	Evaluate downgradient shallow groundwater quality	Low flow (5/19/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (08/27/2008)	VOCs, SVOCs
LR11	3-13	3/22/05	Evaluate downgradient shallow groundwater quality	Low flow (5/24/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
LR17	3-13	3/22/05	Evaluate downgradient shallow groundwater quality	Low flow (5/19/2006)	VOCs, SVOCs, TAL Metals, Cn (total and available)
				Low flow (09/05/2008)	VOCs, SVOCs
AC101(13-15)	NA	4/27/06	Determine impacts to shallow groundwater north of 23MWS12.	Discrete point grab	VOCs
AC101(28-30)	NA	4/27/06	Determine impacts to intermediate groundwater north of 23MWD12.	Discrete point grab	VOCs
AC101(58-60)	NA	4/28/06	Determine impacts to deep groundwater north of 23MWDD12.	Discrete point grab	VOCs
AC101(60-64)	NA	5/9/06	Determine vertical extent of groundwater impacts north-northeast of the site.	Discrete point grab	VOCs
AC101(66-70)	NA	5/5/06	Determine vertical extent of groundwater impacts north-northeast of the site.	Discrete point grab	VOCs
23N101(15-19)	NA	5/3/00	Determine shallow groundwater impacts north-northeast of 23MW11S and north-northwest of 23GH102.	Discrete point grab	VOCs
23N101(32-35)	NA	5/5/06	Determine intermediate groundwater impacts north-northeast of 23MWD11 and north-northwest of 23GH102.	Discrete point grab	VOCs
23N101(56-60)	NA	5/5/06	Determine vertical extent of groundwater impacts to the north of the western portion of the site.	Discrete point grab	VOCs

Notes:
All groundwater samples to be collected using low-flow sampling protocols
bgs - below ground surface
S - Shallow water table wells
D - Intermediate overburden wells
DD - Deep overburden wells
NA - Not applicable
VOCs - TCL volatile organic compounds using USEPA Method 8260B
SVOCs - TCL semivolatile organic compounds using USEPA Method 8270C
Cn - Cyanide, total and available using USEPA Methods 9012 A and MCAWW 1677, respectively.
TAL Metals - Target Analyte List Metals using USEPA Methods 6010 and 7471.
MNA Parameters Include:
nitrate, sulfate, sulfide, total iron and manganese, dissolved iron and manganese, alkalinity, dissolved gasses (nitogen, oxygen, methane, carbon dioxide)

Table 3-6
Summary of OU1 Soil Gas Samples
Former East 21st Street Works, New York, NY

Sample ID	Depth Interval (ft bgs)	Date Collected	Sample Rationale	Laboratory Analysis
23Amb103	Not applicable	2/15/2006	Ambient Air	VOCs
23SG101	5 - 5.5	2/21/2006	At the corner of First Avenue and East 23rd Street to evaluate soil gas quality northeast of the former MGP site.	VOCs
23SG102	5 - 5.5	2/22/2006	Coincident with proposed boring 23GH102 to evaluate soil gas quality north of the former MGP site. Due to shallow perched water at location 23GH102, soil gas sample 23SG102 was moved west to location 23GH101.	VOCs
23SG103	4 - 4.5	2/16/2006	Coincident with monitoring well triplet 23MWS/D/DD12 to evaluate soil gas quality northeast of the former MGP site.	VOCs
FASG101	5.5 - 6	1/24/2006	Coincident with boring 21FA102B to evaluate soil gas quality west of the former MGP site.	VOCs
FASG102	4.5 - 5.5	1/24/2006	Coincident with boring 21FA104B to evaluate soil gas quality west of the former MGP site.	VOCs
FASGAmb	Not applicable	1/24/2006	Ambient Air	VOCs

Notes:

ft bgs = feet below ground surface

VOCs - volatile organic compounds and naphthalene, 2methylpentane, isopentane, 2,3 dimethylpentane, isooctane, indene, indan, thiophane, and helium using USEPA Method TO-15.

Table 3-7
Summary of Investigation Derived Waste
Former East 21st Street Works, New York, NY

Date	Manifest No.	No. of Drums	Liquid (007)	C +D (008)	Soil (009)
1/26/2006	115780	4	0	3	1
1/27/2006	115790	4	2	1	1
1/31/2006	115916	2	1	1	0
2/3/2006	115925	3	1	1	1
2/10/2006	116201	8	3	3	2
2/15/2006	116272	6	1	3	2
2/17/2006	116277	9	2	4	3
2/21/2006	116317	12	2	6	4
2/23/2006	116334	11	0	7	4
2/24/2006	116413	10	1	5	4
2/28/2006	116482	9	0	4	5
3/3/2006	116520	17	4	7	6
*3/7/2006	116585	18	4	5	9
3/10/2006	116758	13	1	4	8
3/15/2006	116952	8	2	4	2
3/17/2006	117009	10	2	3	5
3/23/2006	117076	15	9	4	2
3/28/2006	117152	25	15	6	4
3/31/2006	117221	22	10	7	5
4/5/2006	117288	15	3	7	5
4/10/2006	117369	25	11	6	8
4/13/2006	117522	16	7	7	2
4/26/2006	117873	8	6	2	0
5/4/2006	118069	9	0	7	2
5/15/2006	118366	9	3	5	1
5/26/2006	118672	12	4	8	0
6/5/2006	118843	2	1	1	0
5/12/2008	BL139586	74	39	13	22
5/14/2008	BL139679	60	46	4	10
5/28/2008	BL140059	27	13	10	4

Notes:

*According to Clean Earth, there was 6 C+D and 8 Soil; according to RETEC's tracking and sampling there were 5 C+D and 9 Soil

C + D - Construction Debris

The numbers in parentheses next to the waste type correspond to the codes used in section 11 and J on the manifests.

Table 4-1
Monitoring Well Construction Details and Groundwater Elevation Summary
Former East 21st Street Works, New York, NY

Well ID	Date Installed	Total Depth (ft bgs)	Screened Interval (ft bgs)	M.P. Elevation (ft NAVD88)	19-Apr-04		4-May-06		12-Jun-06		24-Sep-08	
					DTW (ft bgs)	Groundwater Elevation (ft NAVD88)	DTW (ft bgs)	Groundwater Elevation (ft NAVD88)	DTW (ft bgs)	Groundwater Elevation (ft NAVD88)	DTW (ft bgs)	Groundwater Elevation (ft NAVD88)
Shallow Unconfined Aquifer Zone												
21MWS01	3/19/04	16.0	5-15	13.89	8.36	5.53	8.25	5.64	8.03	5.86	9.39	4.50
21MWS02	3/11/04	17.0	5-15	10.96	6.76	4.20	6.74	4.22	6.55	4.41	7.21	3.75
21MWS03	3/12/04	17.0	5-15	10.81	7.27	3.54	7.31	3.50	6.83	3.98	8.66	2.15
21MWS04	3/8/04	15.1	3-13	7.33	5.69	1.64	5.77	1.56	5.51	1.82	5.44	1.89
21MWS05	3/12/04	13.5	3-13	6.38	6.18	0.20	6.20	0.18	6.01	0.37	6.12	0.26
21MWS06	3/10/04	16.1	4-14	9.34	5.56	3.78	5.45	3.89	5.17	4.17	6.8	2.54
21MWS07	3/9/04	16.0	4-14	10.25	8.13	2.12	8.00	2.25	7.77	2.48	8.17	2.08
21MWS08	3/12/04	16.0	6-16	13.06	9.90	3.16	9.50	3.56	9.22	3.84	8.04	5.02
21MWS09	2/3/04	17.1	5-15	12.78	9.60	3.18	9.30	3.48	9.04	3.74	9.66	3.12
21MWS10	3/5/04	18.1	6-16	9.95	8.13	1.82	8.18	1.77	7.67	2.28	6.18	3.77
23MWS11	2/22/06	15.0	3-13	9.66	NI	NA	5.65	4.01	5.29	4.37	5	4.66
23MWS12	2/21/06	15.0	2-12	5.94	NI	NA	5.30	0.64	5.12	0.82	5.3	0.64
20MWS16	3/7/06	17.0	5-15	8.99	NI	NA	3.95	5.04	3.95	5.04	4.95	4.04
20MWS17	3/23/06	14.6	5-15	11.68	NI	NA	7.24	4.44	6.75	4.93	NM	NA
LR02	3/16/05	13.9	4-14	6.95	NM	NA	NM	NA	6.90	0.05	6.46	0.49
LR08	3/17/05	15.0	4-14	8.56	NM	NA	NM	NA	8.06	0.50	7.85	0.71
LR11	3/22/05	15.0	4-14	5.96	NM	NA	NM	NA	NM	NA	NM	NA
LR17	3/22/05	14.8	4-14	8.23	NM	NA	NM	NA	7.88	0.35	7.96	0.27
Intermediate Unconfined Aquifer Zone												
21MWD01	3/22/04	33.0	23-33	13.77	8.38	5.39	10.45	3.32	10.40	3.37	10.56	3.21
21MWD02	3/11/04	37.0	25-35	10.45	8.94	1.51	8.32	2.13	8.54	1.91	8.42	2.03
21MWD03	3/12/04	37.1	25-35	10.52	9.99	0.53	8.80	1.72	9.10	1.42	9.99	0.53
21MWD04	3/8/04	37.1	25-35	7.38	6.78	0.60	6.42	0.96	6.24	1.14	6.28	1.10
21MWD05	3/11/04	38.0	26-36	6.77	5.78	0.99	5.75	1.02	5.75	1.02	5.86	0.91
21MWD06	3/10/04	37.1	25-35	9.01	7.98	1.03	7.45	1.56	7.71	1.30	7.56	1.45
21MWD07	3/9/04	37.1	25-35	10.26	9.45	0.81	8.85	1.41	8.75	1.51	8.71	1.55
21MWD08	3/12/04	37.0	25-35	12.75	11.19	1.56	10.50	2.25	10.55	2.20	10.54	2.21
21MWD09	2/3/04	37.1	25-35	12.73	12.60	0.13	10.89	1.84	11.17	1.56	11.07	1.66
21MWD10	3/5/04	37.1	25-35	9.98	8.87	1.11	8.84	1.14	8.47	1.51	8.52	1.46
23MWD11	2/22/06	37.0	25-35	9.66	NI	NA	8.45	1.21	8.55	1.11	8.44	1.22
23MWD12	2/16/06	37.0	25-35	6.36	NI	NA	5.14	1.22	5.68	0.68	5.66	0.70
EBMWD13	4/6/06	37.0	25-35	6.62	NI	NA	6.22	0.40	6.65	-0.03	6.55	0.07
EBMWD14	4/3/06	37.0	25-35	6.25	NI	NA	5.56	0.69	5.65	0.60	6.54	-0.29
EBMWD15	4/4/06	37.0	25-35	8.19	NI	NA	7.10	1.09	7.31	0.88	7.58	0.61
20MWD16	3/7/06	37.0	25-35	8.85	NI	NA	7.15	1.70	6.97	1.88	6.89	1.96
20MWD17	3/23/06	37.0	25-35	11.72	NI	NA	9.02	2.70	8.82	2.90	7.4	4.32
EBMWD18	4/6/06	37.0	25-35	7.30	NI	NA	6.44	0.86	6.50	0.8	6.25	1.05
23MWD22	8/7/08	38.0	26-36	7.16	NI	NA	NI	NA	NI	NA	6.55	0.61
20MWD23	5/22/08	37.0	25-35	6.86	NI	NA	NI	NA	NI	NA	5.22	1.64
EBMWD24	5/22/08	37.0	25-35	6.93	NI	NA	NI	NA	NI	NA	5.03	1.90
EBMWD25	9/9/08	38.0	26-36	6.52	NI	NA	NI	NA	NI	NA	6.31	0.21
Deep Unconfined Aquifer Zone												
21MWDD03	3/9/06	62.0	50-60	10.59	NI	NA	8.90	1.69	9.00	1.59	8.82	1.77
21MWDD04	3/21/06	73.1	61-71	7.72	NI	NA	6.80	0.92	6.71	1.01	6.11	1.61
21MWDD08	3/27/06	59.0	48-58	12.91	NI	NA	9.80	3.11	9.72	3.19	9.83	3.08
23MWDD12	2/21/06	62.4	50-60	6.46	NI	NA	5.71	0.75	5.96	0.50	5.48	0.98
EBMWDD13	4/7/06	71.2	59-69	6.21	NI	NA	5.95	0.26	6.18	0.03	6.24	-0.03
EBMWDD14	3/30/06	72.0	60-70	6.45	NI	NA	5.46	0.99	5.64	0.81	7.21	-0.76
EBMWDD15	4/4/06	71.0	59-69	7.79	NI	NA	7.30	0.49	8.56	-0.77	7.72	0.07
EBMWDD18	3/29/06	71.0	59-69	7.58	NI	NA	6.05	1.53	5.95	1.63	6.79	0.79
23MWDD20	5/3/06	63.1	50-60	5.90	NI	NA	4.57	1.33	4.71	1.19	4.66	1.24
20MWDD24	6/27/08	72.0	60-70	6.90	NI	NA	NI	NA	NI	NA	5.08	1.82
EBMWDD25	9/5/08	75.0	63-73	6.10	NI	NA	NI	NA	NI	NA	5.37	0.73

Notes:

ft bgs - feet below ground surface
NI - Not Installed
NM - Not Measured
NA - Not Applicable due to well not installed or not measured
DTW - Depth to Water
datum - North American Vertical Datum of 1988 (NAVD88)

Table 4-2
Summary of Vertical Gradients
Former East 21st Street Works, New York, NY

Well Pair	Distance Between Screens (ft)	Difference in GW Elevations (ft)			Vertical Gradient (ft/ft)			Direction (Up/Down)		
		5/4/2006	6/12/2006	9/24/2008	5/4/2006	6/12/2006	9/24/2008	5/4/2006	6/12/2006	9/24/2008
Shallow to Intermediate										
S1/D1	8.11	2.31	2.48	1.28	0.28	0.31	0.16	Down	Down	Down
S2/D2	10.46	2.04	2.45	1.67	0.20	0.23	0.16	Down	Down	Down
S3/D3	10.24	1.73	2.51	1.57	0.17	0.25	0.15	Down	Down	Down
S4/D4	11.9	0.55	0.63	0.74	0.05	0.05	0.06	Down	Down	Down
S5/D5	12.67	0.78	0.41	0.59	0.06	0.03	0.05	Up	Up	Up
S6/D6	11.27	2.27	2.81	1.03	0.20	0.25	0.09	Down	Down	Down
S7/D7	11.04	0.89	1.02	0.58	0.08	0.09	0.05	Down	Down	Down
S8/D8	9.27	1.27	1.6	2.77	0.14	0.17	0.30	Down	Down	Down
S9/D9	9.87	1.46	2	1.28	0.15	0.20	0.13	Down	Down	Down
S10/D10	8.91	0.57	0.71	2.25	0.06	0.08	0.25	Down	Down	Down
S11/D11	12	2.8	3.26	3.44	0.23	0.27	0.29	Down	Down	Down
S12/D12	12.58	0.58	0.14	0.06	0.05	0.01	0.00	Up	Down	---
S16/D16	10	3.34	3.16	2.08	0.33	0.32	0.21	Down	Down	Down
S17/D17	10	1.74	2.03	NA	0.17	0.20	NA	Down	Down	NA
Intermediate to Deep										
D3/DD3	14.97	0.07	0.13	1.20	0.005	0.01	0.08	Down	Up	Up
D4/DD4	25.71	0.09	0.18	0.46	0.004	0.01	0.02	Down	Up	Up
D8/DD8	12.84	0.86	0.99	0.87	0.07	0.08	0.07	Up	Up	Up
D12/DD12	14.9	0.47	0.18	0.28	0.03	0.01	0.02	Down	Down	Up
D13/DD13	24	0.14	0.06	0.10	0.01	0.00	0.00	Down	---	---
D14/DD14	25	0.3	0.21	0.47	0.01	0.01	0.02	Up	Up	Down
D15/DD15	24	0.6	1.65	0.54	0.03	0.07	0.02	Down	Down	Down
D18/DD18	24	0.86	0.83	0.26	0.04	0.03	0.01	Up	Up	Down
D24/DD24	25	NI	NI	0.08	NA	NA	0.00	NA	NA	---
D25/DD25	27	NI	NI	0.52	NA	NA	0.02	NA	NA	Up

Note:
Distance between screens is from base of upper screen to top of lower screen, in feet.

Table 4-3
Summary of Slug Testing Results
Former East 21st Street Works, New York, NY

Well	Test #	Generalized Soil Type in Screened Interval	Screened Interval (ft bgs)	Test Method	Solution Method	Estimated Hydraulic Conductivity (feet/day)
Shallow Zone Water Table Wells (S-Series Wells)						
21MWS03	1	Fill - Mixed sand, silt, gravel, brick fragments	5-15	Slug-Rising Head	Bouwer and Rice	16.1
	2		5-15	Slug-Rising Head	Bouwer and Rice	17.8
	Average					*16.9*
21MWS08	1	Fill - Mixed sand, silt, gravel, brick fragments	6-16	Slug-Rising Head	Bouwer and Rice	21.4
	2		6-16	Slug-Rising Head	Bouwer and Rice	21.8
	Average					*21.6*
23MWS12	1	Fill - Mixed m to c sand, silt, clay gravel, asphalt fragments	5-15	Slug-Rising Head	Bouwer and Rice	25.9
	2		5-15	Slug-Rising Head	Bouwer and Rice	25.7
	Average					*25.8*
Intermediate Zone Wells (D-Series Wells)						
21MWD08	1	Native clay and silt, some f sand and peat grading to f-m glaciolaustrine silty sands	25-35	Pneumatic-Rising	Bouwer and Rice	0.85
	2		25-35	Pneumatic-Rising	Bouwer and Rice	0.89
	3		25-35	Pneumatic-Rising	Bouwer and Rice	1.13
	Average					*0.95*
21MWD09	1	Native clay and silt, some f sand and peat grading to f-m estuarine silty sands	25-35	Pneumatic-Rising	Bouwer and Rice	1.33
	2		25-35	Pneumatic-Rising	Bouwer and Rice	1.41
	3		25-35	Pneumatic-Rising	Bouwer and Rice	1.56
	4		25-35	Pneumatic-Rising	Bouwer and Rice	1.47
	Average					*1.44*
EBMWD13	1	Native f sand with silt layers coarsening to f-m, trace coarse sand and gravel	25-35	Slug-Rising Head	Bouwer and Rice	41.7
	2		25-35	Slug-Rising Head	Bouwer and Rice	41.2
	Average					*41.4*
Deep Zone Wells (DD-Series Wells)						
21MWDD03	1B	Native fine sand and silt interbedded with clay lens at base	50-60	Pneumatic-Rising	Bouwer and Rice	1.17
	2		50-60	Pneumatic-Rising	Bouwer and Rice	0.78
	3		50-60	Pneumatic-Rising	Bouwer and Rice	0.78
	Average					*0.91*
21MWDD08	2	Native red brown medium sand	49-59	Pneumatic-Rising	Bouwer and Rice	20.92
	3		49-59	Pneumatic-Rising	Bouwer and Rice	20.88
	Average					*20.90*
23MWDD12	1	Native fine sand grading to clays with some sand	50-60	Pneumatic-Rising	Bouwer and Rice	0.26
	2		50-60	Pneumatic-Rising	Bouwer and Rice	0.36
	Average					*0.31*
Geometric Mean - Shallow Zone (S-series) Water Table Wells						21.1
Range - Intermediate Zone (D-series) Wells[1]						0.85 - 41.7
Range - Deep Zone (DD-series) Wells[1]						0.26 - 20.9

Notes:
Hydraulic conductivity estimates performed using AQTESOLV Pro (2006).
[1] = Range given due to significant variability of native soils in this interval.
ft bgs = feet below ground surface

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	Site-Specific Background Values	21AB001 0 - 0.2 3/17/2004	21AB002 0 - 0.2 3/17/2004	21AB003 0 - 0.2 3/16/2004	21AB004 0 - 0.2 3/16/2004	21BR001 0 - 0.2 3/16/2004	21CH001 0 - 0.2 2/27/2004	21CH002 0 - 0.2 2/27/2004	21CH003 0 - 0.2 2/26/2004	21CH004 0 - 0.2 2/27/2004	21CH005 0 - 0.2 2/27/2004	21CH006 0 - 0.2 2/27/2004	21CH007 0 - 0.2 3/1/2004	21CH008 0 - 0.2 2/25/2004	21CH009 0 - 0.2 2/26/2004	21DT002 0 - 0.2 3/23/2004	21DT003 0 - 0.2 3/10/2004	21DT004 0 - 0.2 3/15/2004	21DT005 0 - 0.2 2/25/2004	21DT006 0 - 0.2 2/25/2004	21ER001 0 - 0.2 2/12/2004	21ER002 0 - 0.2 2/24/2004
BTEX (mg/Kg)																							
Benzene	0.06	0.00202	0.0003 U	0.00028 U	0.00028 U	0.00028 U	0.00028 U	0.00028 U	0.00028 U	0.00028 U	0.00028 U	0.00028 U	**0.002**	**0.0042**	0.0003 U	0.00028 U	0.00028 U	0.00025 U	0.00025 U	0.00028 U	**0.0019**	0.00032 U	0.00023 U
Ethyl Benzene	5.5	0.00014	0.00025 U	0.00024 U	0.00024 U	0.00024 U	**0.0009 J**	0.00024 U	0.00024 U	0.00025 U	0.00024 U	0.00024 U	0.00024 U	0.00022 U	0.00026 U	0.00024 U	0.00024 U	0.00021 U	0.00022 U	0.00024 U	0.00023 U	0.00027 U	0.0002 U
Toluene	1.5	0.0028	0.00025 U	0.00024 U	0.00024 U	0.00025 U	0.00024 U	0.00024 U	0.00024 U	0.00025 U	0.00024 U	**0.0021 J**	0.00025 U	0.00022 U	0.00026 U	0.00024 U	**0.0017 J**	0.00021 U	0.00022 U	0.00024 U	**0.001 J**	0.0034 U	0.0002 U
Xylene (Total)	1.2	0.00047	0.0006 U	0.00058 U	0.00058 U	0.0006 U	**0.0087**	0.00058 U	0.00057 U	0.0006 U	0.00058 U	0.00058 U	0.0006 U	0.00054 U	0.00062 U	0.00058 U	0.00058 U	**0.0019 J**	0.00052 U	0.00058 U	0.00055 U	**0.0016 J**	0.00049 U
Volatile Organic Compounds (VOCs) (mg/Kg)																							
1,2-Dichlorobenzene	7.9	NA	**0.033 J**	0.043 U	0.042 U	0.044 U	0.043 U	0.043 U	0.042 U	0.044 U	0.045 U	0.044 U	0.087 U	0.04 U	0.046 U	0.045 U	0.043 U	0.038 U	0.038 U	0.044 U	0.042 U	0.048 U	0.036 U
1,4-Dichlorobenzene	8.5	0.0265	0.049 U	0.048 U	0.046 U	0.049 U	0.048 U	0.048 U	0.046 U	0.049 U	0.05 U	0.049 U	0.095 U	0.044 U	0.051 U	**0.012 J**	0.048 U	0.042 U	0.042 U	0.049 U	0.046 U	0.052 U	0.04 U
2-Butanone (Methyl Ethyl Ketone)	0.3	0.00202	**0.0012 R**	**0.0012 R**	**0.0012 R**	**0.0012 R**	**0.0012 R**	**0.01**	0.0012 U	**0.0012 R**	0.0012 U	0.0012 U	**0.0089**	**0.0011 R**	0.0013 U	**0.01 J**	**0.0012 R**	**0.001 R**	**0.0011 R**	0.0012 U	0.0011 U	0.0013 U	**0.001 R**
Acetone	0.2	0.043	**0.044**	**0.036**	0.0029 U	0.003 U	**0.029**	0.048 U	0.029 U	0.024 U	0.031 U	0.04 U	0.062 U	0.0027 UJ	**0.068 J**	**0.049 J**	**0.065**	0.0026 UJ	**0.024**	**0.089 J**	**0.09 J**	**0.029**	**0.023 J**
Carbon Disulfide	2.7	0.00156	0.00038 UJ	0.00036 UJ	0.00036 UJ	0.00037 UJ	0.00036 UJ	0.00036 U	0.00035 U	0.00037 U	0.00036 U	0.00036 U	**0.0007 J**	**0.0014 J**	0.00039 U	0.00036 U	0.00036 U	0.00032 U	0.00032 UJ	0.00036 U	0.00034 U	0.00041 U	0.00031 U
Carbon Tetrachloride	0.6	NA	0.00026 U	0.00025 U	0.00025 U	0.00026 U	0.00025 U	0.00025 U	0.00025 U	0.00026 U	0.00025 U	0.00025 U	0.00026 U	0.00023 U	0.00027 U	0.00025 U	0.00025 U	0.00022 U	0.00023 U	0.00025 U	0.00024 U	0.00028 U	0.00021 U
Chloroform	0.3	NA	0.00029 U	0.00028 U	0.00028 U	0.00028 U	0.00028 U	0.00028 U	0.00027 U	0.00028 U	0.00028 U	0.00028 U	0.00028 U	0.00026 U	0.0003 U	0.00028 U	0.00028 U	0.00024 U	0.00025 U	0.00028 U	0.00026 U	0.00031 U	0.00023 U
Methylene Chloride	0.1	0.00104	0.0039 U	0.0035 U	0.0048 U	0.0063 U	0.0057 U	0.01 U	0.0006 U	0.001 U	0.0005 U	0.0006 U	0.013 U	0.0023 U	0.0003 U	0.0014 U	0.0004 U	0.0008 U	0.00025 U	0.00028 U	0.00026 U	0.0011 U	0.00023 U
Styrene	NA	NA	0.00015 U	0.00014 U	0.00014 U	0.00015 U	0.00015 U	0.00014 U	0.00014 U	0.00015 U	0.00015 U	0.00014 U	0.00015 U	0.00013 U	0.00016 U	0.00015 U	0.00014 U	0.00013 U	0.00013 U	0.00014 U	0.00014 U	0.00016 U	0.00012 U
Trichloroethene	0.7	0.0021	0.00035 U	0.00032 U	0.00032 U	0.00032 U	0.00032 U	**0.0025**	0.00032 U	0.00032 U	0.00032 U	0.00032 U	**0.0032**	0.0003 U	0.00035 U	0.00032 U	**0.001 J**	0.0003 U	0.0003 U	0.00032 U	0.0003 U	0.00038 U	0.00027 U
Total VOCs	10	NA	**0.077**	**0.036**	ND	ND	**0.0386**	**0.0125**	ND	ND	ND	**0.0021**	**0.0148**	**0.0056**	**0.068**	**0.071**	**0.0677**	**0.0019**	**0.024**	**0.089**	**0.0929**	**0.0306**	**0.023**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																							
Acenaphthene	50	0.117	**0.02 J**	0.0035 U	**0.0085 J**	**0.063 J**	**0.03 J**	**0.03 J**	**0.018 J**	**0.0092 J**	**0.04 J**	**0.026 J**	**0.33 J**	**0.38 J**	**0.09 J**	**0.034 J**	**0.025 J**	0.003 U	0.003 U	**0.093 J**	**0.014 J**	**0.029 J**	0.0029 U
Acenaphthylene	41	0.259	0.0036 U	0.0035 U	0.0034 U	**0.011 J**	**0.027 J**	**0.031 J**	**0.073 J**	**0.016 J**	**0.031 J**	**0.032 J**	**0.88**	**0.2 J**	**0.082 J**	**0.027 J**	**0.034 J**	**0.035 J**	**0.023 J**	**0.032 J**	**0.03 J**	**0.018 J**	0.0029 U
Anthracene	50	0.488	**0.065 J**	**0.02 J**	**0.013 J**	**0.14 J**	**0.075 J**	**0.067 J**	**0.08 J**	**0.029 J**	**0.09 J**	**0.053 J**	**1.7**	**0.78**	**0.21 J**	**0.1 J**	**0.064 J**	**0.04 J**	**0.013 J**	**0.22 J**	**0.048 J**	**0.056 J**	0.0026 U
Benzo(a)anthracene	0.224	2.599	**0.35**	**0.084**	**0.058**	**0.46**	**0.34**	**0.28**	**0.16**	**0.1**	**0.35**	**0.2**	**4.2**	**2**	**0.69**	**0.33**	**0.23**	**0.16**	**0.026 J**	**0.52**	**0.14**	**0.22**	**0.03 J**
Benzo(a)pyrene	0.061	1.046	**0.36**	**0.083**	**0.06**	**0.42**	**0.34**	**0.3**	**0.2**	**0.1**	**0.38**	**0.24**	**4.8**	**2.3**	**0.7**	**0.28**	**0.24**	**0.19**	**0.037**	**0.44**	**0.14**	**0.19**	**0.039**
Benzo(b)fluoranthene	1.1	0.728	**0.3**	**0.08**	**0.05**	**0.37**	**0.28**	**0.26**	**0.13**	**0.098**	**0.35**	**0.21**	**4.2**	**1.9**	**0.58**	**0.29**	**0.26**	**0.14**	**0.019 J**	**0.39**	**0.12**	**0.18**	**0.026 J**
Benzo(ghi)perylene	50	0.565	**0.17 J**	**0.053 J**	**0.037 J**	**0.24 J**	**0.22 J**	**0.16 J**	**0.16 J**	**0.073 J**	**0.22 J**	**0.12 J**	3.1	1.2	**0.39 J**	**0.18 J**	**0.15 J**	**0.12 J**	**0.032 J**	**0.23 J**	**0.094 J**	**0.13 J**	**0.03 J**
Benzo(k)fluoranthene	1.1	0.996	**0.41 J**	**0.092 J**	**0.086**	**0.44**	**0.42**	**0.33**	**0.21**	**0.096**	**0.39**	**0.26**	**4.6**	**2.2**	**0.81**	**0.33**	**0.28**	**0.19**	**0.027 J**	**0.52**	**0.14**	**0.21**	**0.046**
Chrysene	0.4	1.267	**0.42 J**	**0.12 J**	**0.081 J**	**0.5**	**0.44**	**0.34 J**	**0.18 J**	**0.13 J**	**0.41 J**	**0.24 J**	**4.7**	**2.5**	**0.86**	**0.4 J**	**0.29 J**	**0.18 J**	**0.035 J**	**0.57**	**0.17 J**	**0.28 J**	**0.036 J**
Dibenz(a,h)anthracene	0.014	0.162	**0.023 J**	0.0027 U	**0.014 J**	**0.085**	**0.066**	**0.051**	**0.057**	0.0028 U	**0.072**	**0.04 J**	**0.95**	**0.47**	**0.12**	**0.062**	**0.053**	**0.044**	0.0024 U	**0.097**	**0.033 J**	**0.061**	0.0022 U
Fluoranthene	50	3.416	**0.57**	**0.16 J**	**0.13 J**	**0.97**	**0.76**	**0.51**	**0.29 J**	**0.23 J**	**0.69**	**0.38 J**	**8.6**	**3.7**	**1.4**	**0.8**	**0.52**	**0.33 J**	**0.032 J**	**1.1**	**0.32 J**	**0.46**	**0.054 J**
Fluorene	50	0.267	0.0029 U	0.0028 U	0.0028 U	**0.053 J**	**0.025 J**	**0.027 J**	**0.019 J**	0.0029 U	**0.03 J**	**0.022 J**	**0.8 J**	**0.28 J**	**0.092 J**	**0.032 J**	**0.02 J**	**0.014 J**	0.0025 U	**0.093 J**	0.0028 U	**0.025 J**	0.0023 U
Indeno(1,2,3-cd)pyrene	3.2	0.509	**0.18**	**0.047**	**0.033 J**	**0.23**	**0.2**	**0.16**	**0.15**	**0.061**	**0.21**	**0.12**	**2.9**	**1.2**	**0.38**	**0.16**	**0.14**	**0.11**	**0.025 J**	**0.23**	**0.087**	**0.12**	**0.024 J**
Naphthalene	13	0.476	0.0037 U	0.0036 U	0.0035 U	**0.025 J**	**0.018 J**	**0.038 J**	**0.096 J**	0.0037 U	**0.029 J**	**0.03 J**	**1.3**	**0.21 J**	**0.086 J**	**0.034 J**	**0.024 J**	0.0032 U	**0.021 J**	**0.053 J**	0.0035 U	**0.027 J**	0.003 U
Phenanthrene	50	3.949	**0.23 J**	**0.1 J**	**0.067 J**	**0.59**	**0.38 J**	**0.34 J**	**0.23 J**	**0.14 J**	**0.49**	**0.28 J**	**7.9**	**2.8**	**1.1**	**0.48**	**0.27 J**	**0.17 J**	**0.027 J**	**0.88**	**0.18 J**	**0.27 J**	**0.019 J**
Pyrene	50	4.525	**0.51 J**	**0.15 J**	**0.11 J**	**0.8**	**0.64**	**0.56**	**0.27 J**	**0.21 J**	**0.81**	**0.46**	**9.4**	**3.7**	**1.4**	**0.75**	**0.46**	**0.28 J**	**0.036 J**	**1**	**0.28 J**	**0.45 J**	**0.051 J**
Benzo(a)pyrene Equivalents	NA	NA	**0.47052**	**0.10514**	**0.089041**	**0.6159**	**0.49264**	**0.42464**	**0.30328**	**0.12699**	**0.54731**	**0.33584**	**6.9307**	**3.3045**	**0.99396**	**0.4237**	**0.35909**	**0.27708**	**0.044305**	**0.65677**	**0.20927**	**0.30538**	**0.047496**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																							
2,4-Dimethylphenol	NA	0.021	0.039 U	0.038 U	0.037 U	0.039 U	0.038 U	0.038 U	0.037 U	0.039 U	0.04 U	0.039 U	**0.024 J**	0.035 U	0.041 U	0.04 U	0.038 U	0.033 U	0.033 U	0.039 U	0.037 U	0.042 U	0.031 U
2-Methylnaphthalene	36.4	0.106	**0.011 J**	0.019 U	0.019 U	**0.014 J**	**0.01 J**	**0.019 J**	**0.029 J**	**0.0096 J**	**0.017 J**	**0.016 J**	**1**	**0.078 J**	**0.04 J**	**0.032 J**	**0.019 J**	**0.011 J**	**0.012 J**	**0.035 J**	**0.01 J**	**0.025 J**	0.016 U
2-Methylphenol	0.1	0.021	0.038 U	0.037 U	0.036 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	0.039 U	0.038 U	**0.024 J**	0.034 U	0.04 U	0.039 U	0.037 U	0.033 U	0.033 U	0.038 U	0.036 U	0.041 U	0.031 U
4-Chloroaniline	0.22	NA	0.05 U	0.049 U	0.048 U	0.05 U	0.049 U	0.049 U	0.048 U	0.05 U	0.051 U	0.05 U	0.098 U	0.045 U	0.052 U	0.051 U	0.049 U	0.043 U	0.043 U	0.05 U	0.048 U	0.054 U	0.04 U
4-Methylphenol	0.9	0.08	**0.0087 J**	0.041 U	0.04 U	**0.012 J**	0.041 U	**0.086 J**	0.04 U	0.042 U	0.043 U	0.042 U	**0.061 J**	0.038 U	0.044 U	0.043 U	0.041 U	0.036 U	0.036 U	0.042 U	**0.016 J**	**0.044 J**	0.034 U
4-Nitrophenol	0.1	NA	0.013 U	0.012 U	0.012 U	0.013 U	0.012 U	0.012 U	0.012 U	0.013 U	0.013 U	0.013 U	0.025 U	0.011 U	0.014 U	0.013 U	0.012 U	0.011 U	0.011 U	0.013 U	0.012 U	0.014 U	0.011 U
bis(2-Ethylhexyl) phthalate	50	0.823	**0.53**	**0.69**	**0.14 J**	**0.25 J**	**0.39 J**	**0.38 J**	0.024 U	**0.22 J**	**0.36 J**	**0.32 J**	**0.17 J**	**0.26 J**	**0.34 J**	**0.51**	0.44 U	0.022 U	0.022 U	**0.48**	**0.28 J**	**0.43 J**	**0.075 J**
Butyl benzyl phthalate	50	0.024	0.017 U	0.017 U	0.016 U	0.017 U	0.017 U	0.017 U	0.016 U	0.017 U	0.017 U	0.017 U	0.033 U	0.015 U	0.018 U	0.017 U	0.017 U	0.015 U	0.015 U	0.017 U	0.016 U	**1.2**	0.014 U
Carbazole	NA	0.131	**0.028 J**	**0.012 J**	0.0029 U	**0.077 J**	**0.05 J**	**0.048 J**	**0.03 J**	**0.017 J**	**0.07 J**	**0.038 J**	**0.45 J**	**0.38 J**	**0.17 J**	**0.065 J**	**0.039 J**	**0.011 J**	0.0026 U	**0.14 J**	**0.022 J**	**0.034 J**	0.0025 U
Dibenzofuran	6.2	0.197	**0.009 J**	0.021 U	0.021 U	**0.022 J**	**0.014 J**	**0.018 J**	**0.018 J**	0.022 U	**0.019 J**	**0.015 J**	**1.2**	**0.13 J**	**0.058 J**	**0.023 J**	**0.014 J**	**0.012 J**	0.018 U	**0.06 J**	**0.0082 J**	**0.012 J**	0.018 U
Diethyl phthalate	7.1	0.01	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U	0.011 U	0.022 U	0.01 U	0.012 U	0.012 U	0.011 U	0.0097 U	0.0097 U	0.011 U	0.011 U	0.012 U	0.0092 U
Di-n-butyl phthalate	8.1	0.064	**0.16 J**	0.012 U	0.012 U	0.012 U	0.012 U	**0.1 J**	0.012 U	0.012 U	0.012 U	**0.11 J**	0.024 U	0.011 U	**0.23 J**	**0.17 J**	**0.085 J**	0.01 U	0.01 U	**0.091 J**	0.012 U	**0.092 J**	0.0098 U
Pentachlorophenol	1	NA	0.078 U	0.073 U	0.073 U	0.078 U	0.073 U	0.073 U	0.073 U	0.078 U	0.078 U	0.078 U	0.15 U	0.069 U	0.082 U	0.078 U	0.073 U	0.064 U	0.064 U	0.078 U	0.073 U	0.082 U	0.064 U
Phenol	0.03	0.042	***0.056 U***	***0.055 U***	***0.054 U***	***0.056 U***	***0.055 U***	***0.055 U***	***0.054 U***	***0.056 U***	***0.058 U***	***0.056 U***	***0.11 U***	***0.051 U***	***0.059 U***	***0.058 U***	***0.055 U***	***0.048 U***	***0.048 U***	***0.056 U***	***0.054 U***	***0.06 U***	***0.046 U***
Total SVOCs	500	NA	**4.3547**	**1.691**	**0.8875**	**5.772**	**4.725**	**4.135**	**2.4**	**1.5388**	**5.058**	**3.212**	**63.289**	**26.668**	**9.828**	**5.089**	**3.217**	**2.037**	**0.365**	**7.274**	**2.1322**	**4.563**	**0.43**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	Site-Specific Background Values	21AB001 0 - 0.2 3/17/2004	21AB002 0 - 0.2 3/17/2004	21AB003 0 - 0.2 3/16/2004	21AB004 0 - 0.2 3/16/2004	21BR001 0 - 0.2 3/16/2004	21CH001 0 - 0.2 2/27/2004	21CH002 0 - 0.2 2/27/2004	21CH003 0 - 0.2 2/26/2004	21CH004 0 - 0.2 2/27/2004	21CH005 0 - 0.2 2/27/2004	21CH006 0 - 0.2 2/27/2004	21CH007 0 - 0.2 3/1/2004	21CH008 0 - 0.2 2/25/2004	21CH009 0 - 0.2 2/26/2004	21DT002 0 - 0.2 3/23/2004	21DT003 0 - 0.2 3/10/2004	21DT004 0 - 0.2 3/15/2004	21DT005 0 - 0.2 2/25/2004	21DT006 0 - 0.2 2/25/2004	21ER001 0 - 0.2 2/12/2004	21ER002 0 - 0.2 2/24/2004
Metals (mg/Kg)																							
Aluminum	SB	7960	**9,400 J**	**11,500 J**	**12,800 J**	**9,770 J**	**10,200 J**	**10,900 J**	**13,900 J**	**12,700 J**	**12,500 J**	**9,780 J**	**10,800 J**	**6,630 J**	**11,400**	**9,130 J**	**9,510**	**1,180**	**4,810**	**9,180**	**9,120**	**9,050**	**949 J**
Antimony	NA	NA	0.99 UJ	0.95 UJ	1.4 U	1.5 U	1.4 U	1.4 UJ	1.4 UJ	1.5 U	1.5 UJ	1.5 UJ	1.4 UJ	1.3 UJ	1.5 UJ	1.5 U	1.4 UJ	0.85 U	1.3 UJ	1.5 UJ	1.4 UJ	1.6 UJ	0.81 U
Arsenic	7.5 or SB	13.63	**39.2**	**13.8**	**17**	**53.6**	**12.9**	**12.4**	**19.6**	**11.7**	**17.1**	**10.7**	**10.1**	**12.6**	**22.0 J**	**6.5**	**20.2**	**3.7 J**	**1.1**	**4.6 J**	**4.3 J**	**18.4**	**2.4 J**
Barium	300 or SB	124.7	**56.5**	**59.3**	**67.0**	**41.7 J**	**68.6**	**83.4**	**80.8**	**73.3**	**86.9**	**85.0**	**73.6**	**95.1**	**74.9**	**80.4**	**73.0**	**13.6 J**	**36.6 J**	**69.3**	**66.1**	**60.5**	**6.5 J**
Beryllium	0.16 or SB	0.463	0.39 U	***0.56 U***	**0.63**	**0.30 J**	**0.53**	**0.63**	**0.6**	**0.66**	**0.73**	**0.58**	**0.67**	**0.37 J**	**0.51 J**	**0.63**	**0.46 J**	**0.07 J**	**0.31 J**	**0.55**	**0.54**	**0.45 J**	**0.05 J**
Cadmium	1 or SB	0.2	0.49 U	0.098 U	**1.2**	**0.36 J**	**0.67 J**	**0.26 J**	0.097 U	**0.77 J**	**0.27 J**	**0.46 J**	0.099 U	**0.43 J**	**0.59 J**	**0.29 J**	**0.81 J**	0.088 U	**0.09 J**	**0.41 J**	**0.18 J**	**0.28 J**	0.083 U
Calcium	SB	11,563	**3030**	**1,350**	**1,810 J**	**2990 J**	**16,900 J**	**4,000 J**	**922 J**	**2,600**	**3,150 J**	**3,320 J**	**4,100 J**	**36,600 J**	**2,000 J**	**3,580**	**12,700 J**	**475 J**	**4,320 J**	**2,880 J**	**2,700 J**	**8,040**	**649 J**
Chromium	10 or SB	36.69	**67.4**	**43**	**37.6**	**37.9**	**79.9**	**91.6**	**23.6**	**39.6**	**68.5**	**83.9**	**32.0**	**27.8**	**110**	**86.1**	**59.5 J**	**4.2**	**12.7**	**43.5**	**30.4**	**70.5**	**3.1**
Cobalt	30 or SB	5.698	**3.4 J**	**4.8 J**	**4.3 J**	**2.1 J**	**5.2 J**	**5.0 J**	**4.4 J**	**3.7 J**	**4.5 J**	**3.9 J**	**6.5 J**	**4.5 J**	**5.3 J**	**5.0 J**	**9.7 J**	**1.4 J**	**5.6 J**	**4.5 J**	**4.5 J**	**4.7 J**	**1.0 J**
Copper	25 or SB	35.84	**86.9**	28.0 U	**25.8 J**	**92.7 J**	**39.6 J**	**43.9 J**	**24.5 J**	**28.9**	**38.5 J**	**45.8 J**	**37.7 J**	**39.2**	**48.9**	**47.6**	**45.5**	**9.3**	**19.9 J**	**30.6**	**27.3**	**39.2**	**5.3**
Iron	2000 or SB	14,369	**12,900 J**	**16,500 J**	**16,300 J**	**13,200 J**	**14,500 J**	**15,100 J**	**17,600 J**	**18,000**	**15,200 J**	**13800 J**	**16,300 J**	**13,400 J**	**15,000**	**12,700**	**14,200**	**5,240**	**11,000**	**12,000**	**10,700**	**13,400 J**	**3,980 J**
Lead	SB	237.7	**117 J**	**51.6 J**	**62.5**	**116**	**108**	**113 J**	**50.3**	**75.3 J**	**132**	**158**	**108 J**	**138**	**146**	**210 J**	**204**	**15.8**	**28.7**	**113**	**83.0**	**112**	**5.6**
Magnesium	SB	3129	**1,290**	**1,930**	**1,550**	**1,270**	**9,430**	**2,130**	**1,590**	**1,640**	**1,850**	**1740**	**2,800**	**18,200**	**1,750**	**1,850**	**2,780**	**436 J**	**2,350**	**1,840**	**1,730**	**3,650**	**371 J**
Manganese	SB	358.5	**238**	**280**	**375 J**	**150 J**	**306 J**	**335**	**298**	**269 J**	**339**	**284**	**438**	**220**	**287**	**285 J**	**266**	**74.1**	**216 J**	**309**	**288**	**221 J**	**85.9**
Mercury	0.1	1.305	**0.44 J**	**0.39 J**	**0.72**	**0.29**	**1.1**	**0.58**	**0.57**	**0.5**	**0.88**	**0.39**	**0.37**	**0.61**	**0.71**	**0.52**	**0.55 J**	**0.02 J**	**0.03 J**	**0.43**	**0.28**	**0.65**	**0.02 J**
Nickel	13 or SB	15.3	**15.4**	**13.4**	**10.7 J**	**7.5 J**	**15.4 J**	**19.6**	**11.8**	**12.4**	**17.9**	**19.2**	**20.8**	**14.2**	**19.3**	**19.7**	**18.8**	**5.4 J**	**11.0 J**	**17.8**	**15.6**	**18.2**	**3.6 J**
Potassium	SB	1197	**415 J**	**509 J**	**251 J**	**219 J**	**447 J**	**324 J**	**257 J**	**166 J**	**218 J**	**222 J**	**456 J**	**617 J**	**398 J**	**195 J**	**413 J**	**291 J**	**1,060 J**	**249 J**	**273 J**	**358 J**	**196 J**
Selenium	2 or SB	NA	**1.3**	0.95 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	**1.1 J**	1.1 U	1.1 U	1.0 U	0.96 U	**1.3**	1.1 U	1.0 U	0.85 U	0.92 U	1.1 U	1.0 U	1.1 U	0.81 U
Silver	SB	0.229	**0.33 J**	0.17 U	***0.34 U***	***0.35 U***	***0.35 U***	***0.34 U***	***0.34 U***	***0.35 U***	***0.36 U***	***0.35 U***	***0.34 U***	***0.32 U***	***0.37 U***	***0.36 U***	**0.43 J**	0.15 U	***0.31 U***	***0.35 U***	***0.34 U***	***0.38 U***	0.14 U
Sodium	SB	214.8	91.3 U	88.0 U	**98.7 J**	**109 J**	98.3 UJ	97.3 U	96.1 U	99.7 U	102 U	100 U	97.4 U	**92.8 J**	104 U	101 U	**172 J**	79.0 U	**418 J**	99.2 U	96.2 U	**181 J**	74.7 U
Vanadium	150 or SB	30.25	**54.5**	**43.2**	**35.5**	**33.5**	**46.7**	**51.7**	**26.9**	**41.4**	**60.4**	**58.5**	**43.2**	**34.1**	**67.8**	**59.8**	**48.0**	**8.2 J**	**23.1**	**40.3**	**30.9**	**45.4**	**9.5 J**
Zinc	20 or SB	81.77	**74.5**	**41.6**	**47.5**	**51.1**	**90.4**	**96.8**	**67.7**	**56.7**	**88.3**	**104**	**90.9**	**118**	**90.4**	**94.4**	**136**	**26.8**	**33.5**	**77.7**	**70.2**	**75.0**	**12.4**
Cyanide (mg/Kg)																							
Cyanide, Total	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.81**	**0.93**	0.5 U	0.5 U	0.5 U	0.5 U	**1.3**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**12.1**	0.5 U	0.5 U

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21ER003 0 - 0.2 2/12/2004	21FA001 0 - 0.2 3/23/2004	21FA002 0 - 0.2 2/4/2004	21GH001 0 - 0.2 1/29/2004	21GH002 0 - 0.2 1/26/2004	21GH003 0 - 0.2 2/10/2004	21GH004 0 - 0.2 1/29/2004	21GH005 0 - 0.2 1/30/2004	21GH006 0 - 0.2 3/23/2004	21GH007 0 - 0.2 2/9/2004	21GH008 0 - 0.2 1/30/2004	21GH009 0 - 0.2 2/4/2004	21GH010 0 - 0.2 2/4/2004	21GH011 0 - 0.2 2/9/2004	21GH012 0 - 0.2 3/23/2004	21GH013 0 - 0.2 2/2/2004	21GH014 0 - 0.2 2/4/2004	21GH015 0 - 0.2 2/9/2004	21GH016 0 - 0.2 2/4/2004	21GH017 0 - 0.2 2/11/2004	21GH018 0 - 0.2 2/9/2004
BTEX (mg/Kg)																						
Benzene	0.06	0.0003 U	**0.0015**	**0.0014**	**0.0027 J**	**0.018**	**0.0009 J**	**0.0006 J**	**0.0019 J**	0.00025 U	**0.072**	**0.0017**	**0.0005 J**	**0.0033**	0.00028 U	0.0003 U	0.00028 U	**0.0057**	0.00034 U	**0.0008 J**	**0.0007 J**	**0.0078**
Ethyl Benzene	5.5	0.00026 U	0.00025 U	**0.016**	**0.0003 J**	0.00024 U	**0.0022 J**	0.00025 U	**0.0022 J**	0.00022 U	**0.0019 J**	0.0003 U	**0.0013 J**	0.00028 U	0.00024 U	0.00026 U	0.00025 U	**0.0009 J**	0.00031 U	**0.0027 J**	0.00024 U	**0.0016 J**
Toluene	1.5	**0.0059 J**	0.00026 U	0.00026 U	**0.0011 J**	**0.0075**	**0.0024 J**	0.00026 U	0.00028 U	**0.0013 J**	**0.0031 J**	0.0003 U	**0.002 J**	0.00028 U	**0.0013 J**	0.00026 U	0.00025 U	**0.0015 J**	0.00031 U	0.0003 U	0.0015 U	**0.0013 J**
Xylene (Total)	1.2	**0.0014 J**	0.00061 U	**0.15**	**0.0016 J**	0.00058 U	**0.016**	0.00061 U	**0.0035 J**	0.00052 U	**0.0017 J**	0.00071 U	**0.0079**	0.00066 U	0.00058 U	0.00062 U	0.0006 U	**0.0017 J**	0.00074 U	**0.018**	**0.0016 J**	**0.01**
Volatile Organic Compounds (VOCs) (mg/Kg)																						
1,2-Dichlorobenzene	7.9	0.048 U	0.045 U	0.05 U	0.035 U	0.044 U	0.052 U	0.046 U	0.052 U	0.039 U	0.048 U	0.054 U	0.048 U	0.05 U	0.042 U	0.046 U	0.044 U	0.042 U	0.058 U	0.055 U	0.043 U	0.043 U
1,4-Dichlorobenzene	8.5	0.052 U	0.05 U	0.055 U	0.038 U	0.049 U	0.057 U	0.051 U	0.057 U	0.043 U	0.052 U	0.059 U	0.052 U	0.055 U	0.046 U	0.051 U	**0.016 J**	0.046 U	0.064 U	0.06 U	0.048 U	**0.01 J**
2-Butanone (Methyl Ethyl Ketone)	0.3	0.0013 U	**0.0013 R**	0.0013 U	0.0011 U	**0.019 J**	**0.014**	0.0013 U	0.0014 U	**0.0011 R**	0.0013 U	0.0015 U	**0.0089**	0.0014 U	0.0012 U	**0.0013 R**	0.0012 U	**0.0061**	**0.0015 R**	**0.0079**	**0.0012 R**	**0.0082**
Acetone	0.2	**0.055 J**	**0.058**	**0.11**	**0.01 J**	**0.076 J**	**0.096 J**	0.0031 U	**0.013**	**0.076**	**0.07**	**0.047**	**0.11**	**0.14**	**0.081**	**0.049**	0.003 UJ	**0.072**	**0.05 J**	**0.11**	0.003 UJ	**0.035**
Carbon Disulfide	2.7	0.0004 U	0.00038 U	0.0004 U	0.00034 UJ	**0.001 J**	0.00044 U	0.00038 U	0.00042 UJ	0.00032 U	**0.001 J**	0.00044 UJ	0.00038 U	0.00041 U	0.00036 UJ	0.00039 U	**0.001 J**	0.00035 U	0.00046 U	0.00044 U	0.00037 U	**0.0012 J**
Carbon Tetrachloride	0.6	0.00028 U	0.00027 U	0.00028 U	0.00024 U	0.00025 U	0.0003 U	0.00026 U	0.00029 U	0.00023 U	0.00028 U	0.0003 U	0.00027 U	0.00029 U	0.00025 U	0.00027 U	0.00026 U	0.00024 U	0.00032 U	0.00031 U	0.00026 U	0.00025 U
Chloroform	0.3	0.0003 U	0.00029 U	0.0003 U	0.00026 U	0.00028 U	0.00034 U	0.00029 U	0.00032 U	0.00025 U	0.00031 U	0.00034 U	0.00029 U	0.00032 U	0.00028 U	0.0003 U	0.00029 U	0.00027 U	0.00035 U	0.00034 U	0.00028 U	0.00028 U
Methylene Chloride	0.1	0.00031 U	0.0016 U	**0.024 B**	0.0014 U	**0.021 B**	0.0069 U	0.00029 U	0.0096 U	0.0007 U	0.0008 U	0.0038 U	0.0054 U	**0.014 B**	0.00028 U	0.0008 U	0.0014 U	**0.021 B**	0.00035 U	0.0092 U	0.0006 U	0.0017 U
Styrene	NA	0.00016 U	0.00015 U	0.00016 U	0.00014 U	0.00014 U	0.00018 U	0.00015 U	0.00017 U	0.00013 U	0.00016 U	0.00018 U	0.00015 U	0.00016 U	0.00014 U	0.00016 U	0.00015 U	0.00014 U	0.00018 U	0.00018 U	0.00015 U	0.00015 U
Trichloroethene	0.7	0.00035 U	**0.0007 J**	0.00035 U	0.0003 U	0.00032 U	0.0004 U	0.00035 U	0.00038 U	**0.001 J**	0.00035 U	0.0004 U	0.00035 U	0.00038 U	0.00032 U	**0.0012 J**	0.00032 U	0.00032 U	0.0004 U	0.0004 U	0.00032 U	0.00032 U
Total VOCs	10	**0.0623**	**0.0602**	**0.3014**	**0.0157**	**0.1425**	**0.1315**	**0.0006**	**0.0206**	**0.0783**	**0.1497**	**0.0487**	**0.1306**	**0.1573**	**0.0823**	**0.0502**	**0.017**	**0.1089**	**0.05**	**0.1394**	**0.0023**	**0.0751**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																						
Acenaphthene	50	**0.0095 J**	**0.033 J**	**0.015 J**	**0.023 J**	**0.023 J**	**0.037 J**	**0.068 J**	**0.13 J**	**0.33 J**	**0.024 J**	**0.031 J**	**0.071 J**	**0.022 J**	**0.024 J**	**0.046 J**	**0.038 J**	**0.081 J**	**0.034 J**	**0.26 J**	**0.5**	**0.047 J**
Acenaphthylene	41	**0.037 J**	**0.018 J**	**0.025 J**	**0.018 J**	0.0036 U	**0.065 J**	**0.029 J**	**0.052 J**	**0.026 J**	0.0038 U	**0.077 J**	**0.031 J**	**0.019 J**	**0.022 J**	**0.019 J**	**0.036 J**	**0.11 J**	**0.015 J**	**0.063 J**	**0.11 J**	**0.25 J**
Anthracene	50	**0.044 J**	**0.082 J**	**0.045 J**	**0.058 J**	**0.051 J**	**0.11 J**	**0.16 J**	**0.25 J**	**0.52**	**0.047 J**	**0.11 J**	**0.18 J**	**0.054 J**	**0.074 J**	**0.086 J**	**0.086 J**	**0.17 J**	**0.077 J**	**0.44 J**	**1**	**0.27 J**
Benzo(a)anthracene	0.224	**0.18**	**0.2**	**0.15**	**0.18**	**0.17**	**0.39**	**0.48**	**0.68**	**0.93**	**0.15**	**0.36**	**0.48**	**0.17**	**0.23**	**0.21**	**0.27**	**0.37**	**0.28**	**0.94**	**1.6**	**0.96**
Benzo(a)pyrene	0.061	**0.18**	**0.21**	**0.13**	**0.18**	**0.17**	**0.41**	**0.49**	**0.66**	**0.94**	**0.12**	**0.39**	**0.43**	**0.15**	**0.22**	**0.24**	**0.29**	**0.37**	**0.26**	**0.82**	**1.3**	**0.78**
Benzo(b)fluoranthene	1.1	**0.19**	**0.24**	**0.11**	**0.13**	**0.18**	**0.28**	**0.44**	**0.58**	**0.83**	**0.088**	**0.29**	**0.36**	**0.13**	**0.21**	**0.26**	**0.26**	**0.25**	**0.22**	**0.67**	**1.1**	**0.61**
Benzo(ghi)perylene	50	**0.15 J**	**0.11 J**	**0.1 J**	**0.11 J**	**0.14 J**	**0.29 J**	**0.28 J**	**0.27 J**	**0.47**	**0.064 J**	**0.2 J**	**0.2 J**	**0.1 J**	**0.14 J**	**0.15 J**	**0.13 J**	**0.24 J**	**0.17 J**	**0.49 J**	**0.59**	**0.5**
Benzo(k)fluoranthene	1.1	**0.25**	**0.25**	**0.16 J**	**0.19**	**0.18**	**0.41**	**0.46**	**0.7**	**0.97**	**0.14**	**0.39**	**0.53 J**	**0.16 J**	**0.23**	**0.24**	**0.33**	**0.4 J**	**0.26**	**0.9 J**	**1.3**	**0.86**
Chrysene	0.4	**0.24 J**	**0.26 J**	**0.17 J**	**0.18 J**	**0.22 J**	**0.42 J**	**0.57**	**0.74**	**1**	**0.15 J**	**0.39 J**	**0.54**	**0.2 J**	**0.25 J**	**0.3 J**	**0.32 J**	**0.39 J**	**0.33 J**	**0.99**	**1.7**	**1**
Dibenz(a,h)anthracene	0.014	0.003 UJ	**0.048**	0.0031 U	**0.04**	0.0028 U	**0.071**	**0.09**	**0.13**	**0.22**	0.003 UJ	**0.05 J**	**0.077**	**0.024 J**	0.0026 UJ	**0.055**	0.0028 U	**0.072**	**0.051 J**	**0.046 J**	**0.21**	**0.19**
Fluoranthene	50	**0.28 J**	**0.46**	**0.25 J**	**0.37**	**0.35 J**	**0.58**	**1**	**1.6**	**2.6**	**0.3 J**	**0.69**	**0.98**	**0.22 J**	**0.41**	**0.61**	**0.6**	**0.62**	**0.67**	**1.9**	**4**	**1.7**
Fluorene	50	0.0031 U	**0.029 J**	0.0032 U	**0.02 J**	0.0029 U	**0.026 J**	**0.065 J**	**0.11 J**	**0.24 J**	0.0031 U	**0.033 J**	**0.081 J**	0.0032 U	0.0028 U	**0.055 J**	**0.033 J**	**0.044 J**	**0.027 J**	**0.28 J**	**0.44**	**0.1 J**
Indeno(1,2,3-cd)pyrene	3.2	**0.12**	**0.11**	**0.092**	**0.1**	**0.12**	**0.25**	**0.26**	**0.28**	**0.45**	**0.061**	**0.18**	**0.2**	**0.093**	**0.13**	**0.13**	**0.14**	**0.22**	**0.15**	**0.45**	**0.6**	**0.44**
Naphthalene	13	**0.026 J**	0.0038 U	**0.022 J**	**0.014 J**	0.0037 U	**0.047 J**	0.0039 U	**0.52**	**0.077 J**	0.004 U	**0.07 J**	**0.042 J**	**0.014 J**	0.0035 U	0.0039 U	**0.032 J**	**2.7**	**0.023 J**	**0.21 J**	**0.1 J**	**0.087 J**
Phenanthrene	50	**0.13 J**	**0.33 J**	**0.18 J**	**0.23 J**	**0.23 J**	**0.36 J**	**0.73**	**1.1**	**2**	**0.19 J**	**0.4 J**	**0.75**	**0.23 J**	**0.23 J**	**0.55**	**0.39 J**	**1.7**	**0.39 J**	**1.9**	**4**	**1.5**
Pyrene	50	**0.28 J**	**0.41 J**	**0.26 J**	**0.33 J**	**0.42**	**0.62**	**0.99**	**1.4 J**	**1.9**	**0.26 J**	**0.68 J**	**0.86**	**0.29 J**	**0.38 J**	**0.44**	**0.59**	**0.72**	**0.61**	**1.8**	**3.6**	**1.6**
Benzo(a)pyrene Equivalents	NA	**0.23174**	**0.31576**	**0.16697**	**0.26308**	**0.21902**	**0.57752**	**0.70317**	**0.95174**	**1.3917**	**0.15145**	**0.52729**	**0.61684**	**0.2151**	**0.27955**	**0.3577**	**0.36062**	**0.53039**	**0.37893**	**1.08199**	**1.8547**	**1.1806**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																						
2,4-Dimethylphenol	NA	0.042 U	0.04 U	0.043 U	0.03 U	0.039 U	0.045 U	0.041 U	0.045 U	0.034 U	0.042 U	0.047 U	0.042 U	0.043 U	0.037 U	0.041 U	0.039 U	**0.35 J**	0.051 U	0.048 U	0.038 U	**0.0086 J**
2-Methylnaphthalene	36.4	**0.012 J**	**0.011 J**	**0.012 J**	**0.0081 J**	**0.024 J**	**0.025 J**	**0.012 J**	**0.13 J**	**0.063 J**	0.021 U	**0.025 J**	**0.029 J**	**0.011 J**	0.019 U	0.021 U	**0.022 J**	**0.66**	0.026 U	**0.091 J**	**0.099 J**	**0.055 J**
2-Methylphenol	0.1	0.041 U	0.039 U	0.043 U	0.03 U	0.038 U	0.044 U	0.04 U	0.044 U	0.034 U	0.041 U	0.046 U	0.041 U	0.043 U	0.036 U	0.04 U	0.038 U	**0.28 J**	0.05 U	0.047 U	0.037 U	0.037 U
4-Chloroaniline	0.22	0.054 U	0.051 U	0.056 U	0.039 U	0.05 U	0.058 U	0.052 U	0.058 U	0.044 U	0.054 U	0.061 U	0.054 U	**0.018 J**	**0.016 J**	**0.054 J**	0.05 U	0.048 U	0.066 U	0.062 U	0.049 U	0.049 U
4-Methylphenol	0.9	**0.074 J**	**0.009 J**	0.046 U	0.033 U	0.042 U	**0.06 J**	0.044 U	**0.012 J**	**0.02 J**	0.044 U	**0.014 J**	**0.029 J**	**0.037 J**	**0.018 J**	**0.032 J**	**0.012 J**	**0.53**	0.054 U	0.052 U	0.041 U	**0.13 J**
4-Nitrophenol	0.1	0.014 U	0.013 U	0.014 UJ	0.01 U	0.013 U	**0.016 J**	0.013 U	0.015 U	0.011 U	0.014 U	0.015 U	0.014 UJ	**0.038 J**	0.012 U	0.013 U	0.013 U	0.012 UJ	0.017 U	**0.031 J**	0.012 U	0.012 U
bis(2-Ethylhexyl) phthalate	50	0.28 U	0.66 U	**0.61**	**0.31 J**	**0.33 J**	**0.44 J**	**0.81**	**0.64**	0.46 U	0.35 U	**0.5 J**	**1**	**0.56**	0.39 U	0.22 U	**0.66**	**0.14 J**	0.71 U	**1.6 B**	0.14 U	0.49 U
Butyl benzyl phthalate	50	0.018 U	0.017 U	**0.097 J**	0.013 U	0.017 U	0.02 U	0.018 U	0.02 U	0.015 U	0.018 U	0.021 U	0.018 U	**0.048 J**	0.016 U	0.018 U	0.017 U	0.016 U	0.022 U	0.021 U	0.017 U	0.017 U
Carbazole	NA	**0.016 J**	**0.048 J**	**0.025 J**	**0.035 J**	**0.028 J**	**0.05 J**	**0.085 J**	**0.17 J**	**0.27 J**	**0.026 J**	**0.052 J**	**0.12 J**	**0.039 J**	**0.03 J**	**0.06 J**	**0.056 J**	**0.12 J**	**0.056 J**	**0.28 J**	**0.36 J**	**0.18 J**
Dibenzofuran	6.2	0.023 U	**0.016 J**	**0.0099 J**	**0.011 J**	**0.014 J**	**0.017 J**	**0.03 J**	**0.053 J**	**0.12 J**	0.023 U	**0.016 J**	**0.041 J**	**0.011 J**	**0.011 J**	**0.032 J**	**0.026 J**	**0.097 J**	**0.015 J**	**0.18 J**	**0.32 J**	**0.092 J**
Diethyl phthalate	7.1	0.012 U	0.012 U	**0.16 J**	0.0089 U	0.011 U	0.013 U	0.012 U	0.013 U	0.01 U	0.012 U	0.014 U	0.012 U	**0.09 J**	0.011 U	0.012 U	0.011 U	0.011 U	0.015 U	0.014 U	0.011 U	0.011 U
Di-n-butyl phthalate	8.1	0.013 U	0.012 U	**0.13 J**	**0.068 J**	0.012 U	**0.12 J**	**0.19 J**	**0.17 J**	0.011 U	0.013 U	0.015 U	**0.15 J**	**0.14 J**	0.012 U	0.013 U	**0.22 J**	0.012 U	**0.15 J**	**0.15 J**	0.012 U	**0.15 J**
Pentachlorophenol	1	0.082 U	0.078 U	0.087 U	0.06 U	0.078 U	0.087 U	0.078 U	0.092 U	0.069 U	0.082 U	0.092 U	**0.011 J**	**0.01 J**	0.073 U	0.078 U	0.078 U	0.073 U	0.1 U	0.096 U	0.073 U	0.073 U
Phenol	0.03	**0.056 J**	***0.058 U***	***0.063 U***	***0.044 U***	***0.056 U***	***0.066 U***	***0.059 U***	***0.066 U***	***0.05 U***	***0.06 U***	**0.094 J**	***0.06 U***	**0.16 J**	***0.054 U***	***0.059 U***	***0.056 U***	**0.077 J**	***0.074 U***	***0.07 U***	***0.055 U***	***0.055 U***
Total SVOCs	500	**2.2745**	**2.874**	**2.7529**	**2.6051**	**2.65**	**5.094**	**7.239**	**10.377**	**13.976**	**1.62**	**5.042**	**7.192**	**3.038**	**2.625**	**3.569**	**4.541**	**10.711**	**3.788**	**14.491**	**22.929**	**11.5096**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values

Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21ER003 0 - 0.2 2/12/2004	21FA001 0 - 0.2 3/23/2004	21FA002 0 - 0.2 2/4/2004	21GH001 0 - 0.2 1/29/2004	21GH002 0 - 0.2 1/26/2004	21GH003 0 - 0.2 2/10/2004	21GH004 0 - 0.2 1/29/2004	21GH005 0 - 0.2 1/30/2004	21GH006 0 - 0.2 3/23/2004	21GH007 0 - 0.2 2/9/2004	21GH008 0 - 0.2 1/30/2004	21GH009 0 - 0.2 2/4/2004	21GH010 0 - 0.2 2/4/2004	21GH011 0 - 0.2 2/9/2004	21GH012 0 - 0.2 3/23/2004	21GH013 0 - 0.2 2/2/2004	21GH014 0 - 0.2 2/4/2004	21GH015 0 - 0.2 2/9/2004	21GH016 0 - 0.2 2/4/2004	21GH017 0 - 0.2 2/11/2004	21GH018 0 - 0.2 2/9/2004
Metals (mg/Kg)																						
Aluminum	SB	**4,460**	**9,790**	**10,000**	**8,500**	**7,160**	**12,000**	NS	**9,100**	**6,950**	**8,930**	**8,600**	NS	**12,300**	**7,130**	**7,510**	**12,200**	**7,740**	**13,900**	NS	**9,370**	**8,190 J**
Antimony	NA	1.0 UJ	1.5 UJ	1.1 U	0.94 UJ	0.98 U	1.1 U	NS	1.2 UJ	1.3 UJ	1.6 UJ	1.2 UJ	NS	1.1 U	1.4 UJ	1.5 UJ	2.2 U	0.94 U	1.3 U	NS	0.97 U	1.4 U
Arsenic	7.5 or SB	**4.8 J**	**21.4**	**11.7**	**7.9**	**23.6**	**15.4**	NS	**29.2**	**4.6**	**7.1**	**13.2**	NS	**29.6**	**5.5**	**7.2**	**47.2**	**5.2 J**	**25.3**	NS	**9.3**	**11.1**
Barium	300 or SB	**40.2 J**	**59.1**	**87.3**	**54.0**	**44.8 J**	**61.3**	NS	**81.7 J**	**27.7 J**	**49.6 J**	**81.1 J**	NS	**53.5 J**	**36.2 J**	**48.4 J**	**66.8 J**	**96.3**	**101**	NS	**77.0**	**73.2**
Beryllium	0.16 or SB	**0.20 J**	**0.43 J**	**0.58**	**0.42 J**	**0.26 J**	**0.51 J**	NS	**0.35 J**	**0.26 J**	**0.51 J**	**0.38 J**	NS	**0.41 J**	**0.30 J**	**0.29 J**	**0.48 J**	**0.42 J**	**0.69**	NS	**0.52**	**0.41 J**
Cadmium	1 or SB	**0.16 J**	**0.76 J**	**0.45 J**	**0.16 J**	**0.45 J**	**2.6**	NS	**0.63 J**	**0.11 J**	**0.31 J**	**0.60 J**	NS	**0.55 J**	0.096 U	**0.18 J**	**0.65 J**	**0.12 J**	**0.64 J**	NS	**0.53 J**	**0.41 J**
Calcium	SB	**4,580**	**2,230 J**	**3,650**	**2,060**	**5,640**	**3,300 J**	NS	**5,070**	**1,590 J**	**2,320 J**	**6,880**	NS	**4,130**	**2,850 J**	**2,520 J**	**2,940**	**3,510**	**4,840**	NS	**1,490 J**	**3,040**
Chromium	10 or SB	**15.1**	**37.5 J**	**98.2**	**47.1**	**59.4**	**53.2**	NS	**141**	**11.5 J**	**43**	**75.3**	NS	**75.3**	**10.2**	**12.5 J**	**67**	**19.5**	**79.8**	NS	**20.9**	**49.1**
Cobalt	30 or SB	**2.3 J**	**3.4 J**	**4.1 J**	**5.2 J**	**2.6 J**	**4.7 J**	NS	**4.4 J**	**2.9 J**	**5.1 J**	**4.5 J**	NS	**4.1 J**	**3.0 J**	**3.5 J**	**3.6 J**	**5.3 J**	**5.3 J**	NS	**4.6 J**	**4.9 J**
Copper	25 or SB	**17.0**	**46.6**	**47.1**	**42.2**	**60.8**	**39**	NS	**111 J**	**11.5**	**49.9 J**	**52.2 J**	NS	**71.8**	**27.6 J**	**46.5**	**109**	**37.5**	**47.3**	NS	**32.5**	**37.4**
Iron	2000 or SB	**6,890**	**12,200**	**14,000**	**13,800**	**11,400**	**15,400**	NS	**14,700 J**	**9,390**	**16,500**	**14,000 J**	NS	**15,400**	**9,580**	**10,300**	**15,400**	**13,400**	**18,100**	NS	**14,600**	**14,100 J**
Lead	SB	**40.3**	**89.0**	**155**	**66.3 J**	**89.1 J**	**81.0**	NS	**168 J**	**33.1**	**53.4 J**	**106 J**	NS	**99.4**	**28.8 J**	**37.0**	**128**	**66.3**	**165**	NS	**78.2**	**102**
Magnesium	SB	**1,740**	**1,270**	**1,920**	**2,120**	**1,910 J**	**1,970**	NS	**1,950**	**1,240**	**1,840**	**2,930**	NS	**1,870**	**1,510**	**1,280 J**	**1,550 J**	**2,140**	**2,200**	NS	**1,510**	**1,810**
Manganese	SB	**266**	**212**	**269 J**	**248**	**211 J**	**333**	NS	**169 J**	**122**	**323**	**299 J**	NS	**158 J**	**187**	**212**	**256**	**328 J**	**390**	NS	**363**	**288**
Mercury	0.1	**0.07**	**0.32 J**	**0.47 J**	**0.30 J**	**0.29 J**	**0.42**	NS	**0.52**	**0.10 J**	**0.25 J**	**0.31**	NS	**0.18 J**	**0.12 J**	**0.20 J**	**0.42**	**1.3 J**	**0.85**	NS	**0.47**	**0.47**
Nickel	13 or SB	**6.6 J**	**12.2**	**18.1**	**13.7**	**11.6**	**16.5**	NS	**20.1**	**7.1 J**	**13.3**	**18.3**	NS	**16.4**	**7.1 J**	**8.7 J**	**16.5**	**13.5**	**22.5**	NS	**13.1**	**14.4**
Potassium	SB	**433 J**	**422 J**	**496 J**	**606 J**	**345 J**	**460 J**	NS	**529 J**	**433 J**	**508 J**	**686 J**	NS	**428 J**	**348 J**	**403 J**	**512 J**	**761 J**	**683 J**	NS	**353 J**	**485 J**
Selenium	2 or SB	1.0 U	**1.2**	1.1 U	0.94 U	0.98 U	**1.1 J**	NS	1.2 UJ	0.94 U	1.1 U	1.2 UJ	NS	1.1 U	1.0 U	1.1 U	1.6 U	0.94 U	1.3 U	NS	0.97 U	1.0 U
Silver	SB	0.19 U	***0.36 U***	**0.62 J**	0.17 U	**0.43 J**	**0.34 J**	NS	**0.78 J**	***0.31 U***	***0.38 U***	**0.51 J**	NS	**0.44 J**	**0.50 J**	**1.3 J**	***0.53 U***	0.17 U	**0.74 J**	NS	**0.31 J**	**0.39 J**
Sodium	SB	**227 J**	102 U	102 U	86.6 U	90.8 U	106 U	NS	106 U	**119 J**	106 U	111 U	NS	101 U	94.8 U	104 U	151 U	87.1 U	119 U	NS	89.5 U	**123 J**
Vanadium	150 or SB	**16.1**	**30.3**	**62.9**	**37.5**	**43.8**	**47.2**	NS	**63.6**	**15.0**	**33.6**	**39.0**	NS	**65.0**	**15.7**	**17.3**	**67.0**	**26.1**	**70.6**	NS	**31.7**	**39.3**
Zinc	20 or SB	**53.5**	**84**	**88**	**70.0**	**106 J**	**77.6**	NS	**253**	**37.8**	**156**	**112**	NS	**89.9**	**51.7**	**79.0**	**75.8**	**90.5**	**114**	NS	**78.3**	**74.8**
Cyanide (mg/Kg)																						
Cyanide, Total	NA	0.5 U	0.5 U	**0.97**	0.5 U	0.5 U	0.5 U	NS	0.5 U	0.5 U	0.5 U	0.5 U	NS	**1.2**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NS	0.5 U	NS

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Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
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J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
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DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID		21GH019	21GH020	21GH021	21GH023	21GH025	21GH026	21GH027	21GH027A	21GH029	21GN001	21GN002	21GT001	21GT002	21MH001	21OT001	21OT002	21OT003	21OT004	21OT005	21OT006	21OT007
Depth Interval	NYSDEC RSCOs	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
Sample Date		2/9/2004	2/9/2004	2/11/2004	2/6/2004	1/26/2004	2/13/2004	2/2/2004	2/23/2004	3/23/2004	2/12/2004	2/13/2004	2/18/2004	2/24/2004	2/13/2004	2/11/2004	2/11/2004	2/27/2004	2/26/2004	3/8/2004	3/10/2004	2/27/2004
BTEX (mg/Kg)																						
Benzene	0.06	0.00032 U	**0.001 J**	**0.026**	**0.0008 J**	**0.034**	**0.0008 J**	**0.0008 J**	0.0003 U	0.00028 U	0.00032 U	**0.0006 J**	**0.0006 J**	**0.0025**	**0.0011 J**	**0.0008 J**	0.00032 U	**0.0007 J**	0.0003 U	0.00023 U	**0.0014**	0.0003 U
Ethyl Benzene	5.5	0.00028 U	0.00026 U	**0.0009 J**	0.00028 U	**0.0026 J**	**0.0006 J**	0.00029 U	0.00025 U	0.00023 U	**0.0009 J**	**0.001 J**	0.00022 U	0.00022 U	**0.0006 J**	0.00026 U	0.00028 U	0.00024 U	0.00025 U	0.00021 U	0.0002 U	0.00025 U
Toluene	1.5	**0.0023 J**	**0.0024 J**	**0.011 J**	**0.0016 J**	**0.023**	**0.002 J**	0.00029 U	0.00025 U	0.00023 U	0.0058 U	**0.0017 J**	0.00021 U	0.00022 U	**0.0018 J**	**0.0034 J**	**0.0038 J**	0.00024 U	0.00026 U	0.00021 U	**0.0014 J**	0.00025 U
Xylene (Total)	1.2	**0.0023 J**	0.00062 U	**0.0021 J**	0.00067 U	**0.0084**	**0.0028 J**	0.00069 U	0.0006 U	0.00056 U	**0.0028 J**	**0.0042 J**	0.00051 U	0.00054 U	**0.0018 J**	0.00063 U	0.00066 U	0.00058 U	0.00061 U	0.0005 U	0.0005 U	0.0006 U
Volatile Organic Compounds (VOCs) (mg/Kg)																						
1,2-Dichlorobenzene	7.9	0.049 U	0.049 U	0.043 U	0.052 U	0.089 U	0.045 U	0.052 U	0.044 U	0.042 U	0.049 U	0.046 U	0.04 U	0.041 U	0.041 U	0.048 U	0.049 U	0.044 U	0.045 U	0.038 U	0.038 U	0.048 U
1,4-Dichlorobenzene	8.5	**0.013 J**	0.054 U	0.048 U	0.057 U	0.098 U	0.05 U	0.057 U	0.049 U	0.046 U	0.054 U	0.051 U	0.044 U	0.045 U	0.045 U	0.052 U	0.054 U	0.049 U	0.05 U	0.042 U	0.042 U	0.052 U
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.0014 R**	**0.0013 R**	**0.0012 R**	0.0014 U	0.0012 U	**0.013**	0.0014 U	0.0012 U	**0.0011 R**	**0.0075**	0.0013 U	**0.001 R**	**0.0011 R**	**0.017**	**0.0013 R**	**0.0014 R**	0.0012 U	**0.0013 R**	**0.001 R**	**0.001 R**	0.0012 U
Acetone	0.2	0.0033 UJ	0.0031 UJ	0.0029 UJ	**0.082**	0.003 UJ	**0.14 J**	0.0035 UJ	0.003 U	**0.036**	**0.093**	0.0032 UJ	0.0026 U	**0.041 J**	**0.18 J**	**0.054 J**	**0.061 J**	0.029 U	0.034 U	0.0025 UJ	0.0025 UJ	0.035 U
Carbon Disulfide	2.7	0.00041 U	0.00039 U	0.00036 U	0.00042 U	**0.001 J**	0.00037 U	0.00043 U	0.00038 U	0.00035 U	0.00041 U	0.0004 U	0.00032 U	0.00034 U	**0.0006 J**	0.0004 U	0.00041 U	0.00036 U	0.00038 U	0.00031 U	0.00031 U	0.00038 U
Carbon Tetrachloride	0.6	0.00028 U	0.00027 U	0.00025 U	0.00029 U	0.00025 U	0.00026 U	0.0003 U	0.00026 U	0.00024 U	0.00028 U	**0.0018 J**	0.00022 U	0.00023 U	0.00024 U	0.00027 U	0.00029 U	0.00025 U	0.00026 U	0.00022 U	0.00022 U	0.00026 U
Chloroform	0.3	0.00032 U	0.0003 U	0.00028 U	0.00032 U	0.00028 U	0.00028 U	0.00033 U	0.00029 U	0.00027 U	0.00032 U	**0.0006 J**	0.00024 U	0.00026 U	0.00026 U	0.0003 U	0.00032 U	0.00028 U	0.00029 U	0.00024 U	0.00024 U	0.00029 U
Methylene Chloride	0.1	0.00031 U	0.0003 U	0.0005 U	**0.022 B**	**0.048 B**	0.0007 U	0.0018 U	0.00029 U	0.0005 U	0.0005 U	0.0018 U	0.0013 U	0.00025 U	0.0013 U	0.0008 U	0.00032 U	0.0006 U	0.001 U	0.00024 U	0.0006 U	0.0005 U
Styrene	NA	0.00016 U	0.00016 U	0.00014 U	0.00017 U	**0.002 J**	0.00015 U	0.00017 U	0.00015 U	0.00014 U	0.00016 U	0.00016 U	0.00013 U	0.00013 U	0.00014 U	0.00016 U	0.00016 U	0.00015 U	0.00015 U	0.00012 U	0.00012 U	0.00015 U
Trichloroethene	0.7	0.00038 U	0.00035 U	0.00032 U	0.00038 U	0.00032 U	0.00032 U	0.00038 U	0.00035 U	0.00032 U	0.00038 U	0.00035 U	0.0003 U	0.0003 U	0.0003 U	0.00035 U	0.00038 U	0.00032 U	0.00035 U	0.00027 U	0.00027 U	0.00035 U
Total VOCs	10	**0.0176**	**0.0034**	**0.04**	**0.1064**	**0.119**	**0.1592**	**0.0008**	ND	**0.036**	**0.1042**	**0.0099**	**0.0006**	**0.0435**	**0.2029**	**0.0582**	**0.0648**	**0.0007**	ND	ND	**0.0028**	ND
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																						
Acenaphthene	50	**0.03 J**	**0.083 J**	**0.052 J**	**0.048 J**	**3.7**	**0.0096 J**	**0.024 J**	0.0036 U	**0.052 J**	**0.042 J**	**0.21 J**	**0.24 J**	**0.012 J**	**0.016 J**	**0.13 J**	**0.036 J**	**0.023 J**	**0.014 J**	**0.22 J**	0.003 U	**0.92**
Acenaphthylene	41	**0.031 J**	**0.059 J**	**0.073 J**	**0.024 J**	**0.69 J**	**0.037 J**	**0.02 J**	0.0036 U	**0.044 J**	**0.016 J**	**0.023 J**	**0.48**	**0.043 J**	**0.038 J**	**0.026 J**	**0.025 J**	**0.2 J**	**0.036 J**	**0.049 J**	0.003 U	**0.034 J**
Anthracene	50	**0.066 J**	**0.081 J**	**0.15 J**	**0.12 J**	**2.9**	**0.05 J**	**0.068 J**	**0.014 J**	**0.14 J**	**0.1 J**	**0.41 J**	**0.62**	**0.051 J**	**0.043 J**	**0.38 J**	**0.087 J**	**0.079 J**	**0.044 J**	**0.87**	**0.019 J**	**1.4**
Benzo(a)anthracene	0.224	**0.27**	**0.41**	**0.49**	**0.34**	**2.3**	**0.21**	**0.24**	**0.071**	**0.4**	**0.3**	**0.82**	**0.84**	**0.2**	**0.12**	**0.82**	**0.22**	**0.21**	**0.16**	**3.8**	**0.093**	**3.3**
Benzo(a)pyrene	0.061	**0.25**	**0.45**	**0.51**	**0.31**	**1.8**	**0.22**	**0.21**	**0.072**	**0.39**	**0.26**	**0.7**	**0.97**	**0.18**	**0.13**	**0.58**	**0.16**	**0.28**	**0.15**	**3.5**	**0.14**	**2.6**
Benzo(b)fluoranthene	1.1	**0.25**	**0.42**	**0.38**	**0.25**	**1.2**	**0.19**	**0.22**	**0.072**	**0.44**	**0.24**	**0.58**	**0.58**	**0.15**	**0.12**	**0.58**	**0.16**	**0.23**	**0.14**	**3.7**	**0.1**	**2.2**
Benzo(ghi)perylene	50	**0.14 J**	**0.29 J**	**0.29 J**	**0.24 J**	**1**	**0.15 J**	**0.13 J**	**0.047 J**	**0.24 J**	**0.14 J**	**0.34 J**	**0.64**	**0.14 J**	**0.085 J**	**0.37 J**	**0.097 J**	**0.23 J**	**0.11 J**	**1.3**	**0.12 J**	**1.3**
Benzo(k)fluoranthene	1.1	**0.3**	**0.54**	**0.54**	**0.32**	**1.6**	**0.22**	**0.25**	**0.09**	**0.43**	**0.26**	**0.71**	**0.84**	**0.22**	**0.15**	**0.66**	**0.2**	**0.27**	**0.17**	**3.2**	**0.14**	**3.1**
Chrysene	0.4	**0.35 J**	**0.7**	**0.58**	**0.44 J**	**2.4**	**0.26 J**	**0.3 J**	**0.1 J**	**0.46**	**0.33 J**	**0.95**	**0.79**	**0.22 J**	**0.15 J**	**0.87**	**0.24 J**	**0.28 J**	**0.21 J**	**4.1**	**0.12 J**	**3.7**
Dibenz(a,h)anthracene	0.014	0.003 U	**0.059**	**0.079**	0.0032 U	**0.4**	**0.029 J**	**0.04 J**	0.0028 U	**0.11**	**0.042 J**	0.0029 U	0.0025 U	**0.039**	**0.032 J**	0.003 UJ	0.003 UJ	**0.061**	0.0028 U	**0.48**	0.0024 U	**0.53**
Fluoranthene	50	**0.6**	**1.4**	**1**	**0.86**	**5.6**	**0.42 J**	**0.52**	**0.14 J**	**0.96**	**0.7**	**1.9**	**2.1**	**0.42**	**0.27 J**	**1.8**	**0.54**	**0.35 J**	**0.33 J**	**6.2**	**0.16 J**	**9.3**
Fluorene	50	**0.024 J**	**0.11 J**	**0.051 J**	**0.047 J**	**2.8**	0.003 U	**0.03 J**	0.0029 U	**0.041 J**	**0.04 J**	**0.19 J**	**0.27 J**	**0.013 J**	0.0027 U	**0.16 J**	**0.033 J**	**0.017 J**	0.003 U	**0.18 J**	0.0025 U	**0.79**
Indeno(1,2,3-cd)pyrene	3.2	**0.14**	**0.28**	**0.24**	0.0032 U	**0.92**	**0.13**	**0.12**	**0.044**	**0.22**	**0.13**	**0.34**	**0.53**	**0.12**	**0.076**	**0.35 J**	**0.1 J**	**0.18**	**0.098**	**1.3**	**0.1**	**1.3**
Naphthalene	13	**0.03 J**	**0.044 J**	**0.032 J**	**0.024 J**	**8.6**	**0.018 J**	**0.036 J**	0.0037 U	**0.027 J**	**0.027 J**	**0.1 J**	**0.32 J**	**0.016 J**	**0.029 J**	**0.052 J**	**0.021 J**	**0.057 J**	**0.024 J**	**0.065 J**	0.0032 U	**0.51**
Phenanthrene	50	**0.34 J**	**1.3**	**0.57**	**0.54**	**9.4**	**0.21 J**	**0.34 J**	**0.079 J**	**0.61**	**0.47**	**1.6**	**2.2**	**0.23 J**	**0.18 J**	**1.5**	**0.41 J**	**0.24 J**	**0.18 J**	**3.5**	**0.066 J**	**7.8**
Pyrene	50	**0.55**	**1.2**	**0.98**	**0.73**	**6**	**0.42 J**	**0.53**	**0.13 J**	**0.74**	**0.65**	**1.6**	**1.7 J**	**0.36 J**	**0.27 J**	**1.6**	**0.45 J**	**0.42**	**0.31 J**	**7.2**	**0.18 J**	**6.9**
Benzo(a)pyrene Equivalents	NA	**0.31935**	**0.6261**	**0.70598**	**0.37264**	**2.6604**	**0.30446**	**0.3108**	**0.0917**	**0.61076**	**0.37193**	**0.88205**	**1.17419**	**0.26842**	**0.19525**	**0.76247**	**0.21024**	**0.40598**	**0.19171**	**4.8961**	**0.17082**	**3.8447**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																						
2,4-Dimethylphenol	NA	0.042 U	0.042 U	0.038 U	0.045 U	0.078 U	0.04 U	0.045 U	0.039 U	0.037 U	0.042 U	0.041 U	**0.011 J**	0.036 U	0.036 U	0.042 U	0.042 U	0.039 U	0.04 U	0.033 U	0.033 U	0.042 U
2-Methylnaphthalene	36.4	**0.02 J**	**0.064 J**	**0.017 J**	**0.016 J**	**3.4**	**0.01 J**	**0.025 J**	0.02 U	**0.016 J**	**0.015 J**	**0.048 J**	**0.18 J**	**0.0092 J**	**0.013 J**	**0.03 J**	**0.012 J**	**0.025 J**	**0.017 J**	**0.028 J**	0.017 U	**0.15 J**
2-Methylphenol	0.1	0.042 U	0.042 U	0.037 U	0.044 U	0.076 U	0.039 U	0.044 U	0.038 U	0.036 U	0.042 U	0.04 U	**0.0099 J**	0.035 U	0.035 U	0.041 U	0.042 U	0.038 U	0.039 U	0.033 U	0.033 U	0.041 U
4-Chloroaniline	0.22	0.055 U	0.055 U	0.049 U	0.058 U	0.1 U	0.051 U	0.058 U	0.05 U	0.048 U	0.055 U	0.052 U	0.045 U	0.046 U	0.046 U	0.054 U	0.055 U	0.05 U	0.051 U	0.043 U	0.043 U	0.054 U
4-Methylphenol	0.9	0.046 U	0.046 U	0.041 U	0.048 U	**0.069 J**	0.043 U	0.048 U	0.042 U	**0.012 J**	**0.034 J**	0.044 U	**0.034 J**	0.039 U	0.039 U	0.044 U	0.046 U	0.042 U	0.043 U	0.036 U	0.036 U	0.044 U
4-Nitrophenol	0.1	0.014 U	0.014 U	0.012 U	0.014 U	0.026 U	0.013 U	0.015 U	**0.013 J**	0.012 U	0.014 U	0.014 U	0.011 U	0.012 U	0.012 U	0.014 U	0.014 U	0.013 U	0.013 U	0.011 U	0.011 U	0.014 U
bis(2-Ethylhexyl) phthalate	50	0.58 U	0.58 U	0.29 U	**0.84**	**0.51 J**	0.23 U	**0.66**	**0.35 J**	0.4 U	**0.49**	0.46 U	**0.13 J**	**0.086 J**	0.28 U	**0.63**	**0.24 J**	**0.28 J**	**0.27 J**	**0.59**	0.022 U	**0.21 J**
Butyl benzyl phthalate	50	0.019 U	0.019 U	0.017 U	0.02 U	0.034 U	0.017 U	0.02 U	0.017 U	0.016 U	0.019 U	0.018 U	0.015 U	0.016 U	0.016 U	0.018 U	0.019 U	0.017 U	0.017 U	0.015 U	0.015 U	0.018 U
Carbazole	NA	**0.049 J**	**0.099 J**	**0.067 J**	**0.081 J**	**1**	**0.021 J**	**0.046 J**	0.0031 U	**0.078 J**	**0.058 J**	**0.24 J**	**0.24 J**	**0.017 J**	**0.024 J**	**0.22 J**	**0.048 J**	**0.032 J**	**0.027 J**	**0.15 J**	0.0026 U	**1.4**
Dibenzofuran	6.2	**0.016 J**	**0.066 J**	**0.023 J**	**0.024 J**	**2.3**	0.022 U	**0.018 J**	0.022 U	**0.031 J**	**0.025 J**	**0.1 J**	**0.15 J**	0.02 U	**0.0094 J**	**0.079 J**	**0.022 J**	**0.015 J**	**0.0095 J**	**0.084 J**	0.018 U	**0.54**
Diethyl phthalate	7.1	0.012 U	0.012 U	0.011 U	0.013 U	0.023 U	0.012 U	0.013 U	0.011 U	0.011 U	0.012 U	0.012 U	0.01 U	0.01 U	0.01 U	0.012 U	0.012 U	0.011 U	0.012 U	0.0097 U	0.0097 U	0.012 U
Di-n-butyl phthalate	8.1	**0.26 J**	**0.2 J**	**0.099 J**	**0.18 J**	0.024 U	0.012 U	**0.25 J**	0.012 U	**0.11 J**	0.013 U	**0.13 J**	0.011 U	0.011 U	0.011 U	0.013 U	0.013 U	**0.099 J**	**0.092 J**	0.01 U	0.01 U	0.013 U
Pentachlorophenol	1	0.087 U	0.082 U	0.073 U	0.087 U	0.16 U	0.078 UJ	0.092 U	**0.084 J**	0.073 U	0.082 U	0.082 UJ	0.069 U	0.073 U	0.073 UJ	0.082 U	0.082 U	0.078 U	0.078 U	0.064 U	0.064 U	0.082 U
Phenol	0.03	***0.062 U***	***0.062 U***	***0.055 U***	***0.066 U***	***0.11 U***	***0.058 U***	***0.066 U***	***0.056 U***	***0.054 U***	***0.062 U***	***0.059 U***	***0.051 U***	***0.052 U***	***0.052 U***	***0.06 U***	***0.062 U***	***0.056 U***	***0.058 U***	***0.048 U***	***0.048 U***	***0.06 U***
Total SVOCs	500	**3.716**	**7.855**	**6.223**	**5.434**	**58.589**	**2.6046**	**4.077**	**1.306**	**5.551**	**4.369**	**10.991**	**13.8749**	**2.5262**	**1.7554**	**10.837**	**3.101**	**3.578**	**2.3915**	**40.516**	**1.238**	**47.984**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values

Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21GH019 0 - 0.2 2/9/2004	21GH020 0 - 0.2 2/9/2004	21GH021 0 - 0.2 2/11/2004	21GH023 0 - 0.2 2/6/2004	21GH025 0 - 0.2 1/26/2004	21GH026 0 - 0.2 2/13/2004	21GH027 0 - 0.2 2/2/2004	21GH027A 0 - 0.2 2/23/2004	21GH029 0 - 0.2 3/23/2004	21GN001 0 - 0.2 2/12/2004	21GN002 0 - 0.2 2/13/2004	21GT001 0 - 0.2 2/18/2004	21GT002 0 - 0.2 2/24/2004	21MH001 0 - 0.2 2/13/2004	21OT001 0 - 0.2 2/11/2004	21OT002 0 - 0.2 2/11/2004	21OT003 0 - 0.2 2/27/2004	21OT004 0 - 0.2 2/26/2004	21OT005 0 - 0.2 3/8/2004	21OT006 0 - 0.2 3/10/2004	21OT007 0 - 0.2 2/27/2004
Metals (mg/Kg)																						
Aluminum	SB	**10,900**	**17,100**	**8,980**	**12,200**	5,810	**12,500**	**9,340**	**9,630 J**	**9,260**	6,680	**12,500**	NS	**8,010 J**	6,950	NS	NS	**9,970 J**	**11,500 J**	1,970 J	2,030	**12,200 J**
Antimony	NA	1.1 U	1.1 U	0.96 U	1.1 UJ	0.98 U	1.0 UJ	2.6 U	0.99 UJ	1.4 UJ	1.6 UJ	1.0 UJ	NS	0.91 U	0.91 UJ	NS	NS	1.5 UJ	1.5 U	1.3 UJ	0.84 U	1.6 UJ
Arsenic	7.5 or SB	**15.9**	**41**	**9.0**	**30.2**	**5.5 J**	**15.6**	**39.1**	**35**	**9.9**	**10.7**	**28.4**	NS	**8.7**	**6.9**	NS	NS	**18.7**	**25.2**	**1.3 J**	0.73 U	**27.7**
Barium	300 or SB	**100**	**119**	**77.5**	**85.0**	**44.2 J**	**76.5**	**44.7 J**	**34.6 J**	**62.3**	**29.9 J**	**81.9**	NS	**67.0**	**40.9 J**	NS	NS	**68.1**	**61.3**	**19.4 J**	**14.9 J**	**56.2**
Beryllium	0.16 or SB	**0.57**	**0.84**	**0.39 J**	**0.62**	**0.26 J**	**0.63**	**0.31 J**	**0.24 J**	**0.49**	**0.22 J**	**0.53**	NS	**0.47**	**0.36 J**	NS	NS	**0.45 J**	**0.40 J**	**0.10 J**	**0.15 J**	**0.43 J**
Cadmium	1 or SB	**0.42 J**	**0.49 J**	**0.52 J**	**0.81 J**	0.10 UJ	**0.76 J**	**0.65 J**	**0.51 J**	**0.61 J**	0.11 U	**0.62 J**	NS	**0.19 J**	**0.41 J**	NS	NS	**0.44 J**	0.10 U	**0.44 J**	0.086 U	**0.35 J**
Calcium	SB	**6,690**	**4,000**	**3,650 J**	**6,930 J**	**18,300**	**2,290**	**758 J**	**470 J**	**5,400 J**	**3,960**	**3,350**	NS	**1,810**	**10,500**	NS	NS	**4,350 J**	**2,780**	**628 J**	**728 J**	**4,070 J**
Chromium	10 or SB	**135**	**105**	**33.7**	**74.3 J**	**20.5**	**53.1**	**41.9**	**31.1 J**	**67.3 J**	**28.9**	**82.9**	NS	**24.6**	**31.5**	NS	NS	**80.6**	**49.9**	**7.3**	**5.7**	**54.6**
Cobalt	30 or SB	**4.5 J**	**5.2 J**	**5.3 J**	**4.6 J**	**2.6 J**	**4.7 J**	**1.8 J**	**1.8 J**	**4.0 J**	**2.4 J**	**3.7 J**	NS	**3.8 J**	**4.8 J**	NS	NS	**4.5 J**	**3.6 J**	**2.6 J**	**2.3 J**	**3.7 J**
Copper	25 or SB	**56.4**	**51.2**	**33.7**	**48.9**	**53.9**	**52.4 J**	**88.2**	**69.6**	**36.4**	**28.2**	**50.7 J**	NS	**30.1**	**42.3 J**	NS	NS	**61.6 J**	**53.1**	**17.3**	**8.3**	**63.3 J**
Iron	2000 or SB	**15,400**	**22,300**	**15,700**	**15,800**	**9,380**	**14,700 J**	**14,200**	**14,400**	**12,200**	**8,390 J**	**15,500 J**	NS	**14,800 J**	**11,900 J**	NS	NS	**16,100 J**	**15,200**	**6,010 J**	**5,500**	**15,900 J**
Lead	SB	**145**	**179**	**107**	**138**	**57.2 J**	**125**	**96.0**	**61.7**	**109**	**41.3**	**126**	NS	**92.4**	**43.6**	NS	NS	**195**	**98.5 J**	**41.3**	**12.1**	**174**
Magnesium	SB	**3,520**	**2,270**	**2,510**	**3,810 J**	**3,020 J**	**2,010**	**812 J**	**796 J**	**2,960**	**1,600**	**1,860**	NS	**1,250**	**4,070**	NS	NS	**2,180**	**1,660**	**844 J**	**759 J**	**1,770**
Manganese	SB	**238**	**510**	**315**	**333**	**141 J**	**286**	**150**	**206 J**	**216**	**150 J**	**186**	NS	**365**	**213**	NS	NS	**263**	**302 J**	**175**	**116**	**220**
Mercury	0.1	**2.2**	**0.93**	**0.44**	**0.60 J**	**0.30 J**	**0.48**	**0.41**	**0.29**	**0.48 J**	**0.21**	**0.66**	NS	**0.62**	**0.08**	NS	NS	**0.49**	**0.37**	**0.17 J**	**0.03 J**	**0.54**
Nickel	13 or SB	**19.6**	**21.6**	**19.8**	**20.2**	**7.7 J**	**17.5**	**8.0 J**	**5.1 J**	**16.8**	**8.2 J**	**16.5**	NS	**11.3**	**12.8**	NS	NS	**19.1**	**15.0**	**9.9**	**8.1 J**	**18.5**
Potassium	SB	**547 J**	**645 J**	**507 J**	**574 J**	**530 J**	**413 J**	**402 J**	**328 J**	**381 J**	**327 J**	**527 J**	NS	**337 J**	**749 J**	NS	NS	**439 J**	**343 J**	**356 J**	**457 J**	**393 J**
Selenium	2 or SB	**1.1 J**	1.1 U	0.96 U	**1.3 J**	0.98 U	**1.1 J**	1.9 U	0.99 U	1.00 U	1.2 U	1.0 U	NS	**1.2**	0.91 U	NS	NS	1.1 U	1.1 U	0.91 U	0.84 U	1.1 U
Silver	SB	**0.67 J**	**0.59 J**	**0.22 J**	**0.52 J**	0.18 U	0.18 U	***0.62 U***	**0.36 J**	**0.48 J**	***0.39 U***	0.19 U	NS	0.16 U	0.16 U	NS	NS	***0.35 U***	***0.36 U***	***0.30 U***	0.15 U	***0.37 U***
Sodium	SB	101 U	98.9 U	88.7 U	105 U	**167 J**	94.1 U	**171 J**	92.0 U	**126 J**	110 U	95.5 U	NS	84.1 U	84.1 U	NS	NS	99.2 U	101 U	**106 J**	77.9 U	106 U
Vanadium	150 or SB	**72.8**	**83.6**	**43.4**	**70.4**	**16.1**	**45.5**	**52.7**	**31.8**	**44.6**	**21.5**	**60.4**	NS	**31.5**	**28.4**	NS	NS	**65.4**	**48.8**	**11.9**	**10.3 J**	**55.6**
Zinc	20 or SB	**96.6**	**97**	**84.2**	**91**	**68.5 J**	**105**	**30.5**	**31.6**	**92.3**	**50.0**	**75.8**	NS	**75.4**	**68.9**	NS	NS	**107**	**83.7**	**65.2 J**	**25.9**	**102**
Cyanide (mg/Kg)																						
Cyanide, Total	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.0**	0.5 U	0.5 U	**0.74**	0.5 U	NS	0.5 U	0.5 U	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:

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Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
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J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
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R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
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Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID		21PF001	21PF002	21PF003	21PF004	21PF005	21PF006	21PF007	21PF008	21PF009	21PF010	21PF011	21PF012	21RE001	21RE002	21RE003	21RE004	21RE005	21RE006	21RE007	21RE008	21RE009	21RE010	21RE011
Depth Interval	NYSDEC RSCOs	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
Sample Date		2/13/2004	2/19/2004	2/19/2004	2/10/2004	2/20/2004	2/12/2004	2/17/2004	2/16/2004	2/16/2004	2/16/2004	2/16/2004	2/17/2004	2/17/2004	2/18/2004	2/5/2004	2/18/2004	2/6/2004	2/18/2004	2/25/2004	2/24/2004	2/25/2004	2/18/2004	2/17/2004
BTEX (mg/Kg)																								
Benzene	0.06	**0.0009 J**	0.00028 U	0.0003 U	**0.0063**	0.00032 U	**0.0008 J**	0.00028 U	**0.0077**	**0.011**	**0.0045**	**0.0064**	0.00028 U	0.00025 U	0.0003 U	0.0003 U	0.00028 U	**0.0006 J**	0.0003 U	0.00028 U	**0.0018**	0.00028 U	0.00025 U	0.00025 U
Ethyl Benzene	5.5	**0.0007 J**	0.00024 U	0.00025 U	**0.0038 J**	0.00029 U	**0.0009 J**	0.00024 U	**0.0009 J**	**0.0008 J**	**0.0005 J**	**0.0008 J**	0.00023 U	0.00022 U	0.00026 U	0.00026 U	0.00024 U	0.00023 U	0.00026 U	0.00024 U	0.00024 U	0.00024 U	0.00022 U	0.00022 U
Toluene	1.5	**0.0021 J**	0.00024 U	0.00025 U	**0.0058 J**	**0.0011 J**	**0.0064**	0.00024 U	**0.005 J**	**0.0048 J**	**0.0028 J**	**0.004 J**	0.00024 U	0.00023 U	**0.0027 J**	**0.001 J**	**0.0012 J**	**0.0023 J**	0.00026 U	0.00024 U	0.00024 U	0.00024 U	0.00022 U	0.00022 U
Xylene (Total)	1.2	**0.0023 J**	0.00058 U	0.0006 U	**0.0059 J**	**0.0021 J**	**0.0022 J**	0.00058 U	**0.0022 J**	**0.0022 J**	**0.0015 J**	**0.0016 J**	0.00057 U	0.00053 U	0.00061 U	0.00061 U	0.00057 U	**0.0026 J**	0.00063 U	0.00057 U	0.00058 U	0.00058 U	0.00052 U	0.00052 U
Volatile Organic Compounds (VOCs) (mg/Kg)																								
1,2-Dichlorobenzene	7.9	0.044 U	0.043 U	0.046 U	0.043 U	0.25 U	0.046 U	0.044 U	0.04 U	0.042 U	0.04 U	0.044 U	0.043 U	0.04 U	0.046 UJ	0.045 U	0.042 U	0.085 U	0.049 U	0.043 U	0.042 U	0.044 U	0.04 U	0.04 U
1,4-Dichlorobenzene	8.5	0.049 U	**0.0099 J**	0.051 U	0.048 U	0.28 U	0.051 U	0.049 U	0.044 U	0.046 U	0.044 U	0.049 U	0.048 U	0.044 U	0.051 UJ	0.05 U	0.046 U	0.093 U	0.054 U	0.048 U	0.046 U	0.049 U	0.044 U	0.044 U
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.019**	0.0012 U	0.0012 U	0.0012 U	**0.0014 R**	0.0013 U	0.0012 U	**0.0079 J**	**0.0097 J**	**0.0086 J**	**0.01 J**	0.0012 U	0.0011 U	**0.011 J**	0.0013 U	**0.007 J**	0.0012 U	**0.0013 R**	0.0012 U	**0.0012 R**	0.0012 U	**0.0056 J**	0.0011 U
Acetone	0.2	**0.21 J**	0.0029 UJ	0.003 UJ	**0.027 J**	**0.039 J**	**0.1 J**	**0.07 J**	**0.081**	**0.094**	**0.09**	**0.088**	**0.09 J**	**0.088 J**	**0.13**	**0.16 J**	**0.12**	**0.1**	0.0032 UJ	**0.062 J**	**0.042 J**	**0.055 J**	**0.099**	**0.098 J**
Carbon Disulfide	2.7	0.00037 U	0.00036 U	0.00038 U	0.00036 U	0.00043 U	0.00038 U	0.00036 U	0.00032 U	0.00036 U	0.00029 U	0.00036 U	0.00035 U	0.00033 U	0.00038 U	0.00038 U	0.00035 U	0.00035 U	0.0004 U	0.00035 U	**0.0007 J**	0.00036 U	0.00032 U	0.00032 U
Carbon Tetrachloride	0.6	0.00026 U	0.00025 U	0.00026 U	0.00025 U	0.0003 U	0.00027 U	0.00025 U	0.00023 U	0.00025 U	0.0002 U	0.00025 U	0.00025 U	0.00023 U	0.00027 U	0.00027 U	0.00025 U	0.00025 U	0.00027 U	0.00025 U	0.00025 U	0.00025 U	0.00023 U	0.00023 U
Chloroform	0.3	0.00028 U	0.00028 U	0.00029 U	0.00028 U	0.00033 U	0.00029 U	0.00028 U	0.00025 U	0.00028 U	0.00022 U	0.00028 U	0.00027 U	0.00025 U	0.00029 U	0.00029 U	0.00027 U	0.00027 U	0.0003 U	0.00027 U	0.00028 U	0.00028 U	0.00025 U	0.00025 U
Methylene Chloride	0.1	0.0018 U	0.00028 U	0.00029 U	0.00028 U	0.00033 U	0.0008 U	0.0015 U	0.0014 U	0.0024 U	0.0014 U	0.002 U	0.0014 U	0.0012 U	0.0026 U	0.0017 U	0.0018 U	**0.025 B**	0.0017 U	0.00028 U	0.0008 U	0.00028 U	0.0012 U	0.0016 U
Styrene	NA	0.00015 U	0.00014 U	0.00015 U	**0.0022 J**	0.00017 U	0.00015 U	0.00014 U	0.00013 U	0.00014 U	0.00012 U	0.00014 U	0.00014 U	0.00013 U	0.00015 U	0.00015 U	0.00014 U	0.00014 U	0.00016 U	0.00014 U	0.00014 U	0.00014 U	0.00013 U	0.00013 U
Trichloroethene	0.7	0.00032 U	0.00032 U	0.00035 U	0.00032 U	0.00038 U	0.00035 U	0.00032 U	0.0003 U	0.00032 U	0.00027 U	0.00032 U	0.00032 U	0.0003 U	0.00035 U	0.00035 U	0.00032 U	0.00032 U	0.00035 U	0.00032 U	0.00032 U	0.00032 U	0.0003 U	0.0003 U
Total VOCs	10	**0.235**	**0.0099**	ND	**0.051**	**0.0422**	**0.1103**	**0.07**	**0.1047**	**0.1225**	**0.1079**	**0.1108**	**0.09**	**0.088**	**0.1437**	**0.161**	**0.1282**	**0.1305**	ND	**0.062**	**0.0445**	**0.055**	**0.1046**	**0.098**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																								
Acenaphthene	50	**0.011 J**	**0.031 J**	**0.024 J**	0.0035 U	**4.5**	**0.013 J**	**0.057 J**	0.0032 U	**0.0098 J**	**0.12 J**	**0.016 J**	**0.025 J**	**0.024 J**	**0.0091 J**	**0.029 J**	**0.1 J**	**0.2 J**	**0.017 J**	**0.17 J**	**0.035 J**	**0.029 J**	**0.023 J**	0.0032 U
Acenaphthylene	41	0.0036 U	**0.027 J**	**0.02 J**	0.0035 U	0.02 U	**0.02 J**	**0.11 J**	0.0032 U	**0.014 J**	0.0032 U	**0.056 J**	**0.073 J**	**0.082 J**	**0.044 J**	**0.02 J**	**0.094 J**	**0.37 J**	0.0039 U	**0.034 J**	**0.081 J**	**0.049 J**	**0.023 J**	0.0032 U
Anthracene	50	**0.021 J**	**0.093 J**	**0.074 J**	**0.027 J**	**5**	**0.042 J**	**0.21 J**	**0.017 J**	**0.034 J**	**0.2 J**	**0.057 J**	**0.086 J**	**0.11 J**	**0.056 J**	**0.072 J**	**0.28 J**	**0.2 J**	**0.066 J**	**0.26 J**	**0.1 J**	**0.073 J**	**0.066 J**	**0.018 J**
Benzo(a)anthracene	0.224	**0.076**	**0.3**	**0.29**	**0.12**	**11**	**0.16**	**0.85**	**0.068**	**0.2**	**0.43**	**0.18**	**0.32**	**0.42**	**0.29 J**	**0.28**	**0.63**	**0.43**	**0.22**	**0.73**	**0.34**	**0.24**	**0.19**	**0.091**
Benzo(a)pyrene	0.061	**0.08**	**0.26**	**0.2**	**0.11**	**11**	**0.12**	**0.92**	**0.053**	**0.17**	**0.35**	**0.18**	**0.31**	**0.75**	**0.28 J**	**0.24**	**0.67 J**	**0.52**	**0.23**	**0.69**	**0.35**	**0.22**	**0.2**	**0.079**
Benzo(b)fluoranthene	1.1	**0.075**	**0.28**	**0.27**	**0.11**	**9**	**0.14**	**0.69**	**0.047**	**0.19**	**0.31**	**0.16**	**0.25**	**0.62**	**0.22 J**	**0.23**	**0.58 J**	**0.34**	**0.2**	**0.57**	**0.25**	**0.18**	**0.17**	**0.064**
Benzo(ghi)perylene	50	**0.057 J**	**0.19 J**	**0.17 J**	**0.075 J**	**8.4**	**0.1 J**	**0.6**	**0.029 J**	**0.13 J**	**0.21 J**	**0.15 J**	**0.24 J**	**0.74**	**0.16 J**	**0.14 J**	**0.19 J**	**0.39 J**	0.0049 U	**0.38 J**	**0.24 J**	**0.15 J**	**0.12 J**	**0.051 J**
Benzo(k)fluoranthene	1.1	**0.094**	**0.28**	**0.26**	**0.12**	**11**	**0.17**	**0.89**	**0.065**	**0.21**	**0.38**	**0.21**	**0.34**	**0.62**	**0.28 J**	**0.26**	**0.84 J**	**0.49**	**0.24**	**0.78**	**0.4**	**0.25**	**0.21**	**0.097**
Chrysene	0.4	**0.099 J**	**0.36 J**	**0.35 J**	**0.14 J**	**12**	**0.18 J**	**0.87**	**0.067 J**	**0.23 J**	**0.45**	**0.22 J**	**0.36 J**	**0.5**	**0.29 J**	**0.34 J**	**0.71**	**0.55 J**	**0.25 J**	**0.89**	**0.4 J**	**0.27 J**	**0.24 J**	**0.12 J**
Dibenz(a,h)anthracene	0.014	0.0028 U	0.0027 U	0.0029 U	0.0027 U	**0.72**	0.0029 UJ	**0.24 J**	0.0025 UJ	0.0026 UJ	0.0025 UJ	0.0028 UJ	0.0027 UJ	**0.065 J**	0.0029 UJ	0.0028 U	0.0026 UJ	0.0053 U	0.003 U	**0.13**	**0.098**	**0.057**	0.0025 U	0.0025 UJ
Fluoranthene	50	**0.18 J**	**0.61**	**0.62**	**0.19 J**	**23**	**0.34 J**	**1.5**	**0.12 J**	**0.36 J**	**1.1**	**0.39 J**	**0.66**	**0.74**	**0.47 J**	**0.61**	**1.4**	**0.8**	**0.41 J**	**1.8**	**0.62**	**0.54**	**0.38**	**0.18 J**
Fluorene	50	0.0029 U	**0.026 J**	0.003 U	0.0028 U	**3.7**	0.003 U	**0.053 J**	0.0026 U	0.0028 U	**0.095 J**	**0.013 J**	**0.024 J**	**0.022 J**	0.003 UJ	**0.023 J**	**0.1 J**	**0.3 J**	0.0032 U	**0.16 J**	**0.038 J**	**0.023 J**	**0.017 J**	0.0026 U
Indeno(1,2,3-cd)pyrene	3.2	**0.051**	**0.16**	**0.16**	**0.074**	**7.5**	**0.083**	**0.59 J**	**0.027 J**	**0.12**	**0.19**	**0.12**	**0.2 J**	**0.68**	**0.17 J**	**0.14**	**0.2 J**	**0.31**	0.003 U	**0.38**	**0.21**	**0.14**	**0.11**	**0.048 J**
Naphthalene	13	**0.013 J**	**0.03 J**	**0.023 J**	0.0036 U	**4.8**	**0.018 J**	**0.04 J**	0.0034 U	0.0035 U	**0.027 J**	**0.035 J**	**0.03 J**	**0.037 J**	0.0039 UJ	**0.034 J**	**0.066 J**	**0.2 J**	0.0041 U	**0.16 J**	**0.13 J**	0.0037 U	**0.017 J**	0.0034 U
Phenanthrene	50	**0.1 J**	**0.38 J**	**0.32 J**	**0.1 J**	**27**	**0.2 J**	**0.73**	**0.078 J**	**0.16 J**	**0.87**	**0.22 J**	**0.36 J**	**0.35 J**	**0.18 J**	**0.36 J**	**0.98**	**1.1**	**0.24 J**	**1.6**	**0.47**	**0.28 J**	**0.26 J**	**0.086 J**
Pyrene	50	**0.18 J**	**0.52**	**0.54**	**0.19 J**	**24**	**0.32 J**	**1.5**	**0.12 J**	**0.33 J**	**0.89**	**0.36 J**	**0.57**	**0.72**	**0.49 J**	**0.58 J**	**1.4 J**	**0.92**	**0.41 J**	**1.6**	**0.61**	**0.46**	**0.38 J**	**0.17 J**
Benzo(a)pyrene Equivalents	NA	**0.101239**	**0.33716**	**0.27495**	**0.14174**	**14.592**	**0.16018**	**1.38277**	**0.067917**	**0.22333**	**0.44725**	**0.22832**	**0.39076**	**0.9937**	**0.35109**	**0.30794**	**0.82011**	**0.63345**	**0.27465**	**0.99669**	**0.5324**	**0.33577**	**0.24934**	**0.10039**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																								
2,4-Dimethylphenol	NA	0.039 U	0.038 U	0.041 U	0.038 U	0.22 U	0.041 U	0.039 U	0.035 U	0.037 U	0.035 U	0.039 U	0.038 U	0.035 U	0.041 UJ	0.04 U	0.037 U	0.074 U	0.042 U	0.038 U	0.037 U	0.039 U	0.035 U	0.035 U
2-Methylnaphthalene	36.4	0.02 U	**0.021 J**	**0.01 J**	0.019 U	**1.4 J**	**0.01 J**	**0.022 J**	0.018 U	0.019 U	**0.018 J**	**0.014 J**	**0.013 J**	**0.013 J**	0.021 UJ	**0.021 J**	**0.057 J**	**1.4**	0.022 U	**0.038 J**	**0.05 J**	**0.011 J**	**0.0089 J**	0.018 U
2-Methylphenol	0.1	0.038 U	0.037 U	0.04 U	0.037 U	***0.22 U***	0.04 U	0.038 U	0.034 U	0.036 U	0.034 U	0.038 U	0.037 U	0.034 U	0.04 UJ	0.039 U	0.036 U	0.073 U	0.042 U	0.037 U	0.036 U	0.038 U	0.034 U	0.034 U
4-Chloroaniline	0.22	0.05 U	0.049 U	0.052 U	0.049 U	***0.29 U***	0.052 U	0.05 U	0.045 U	0.048 U	0.045 U	0.05 U	0.049 U	0.045 U	0.052 UJ	0.051 U	0.048 U	0.096 U	0.055 U	0.049 U	0.048 U	0.05 U	0.045 U	0.045 U
4-Methylphenol	0.9	0.042 U	**0.55**	0.044 U	0.041 U	**0.063 J**	0.044 U	0.042 U	0.038 U	0.04 U	0.038 U	**0.012 J**	**0.0087 J**	0.038 U	**0.3 J**	**0.016 J**	**0.017 J**	0.079 U	0.046 U	0.041 U	0.04 U	0.042 U	0.038 U	0.038 U
4-Nitrophenol	0.1	0.013 U	0.012 U	0.014 U	0.012 U	0.073 U	0.013 U	0.013 U	0.011 U	**0.068 J**	0.011 U	0.013 U	0.012 U	0.011 U	0.013 UJ	0.013 U	0.012 U	0.024 U	0.014 U	0.012 U	0.012 U	0.013 U	0.011 U	0.011 U
bis(2-Ethylhexyl) phthalate	50	0.28 U	**0.97**	**0.37 J**	**0.21 J**	**0.52 J**	0.31 U	**0.5**	**0.47**	**0.33 J**	**0.62**	**0.4 J**	**0.38 J**	**0.17 J**	**0.31 J**	0.51 U	0.26 U	**0.2 J**	0.34 U	**0.25 J**	**0.23 J**	**0.35 J**	0.32 U	**0.21 J**
Butyl benzyl phthalate	50	0.017 U	0.017 U	0.018 U	0.017 U	0.097 U	0.018 U	0.017 U	0.015 U	0.016 U	0.015 U	0.017 U	0.017 U	0.015 U	0.018 UJ	0.017 U	**0.13 J**	0.032 U	0.019 U	0.017 U	0.016 U	0.017 U	0.015 U	0.015 U
Carbazole	NA	0.0031 U	**0.045 J**	**0.045 J**	**0.035 J**	**4.2**	**0.023 J**	**0.068 J**	0.0028 U	**0.02 J**	**0.11 J**	**0.027 J**	**0.045 J**	**0.073 J**	0.0032 UJ	**0.047 J**	**0.1 J**	0.0059 U	**0.028 J**	**0.23 J**	**0.044 J**	**0.041 J**	**0.034 J**	**0.012 J**
Dibenzofuran	6.2	0.022 U	**0.017 J**	**0.012 J**	0.021 U	**2.8**	0.023 U	**0.028 J**	0.02 U	0.021 U	**0.053 J**	0.022 U	**0.013 J**	**0.011 J**	0.023 UJ	**0.013 J**	**0.056 J**	0.041 U	0.024 U	**0.11 J**	**0.019 J**	**0.014 J**	**0.0097 J**	0.02 U
Diethyl phthalate	7.1	0.011 U	0.011 U	0.012 U	0.011 U	0.065 U	0.012 U	0.011 U	0.01 U	0.011 U	0.01 U	0.011 U	0.011 U	0.01 U	0.012 UJ	0.012 U	0.011 U	0.022 U	0.012 U	**0.11 J**	0.011 U	0.011 U	0.01 U	0.01 U
Di-n-butyl phthalate	8.1	0.012 U	**0.14 J**	0.013 U	0.012 U	0.07 U	**0.091 J**	**0.11 J**	0.011 U	0.012 U	0.011 U	0.012 U	0.012 U	0.011 U	0.013 UJ	**0.12 J**	0.012 U	0.023 U	0.013 U	0.012 U	0.012 U	**0.14 J**	0.011 U	0.011 U
Pentachlorophenol	1	0.078 UJ	0.073 U	0.082 U	0.073 U	0.44 U	0.078 U	0.078 U	0.069 U	**0.051 J**	0.069 U	0.078 U	0.073 U	0.069 U	0.078 UJ	0.078 U	0.073 U	0.15 U	0.082 U	0.073 U	0.073 U	0.078 U	0.069 U	0.069 U
Phenol	0.03	***0.056 U***	***0.055 U***	***0.059 U***	***0.055 U***	***0.32 U***	***0.059 U***	***0.056 U***	***0.051 U***	**0.064 J**	***0.051 U***	**0.082 J**	***0.055 U***	***0.051 U***	***0.059 UJ***	***0.058 U***	***0.054 U***	***0.11 U***	***0.062 U***	***0.055 U***	***0.054 U***	***0.056 U***	***0.051 U***	***0.051 U***
Total SVOCs	500	**1.037**	**5.29**	**3.758**	**1.501**	**171.603**	**2.03**	**10.578**	**1.161**	**2.6908**	**6.423**	**2.902**	**4.3077**	**6.747**	**3.5491**	**3.575**	**8.6**	**8.72**	**2.311**	**11.072**	**4.715**	**3.517**	**2.4586**	**1.226**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values

Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21PF001 0 - 0.2 2/13/2004	21PF002 0 - 0.2 2/19/2004	21PF003 0 - 0.2 2/19/2004	21PF004 0 - 0.2 2/10/2004	21PF005 0 - 0.2 2/20/2004	21PF006 0 - 0.2 2/12/2004	21PF007 0 - 0.2 2/17/2004	21PF008 0 - 0.2 2/16/2004	21PF009 0 - 0.2 2/16/2004	21PF010 0 - 0.2 2/16/2004	21PF011 0 - 0.2 2/16/2004	21PF012 0 - 0.2 2/17/2004	21RE001 0 - 0.2 2/17/2004	21RE002 0 - 0.2 2/18/2004	21RE003 0 - 0.2 2/5/2004	21RE004 0 - 0.2 2/18/2004	21RE005 0 - 0.2 2/6/2004	21RE006 0 - 0.2 2/18/2004	21RE007 0 - 0.2 2/25/2004	21RE008 0 - 0.2 2/24/2004	21RE009 0 - 0.2 2/25/2004	21RE010 0 - 0.2 2/18/2004	21RE011 0 - 0.2 2/17/2004
Metals (mg/Kg)																								
Aluminum	SB	**14,100**	**11,300 J**	**12,300 J**	**12,400**	**9,770 J**	**10,500**	**10,600**	**8,990 J**	**12,200 J**	**9,630 J**	**10,300 J**	**10,500**	**8,400**	**13,100**	**11,700**	**6,250**	**7,260**	**6,360**	**9,940**	**6,630 J**	**9,710**	**8,810**	**10,400**
Antimony	NA	0.99 UJ	1.4 U	1.5 U	0.96 U	1.7 UJ	1.0 UJ	0.99 UJ	1.3 UJ	1.4 UJ	1.3 UJ	1.5 UJ	0.96 UJ	0.90 UJ	1.5 UJ	1.0 U	1.4 UJ	0.93 UJ	1.6 UJ	1.4 UJ	0.94 U	1.5 UJ	1.3 UJ	0.90 UJ
Arsenic	7.5 or SB	**31**	**10.2 J**	**26.5 J**	**27.2**	**11.6**	**11.7**	**14.9**	**6.1**	**8.1**	**9.9**	**14.5**	**12.6**	**14.4**	**29.4**	**14.1**	**4.6**	**5.8**	**5.1**	**7.7 J**	**6.1**	**6.9 J**	**7.4**	**5.3 J**
Barium	300 or SB	**44.1 J**	**63.0**	**50.2 J**	**33.5 J**	**63.7**	**75.6**	**88.1 J**	**45.0**	**53.8**	**53.3**	**68.4**	**57.4 J**	**44.0 J**	**47.1 J**	**74.4**	**62.5**	**51.1**	**41.8 J**	**67.3**	**111**	**61.0**	**55.6**	**42.6 J**
Beryllium	0.16 or SB	**0.47 J**	**0.53**	**0.43 J**	**0.31 J**	**0.48 J**	**0.58**	**0.57**	**0.48**	**0.52**	**0.52**	**0.53**	**0.59**	**0.43 J**	**0.42 J**	**0.57**	**0.34 J**	**0.41 J**	**0.30 J**	**0.58**	**0.43 J**	**0.6**	**0.46**	**0.40 J**
Cadmium	1 or SB	**0.31 J**	**0.16 J**	**0.32 J**	**0.37 J**	**0.64 J**	**0.71 J**	**0.68 J**	0.090 U	**0.18 J**	0.091 U	**0.69 J**	**0.25 J**	**0.15 J**	**0.81 J**	**0.74 J**	**0.26 J**	**0.16 J**	**0.26 J**	**0.21 J**	**0.26 J**	**0.35 J**	**0.21 J**	**0.20 J**
Calcium	SB	**1,600**	**559 J**	**4,270 J**	**1,170 J**	**4,490**	**3,980**	**8,340**	**750 J**	**3,390**	**1,350**	**3,720**	**981 J**	**1,990**	**1,400 J**	**4,290**	**29,100 J**	**3,150 J**	**4,580 J**	**1,430 J**	**6,300**	**2,590 J**	**1,250 J**	**2,660**
Chromium	10 or SB	**41**	**84.5 J**	**54.5 J**	**26.0**	**53.3**	**113**	**63.8 J**	**17.2**	**25.0**	**25.0**	**58.6**	**28.8 J**	**28.8 J**	**36.2 J**	**81.7 J**	**14.8 J**	**20.9 J**	**25.3 J**	**31.5**	**44**	**46.6**	**30.1 J**	**29.2 J**
Cobalt	30 or SB	**3.8 J**	**3.8 J**	**3.8 J**	**3.1 J**	**4.0 J**	**4.5 J**	**5.1 J**	**5.3 J**	**4.0 J**	**4.1 J**	**4.3 J**	**4.4 J**	**5.0 J**	**3.3 J**	**4.8 J**	**3.9 J**	**5.6 J**	**3.5 J**	**4.6 J**	**4.9 J**	**4.6 J**	**5.1 J**	**4.4 J**
Copper	25 or SB	**64.2 J**	**58.9 J**	**49.7 J**	**45.9**	**36**	**50.9**	**52.2 J**	**14.7**	**18.6**	**17.6**	**34.9**	**29.5 J**	**41.7 J**	**45.2 J**	**42.2**	**29.1 J**	**25.7**	**22.2 J**	**22.9**	**111**	**27.7**	**24.3 J**	**22.2 J**
Iron	2000 or SB	**16,000 J**	**16,000**	**15,900**	**13,900**	**12,400 J**	**14,400**	**16,500**	**15,600 J**	**15,600 J**	**12,500 J**	**14,200 J**	**13,200**	**15,700**	**15,000**	**16,400**	**11,600**	**13,000**	**9,580**	**11,400**	**17,500 J**	**12,100**	**12,200**	**14,400**
Lead	SB	**75.8**	**112 J**	**80.3 J**	**44.5**	**96.5**	**125**	**163 J**	**18.9**	**56.6**	**39.2**	**105**	**86.5 J**	**48.4 J**	**89.3 J**	**123**	**78.7 J**	**83.5**	**60.4 J**	**62.5**	**90.0**	**76.4**	**90.0 J**	**53.2 J**
Magnesium	SB	**1,700**	**1,450**	**1,960**	**1,330**	**1,920**	**2,030**	**4,290 J**	**1,700**	**2,640**	**1,720**	**2,090**	**1,480 J**	**1,800 J**	**1,490**	**2,230**	**8,760**	**2,090 J**	**2,090**	**1,560**	**2,430**	**1,720**	**1,600**	**2,160 J**
Manganese	SB	**192**	**199 J**	**223 J**	**169**	**250 J**	**300**	**329**	**268 J**	**236 J**	**258 J**	**288 J**	**351**	**299**	**178**	**312**	**178**	**292**	**159**	**290**	**356**	**378**	**339**	**205**
Mercury	0.1	**0.32**	**0.26 J**	**0.46 J**	**0.25**	**0.61 J**	**0.52**	**1.1 J**	**0.15**	**0.3**	**0.36**	**0.57**	**0.51 J**	**0.22 J**	**0.29 J**	**0.41 J**	**0.17 J**	**0.25 J**	**0.22 J**	**0.32**	**0.22**	**0.33**	**0.27 J**	**0.30 J**
Nickel	13 or SB	**12.5**	**14.2**	**14.1**	**8.7 J**	**15.5**	**19**	**19.7**	**10.7**	**12.4**	**10.3**	**16.9**	**13.1**	**13.4**	**12.1 J**	**19.8**	**11.8 J**	**15.0**	**10.4 J**	**14.3**	**17.3**	**17.2**	**12.8 J**	**11.4**
Potassium	SB	**440 J**	**325 J**	**394 J**	**321 J**	**471 J**	**469 J**	**520 J**	**575 J**	**416 J**	**451 J**	**549 J**	**408 J**	**714 J**	**319 J**	**503 J**	**680 J**	**508 J**	**531 J**	**174 J**	**670 J**	**191 J**	**330 J**	**493 J**
Selenium	2 or SB	0.99 U	1.4 U	1.1 U	0.96 U	1.2 U	1.0 U	**1.3**	0.95 U	1.0 U	0.95 U	1.1 U	**1.0 J**	**0.97 J**	1.1 U	1.0 U	1.00 U	0.93 U	1.2 U	1.0 U	0.94 U	1.1 U	0.95 U	0.90 U
Silver	SB	0.18 U	**1.00 J**	**0.54 J**	0.17 U	***0.40 U***	**0.39 J**	**0.47 J**	***0.32 U***	***0.34 U***	***0.32 U***	***0.36 U***	0.17 U	0.16 U	***0.37 U***	**0.54 J**	***0.33 U***	0.17 U	***0.39 U***	***0.34 U***	0.17 U	***0.35 U***	***0.32 U***	0.16 U
Sodium	SB	91.9 U	97.5 U	104 U	88.9 U	**119 J**	94.6 U	91.4 U	89.5 U	95.4 U	89.6 U	100 U	88.5 U	83.2 U	**110 J**	93.5 U	**194 J**	86.2 U	**118 J**	97.3 U	86.8 U	99.1 U	**96.8 J**	82.9 U
Vanadium	150 or SB	**44.5**	**66.7**	**51.6**	**33.3**	**41.9**	**62.6**	**60.0**	**25.3**	**31.5**	**27.6**	**48.6**	**37.1**	**40.3**	**38.5**	**61.1**	**22.7**	**25.1**	**25.2**	**33.9**	**39.3**	**44.6**	**29.1**	**40.1**
Zinc	20 or SB	**51.3**	**39.7 J**	**76.9 J**	**37.7**	**80.1**	**87.7**	**99.9**	**31.2**	**48.9**	**36.9**	**78.4**	**54.7**	**62.0**	**62.4 J**	**98.7**	**136 J**	**61.3**	**62.9 J**	**52.4**	**150**	**70.4**	**53.4 J**	**51.5**
Cyanide (mg/Kg)																								
Cyanide, Total	NA	0.5 U	**2.3**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID		21RE012	21RS001	21RS002	21RS003	21RS004	21RS005	21SC001	21SC002	21SC003	21SC004	21TP004	21TP005	21TP007	21TP011	21TP012	21TP013	21TP015	21VH001	21VH002
Depth Interval	NYSDEC RSCOs	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
Sample Date		2/18/2004	2/9/2004	1/27/2004	1/27/2004	2/4/2004	2/3/2004	2/10/2004	2/20/2004	2/19/2004	2/11/2004	2/2/2004	2/4/2004	2/2/2004	2/6/2004	2/6/2004	2/10/2004	2/10/2004	2/23/2004	2/11/2004
BTEX (mg/Kg)																				
Benzene	0.06	0.0003 U	**0.0008 J**	**0.021**	**0.0011 J**	**0.0027**	**0.002 J**	0.00028 U	0.00023 U	0.00023 U	0.00028 U	**0.0009 J**	**0.0045**	**0.0021**	0.0003 U	0.0003 U	**0.0016**	**0.0018**	**0.0006 J**	**0.001 J**
Ethyl Benzene	5.5	0.00026 U	0.00024 U	**0.038**	0.00028 U	**0.0014 J**	0.00023 UJ	0.00025 U	0.0002 U	0.0002 U	0.00024 U	0.00024 U	0.00022 U	0.00022 U	0.00026 U	**0.001 J**	**0.0019 J**	**0.0012 J**	0.0002 U	**0.0006 J**
Toluene	1.5	0.00026 U	**0.0034 J**	**0.022**	0.00028 U	**0.0016 J**	**0.001 J**	**0.0034 J**	0.00021 U	0.0002 U	0.0016 U	0.00024 U	**0.0028 J**	**0.0026 J**	**0.0015 J**	**0.0019 J**	**0.0035 J**	**0.0023 J**	0.0002 U	0.0013 U
Xylene (Total)	1.2	0.00063 U	0.00058 U	**0.038**	0.00068 U	**0.0046 J**	0.00057 UJ	0.0006 U	**0.0012 J**	0.00047 U	0.0006 U	0.00058 U	0.00052 U	0.00053 U	0.00063 U	**0.0041 J**	**0.011**	**0.003 J**	0.00049 U	**0.0027 J**
Volatile Organic Compounds (VOCs) (mg/Kg)																				
1,2-Dichlorobenzene	7.9	0.048 U	0.045 U	0.15 U	0.051 U	0.042 U	0.042 U	0.045 U	0.037 U	0.037 U	0.046 U	0.042 U	0.04 U	0.04 U	0.049 U	0.046 U	0.044 U	0.042 U	0.037 U	0.041 U
1,4-Dichlorobenzene	8.5	0.052 U	0.05 U	0.16 U	0.056 U	**0.011 J**	0.046 U	0.05 U	0.041 U	0.041 U	0.051 U	0.046 U	0.044 U	0.044 U	0.054 U	0.051 U	0.049 U	0.046 U	0.041 U	0.045 U
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.0013 R**	**0.0012 R**	0.0019 U	**0.0014 R**	0.0011 U	**0.0012 R**	**0.0012 R**	**0.001 R**	0.00097 U	**0.0012 R**	0.0012 U	0.0011 U	0.0011 U	0.0013 U	0.0013 U	**0.0085**	**0.012**	0.001 U	**0.0011 R**
Acetone	0.2	**0.023**	**0.034 J**	**0.061**	**0.011 J**	**0.11**	**0.075 J**	**0.024 J**	**0.028 J**	**0.023**	**0.03 J**	0.0029 UJ	**0.032 J**	0.0027 UJ	**0.086**	**0.13**	**0.054 J**	**0.081 J**	**0.042 J**	**0.036 J**
Carbon Disulfide	2.7	0.0004 U	0.00036 UJ	0.00058 U	0.00043 UJ	0.00034 U	0.00035 UJ	0.00037 U	0.00031 U	0.00029 U	0.00037 U	0.00036 U	0.00032 U	0.00033 U	**0.0017 J**	0.00038 U	**0.0011 J**	0.00035 U	0.00031 U	0.00034 U
Carbon Tetrachloride	0.6	0.00027 U	0.00025 U	0.00041 U	0.00029 U	0.00024 U	0.00025 UJ	0.00026 U	0.00022 U	0.00021 U	0.00026 U	0.00025 U	0.00023 U	0.00023 U	0.00027 U	0.00026 U	0.00025 U	0.00024 U	0.00021 U	0.00024 U
Chloroform	0.3	0.0003 U	0.00028 U	**0.005 J**	0.00033 U	0.00026 U	0.00027 UJ	0.00028 U	0.00024 U	0.00022 U	0.00028 U	0.00028 U	0.00025 U	0.00025 U	0.0003 U	0.00029 U	0.00027 U	0.00027 U	0.00023 U	0.00026 U
Methylene Chloride	0.1	0.0023 U	0.0011 U	0.0029 U	0.012 U	**0.04 B**	0.0043 U	0.00028 U	0.00024 U	0.0006 U	0.001 U	0.0015 U	0.0014 U	0.0027 U	0.0018 U	0.012 U	**0.015 B**	**0.02 B**	0.00023 U	0.0004 U
Styrene	NA	0.00016 U	0.00015 U	**0.004 J**	0.00017 U	0.00014 U	0.00014 UJ	0.00015 U	0.00012 U	0.00012 U	0.00015 U	0.00014 U	0.00013 U	0.00013 U	0.00016 U	0.00015 U	0.00014 U	0.00014 U	0.00012 U	0.00014 U
Trichloroethene	0.7	0.00035 U	0.00032 U	0.00051 U	0.00038 U	0.0003 U	0.00032 UJ	0.00032 U	0.00027 U	0.00027 U	0.00032 U	0.00032 U	0.0003 U	0.0003 U	0.00035 U	0.00035 U	0.00032 U	0.00032 U	0.00027 U	0.0003 U
Total VOCs	10	**0.023**	**0.0382**	**0.189**	**0.0121**	**0.1713**	**0.078**	**0.0274**	**0.0292**	**0.023**	**0.03**	**0.0009**	**0.0393**	**0.0047**	**0.0892**	**0.137**	**0.0966**	**0.1213**	**0.0426**	**0.0403**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																				
Acenaphthene	50	**0.021 J**	**0.032 J**	**4.1**	0.0041 U	**0.069 J**	**0.2 J**	0.0036 U	0.003 U	0.003 U	**0.019 J**	**0.038 J**	**0.0092 J**	0.0032 U	**0.054 J**	**0.056 J**	**0.027 J**	**0.13 J**	**0.018 J**	0.0033 U
Acenaphthylene	41	0.0038 U	**0.09 J**	**13**	**0.035 J**	**0.14 J**	**0.53**	**0.016 J**	0.003 U	0.003 U	**0.029 J**	**0.032 J**	**0.011 J**	**0.016 J**	**0.67**	**0.069 J**	**0.069 J**	**0.15 J**	**0.042 J**	**0.054 J**
Anthracene	50	**0.065 J**	**0.13 J**	**7.3**	**0.033 J**	**0.26 J**	**0.63**	**0.077 J**	0.0027 U	0.0027 U	**0.08 J**	**0.097 J**	**0.025 J**	**0.0099 J**	**0.41 J**	**0.16 J**	**0.081 J**	**0.24 J**	**0.074 J**	**0.04 J**
Benzo(a)anthracene	0.224	**0.25**	**0.38**	**4.1**	**0.15**	**0.65**	**2.2**	**0.64**	**0.037**	**0.017 J**	**0.41**	**0.29**	**0.12**	**0.054**	**1.1**	**0.42**	**0.23**	**0.88**	**0.25**	**0.2**
Benzo(a)pyrene	0.061	**0.23**	**0.37**	**3.4**	**0.21**	**0.64**	**2.7 J**	**0.53**	**0.042**	**0.016 J**	**0.33**	**0.27**	**0.094**	**0.061**	**0.98**	**0.42**	**0.23**	**0.81**	**0.25**	**0.21**
Benzo(b)fluoranthene	1.1	**0.2**	**0.28**	**1.3**	**0.17**	**0.56**	**2 J**	**0.59**	**0.037**	**0.014 J**	**0.31**	**0.24**	**0.074**	**0.05**	**0.83**	**0.37**	**0.18**	**0.67**	**0.2**	**0.19**
Benzo(ghi)perylene	50	0.0048 U	**0.22 J**	**1.9**	**0.14 J**	**0.2 J**	**2.7 J**	**0.35 J**	**0.026 J**	0.0037 U	**0.24 J**	**0.18 J**	**0.066 J**	**0.043 J**	**0.36 J**	**0.15 J**	**0.17 J**	**0.5**	**0.15 J**	**0.13 J**
Benzo(k)fluoranthene	1.1	**0.26**	**0.38**	**1.9**	**0.17**	**0.76 J**	**2.1 J**	**0.62**	**0.048**	**0.017 J**	**0.41**	**0.28**	**0.098**	**0.05**	**1.2**	**0.5**	**0.22**	**0.86**	**0.23**	**0.24**
Chrysene	0.4	**0.31 J**	**0.41 J**	**4.6**	**0.2 J**	**0.74**	**2.3**	**0.72**	**0.041 J**	**0.019 J**	**0.49**	**0.34 J**	**0.13 J**	**0.075 J**	**1.2**	**0.47**	**0.25 J**	**0.99**	**0.25 J**	**0.26 J**
Dibenz(a,h)anthracene	0.014	0.003 U	**0.079**	**0.57**	0.0032 U	**0.09**	**0.8 J**	0.0028 UJ	0.0023 U	0.0023 U	0.0029 UJ	**0.043**	**0.0092 J**	0.0025 U	**0.097**	**0.044 J**	**0.037 J**	**0.15**	**0.059**	0.0026 U
Fluoranthene	50	**0.5**	**0.6**	**6**	**0.24 J**	**1.2**	**3**	**0.92**	**0.063 J**	**0.025 J**	**0.63**	**0.62**	**0.21 J**	**0.097 J**	**1.8**	**0.86**	**0.4 J**	**2**	**0.47**	**0.45**
Fluorene	50	0.0031 U	**0.068 J**	**8.6**	0.0033 U	**0.078 J**	**0.23 J**	0.003 U	0.0024 U	0.0024 U	**0.019 J**	**0.037 J**	0.0026 U	0.0026 U	**0.074 J**	**0.049 J**	**0.026 J**	**0.16 J**	0.0024 U	0.0027 U
Indeno(1,2,3-cd)pyrene	3.2	0.0029 U	**0.19**	**1.4**	**0.12**	**0.22**	**2.2 J**	**0.34 J**	**0.02 J**	0.0023 U	**0.2 J**	**0.17**	**0.056**	**0.039**	**0.32**	**0.15**	**0.14**	**0.49**	**0.14**	**0.1**
Naphthalene	13	0.004 U	**0.13 J**	**14**	0.0042 U	**0.065 J**	**1.2**	**0.015 J**	0.0031 U	**0.045 J**	**0.044 J**	**0.038 J**	0.0034 U	0.0034 U	**0.12 J**	**0.034 J**	**0.037 J**	**0.14 J**	0.0031 U	**0.011 J**
Phenanthrene	50	**0.34 J**	**0.42 J**	**26**	**0.12 J**	**0.87**	**2.6**	**0.26 J**	**0.025 J**	**0.021 J**	**0.31 J**	**0.47**	**0.11 J**	**0.043 J**	**1**	**0.56**	**0.27 J**	**2**	**0.33 J**	**0.18 J**
Pyrene	50	**0.48 J**	**0.63**	**16**	**0.29 J**	**1.3**	**5.4**	**0.83**	**0.075 J**	**0.026 J**	**0.63**	**0.6**	**0.2 J**	**0.11 J**	**2.6**	**0.93**	**0.38 J**	**1.9**	**0.43**	**0.41**
Benzo(a)pyrene Equivalents	NA	**0.27791**	**0.53821**	**4.6736**	**0.2559**	**0.88134**	**4.1633**	**0.69392**	**0.051921**	**0.019289**	**0.42659**	**0.38614**	**0.12931**	**0.075875**	**1.3152**	**0.56347**	**0.32445**	**1.17359**	**0.37055**	**0.26166**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																				
2,4-Dimethylphenol	NA	0.042 U	0.04 U	0.13 U	0.044 U	0.037 U	0.037 U	0.04 U	0.032 U	0.032 U	0.041 U	0.037 U	0.035 U	0.035 U	0.042 U	0.041 U	0.039 U	0.037 U	0.032 U	0.036 U
2-Methylnaphthalene	36.4	**0.012 J**	**0.043 J**	**23**	**0.011 J**	**0.039 J**	**0.27 J**	0.02 U	0.016 U	**0.011 J**	**0.019 J**	**0.023 J**	0.018 U	0.018 U	**0.093 J**	**0.019 J**	**0.016 J**	**0.059 J**	0.016 U	0.018 U
2-Methylphenol	0.1	0.041 U	0.039 U	***0.13 U***	0.044 U	0.036 U	0.036 U	0.039 U	0.032 U	0.032 U	0.04 U	0.036 U	0.034 U	0.034 U	0.042 U	0.04 U	0.038 U	0.036 U	0.032 U	0.035 U
4-Chloroaniline	0.22	0.054 U	0.051 U	0.17 U	0.057 U	0.048 U	0.048 U	0.051 U	0.042 U	0.042 U	0.052 U	0.048 U	0.045 U	0.045 U	0.055 U	0.052 U	0.05 U	0.048 U	0.042 U	0.046 U
4-Methylphenol	0.9	0.044 U	**0.02 J**	0.14 U	0.048 U	**0.011 J**	0.04 U	0.043 U	0.035 U	0.035 U	**0.056 J**	**0.016 J**	0.038 U	0.038 U	0.046 U	**0.016 J**	**0.0093 J**	**0.016 J**	0.035 U	0.039 U
4-Nitrophenol	0.1	0.014 U	0.013 U	0.041 U	0.014 U	0.012 UJ	0.012 U	0.013 U	0.011 U	0.011 U	0.013 U	0.012 U	0.011 UJ	0.011 U	0.014 U	0.014 U	0.013 U	0.012 U	0.011 U	0.012 U
bis(2-Ethylhexyl) phthalate	50	0.39 U	**0.21 J**	**0.47 J**	**0.25 J**	**1.9**	**0.25 J**	**0.24 J**	**0.074 J**	0.021 U	**0.36 J**	**0.33 J**	**0.17 J**	**0.088 J**	**0.74**	**0.41 J**	**0.32 J**	**0.24 J**	**0.2 J**	0.23 U
Butyl benzyl phthalate	50	0.018 U	0.017 U	0.057 U	0.019 U	**0.15 J**	0.016 U	0.017 U	0.014 U	0.014 U	0.018 U	0.016 U	0.015 U	0.015 U	0.019 U	0.018 U	0.017 U	0.016 U	0.014 U	0.016 U
Carbazole	NA	**0.044 J**	**0.041 J**	**0.25 J**	0.0035 U	**0.11 J**	**0.21 J**	**0.026 J**	0.0026 U	0.0026 U	**0.024 J**	**0.059 J**	**0.016 J**	0.0028 U	**0.094 J**	**0.07 J**	**0.04 J**	**0.24 J**	**0.032 J**	**0.02 J**
Dibenzofuran	6.2	0.023 U	**0.039 J**	**1.8**	0.025 U	**0.041 J**	**0.2 J**	0.022 U	0.018 U	0.018 U	**0.0092 J**	**0.031 J**	0.02 U	0.02 U	**0.031 J**	**0.029 J**	**0.013 J**	**0.13 J**	**0.014 J**	0.02 U
Diethyl phthalate	7.1	0.012 U	0.012 U	0.038 U	0.013 U	0.011 U	0.011 U	0.012 U	0.0094 U	0.0094 U	0.012 U	0.011 U	0.01 U	0.01 U	0.012 U	**0.1 J**	0.011 U	0.011 U	0.0094 U	0.01 U
Di-n-butyl phthalate	8.1	**0.096 J**	0.012 U	0.04 U	0.014 U	**0.095 J**	0.012 U	0.012 U	0.01 U	0.01 U	0.013 U	**0.084 J**	0.011 U	0.011 U	**0.11 J**	0.013 U	0.012 U	0.012 U	0.01 U	0.011 U
Pentachlorophenol	1	0.082 U	0.078 U	0.25 U	0.087 U	0.073 U	0.073 U	0.078 U	0.064 U	0.064 U	0.078 U	0.073 U	0.069 U	0.069 U	0.082 U	0.082 U	0.078 U	0.073 U	0.064 U	0.073 U
Phenol	0.03	***0.06 U***	***0.058 U***	***0.19 U***	***0.064 U***	***0.054 U***	***0.054 U***	***0.058 U***	***0.047 U***	***0.047 U***	***0.059 U***	***0.054 U***	***0.051 U***	***0.051 U***	***0.062 U***	***0.059 U***	**0.074 J**	***0.054 U***	***0.047 U***	***0.052 U***
Total SVOCs	500	**2.808**	**4.762**	**139.69**	**2.139**	**10.188**	**31.72**	**6.174**	**0.488**	**0.211**	**4.6192**	**4.288**	**1.3984**	**0.7359**	**13.883**	**5.886**	**3.2193**	**12.755**	**3.139**	**2.495**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21RE012 0 - 0.2 2/18/2004	21RS001 0 - 0.2 2/9/2004	21RS002 0 - 0.2 1/27/2004	21RS003 0 - 0.2 1/27/2004	21RS004 0 - 0.2 2/4/2004	21RS005 0 - 0.2 2/3/2004	21SC001 0 - 0.2 2/10/2004	21SC002 0 - 0.2 2/20/2004	21SC003 0 - 0.2 2/19/2004	21SC004 0 - 0.2 2/11/2004	21TP004 0 - 0.2 2/2/2004	21TP005 0 - 0.2 2/4/2004	21TP007 0 - 0.2 2/2/2004	21TP011 0 - 0.2 2/6/2004	21TP012 0 - 0.2 2/6/2004	21TP013 0 - 0.2 2/10/2004	21TP015 0 - 0.2 2/10/2004	21VH001 0 - 0.2 2/23/2004	21VH002 0 - 0.2 2/11/2004
Metals (mg/Kg)																				
Aluminum	SB	**11,300**	6,140	4,420	**8,780**	7,170	7,770 J	**9,000**	633 J	1,260 J	**9,110**	**8,740**	**8,810**	**15,200**	NS	6,330	**8,760**	**8,810**	1,480 J	**11,400**
Antimony	NA	1.6 UJ	1.0 U	1.6 UJ	1.1 UJ	0.94 U	2.1 U	1.5 U	1.8 UJ	1.2 U	**1.6 J**	2.1 U	0.89 U	2.0 U	NS	1.0 UJ	0.98 U	0.94 U	0.81 UJ	0.92 U
Arsenic	7.5 or SB	**15.8**	**5.3 J**	**4.3 J**	**18.9**	8.8	5.8	9.1	1.0 U	**2.1 J**	8.0	**16.9**	8.7	**13.8**	NS	**5.3 J**	**5.9 J**	**18.9**	**1.9 J**	10.1
Barium	300 or SB	71.7	55.7	50.9 J	62.2	101	89.5	66.0	3.1 J	4.8 J	65.3	53.6 J	59.0	69.4	NS	85.2	63.5	43.5 J	15.0 J	68.6
Beryllium	0.16 or SB	**0.51 J**	0.31 J	0.16 J	0.36 J	0.37 J	0.44 J	0.44 J	0.095 U	0.17 J	0.43 J	0.38 J	**0.54**	**0.64 J**	NS	0.36 J	**0.51**	0.36 J	0.07 J	**0.57**
Cadmium	1 or SB	0.92 J	0.69 J	0.16 U	0.29 J	0.28 J	0.21 J	0.43 J	0.13 U	0.17 J	0.54 J	0.44 J	0.092 U	0.14 U	NS	0.28 J	0.60 J	0.48 J	0.083 U	0.76 J
Calcium	SB	4,650 J	**32,800**	6,740	3,490	7,280	9,060	7,950	142 J	**141,100 J**	6,780	2,820	1,630	1,490 J	NS	**28,900 J**	4,440 J	2,420 J	1,450	3,510 J
Chromium	10 or SB	**72.0 J**	15.4	20.6	**64.8**	**64.4**	20.1	**88.5**	1.4 J	2.5 J	**57.8**	**41.3**	22.1	21.4	NS	28.0 J	**56.6**	**40.3**	3.5 J	**37.5**
Cobalt	30 or SB	4.3 J	3.3 J	3.7 J	3.7 J	4.3 J	6.2 J	4.6 J	0.54 U	2.8 J	5.2 J	3.8 J	4.2 J	4.2 J	NS	3.7 J	4.9 J	2.9 J	1.9 J	5.3 J
Copper	25 or SB	**47.1 J**	27.9	27.7	**57.2**	**38.1**	**37.9**	33.4	2.1 J	6.2 J	**46.9**	**37.3**	20.8	16.0	NS	26.5	32.6	33.3	4.4 J	29.0
Iron	2000 or SB	**14,900**	10,200	9,100	13,900	11,900	13,300 J	12,200	1,400 J	6,280	14,200	13,000	11,800	**18,400**	NS	9,400	12,200	13,200	5,180	**17,200**
Lead	SB	170 J	64.0	46.2	109	125	104	82.1	2.4	10.7 J	92.4	66.5	46.2	34.5	NS	82.1	87.8	97.4	10.4	77.0
Magnesium	SB	2,360	**15,100**	1,990	1,710	2,970	**4,130**	**4,220**	213 J	**76,900**	3,070	1,540 J	1,450	1,580 J	NS	2,850 J	2,280	1,290	1,250	2,250
Manganese	SB	258	200	177	275	270 J	283	264	38.6 J	244 J	285	276	306	310	NS	190	288	154	84.8 J	**423**
Mercury	0.1	**0.40 J**	**0.24**	**0.31**	**0.27**	**0.32 J**	**1.1**	**0.29**	0.02 U	0.018 U	**0.28**	**0.31**	**0.46**	**0.6**	NS	**0.20 J**	**0.28**	**0.26**	**0.02 J**	**0.47**
Nickel	13 or SB	**19.0 J**	9.8 J	11.2 J	**16.3**	**16.6**	**26.5**	**15.9**	1.2 J	7.6 J	**19.1**	11.7 J	12.7	11.2 J	NS	12.8	**17.4**	10.9	4.8 J	15.3
Potassium	SB	483 J	534 J	588 J	533 J	529 J	953 J	423 J	99.9 U	522 J	542 J	498 J	223 J	331 J	NS	601 J	516 J	467 J	416 J	400 J
Selenium	2 or SB	1.1 U	1.0 U	1.6 U	1.1 U	0.94 U	1.5 U	1.1 U	1.3 U	0.88 U	1.1 U	1.5 U	0.89 U	1.4 U	NS	1.0 U	0.98 U	0.94 U	0.81 U	0.92 U
Silver	SB	**0.38 J**	**0.23 J**	***0.29 U***	**0.50 J**	**0.25 J**	***0.50 U***	***0.37 U***	***0.44 U***	***0.29 U***	***0.37 U***	***0.50 U***	0.16 U	***0.48 U***	NS	0.19 U	**0.35 J**	**0.19 J**	0.15 U	**0.30 J**
Sodium	SB	115 J	103 J	**419 J**	135 J	86.9 U	213 J	103 U	125 U	106 J	***220 U***	143 U	82.7 U	136 U	NS	96.3 U	90.6 U	86.6 U	75.2 U	85.4 U
Vanadium	150 or SB	65.3	19.4	16.1 J	48.1	31.2	25.1	36.6	3.1 J	6.2 J	48.0	34.6	27.8	27.4	NS	26.1	40.2	43.0	9.6 J	42.6
Zinc	20 or SB	**99.2 J**	65.9	61.3	**83.6**	**105**	**92**	81.6	5.5 J	28.8 J	**106**	57.5	48.5	34.7	NS	**97.6**	**89.6**	57.0	13.9	76.0
Cyanide (mg/Kg)																				
Cyanide, Total	NA	0.5 U	0.5 U	NS	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:

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mg/Kg = milligram per kilogram
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Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

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DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	Summary Statistics											
		Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	ID for Max Concentration	Min Detected Concentration	ID for Min Concentration	Average Detected Concentration	Min DL for NonDetects	Max DL for NonDetects
BTEX (mg/Kg)													
Benzene	0.06	105	52	53	1	0	0.072	21GH007-01	0.0005	21GH009-01	0.005361538	0.00023	0.00034
Ethyl Benzene	5.5	105	29	76	0	0	0.038	21RS002-01	0.0003	21GH001-01	0.003072414	0.0002	0.00031
Toluene	1.5	105	47	58	0	0	0.023	21GH025-01	0.001	21RS005-01	0.003655319	0.0002	0.0058
Xylene (Total)	1.2	105	37	68	0	0	0.15	21FA002-01	0.0012	21SC002-01	0.009113514	0.00047	0.00074
Volatile Organic Compounds (VOCs) (mg/Kg)													
1,2-Dichlorobenzene	7.9	105	1	104	0	0	0.033	21AB001-01	0.033	21AB001-01	0.033	0.035	0.25
1,4-Dichlorobenzene	8.5	105	6	99	0	0	0.016	21GH013-01	0.0099	21PF002-01	0.011983333	0.038	0.28
2-Butanone (Methyl Ethyl Ketone)	0.3	105	60	45	0	0	0.019	21PF001-01	0.001	21SC002-01	0.00459	0.00097	0.0019
Acetone	0.2	105	74	31	1	0	0.21	21PF001-01	0.01	21GH001-01	0.070459459	0.0025	0.062
Carbon Disulfide	2.7	105	11	94	0	0	0.0017	21TP011-01	0.0006	21MH001-01	0.001036364	0.00029	0.00058
Carbon Tetrachloride	0.6	105	1	104	0	0	0.0018	21GN002-01	0.0018	21GN002-01	0.0018	0.0002	0.00041
Chloroform	0.3	105	2	103	0	0	0.005	21RS002-01	0.0006	21GN002-01	0.0028	0.00022	0.00035
Methylene Chloride	0.1	105	10	95	0	0	0.048	21GH025-01	0.014	21GH010-01	0.025	0.00023	0.013
Styrene	NA	105	3	102	0	0	0.004	21RS002-01	0.002	21GH025-01	0.002733333	0.00012	0.00018
Trichloroethene	0.7	105	6	99	0	0	0.0032	21CH006-01	0.0007	21FA001-01	0.0016	0.00027	0.00051
Total VOCs	10	105	105	0	0	0	0.3014	21FA002-01	-	21RE006-01	0.063925714	-	-
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)													
Acenaphthene	50	105	90	15	0	0	4.5	21PF005-01	0.0085	21AB003-01	0.212932222	0.0029	0.0041
Acenaphthylene	41	105	87	18	0	0	13	21RS002-01	0.011	21TP005-01	0.237034483	0.0029	0.02
Anthracene	50	105	102	3	0	0	7.3	21RS002-01	0.0099	21TP007-01	0.317087255	0.0026	0.0027
Benzo(a)anthracene	0.224	105	105	0	64	0	11	21PF005-01	0.017	21SC003-01	0.630047619	-	-
Benzo(a)pyrene	0.061	105	105	0	98	0	11	21PF005-01	0.016	21SC003-01	0.611580952	-	-
Benzo(b)fluoranthene	1.1	105	105	0	8	0	9	21PF005-01	0.014	21SC003-01	0.505466667	-	-
Benzo(ghi)perylene	50	105	102	3	0	0	8.4	21PF005-01	0.026	21SC002-01	0.390578431	0.0037	0.0049
Benzo(k)fluoranthene	1.1	105	105	0	10	0	11	21PF005-01	0.017	21SC003-01	0.61367619	-	-
Chrysene	0.4	105	105	0	42	0	12	21PF005-01	0.019	21SC003-01	0.709266667	-	-
Dibenz(a,h)anthracene	0.014	105	61	44	59	0	0.95	21CH006-01	0.0092	21TP005-01	0.145265574	0.0022	0.0053
Fluoranthene	50	105	105	0	0	0	23	21PF005-01	0.025	21SC003-01	1.284485714	-	-
Fluorene	50	105	69	36	0	0	8.6	21RS002-01	0.013	21PF011-01	0.316608696	0.0023	0.0033
Indeno(1,2,3-cd)pyrene	3.2	105	101	4	1	0	7.5	21PF005-01	0.02	21SC002-01	0.356623762	0.0023	0.0032
Naphthalene	13	105	77	28	1	0	14	21RS002-01	0.011	21VH002-01	0.48761039	0.003	0.0042
Phenanthrene	50	105	105	0	0	0	27	21PF005-01	0.019	21ER002-01	1.319819048	-	-
Pyrene	50	105	105	0	0	0	24	21PF005-01	0.026	21SC003-01	1.373028571	-	-
Benzo(a)pyrene Equivalents	NA	105	105	0	0	0	14.592	21PF005-01	0.019289	21SC003-01	0.8506746	-	-
Semivolatile Organic Compounds (SVOCs) (mg/Kg)													
2,4-Dimethylphenol	NA	105	4	101	0	0	0.35	21GH014-01	0.0086	21GH018-01	0.0984	0.03	0.22
2-Methylnaphthalene	36.4	105	83	22	0	0	23	21RS002-01	0.0081	21GH001-01	0.403539759	0.016	0.026
2-Methylphenol	0.1	105	3	102	1	2	0.28	21GH014-01	0.0099	21GT001-01	0.104633333	0.03	0.22
4-Chloroaniline	0.22	105	3	102	0	1	0.054	21GH012-01	0.016	21GH011-01	0.029333333	0.039	0.29
4-Methylphenol	0.9	105	37	68	0	0	0.55	21PF002-01	0.0087	21PF012-01	0.066613514	0.033	0.14
4-Nitrophenol	0.1	105	5	100	0	0	0.068	21PF009-01	0.013	21GH027A-01	0.0332	0.01	0.073
bis(2-Ethylhexyl) phthalate	50	105	75	30	0	0	1.9	21RS004-01	0.074	21SC002-01	0.419373333	0.021	0.71
Butyl benzyl phthalate	50	105	5	100	0	0	1.2	21ER001-01	0.048	21GH010-01	0.325	0.013	0.097
Carbazole	NA	105	92	13	0	0	4.2	21PF005-01	0.011	21DT003-01	0.154206522	0.0025	0.0059
Dibenzofuran	6.2	105	76	29	0	0	2.8	21PF005-01	0.0082	21DT006-01	0.154590789	0.018	0.041
Diethyl phthalate	7.1	105	4	101	0	0	0.16	21FA002-01	0.09	21GH010-01	0.115	0.0089	0.065
Di-n-butyl phthalate	8.1	105	37	68	0	0	0.26	21GH019-01	0.068	21GH001-01	0.137351351	0.0098	0.07
Pentachlorophenol	1	105	4	101	0	0	0.084	21GH027A-01	0.01	21GH010-01	0.039	0.06	0.44
Phenol	0.03	105	7	98	7	98	0.16	21GH010-01	0.056	21ER003-01	0.086714286	0.044	0.32
Total SVOCs	500	105	105	0	0	0	171.603	21PF005-01	0.211	21SC003-01	10.08050381	-	-

Notes:

ND = calculated totals are not detected

NA = Not Available

N/A = Not Applicable

mg/Kg = milligram per kilogram

NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values

Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.

J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.

D = Diluted run

DL = Detection Limit

Table 5-1
Concentrations of Compounds Detected in SCS Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	Summary Statistics											
		Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	ID for Max Concentration	Min Detected Concentration	ID for Min Concentration	Average Detected Concentration	Min DL for NonDetects	Max DL for NonDetects
Metals (mg/Kg)													
Aluminum	SB	98	98	0	71	0	17100	21GH020-01	633	21SC002-01	9110.530612	-	-
Antimony	NA	98	1	97	0	0	1.6	21SC004-01	1.6	21SC004-01	1.6	0.81	2.6
Arsenic	7.5 or SB	98	96	2	39	0	53.6	21AB004-01	1.1	21DT004-01	14.29895833	0.73	1
Barium	300 or SB	98	98	0	0	0	119	21GH020-01	3.1	21SC002-01	60.7877551	-	-
Beryllium	0.16 or SB	98	95	3	43	1	0.84	21GH020-01	0.05	21ER002-01	0.439157895	0.095	0.56
Cadmium	1 or SB	98	80	18	2	0	2.6	21GH003-01	0.09	21DT004-01	0.470125	0.083	0.49
Calcium	SB	98	98	0	8	0	141100	21SC003-01	142	21SC002-01	6340.938776	-	-
Chromium	10 or SB	98	98	0	55	0	141	21GH005-01	1.4	21SC002-01	46.26836735	-	-
Cobalt	30 or SB	98	97	1	0	0	9.7	21DT002-01	1	21ER002-01	4.14742268	0.54	0.54
Copper	25 or SB	98	97	1	56	0	111	21RE008-01	2.1	21SC002-01	40.4257732	28	28
Iron	2000 or SB	98	98	0	39	0	22300	21GH020-01	1400	21SC002-01	13228.57143	-	-
Lead	SB	98	98	0	0	0	210	21CH009-01	2.4	21SC002-01	89.20612245	-	-
Magnesium	SB	98	98	0	12	0	76900	21SC003-01	213	21SC002-01	3183.989796	-	-
Manganese	SB	98	98	0	8	0	510	21GH020-01	38.6	21SC002-01	254.677551	-	-
Mercury	0.1	98	96	2	88	0	2.2	21GH019-01	0.02	21VH001-01	0.423229167	0.018	0.02
Nickel	13 or SB	98	98	0	42	0	26.5	21RS005-01	1.2	21SC002-01	14.0377551	-	-
Potassium	SB	98	97	1	0	0	1060	21DT004-01	166	21CH003-01	450.4226804	99.9	99.9
Selenium	2 or SB	98	12	86	0	0	1.3	21PF007-01	0.97	21RE001-01	1.164166667	0.81	1.9
Silver	SB	98	31	67	29	45	1.3	21GH012-01	0.19	21TP015-01	0.487096774	0.14	0.62
Sodium	SB	98	24	74	3	1	419	21RS002-01	92.8	21CH007-01	159.9708333	74.7	220
Vanadium	150 or SB	98	98	0	0	0	83.6	21GH020-01	3.1	21SC002-01	39.3877551	-	-
Zinc	20 or SB	98	98	0	39	0	253	21GH005-01	5.5	21SC002-01	75.25	-	-
Cyanide (mg/Kg)													
Cyanide, Total	NA	97	9	88	0	0	12.1	21DT006-01	0.74	21GN001-01	2.372222222	0.5	0.5

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site specific background values
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SB indicates site background
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-2
Concentrations of Compounds Detected in OU1 RI Surface Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	Site-Specific Background Values	21FA100 0- 0.5 1/19/2006
Volatile Organic Compounds (VOCs) (mg/Kg)			
Methylene Chloride	0.1	0.00104	0.0099 UJ
Total VOCs	10	NA	ND
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Anthracene	50	0.488	0.11 U
Benzo(a)anthracene	0.224	2.599	0.1 U
Benzo(a)pyrene	0.061	1.046	***0.11 U***
Benzo(b)fluoranthene	1.1	0.728	0.079 U
Benzo(ghi)perylene	50	0.565	0.12 UJ
Benzo(k)fluoranthene	1.1	0.996	0.16 U
Chrysene	0.4	1.267	0.13 U
Fluoranthene	50	3.416	0.11 U
Indeno(1,2,3-cd)pyrene	3.2	0.509	0.091 U
Naphthalene	13	0.476	0.12 U
Phenanthrene	50	3.949	0.11 U
Pyrene	50	4.525	0.13 U
Total PAHs	NA	NA	ND
Benzo(a)pyrene Equivalents	NA	NA	ND
Semivolatile Organic Compounds (SVOCs) (mg/Kg)			
4,6-Dinitro-2-methylphenol	NA	NA	0.14 U
Benzaldehyde	NA	NA	0.15 U
bis(2-Ethylhexyl) phthalate	50	0.823	0.14 U
Carbazole	NA	0.131	0.11 U
Di-n-butyl phthalate	8.1	0.064	0.11 U
Hexachlorocyclopentadiene	NA	NA	0.11 U
Total SVOCs	500	NA	ND
Metals (mg/Kg)			
Aluminum	SB	7960	**2,110**
Arsenic	7.5 or SB	13.63	**2.160**
Barium	300 or SB	124.7	**15.4 J**
Beryllium	0.16 or SB	0.463	**0.256 J**
Cadmium	1 or SB	0.2	0.035 U
Calcium	SB	11,563	**1,350**
Chromium	10 or SB	36.69	**6.640**
Cobalt	30 or SB	5.698	**1.790 J**
Copper	25 or SB	35.84	**17.7**
Iron	2000 or SB	14,369	**5,100**
Lead	SB	237.7	**62.3**
Magnesium	SB	3129	**740**
Manganese	SB	358.5	**95.2**
Mercury	0.1	1.305	**0.137**
Nickel	13 or SB	15.3	**11.7**
Potassium	SB	1197	**455 J**
Silver	SB	0.229	**0.938 J**
Sodium	SB	214.8	**204 J-**
Vanadium	150 or SB	30.25	**18.6**
Zinc	20 or SB	81.77	**42.6**
Cyanide (mg/Kg)			
Available Cyanide	NA	NA	**0.034 J**
Cyanide, Total	NA	NA	0.542 U
Other			
Percent Solids	N/A	NA	**91.8**

Notes:

ND = calculated totals are not detected

NA = Not Available

N/A = Not Applicable

mg/Kg = milligram per kilogram

NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs or, in the case of metals, site-specific background values.

Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

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J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

D = Diluted run

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21AB001	21AB001	21AB001	21AB001	21AB002	21AB002	21AB002	21AB002	21AB003	21AB003	21AB003	21AB003	21AB004	21AB004	21AB004	21AB004	21AB004	21BR001	21CH001	21CH001	21CH001	21CH001 DUP	21CH001	21CH002	21CH002	21CH002	21CH002	21CH002 DUP
Depth Interval		7- 9	21- 23	27- 29	49- 51	5- 7	17- 19	33- 35	49- 51	5- 7	21- 23	37- 39	49- 51	5- 7	21- 23	25- 27	39- 41	49- 51	127- 129	5- 7	9- 11	25- 27	25- 27	49- 51	7- 9	25- 27	27- 29	49- 51	49- 51
Sample Date		3/25/2004	3/25/2004	3/25/2004	3/25/2004	3/26/2004	3/26/2004	3/29/2004	3/29/2004	3/30/2004	3/30/2004	3/30/2004	3/30/2004	3/26/2004	3/26/2004	3/26/2004	3/29/2004	3/29/2004	3/30/2004	3/4/2004	3/4/2004	3/4/2004	3/4/2004	3/4/2004	3/8/2004	3/8/2004	3/8/2004	3/8/2004	3/8/2004	3/8/2004
BTEX (mg/Kg)																													
Benzene	0.06	0.00025 U	**2.1**	**0.082**	**0.0032**	0.00025 U	**0.073**	**220**	**0.012**	0.00025 U	**16**	**0.032**	**0.088**	0.00028 U	**61**	**130**	**0.40**	**0.0033**	0.00023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethyl Benzene	5.5	0.00022 U	0.026 U	**0.052**	0.00024 U	0.00023 U	**0.092**	**220**	**0.0018 J**	0.00023 U	**20**	**0.039**	**0.19**	0.00023 U	**140**	**62**	**0.62**	**0.0019 J**	0.00021 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toluene	1.5	0.00022 U	0.026 U	**0.0013 J**	0.00024 U	**0.0009 J**	**0.0083**	**260**	**0.0028 J**	0.00023 U	**5.4**	**0.028**	**0.12**	0.00023 U	**160**	**250**	**0.76**	**0.0032 J**	0.00021 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Xylene (Total)	1.2	0.00054 U	0.034 U	**0.0054 J**	0.00058 U	0.00055 U	**0.11**	**250**	0.00061 U	0.00055 U	**26**	**0.086**	**0.37**	0.00056 U	**270**	**370**	**1.4**	**0.0027 J**	0.0005 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Volatile Organic Compounds (VOCs) (mg/Kg)																													
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.0011 R**	**0.3 R**	**0.0012 R**	**0.0012 R**	**0.0011 R**	**0.0015 R**	***9.9 R***	**0.0013 R**	**0.0011 R**	**0.27 R**	**0.0012 R**	**0.0012 R**	**0.0011 R**	***5.5 R***	***5.9 R***	**0.22 R**	**0.0012 R**	**0.001 R**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4-Methyl-2-pentanone	1.0	0.00083 U	0.17 U	0.00092 U	0.00089 U	0.00084 U	0.0011 U	***5.6 U***	0.00095 U	0.00084 U	0.16 U	0.0009 U	0.00092 U	0.00086 U	***3.2 U***	***3.4 U***	0.13 U	0.00089 U	0.00077 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	0.2	**0.017 J**	***0.28 UJ***	**0.035 J**	**0.028 J**	**0.02 J**	**0.17 J**	***9.4 U***	**0.011 J**	0.0028 UJ	***0.26 U***	0.003 UJ	0.003 UJ	**0.02 J**	***5.3 U***	***5.7 U***	***0.22 U***	**0.02 J**	**0.014 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Carbon Disulfide	2.7	0.00034 U	0.038 U	**0.014**	0.00036 U	**0.0007 J**	**0.0066 J**	1.3 U	0.00038 U	0.00034 U	**0.21 J**	0.00036 U	0.00037 U	0.00035 U	0.72 U	0.77 U	0.029 U	0.00036 U	0.00031 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Carbon Tetrachloride	0.6	0.00023 U	0.058 U	0.00026 U	0.00025 U	0.00024 U	0.00032 U	***1.9 U***	0.00027 U	0.00024 U	0.052 U	0.00025 U	0.00026 U	0.00024 U	***1.1 U***	***1.1 U***	0.044 U	0.00025 U	0.00022 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chloroform	0.3	0.00026 U	0.025 U	0.00028 U	0.00028 U	0.00026 U	0.00035 U	***0.84 U***	0.00029 U	0.00026 U	0.023 U	0.00028 U	0.00028 U	0.00027 U	***0.47 U***	***0.51 U***	0.019 U	0.00028 U	0.00024 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
cis-1,2-Dichloroethene	NA	0.00034 U	0.033 U	0.00037 U	0.00036 U	0.00034 U	0.00046 U	1.1 U	0.00038 U	0.00034 U	0.03 U	**0.0016 J**	0.00037 U	0.00035 U	0.62 U	0.66 U	0.025 U	0.00036 U	0.00031 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methylene Chloride	0.1	**0.019 B**	0.019 U	0.012 U	0.011 U	0.00026 U	0.0018 U	***0.64 U***	0.027 U	0.0013 U	0.017 U	0.0014 U	0.001 U	0.0006 U	***0.36 U***	***0.38 U***	0.014 U	0.028 U	0.0006 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Styrene	NA	0.00013 U	0.024 U	0.00015 U	0.00014 U	0.00014 U	0.00018 U	**40**	0.00015 U	0.00014 U	0.022 U	**0.0027 J**	**0.0072**	0.00014 U	**8 J**	**71**	0.018 U	0.00014 U	0.00012 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	1.4	0.00019 U	0.051 U	0.0002 U	0.0002 U	0.00019 U	0.00025 U	***1.7 U***	0.00022 U	0.00019 U	0.047 U	0.0002 U	0.0002 U	0.0002 U	0.95 U	0.98 U	0.037 U	0.0002 U	0.00017 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Trichloroethene	0.7	0.0003 U	0.037 U	0.00032 U	0.00032 U	0.0003 U	0.0004 U	***1.2 U***	0.00035 U	0.0003 U	0.035 U	0.00032 U	0.00032 U	**0.0009 J**	0.69 U	***0.72 U***	0.027 U	0.00032 U	0.00027 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total VOC	10	**0.036**	**2.1**	**0.1897**	**0.0312**	**0.0216**	**0.4599**	**990**	**0.0276**	ND	**68**	**0.1893**	**0.7752**	**0.0209**	**639**	**883**	**3.18**	**0.0311**	**0.014**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Polynuclear Aromatic Hydrocargons (PAHs) (mg/Kg)																													
Acenaphthene	50	**0.01 J**	0.0043 U	**0.025 J**	0.0035 U	0.0033 U	0.0044 U	**29 J**	0.0038 U	0.0034 U	**500**	**0.81**	**1.3**	**0.075 J**	**220 J**	**39 J**	**0.76**	**0.059 J**	0.0031 U	**0.014 J**	**10**	**34 J**	**11 J**	0.0035 U	**0.023 J**	**0.0098 J**	**33 J**	**0.023 J**	**0.018 J**
Acenaphthylene	41	0.0034 U	0.0043 U	0.0036 U	0.0035 U	**0.012 J**	0.0044 U	**70 J**	**0.022 J**	0.0034 U	**140 J**	**0.31 J**	**0.44**	**0.01 J**	**440**	**170**	**1.9**	**0.1 J**	0.0031 U	**0.039 J**	**1.5**	**120**	**40**	0.0035 U	**0.3 J**	0.0039 U	**140**	**0.019 J**	**0.016 J**
Anthracene	50	**0.018 J**	0.0039 U	0.0032 U	0.0032 U	**0.015 J**	0.004 U	**27 J**	**0.015 J**	**0.012 J**	**360**	**0.73**	**1.1**	**0.16 J**	**460**	**140**	**2.2**	**0.16 J**	0.0028 U	**0.04 J**	**4**	**120**	**40**	**0.012 J**	**0.1 J**	**0.014 J**	**160**	**0.032 J**	**0.024 J**
Benzo(a)anthracene	0.224	**0.034 J**	0.014 U	0.011 U	0.011 U	**0.031 J**	0.014 U	**36**	**0.023 J**	**0.044**	**290**	**0.52**	**0.86**	**0.45**	**310**	**110**	**1.5**	**0.13**	0.01 U	**0.079**	**3.1**	**82**	**25**	**0.011 J**	**0.053**	**0.024 J**	**94**	**0.026 J**	**0.021 J**
Benzo(a)pyrene	0.061	**0.048**	0.0038 U	0.0031 U	0.003 U	**0.04**	0.0039 U	**39**	**0.056**	**0.042**	**230**	**0.32**	**0.68**	**0.46**	**250**	**84**	**1.2**	**0.13**	0.0027 U	**0.082**	**3.7**	**70**	**20**	0.003 U	**0.066**	**0.035 J**	**64**	0.003 U	0.0033 U
Benzo(b)fluoranthene	1.1	**0.03 J**	0.0039 U	0.0032 U	0.0032 U	**0.03 J**	0.004 U	**16**	**0.04 J**	**0.024 J**	**110**	**0.22**	**0.42**	**0.37**	**150**	**48**	**0.71**	**0.076**	0.0028 U	**0.051**	**1.7**	**39**	**9.4**	0.0032 U	**0.042**	**0.016 J**	**26**	0.0031 U	0.0034 U
Benzo(ghi)perylene	50	**0.033 J**	0.0054 U	0.0045 U	0.0044 U	**0.038 J**	0.0056 U	**28 J**	**0.15 J**	**0.03 J**	**100 J**	**0.13 J**	**0.3 J**	**0.31 J**	**120 J**	**37 J**	**0.54**	**0.13 J**	0.004 U	**0.062 J**	**2.7**	**28 J**	**7.3 J**	0.0044 U	**0.27 J**	0.0049 U	**26 J**	0.0043 U	0.0047 U
Benzo(k)fluoranthene	1.1	**0.043**	0.0053 U	0.0044 U	0.0043 U	**0.034 J**	0.0054 U	**27**	**0.051**	**0.051**	**200**	**0.29**	**0.56**	**0.47**	**210**	**72**	**1**	**0.12**	0.0038 U	**0.071**	**2.8**	**62**	**18**	0.0043 U	0.0041 U	**0.028 J**	**69**	0.0042 U	0.0046 U
Chrysene	0.4	**0.048 J**	0.0063 U	0.0052 U	0.0051 U	**0.042 J**	0.0065 U	**31 J**	**0.02 J**	**0.051 J**	**270**	**0.46**	**0.8**	**0.5**	**290**	**100 J**	**1.3**	**0.13 J**	0.0046 U	**0.097 J**	**3.2**	**74**	**22 J**	**0.0099 J**	**0.059 J**	**0.03 J**	**100**	**0.031 J**	**0.02 J**
Dibenz(a,h)anthracene	0.014	0.0026 U	0.0034 U	0.0028 U	0.0027 U	**0.01 J**	0.0034 U	**3.8 J**	**0.11**	0.0026 U	**28**	**0.057**	**0.11**	**0.093**	**49**	**16**	**0.23**	**0.078**	0.0024 U	0.0024 U	0.0054 U	**11**	**2.8**	0.0027 U	0.0026 U	0.003 U	***0.36 U***	0.0026 U	0.0029 U
Fluoranthene	50	**0.056 J**	0.0016 U	0.0014 U	0.0013 U	**0.062 J**	0.0017 U	**86**	**0.036 J**	**0.078 J**	**590**	**1.5**	**2**	**0.93**	**620**	**210**	**3.2**	**0.24 J**	0.0012 UJ	**0.17 J**	**5.8**	**150**	**51**	**0.025 J**	**0.068 J**	**0.038 J**	**200**	**0.07 J**	**0.05 J**
Fluorene	50	**0.015 J**	0.0035 U	0.0029 U	0.0028 U	**0.0094 J**	0.0036 U	**72 J**	**0.014 J**	0.0028 U	**500**	**1.1**	**1.5**	**0.062 J**	**570**	**210**	**2.2**	**0.19 J**	0.0025 U	**0.033 J**	**2.8**	**160**	**54**	**0.009 J**	**0.042 J**	0.0032 U	**160**	**0.021 J**	**0.018 J**
Indeno(1,2,3-cd)pyrene	3.2	**0.025 J**	0.0033 U	0.0027 U	0.0027 U	**0.03 J**	0.0034 U	**17**	**0.12**	**0.026 J**	**89**	**0.1**	**0.28**	**0.28**	**110**	**34**	**0.49**	**0.11**	0.0024 U	**0.047**	**2.1**	**24**	**7**	0.0027 U	**0.12**	0.003 U	**21**	0.0026 U	0.0029 U
Naphthalene	13	0.0035 U	0.0045 U	**0.22 J**	0.0036 U	**0.026 J**	**2.4**	**1,300**	**0.026 J**	**0.022 J**	**4,100**	**1.7**	**4.4**	**0.046 J**	**4,500**	**1,300**	**7.6**	**0.45**	0.0033 U	**0.023 J**	**1.1**	**1,000**	**350**	**0.0084 J**	**0.31 J**	**0.04 J**	**1,000**	0.0035 U	0.0039 U
Phenanthrene	50	**0.068 J**	0.0047 U	**0.052 J**	0.0038 U	**0.054 J**	**0.027 J**	**230**	**0.054 J**	**0.064 J**	**1,400**	**3.8**	**4.6**	**0.65**	**1,500**	**550**	**7.2**	**0.56**	**0.0082 J**	**0.17 J**	**9.3**	**400**	**130**	**0.045 J**	**0.17 J**	**0.055 J**	**610**	**0.14 J**	**0.1 J**
Pyrene	50	**0.054 J**	0.0036 U	0.003 U	0.0029 U	**0.063 J**	0.0037 U	**110**	**0.046 J**	**0.082 J**	**640**	**1.5**	**2.2**	**0.85**	**590**	**190**	**3**	**0.25 J**	0.0026 U	**0.2 J**	**11**	**180**	**54**	**0.026 J**	**0.14 J**	**0.048 J**	**210**	**0.1 J**	**0.072 J**
Benzo(a)pyrene Equivalents	NA	**0.057378**	ND	ND	ND	**0.059482**	ND	**50.001**	**0.18483**	**0.051961**	**309**	**0.46436**	**0.9524**	**0.6682**	**358**	**120**	**1.7113**	**0.24093**	ND	**0.100507**	**4.4212**	**96**	**27**	**0.0011099**	**0.087559**	**0.03931**	**79**	**0.002631**	**0.00212**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																													
2,4-Dimethylphenol	NA	0.037 U	0.047 U	0.039 U	0.038 U	0.036 U	0.048 U	7.7 U	0.042 U	0.037 U	21 U	**0.03 J**	**0.03 J**	0.037 U	**45 J**	**46 J**	**0.34 J**	**0.0086 J**	0.034 U	0.034 U	0.075 U	**7.8 J**	**3.4 J**	0.038 U	0.036 U	0.042 U	**1.1 J**	0.037 U	0.041 U
2-Methylnaphthalene	36.4	**0.021 J**	0.024 U	**0.062 J**	0.019 U	**0.016 J**	**0.058 J**	**190**	**0.009 J**	**0.0082 J**	**1600**	**1.2**	**2.8**	**0.022 J**	**1500**	**430**	**4.1**	**0.24 J**	0.017 U	**0.01 J**	**0.27 J**	**390**	**140**	0.019 U	**0.13 J**	0.022 U	**370**	0.019 U	0.021 U
2-Methylphenol	0.1	0.036 U	0.046 U	0.038 U	0.037 U	0.035 U	0.047 U	***7.5 U***	0.041 U	0.036 U	***21 U***	0.039 U	0.037 U	0.036 U	***23 U***	**6 J**	**0.071 J**	0.037 U	0.034 U	0.034 U	0.074 U	***5.1 U***	***2.5 U***	0.037 U	0.035 U	0.042 U	***4.9 U***	0.036 U	0.04 U
4-Methylphenol	0.9	**0.03 J**	0.05 U	0.042 U	0.041 U	0.039 U	0.052 U	***8.2 U***	0.044 U	0.04 U	***23 U***	**0.018 J**	**0.014 J**	**0.012 J**	**37 J**	**67 J**	**0.35 J**	0.041 U	0.037 U	0.037 U	**0.035 J**	**2.9 J**	**1.4 J**	0.041 U	0.039 U	**0.33 J**	**1.2 J**	0.04 U	0.044 U
4-Nitrophenol	0.1	0.012 U	0.015 U	0.013 U	0.012 U	0.012 U	0.016 U	***2.5 U***	0.014 U	0.012 U	***7 U***	0.013 U	0.012 U	0.012 U	***7.5 U***	***3 U***	0.012 U	0.012 U	0.011 U	0.011 U	0.024 U	**8.3 J**	***0.84 U***	0.012 U	0.012 U	0.014 U	***1.7 U***	0.012 U	0.014 U
bis(2-Ethylhexyl) phthalate	50	0.1 U	0.11 U	0.025 U	0.025 U	**0.11 J**	0.032 U	5.0 U	**0.095 J**	**0.21 J**	14 U	0.026 U	**0.12 J**	**0.15 J**	15 U	6.1 U	**0.091 J**	0.025 U	**0.11 J**	**0.12 J**	0.049 UJ	3.4 UJ	1.7 UJ	0.025 U	0.024 U	**0.14 J**	3.3 U	0.024 U	0.027 U
Butyl benzyl phthalate	50	0.016 U	0.021 U	0.017 U	0.017 U	0.016 U	0.021 U	3.4 U	0.018 U	0.016 U	9.3 U	0.017 U	0.017 U	0.016 U	10 U	4.1 U	0.016 U	0.017 U	0.015 U	0.015 U	0.033 U	2.3 U	1.1 U	0.017 U	0.016 U	0.019 U	2.2 U	0.016 U	0.018 U
Carbazole	NA	0.0029 U	0.0038 U	0.0031 U	0.003 U	0.0029 U	0.0038 U	**6.3 J**	0.0033 U	0.0029 U	**120 J**	**0.25 J**	**0.34 J**	**0.079 J**	**170 J**	**58 J**	**0.84**	**0.057 J**	0.0027 U	**0.015 J**	**0.092 J**	**41 J**	**19 J**	0.003 U	0.0029 U	0.0034 U	**69**	0.0029 U	0.0032 U
Dibenzofuran	6.2	**0.0099 J**	0.026 U	**0.012 J**	0.021 U	0.02 U	0.027 U	**14 J**	0.023 U	0.021 U	**280**	**0.58**	**0.87**	**0.029 J**	**320**	**120**	**1.4**	**0.089 J**	0.019 U	**0.014 J**	0.042 U	**92**	**31**	0.021 U	0.02 U	0.024 U	**100**	0.021 U	0.023 U
Diethyl phthalate	7.1	0.011 U	0.014 U	0.011 U	0.011 U	0.01 U	0.014 U	2.2 U	0.012 U	0.011 U	6.2 U	0.012 U	0.011 U	0.011 U	6.8 U	2.7 U	0.011 U	0.011 U	0.01 U	0.01 U	0.022 U	1.5 U	0.76 U	0.011 U	0.01 U	0.012 U	1.4 U	0.011 U	0.012 U
Di-n-butyl phthalate	8.1	0.012 U	0.015 U	0.012 U	0.012 U	0.011 U	0.015 U	2.4 U	0.013 U	0.012 U	6.7 U	0.012 U	0.012 U	0.012 U	7.2 U	2.9 U	0.012 U	0.012 U	0.011 UJ	0.011 U	0.023 U	1.6 U	0.81 U	0.012 U	0.011 U	0.013 U	1.6 U	0.012 U	0.013 U
N-Nitrosodiphenylamine	NA	0.018 U	0.023 U	0.019 U	0.019 U	0.018 U	0.024 U	3.8 U	0.021 U	0.018 U	10 U	0.02 U	0.019 U	0.018 U	12 U	4.6 U	0.018 U	0.019 U	0.017 UJ	0.017 U	0.037 U	2.6 U	1.3 U	0.019 U	0.018 U	0.021 U	2.5 U	0.018 U	0.02 U
Phenol	0.03	***0.054 U***	***0.068 U***	***0.056 U***	***0.055 U***	***0.052 U***	***0.07 U***	***11 U***	***0.06 U***	***0.054 U***	***31 U***	***0.058 U***	***0.055 U***	***0.054 U***	***34 U***	***13 U***	***0.054 U***	***0.055 U***	***0.05 U***	***0.05 U***	***0.11 U***	***7.5 U***	***3.8 U***	***0.055 U***	***0.052 U***	***0.062 U***	***7.2 U***	***0.054 U***	***0.059 U***
Total SVOCs	500	**0.5429**	ND	**0.371**	ND	**0.6224**	**2.485**	**2,332**	**0.887**	**0.7442**	**11547**	**15.625**	**25.724**	**6.008**	**12461**	**4037**	**42.222**	**3.3076**	**0.1182**	**1.337**	**65.197**	**3096**	**1035.8**	**0.1463**	**1.893**	**0.8078**	**3454.3**	**0.462**	**0.339**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21AB001	21AB001	21AB001	21AB001	21AB002	21AB002	21AB002	21AB002	21AB003	21AB003	21AB003	21AB003	21AB004	21AB004	21AB004	21AB004	21AB004	21BR001	21CH001	21CH001	21CH001	21CH001 DUP	21CH001	21CH002	21CH002	21CH002	21CH002	21CH002 DUP
Depth Interval		7- 9	21- 23	27- 29	49- 51	5- 7	17- 19	33- 35	49- 51	5- 7	21- 23	37- 39	49- 51	5- 7	21- 23	25- 27	39- 41	49- 51	127- 129	5- 7	9- 11	25- 27	25- 27	49- 51	7- 9	25- 27	27- 29	49- 51	49- 51
Sample Date		3/25/2004	3/25/2004	3/25/2004	3/25/2004	3/26/2004	3/26/2004	3/29/2004	3/29/2004	3/30/2004	3/30/2004	3/30/2004	3/30/2004	3/26/2004	3/26/2004	3/26/2004	3/29/2004	3/29/2004	3/30/2004	3/4/2004	3/4/2004	3/4/2004	3/4/2004	3/4/2004	3/8/2004	3/8/2004	3/8/2004	3/8/2004	3/8/2004	3/8/2004
Metals (mg/Kg)																													
Aluminum	7,960 (sb)	**2830 J**	**13100 J**	**8580 J**	**3980 J**	**6530**	**12700**	**5350 J**	**4400 J**	**8090**	**4410**	**3450**	**5190**	**6860**	**6150**	**13400**	**2200 J**	**5620 J**	**3520**	**6480 J**	**8240 J**	**15300 J**	**13800 J**	**3350 J**	**6840 J**	**5240 J**	**15100 J**	**4970 J**	**3470 J**
Antimony	NA	**0.99 J**	1.2 UJ	0.98 UJ	0.97 UJ	1.4 UJ	1.8 UJ	1.4 U	1.6 U	0.94 U	1.1 U	1.0 U	0.97 U	1.4 UJ	1.7 UJ	1.8 UJ	1.4 U	1.4 U	1.3 U	0.87 UJ	0.94 UJ	1.3 UJ	1.3 UJ	0.96 UJ	1.4 UJ	1.6 UJ	1.9 UJ	1.4 UJ	1.5 UJ
Arsenic	13.63 (sb)	**4.6 J**	**9.7 J**	**0.83 J**	0.84 UJ	**2.9**	**6.0**	**1.4**	0.86 U	**4.5 J**	**8.1**	**0.86 J**	**1.4 J**	**14.4**	**12.9**	**10.6**	0.76 U	**0.92 J**	0.71 U	**3.3 J**	**4.2 J**	**11.9**	**11.2**	0.84 U	**41.1 J**	**15.6 J**	**10.7 J**	0.77 UJ	0.85 UJ
Barium	300 (d)	**87.6**	**25.8 J**	**29.4 J**	**49.1**	**41.4 J**	**46.0 J**	**41.3 J**	**40.5 J**	**45.3 J**	**97.2**	**18.5 J**	**56.6**	**47.3 J**	**292 J**	**72.1 J**	**12.2 J**	**37.6 J**	**43.1 J**	**46.8**	**45.8 J**	**68.8**	**69.2**	**69.6**	**62.5**	**331**	**59.3 J**	**50.1**	**44.4 J**
Beryllium	0.463 (sb)	**0.31 J**	**0.77 J**	**0.48 J**	**0.29 J**	**0.41 J**	**0.74 J**	**0.34 J**	**0.31 J**	**0.35 J**	**0.37 J**	**0.22 J**	**0.36 J**	**0.44 J**	**0.67 J**	**0.80 J**	**0.17 J**	**0.40 J**	**0.30 J**	**0.41 J**	**0.40 J**	**0.85**	**0.87**	**0.46 J**	**0.29 J**	**0.65**	**0.9**	**0.37 J**	**0.26 J**
Cadmium	1 (d)	**0.13 J**	0.12 U	0.10 U	0.099 U	0.094 U	0.12 U	0.100 U	0.11 U	0.097 U	0.11 U	0.10 U	0.099 U	**0.17 J**	0.12 U	0.12 U	0.095 U	0.099 U	0.088 U	0.089 U	0.097 U	0.14 U	0.13 U	0.099 U	0.094 U	0.11 U	0.13 U	0.097 U	0.11 U
Calcium	11,563 (sb)	**32500**	**2180**	**468 J**	**11000**	**1300 J**	**11300 J**	**885 J**	**10800 J**	**1320**	**15700**	**4040**	**12100**	**2490 J**	**13200 J**	**7250 J**	**621 J**	**13000 J**	**10900**	**2360**	**2000**	**5020**	**8250**	**1080 J**	**3400**	**12300**	**4350**	**5570**	**1220 J**
Chromium	36.69 (sb)	**7.0**	**27.9**	**12.4**	**9.6**	**16.9**	**24.0**	**10.8**	**11.3**	**17.2**	**8.7**	**9.9**	**12.4**	**30.8**	**9.5**	**25.3**	**6.3**	**12.5**	**8.4**	**28.8**	**13.2**	**28.8**	**26.5**	**10.1**	**16.6**	**11.5**	**28.5**	**11.8**	**8.6**
Cobalt	30 (d)	**28.7 J**	**9.7 J**	**6.4 J**	**4.7 J**	**5.3 J**	**9.6 J**	**5.2 J**	**5.3 J**	**4.2 J**	**5.2 J**	**4.3 J**	**5.8 J**	**5.2 J**	**4.4 J**	**10.5 J**	**2.4 J**	**7.1 J**	**4.4 J**	**6.0 J**	**5.2 J**	**11.9 J**	**10.5 J**	**4.1 J**	**2.8 J**	**5.1 J**	**11.2 J**	**6.3 J**	**4.5 J**
Copper	35.84 (sb)	**39.8**	**14.7**	**16.4**	**9.6**	**20.5**	**15.2**	**11.3**	**11.2**	**19.1**	**105**	**8.8**	**11.6**	**44.6**	**32.8**	**44**	**5.8**	**12.7**	**20.9**	**25.6**	**15.6**	**43.7**	**35.0**	**9.4**	**31.6**	**41.7**	**38.4**	**10.1**	**8.5**
Iron	14,369 (sb)	**24800 J**	**32600 J**	**17200 J**	**9160 J**	**12600 J**	**27100 J**	**13200 J**	**9720 J**	**12800**	**19500**	**9470**	**12800**	**13700 J**	**12900 J**	**27600 J**	**5980 J**	**13300 J**	**9120**	**15000 J**	**15400 J**	**30700 J**	**35700 J**	**8890 J**	**24200 J**	**12500 J**	**30600 J**	**12700 J**	**9670 J**
Lead	237.7 (sb)	**126 J**	**12.5 J**	**8.1 J**	**3.4 J**	**24.9 J**	**16.6 J**	**4.7**	**3.7**	**76.5**	**174**	**3.0**	**5.5**	**74.4 J**	**352 J**	**174 J**	**2.1**	**5.5**	**4.6**	**25.9**	**28.1**	**184**	**151**	**3.1**	**91.8**	**671**	**130**	**5.7**	**3.3**
Magnesium	3,129 (sb)	**826 J**	**6370**	**3500**	**5250**	**2150**	**5300**	**2540**	**5470**	**1870**	**1570**	**4030**	**6200**	**2010**	**1580**	**5930**	**1310**	**6460**	**5810**	**2350**	**1920**	**6520**	**5920**	**2180**	**1730**	**1250 J**	**6970**	**5660**	**2700**
Manganese	358.5 (sb)	**469**	**441**	**133**	**290**	**237 J**	**451 J**	**101 J**	**351 J**	**227**	**203**	**237**	**390**	**253 J**	**192 J**	**925 J**	**47.6 J**	**404 J**	**283**	**315**	**227**	**767**	**1680**	**59.7**	**61.2**	**198**	**916**	**156**	**61.7**
Mercury	0.1 (d)	**0.56 J**	**0.03 J**	0.021 UJ	0.021 UJ	**0.05**	**0.06**	0.021 U	0.022 U	**0.21**	**1.2**	0.022 U	0.021 U	**0.11**	**0.36**	**0.64**	0.020 U	0.02 U	0.02 U	**0.04**	**0.13**	**0.86**	**0.78**	0.021 U	**0.20 J**	**0.89 J**	**0.65 J**	0.020 UJ	0.022 UJ
Nickel	15.3 (sb)	**39.9 J**	**24.5 J**	**17.8 J**	**16.6 J**	**11.3**	**22.5**	**13.6**	**18**	**10.5**	**11.5**	**17.2**	**21.2**	**12.4**	**11.2 J**	**24.7**	**8.5 J**	**21.5**	**9.1**	**13.6**	**13.1**	**28.1**	**25.7**	**20.4**	**8.7 J**	**11.0**	**26.2**	**19.4**	**16.2**
Potassium	1,197 (sb)	**336 J**	**2580 J**	**803 J**	**1200 J**	**763 J**	**2030 J**	**599 J**	**1190 J**	**570 J**	**790 J**	**959 J**	**1470**	**628 J**	**928 J**	**2400 J**	**367 J**	**1290 J**	**1150**	**828 J**	**497 J**	**3000**	**2530**	**1000 J**	**638 J**	**767 J**	**2590 J**	**1310 J**	**839 J**
Selenium	2.0 (d)	**1.7**	1.2 U	0.98 U	0.97 U	0.99 U	1.3 U	1.0 U	1.1 U	0.94 U	**1.1 J**	1.0 U	0.97 U	1.00 U	1.2 U	1.3 U	1.0 U	1.0 U	0.93 U	0.87 U	0.94 U	**1.7**	**1.7**	0.96 U	0.98 U	1.2 U	1.4 U	1.0 U	1.1 U
Silver	0.229 (sb)	0.17 U	0.22 U	0.18 U	0.17 U	***0.33 U***	***0.43 U***	***0.35 U***	***0.38 U***	0.17 U	**0.37 J**	0.18 U	0.17 U	***0.33 U***	***0.41 U***	***0.42 U***	***0.33 U***	***0.35 U***	***0.31 U***	0.16 U	0.17 U	**0.29 J**	***0.23 U***	0.17 U	***0.33 U***	***0.39 U***	***0.46 U***	***0.34 U***	***0.37 U***
Sodium	214.8 (sb)	**141 J**	**1390 J**	**152 J**	**152 J**	**212 J**	**497 J**	**200 J**	**295 J**	87.3 U	**732 J**	**133 J**	**142 J**	**136 J**	**1670 J**	**2030 J**	**184 J**	**241 J**	**269 J**	**77.6 J**	**88.0 J**	**1070 J**	**986 J**	**99.1 J**	**96.7 J**	**755 J**	**944 J**	**174 J**	**149 J**
Thallium	NA	1.0 U	1.4 U	1.1 U	1.1 U	1.1 U	1.5 U	1.2 U	1.3 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.4 U	1.4 U	1.1 U	1.2 U	1.0 U	0.98 U	1.1 U	1.5 U	1.5 U	1.1 U	1.1 U	1.3 U	1.5 U	1.1 U	1.2 U
Vanadium	150 (d)	**17.9**	**33.2**	**15.3**	**12.4**	**23.4**	**32.1**	**11.2 J**	**12.8 J**	**19.1**	**15.5**	**12.2 J**	**15.4**	**31.9**	**21.9**	**32.3**	**6.3 J**	**14.8**	**18.6**	**31.7**	**30.3**	**38.3**	**37.2**	**12.7**	**19.9**	**26.1**	**37.3**	**15.0**	**12.3 J**
Zinc	81.77 (d)	**164**	**69.1**	**51.4**	**21.6**	**51.6**	**64.0**	**33.7**	**24.7**	**42.7**	**122**	**21.8**	**27.6**	**52.9**	**134**	**100**	**12.6**	**30.6**	**33.8**	**55.8**	**33.4**	**92.2**	**88.3**	**24.2**	**27.9 J**	**132 J**	**97.2 J**	**28.7 J**	**20.9 J**
Cyanide (mg/Kg)																													
Cyanide, Total	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.95**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.2**	**0.86**	0.5 U	0.5 U	0.5 U

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)
Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21CH003	21CH003	21CH003	21CH003	21CH004	21CH004	21CH004	21CH004	21CH005	21CH005	21CH005	21CH005	21CH006	21CH006 DUP	21CH006	21CH006	21CH006	21CH006	21CH006	21CH007	21CH007	21CH007	21CH008	21CH008	21CH008	21CH008	21CH008	21CH009	21CH009	21CH009
Depth Interval		7- 9	21- 23	27- 29	49- 51	5- 7	11- 13	21- 23	49- 51	5- 7	17- 19	25- 27	49- 51	1- 3	1- 3	3- 5	7- 9	15- 17	25- 27	49- 51	13- 15	21- 23	49- 51	5- 7	15- 17	27- 29	43- 45	49- 51	9- 11	17- 19	21- 23
Sample Date		3/9/2004	3/9/2004	3/9/2004	3/9/2004	3/5/2004	3/5/2004	3/5/2004	3/8/2004	3/9/2004	3/9/2004	3/9/2004	3/9/2004	2/27/2004	2/27/2004	2/27/2004	3/5/2004	3/5/2004	3/5/2004	3/5/2004	3/18/2004	3/18/2004	3/18/2004	3/3/2004	3/3/2004	3/3/2004	3/3/2004	3/3/2004	3/2/2004	3/2/2004	3/2/2004
BTEX (mg/Kg)																															
Benzene	0.06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00023 U	0.00025 U	**0.001 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethyl Benzene	5.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0002 U	0.00022 U	0.00022 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Toluene	1.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00021 U	0.00022 U	0.00022 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Xylene (Total)	1.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0005 U	0.00052 U	0.00052 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Volatile Organic Compounds (VOCs) (mg/Kg)																															
2-Butanone (Methyl Ethyl Ketone)	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.0066**	0.0011 U	0.0011 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4-Methyl-2-pentanone	1.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00077 U	0.0008 U	0.0008 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Acetone	0.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.026 U	0.029 U	0.039 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Carbon Disulfide	2.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00031 U	0.00032 U	**0.0015 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Carbon Tetrachloride	0.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00022 U	0.00022 U	0.00023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chloroform	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00024 U	0.00025 U	0.00025 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
cis-1,2-Dichloroethene	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00031 U	0.00032 U	0.00032 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methylene Chloride	0.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0004 U	0.0005 U	0.0005 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Styrene	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00012 U	0.00013 U	0.00013 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	1.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00017 U	0.00019 U	0.00019 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Trichloroethene	0.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.00027 U	0.0003 U	0.0003 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total VOC	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0066**	ND	**0.0025**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Polynuclear Aromatic Hydrocargons (PAHs) (mg/Kg)																															
Acenaphthene	50	**0.65**	**0.35 J**	**180**	**0.14 J**	**0.3 J**	**22**	**15**	0.0038 U	**0.13 J**	**0.028 J**	**41 J**	0.0034 U	NS	NS	NS	**10**	**1.3**	**18 J**	0.0034 U	**0.057 J**	**2.8**	0.0034 U	**0.081 J**	**9**	**36 J**	**160**	**2**	**9.4**	**15**	**170**
Acenaphthylene	41	**1.5**	**0.088 J**	**390**	**0.19 J**	**0.15 J**	**9.6**	**46**	0.0038 U	**0.099 J**	0.0034 U	**150**	0.0034 U	NS	NS	NS	**2.9**	**0.37 J**	**77**	0.0034 U	**0.083 J**	**0.67 J**	0.0034 U	**0.14 J**	**0.71 J**	**130**	**47**	**0.44**	**1 J**	**1.1 J**	**15 J**
Anthracene	50	**0.96**	**0.28 J**	**430**	**0.29 J**	**0.2 J**	**10**	**56**	0.0035 U	**0.38 J**	**0.016 J**	**160**	0.0031 U	NS	NS	NS	**5.5**	**0.82**	**66**	0.0031 U	**0.052 J**	**1.7**	0.0031 U	**0.18 J**	**3.7**	**120**	**35 J**	**0.31 J**	**4.3**	**6.7**	**60**
Benzo(a)anthracene	0.224	**3.2**	**0.3**	**290**	**0.2**	**0.25**	**20**	**42**	**0.0091 J**	**0.71**	**0.016 J**	**110**	0.011 U	NS	NS	NS	**3.1**	**0.72**	**47**	0.011 U	**0.16**	**1.7**	0.011 U	**0.39**	**2.4**	**89**	**38**	**0.29**	**2.1**	**3.6**	**36**
Benzo(a)pyrene	0.061	**5.9**	**0.35**	**210**	**0.14**	**0.24**	**18**	**31**	0.0033 U	**0.64**	**0.012 J**	**83**	0.003 U	NS	NS	NS	**2.6**	**0.74**	**33**	0.003 U	**0.21**	**1.4**	0.003 U	**0.46**	**3.6**	**78**	**51**	**0.4**	**2.1**	**3.5**	**35**
Benzo(b)fluoranthene	1.1	**4.5**	**0.24**	**120**	**0.064**	**0.13**	**6.6**	**18**	0.0035 U	**0.44**	0.0031 U	**58**	0.0031 U	NS	NS	NS	**1.2**	**0.42**	**18**	0.0031 U	**0.092**	**0.91**	0.0031 U	**0.26**	**1.5**	**37**	**17**	**0.13**	**0.93**	**1.3**	**14**
Benzo(ghi)perylene	50	**4.7**	**0.24 J**	**83 J**	**0.05 J**	**0.14 J**	**10**	**11 J**	0.0048 U	**0.38 J**	0.0043 U	**32 J**	0.0043 U	NS	NS	NS	**1.5 J**	**0.43**	**12 J**	0.0043 U	**0.15 J**	**0.56 J**	0.0043 U	**0.39**	**2.2**	**34 J**	**36 J**	**0.26 J**	**1.4 J**	**1.8 J**	**18 J**
Benzo(k)fluoranthene	1.1	**4.5**	**0.27**	**200**	**0.13**	**0.19**	**10**	**26**	0.0047 U	**0.65**	0.0042 U	**83**	0.0042 U	NS	NS	NS	**1.8**	**0.56**	**30**	0.0042 U	**0.22**	**1.4**	0.0042 U	**0.38**	**2.5**	**67**	**31**	**0.25**	**1.4**	**2.3**	**22**
Chrysene	0.4	**3.3**	**0.31 J**	**300**	**0.18 J**	**0.24 J**	**18**	**38**	**0.01 J**	**0.77**	**0.022 J**	**110**	0.005 U	NS	NS	NS	**2.6**	**0.68**	**43**	0.005 U	**0.16 J**	**1.6**	0.005 U	**0.46**	**2.5**	**86 J**	**36 J**	**0.3 J**	**2.3 J**	**3.6**	**37 J**
Dibenz(a,h)anthracene	0.014	**2.4**	**0.1**	**42**	**0.02 J**	0.0024 U	**1.7**	**4.4**	0.003 U	**0.16**	0.0026 U	**14**	0.0026 U	NS	NS	NS	**0.24**	**0.11**	**3.9**	0.0026 U	**0.074**	**0.28**	0.0026 U	0.0024 U	**0.8**	***0.79 U***	***0.28 U***	0.0028 U	***0.027 U***	**0.47**	**6.1**
Fluoranthene	50	**3**	**0.49**	**600**	**0.43**	**0.57**	**31**	**78**	**0.025 J**	**1.6**	**0.029 J**	**250**	0.0013 U	NS	NS	NS	**6.2**	**1.5**	**95**	0.0013 U	**0.21 J**	**2.6**	0.0013 U	**0.76**	**5.1**	**180**	**110**	**0.79**	**4.5**	**7.1**	**64**
Fluorene	50	**0.61**	**0.14 J**	**570**	**0.26 J**	**0.24 J**	**0.95 J**	**69**	0.0031 U	**0.16 J**	0.0028 U	**240**	0.0028 U	NS	NS	NS	**4.9**	**0.76**	**89**	0.0028 U	**0.037 J**	**3**	0.0028 U	**0.094 J**	**3.5**	**180**	**70**	**0.51**	**4.4**	**6**	**70**
Indeno(1,2,3-cd)pyrene	3.2	**4.6**	**0.21**	**80**	**0.048**	**0.11**	**6.6**	**11**	0.0029 U	**0.32**	0.0026 U	**28**	0.0026 U	NS	NS	NS	**0.93**	**0.34**	**12**	0.0026 U	**0.12**	**0.58**	0.0026 U	**0.31**	**1.8**	**32**	**21**	**0.17**	**1**	**1.3**	**14**
Naphthalene	13	**1.9**	**0.74**	**2,100**	**0.37 J**	**0.068 J**	**1.8 J**	**210**	0.004 U	**0.095 J**	0.0035 U	**1,100**	0.0035 U	NS	NS	NS	**1 J**	**0.96**	**320**	0.0035 U	**0.58**	**6.4**	0.0035 U	**0.098 J**	**5.2**	**1,200**	0.37 U	**0.2 J**	**56**	**0.26 J**	**440**
Phenanthrene	50	**2.6**	**0.54**	**1,300**	**0.95**	**1.1**	**3 J**	**160**	**0.025 J**	**1.5**	**0.061 J**	**500**	0.0037 U	NS	NS	NS	**17**	**2.9**	**210**	0.0037 U	**0.2 J**	**7.4**	0.0037 U	**0.73**	**13**	**450**	**300**	**2.3**	**15**	**29**	**250**
Pyrene	50	**4.6**	**0.64**	**580**	**0.43**	**0.68**	**58**	**74**	**0.026 J**	**1.5**	**0.048 J**	**240**	**0.025 J**	NS	NS	NS	**9.2**	**1.7**	**84**	0.0028 U	**0.27 J**	**2.5**	0.0028 U	**0.72 J**	**6.5 J**	**170 J**	**170 J**	**1.2 J**	**5.9**	**11**	**98**
Benzo(a)pyrene Equivalents	NA	**9.5783**	**0.52801**	**303**	**0.19268**	**0.29114**	**23**	**43**	**0.00092**	**0.95427**	**0.013622**	**117.54**	ND	NS	NS	NS	**3.3836**	**1.00428**	**44.943**	ND	**0.32356**	**2.0146**	ND	**0.56026**	**4.9975**	**95**	**59**	**0.4618**	**2.5193**	**4.6166**	**48**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																															
2,4-Dimethylphenol	NA	0.035 U	0.041 U	**7 J**	0.04 U	0.033 U	0.47 U	**1.6 J**	0.042 U	0.036 U	0.037 U	**1.2 J**	0.037 U	NS	NS	NS	0.18 U	0.038 U	**1.2 J**	0.037 U	0.042 U	0.08 U	0.037 U	0.034 U	0.072 U	**9.9 J**	3.9 U	0.039 U	0.38 U	0.19 U	3.8 U
2-Methylnaphthalene	36.4	**0.69**	**0.15 J**	**1000**	**0.13 J**	**0.028 J**	**0.52 J**	**120**	0.021 U	**0.052 J**	0.019 U	**420**	0.019 U	NS	NS	NS	**0.38 J**	**0.31 J**	**170**	0.019 U	**0.064 J**	**1.7**	0.019 U	**0.047 J**	**0.96**	**410**	**6.1 J**	**0.076 J**	**12**	**0.55 J**	**250**
2-Methylphenol	0.1	**0.011 J**	0.04 U	***10 U***	0.039 U	0.033 U	***0.46 U***	**0.47 J**	0.041 U	0.035 U	0.036 U	***4.7 U***	0.036 U	NS	NS	NS	***0.17 U***	0.037 U	***2 U***	0.036 U	0.042 U	0.079 U	0.036 U	0.034 U	0.071 U	***11 U***	***3.8 U***	0.038 U	***0.37 U***	***0.19 U***	***3.7 U***
4-Methylphenol	0.9	**0.035 J**	**0.11 J**	**5.5 J**	0.043 U	0.036 U	0.5 U	**0.41 J**	0.044 U	**0.0088 J**	0.04 U	***5.2 U***	0.04 U	NS	NS	NS	0.19 U	**1.5**	***2.2 U***	0.04 U	0.046 U	**0.054 J**	0.04 U	0.037 U	0.077 U	**3.5 J**	***4.2 U***	0.042 U	0.41 U	0.21 U	***4.1 U***
4-Nitrophenol	0.1	0.011 U	0.014 U	***3.3 U***	0.013 U	0.011 U	***0.15 U***	***0.4 U***	0.014 U	0.012 U	0.012 U	***1.6 U***	0.012 U	NS	NS	NS	0.059 U	0.012 U	***0.68 U***	0.012 U	0.014 U	0.027 U	0.012 U	0.011 U	0.024 U	***3.6 U***	***1.3 U***	0.013 U	***0.12 U***	0.063 U	***1.2 U***
bis(2-Ethylhexyl) phthalate	50	0.023 U	**0.09 J**	6.7 U	0.026 U	**0.27 J**	0.31 U	0.79 U	0.027 U	**0.35 J**	0.024 U	3.2 U	0.024 U	NS	NS	NS	0.12 U	**0.23 J**	1.3 U	0.024 U	0.1 U	0.053 U	0.024 U	**0.26 J**	0.047 U	7.3 U	2.5 U	0.025 U	0.25 U	0.13 U	2.5 U
Butyl benzyl phthalate	50	0.015 U	0.018 U	4.5 U	0.017 U	0.015 U	0.21 U	0.53 U	0.018 U	0.016 U	0.016 U	2.1 U	0.016 U	NS	NS	NS	0.077 U	0.017 U	0.89 U	0.016 U	0.019 U	0.035 U	0.016 U	0.015 U	0.032 U	4.9 U	1.7 U	0.017 U	0.17 U	0.085 U	1.7 U
Carbazole	NA	**0.36 J**	**0.038 J**	**140**	**0.062 J**	**0.032 J**	0.038 U	**19**	0.0033 U	**0.12 J**	0.0029 U	**57**	0.0029 U	NS	NS	NS	**0.11 J**	**0.13 J**	**23**	0.0029 U	0.0034 U	**1.3**	0.0029 U	**0.067 J**	**0.17 J**	**53 J**	0.31 U	**0.019 J**	**0.39 J**	0.015 U	**1.3 J**
Dibenzofuran	6.2	**0.18 J**	**0.038 J**	**320**	**0.11 J**	**0.03 J**	0.26 U	**37**	0.023 U	**0.1 J**	0.021 U	**120**	0.021 U	NS	NS	NS	**0.51 J**	**0.19 J**	**52**	0.021 U	**0.011 J**	**1.6**	0.021 U	**0.044 J**	**0.59 J**	**110 J**	**3 J**	**0.022 J**	**0.98 J**	**0.56 J**	**7.6 J**
Diethyl phthalate	7.1	0.01 U	0.012 U	3 U	0.012 U	0.0097 U	0.14 U	0.35 U	0.012 U	0.01 U	0.011 U	1.4 U	0.011 U	NS	NS	NS	0.051 U	0.011 U	0.59 U	0.011 U	0.012 U	0.023 U	0.011 U	0.01 U	0.021 U	3.2 U	1.1 U	0.011 U	0.11 U	0.057 U	1.1 U
Di-n-butyl phthalate	8.1	0.011 U	0.013 U	3.2 U	0.012 U	0.01 U	0.15 U	0.38 U	0.013 U	0.011 U	0.012 U	1.5 U	0.012 U	NS	NS	NS	0.055 U	0.012 U	0.64 U	0.012 U	0.013 U	0.025 U	0.012 U	0.011 U	0.022 U	3.5 U	1.2 U	0.012 U	0.12 U	0.061 U	1.2 U
N-Nitrosodiphenylamine	NA	0.018 U	0.02 U	5.1 U	0.02 U	0.016 U	0.23 U	0.6 U	0.021 U	0.018 U	0.018 U	2.4 U	0.018 U	NS	NS	NS	0.088 U	0.019 U	1 U	0.018 U	0.021 U	0.04 U	0.018 U	0.017 U	0.036 U	5.5 U	1.9 U	0.019 U	0.19 U	0.097 U	1.9 U
Phenol	0.03	***0.051 U***	***0.059 U***	***15 U***	***0.058 U***	***0.048 U***	***0.68 U***	***1.7 U***	***0.06 U***	***0.052 U***	***0.054 U***	***7 U***	***0.054 U***	NS	NS	NS	***0.26 U***	***0.055 U***	***3 U***	***0.054 U***	***0.062 U***	***0.12 U***	***0.054 U***	***0.05 U***	***0.1 U***	***16 U***	***5.6 U***	***0.056 U***	***0.55 U***	***0.28 U***	***5.5 U***
Total SVOCs	500	**50.196**	**5.714**	**8947.5**	**4.194**	**4.968**	**227.77**	**1067.88**	**0.0951**	**10.1648**	**0.232**	**3797.2**	**0.025**	NS	NS	NS	**71.67**	**16.67**	**1404.1**	ND	**2.75**	**40.154**	ND	**5.871**	**65.73**	**3475.4**	**1131.1**	**9.667**	**125.1**	**95.14**	**1608**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21CH003	21CH003	21CH003	21CH003	21CH004	21CH004	21CH004	21CH004	21CH005	21CH005	21CH005	21CH005	21CH006	21CH006 DUP	21CH006	21CH006	21CH006	21CH006	21CH006	21CH007	21CH007	21CH007	21CH008	21CH008	21CH008	21CH008	21CH008	21CH009	21CH009	21CH009
Depth Interval		7- 9	21- 23	27- 29	49- 51	5- 7	11- 13	21- 23	49- 51	5- 7	17- 19	25- 27	49- 51	1- 3	1- 3	3- 5	7- 9	15- 17	25- 27	49- 51	13- 15	21- 23	49- 51	5- 7	15- 17	27- 29	43- 45	49- 51	9- 11	17- 19	21- 23
Sample Date		3/9/2004	3/9/2004	3/9/2004	3/9/2004	3/5/2004	3/5/2004	3/5/2004	3/8/2004	3/9/2004	3/9/2004	3/9/2004	3/9/2004	2/27/2004	2/27/2004	2/27/2004	3/5/2004	3/5/2004	3/5/2004	3/5/2004	3/18/2004	3/18/2004	3/18/2004	3/3/2004	3/3/2004	3/3/2004	3/3/2004	3/3/2004	3/2/2004	3/2/2004	3/2/2004
Metals (mg/Kg)																															
Aluminum	7,960 (sb)	**7730**	**3070**	**13800**	**5530**	**6760**	**6350**	**13100**	**4630 J**	**7570**	**10600**	**15900**	**2040**	NS	NS	NS	**915**	**7160**	**8780**	**4480**	**5510**	**8820**	**3200**	**6890**	**3060**	**11300**	**2180**	**3960**	**7260 J**	**3770 J**	**5130 J**
Antimony	NA	0.89 U	1.0 U	1.3 U	1.0 U	0.85 U	1.2 U	1.2 U	1.6 UJ	0.91 U	0.93 U	1.2 U	0.93 U	NS	NS	NS	0.90 U	0.97 U	1.0 U	0.94 U	1.6 U	1.5 U	1.4 U	1.3 U	1.4 U	1.6 U	1.5 U	1.4 U	0.95 U	0.97 U	0.95 U
Arsenic	13.63 (sb)	**41.1**	**3.2 J**	**12.5**	**1.5 J**	**3.8 J**	**8.5**	**9.5**	0.86 UJ	**4.3 J**	**2.3 J**	**12.1**	0.81 U	NS	NS	NS	**0.85 J**	**8.0**	**7.6**	**0.83 J**	**6.7**	**7.3**	0.78 U	**4.6**	**1.6**	**9.0**	0.81 U	**0.92 J**	**10.3**	0.85 U	**1.7 J**
Barium	300 (d)	**74.8**	**45.2 J**	**77.8**	**38.4 J**	**51.6**	**264**	**62.5 J**	**66.5**	**59.0**	**47.7**	**74.5**	**15.9 J**	NS	NS	NS	**28.6 J**	**225**	**84.2**	**83.6**	**185**	**132**	**85.4**	**71.8**	**23.3 J**	**71.7**	**27.1 J**	**41.1 J**	**89.7**	**27.0 J**	**42.9 J**
Beryllium	0.463 (sb)	**0.33 J**	**0.20 J**	**0.81**	**0.39 J**	**0.45**	**0.6**	**0.79**	**0.36 J**	**0.48**	**0.41 J**	**0.88**	**0.13 J**	NS	NS	NS	**0.12 J**	**0.56**	**0.53**	**0.36 J**	**0.43 J**	**0.57**	**0.18 J**	**0.33 J**	**0.16 J**	**0.63**	**0.13 J**	**0.24 J**	**0.5**	**0.34 J**	**0.32 J**
Cadmium	1 (d)	0.091 U	0.11 U	**0.21 J**	0.10 U	0.087 U	0.12 U	0.13 U	0.11 U	**0.22 J**	0.095 U	0.13 U	0.096 U	NS	NS	NS	0.092 U	0.099 U	0.11 U	0.096 U	0.11 U	0.10 U	0.097 U	**0.24 J**	0.094 U	**0.42 J**	0.10 U	**0.15 J**	0.098 U	0.100 U	0.098 U
Calcium	11,563 (sb)	**3500**	**11500**	**40200**	**12700**	**1840**	**11300**	**4260**	**10400**	**2770**	**2290**	**5320**	588 U	NS	NS	NS	**51800**	**13700**	**6080**	**7400**	**26100**	**14500**	**7060**	**7610**	**5460**	**37900**	**3380**	**7900**	**7210**	**2150**	**8120**
Chromium	36.69 (sb)	**20.6**	**4.1**	**25.6**	**13.2**	**28.9**	**13.4**	**24.5**	**11.0**	**32.0**	**15.2**	**29.8**	**5.9**	NS	NS	NS	**1.8 J**	**17.0**	**19.7**	**12.6**	**11.0**	**18.0**	**10.6**	**25.3**	**6.4**	**20.7**	**5.6**	**10.2**	**13.8**	**9.5**	**10.6**
Cobalt	30 (d)	**6.2 J**	**2.4 J**	**9.9 J**	**6.4 J**	**5.4 J**	**7.5 J**	**9.6 J**	**5.8 J**	**5.2 J**	**6.1 J**	**11.7 J**	**2.6 J**	NS	NS	NS	**2.0 J**	**8.2 J**	**7.1 J**	**5.1 J**	**10.2 J**	**7.8 J**	**4.1 J**	**5.3 J**	**3.1 J**	**8.6 J**	**2.7 J**	**4.9 J**	**6.7 J**	**3.5 J**	**4.4 J**
Copper	35.84 (sb)	**92.8**	**21.9**	**36.1**	**12.9**	**21.6**	**31.8**	**38.5**	**11.2**	**27.0**	**14.7**	**40.9**	**4.8 J**	NS	NS	NS	**7.8**	**34.8**	**70.1**	**13.0**	**25.4**	**37.4**	**7.3**	**28.0**	**12.0**	**34.1**	**6.2**	**10.0**	**31.2 J**	**9.5 J**	**14.7 J**
Iron	14,369 (sb)	**17800**	**6510**	**29500**	**12800**	**18800**	**26900**	**28200**	**11100 J**	**14200**	**16900**	**33400**	**5580**	NS	NS	NS	**68200**	**13200**	**22100**	**11600**	**18300**	**25100**	**8870**	**11700**	**7920**	**24800**	**7900**	**9610**	**14400 J**	**7470 J**	**9230 J**
Lead	237.7 (sb)	**73.0**	**311**	**138**	**6.9**	**21.8**	**1620**	**142**	**4.1**	**64.4**	**15.5**	**137**	**2.0**	NS	NS	NS	**60.0**	**1080**	**283**	**3.9**	**444**	**139**	**2.9**	**96.7**	**57.6**	**98.7**	**1.8**	**3.2**	**554**	**26.9**	**46.0**
Magnesium	3,129 (sb)	**2410**	**818 J**	**6400**	**6540**	**2410**	**1710**	**5620**	**5850**	**2230**	**2710**	**6500**	**1500**	NS	NS	NS	**1060 J**	**2870**	**3660**	**5110**	**4460**	**3200**	**4230**	**2250**	**1400**	**5530**	**3040**	**5040**	**2470**	**1840**	**2750**
Manganese	358.5 (sb)	**91.2**	**101**	**1180**	**410**	**363**	**512**	**831**	**270**	**269**	**248**	**883**	**38.7**	NS	NS	NS	**1130**	**180**	**558**	**298**	**574**	**389**	**194**	**362**	**142**	**765**	**86.6**	**245**	**223**	**121**	**187**
Mercury	0.1 (d)	**0.27**	**0.11**	**0.52**	0.021 U	**0.15**	**0.55**	**0.61**	0.022 UJ	**0.35**	**0.25**	**0.79**	0.02 U	NS	NS	NS	**0.22**	**4.7**	**0.19**	0.020 U	**0.13**	**0.89**	0.020 U	**0.73**	**0.05**	**0.58**	0.021 U	0.021 U	**0.33**	0.021 U	**0.02 J**
Nickel	15.3 (sb)	**16.1**	**4.5 J**	**23.7**	**21.9**	**12.9**	**14.2**	**23.4**	**19.5**	**13.2**	**12.5**	**27.9**	**9.5**	NS	NS	NS	**4.4 J**	**20.2**	**17.6**	**18.8**	**12.7**	**16.8**	**14.8**	**20**	**6.4 J**	**20**	**9.5 J**	**17.7**	**15.1**	**8.2 J**	**12.3**
Potassium	1,197 (sb)	**1420**	**282 J**	**2560**	**1480**	**922 J**	**1080 J**	**2600**	**1140 J**	**898 J**	**579 J**	**2680**	**444 J**	NS	NS	NS	**87.0 J**	**2180**	**1720**	**1350**	743 U	***1390 U***	758 U	**758 J**	**391 J**	**1960**	**393 J**	**956 J**	**1400**	**1230**	**1140 J**
Selenium	2.0 (d)	0.89 U	1.0 U	1.3 U	1.0 U	0.85 U	1.2 U	1.2 U	1.1 U	0.91 U	0.93 U	1.2 U	0.93 U	NS	NS	NS	0.90 U	**1.1 J**	1.0 U	0.94 U	1.2 U	1.1 U	1.0 U	0.93 U	0.99 U	1.2 U	1.1 U	1.0 U	0.95 U	0.97 U	0.95 U
Silver	0.229 (sb)	0.16 U	0.19 U	***0.23 U***	0.18 U	0.15 U	0.22 U	0.22 U	***0.37 U***	0.16 U	0.17 U	**0.30 J**	0.17 U	NS	NS	NS	0.16 U	**0.37 J**	0.19 U	0.17 U	***0.39 U***	***0.36 U***	***0.34 U***	***0.31 U***	***0.33 U***	***0.39 U***	***0.35 U***	***0.35 U***	0.17 U	0.17 U	**0.18 J**
Sodium	214.8 (sb)	**97.0 J**	**282 J**	**1680**	**142 J**	**95.2 J**	**306 J**	**2080**	**128 J**	**189 J**	86.2 U	**751 J**	86.5 U	NS	NS	NS	83.2 U	**275 J**	**512 J**	**166 J**	***472 U***	***359 U***	***236 U***	**146 J**	**266 J**	**1370 J**	**160 J**	**200 J**	**85.4 J**	89.9 U	**309 J**
Thallium	NA	1.0 U	1.2 U	1.4 U	1.1 U	0.96 U	1.4 U	1.4 U	1.3 U	1.0 U	1.1 U	1.4 U	1.1 U	NS	NS	NS	1.0 U	1.1 U	1.2 U	1.1 U	1.3 U	1.2 U	1.1 U	1.0 U	1.1 U	1.3 U	1.2 U	1.2 U	**1.1 J**	1.1 U	1.1 U
Vanadium	150 (d)	**21.4**	**7.4 J**	**35.3**	**16.5**	**28.8**	**24.0**	**32.5**	**14.1**	**31.4**	**20.4**	**40.0**	**7.7 J**	NS	NS	NS	**4.1 J**	**25.4**	**24.1**	**16.6**	**19.5**	**26.2**	**12.5**	**22.0**	**10.5 J**	**29.8**	**7.1 J**	**14.0**	**12.7**	**10.1 J**	**16.7**
Zinc	81.77 (d)	**37.9**	**22.2**	**84.4**	**28.3**	**37.6**	**221**	**114**	**28.0 J**	**102**	**33.1**	**108**	**18.0**	NS	NS	NS	**16.7**	**204**	**92.4**	**22.7**	**87.6**	**73.3**	**18.2**	**43.4**	**15.5**	**70.9**	**11.5**	**21.8**	**47.1**	**19.6**	**29.5**
Cyanide (mg/Kg)																															
Cyanide, Total	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NS	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	**0.75**	0.5 U	**1.9**	0.5 U	0.5 U	**0.87**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)
Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21CH009	21CH009	21DT001	21DT001	21DT001	21DT001 DUP	21DT001	21DT001	21DT001	21DT001	21DT002	21DT002	21DT002	21DT002	21DT003	21DT003	21DT003	21DT003	21DT003	21DT003	21DT003	21DT003 DUP	21DT004	21DT004	21DT004	21DT004	21DT004
Depth Interval		25- 27	49- 51	6.5- 8.5	12- 14	16- 18	26- 28	26- 28	40- 42	42- 44	48- 50	7- 9	17- 19	35- 37	49- 51	1- 3	3- 5	7- 9	13- 15	19- 21	31- 33	35- 37	49- 51	49- 51	3- 5	5- 7	13- 15	21- 23	35- 37
Sample Date		3/2/2004	3/2/2004	2/6/2004	3/8/2004	3/8/2004	3/8/2004	3/8/2004	3/9/2004	3/9/2004	3/9/2004	3/3/2004	3/3/2004	3/3/2004	3/3/2004	3/10/2004	3/10/2004	3/22/2004	3/22/2004	3/22/2004	3/23/2004	3/23/2004	3/23/2004	3/23/2004	3/15/2004	3/30/2004	3/30/2004	3/30/2004	3/31/2004
BTEX (mg/Kg)																												
Benzene	0.06	NS	NS	**1.1**	**2.6**	**2.6**	**64**	**76**	**0.44**	**1.5**	0.027 U	**0.001 J**	**190**	**0.76**	**0.16**	0.00025 U	0.00025 U	**0.75**	**23**	**120**	**0.067 J**	**0.62**	**0.0031**	**0.0028**	**0.0006 J**	**6.9**	**14**	**150**	**6.7**
Ethyl Benzene	5.5	NS	NS	**25**	**30**	**10**	**42**	**44**	**4.1**	**27**	**0.094 J**	0.00023 U	**810**	**3.2**	**0.0074**	0.00022 U	0.00022 U	**2.1**	**280**	**670**	0.021 U	**8.1**	0.00023 U	0.00023 U	**0.0034 J**	**220**	**130**	**210**	**100**
Toluene	1.5	NS	NS	**0.36 J**	0.038 U	**0.12 J**	**220**	**240**	**0.44 J**	**1.7 J**	0.023 U	0.00023 U	**340**	**0.092 J**	**0.0019 J**	0.00022 U	0.00022 U	**0.4 J**	**2.3 J**	**230**	0.021 U	**0.10 J**	**0.0017 J**	**0.0016 J**	0.00022 U	**28**	**3.3 J**	**190**	**1.6 J**
Xylene (Total)	1.2	NS	NS	**11**	**4.3**	**1.8**	**420**	**440**	**5.1**	**33**	0.03 U	0.00055 U	**1300**	**3.1**	**0.011**	0.00052 U	0.00052 U	**2.2**	**100**	**980**	0.028 U	**10**	0.00056 U	0.00057 U	**0.015**	**500**	**320**	**550**	**130**
Volatile Organic Compounds (VOCs) (mg/Kg)																												
2-Butanone (Methyl Ethyl Ketone)	0.3	NS	NS	***0.44 U***	***0.44 R***	**0.24 R**	***3 R***	***3.2 R***	**0.24 R**	***0.95 R***	**0.26 R**	**0.0011 R**	***10 R***	**0.26 R**	**0.0011 R**	**0.0011 R**	**0.0011 R**	**0.21 R**	***5.1 R***	***9.9 R***	**0.24 R**	**0.23 R**	**0.0011 R**	**0.0012 R**	**0.0011 R**	***4.8 R***	***2.2 R***	***5.1 R***	***2.4 R***
4-Methyl-2-pentanone	1.0	NS	NS	0.25 U	0.25 U	0.14 U	***1.7 U***	***1.8 U***	0.14 U	0.54 U	0.15 U	0.00084 U	***5.9 U***	0.15 U	0.00084 U	0.0008 U	0.0008 U	0.12 U	***2.9 U***	***5.6 U***	0.14 U	0.13 U	0.00086 U	0.00087 U	0.0008 U	***2.7 U***	***1.2 U***	***2.9 U***	***1.4 U***
Acetone	0.2	NS	NS	***0.42 U***	***0.42 U***	***0.23 U***	***2.9 U***	***3.1 U***	***0.23 UJ***	***0.91 UJ***	***0.25 UJ***	0.0028 U	***9.8 U***	***0.24 U***	0.0028 UJ	0.0026 UJ	0.0026 UJ	0.2 U	***4.9 U***	***9.4 U***	***0.23 U***	***0.22 U***	**0.047**	**0.064**	**0.025**	***4.5 U***	***2.1 U***	***4.9 U***	***2.3 U***
Carbon Disulfide	2.7	NS	NS	0.056 U	0.056 UJ	0.032 UJ	0.39 UJ	0.42 UJ	0.032 U	0.12 U	0.034 U	0.00034 U	1.3 U	0.033 U	0.00034 U	0.00032 U	0.00032 U	0.028 UJ	0.67 UJ	1.3 UJ	0.031 U	0.03 U	0.00035 U	0.00035 U	**0.0022 J**	0.62 U	0.28 U	0.67 U	0.31 U
Carbon Tetrachloride	0.6	NS	NS	0.085 U	0.085 U	0.048 U	0.58 U	***0.62 U***	0.048 U	0.18 U	0.05 U	0.00024 U	***1.9 U***	0.05 U	0.00024 U	0.00023 U	0.00023 U	0.042 U	***0.97 U***	***1.9 U***	0.046 U	0.046 U	0.00024 U	0.00025 U	0.00023 U	***0.91 U***	0.42 U	***1 U***	0.46 U
Chloroform	0.3	NS	NS	0.037 U	0.037 U	0.021 U	0.26 U	0.27 U	0.021 U	0.081 U	0.022 U	0.00026 U	***0.88 U***	0.022 U	0.00026 U	0.00025 U	0.00025 U	0.018 U	***0.44 U***	***0.84 U***	0.02 U	0.02 U	0.00027 U	0.00027 U	0.00025 U	***0.4 U***	0.18 U	***0.44 U***	0.21 U
cis-1,2-Dichloroethene	NA	NS	NS	0.048 U	0.048 U	0.027 U	0.33 U	0.36 U	0.027 U	0.1 U	0.029 U	0.00034 U	1.1 U	0.029 U	**0.0009 J**	0.00032 U	0.00032 U	0.024 U	0.57 U	1.1 U	0.026 U	0.026 U	0.00035 U	0.00035 U	0.00032 U	0.53 U	0.24 U	0.57 U	0.27 U
Methylene Chloride	0.1	NS	NS	0.028 U	0.028 U	0.016 U	***0.2 U***	***0.21 U***	0.016 U	0.06 U	0.017 U	0.00026 U	***0.68 U***	0.017 U	0.00026 U	0.00024 U	0.00024 U	0.014 U	***0.32 U***	***0.64 U***	0.015 U	0.015 U	0.0009 U	0.0008 U	0.0022 U	***0.3 U***	***0.14 U***	***0.34 U***	***0.16 U***
Styrene	NA	NS	NS	0.035 U	0.035 U	0.02 U	**78**	**82**	**0.23 J**	**0.59 J**	0.021 U	0.00014 U	0.84 U	0.021 U	0.00014 U	**0.0019 J**	**0.0012 J**	**0.077 J**	0.42 U	**10 J**	0.019 U	0.019 U	0.00014 U	0.00014 U	0.00013 U	0.39 U	0.18 U	**39**	0.2 U
Tetrachloroethene	1.4	NS	NS	0.074 U	0.074 U	0.04 U	0.51 U	0.54 U	0.04 U	0.16 U	0.044 U	0.00019 U	***1.8 U***	0.044 U	0.00019 U	0.00019 U	0.00019 U	0.037 U	0.84 U	***1.7 U***	0.04 U	0.04 U	0.0002 U	0.0002 U	0.00019 U	0.78 U	0.37 U	0.88 U	0.4 U
Trichloroethene	0.7	NS	NS	0.054 U	0.054 U	0.03 U	0.37 U	0.4 U	0.03 U	0.12 U	0.032 U	0.0003 U	***1.3 U***	0.032 U	0.0003 U	0.0003 U	0.0003 U	0.027 U	0.62 U	***1.2 U***	0.03 U	0.03 U	**0.0015**	**0.0016**	0.0003 U	0.57 U	0.27 U	0.64 U	0.3 U
Total VOC	10	ND	ND	**37**	**37**	**15**	**824**	**882**	**10**	**64**	**0.094**	**0.001**	**2,640**	**7.152**	**0.1812**	**0.0019**	**0.0012**	**5.527**	**405**	**2,010**	**0.067**	**19**	**0.0533**	**0.07**	**0.0462**	**755**	**467**	**1,139**	**238**
Polynuclear Aromatic Hydrocargons (PAHs) (mg/Kg)																												
Acenaphthene	50	**47**	**0.064 J**	**30**	**37 J**	**22**	**49 J**	**57 J**	**410**	**53**	**0.27 J**	**2.2 J**	**1500**	**7.8 J**	**0.21 J**	0.0031 U	0.0031 UJ	**13**	**170**	**660**	**0.31 J**	**8.8**	**0.015 J**	**0.014 J**	**1.2**	**110**	**60**	**260 J**	**270**
Acenaphthylene	41	**27**	0.0035 U	**4.8 J**	**7.7 J**	**7.8 J**	**110**	**140**	**73 J**	**47**	**0.22 J**	**0.8 J**	**330 J**	**2 J**	**0.14 J**	**0.011 J**	0.0031 U	**7.8**	**28**	**190 J**	**0.29 J**	**2.3**	**0.02 J**	**0.02 J**	**0.45**	**42**	**16 J**	**630 J**	**48**
Anthracene	50	**50**	**0.035 J**	**14**	**19 J**	**14**	**150**	**170**	**190**	**36**	**0.42 J**	**1.6 J**	**730 J**	**4.7 J**	**0.27 J**	**0.0082 J**	0.0028 U	**12**	**95**	**480**	**0.6**	**6.6**	**0.045 J**	**0.031 J**	**1.3**	**140**	**43**	**580 J**	**150**
Benzo(a)anthracene	0.224	**38**	**0.027 J**	**6.6**	**13 J**	**21**	**130**	**150**	**140**	**30**	**0.34**	**1.3 J**	**460**	**3.5 J**	**0.22**	**0.027 J**	**0.013 J**	**7.3**	**51**	**360**	**0.48**	**3.9**	**0.035 J**	**0.03 J**	**0.85**	**91**	**33**	**460**	**82**
Benzo(a)pyrene	0.061	**36**	0.003 U	**5**	**10 J**	**22**	**90**	**100**	**140**	**29**	**0.26**	**1.2 J**	**470**	**3 J**	**0.19**	**0.026 J**	0.0027 U	**7.3**	**45**	**280**	**0.39**	**3.2**	**0.028 J**	**0.02 J**	**1.1 J**	**74**	**36**	**340**	**65**
Benzo(b)fluoranthene	1.1	**22**	0.0032 U	**2.4**	**5.6 J**	**11**	**47**	**51**	**42**	**10**	**0.14**	**0.6 J**	**200**	**1.2 J**	**0.098**	**0.019 J**	0.0028 U	**3.5**	**19**	**130**	**0.2**	**1.4**	**0.014 J**	**0.013 J**	**0.56**	**41**	**20**	**240**	**25**
Benzo(ghi)perylene	50	**11 J**	0.0044 U	**0.98 J**	**4.8 J**	**15**	**44 J**	**50 J**	**62 J**	**15**	**0.12 J**	**0.55 J**	12 U	**1.2 J**	**0.1 J**	**0.016 J**	0.004 U	**3.7 J**	**21 J**	**110 J**	**0.16 J**	**1.3 J**	0.0043 U	0.0043 U	**0.66 J**	**40**	**25 J**	**170 J**	**30 J**
Benzo(k)fluoranthene	1.1	**34**	0.0043 U	**4.7**	**6.3 J**	**21**	**91**	**110**	**110**	**20**	**0.18**	**0.97 J**	**380**	**2.4 J**	**0.15**	**0.025 J**	0.0038 U	**5.9**	**36**	**270**	**0.39**	**2.5**	**0.031 J**	**0.02 J**	**1.1 J**	**71**	**23**	**280**	**47**
Chrysene	0.4	**34**	**0.032 J**	**6.9 J**	**15 J**	**23**	**120**	**150**	**140**	**29**	**0.32 J**	**1.4 J**	**480 J**	**3.6 J**	**0.22 J**	**0.036 J**	**0.019 J**	**7.7**	**54**	**310 J**	**0.44**	**3.9**	**0.041 J**	**0.033 J**	**0.99**	**84**	**36 J**	**410 J**	**87**
Dibenz(a,h)anthracene	0.014	***0.13 U***	0.0027 U	***0.051 U***	**1.8 J**	**5.1**	**9.9 J**	**19**	**13**	**4.1**	**0.039 J**	0.0026 UJ	***7.3 U***	0.0058 UJ	0.0026 U	0.0024 U	0.0024 U	**1.3**	**5.4**	**63**	**0.07**	**0.42**	0.0026 U	0.0026 U	0.0024 UJ	**13**	**9.5**	**38 J**	**9**
Fluoranthene	50	**82**	**0.056 J**	**12**	**25 J**	**29**	**300**	**300**	**320**	**74**	**0.78**	**2 J**	**1,000 J**	**6.9 J**	**0.42**	**0.05 J**	**0.031 J**	**16**	**90**	**710**	**1**	**7.9**	**0.074 J**	**0.056 J**	**2.2**	**240**	**67**	**1,200**	**190**
Fluorene	50	**71**	0.0028 U	**16**	**30 J**	**21**	**240**	**280**	**270**	**52**	**0.52**	**1 J**	**950 J**	**6.2 J**	**0.29 J**	0.0025 U	0.0025 U	**15**	**84**	**610**	**0.59**	**6.2**	**0.044 J**	0.0028 U	**0.85**	**120**	**46**	**880 J**	**220**
Indeno(1,2,3-cd)pyrene	3.2	**11**	0.0027 U	**1.2**	**3.4 J**	**12**	**32**	**39**	**43**	**10**	**0.094**	**0.45 J**	***7.2 U***	**0.98 J**	**0.091**	**0.014 J**	0.0024 U	**3.1**	**18**	**110**	**0.14**	**1.1**	0.0026 U	0.0026 U	**0.58 J**	**35**	**18**	**160**	**23**
Naphthalene	13	**370**	0.0036 U	**140**	**13 J**	**150**	**1700**	**1,900**	**500**	**170**	**0.11 J**	**1.1 J**	**10,000**	**3.6 J**	**0.15 J**	0.0033 U	**0.039 J**	**32**	**440**	**3,900**	**0.71**	**9.9**	**0.074 J**	**0.17 J**	**0.48**	**600**	**520**	**7,000**	**700**
Phenanthrene	50	**250**	**0.14 J**	**49**	**86 J**	**84**	**760**	**810**	**810**	**170**	**1.9**	**2.8 J**	**2,700**	**19 J**	**1.1**	**0.04 J**	**0.038 J**	**43**	**280**	**1,700**	**2**	**23**	**0.16 J**	**0.11 J**	**3.6**	**420**	**150**	**2,300**	**490**
Pyrene	50	**72**	**0.082 J**	**24**	**42 J**	**36**	**270**	**300**	**450**	**96**	**1**	**3 J**	**980 J**	**9.4 J**	**0.42 J**	**0.047 J**	**0.036 J**	**21**	**110**	**680**	**0.97**	**9.8**	**0.073 J**	**0.048 J**	**2.5**	**220**	**91**	**1,100**	**250**
Benzo(a)pyrene Equivalents	NA	**43**	**0.002732**	**6.0739**	**14**	**32**	**121.83**	**144**	**177**	**38**	**0.35852**	**1.4461**	**540**	**3.5956**	**0.23262**	**0.032286**	**0.001319**	**10.0567**	**60**	**406**	**0.54634**	**4.2889**	**0.033251**	**0.024533**	**1.31099**	**104**	**53**	**467**	**87**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																												
2,4-Dimethylphenol	NA	1.8 U	0.038 U	0.71 U	0.9 UJ	0.78 U	**35 J**	**42 J**	8 U	0.92 U	0.041 U	0.036 UJ	10 U	0.081 UJ	0.037 U	0.034 U	0.034 U	0.35 U	1.9 U	39 U	**0.018 J**	0.18 U	0.037 U	0.037 U	**0.02 J**	**1.2 J**	3.6 U	**56 J**	3.8 U
2-Methylnaphthalene	36.4	**140**	0.019 U	**87**	**80 J**	**65**	**490**	**600**	**190**	**78**	**0.06 J**	**0.26 J**	**4300**	**2.2 J**	**0.048 J**	0.017 U	**0.011 J**	**9.7**	**280**	**1600**	**0.47**	**10**	**0.039 J**	**0.066 J**	**0.51**	**200**	**120**	**1400**	**440**
2-Methylphenol	0.1	***1.8 U***	0.037 U	***0.7 U***	***0.88 UJ***	***0.76 U***	***9.1 U***	**8 J**	***7.9 U***	***0.91 U***	0.04 U	0.035 UJ	***10 U***	0.08 UJ	0.036 U	0.034 U	0.034 U	***0.34 U***	***1.9 U***	***38 U***	0.038 U	***0.18 U***	0.036 U	0.036 U	**0.011 J**	***3.5 U***	***3.5 U***	***84 U***	***3.7 U***
4-Methylphenol	0.9	***2 U***	0.041 U	0.76 U	***0.96 UJ***	0.83 U	**20 J**	**30 J**	***8.6 U***	***0.99 U***	0.044 U	**0.0096 J**	***11 U***	0.087 UJ	0.04 U	0.037 U	0.037 U	0.38 U	***2.1 U***	***42 U***	**0.023 J**	0.2 U	0.04 U	0.04 U	**0.028 J**	**1.1 J**	***3.9 U***	**22 J**	***4.1 U***
4-Nitrophenol	0.1	***0.62 U***	0.012 U	***0.24 U***	***0.3 UJ***	***0.26 U***	***3.1 U***	***3.4 U***	***2.7 U***	***0.31 U***	0.014 U	0.012 UJ	***34 U***	0.027 UJ	0.012 U	0.011 U	0.011 U	***0.11 U***	***0.65 U***	***13 U***	0.013 U	0.06 U	0.012 U	0.012 U	0.011 U	***1.2 U***	***1.2 U***	***28 U***	***1.2 U***
bis(2-Ethylhexyl) phthalate	50	1.2 U	0.025 U	0.47 U	0.59 UJ	0.51 U	6.1 U	6.7 U	5.3 U	0.61 U	0.027 U	**0.086 J**	***67 U***	0.053 UJ	0.024 U	**0.17 J**	**0.13 J**	0.23 U	1.3 U	25 U	0.025 U	0.12 U	0.1 U	0.12 U	0.022 U	2.4 U	2.4 U	***56 U***	2.5 U
Butyl benzyl phthalate	50	0.81 U	0.017 U	0.31 U	0.39 UJ	0.34 U	4.1 U	4.5 U	3.5 U	0.41 U	0.018 U	0.016 UJ	45 U	0.036 UJ	0.016 U	0.015 U	0.015 U	0.15 U	0.85 U	17 U	0.017 U	0.081 U	0.016 U	0.016 U	0.015 U	1.6 U	1.6 U	37 U	1.7 U
Carbazole	NA	**17 J**	0.003 U	**0.29 J**	**0.8 J**	**2.9 J**	**81 J**	**92 J**	**7.6 J**	**1.2 J**	**0.079 J**	**0.051 J**	**160 J**	**0.46 J**	**0.11 J**	0.0027 U	0.0027 U	**0.82 J**	**21 J**	**150 J**	**0.3 J**	**0.92 J**	0.0029 U	0.0029 U	**0.27 J**	**64**	**11 J**	**230 J**	**15 J**
Dibenzofuran	6.2	**45**	0.021 U	**2.5 J**	**4 J**	**6.2 J**	**150**	**180**	**27 J**	**5 J**	**0.1 J**	**0.21 J**	**390 J**	**1.1 J**	**0.12 J**	0.019 U	0.019 U	**2.6 J**	**29**	**350 J**	**0.29 J**	**1.8 J**	**0.022 J**	**0.016 J**	**0.61**	**95**	**20 J**	**670 J**	**33 J**
Diethyl phthalate	7.1	0.54 U	0.011 U	0.21 U	0.26 UJ	0.23 U	2.7 U	3 U	2.3 U	0.27 U	0.012 U	0.01 UJ	***30 U***	0.024 UJ	0.011 U	0.01 U	0.01 U	0.1 U	0.57 U	***11 U***	0.011 U	0.054 U	0.011 U	0.011 U	0.01 U	1 U	1 U	***25 U***	1.1 U
Di-n-butyl phthalate	8.1	0.58 U	0.012 U	0.22 U	0.28 UJ	0.24 U	2.9 U	3.2 U	2.5 U	0.29 U	0.013 U	0.011 UJ	***32 U***	0.025 UJ	0.012 U	0.011 U	0.011 U	0.11 U	0.61 U	***12 U***	0.012 U	0.058 U	0.012 U	0.012 U	0.011 U	1.1 U	1.1 U	***27 U***	1.2 U
N-Nitrosodiphenylamine	NA	0.92 U	0.019 U	0.35 U	0.45 UJ	0.39 U	4.6 U	5.1 U	4 U	0.46 U	0.02 U	0.018 UJ	51 U	0.04 UJ	0.018 U	0.017 U	0.017 U	0.18 U	0.97 U	19 U	0.019 U	0.092 U	0.018 U	0.018 U	0.017 U	1.8 U	1.8 U	42 U	1.9 U
Phenol	0.03	***2.7 U***	***0.055 U***	***1 U***	***1.3 UJ***	***1.1 U***	***13 U***	***15 U***	***12 U***	***1.3 U***	***0.059 U***	***0.052 UJ***	***14 U***	***0.12 UJ***	***0.054 U***	***0.05 U***	***0.05 U***	***0.51 U***	***2.8 U***	***56 U***	***0.056 U***	***0.27 U***	***0.054 U***	***0.054 U***	***0.05 U***	***5.2 U***	***5.2 U***	***12 U***	***5.5 U***
Total SVOCs	500	**1357**	**0.436**	**407.37**	**404.4**	**568**	**4918.9**	**5578**	**3937.6**	**929.3**	**6.952**	**21.5866**	**25030**	**79.24**	**4.347**	**0.4892**	**0.317**	**212.72**	**1876.4**	**12663**	**9.841**	**104.94**	**0.715**	**0.647**	**19.869**	**2702.3**	**1344.5**	**18426**	**3173.6**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21CH009 25- 27 3/2/2004	21CH009 49- 51 3/2/2004	21DT001 6.5- 8.5 2/6/2004	21DT001 12- 14 3/8/2004	21DT001 16- 18 3/8/2004	21DT001 DUP 26- 28 3/8/2004	21DT001 26- 28 3/8/2004	21DT001 40- 42 3/9/2004	21DT001 42- 44 3/9/2004	21DT001 48- 50 3/9/2004	21DT002 7- 9 3/3/2004	21DT002 17- 19 3/3/2004	21DT002 35- 37 3/3/2004	21DT002 49- 51 3/3/2004	21DT003 1- 3 3/10/2004	21DT003 3- 5 3/10/2004	21DT003 7- 9 3/22/2004	21DT003 13- 15 3/22/2004	21DT003 19- 21 3/22/2004	21DT003 31- 33 3/23/2004	21DT003 35- 37 3/23/2004	21DT003 49- 51 3/23/2004	21DT003 DUP 49- 51 3/23/2004	21DT004 3- 5 3/15/2004	21DT004 5- 7 3/30/2004	21DT004 13- 15 3/30/2004	21DT004 21- 23 3/30/2004	21DT004 35- 37 3/31/2004
Metals (mg/Kg)																													
Aluminum	7,960 (sb)	**4470 J**	**2440 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	NA	0.95 U	0.96 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	13.63 (sb)	**3.6 J**	0.84 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	300 (d)	**18.2 J**	**33.4 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	0.463 (sb)	**0.27 J**	**0.22 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	1 (d)	0.097 U	0.098 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	11,563 (sb)	**2560**	**4400**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	36.69 (sb)	**9.7**	**6.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	30 (d)	**4.5 J**	**3.8 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	35.84 (sb)	**6.9 J**	**5.4 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	14,369 (sb)	**12100 J**	**8170 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	237.7 (sb)	**15.8**	**2.1**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	3,129 (sb)	**2820**	**3620**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	358.5 (sb)	**187**	**170**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.1 (d)	**0.06**	0.020 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	15.3 (sb)	**9.7**	**14.5**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	1,197 (sb)	**908 J**	**610 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	2.0 (d)	0.95 U	0.96 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silver	0.229 (sb)	0.17 U	0.17 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	214.8 (sb)	**405 J**	88.7 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	NA	1.1 U	1.1 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	150 (d)	**13.9**	**9.0 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	81.77 (d)	**27.1**	**16.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)																													
Cyanide, Total	NA	0.5 U	0.5 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)
Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID			21DT004	21DT005	21DT005 DUP	21DT005	21DT005	21DT005	21DT005	21DT005	21DT006	21DT006	21DT006	21DT006	21DT006	21ER001	21ER001 DUP	21ER001	21ER001	21ER001	21ER001	21ER002	21ER002 DUP	21ER002	21ER002	21ER002	21ER002 DUP	21ER002	21ER002
Depth Interval			49- 51	1- 3	1- 3	3- 5	9- 11	17- 19	27- 29	49- 51	7- 9	17- 19	27- 29	37- 39	49- 51	1- 3	1- 3	3- 5	9- 11	13- 15	31- 33	49- 51	1- 3	1- 3	3- 5	10- 12	18- 20	18- 20	24- 26	49- 51
Sample Date		NYSDEC RSCOs	3/31/2004	2/26/2004	2/26/2004	2/26/2004	3/4/2004	3/4/2004	3/4/2004	3/4/2004	3/3/2004	3/3/2004	3/3/2004	3/3/2004	3/4/2004	2/12/2004	2/12/2004	2/12/2004	2/12/2004	2/12/2004	2/13/2004	2/13/2004	2/24/2004	2/24/2004	2/24/2004	3/15/2004	3/15/2004	3/15/2004	3/15/2004	3/16/2004
BTEX (mg/Kg)																													
Benzene		0.06	**0.0042**	0.00025 U	**0.0007 J**	0.00025 U	**0.29**	**0.0073**	**13**	**0.036**	**71**	**0.0016**	**11**	**1.9 J**	0.00028 U	**0.0034**	**0.002**	0.00025 U	**0.051**	**0.35**	**0.0068**	**0.014**	**0.0025**	**0.0012**	**0.0017**	**0.076 J**	**2.2**	**2.5**	**1.9**	**0.0015**
Ethyl Benzene		5.5	**0.0018 J**	0.00022 U	0.00022 U	0.00022 U	**0.55**	**0.0038 J**	**20**	0.00026 U	**470**	0.00021 U	**55**	**160**	0.00023 U	**0.0016 J**	**0.001 J**	**0.0011 J**	**0.2**	**4.3**	**0.0013 J**	**0.0013 J**	0.00021 U	0.00022 U	0.00022 U	**6.4**	**4.3**	**4.4**	**30**	0.00024 U
Toluene		1.5	**0.0008 J**	0.00022 U	**0.0013 J**	0.00023 U	**0.14 J**	0.00024 U	**59**	**0.012**	**4.2 J**	0.00021 U	**43**	0.38 U	0.00024 U	**0.0096**	**0.0066**	**0.0081**	**0.13 B**	**2**	**0.0034 J**	**0.0019 J**	**0.0024 J**	**0.0012 J**	**0.0013 J**	0.019 U	0.023 U	0.025 U	**6.8**	0.00025 U
Xylene (Total)		1.2	**0.0038 J**	0.00052 U	**0.0018 J**	0.00053 U	**0.3 J**	**0.0022 J**	**180**	0.00062 U	**170**	0.00028 U	**130**	**140**	0.00057 U	**0.0039 J**	**0.0031 J**	**0.0034 J**	**0.39**	**8.7**	**0.0036 J**	**0.0027 J**	0.00051 U	0.00053 U	0.00052 U	**6.7**	**3.0**	**3.0**	**37**	0.0006 U
Volatile Organic Compounds (VOCs) (mg/Kg)																													
2-Butanone (Methyl Ethyl Ketone)		0.3	**0.0012 R**	**0.0097 J**	**0.0085 J**	**0.0011 R**	**0.22 R**	**0.0012 R**	***1.2 R***	**0.0013 R**	***9.5 R***	**0.0024 R**	***2.2 R***	***4.4 R***	**0.0012 R**	0.0011 U	0.0011 U	0.0011 U	**0.011**	0.23 U	**0.0099**	**0.0085**	**0.005 J**	**0.0053 J**	**0.0011 R**	**0.22 R**	**0.26 R**	**0.29 R**	***0.99 R***	**0.0012 R**
4-Methyl-2-pentanone		1.0	0.0009 U	0.0008 U	0.0008 U	0.00081 U	0.13 U	0.0009 U	0.68 U	0.00096 U	***5.4 U***	0.0014 U	***1.3 U***	***2.5 U***	0.00087 U	0.00084 U	0.0008 U	0.0008 U	0.00089 U	0.13 U	**0.0021 J**	0.00083 U	0.00078 U	0.00081 U	0.0008 U	0.13 U	0.15 U	0.16 U	0.56 U	0.00092 U
Acetone		0.2	**0.02 J**	**0.032 J**	**0.029 J**	**0.018 J**	***0.21 U***	0.003 UJ	***1.1 U***	0.0031 UJ	***9.1 U***	0.0023 U	***2.2 U***	***4.2 U***	0.0028 UJ	**0.068**	**0.053**	**0.057**	**0.096 J**	***0.22 U***	**0.089 J**	**0.088 J**	**0.032 J**	**0.03 J**	**0.0098 J**	***0.21 UJ***	***0.25 UJ***	***0.28 UJ***	***0.94 UJ***	0.003 U
Carbon Disulfide		2.7	0.00036 U	**0.0004 J**	0.00032 U	0.00033 U	0.029 U	0.00036 U	0.15 UJ	0.00039 U	1.2 U	**0.013**	0.29 U	0.56 U	0.00035 U	0.00034 U	0.00032 U	0.00032 U	**0.0019 J**	0.03 U	0.00036 U	**0.0009 J**	**0.0007 J**	0.00033 U	**0.0007 J**	0.029 U	0.034 U	0.038 U	0.13 U	**0.0008 J**
Carbon Tetrachloride		0.6	0.00025 U	0.00023 U	0.00022 U	0.00023 U	0.042 U	0.00025 U	0.23 U	0.00027 U	***1.8 U***	0.00046 U	0.44 U	***0.89 U***	0.00025 U	0.00024 U	0.00023 U	0.00023 U	0.00025 U	0.046 U	0.00025 U	0.00024 U	0.00022 U	0.00023 U	0.00023 U	0.042 U	0.052 U	0.056 U	0.19 U	0.00026 U
Chloroform		0.3	0.00028 U	0.00025 U	0.00025 U	0.00025 U	0.019 U	0.00028 U	0.1 U	0.0003 U	***0.81 U***	0.00021 U	0.19 U	***0.37 U***	0.00027 U	0.00026 U	0.00025 U	0.00025 U	0.00028 U	0.02 U	0.00028 U	0.00026 U	0.00024 U	0.00025 U	0.00025 U	0.019 U	0.023 U	0.025 U	0.084 U	0.00028 U
cis-1,2-Dichloroethene		NA	0.00036 U	0.00032 U	0.00032 U	0.00033 U	0.025 U	0.00036 U	0.13 U	**0.0006 J**	1 U	0.00027 U	0.25 U	0.48 U	0.00035 U	0.00034 U	0.00032 U	0.00032 U	0.00036 U	0.026 U	**0.0026 J**	0.00034 U	0.00032 U	0.00033 U	0.00032 U	0.025 U	0.029 U	0.032 U	0.11 U	**0.0022 J**
Methylene Chloride		0.1	0.0027 U	0.0011 U	0.0012 U	0.0011 U	0.014 U	0.00028 U	0.077 U	0.0009 U	***0.6 U***	0.0036 U	***0.14 U***	***0.29 U***	0.00027 U	0.00026 U	0.00024 U	0.00024 U	0.0013 U	0.015 U	0.0013 U	0.003 U	0.0008 U	0.00025 U	0.0011 U	0.014 U	0.017 U	0.019 U	0.064 U	0.0073 U
Styrene		NA	0.00015 U	0.00013 U	0.00013 U	0.00013 U	0.018 U	0.00015 U	**33**	0.00016 U	0.77 U	0.0002 U	**5.7**	0.35 U	0.00014 U	0.00014 U	0.00013 U	0.00013 U	**0.013**	**0.44 J**	0.00015 U	0.00013 U	0.00013 U	0.00013 U	0.00013 U	0.018 U	0.022 U	0.024 U	**3.2**	0.00015 U
Tetrachloroethene		1.4	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.037 U	0.0002 U	0.2 U	0.00022 U	***1.6 U***	0.0004 U	0.37 U	0.78 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.04 U	**0.0006 J**	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.037 U	0.044 U	0.047 U	0.17 U	0.0002 U
Trichloroethene		0.7	0.00032 U	0.0003 U	0.0003 U	0.0003 U	0.027 U	0.00032 U	0.15 U	0.00035 U	***1.2 U***	**0.0007 J**	0.27 U	0.57 U	0.00032 U	0.0003 U	0.0003 U	0.0003 U	0.00032 U	0.03 U	**0.0008 J**	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.027 U	0.032 U	0.035 U	0.12 U	**0.0015**
Total VOC		10	**0.0306**	**0.0421**	**0.0413**	**0.018**	**1.28**	**0.0133**	**305**	**0.0486**	**715**	**0.0153**	**245**	**302**	ND	**0.0865**	**0.0657**	**0.0696**	**0.8929**	**16**	**0.1201**	**0.1173**	**0.0426**	**0.0377**	**0.0135**	**13**	**9.5**	**9.9**	**79**	**0.006**
Polynuclear Aromatic Hydrocargons (PAHs) (mg/Kg)																													
Acenaphthene		50	**0.11 J**	0.0031 U	0.0031 U	0.0031 U	**7.1 J**	**0.12 J**	**21 J**	**0.012 J**	**46**	**6.3 J**	**16 J**	**280**	**0.17 J**	**0.026 J**	0.0031 U	0.0031 U	**12**	**0.62**	**0.011 J**	**0.04 J**	**0.33 J**	**0.056 J**	**0.2 J**	**23**	**0.14 J**	**0.097 J**	**3 J**	0.0035 U
Acenaphthylene		41	**0.081 J**	**0.038 J**	**0.038 J**	**0.021 J**	**1.4 J**	**0.036 J**	**56**	0.0037 U	**12**	**1.6 J**	**61**	**56 J**	**0.07 J**	**0.055 J**	0.0031 U	0.0031 U	**2.8**	**0.1 J**	0.0034 U	**0.021 J**	**2.1**	**0.085 J**	**2**	**3.8 J**	**0.03 J**	**0.033 J**	**13**	0.0035 U
Anthracene		50	**0.18 J**	0.0028 U	0.0028 U	0.0028 U	**4.4 J**	**0.13 J**	**67**	**0.012 J**	**30**	**5.3 J**	**34**	**120**	**0.15 J**	**0.068 J**	0.0028 U	0.0028 U	**2 J**	**0.11 J**	0.0031 U	**0.029 J**	**1.7**	**0.15 J**	**1.4**	**9.2**	**0.056 J**	**0.053 J**	**6 J**	0.0032 U
Benzo(a)anthracene		0.224	**0.13**	**0.039**	**0.044**	0.01 U	**2.8 J**	**0.88**	**49**	**0.014 J**	**16**	**6.9 J**	**27**	**83**	**0.12**	**0.24**	**0.012 J**	0.01 U	**6.7**	**0.15**	**0.01 J**	**0.021 J**	**3.7**	**0.37**	**5.3**	**5.3**	**0.045 J**	**0.047 J**	**5.1**	0.011 U
Benzo(a)pyrene		0.061	**0.11**	**0.067**	**0.065**	0.0027 U	**2.6 J**	**1.4**	**37**	**0.012 J**	**20**	**7.4 J**	**27**	**94**	**0.091**	**0.22**	**0.014 J**	0.0027 U	**6.8**	**0.12**	0.003 U	**0.023 J**	**4.2**	**0.31**	**8.3**	**4.5**	**0.03 J**	**0.034 J**	**4**	0.003 U
Benzo(b)fluoranthene		1.1	**0.057**	0.0028 U	**0.033 J**	0.0028 U	**1.2 J**	**0.78**	**20**	0.0034 U	**8**	**4 J**	**12**	**32**	**0.038 J**	**0.17**	**0.014 J**	0.0028 U	**4**	**0.068**	0.0031 U	**0.01 J**	**3.2**	**0.24**	**7.5**	**1.5**	**0.014 J**	**0.019 J**	**1.4**	0.0032 U
Benzo(ghi)perylene		50	**0.047 J**	**0.067 J**	**0.07 J**	0.004 U	**1.9 J**	**0.97**	**16 J**	0.0047 U	**11**	**4 J**	**14 J**	**54 J**	**0.048 J**	**0.16 J**	**0.019 J**	0.004 U	**4.3**	**0.064 J**	0.0043 U	0.0043 U	**2.1**	**0.18 J**	**4.2**	**2.1 J**	**0.015 J**	**0.018 J**	**1.6 J**	0.0044 U
Benzo(k)fluoranthene		1.1	**0.087**	0.0038 U	**0.063**	0.0038 U	**2 J**	**1.2**	**31**	**0.0088 J**	**14**	**7.3 J**	**19**	**55**	**0.06**	**0.23**	**0.012 J**	0.0038 U	**6.2**	**0.1**	0.0042 U	**0.012 J**	**3.2**	**0.36**	**4.9**	**3.2**	**0.02 J**	**0.028 J**	**3 J**	0.0043 U
Chrysene		0.4	**0.12 J**	**0.041 J**	**0.058 J**	0.0046 U	**3.1 J**	**0.96**	**43 J**	**0.014 J**	**21**	**7.5 J**	**24**	**80 J**	**0.12 J**	**0.28 J**	**0.018 J**	0.0046 U	**6.7**	**0.14 J**	**0.0094 J**	**0.027 J**	**3.7**	**0.42**	**4.9**	**5.6 J**	**0.044 J**	**0.043 J**	**6 J**	0.0051 U
Dibenz(a,h)anthracene		0.014	**0.016 J**	0.0024 U	0.0024 U	0.0024 U	**0.66 J**	**0.32**	***0.33 U***	0.0029 U	**4.3**	**1.3 J**	**4.1**	***0.66 U***	0.0027 U	**0.044**	0.0024 U	0.0024 U	**0.54**	**0.018 J**	0.0026 U	0.0026 U	**1.2**	**0.06**	**1.6**	***0.052 U***	0.0031 U	0.0032 U	**0.52 J**	0.0027 U
Fluoranthene		50	**0.3 J**	**0.059 J**	**0.071 J**	**0.045 J**	**4.9 J**	**0.57**	**100**	**0.024 J**	**32**	**9 J**	**58**	**180**	**0.25 J**	**0.42**	**0.02 J**	0.0012 U	**6.4**	**0.2 J**	**0.016 J**	**0.058 J**	**4.5**	**0.83**	**4.4**	**8.6**	**0.065 J**	**0.068 J**	**7 J**	0.0013 U
Fluorene		50	**0.15 J**	0.0025 U	0.0025 U	0.0025 U	**4.1 J**	**0.072 J**	**86**	**0.011 J**	**27**	**4.7 J**	**50**	**160**	**0.13 J**	**0.025 J**	0.0025 U	0.0025 U	**0.76 J**	**0.2 J**	0.0028 U	**0.039 J**	**0.35 J**	**0.052 J**	**0.27 J**	**10**	**0.064 J**	**0.065 J**	**7.9 J**	0.0028 U
Indeno(1,2,3-cd)pyrene		3.2	**0.041 J**	0.0024 U	0.0024 U	0.0024 U	**1.6 J**	**0.82**	**14**	0.0029 U	**9.4**	**3.7 J**	**11**	**37**	**0.034 J**	**0.13**	**0.014 J**	0.0024 U	**3.8**	**0.052**	0.0026 U	0.0026 U	**2.1**	**0.16**	**4.6**	**1.7**	**0.011 J**	**0.013 J**	**1.3**	0.0027 U
Naphthalene		13	**0.22 J**	0.0033 U	0.0033 U	0.0033 U	**1.5 J**	**0.32 J**	**590**	**0.014 J**	**190**	**8.2 J**	**360**	**1,300**	**0.021 J**	**0.042 J**	0.0033 U	**0.018 J**	**22**	**3.1**	**0.017 J**	**0.28 J**	**0.68**	**0.06 J**	**0.75**	**120**	**3.4**	**2.1**	**120**	0.0036 U
Phenanthrene		50	**0.69**	**0.036 J**	**0.047 J**	**0.025 J**	**16 J**	**0.4 J**	**250**	**0.048 J**	**110**	**16 J**	**180**	**600**	**0.65**	**0.28 J**	**0.015 J**	0.0034 U	**2.6**	**0.39 J**	0.0037 U	**0.14 J**	**3.4**	**0.69**	**3**	**32**	**0.22 J**	**0.24 J**	**31**	0.0038 U
Pyrene		50	**0.29 J**	**0.079 J**	**0.11 J**	**0.065 J**	**5.7 J**	**0.78**	**95**	**0.024 J**	**39 J**	**9.9 J**	**69 J**	**260 J**	**0.3 J**	**0.45**	**0.023 J**	0.0026 U	**9.3**	**0.31 J**	**0.014 J**	**0.062 J**	**5.4**	**0.74**	**5.3**	**16**	**0.1 J**	**0.12 J**	**12**	0.0029 U
Benzo(a)pyrene Equivalents		NA	**0.14979**	**0.070941**	**0.073388**	ND	**3.8431**	**1.98096**	**45.653**	**0.013502**	**28**	**10**	**36**	**110**	**0.11092**	**0.32058**	**0.018138**	ND	**8.8587**	**0.16614**	**0.0010094**	**0.026247**	**6.3357**	**0.45102**	**12**	**5.3876**	**0.037244**	**0.042223**	**5.336**	ND
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																													
2,4-Dimethylphenol		NA	**0.012 J**	0.034 U	0.034 U	0.034 U	0.36 UJ	0.038 U	**5 J**	0.041 U	0.92 U	0.19 UJ	**1 J**	9.2 U	0.038 U	0.035 U	0.034 U	0.034 U	0.19 U	**0.014 J**	0.037 U	0.037 U	0.034 U	0.034 U	**0.017 J**	0.73 U	0.043 U	0.045 U	0.81 U	0.038 U
2-Methylnaphthalene		36.4	**0.16 J**	0.017 U	**0.011 J**	0.017 U	**1.4 J**	**0.093 J**	**210**	0.021 U	**110**	**10 J**	**110**	**400**	0.019 U	**0.031 J**	0.017 U	**0.01 J**	**3.5**	**0.52**	0.019 U	**0.07 J**	**0.46**	**0.033 J**	**0.45**	**69**	**0.45 J**	**0.24 J**	**63**	0.019 U
2-Methylphenol		0.1	0.037 U	0.034 U	0.034 U	0.034 U	***0.35 UJ***	0.037 U	**1.2 J**	0.04 U	***0.9 U***	***0.19 UJ***	***1.8 U***	***9.1 U***	0.037 U	0.034 U	0.034 U	0.034 U	***0.19 U***	**0.012 J**	0.036 U	0.036 U	0.034 U	0.034 U	**0.014 J**	***0.72 U***	0.043 U	0.044 U	***0.8 U***	0.037 U
4-Methylphenol		0.9	**0.0089 J**	0.037 U	0.037 U	0.037 U	0.39 UJ	**0.02 J**	**3 J**	0.044 U	***0.98 U***	0.21 UJ	***2 U***	***9.9 U***	0.041 U	**0.011 J**	0.037 U	0.037 U	0.21 U	**0.011 J**	0.04 U	0.04 U	**0.024 J**	**0.018 J**	**0.05 J**	0.78 U	0.046 U	0.048 U	0.87 U	0.041 U
4-Nitrophenol		0.1	0.012 U	0.011 U	0.011 U	0.011 U	***0.12 UJ***	0.012 U	***1.5 U***	0.013 U	***0.3 U***	0.063 UJ	***0.61 U***	***3.1 U***	0.012 U	0.011 U	0.011 U	0.011 U	0.063 U	0.012 U	0.012 U	0.012 U	0.011 U	0.011 U	0.011 U	***0.24 U***	0.014 U	0.015 U	***0.27 U***	0.012 U
bis(2-Ethylhexyl) phthalate		50	0.025 U	**0.081 J**	**0.1 J**	**0.12 J**	0.24 UJ	**0.11 J**	3 U	0.027 U	0.6 U	0.13 UJ	1.2 U	6.1 U	0.025 U	**0.31 J**	0.022 U	**0.089 J**	0.13 U	**0.11 J**	0.024 U	0.024 U	**0.1 J**	0.022 U	**0.12 J**	0.48 U	0.028 U	0.03 U	0.53 U	0.025 U
Butyl benzyl phthalate		50	0.017 U	0.015 U	0.015 U	0.015 U	0.16 UJ	0.017 U	2 U	0.018 U	0.4 U	0.085 UJ	0.81 U	4.1 U	0.017 U	0.015 U	0.015 U	0.015 U	0.085 U	0.016 U	0.016 U	0.016 U	0.015 U	0.015 U	0.015 U	0.015 U	0.32 U	0.019 U	0.02 U	0.36 U	0.017 U
Carbazole		NA	**0.051 J**	0.0027 U	0.0027 U	0.0027 U	**0.23 J**	**0.063 J**	**32 J**	0.0032 U	**4.4 J**	**1 J**	**7.5 J**	**3.3 J**	**0.023 J**	**0.029 J**	0.0027 U	0.0027 U	**0.19 J**	0.0029 U	0.0029 U	**0.013 J**	**0.23 J**	**0.047 J**	**0.28 J**	**0.88 J**	0.0035 U	0.0036 U	**0.3 J**	0.003 U
Dibenzofuran		6.2	**0.078 J**	0.019 U	0.019 U	0.019 U	**1.2 J**	**0.043 J**	**56**	0.023 U	**7.6 J**	**1.1 J**	**19 J**	**13 J**	**0.013 J**	**0.013 J**	0.019 U	0.019 U	**0.25 J**	**0.012 J**	0.021 U	**0.022 J**	**0.15 J**	**0.04 J**	**0.11 J**	**1.9 J**	**0.016 J**	**0.013 J**	**1.2 J**	0.021 U
Diethyl phthalate		7.1	0.011 U	0.01 U	0.01 U	0.01 U	0.1 UJ	0.011 U	1.4 U	0.012 U	0.27 U	0.057 UJ	0.54 U	2.7 U	0.011 U	0.01 U	0.01 U	0.01 U	0.057 U	0.011 U	0.011 U	0.011 U	0.01 U	0.01 U	0.01 U	0.21 U	0.013 U	0.013 U	0.24 U	0.011 U
Di-n-butyl phthalate		8.1	0.012 U	0.011 U	0.011 U	0.011 U	0.11 UJ	0.012 U	1.4 U	0.013 U	0.29 U	0.061 UJ	0.58 U	2.9 U	0.012 U	**0.12 J**	0.011 U	0.011 U	0.061 U	0.012 U	0.012 U	0.012 U	0.011 U	0.011 U	0.011 U	0.23 U	0.014 U	0.014 U	0.25 U	0.012 U
N-Nitrosodiphenylamine		NA	0.019 U	0.017 U	0.017 U	0.017 U	0.18 UJ	0.019 U	2.3 U	0.02 U	0.46 U	0.097 UJ	0.92 U	4.6 U	0.019 U	0.018 U	0.017 U	0.017 U	0.097 U	0.018 U	0.018 U	0.018 U	0.017 U	0.017 U	0.018 U	0.36 U	0.022 U	0.022 U	0.4 U	0.019 U
Phenol		0.03	***0.055 U***	***0.05 U***	***0.05 U***	***0.05 U***	***0.52 UJ***	***0.055 U***	***6.7 U***	***0.059 U***	***1.3 U***	***0.28 UJ***	***2.7 U***	***13 U***	***0.055 U***	***0.051 U***	***0.05 U***	***0.05 U***	***0.28 U***	***0.054 U***	***0.054 U***	***0.054 U***	***0.05 U***	***0.05 U***	***0.051 U***	***1.1 U***	***0.063 U***	***0.066 U***	***1.2 U***	***0.055 U***
Total SVOCs		500	**2.9389**	**0.507**	**0.71**	**0.276**	**63.79**	**10.087**	**1782.2**	**0.1938**	**711.7**	**115.2**	**1103.6**	**3807.3**	**2.288**	**3.354**	**0.161**	**0.117**	**100.84**	**6.421**	**0.0774**	**0.867**	**42.824**	**4.901**	**59.661**	**318.28**	**4.72**	**3.231**	**287.32**	ND

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21DT004	21DT005	21DT005 DUP	21DT005	21DT005	21DT005	21DT005	21DT005	21DT006	21DT006	21DT006	21DT006	21DT006	21ER001	21ER001 DUP	21ER001	21ER001	21ER001	21ER001	21ER001	21ER002	21ER002 DUP	21ER002	21ER002	21ER002	21ER002 DUP	21ER002	21ER002
Depth Interval		49- 51	1- 3	1- 3	3- 5	9- 11	17- 19	27- 29	49- 51	7- 9	17- 19	27- 29	37- 39	49- 51	1- 3	1- 3	3- 5	9- 11	13- 15	31- 33	49- 51	1- 3	1- 3	3- 5	10- 12	18- 20	18- 20	24- 26	49- 51
Sample Date		3/31/2004	2/26/2004	2/26/2004	2/26/2004	3/4/2004	3/4/2004	3/4/2004	3/4/2004	3/3/2004	3/3/2004	3/3/2004	3/3/2004	3/4/2004	2/12/2004	2/12/2004	2/12/2004	2/12/2004	2/12/2004	2/13/2004	2/13/2004	2/24/2004	2/24/2004	2/24/2004	3/15/2004	3/15/2004	3/15/2004	3/15/2004	3/16/2004
Metals (mg/Kg)																													
Aluminum	7,960 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**7840**	**7050**	**6580**	**5780**	**6740**	**5250**	**4260**	**5410 J**	**5310 J**	**6880 J**	**7660**	**8550**	**10500**	**8980**	**2530 J**
Antimony	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1.8 J**	1.3 UJ	**1.5 J**	**1.4 J**	1.4 UJ	0.95 UJ	0.93 UJ	0.86 U	0.86 U	0.90 U	1.4 UJ	1.6 UJ	1.7 UJ	1.5 UJ	1.4 U
Arsenic	13.63 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**11.1**	**2.2**	**0.72 J**	**2.6**	**1.4**	**1.6 J**	0.81 U	**4.4 J**	**4.9 J**	**5.3 J**	**1.5**	**7.8**	**9.8**	**2.2**	0.79 U
Barium	300 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**70.4**	**42.0 J**	**39.3 J**	**145**	**47.7**	**30.6 J**	**40.0 J**	**48.1**	**51.8**	**364**	**87.8**	**21.3 J**	**21.0 J**	**10.8 J**	**39.2 J**
Beryllium	0.463 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.39 J**	**0.37 J**	**0.42 J**	**0.31 J**	**0.45 J**	**0.38 J**	**0.29 J**	**0.38 J**	**0.31 J**	**0.40 J**	**0.25 J**	**0.44 J**	**0.58 J**	**0.38 J**	**0.15 J**
Cadmium	1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.091 U	0.088 U	0.088 U	0.099 U	0.095 U	0.097 U	0.096 U	**0.12 J**	**0.13 J**	**0.28 J**	0.095 U	0.11 U	0.12 U	0.11 U	0.099 U
Calcium	11,563 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**3610**	**2180**	**1080 J**	**8520**	**1710**	**1010 J**	**9140**	**3930**	**4470**	**19700**	**14900 J**	**1560 J**	**1980 J**	**266 J**	**4230 J**
Chromium	36.69 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**21.3**	**15.6**	**15.3**	**12.0**	**15.7**	**15.3**	**11.2**	**11.9**	**12.6**	**13.9**	**16.5**	**17.5**	**22.0**	**12.1**	**7.3**
Cobalt	30 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**5.4 J**	**6.0 J**	**6.3 J**	**4.7 J**	**7.9 J**	**4.0 J**	**4.9 J**	**5.0 J**	**4.5 J**	**5.1 J**	**6.6 J**	**6.8 J**	**8.1 J**	**5.1 J**	**3.7 J**
Copper	35.84 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**49**	**50.7**	**32.4**	**31.3**	**14.8**	**10.3 J**	**10.2 J**	**94.5**	**98.1**	**45.6**	**19.7 J**	**12.1 J**	**9.6 J**	**15.4 J**	**6.4 J**
Iron	14,369 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**13000 J**	**12400 J**	**16800 J**	**11200 J**	**15400 J**	**12500 J**	**9980 J**	**12700 J**	**10100 J**	**12200 J**	**14200**	**20300**	**27800**	**15900**	**7390 J**
Lead	237.7 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**43.3**	**16.9**	**6.3**	**229**	**9.8**	**3.6**	**3.2**	**70.6**	**63.5**	**378**	**18.9**	**8.5**	**9.8**	**7.4**	**2.9**
Magnesium	3,129 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2370**	**2160**	**1960**	**2210**	**2820**	**2110**	**5080**	**2220**	**1970**	**2890**	**7470**	**4220**	**5440**	**3700**	**3350**
Manganese	358.5 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**268 J**	**310 J**	**384 J**	**227 J**	**173 J**	**70.8**	**255**	**288**	**232**	**260**	**400 J**	**295 J**	**430 J**	**128 J**	**134 J**
Mercury	0.1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.17**	**0.09**	**0.04**	**0.75**	**0.05**	0.020 U	0.020 U	**0.14**	**0.18**	**2.3**	**0.08**	**0.03 J**	**0.03 J**	0.022 U	0.021 U
Nickel	15.3 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**12.2**	**11.4**	**11.9**	**13.8**	**18.6**	**14.1**	**17.6**	**10.0**	**10.1**	**18.2**	**13.0 J**	**14.2 J**	**17.9 J**	**13.4 J**	**12.2 J**
Potassium	1,197 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**598 J**	**753 J**	**731 J**	**987 J**	**1520**	**1060 J**	**1120 J**	**763 J**	**786 J**	**916 J**	**2840 J**	**1620 J**	**1730 J**	**822 J**	**551 J**
Selenium	2.0 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.96 U	0.92 U	0.93 U	1.0 U	1.00 U	0.95 U	0.93 U	0.86 U	0.86 U	0.90 U	1.00 U	1.2 U	1.2 U	1.1 U	1.0 U
Silver	0.229 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	***0.32 U***	***0.31 U***	***0.31 U***	***0.35 U***	***0.33 U***	0.17 U	0.17 U	**0.32 J**	**0.40 J**	**0.17 J**	***0.33 U***	***0.40 U***	***0.41 U***	***0.37 U***	***0.35 U***
Sodium	214.8 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**119 J**	86.9 U	87.3 U	**120 J**	**157 J**	**165 J**	**191 J**	**109 J**	**103 J**	**326 J**	**186 J**	**353 J**	**501 J**	**320 J**	**171 J**
Thallium	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.1 U	1.0 U	1.0 U	1.2 U	1.1 U	1.1 U	1.1 U	0.97 U	0.98 U	1.0 U	1.1 UJ	1.3 UJ	1.4 UJ	1.2 UJ	1.2 U
Vanadium	150 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**29.9**	**21.6**	**25.7**	**18.1**	**21.2**	**14.3**	**11.8 J**	**19.7**	**19.6**	**16.5**	**20.6**	**22.3**	**27.1**	**17.8**	**9.9 J**
Zinc	81.77 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**58.6**	**59.0**	**38.6**	**113**	**32.1**	**24.8**	**25.6**	**86.2**	**71.4**	**344**	**43.7**	**47.2**	**57.5**	**51.9**	**16.0**
Cyanide (mg/Kg)																													
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

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mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)
Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

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sb indicates site background
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J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21ER003	21ER003	21ER003	21ER003	21ER003	21ER003	21FA001	21FA002	21FA002	21FA002	21FA002	21GH001	21GH001	21GH001	21GH001	21GH002	21GH002	21GH002	21GH003	21GH003	21GH003	21GH003	21GH003	21GH003
Depth Interval		1- 3	3- 5	11- 13	19- 21	31- 33	49- 51	5- 7	1- 3	3- 5	3- 5	7- 9	7- 9	23- 25	31- 33	49- 51	5- 7	13- 15	15- 17	1- 3	3- 5	7- 9	17- 19	27- 29	49- 51
Sample Date		2/12/2004	2/12/2004	2/25/2004	2/25/2004	2/25/2004	2/25/2004	2/20/2004	2/4/2004	2/4/2004	2/4/2004	2/9/2004	1/29/2004	1/29/2004	1/29/2004	1/30/2004	1/26/2004	1/26/2004	1/26/2004	2/10/2004	2/10/2004	2/13/2004	2/13/2004	2/13/2004	2/13/2004
BTEX (mg/Kg)																									
Benzene	0.06	**0.0074**	0.00023 U	**0.1 J**	0.025 U	**0.20**	**0.0028**	**0.002**	0.00025 U	0.00025 U	**0.0093**	***2.5 U***	**0.017 J**	**29**	**0.22 J**	**0.082**	**0.017**	**71**	**150**	**0.002**	**0.0019**	**0.0027**	**3.8**	**4.5**	**0.011**
Ethyl Benzene	5.5	**0.0011 J**	**0.0008 J**	**2.3**	**0.99**	**14**	**0.0018 J**	0.00023 U	0.00022 U	0.00022 U	**0.0005 J**	**14 J**	**0.0018 J**	**4.1**	**0.0042 J**	**0.0026 J**	**0.0066**	**200**	**290**	0.00022 U	**0.0005 J**	**0.0009 J**	**18**	**0.32 J**	**0.0013 J**
Toluene	1.5	**0.0086**	**0.0069**	**0.21 J**	**0.075 J**	**0.66**	**0.0031 J**	**0.0014 J**	0.00023 U	0.00022 U	**0.0043 J**	**20 J**	**0.0058 J**	**28**	**0.011**	**0.0081**	**0.018**	**24**	**250**	**0.0012 J**	**0.0014 J**	**0.0024 J**	**1.4**	**2.0**	**0.0039 J**
Xylene (Total)	1.2	**0.0034 J**	**0.003 J**	**5.0**	**1.4**	**27**	**0.0054 J**	0.00057 U	0.00053 U	0.00052 U	**0.002 J**	**68**	**0.0028 J**	**32**	**0.018**	**0.0053 J**	**0.032**	**140**	**450**	0.00052 U	**0.0017 J**	**0.0033 J**	**20**	**0.81**	**0.0034 J**
Volatile Organic Compounds (VOCs) (mg/Kg)																									
2-Butanone (Methyl Ethyl Ketone)	0.3	0.001 U	0.001 U	0.22 U	0.23 U	0.22 U	0.0013 U	**0.0012 R**	0.0011 U	0.0011 U	0.001 U	***24 R***	0.0012 U	***0.31 U***	0.0011 U	0.0013 U	0.0011 U	***2.4 U***	***4.8 U***	**0.0083**	**0.0097**	**0.011**	0.26 U	0.25 U	**0.0077**
4-Methyl-2-pentanone	1.0	0.00077 U	0.00077 U	0.13 U	0.13 U	0.12 U	0.00096 U	0.00087 U	0.00081 U	0.0008 U	0.00077 UJ	***14 U***	0.00087 UJ	0.18 U	0.00084 U	0.00095 U	0.00084 U	***1.4 U***	***2.7 U***	0.0008 U	0.00078 U	0.00086 U	0.15 U	0.14 U	0.00089 U
Acetone	0.2	**0.028 J**	**0.029 J**	***0.21 U***	***0.22 U***	***0.21 U***	**0.031**	**0.028 J**	**0.14**	**0.14**	**0.048 J**	***23 U***	**0.014 J**	***0.29 U***	**0.007**	0.0031 U	0.0028 U	***2.3 U***	***4.5 U***	**0.062 J**	**0.074 J**	**0.079 J**	***0.24 UJ***	***0.24 UJ***	**0.067 J**
Carbon Disulfide	2.7	**0.0021 J**	0.00031 U	0.029 UJ	0.03 UJ	0.028 UJ	**0.0015 J**	**0.0043 J**	0.00033 U	0.00032 U	0.00031 U	***3.2 U***	**0.0014 J**	0.04 U	**0.0064**	0.00038 U	**0.0007 J**	0.31 U	0.62 U	0.00032 U	0.00032 U	**0.0017 J**	**1.3**	0.032 U	**0.0008 J**
Carbon Tetrachloride	0.6	0.00022 U	0.00022 U	0.042 U	0.046 U	0.042 U	0.00027 U	0.00024 U	0.00023 U	0.00023 U	0.00022 U	***4.8 U***	0.00025 U	0.06 U	0.00024 U	0.00026 U	0.00024 U	0.46 U	***0.93 U***	0.00023 U	0.00022 U	**0.0016 J**	0.05 U	0.048 U	**0.0017 J**
Chloroform	0.3	0.00024 U	0.00024 U	0.019 U	0.02 U	0.018 U	0.0003 U	0.00027 U	0.00025 U	0.00025 U	0.00024 U	***2.1 U***	0.00027 U	0.026 U	0.00026 U	0.00029 U	0.00026 U	0.2 U	***0.4 U***	0.00025 U	0.00024 U	**0.0007 J**	0.022 U	0.021 U	**0.0005 J**
cis-1,2-Dichloroethene	NA	0.00031 U	0.00031 U	0.025 U	0.026 U	0.024 U	**0.0023 J**	0.00035 U	0.00033 U	0.00032 U	0.00031 U	2.7 U	0.00035 UJ	0.034 U	0.00034 U	0.00038 U	0.00034 U	0.26 U	0.53 U	0.00032 U	0.00032 U	0.00035 U	0.029 U	0.028 U	**0.0007 J**
Methylene Chloride	0.1	0.0009 U	0.00024 U	0.014 U	0.015 U	0.014 U	0.0003 U	0.001 U	0.0018 U	0.002 U	0.0014 U	***1.6 U***	0.0065 U	0.02 U	0.0064 U	0.0062 U	**0.024 B**	***0.15 U***	***0.31 U***	0.002 U	0.0037 U	0.0018 U	0.017 U	0.016 U	0.0009 U
Styrene	NA	0.00012 U	0.00012 U	0.018 U	0.019 U	0.018 U	0.00016 U	0.00014 U	0.00013 U	0.00013 U	0.00012 U	2 U	0.00014 U	**8**	**0.0014 J**	0.00015 U	**0.0024 J**	**10**	**130**	0.00013 U	0.00013 U	0.00014 U	0.021 U	0.02 U	0.00014 U
Tetrachloroethene	1.4	0.00017 U	0.00017 U	0.037 U	0.04 U	0.037 U	0.00022 U	**0.0021**	0.00019 U	0.00019 U	0.00017 U	***4 U***	0.0002 U	0.054 U	0.00019 U	0.00022 U	0.00019 U	0.4 U	0.81 U	0.00019 U	0.00019 U	0.0002 U	0.044 U	0.044 U	0.0002 U
Trichloroethene	0.7	0.00027 U	0.00027 U	0.027 U	0.03 U	0.027 U	**0.0012 J**	0.00032 U	0.0003 U	0.0003 U	0.00027 U	***3 U***	0.00032 U	0.04 U	0.0003 U	0.00035 U	0.0003 U	0.3 U	0.6 U	0.0003 U	0.0003 U	0.00032 U	0.032 U	0.032 U	**0.0008 J**
Total VOC	10	**0.0506**	**0.0397**	**7.61**	**2.465**	**42**	**0.0491**	**0.0378**	**0.14**	**0.14**	**0.0641**	**102**	**0.0428**	**101**	**0.268**	**0.098**	**0.1007**	**445**	**1,270**	**0.0735**	**0.0892**	**0.1033**	**45**	**7.63**	**0.0988**
Polynuclear Aromatic Hydrocargons (PAHs) (mg/Kg)																									
Acenaphthene	50	**0.024 J**	0.003 U	**10**	**46**	**29**	**1.7**	**0.03 J**	0.0031 U	0.003 U	**0.027 J**	**2.8 J**	**1.9**	**0.52 J**	**0.62 J**	**0.021 J**	**0.38 J**	**30 J**	**60 J**	0.003 U	**0.04 J**	**0.7**	**5.4**	**0.056 J**	**0.01 J**
Acenaphthylene	41	**0.21 J**	0.003 U	**2.2 J**	**10 J**	**20**	**0.43 J**	**0.037 J**	0.0031 U	0.003 U	**0.11 J**	**6.5 J**	**6.1**	**3.5 J**	**3**	**0.056 J**	**1.6**	**50**	**260**	0.003 U	**0.21 J**	**1.8**	**0.97 J**	**0.04 J**	0.0034 U
Anthracene	50	**0.11 J**	0.0028 U	**9**	**24**	**32**	**2.3**	**0.07 J**	0.0028 U	0.0028 U	**0.092 J**	**3.4 J**	**4.8**	**0.55 J**	**1.4 J**	**0.12 J**	**1.1**	**29 J**	**120 J**	0.0028 U	**0.14 J**	**2.1**	**3 J**	**0.15 J**	**0.011 J**
Benzo(a)anthracene	0.224	**0.28**	**0.02 J**	**8.4**	**22**	**26**	**1.3**	**0.14**	0.01 U	0.0098 U	**0.3**	**32**	**10**	0.14 U	**0.93**	**0.13**	**1.2**	**15**	**64**	**0.013 J**	**0.56**	**5**	**2.7**	0.012 U	**0.012 J**
Benzo(a)pyrene	0.061	**0.41**	**0.012 J**	**6.5**	**19**	**22**	**1.1**	**0.16**	0.0027 U	0.0027 U	**0.34**	**5.7**	**14**	0.039 U	**0.76**	**0.1**	**1.1**	**12**	**45**	**0.014 J**	**0.76**	**7.5**	**2.2**	0.0033 U	**0.0084 J**
Benzo(b)fluoranthene	1.1	**0.29**	**0.0093 J**	**4**	**13**	**14**	**0.75**	**0.096**	0.0028 U	0.0028 U	**0.23**	**16**	**10**	0.041 U	**0.36**	**0.066**	**0.63**	**5.7**	**16 J**	**0.015 J**	**0.43**	**4.8**	**1.4**	0.0034 U	0.0031 U
Benzo(ghi)perylene	50	**0.43**	0.0038 U	**2.7 J**	**8.6 J**	**9.2 J**	**0.48 J**	**0.12 J**	0.004 U	0.0038 U	**0.25 J**	**26**	**4.7**	0.057 U	**0.32 J**	**0.047 J**	**0.78**	0.45 U	2.2 U	**0.0099 J**	**0.55**	**2.4**	**1.2 J**	0.0047 U	0.0043 U
Benzo(k)fluoranthene	1.1	**0.35**	**0.013 J**	**5.8**	**16**	**19**	**0.98**	**0.15**	0.0038 UJ	0.0038 UJ	**0.33**	**25**	**12**	0.055 U	**0.69**	**0.088**	**0.88**	**8.8**	**28**	**0.014 J**	**0.62**	**5.1**	**2**	0.0046 U	0.0042 U
Chrysene	0.4	**0.3 J**	**0.017 J**	**8.9**	**22**	**25**	**1.3**	**0.14 J**	0.0046 U	0.0045 U	**0.32 J**	**35**	**12**	0.066 U	**0.84 J**	**0.12 J**	**1.3**	**19 J**	**64 J**	**0.014 J**	**0.5**	**5.5**	**2.6 J**	0.0055 U	**0.013 J**
Dibenz(a,h)anthracene	0.014	0.0024 UJ	0.0024 U	***0.051 U***	***0.13 U***	**3.6**	0.0058 U	0.0026 U	0.0024 U	0.0024 U	**0.071**	**3.2**	**1.9**	***0.035 U***	**0.12 J**	0.0029 U	**0.22**	***0.28 U***	***1.4 U***	0.0024 U	**0.2**	**0.89**	**0.59**	0.0029 U	0.0026 U
Fluoranthene	50	**0.32 J**	**0.024 J**	**21**	**54**	**65**	**3.7**	**0.23 J**	0.0012 U	0.0012 U	**0.33 J**	**51**	**11**	**0.24 J**	**1.8 J**	**0.37 J**	**2.2**	**28 J**	**100 J**	**0.02 J**	**0.45**	**6.4**	**6.4**	**0.075 J**	**0.023 J**
Fluorene	50	**0.024 J**	0.0025 U	**10**	**35**	**42**	**2.1**	0.0028 U	0.0025 U	0.0025 U	**0.036 J**	**2.6 J**	**1.5**	**1.9 J**	**1.8 J**	**0.064 J**	**1.4**	**35 J**	**140 J**	0.0025 U	**0.029 J**	**0.71**	**2.6 J**	**0.12 J**	0.0028 U
Indeno(1,2,3-cd)pyrene	3.2	**0.33**	0.0023 U	**2.6**	**8.5**	**9.1**	**0.48**	**0.1**	0.0024 U	0.0023 U	**0.2**	**16**	**5.1**	0.034 U	**0.28**	0.0029 U	**0.63**	0.27 U	1.4 U	**0.0087 J**	**0.46**	**2.5**	**1.2**	0.0029 U	0.0026 U
Naphthalene	13	**0.092 J**	0.0032 U	**110**	**340**	**290**	**19**	**0.36 J**	0.0033 U	0.0032 U	**0.09 J**	**140**	**3.6**	**72**	**43**	**0.52**	**3**	**580**	**2200**	0.0032 U	**0.094 J**	**1.6**	**65**	**0.52**	**0.018 J**
Phenanthrene	50	**0.28 J**	**0.02 J**	**33**	**110**	**120**	**6.1**	**0.27 J**	0.0034 U	0.0033 U	**0.29 J**	**130**	**9.9**	**1.9 J**	**4.3**	**0.5**	**5.6**	**100**	**420**	**0.014 J**	**0.32 J**	**5.6**	**11**	**0.24 J**	**0.053 J**
Pyrene	50	**0.46**	**0.027 J**	**17**	**42**	**52**	**2.9**	**0.25 J**	0.0026 U	0.0025 U	**0.46**	**83**	**15**	**0.19 J**	**1.8 J**	**0.32 J**	**4**	**46**	**170 J**	**0.021 J**	**0.56**	**8.2**	**6.3**	**0.064 J**	**0.034 J**
Benzo(a)pyrene Equivalents	NA	**0.5038**	**0.015077**	**8.0669**	**24**	**31**	**1.3641**	**0.19524**	ND	ND	**0.48762**	**16**	**19**	ND	**1.04474**	**0.1206**	**1.5761**	**14**	**53**	**0.017824**	**1.1117**	**9.6765**	**3.3426**	ND	**0.009613**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																									
2,4-Dimethylphenol	NA	0.034 U	0.033 U	0.71 U	1.8 U	1.8 U	0.081 U	0.037 U	0.034 U	0.033 U	0.033 U	0.76 U	0.074 U	**2.2 J**	**1 J**	0.041 U	0.035 U	3.9 U	19 U	0.033 U	0.034 U	**0.027 J**	0.41 U	**0.29 J**	0.037 U
2-Methylnaphthalene	36.4	**0.042 J**	0.017 U	**30**	**130**	**83**	**4.2**	**0.068 J**	0.017 U	0.017 U	**0.035 J**	**56**	**1.5**	**9.1**	**7.9**	**0.092 J**	**2.2**	**260**	**950**	0.017 U	**0.048 J**	**0.83**	**9.2**	**0.099 J**	0.019 U
2-Methylphenol	0.1	0.034 U	0.033 U	***0.7 U***	***1.8 U***	***1.7 U***	**0.032 J**	0.036 U	0.034 U	0.033 U	0.033 U	***0.74 U***	0.073 U	**1.2 J**	**0.58 J**	0.04 U	0.034 U	***3.8 U***	***19 U***	0.033 U	0.034 U	**0.028 J**	***0.4 U***	**0.1 J**	0.036 U
4-Methylphenol	0.9	0.037 U	0.036 U	0.76 U	***2 U***	***1.9 U***	**0.046 J**	0.04 U	0.037 U	0.036 U	0.036 U	0.81 U	**0.044 J**	**3.4 J**	**1.7 J**	**0.0087 J**	0.038 U	***4.2 U***	***21 U***	0.036 U	0.037 U	**0.07 J**	0.44 U	**0.087 J**	0.04 U
4-Nitrophenol	0.1	0.011 U	0.011 U	***0.24 U***	***0.62 U***	***0.57 U***	0.027 U	0.012 U	0.011 UJ	0.011 UJ	0.011 UJ	***0.25 U***	0.024 U	***0.16 U***	0.06 U	0.013 U	0.011 U	***1.3 U***	***6.4 U***	0.011 U	0.011 U	0.012 U	***0.14 U***	0.014 U	0.012 U
bis(2-Ethylhexyl) phthalate	50	0.099 U	0.093 U	0.47 U	1.2 U	1.2 U	0.053 U	**0.098 J**	**0.28 J**	**0.078 J**	0.022 U	0.5 U	**0.32 J**	0.32 U	0.12 U	**0.33 J**	**0.23 J**	2.5 U	13 U	**0.11 J**	**0.096 J**	0.18 U	0.27 U	0.027 U	0.13 U
Butyl benzyl phthalate	50	0.015 U	0.015 U	0.31 U	0.81 U	0.77 U	0.036 U	0.016 U	0.015 U	0.015 U	0.015 U	0.33 U	0.032 U	0.22 U	0.081 U	0.018 U	**0.16 J**	1.7 U	8.5 U	0.015 U	0.015 U	0.016 U	0.18 U	0.018 U	0.016 U
Carbazole	NA	**0.013 J**	0.0026 U	**4.7 J**	**4.6 J**	**14 J**	**2.3**	**0.021 J**	0.0027 U	0.0026 U	**0.021 J**	0.06 U	**0.5 J**	**4.2 J**	**2**	**0.054 J**	**0.074 J**	0.31 U	1.5 U	0.0026 U	**0.043 J**	**0.53**	**0.14 J**	**0.74**	0.0029 U
Dibenzofuran	6.2	**0.01 J**	0.018 U	**7.2 J**	**32**	**34**	**1.3**	**0.028 J**	0.019 U	0.018 U	**0.024 J**	0.42 U	**0.52 J**	**2 J**	**1.4 J**	**0.044 J**	**0.31 J**	**7.3 J**	**27 J**	0.018 U	**0.022 J**	**0.43**	**1.9 J**	**0.069 J**	0.021 U
Diethyl phthalate	7.1	0.01 U	0.0097 U	0.21 U	0.54 U	0.51 U	0.024 U	0.011 U	**0.074 J**	0.0097 U	0.0097 U	0.22 U	0.022 U	0.14 U	0.054 U	**0.098 J**	0.01 U	1.1 U	5.7 U	0.0097 U	0.01 U	0.011 U	0.12 U	0.012 U	0.011 U
Di-n-butyl phthalate	8.1	0.011 U	0.01 U	0.22 U	0.58 U	0.55 U	0.025 U	0.012 U	0.011 U	0.01 U	0.01 U	0.24 U	0.023 U	0.15 U	0.058 U	0.013 U	0.011 U	1.2 U	6.1 U	0.01 U	0.011 U	0.012 U	0.13 U	0.013 U	0.012 U
N-Nitrosodiphenylamine	NA	0.017 U	0.016 U	0.35 U	0.92 U	0.88 U	0.04 U	0.018 U	0.017 U	0.016 U	0.016 U	0.38 U	0.037 U	0.24 U	0.092 U	0.02 U	0.018 U	1.9 U	9.7 U	0.016 U	0.017 U	0.018 U	0.2 U	0.02 U	0.018 U
Phenol	0.03	***0.05 U***	***0.048 U***	***1 U***	***2.7 U***	***2.6 U***	***0.12 U***	***0.054 U***	***0.05 U***	***0.048 U***	***0.048 U***	***1.1 U***	***0.11 U***	**1.3 J**	**0.6 J**	***0.059 U***	***0.051 U***	***5.6 U***	***28 U***	***0.048 U***	***0.05 U***	**0.057 J**	***0.59 U***	**0.21 J**	***0.054 U***
Total SVOCs	500	**3.975**	**0.1423**	**293**	**936.7**	**908.9**	**52.498**	**2.368**	**0.354**	**0.078**	**3.556**	**634.2**	**126.384**	**104.2**	**77.2**	**3.1487**	**28.994**	**1225.8**	**4664**	**0.2536**	**6.132**	**62.772**	**125.8**	**2.86**	**0.1824**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21ER003 1- 3 2/12/2004	21ER003 3- 5 2/12/2004	21ER003 11- 13 2/25/2004	21ER003 19- 21 2/25/2004	21ER003 31- 33 2/25/2004	21ER003 49- 51 2/25/2004	21FA001 5- 7 2/20/2004	21FA002 1- 3 2/4/2004	21FA002 3- 5 2/4/2004	21FA002 3- 5 2/4/2004	21FA002 7- 9 2/9/2004	21GH001 7- 9 1/29/2004	21GH001 23- 25 1/29/2004	21GH001 31- 33 1/29/2004	21GH001 49- 51 1/30/2004	21GH002 5- 7 1/26/2004	21GH002 13- 15 1/26/2004	21GH002 15- 17 1/26/2004	21GH003 1- 3 2/10/2004	21GH003 3- 5 2/10/2004	21GH003 7- 9 2/13/2004	21GH003 17- 19 2/13/2004	21GH003 27- 29 2/13/2004	21GH003 49- 51 2/13/2004
Metals (mg/Kg)																									
Aluminum	7,960 (sb)	**6260**	**5250**	**6790**	**3240**	**5900**	**2360**	**9920 J**	NS	NS	NS	**7900 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	NA	0.87 UJ	0.84 UJ	1.3 UJ	1.4 UJ	1.3 UJ	1.5 UJ	1.4 UJ	NS	NS	NS	1.4 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	13.63 (sb)	**2.3 J**	**1.2 J**	**1.4 J**	0.79 UJ	**1.4 J**	0.85 UJ	**7.4**	NS	NS	NS	**3.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	300 (d)	**43.5**	**41.6 J**	**34.8 J**	**18.7 J**	**28.3 J**	**153**	**112**	NS	NS	NS	**80.0**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	0.463 (sb)	**0.41 J**	**0.38 J**	**0.34 J**	**0.17 J**	**0.28 J**	**0.17 J**	**0.48**	NS	NS	NS	**0.30 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	1 (d)	0.089 U	0.086 U	**0.24 J**	**0.33 J**	**0.36 J**	**0.12 J**	**0.22 J**	NS	NS	NS	0.098 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	11,563 (sb)	**2300**	**1740**	**3280 J**	**729 J**	**761 J**	**3840 J**	**13100**	NS	NS	NS	**54200**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	36.69 (sb)	**14.4**	**14.8**	**11.6**	**6.5**	**10.6**	**6.7**	**21.7**	NS	NS	NS	**13.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	30 (d)	**5.5 J**	**5.8 J**	**4.3 J**	**2.5 J**	**4.5 J**	**4.0 J**	**9.8 J**	NS	NS	NS	**3.4 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	35.84 (sb)	**17.0**	**20.5**	**14.6**	**9.5**	**11.5**	**7.5**	**41.4**	NS	NS	NS	**18.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	14,369 (sb)	**13000**	**14200**	**10300**	**6800**	**15300**	**6660**	**17700 J**	NS	NS	NS	**11200 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	237.7 (sb)	**14.7**	**7.5**	**10.9**	**7.0**	**6.8**	**1.9**	**80.1**	NS	NS	NS	**32.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	3,129 (sb)	**2400**	**2320**	**3080**	**1100 J**	**2600**	**3440**	**4580**	NS	NS	NS	**26200**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	358.5 (sb)	**299**	**309**	**235**	**88.2**	**115**	**103**	**390 J**	NS	NS	NS	**1110**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.1 (d)	**0.06**	0.018 U	**0.02 J**	0.020 U	0.019 U	0.022 U	**0.44 J**	NS	NS	NS	0.021 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	15.3 (sb)	**12.3**	**10.8**	**9.5**	**5.8 J**	**13.3**	**14.9**	**19.8**	NS	NS	NS	**9.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	1,197 (sb)	**1070 J**	**820 J**	**713 J**	**480 J**	**558 J**	**501 J**	**2590**	NS	NS	NS	**446 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	2.0 (d)	0.87 U	0.84 U	0.98 U	1.0 U	0.95 U	1.1 U	1.0 U	NS	NS	NS	1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silver	0.229 (sb)	0.16 U	0.15 U	***0.33 U***	***0.34 U***	***0.32 U***	***0.37 U***	***0.34 U***	NS	NS	NS	***0.34 U***	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	214.8 (sb)	**522 J**	**249 J**	**148 J**	97.2 U	**121 J**	**107 J**	**151 J**	NS	NS	NS	**312 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	NA	0.98 U	0.95 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	NS	NS	NS	1.2 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	150 (d)	**24.2**	**25.0**	**17.3**	**12.0**	**12.0**	**9.0 J**	**27.0**	NS	NS	NS	**13.9**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	81.77 (d)	**31.9**	**27.5**	**26.0**	**17.0**	**38.4**	**16.2**	**92.6**	NS	NS	NS	**22.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)																									
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)
Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID			21GH004	21GH004 DUP	21GH004	21GH005	21GH005	21GH005	21GH005	21GH005	21GH006	21GH006	21GH007	21GH007	21GH007 DUP	21GH007	21GH007	21GH007	21GH007	21GH007	21GH007 DUP	21GH009	21GH009	21GH009	21GH009	21GH010	21GH010	21GH010
Depth Interval		NYSDEC RSCOs	7- 9	7- 9	17- 19	2- 4	13- 15	15- 17	29- 31	49- 51	5- 7	17- 19	1- 3	3- 5	3- 5	5- 7	17- 19	31- 33	37- 39	39- 41	41- 43	49- 51	49- 51	5- 7	19- 21	35- 37	47- 49	15- 17	17- 19	18- 20
Sample Date			1/29/2004	1/29/2004	1/29/2004	1/30/2004	1/30/2004	1/30/2004	1/30/2004	1/30/2004	2/23/2004	2/23/2004	2/9/2004	2/9/2004	2/9/2004	2/16/2004	2/16/2004	2/16/2004	2/17/2004	2/17/2004	2/17/2004	2/17/2004	2/17/2004	2/5/2004	2/5/2004	2/5/2004	2/5/2004	2/4/2004	2/5/2004	2/5/2004
BTEX (mg/Kg)																													
Benzene		0.06	**0.0043 J**	**0.001 J**	**1.6**	**0.0078 J**	**44**	**0.054 J**	**3.0**	**0.44**	**0.007**	**120**	0.00023 U	0.00025 U	0.00025 U	**0.0059**	**0.011**	**26**	**34**	**2.3**	0.027 U	**0.037**	**0.015**	**0.0036**	**2.9**	**0.46**	**0.04**	**4.0**	**9.1**	**9.6**
Ethyl Benzene		5.5	**0.0064**	**0.0005 J**	**34**	**0.0068**	**19**	**0.003 J**	**0.17 J**	0.021 U	**0.0005 J**	**140**	0.0002 U	0.00022 U	0.00022 U	0.00022 U	**0.002 J**	**52**	**14**	**1.0**	**0.044 J**	**0.036**	**0.0069**	**0.0028 J**	**3.1**	**0.19 J**	**0.0096**	**3.2**	**16**	**13**
Toluene		1.5	**0.0064**	**0.0008 J**	**1.7 J**	**0.0071**	**12**	**0.0041 J**	0.025 U	0.021 U	**0.002 J**	**220**	0.00021 U	0.00022 U	0.00021 U	**0.0027 J**	**0.0076**	**47**	**35**	**1.7**	**0.07 J**	**0.044**	**0.013**	**0.0048 J**	**0.32 J**	0.02 U	**0.0058 J**	**0.39 J**	**0.45 J**	**6.6**
Xylene (Total)		1.2	**0.021**	**0.0023 J**	**54**	**0.016**	**17**	**0.006**	0.034 U	0.028 U	**0.0016 J**	**280**	0.0005 U	0.00052 U	0.00051 U	0.00053 U	**0.0059**	**64**	**32**	**1.8**	**0.14 J**	**0.072**	**0.012**	**0.012**	**3.1**	**0.14 J**	**0.0019 J**	**1.6**	**11**	**15**
Volatile Organic Compounds (VOCs) (mg/Kg)																													
2-Butanone (Methyl Ethyl Ketone)		0.3	0.0011 U	0.0011 U	***1.1 U***	0.0013 U	***0.55 U***	0.0012 U	0.29 U	0.24 U	**0.011**	***4.8 U***	0.001 U	0.0011 U	0.001 U	0.0011 U	**0.015**	***0.91 U***	***0.51 U***	0.26 U	0.26 U	0.0013 U	0.0013 U	0.0011 U	0.29 U	0.23 U	0.0012 U	0.24 U	0.23 U	0.22 U
4-Methyl-2-pentanone		1.0	0.0008 UJ	0.00083 U	0.63 U	0.00095 UJ	0.32 U	0.00089 U	0.17 U	0.14 U	0.00081 U	***2.7 U***	0.00077 U	0.0008 U	0.00078 U	0.00081 U	0.00086 U	0.52 U	0.29 U	0.15 U	0.15 U	0.00096 U	0.00095 U	0.00083 U	0.16 U	0.13 U	0.00092 UJ	0.14 U	0.13 U	0.13 U
Acetone		0.2	**0.015**	0.0027 U	***1 U***	**0.022**	***0.53 U***	**0.019**	***0.28 U***	***0.23 U***	**0.056 J**	***4.5 U***	**0.045**	**0.05**	**0.04**	**0.046**	**0.11**	***0.87 UJ***	***0.49 UJ***	***0.25 UJ***	***0.24 UJ***	**0.11 J**	**0.087 J**	**0.12 J**	***0.28 UJ***	***0.22 UJ***	0.003 U	***0.23 UJ***	***0.22 U***	***0.21 U***
Carbon Disulfide		2.7	**0.001 J**	0.00034 U	0.14 UJ	**0.0017 J**	0.072 U	**0.001 J**	0.038 UJ	0.031 U	**0.002 J**	0.62 U	0.00031 UJ	0.00032 UJ	0.00032 UJ	0.00033 U	**0.0053 J**	0.12 U	0.067 U	0.034 U	0.033 U	**0.0012 J**	**0.0006 J**	0.00034 U	0.038 U	0.03 U	0.00037 U	0.031 U	0.03 U	0.029 U
Carbon Tetrachloride		0.6	0.00023 U	0.00023 U	0.21 U	0.00027 U	0.11 U	0.00025 U	0.058 U	0.046 U	0.00023 U	***0.95 U***	0.00022 U	0.00023 U	0.00022 U	0.00023 U	0.00024 U	0.18 U	0.1 U	0.052 U	0.05 U	0.00027 U	0.00027 U	0.00023 U	0.056 U	0.044 U	0.00026 U	0.046 U	0.044 U	0.042 U
Chloroform		0.3	0.00025 U	0.00026 U	0.095 U	0.00029 U	0.047 U	0.00028 U	0.025 U	0.02 U	0.00025 U	***0.4 U***	0.00024 U	0.00025 U	0.00024 U	0.00025 U	0.00027 U	0.078 U	0.044 U	0.023 U	0.022 U	0.0003 U	0.00029 U	0.00026 U	0.025 U	0.02 U	0.00028 U	0.02 U	0.02 U	0.019 U
cis-1,2-Dichloroethene		NA	0.00032 U	0.00034 U	0.12 U	0.00038 U	0.062 U	0.00036 U	0.032 U	0.026 U	0.00033 U	0.53 U	0.00031 U	0.00032 U	0.00032 U	0.00033 U	0.00035 U	0.1 U	0.057 U	0.029 U	0.029 U	0.00039 U	0.00038 U	0.00034 U	0.032 U	0.026 U	0.00037 U	0.026 U	0.026 U	0.025 U
Methylene Chloride		0.1	0.00024 U	0.00025 U	0.072 U	0.0097 U	0.035 U	0.004 U	0.019 U	0.015 U	0.0008 U	***0.32 U***	0.0006 U	0.0005 U	0.00024 U	0.003 U	0.0078 U	0.06 U	0.034 U	0.017 U	0.017 U	0.0018 U	0.0014 U	0.00025 U	0.019 U	0.014 U	0.00028 U	0.015 U	0.015 U	0.014 U
Styrene		NA	**0.0045 J**	0.00013 U	0.09 U	0.00015 U	0.045 U	**0.0008 J**	0.024 U	0.019 U	0.00013 U	**87**	0.00012 U	0.00013 U	0.00013 U	0.00013 U	**0.0012 J**	**9.5**	**24**	**0.95**	**0.11 J**	**0.034**	**0.0053 J**	**0.0011 J**	**0.11 J**	0.019 U	0.00015 U	0.019 UJ	0.019 U	**1.4**
Tetrachloroethene		1.4	0.00019 U	0.00019 U	0.19 U	0.00022 U	0.095 U	0.0002 U	0.051 U	0.04 U	0.00019 U	0.81 U	0.00017 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.16 U	0.088 U	0.044 U	0.044 U	0.00022 U	0.00022 U	0.00019 U	0.051 U	0.04 U	0.0002 U	0.04 U	0.04 U	0.037 U
Trichloroethene		0.7	0.0003 U	0.0003 U	0.14 U	0.00035 U	0.069 U	0.00032 U	0.037 U	0.03 U	0.0003 U	0.6 U	0.00027 U	0.0003 U	0.0003 U	0.0003 U	0.00032 U	0.11 U	0.064 U	0.032 U	0.032 U	0.00035 U	0.00035 U	0.0003 U	0.037 U	0.03 U	0.00032 U	0.03 U	0.03 U	0.027 U
Total VOC		10	**0.0586**	**0.0046**	**91**	**0.0614**	**92**	**0.0879**	**3.17**	**0.44**	**0.0801**	**847**	**0.045**	**0.05**	**0.04**	**0.0546**	**0.158**	**199**	**139**	**7.75**	**0.364**	**0.3342**	**0.1398**	**0.1443**	**9.53**	**0.79**	**0.0573**	**9.19**	**37**	**46**
Polynuclear Aromatic Hydrocargons (PAHs) (mg/Kg)																													
Acenaphthene		50	**0.12 J**	**0.1 J**	**2 J**	**0.14 J**	**62**	**7**	**0.39 J**	**0.097 J**	**0.22 J**	**35 J**	0.003 U	0.0031 U	0.0031 U	**0.012 J**	**3.1**	**66 J**	**23 J**	**6.1 J**	**14 J**	**0.13 J**	**0.013 J**	**0.21 J**	0.0043 U	**0.081 J**	0.0036 U	**4.5**	**9.7**	**1.5 J**
Acenaphthylene		41	**0.22 J**	**0.19 J**	**1.2 J**	**0.28 J**	0.41 U	**1.8 J**	0.0042 U	**0.0087 J**	**1.1**	**190**	0.003 U	0.0031 U	0.0031 U	**0.036 J**	**1.3**	**320 J**	**100**	**28**	**63**	**0.6**	**0.062 J**	**1.4**	0.0043 U	0.0035 U	0.0036 U	**3.3**	**6.7**	**1 J**
Anthracene		50	**0.38**	**0.32 J**	**2.7 J**	**0.4 J**	**45 J**	**5.2**	**0.024 J**	**0.028 J**	**0.69**	**96 J**	0.0028 U	**0.027 J**	**0.024 J**	**0.04 J**	**0.98**	**110 J**	**33 J**	**10 J**	**21 J**	**0.3 J**	**0.034 J**	**1**	0.0039 U	0.0032 U	0.0032 U	**4.6**	**7.3**	**0.9 J**
Benzo(a)anthracene		0.224	**0.96**	**0.97**	**5**	**0.98**	**23**	**3.5**	**0.013 J**	0.011 U	**1.6**	**49**	0.0098 U	**0.27**	**0.29**	**0.14**	**3.1**	**120**	**42**	**12**	**26**	**0.33**	**0.042 J**	**1**	0.014 U	0.011 U	0.011 U	**5.2**	**8.6**	**1.1**
Benzo(a)pyrene		0.061	**1.2**	**1.2**	**7.3**	**1.1**	**11**	**2.1**	0.0037 U	0.0031 U	**2**	**35**	0.0027 U	**0.23**	**0.24**	**0.13**	**3.1**	**120**	**44**	**12**	**26**	**0.36**	**0.036 J**	**0.79**	0.0038 U	0.003 U	0.0031 U	**4.3**	**8.3**	**1**
Benzo(b)fluoranthene		1.1	**0.9**	**0.89**	**4**	**0.9**	**5.5**	**1**	0.0039 U	0.0032 U	**1.5**	**14**	0.0028 U	**0.23**	**0.18**	**0.1**	**2.1**	**53**	**21**	**5.9**	**11**	**0.13**	**0.015 J**	**0.52**	0.0039 U	0.0032 U	0.0032 U	**2.5**	**4.7**	**0.47**
Benzo(ghi)perylene		50	**1.6**	**0.88**	**4.4 J**	**0.42 J**	0.51 U	**0.64 J**	0.0053 U	0.0045 U	**1.2**	**13 J**	0.0038 U	**0.16 J**	**0.16 J**	**0.074 J**	**1.9**	**71 J**	**31 J**	**8.4 J**	**19 J**	**0.22 J**	0.0046 U	**0.34 J**	0.0054 U	0.0044 U	0.0045 U	**2.5**	**5.4**	**0.62 J**
Benzo(k)fluoranthene		1.1	**0.89**	**0.99**	**5.3**	**1.2**	**9.1**	**1.8**	0.0052 U	0.0044 U	**1.8**	**25**	0.0038 U	**0.28**	**0.32**	**0.13**	**2.5**	**81**	**30**	**7.4**	**19**	**0.24**	**0.023 J**	**0.73**	0.0053 U	0.0043 U	0.0044 U	**4 J**	**6.1**	**0.86**
Chrysene		0.4	**1.1**	**1.2**	**5.2 J**	**1**	**30 J**	**4.4**	**0.02 J**	0.0052 U	**1.9**	**51 J**	0.0045 U	**0.28 J**	**0.3 J**	**0.15 J**	**3**	**120 J**	**42 J**	**12**	**27 J**	**0.34 J**	**0.04 J**	**0.83**	0.0063 U	0.0051 U	0.0052 U	**5.3**	**8.8**	**1.1 J**
Dibenz(a,h)anthracene		0.014	**0.42**	**0.25**	**1.9**	**0.14**	***0.32 U***	**0.38**	0.0033 U	0.0028 U	**0.38**	***0.66 U***	0.0024 UJ	0.0024 UJ	0.0024 UJ	0.0026 U	0.0026 U	***2.6 UJ***	***0.29 UJ***	***0.073 UJ***	***0.28 UJ***	0.0028 UJ	0.0028 UJ	0.0026 U	0.0034 U	0.0027 U	0.0028 U	**0.86**	**0.46**	0.012 U
Fluoranthene		50	**1.6**	**1.7**	**5.5 J**	**1.5**	**31 J**	**4.8**	**0.031 J**	**0.018 J**	**2.5**	**85 J**	**0.0075 J**	**0.36 J**	**0.36 J**	**0.25 J**	**4.1**	**310 J**	**110**	**30**	**69**	**0.82**	**0.092 J**	**2.4**	0.0016 U	0.0013 U	0.0014 U	**7.2**	**12**	**1.7 J**
Fluorene		50	**0.14 J**	**0.12 J**	**2.3 J**	**0.22 J**	**34 J**	**4.6**	**0.085 J**	**0.054 J**	**0.22 J**	**110**	0.0025 U	0.0025 U	0.0025 U	0.0027 U	**0.27 J**	**220 J**	**70**	**20**	**43 J**	**0.54**	**0.065 J**	**1.4**	0.0035 U	**0.025 J**	0.0029 U	**4.4**	**7.9**	**1.2 J**
Indeno(1,2,3-cd)pyrene		3.2	**1.2**	**0.74**	**3.7**	**0.34 J**	0.31 U	**0.71**	0.0032 U	0.0027 U	**1.1**	**11**	0.0023 U	**0.15**	**0.14**	**0.064**	**1.8**	**45**	**20 J**	**5.7 J**	**11 J**	**0.16**	0.0028 U	**0.34**	0.0033 U	0.0027 U	0.0027 U	**2**	**4**	**0.45**
Naphthalene		13	**0.17 J**	**0.14 J**	**88**	**0.75**	**36 J**	**3.9**	**7.2**	**0.2 J**	**0.53**	**1,200**	0.0032 U	0.0033 U	0.0033 U	**0.17 J**	**0.86**	**8,100**	**850**	**260**	**660**	**2.2**	**0.52**	**4.8**	**1.6**	**1**	**0.2 J**	**23**	**72**	**31**
Phenanthrene		50	**1.4**	**1.2**	**8.8**	**1.5**	**360**	**32**	**0.15 J**	**0.098 J**	**2**	**330**	0.0033 U	**0.046 J**	**0.04 J**	**0.17 J**	**1.3**	**770**	**250**	**71**	**160**	**2**	**0.24 J**	**4.3**	0.0047 U	**0.035 J**	**0.018 J**	**16**	**25**	**3.8**
Pyrene		50	**2.8**	**2**	**7.6 J**	**1.8 J**	**65 J**	**9.3 J**	**0.049 J**	**0.028 J**	**2.8**	**130**	**0.0074 J**	**0.34 J**	**0.36 J**	**0.25 J**	**6.6**	**470**	**160**	**45**	**100**	**1.3**	**0.14 J**	**2.1 J**	0.0036 U	0.0029 U	0.003 U	**11**	**21 J**	**2.9 J**
Benzo(a)pyrene Equivalents		NA	**1.936**	**1.7211**	**11**	**1.475**	**14**	**3.0234**	**0.00132**	ND	**2.8199**	**43**	ND	**0.29808**	**0.3045**	**0.16185**	**3.828**	**143**	**53**	**14**	**31**	**0.42474**	**0.04197**	**0.98413**	ND	ND	ND	**6.1753**	**11**	**1.2117**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																													
2,4-Dimethylphenol		NA	0.035 U	0.035 U	0.72 U	0.041 U	4.4 U	0.18 U	0.046 U	0.039 U	0.034 U	9.2 U	0.033 U	0.034 U	0.034 U	0.036 U	0.036 U	37 U	4.1 U	1 U	4 U	0.04 U	0.04 U	0.036 U	**0.56**	**0.0092 J**	0.039 U	0.18 U	0.37 U	0.18 U
2-Methylnaphthalene		36.4	**0.12 J**	**0.081 J**	**18**	**0.29 J**	**10 J**	**1.6 J**	**1**	**0.063 J**	**0.19 J**	**610**	0.017 U	0.017 U	0.017 U	**0.033 J**	**0.3 J**	**850**	**180**	**58**	**120**	**0.92**	**0.17 J**	**1.6**	0.024 U	**0.2 J**	**0.011 J**	**8.4**	**26**	**6**
2-Methylphenol		0.1	0.034 U	0.034 U	***0.71 U***	0.04 U	***4.4 U***	***0.18 U***	0.045 U	0.038 U	0.034 U	***9.1 U***	0.033 U	0.034 U	0.034 U	0.035 U	0.035 U	***36 U***	***4 U***	***1 U***	***3.9 U***	0.039 U	0.039 U	0.035 U	**0.32 J**	0.037 U	0.038 U	***0.18 U***	***0.36 U***	***0.17 U***
4-Methylphenol		0.9	0.038 U	0.038 U	0.77 U	**0.013 J**	***4.8 U***	0.2 U	0.05 U	0.042 U	**0.024 J**	***9.9 U***	0.036 U	0.037 U	0.037 U	0.039 U	**0.027 J**	***40 U***	***4.4 U***	***1.1 U***	***4.3 U***	0.043 U	0.043 U	**0.029 J**	**0.88**	0.041 U	0.042 U	0.2 U	0.4 U	0.19 U
4-Nitrophenol		0.1	0.011 U	0.011 U	***0.24 U***	0.014 U	***1.4 U***	0.061 U	0.015 U	0.013 U	0.011 U	***3.1 U***	0.011 U	0.011 U	0.011 U	0.012 U	0.012 U	***12 U***	***1.4 U***	***0.34 U***	***1.3 U***	0.013 U	0.013 U	0.012 U	0.015 U	0.012 U	0.013 U	0.062 UJ	***0.12 U***	0.058 U
bis(2-Ethylhexyl) phthalate		50	**0.76**	**0.58**	0.47 U	**0.64**	2.9 U	0.12 U	**0.11 J**	**0.14 J**	**3.4**	6.1 U	0.4 U	0.25 U	0.26 U	**0.27 J**	**0.16 J**	24 U	2.7 U	0.67 U	2.6 U	**0.16 J**	**0.14 J**	0.23 U	0.21 U	0.16 U	0.17 U	0.12 U	0.24 U	0.12 U
Butyl benzyl phthalate		50	**0.14 J**	**0.096 J**	0.32 U	**0.11 J**	1.9 U	0.081 U	0.02 U	0.017 U	**0.18 J**	4.1 U	0.015 U	0.015 U	0.015 U	0.016 U	0.016 U	16 U	1.8 U	0.45 U	1.7 U	0.017 U	0.017 U	0.016 U	0.021 U	0.017 U	0.017 U	0.081 U	0.16 U	0.077 U
Carbazole		NA	**0.15 J**	**0.11 J**	**0.78 J**	**0.11 J**	**4.1 J**	**0.59 J**	**0.094 J**	**0.12 J**	**0.15 J**	0.74 U	0.0026 U	0.0027 U	0.0027 U	0.0029 U	**0.099 J**	2.9 U	**4.2 J**	**1.1 J**	**2.2 J**	**0.028 J**	0.0032 U	**0.58**	0.0038 U	**0.037 J**	0.0031 U	**0.78 J**	**0.37 J**	0.014 U
Dibenzofuran		6.2	**0.082 J**	**0.055 J**	**0.59 J**	**0.11 J**	2.5 U	**0.61 J**	**0.052 J**	**0.023 J**	**0.13 J**	**25 J**	0.018 U	0.019 U	0.019 U	0.02 U	**0.16 J**	**23 J**	**10 J**	**2.5 J**	**5.7 J**	**0.061 J**	0.022 U	**0.98**	0.026 U	**0.02 J**	0.022 U	**1.2 J**	**1.1 J**	**0.19 J**
Diethyl phthalate		7.1	0.01 U	0.01 U	0.21 U	0.012 U	1.3 U	0.054 U	0.014 U	0.011 U	0.01 U	2.7 U	0.0097 U	0.01 U	0.01 U	0.01 U	0.01 U	***11 U***	1.2 U	0.3 U	1.2 U	0.012 U	0.012 U	0.01 U	0.014 U	0.011 U	0.011 U	0.054 U	0.11 U	0.051 U
Di-n-butyl phthalate		8.1	0.011 U	0.011 U	0.22 U	0.013 U	1.4 U	0.058 U	0.014 U	0.012 U	0.011 U	2.9 U	0.01 U	0.011 U	0.011 U	0.011 U	0.011 U	***12 U***	1.3 U	0.32 U	1.2 U	0.012 U	0.012 U	0.011 U	0.015 U	0.012 U	0.012 U	0.058 U	0.12 U	0.055 U
N-Nitrosodiphenylamine		NA	0.018 U	0.018 U	0.36 U	0.02 U	2.2 U	0.092 U	0.023 U	0.019 U	0.017 U	4.6 U	0.016 U	0.017 U	0.017 U	0.018 U	**0.24 J**	18 U	2 U	0.51 U	2 U	0.02 U	0.02 U	0.018 U	0.023 U	0.019 U	0.019 U	0.092 U	0.18 U	0.088 U
Phenol		0.03	**0.092 J**	**0.24 J**	***1 U***	***0.059 U***	***6.4 U***	***0.27 U***	***0.067 U***	***0.056 U***	***0.05 U***	***13 U***	***0.048 U***	***0.05 U***	***0.05 U***	***0.052 U***	***0.052 U***	***54 U***	***5.9 U***	***1.5 U***	***5.8 U***	***0.058 U***	***0.058 U***	**0.049 J**	**0.17 J**	**0.042 J**	**0.17 J**	***0.27 U***	***0.54 U***	***0.26 U***
Total SVOCs		500	**16.444**	**14.052**	**174.27**	**13.943**	**725.7**	**85.93**	**9.218**	**0.8777**	**25.614**	**3009**	**0.0149**	**2.373**	**2.414**	**2.019**	**36.996**	**11849**	**2020.2**	**595.1**	**1396.9**	**10.839**	**1.632**	**25.398**	**3.53**	**1.4492**	**0.399**	**111.04**	**235.43**	**55.79**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21GH004 7- 9 1/29/2004	21GH004 DUP 7- 9 1/29/2004	21GH004 17- 19 1/29/2004	21GH005 2- 4 1/30/2004	21GH005 13- 15 1/30/2004	21GH005 15- 17 1/30/2004	21GH005 29- 31 1/30/2004	21GH005 49- 51 1/30/2004	21GH006 5- 7 2/23/2004	21GH006 17- 19 2/23/2004	21GH007 1- 3 2/9/2004	21GH007 3- 5 2/9/2004	21GH007 DUP 3- 5 2/9/2004	21GH007 5- 7 2/16/2004	21GH007 17- 19 2/16/2004	21GH007 31- 33 2/16/2004	21GH007 37- 39 2/17/2004	21GH007 39- 41 2/17/2004	21GH007 41- 43 2/17/2004	21GH007 49- 51 2/17/2004	21GH007 DUP 49- 51 2/17/2004	21GH009 5- 7 2/5/2004	21GH009 19- 21 2/5/2004	21GH009 35- 37 2/5/2004	21GH009 47- 49 2/5/2004	21GH010 15- 17 2/4/2004	21GH010 17- 19 2/5/2004	21GH010 18- 20 2/5/2004
Metals (mg/Kg)																													
Aluminum	7,960 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**8330**	**7350**	**7600**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.3 UJ	1.3 UJ	1.3 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	13.63 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2.7**	**1.9**	**1.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	300 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**39.4 J**	**43.3 J**	**44.1**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	0.463 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.5**	**0.46**	**0.45**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.088 U	0.090 U	0.090 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	11,563 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1060 J**	**873 J**	**1100 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	36.69 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**25.7**	**16.0**	**16.0**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	30 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**7.4 J**	**7.3 J**	**6.4 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	35.84 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**46.1 J**	**64.1 J**	**66.2 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	14,369 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**25100**	**14000**	**14200**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	237.7 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**9.0 J**	**14.3 J**	**14.2 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	3,129 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2920**	**2080**	**2180**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	358.5 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**444**	**343**	**301**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.018 UJ	**0.06 J**	0.019 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	15.3 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**13.1**	**12.5**	**13.4**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	1,197 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1680 J**	**783 J**	**743 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	2.0 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.92 U	0.94 U	0.94 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silver	0.229 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	***0.31 U***	***0.31 U***	***0.31 U***	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	214.8 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**88.4 J**	88.6 U	88.6 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.0 U	1.1 U	1.1 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	150 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**29.9**	**24.0**	**24.5**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	81.77 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**43.1**	**56.8**	**66.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)																													
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.5 U	0.5 U	0.5 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21GH011 1- 3 2/9/2004	21GH011 3- 5 2/9/2004	21GH011 9- 11 2/12/2004	21GH011 15- 17 2/12/2004	21GH011 27- 29 2/12/2004	21GH011 49- 51 2/12/2004	21GH012 9- 11 2/16/2004	21GH012 17- 17.4 2/16/2004	21GH013 1- 2.5 2/2/2004	21GH013 2.5- 5 2/2/2004	21GH013 7- 9 2/3/2004	21GH013 13- 15 2/3/2004	21GH013 19- 21 2/3/2004	21GH013 29- 31 2/3/2004	21GH013 49- 51 2/3/2004	21GH014 1- 3 2/4/2004	21GH014 3- 5 2/4/2004	21GH014 7- 9 2/18/2004	21GH014 17- 19 2/18/2004	21GH014 27- 29 2/18/2004	21GH014 39- 40.3 2/19/2004	21GH015 1- 3 2/9/2004	21GH015 3- 5 2/9/2004	21GH015 13- 15 2/10/2004	21GH015 19- 21 2/10/2004	21GH015 29- 31 2/10/2004	21GH015 33- 35 2/11/2004	21GH016 1- 3 2/4/2004	21GH016 DUP 1- 3 2/4/2004	21GH016 3- 5 2/4/2004
BTEX (mg/Kg)																																
Benzene	0.06	0.00025 U	0.00025 U	**0.0071**	9.9	4.7	**0.014**	**0.029**	0.44	0.00023 U	**0.0006 J**	0.082	5	27	3.4	1.8	**0.0056**	**0.022**	**0.009**	0.00023 U	**0.012**	81	0.00023 U	**0.0012**	**0.0054**	97	0.47	87	**0.0028**	**0.0016**	**0.0022**
Ethyl Benzene	5.5	0.00022 U	0.00023 U	**0.0036 J**	1.4	100	**0.02**	**0.0009 J**	0.73	0.00021 U	0.00022 U	**0.0054**	1.2	5.5	1	4.5	**0.0007 J**	**0.0023 J**	0.00023 U	0.00021 U	**0.014**	88	0.0002 U	0.00022 U	**0.0014 J**	390	12	130	**0.0011 J**	**0.0008 J**	0.00022 U
Toluene	1.5	0.00022 U	0.00023 U	0.0085 U	**0.096 J**	19	**0.012**	**0.0076**	0.66	0.00021 U	0.00022 U	**0.018**	0.02 U	0.048 U	0.023 U	0.022 U	**0.0017 J**	**0.0056**	**0.0026 J**	0.00021 U	**0.0027 J**	230	0.0002 U	**0.0009 J**	**0.0093**	280	0.54 J	240	**0.0015 J**	**0.0011 J**	0.00022 U
Xylene (Total)	1.2	0.00052 U	0.00055 U	**0.0078**	2.0	110	**0.026**	**0.0018 J**	1.2	0.0005 U	0.00052 U	**0.0097**	**0.69**	4.7	0.031 U	**0.66**	**0.0015 J**	**0.0078**	0.00056 U	0.0005 U	**0.018**	340	0.00049 U	0.00053 U	**0.0037 J**	620	10	340	**0.0037 J**	**0.0048 J**	0.00052 U
Volatile Organic Compounds (VOCs) (mg/Kg)																																
2-Butanone (Methyl Ethyl Ketone)	0.3	0.0011 U	0.0011 U	**0.0077**	0.3 U	***2.4 U***	0.0013 U	**0.0093**	0.26 U	0.001 U	0.0011 U	**0.0011 R**	**0.23 R**	***0.55 R***	**0.27 R**	**0.25 R**	0.001 U	0.0011 U	**0.0011 R**	**0.0057 J**	**0.0011 R**	***9.1 U***	**0.001 R**	**0.0011 R**	**0.0011 R**	***5.5 R***	**0.22 R**	***4.8 R***	0.0011 U	0.001 U	0.0011 U
Acetone	0.2	0.0008 U	0.00084 U	0.0008 U	0.17 U	***1.4 U***	0.00095 U	**0.068**	***0.24 UJ***	0.0025 UJ	0.0026 UJ	0.0028 UJ	***0.22 R***	***0.53 R***	***0.26 R***	***0.24 R***	**0.066**	**0.064**	**0.1**	**0.11**	**0.16**	***8.7 UJ***	**0.03 J**	**0.031 J**	**0.036**	***5.3 U***	***0.21 U***	***4.5 UJ***	**0.1**	**0.12**	**0.13**
Carbon Disulfide	2.7	**0.048**	**0.046**	**0.059**	***0.29 U***	***2.3 U***	**0.048**	**0.001 J**	0.033 U	0.00031 U	0.00032 U	**0.0041 J**	0.03 UJ	0.072 U	0.035 UJ	0.033 UJ	0.00032 U	0.00032 U	**0.0049 J**	0.00031 U	**0.003 J**	1.2 UJ	0.00031 U	0.00033 U	0.00035 U	0.72 U	**0.13 J**	0.62 U	0.00034 U	0.00031 U	0.00032 U
Carbon Tetrachloride	0.6	0.00032 UJ	0.00034 UJ	**0.0019 J**	0.039 U	0.31 U	**0.0011 J**	0.00026 U	0.05 U	0.00022 U	0.00023 U	0.00024 U	0.044 U	0.11 U	0.052 U	0.05 U	0.00022 U	0.00023 U	0.00024 U	0.00022 U	0.00023 U	***1.8 U***	0.00021 U	0.00023 U	0.00024 U	***1.1 U***	**0.084 J**	***0.91 U***	0.00023 U	0.00022 U	0.00023 U
Chlorobenzene	1.7	0.00023 U	0.00024 U	0.00023 U	0.06 U	0.46 U	0.00027 U	0.00019 U	0.011 U	0.00016 U	0.00016 U	0.00017 U	0.0095 U	0.023 U	0.011 U	0.01 U	0.00016 U	0.00016 U	0.00017 U	0.00016 U	0.00016 U	0.38 U	0.00015 U	0.00016 U	0.00017 U	0.23 U	0.0092 U	0.2 U	0.00017 U	0.00016 U	0.00016 U
Chloroform	0.3	0.00025 U	0.00026 U	0.00025 U	0.026 U	0.21 U	0.00029 U	0.00028 U	0.022 U	0.00024 U	0.00025 U	0.00026 U	0.02 U	0.047 U	0.023 U	0.022 U	0.00024 U	0.00025 U	0.00027 U	0.00024 U	0.00025 U	***0.78 U***	0.00023 U	0.00025 U	0.00027 U	***0.47 U***	0.019 U	***0.4 U***	0.00026 U	0.00024 U	0.00025 U
cis-1,2-Dichloroethene	NA	0.00032 U	0.00034 U	0.00032 U	0.033 U	0.27 U	**0.0022 J**	0.00037 U	0.029 U	0.00031 U	0.00032 U	0.00034 U	0.026 U	0.062 U	0.03 U	0.028 U	0.00032 U	0.00032 U	0.00035 U	0.00031 U	0.00033 U	1 U	0.00031 U	0.00033 U	0.00035 U	0.62 U	0.025 U	0.53 U	0.00034 U	0.00031 U	0.00032 U
Methylene Chloride	0.1	0.00025 U	0.00026 U	0.0007 U	0.02 U	***0.16 U***	0.0011 U	0.0096 U	0.017 U	0.0016 U	0.0032 U	0.0089 U	0.015 U	0.037 U	0.017 U	0.016 U	**0.016 B**	**0.032 B**	0.0027 U	0.0011 U	0.0029 U	***0.6 U***	0.0005 U	0.0006 U	0.00027 U	***0.36 U***	0.014 U	***0.3 U***	**0.018 B**	**0.0049 B**	**0.013 B**
Styrene	NA	0.00013 U	0.00014 U	0.00013 U	**0.04 J**	0.2 U	0.00015 U	0.00015 U	**0.27 J**	0.00012 U	0.00013 U	0.00014 U	0.019 U	0.045 U	0.022 U	0.021 U	0.00013 U	**0.0004 J**	0.00014 U	0.00012 U	**0.0013 J**	**66**	0.00012 U	0.00013 U	0.00014 U	**170**	0.018 U	**160**	0.00013 U	0.00012 U	0.00013 U
Tetrachloroethene	1.4	0.00019 U	0.00019 U	0.00019 U	0.051 U	0.4 U	0.00022 U	0.0002 U	0.044 U	0.00017 U	0.00019 U	0.00019 U	0.04 U	0.098 U	0.047 U	0.044 U	0.00019 U	0.00019 U	0.0002 U	0.00017 U	0.00019 U	***1.6 U***	0.00017 U	0.00019 U	0.0002 U	0.95 U	0.037 U	0.81 U	0.00019 U	0.00017 U	0.00019 U
Trichloroethene	0.7	0.0003 U	0.0003 U	0.0003 U	0.037 U	0.3 U	0.00035 U	0.00032 U	0.032 U	0.00027 U	0.0003 U	0.0003 U	0.03 U	0.072 U	0.035 U	0.032 U	0.0003 U	0.0003 U	0.00032 U	0.00027 U	0.0003 U	***1.2 U***	0.00027 U	0.0003 U	0.00032 U	0.69 U	0.027 U	0.6 U	0.0003 U	0.00027 U	0.0003 U
Total VOCs	1NA	**0.048**	**0.046**	**0.0871**	13	234	**0.1233**	**0.1176**	3.3	ND	**0.0006**	**0.1192**	6.89	37	4.4	6.96	**0.0915**	**0.1341**	**0.1165**	**0.1157**	**0.211**	805	**0.03**	**0.0331**	**0.0558**	1,557	23	957	**0.1271**	**0.1332**	**0.1452**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																																
Acenaphthene	50	0.0032 U	0.0032 U	**0.045 J**	1.4	220	**0.027 J**	**0.22 J**	NS	0.003 U	0.0031 U	**0.41 J**	**0.054 J**	0.0042 U	**0.52 J**	0.0038 U	**0.07 J**	**0.25 J**	1.7	0.0031 U	1.8	16 J	0.003 U	NS	0.0033 U	63 J	11	42	**0.028 J**	**0.016 J**	**0.014 J**
Acenaphthylene	41	0.0032 U	0.0032 U	**0.077 J**	**0.41 J**	98 J	**0.028 J**	1.8	NS	0.003 U	0.0031 U	1.3	0.0034 U	0.0042 U	0.0081 U	0.0038 U	**0.29 J**	**0.24 J**	2.2	0.0031 U	2.2	5.8 J	0.003 U	NS	**0.031 J**	280	3.7 J	170	**0.069 J**	**0.053 J**	**0.06 J**
Anthracene	50	**0.015 J**	0.0029 U	**0.069 J**	1.2	96 J	**0.034 J**	1.4	NS	0.0028 U	0.0028 U	1.6	0.0031 U	0.0039 U	0.0074 U	0.0035 U	**0.6**	**0.92**	4.1	**0.018 J**	2.6	28	0.0028 U	NS	**0.028 J**	220	10	130	**0.072 J**	**0.13 J**	**0.072 J**
Benzo(a)anthracene	0.224	**0.067**	**0.017 J**	**0.11**	**0.9**	72	**0.037 J**	5.2	NS	**0.013 J**	**0.019 J**	4.6	**0.078**	0.014 U	0.026 U	0.012 U	2.3	1.8	9.6	**0.062**	4.1	30	**0.022 J**	NS	**0.089**	180	7	90	0.28	0.36	0.21
Benzo(a)pyrene	0.061	**0.054**	**0.0082 J**	**0.069**	**0.7**	46	**0.027 J**	5.1	NS	**0.014 J**	**0.022 J**	5.7	**0.19**	0.0037 U	0.0071 U	0.0033 U	1.8	1.5	11	**0.052**	4.4	22	**0.023 J**	NS	**0.075**	99	4.1	70	0.25	0.28	0.22
Benzo(b)fluoranthene	1.1	**0.058**	**0.0081 J**	0.0029 U	0.28	53	**0.01 J**	3	NS	**0.0088 J**	**0.011 J**	3.4	**0.094**	0.0039 U	0.0074 U	0.0035 U	1.4	1.1	10	**0.024 J**	2.5	13	**0.017 J**	NS	**0.051**	38	1.8	30	0.21	0.23	0.21
Benzo(ghi)perylene	50	**0.036 J**	0.0041 U	**0.036 J**	**0.31 J**	19 J	0.0047 U	3	NS	0.0038 U	0.004 U	5.4	**0.13 J**	0.0053 U	0.01 U	0.0048 U	0.63	0.57	4.3	0.004 U	2.2	12 J	0.0038 U	NS	**0.046 J**	31 J	1.4 J	28 J	0.17 J	0.18 J	0.13 J
Benzo(k)fluoranthene	1.1	**0.055**	**0.012 J**	**0.085**	**0.41**	10 J	**0.021 J**	4.6	NS	**0.014 J**	**0.021 J**	4.6	**0.12**	0.0052 U	0.01 U	0.0047 U	1.9 J	1.7 J	10	**0.045**	3.7	23	**0.027 J**	NS	**0.071**	83	3.4	53	0.31 J	0.32 J	0.27 J
Chrysene	0.4	**0.068 J**	**0.013 J**	**0.1 J**	1	78 J	**0.042 J**	5.7	NS	**0.016 J**	**0.021 J**	4.8	**0.084 J**	0.0062 U	0.012 U	0.0056 U	2	1.7	10	**0.064 J**	4.4	30	**0.024 J**	NS	**0.094 J**	150	6.2	93	0.32 J	0.4	0.29 J
Dibenz(a,h)anthracene	0.014	0.0025 UJ	0.0025 UJ	0.0025 U	0.0036 U	***1.4 U***	0.0029 U	0.0055 U	NS	0.0024 U	0.0024 U	1.6	0.0026 U	0.0033 U	0.0063 U	0.003 U	0.24	0.25	1.8	0.0024 U	0.61	***0.14 UJ***	0.0024 U	NS	0.0026 U	12	0.51	6.5	0.058	**0.014 J**	0.06
Fluoranthene	50	**0.12 J**	**0.017 J**	**0.16 J**	1.8	130 J	**0.07 J**	5.4	NS	**0.031 J**	**0.023 J**	6.1	**0.06 J**	0.0016 U	0.0031 U	0.0014 U	2.8	2.6	15	**0.12 J**	7.4	66	**0.032 J**	NS	**0.15 J**	340	13	210	0.52	0.83	0.39
Fluorene	50	0.0026 U	0.0026 U	**0.077 J**	1.7	140 J	0.003 U	**0.35 J**	NS	0.0025 U	0.0025 U	**0.68 J**	**0.047 J**	0.0034 U	0.0066 U	0.0031 U	**0.088 J**	**0.28 J**	1.6	0.0025 U	1.2	23	0.0025 U	NS	0.0027 U	470	16	210	**0.03 J**	**0.017 J**	**0.018 J**
Indeno(1,2,3-cd)pyrene	3.2	**0.033 J**	0.0025 U	**0.027 J**	**0.26**	12 J	0.0029 U	2.8	NS	0.0023 U	0.0024 U	4	**0.11**	0.0032 U	0.0062 U	0.0029 U	**0.68**	**0.62**	4.2	0.0024 U	1.8	11 J	0.0023 U	NS	**0.036 J**	26	1.2	24	0.16	0.17	0.1
Naphthalene	13	0.0034 U	0.0034 U	**0.17 J**	1.7	2,600	**0.024 J**	**0.45 J**	NS	**0.013 J**	0.0033 U	3.1	**0.12 J**	**0.28 J**	13	2	**0.075 J**	**0.28 J**	2.1	0.0033 U	5.6	350	0.0032 U	NS	**0.014 J**	1300	27	650	**0.047 J**	**0.04 J**	**0.033 J**
Phenanthrene	50	**0.064 J**	0.0035 U	**0.38**	**6.6**	410	**0.16 J**	3.3	NS	**0.032 J**	**0.019 J**	5.5	**0.15 J**	0.0046 U	0.0088 U	0.0041 U	1.2	2.5	12	**0.054 J**	7.5	100	**0.025 J**	NS	**0.12 J**	1300	47	680	0.35 J	0.42	0.24 J
Pyrene	50	**0.11 J**	**0.016 J**	**0.28 J**	**3.5**	200 J	**0.11 J**	**8.6**	NS	**0.027 J**	**0.022 J**	**11**	**0.076 J**	0.0035 U	0.0068 U	0.0032 U	**3**	**2.4**	**18 J**	**0.17 J**	**10 J**	**58**	**0.042 J**	NS	**0.17 J**	**450**	**18**	**290**	**0.49**	**0.69**	**0.42**
Benzo(a)pyrene Equivalents	NA	**0.070418**	**0.010843**	**0.08365**	**0.8491**	**60**	**0.031952**	**6.2517**	NS	**0.016336**	**0.025231**	**8.5508**	**0.219484**	ND	ND	ND	**2.499**	**2.1207**	**15.29**	**0.061114**	**5.8914**	**27.66**	**0.027194**	NS	**0.093404**	**136.38**	**5.6502**	**91.523**	**0.37642**	**0.3736**	**0.33499**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																																
2,4-Dimethylphenol	NA	0.035 U	0.035 U	0.035 U	0.05 U	19 U	0.041 U	0.078 U	NS	0.033 U	0.034 U	0.071 U	0.037 U	**0.076 J**	0.089 U	0.042 U	0.033 U	0.033 U	0.073 U	0.034 U	0.07 U	1.9 U	0.033 U	NS	0.036 U	8.7 U	0.36 U	3.9 U	0.034 U	0.033 U	0.034 U
2-Methylnaphthalene	36.4	0.018 U	0.018 U	**0.17 J**	**1.6**	950	**0.019 J**	**0.29 J**	NS	**0.017 J**	0.017 U	**0.87**	**0.051 J**	0.023 U	**1.8**	0.021 U	**0.044 J**	**0.15 J**	**0.74 J**	0.017 U	**1.1**	48	0.017 U	NS	0.018 U	480	24	460	**0.025 J**	**0.018 J**	**0.01 J**
2-Methylphenol	0.1	0.034 U	0.034 U	0.034 U	0.049 U	***19 U***	0.04 U	0.076 U	NS	0.033 U	0.034 U	0.07 U	0.036 U	0.045 U	0.087 U	0.041 U	0.033 U	0.033 U	**0.039 J**	0.034 U	0.069 U	***1.9 U***	0.033 U	NS	0.035 U	***8.5 U***	***0.35 U***	***3.8 U***	0.034 U	0.033 U	0.034 U
4-Methylphenol	0.9	0.038 U	0.038 U	0.038 U	0.054 U	***21 U***	0.044 U	0.083 U	NS	0.036 U	0.037 U	**0.021 J**	0.04 U	**0.038 J**	0.095 U	0.044 U	**0.019 J**	**0.02 J**	**0.11 J**	0.037 U	0.075 U	***2.1 U***	0.036 U	NS	0.039 U	***9.3 U***	0.39 U	***4.2 U***	0.037 U	0.036 U	0.037 U
bis(2-Ethylhexyl) phthalate	50	0.011 U	0.011 U	0.011 U	0.017 U	***6.5 U***	0.014 U	**0.5 J**	NS	**0.11 J**	**0.084 J**	**0.56 J**	0.15 U	0.03 U	0.058 U	0.027 U	**0.12 J**	**0.29 J**	0.34 U	**0.11 J**	0.19 U	1.3 U	0.073 U	NS	0.9 U	5.7 U	0.24 U	2.5 U	**0.16 J**	**0.16 J**	**0.18 J**
Butyl benzyl phthalate	50	0.2 U	0.24 U	**0.098 J**	0.033 U	13 U	**0.13 J**	0.034 U	NS	0.015 U	**0.22 J**	**0.18 J**	0.016 U	0.02 U	0.039 U	0.018 U	0.015 U	0.015 U	0.032 U	0.015 U	0.031 U	0.85 U	0.015 U	NS	0.016 U	3.8 U	0.16 U	1.7 U	0.015 U	0.015 U	0.015 U
Carbazole	NA	0.015 U	0.015 U	0.015 U	0.022 U	8.5 U	0.018 U	**0.24 J**	NS	0.0026 U	0.0027 U	**0.38 J**	**0.034 J**	0.0037 U	0.0071 U	0.0033 U	**0.084 J**	**0.39**	**1.4**	0.0027 U	**0.43 J**	**11 J**	0.0026 U	NS	0.0029 U	**14 J**	**1 J**	**13 J**	**0.046 J**	**0.032 J**	**0.034 J**
Dibenzofuran	6.2	0.0028 U	0.0028 U	0.0028 U	**0.049 J**	**6.6 J**	0.0032 U	**0.14 J**	NS	0.018 U	0.019 U	**0.51 J**	**0.032 J**	0.026 U	**0.054 J**	0.023 U	**0.043 J**	**0.19 J**	**0.66 J**	0.019 U	**1.7**	**15 J**	0.018 U	NS	0.02 U	**44 J**	**2 J**	**37 J**	**0.02 J**	**0.012 J**	**0.011 J**
Diethyl phthalate	7.1	0.02 U	0.02 U	**0.018 J**	**0.26 J**	22 J	0.023 U	0.023 U	NS	0.0097 U	0.01 U	0.021 U	0.011 U	0.014 U	0.026 U	0.012 U	0.0097 U	0.0097 U	0.021 U	0.01 U	0.02 U	0.57 U	0.0097 U	NS	0.01 U	2.5 U	0.1 U	1.1 U	0.01 U	0.0097 U	0.01 U
Di-n-butyl phthalate	8.1	0.01 U	0.01 U	0.01 U	0.014 U	5.7 U	0.012 U	0.024 U	NS	0.01 U	0.011 U	0.022 U	0.012 U	0.014 U	0.028 U	0.013 U	0.01 U	0.01 U	0.023 U	0.011 U	0.022 U	0.61 U	0.01 U	NS	0.011 U	2.7 U	0.11 U	1.2 U	0.011 U	0.01 U	0.011 U
Di-n-octyl phthalate	50	0.011 U	0.011 U	0.011 U	0.016 U	6.1 U	0.013 U	0.038 U	NS	0.016 U	0.016 U	0.034 U	0.018 U	0.022 U	0.043 U	0.02 U	0.016 U	0.016 U	0.035 U	0.016 U	0.034 U	0.94 U	0.016 U	NS	0.017 U	4.2 U	0.17 U	1.9 U	0.016 U	0.016 U	0.016 U
N-Nitrosodiphenylamine	NA	0.018 U	0.018 U	0.018 U	0.025 U	9.7 U	0.02 U	0.039 U	NS	0.016 U	0.017 U	0.035 U	0.018 U	0.023 U	0.044 U	0.021 U	0.016 U	0.016 U	0.036 U	0.017 U	0.035 U	0.97 U	0.016 U	NS	0.018 U	4.3 U	0.18 U	1.9 U	0.017 U	0.016 U	0.017 U
Phenol	0.03	***0.051 U***	***0.051 U***	***0.051 U***	***0.072 U***	***28 U***	***0.059 U***	***0.11 U***	NS	***0.048 U***	***0.05 U***	***0.1 U***	***0.054 U***	**0.18 J**	***0.13 U***	**0.15 J**	***0.048 U***	***0.048 U***	***0.11 U***	***0.05 U***	***0.1 U***	***2.8 U***	***0.048 U***	NS	***0.052 U***	***13 U***	***0.52 U***	***5.6 U***	***0.05 U***	***0.048 U***	***0.05 U***
Total SVOCs	500	**0.68**	**0.0913**	**1.971**	**24.079**	**5162.6**	**0.739**	**52.09**	NS	**0.2958**	**0.462**	**66.311**	**1.43**	**0.574**	**15.374**	**2.15**	**19.383**	**19.75**	**120.549**	**0.719**	**65.24**	**861.8**	**0.212**	NS	**0.975**	**5580**	**198.31**	**3286.5**	**3.615**	**4.372**	**2.972**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

sb indicates site background
d indicates default NYSDEC RS
U = Nondetected result. The an
UJ = The analyte was not detect
J = The analyte was positively ic
J+ = (Inorganics) The result is ar
J- = (Inorganics) The result is ar
R = The sample results are rejec
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21GH011 1- 3 2/9/2004	21GH011 3- 5 2/9/2004	21GH011 9- 11 2/12/2004	21GH011 15- 17 2/12/2004	21GH011 27- 29 2/12/2004	21GH011 49- 51 2/12/2004	21GH012 9- 11 2/16/2004	21GH012 17- 17.4 2/16/2004	21GH013 1- 2.5 2/2/2004	21GH013 2.5- 5 2/2/2004	21GH013 7- 9 2/3/2004	21GH013 13- 15 2/3/2004	21GH013 19- 21 2/3/2004	21GH013 29- 31 2/3/2004	21GH013 49- 51 2/3/2004	21GH014 1- 3 2/4/2004	21GH014 3- 5 2/4/2004	21GH014 7- 9 2/18/2004	21GH014 17- 19 2/18/2004	21GH014 27- 29 2/18/2004	21GH014 39- 40.3 2/19/2004	21GH015 1- 3 2/9/2004	21GH015 3- 5 2/9/2004	21GH015 13- 15 2/10/2004	21GH015 19- 21 2/10/2004	21GH015 29- 31 2/10/2004	21GH015 33- 35 2/11/2004	21GH016 1- 3 2/4/2004	21GH016 DUP 1- 3 2/4/2004	21GH016 3- 5 2/4/2004
Metals (mg/Kg)																																
Aluminum	7,960 (sb)	**7370**	**6800**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	13.63 (sb)	**2.3**	**3.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	300 (d)	**44.6**	**39.7 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	0.463 (sb)	**0.37 J**	**0.42 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	1 (d)	0.090 U	0.092 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	11563 (sb)	**1680 J**	**1200 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	36.69 (sb)	**20.3**	**15.9**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	30 (d)	**5.6 J**	**6.4 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	35.84 (sb)	**41.2 J**	**52.4 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	14,369 (sb)	**12900**	**13800**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	237.7 (sb)	**14.4 J**	**11.2 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	3,129 (sb)	**2690**	**2490**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	358.5 (sb)	**265**	**260**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.1 (d)	0.019 UJ	0.019 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	15.3 (sb)	**13.4**	**13.5**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	1,197 (sb)	**851 J**	**920 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	214.8 (sb)	**141 J**	90.7 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	NA	1.1 U	1.1 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	150 (d)	**28.1**	**25.6**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	81.77 (d)	**47.0**	**42.0**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)																																
Cyanide, Total	NA	0.5 U	0.5 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

sb indicates site background
d indicates default NYSDEC RS
U = Nondetected result. The an
UJ = The analyte was not detect
J = The analyte was positively ic
J+ = (Inorganics) The result is ar
J- = (Inorganics) The result is ar
R = The sample results are rejec
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID			21GH016	21GH016	21GH016	21GH016	21GH017	21GH017	21GH017	21GH017	21GH018	21GH018	21GH018	21GH018	21GH019	21GH019	21GH019	21GH019	21GH020	21GH020	21GH021	21GH021 DUP	21GH021	21GH021	21GH021	21GH022	21GH022	21GH022	21GH023	21GH023	21GH023	21GH023	21GH024
Depth Interval			7- 9	13- 15	35- 37	49- 51	1- 3	3- 5	5- 7	13- 15	1- 2.5	3- 5	5- 7	13- 13.4	1- 3	3- 5	5- 7	13- 15	5- 7	13- 14.8	1- 3	1- 3	3- 5	7- 9	13- 15	7- 9	13- 15	17- 19	5- 7	24- 26	34- 36	48- 50	15- 17
Sample Date	NYSDEC RSCOs		2/9/2004	2/9/2004	2/9/2004	2/10/2004	2/11/2004	2/11/2004	3/12/2004	3/12/2004	2/9/2004	2/10/2004	2/11/2004	2/11/2004	2/9/2004	3/9/2004	2/11/2004	2/11/2004	2/12/2004	2/12/2004	2/11/2004	2/11/2004	2/11/2004	2/12/2004	2/12/2004	2/6/2004	2/6/2004	2/6/2004	2/10/2004	2/10/2004	2/10/2004	2/10/2004	2/5/2004
BTEX (mg/Kg)																																
Benzene	0.06		**0.13**	**0.027**	**0.044**	**0.23**	**0.0004 J**	0.00025 U	**0.0007 J**	**20**	**0.0008 J**	**0.0006 J**	**0.014**	**230**	**0.0008 J**	**0.0006 J**	**0.0014**	**0.029**	**0.0018**	**4.3**	**0.0006 J**	**0.0012**	**0.0017**	**0.0083**	**7.7**	**0.59**	**51 J**	**18**	0.00023 U	**13**	**0.039**	0.00021 U	**0.038**
Ethyl Benzene	5.5		**0.0009 J**	**0.0012 J**	**0.033**	**0.32 J**	0.00022 U	0.00022 U	**0.0014 J**	**99**	0.00022 U	**0.0008 J**	0.00022 U	**620**	0.0002 U	0.00022 U	**0.0012 J**	**0.0022 J**	**0.0008 J**	**54**	0.00021 U	0.00022 U	0.00022 U	**0.0019 J**	**5.2**	**0.71**	**420 J**	**69**	0.0002 U	**1.4**	**0.01**	0.00017 U	**0.0014 J**
Toluene	1.5		**0.0099**	**0.001 J**	**0.0008 J**	0.021 U	0.0012 U	0.0009 U	0.00026 U	**14**	0.00022 U	**0.003 J**	**0.0051 J**	**530**	0.00021 U	**0.0012 J**	0.0034 U	0.0039 U	0.0062 U	**22**	0.0011 U	0.001 U	0.0013 U	**0.0078**	**0.58 J**	**0.52 J**	**260 J**	**44**	0.0012 U	**0.24 J**	**0.0055 J**	0.00018 U	**0.0077**
Xylene (Total)	1.2		**0.0026 J**	0.00055 U	**0.014**	**0.11 J**	0.00054 U	0.00052 U	**0.01**	**170**	**0.0032 J**	**0.0019 J**	0.00053 U	**1,200**	0.0005 U	0.00052 U	**0.003 J**	**0.014**	**0.0023 J**	**96**	0.0005 U	0.00053 U	0.00053 U	**0.0046 J**	**2.5**	**0.8**	**780 J**	**120**	0.00047 U	**1.2**	**0.0086**	0.00042 U	**0.0032 J**
Volatile Organic Compounds (VOCs) (mg/Kg)																																
2-Butanone (Methyl Ethyl Ketone)	0.3		**0.0011 R**	**0.0011 R**	**0.0011 R**	**0.24 R**	**0.0011 R**	**0.0011 R**	**0.0086 J**	***2.4 UJ***	**0.0011 R**	0.0011 U	0.0011 U	***13 U***	**0.001 R**	**0.0011 R**	0.0011 U	**0.0076**	**0.0036 J**	***2.5 U***	**0.001 R**	**0.0011 R**	**0.0011 R**	0.0011 U	0.23 U	0.24 U	***5.1 UJ***	***0.99 U***	**0.0022 J**	**0.26 R**	**0.0011 R**	**0.0045 J**	0.0013 U
Acetone	0.2		**0.03 J**	**0.038 J**	**0.031 J**	***0.23 U***	**0.027 J**	0.0026 UJ	**0.11**	***2.3 U***	**0.022 J**	0.0026 UJ	**0.017 J**	***13 U***	**0.034 J**	**0.036 J**	**0.028 J**	**0.035 J**	**0.041**	***2.4 U***	0.0025 UJ	0.0027 UJ	0.0027 UJ	**0.061 J**	***0.22 U***	***0.23 U***	***4.9 UJ***	***0.94 UJ***	**0.022**	***0.25 U***	**0.032**	**0.032**	**0.092 J**
Carbon Disulfide	2.7		0.00034 UJ	**0.0026 J**	**0.0082 J**	0.032 U	0.00034 U	0.00032 U	0.00038 UJ	0.31 U	0.00032 U	0.00032 U	**0.0058**	1.7 U	0.00031 U	0.00032 U	**0.0009 J**	**0.0063**	**0.0018 J**	0.32 U	0.00031 U	0.00033 U	0.00033 U	**0.0019 J**	0.03 U	0.032 U	0.67 UJ	**0.55 J**	0.00029 U	**0.22 J**	**0.001 J**	**0.0011 J**	**0.0091**
Carbon Tetrachloride	0.6		0.00023 U	0.00024 U	0.00023 U	0.048 U	0.00023 U	0.00023 U	0.00027 U	0.46 U	0.00023 U	0.00023 U	0.00023 U	***2.7 U***	0.00022 U	0.00023 U	0.00024 U	0.00024 U	0.00025 U	0.48 U	0.00022 U	0.00023 U	0.00023 U	0.00023 U	0.046 U	0.048 U	***1 UJ***	0.19 U	0.00021 U	0.05 U	0.00024 U	0.00018 U	0.00027 U
Chlorobenzene	1.7		0.00017 U	0.00017 U	0.00016 U	0.01 U	0.00017 U	0.00016 U	0.00019 U	0.1 U	0.00016 U	0.00016 U	0.00016 U	0.56 U	0.00016 U	0.00016 U	0.00017 U	0.00017 U	0.00018 U	0.1 U	0.00016 U	0.00016 U	0.00016 U	0.00017 U	0.0097 U	0.01 U	0.21 UJ	0.041 U	**0.0095**	0.011 U	0.00017 U	0.00013 U	0.0002 U
Chloroform	0.3		0.00026 U	0.00026 U	0.00025 U	0.021 U	0.00026 U	0.00025 U	0.00029 U	0.21 U	0.00025 U	0.00025 U	0.00025 U	***1.1 U***	0.00024 U	0.00025 U	0.00027 U	0.00027 U	**0.0011 J**	0.21 U	0.00024 U	0.00025 U	0.00025 U	0.00026 U	0.02 U	0.021 U	***0.44 UJ***	0.084 U	0.00022 U	0.022 U	0.00027 U	0.0002 U	0.0003 U
cis-1,2-Dichloroethene	NA		0.00034 U	0.00034 U	0.00033 U	0.027 U	0.00034 U	0.00032 U	0.00038 U	0.27 U	0.00032 U	0.00032 U	0.00033 U	1.5 U	0.00031 U	0.00032 U	0.00035 U	0.00035 U	0.00036 U	0.28 U	0.00031 U	0.00033 U	0.00033 U	0.00034 U	0.026 U	0.027 U	0.57 UJ	0.11 U	0.00029 U	0.029 U	0.00035 U	**0.0008 J**	0.00039 U
Methylene Chloride	0.1		0.0011 U	0.00026 U	0.0003 U	0.016 U	0.0004 U	0.0004 U	0.052 U	***0.15 U***	0.00025 U	0.00024 U	0.00025 U	***0.9 U***	0.0008 U	0.0009 U	0.0013 U	0.001 U	0.0008 U	***0.16 U***	0.0005 U	0.0005 U	0.0006 U	0.0012 U	0.015 U	0.016 U	***0.34 UJ***	0.064 U	0.0006 U	0.017 U	0.0007 U	0.0002 U	0.0025 U
Styrene	NA		0.00013 U	0.00014 U	0.00013 U	0.02 U	0.00013 U	0.00013 U	0.00015 U	0.2 U	0.00013 U	0.00013 U	0.00013 U	**50**	0.00012 U	0.00013 U	0.00014 U	**0.001 J**	0.00014 U	0.2 U	0.00012 U	0.00013 U	0.00013 U	**0.0009 J**	**0.12 J**	**0.21 J**	**80 J**	**12**	0.00012 U	0.021 U	**0.0008 J**	0.0001 U	0.00016 U
Tetrachloroethene	1.4		0.00019 U	0.00019 U	0.00019 U	0.04 U	0.00019 U	0.00019 U	0.00022 U	0.4 U	0.00019 U	0.00019 U	0.00019 U	***2.3 U***	0.00017 U	0.00019 U	**0.0009 J**	0.0002 U	**0.0016**	0.44 U	0.00017 U	0.00019 U	0.00019 U	0.00019 U	0.04 U	0.04 U	0.91 UJ	0.17 U	0.00017 U	0.044 U	0.0002 U	0.00015 U	0.00022 U
Trichloroethene	0.7		0.0003 U	0.0003 U	0.0003 U	0.03 U	0.0003 U	0.0003 U	0.00035 U	0.3 U	0.0003 U	0.0003 U	0.0003 U	***1.7 U***	0.00027 U	0.0003 U	0.00032 U	0.00032 U	0.00032 U	0.32 U	0.00027 U	0.0003 U	0.0003 U	0.0003 U	0.03 U	0.03 U	0.67 UJ	0.12 U	0.00027 U	0.032 U	0.00032 U	**0.0019**	0.00035 U
Total VOCs	1NA		**0.1734**	**0.0698**	**0.131**	**0.66**	**0.0274**	ND	**0.1307**	**303**	**0.026**	**0.0063**	**0.0419**	**2,630**	**0.0348**	**0.0378**	**0.0354**	**0.0951**	**0.054**	**176**	**0.0006**	**0.0012**	**0.0017**	**0.0864**	**16**	**2.83**	**1,591**	**264**	**0.0337**	**16**	**0.0969**	**0.0403**	**0.1514**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																																
Acenaphthene	50		**0.36 J**	**0.27 J**	**0.055 J**	**0.045 J**	0.0031 U	0.0031 U	**0.068 J**	0.34 U	0.0031 U	0.003 U	**0.035 J**	1 U	**0.0077 J**	0.0031 U	**0.053 J**	**0.56**	**0.014 J**	**0.66 J**	0.003 U	0.0031 U	**0.054 J**	**1.3 J**	0.68 U	**0.97**	**130**	**28**	**0.14 J**	**0.28 J**	**0.038 J**	**0.011 J**	**1.5**
Acenaphthylene	41		**0.78**	**0.083 J**	0.0032 U	0.0036 U	**0.012 J**	0.0031 U	**0.2 J**	0.34 U	**0.026 J**	0.003 U	**0.07 J**	1 U	**0.055 J**	0.0031 U	**0.042 J**	**0.71**	**0.045 J**	**2.6 J**	**0.026 J**	**0.019 J**	**0.53**	**7.6**	**2.1 J**	**1.1**	**64**	**35**	**0.33 J**	**0.047 J**	0.0035 U	**0.021 J**	**2.2**
Anthracene	50		**2.1**	**0.22 J**	**0.04 J**	**0.019 J**	**0.01 J**	0.0028 U	**0.21 J**	**1.1 J**	**0.034 J**	0.0028 U	**0.15 J**	0.93 U	**0.035 J**	**0.012 J**	**0.15 J**	**0.51**	**0.054 J**	**2.2 J**	**0.019 J**	**0.02 J**	**0.29 J**	**5.2**	**2.8 J**	**2.2**	**150**	**52**	**0.49**	**0.31 J**	**0.044 J**	**0.05 J**	**2.1**
Benzo(a)anthracene	0.224		**3.7**	**0.16**	**0.0089 J**	0.011 U	**0.058**	**0.014 J**	**0.87**	**2.7 J**	**0.12**	**0.04**	**0.48**	***3.3 U***	**0.11**	**0.043**	**0.3**	**1.4**	**0.15**	**1.8**	**0.085**	**0.073**	**0.72**	**11**	**6.5 J**	**2.2**	**130**	**47**	**0.83**	**0.37**	**0.054**	**0.033 J**	**7.8**
Benzo(a)pyrene	0.061		**3**	**0.13**	0.0028 U	0.0031 U	**0.058**	**0.016 J**	**0.8**	**1.7 J**	**0.1**	**0.029 J**	**0.37**	***0.89 U***	**0.12**	**0.036 J**	**0.23**	**1.8**	**0.11**	**1.1 J**	**0.12**	**0.086**	**1**	**11**	**5.8 J**	**1.7**	**96**	**37**	**0.72**	**0.25**	**0.035 J**	**0.024 J**	**7.4**
Benzo(b)fluoranthene	1.1		**1.9**	**0.05**	0.0029 U	0.0032 U	**0.046**	**0.0097 J**	**0.75**	**1.3 J**	**0.079**	**0.023 J**	**0.31**	0.93 U	**0.1**	**0.028 J**	**0.17**	**1.1**	**0.12**	0.085 U	**0.085**	**0.067**	**0.69**	**7.7**	**3.9 J**	**1.2**	**52**	**19**	**0.53**	**0.19**	**0.027 J**	**0.016 J**	**5.5**
Benzo(ghi)perylene	50		**1.6**	**0.055 J**	0.0041 U	0.0045 U	**0.038 J**	0.004 U	**0.5**	0.43 U	**0.064 J**	0.0038 U	**0.27 J**	1.3 U	**0.089 J**	0.004 U	**0.14 J**	**1.2**	**0.094 J**	0.12 U	**0.082 J**	**0.066 J**	**0.64**	**7.2**	**3.5 J**	**0.47 J**	**50 J**	**18 J**	**0.46**	**0.093 J**	**0.018 J**	0.0041 U	**4.5**
Benzo(k)fluoranthene	1.1		**2.8**	**0.11**	0.004 U	0.0044 U	**0.068**	**0.013 J**	**0.89**	**1.9 J**	**0.1**	**0.025 J**	**0.48**	***1.2 U***	**0.14**	**0.038**	**0.27**	**1.7**	**0.13**	**1.4**	**0.1**	**0.087**	**0.87**	**8.7**	**5.6 J**	**1.8**	**78**	**27**	**0.69**	**0.25**	**0.033 J**	**0.02 J**	**5.8**
Chrysene	0.4		**3.1**	**0.16 J**	0.0047 U	0.0052 U	**0.067 J**	**0.014 J**	**1.1**	**2.4 J**	**0.12 J**	**0.038 J**	**0.53**	***1.5 U***	**0.15 J**	**0.049 J**	**0.27 J**	**1.4**	**0.17 J**	**1.9 J**	**0.093 J**	**0.096 J**	**0.81**	**10**	**6.5 J**	**2.2**	**120**	**46**	**0.83**	**0.33 J**	**0.05 J**	**0.032 J**	**7.6**
Dibenz(a,h)anthracene	0.014		**0.6**	**0.021 J**	0.0025 U	0.0028 U	0.0024 U	0.0024 U	**0.16**	***0.26 U***	**0.024 J**	0.0024 U	0.0025 UJ	***0.79 UJ***	**0.029 J**	0.0024 U	0.0025 UJ	0.0027 UJ	0.0026 U	***0.073 U***	0.0024 U	0.0024 U	**0.17**	**0.75**	***0.53 U***	**0.13**	**16**	**4.4**	**0.14**	**0.048**	0.0027 U	0.0025 U	**1.8**
Fluoranthene	50		**4.8**	**0.28 J**	**0.042 J**	**0.016 J**	**0.1 J**	**0.021 J**	**1.7**	**5.7 J**	**0.19 J**	**0.08 J**	**0.98**	0.39 U	**0.25 J**	**0.085 J**	**0.63**	**1.8**	**0.27 J**	**3.8 J**	**0.13 J**	**0.13 J**	**0.85**	**11**	**10 J**	**5.4**	**310**	**120**	**1.5**	**0.73**	**0.1 J**	**0.08 J**	**7.6**
Fluorene	50		**1.5**	**0.44**	**0.084 J**	**0.11 J**	0.0025 U	0.0025 U	**0.071 J**	0.28 U	0.0025 U	0.0025 U	0.0026 U	0.82 U	**0.011 J**	0.0025 U	**0.09 J**	**0.59**	**0.043 J**	**3.6 J**	0.0025 U	0.0025 U	**0.057 J**	**1.7 J**	0.55 U	**2.4**	**230**	**67**	**0.45**	**0.31 J**	**0.04 J**	**0.044 J**	**0.53 J**
Indeno(1,2,3-cd)pyrene	3.2		**1.4**	**0.046**	0.0025 U	0.0027 U	**0.036 J**	0.0024 U	**0.46**	0.26 U	**0.056**	0.0023 U	**0.26**	0.78 U	**0.08**	0.0024 U	**0.13**	**1.2**	**0.08**	0.072 U	**0.066**	**0.057**	**0.58**	**5.8**	**2.8 J**	**0.48**	**46**	**18**	**0.39**	**0.096**	**0.015 J**	0.0025 U	**4**
Naphthalene	13		**3**	**0.11 J**	**0.68**	**0.33 J**	0.0033 U	0.0033 U	**0.068 J**	**860**	**0.012 J**	0.0032 U	**0.026 J**	**1900**	**0.023 J**	0.0033 U	**0.29 J**	**1.8**	**0.028 J**	**170**	0.0032 U	0.0033 U	**0.26 J**	**3.9**	**760**	**8.1**	**840**	**230**	**0.39**	**2.1**	**0.2 J**	**0.035 J**	**2.9**
Phenanthrene	50		**7.2**	**0.98**	**0.24 J**	**0.13 J**	**0.043 J**	**0.012 J**	**0.86**	**5.1 J**	**0.11 J**	**0.072 J**	**0.48**	1.1 U	**0.16 J**	**0.058 J**	**0.63**	**1.3**	**0.28 J**	**12**	**0.058 J**	**0.073 J**	**0.57**	**9.5**	**9.7 J**	**9.7**	**780**	**220**	**2.4**	**1.2**	**0.17 J**	**0.12 J**	**4.8**
Pyrene	50		**5.4**	**0.43**	**0.049 J**	**0.021 J**	**0.1 J**	**0.024 J**	**1.6**	**5.4 J**	**0.19 J**	**0.066 J**	**0.9**	0.85 U	**0.24 J**	**0.078 J**	**0.55**	**2.4**	**0.28 J**	**5.5 J**	**0.15 J**	**0.15 J**	**1.1**	**16**	**10 J**	**6.4**	**370**	**130**	**1.6**	**0.72**	**0.094 J**	**0.082 J**	**10**
Benzo(a)pyrene Equivalents	NA		**4.3311**	**0.17786**	**0.00089**	ND	**0.072747**	**0.018514**	**1.178**	**2.1214**	**0.15062**	**0.035588**	**0.48033**	ND	**0.17955**	**0.043529**	**0.29297**	**2.1884**	**0.14647**	**1.2959**	**0.144693**	**0.106666**	**1.37851**	**14.297**	**7.1825**	**2.2382**	**135.7**	**50.116**	**1.04273**	**0.36643**	**0.04498**	**0.029132**	**10.9956**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																																
2,4-Dimethylphenol	NA		**0.088 J**	0.036 U	0.035 U	0.039 U	0.034 U	0.034 U	0.041 U	3.7 U	0.034 U	0.033 U	0.035 U	11 U	0.034 U	0.034 U	0.035 U	0.038 U	0.037 U	1 U	0.033 U	0.034 U	0.034 U	0.18 U	7.4 U	0.076 U	4.1 U	1 U	0.036 U	0.043 U	0.038 U	0.035 U	**0.12 J**
2-Methylnaphthalene	36.4		**0.93**	**0.042 J**	**0.17 J**	**0.11 J**	0.017 U	0.017 U	**0.034 J**	**140**	0.017 U	0.017 U	**0.0094 J**	**190**	**0.012 J**	0.017 U	**0.051 J**	**1.2**	**0.02 J**	**25**	0.017 U	0.017 U	**0.12 J**	**1.2 J**	**89**	**1.1**	**260**	**70**	**0.21 J**	**0.48**	**0.032 J**	**0.02 J**	**0.73 J**
2-Methylphenol	0.1		**0.084 J**	0.035 U	0.034 U	0.038 U	0.034 U	0.034 U	0.04 U	***3.6 U***	0.034 U	0.033 U	0.034 U	***11 U***	0.034 U	0.034 U	0.034 U	0.037 U	0.036 U	***1 U***	0.033 U	0.034 U	0.034 U	***0.18 U***	***7.3 U***	0.074 U	***4 U***	***1 U***	0.035 U	0.043 U	0.037 U	0.034 U	**0.11 J**
4-Methylphenol	0.9		**0.25 J**	0.039 U	0.038 U	0.042 U	0.037 U	0.037 U	**0.0095 J**	***4 U***	0.037 U	0.036 U	0.038 U	***12 U***	0.037 U	0.037 U	0.038 U	**0.025 J**	0.04 U	***1.1 U***	0.036 U	0.037 U	0.037 U	0.2 U	***7.9 U***	**0.021 J**	***4.4 U***	***1.1 U***	0.039 U	0.046 U	0.041 U	0.038 U	**0.22 J**
bis(2-Ethylhexyl) phthalate	50		**0.43 J**	**0.29 J**	**0.093 J**	0.31 U	0.17 U	0.16 U	0.63 U	2.4 U	0.11 U	**0.12 J**	0.47 U	7.3 U	0.26 U	0.098 U	0.37 U	0.25 U	**0.21 J**	0.67 U	0.098 U	0.094 U	0.11 U	**1 J**	4.8 U	**0.23 J**	2.7 U	0.67 U	0.7 U	0.36 U	0.18 U	0.41 U	0.054 U
Butyl benzyl phthalate	50		0.031 U	0.016 U	0.015 U	0.017 U	0.015 U	0.015 U	0.018 U	1.6 U	0.015 U	**0.083 J**	0.015 U	4.9 U	0.015 U	0.015 U	0.015 U	0.017 U	0.016 U	0.45 U	0.015 U	0.015 U	0.015 U	0.081 U	3.2 U	0.033 U	1.8 U	0.45 U	**0.11 J**	0.019 U	0.017 U	0.015 U	0.036 U
Carbazole	NA		**1.3**	**0.033 J**	**0.023 J**	**0.06 J**	0.0027 U	0.0027 U	**0.082 J**	0.29 U	0.0027 U	0.0026 U	**0.025 J**	0.88 U	**0.014 J**	0.0027 U	**0.035 J**	**0.062 J**	**0.015 J**	0.081 U	0.0026 U	0.0027 U	**0.052 J**	**0.35 J**	0.59 U	**0.46 J**	**25 J**	**8.2 J**	**0.13 J**	**0.21 J**	**0.016 J**	**0.014 J**	**0.33 J**
Dibenzofuran	6.2		**0.81**	**0.068 J**	**0.018 J**	**0.015 J**	0.019 U	0.019 U	**0.032 J**	2.1 U	0.019 U	0.018 U	**0.01 J**	6.2 U	0.019 U	0.019 U	**0.053 J**	**0.1 J**	**0.0095 J**	**0.56 J**	0.018 U	0.019 U	**0.042 J**	**0.95 J**	4.1 U	**0.82 J**	**52**	**16**	**0.1 J**	**0.23 J**	**0.025 J**	**0.019 J**	**0.33 J**
Diethyl phthalate	7.1		0.021 U	0.01 U	0.01 U	0.011 U	0.01 U	0.01 U	0.012 U	1.1 U	0.01 U	0.0097 U	0.01 U	3.2 U	0.01 U	0.01 U	0.01 U	0.011 U	0.011 U	0.3 U	0.0097 U	0.01 U	0.01 U	0.054 U	2.2 U	0.022 U	1.2 U	0.3 U	0.01 U	0.013 U	0.011 U	0.01 U	0.024 U
Di-n-butyl phthalate	8.1		0.022 U	0.011 U	0.011 U	0.012 U	0.011 U	0.011 U	**0.1 J**	1.2 U	0.011 U	0.01 U	0.011 U	3.5 U	0.011 U	0.011 U	0.011 U	0.012 U	0.012 U	0.32 U	0.01 U	0.011 U	0.011 U	0.058 U	2.3 U	0.024 U	1.3 U	0.32 U	0.011 U	0.014 U	0.012 U	0.011 U	0.026 U
Di-n-octyl phthalate	50		0.034 U	0.017 U	0.017 U	0.019 U	0.016 U	0.016 U	0.02 U	1.8 U	0.016 U	0.016 U	0.017 U	5.4 U	0.016 U	0.016 U	0.017 U	0.018 U	0.018 U	0.49 U	0.016 U	0.016 U	0.016 U	0.09 U	3.6 U	0.037 U	2 U	0.49 U	0.017 U	0.021 U	0.018 U	0.017 U	0.04 U
N-Nitrosodiphenylamine	NA		0.035 U	0.018 U	0.018 U	0.019 U	0.017 U	0.017 U	0.02 U	1.8 U	0.017 U	0.016 U	0.018 U	5.5 U	0.017 U	0.017 U	0.018 U	0.019 U	0.018 U	0.51 U	0.016 U	0.017 U	0.017 U	0.092 U	3.7 U	0.038 U	2 U	0.51 U	0.018 U	0.022 U	0.019 U	0.018 U	0.041 U
Phenol	0.03		**0.23 J**	***0.052 U***	***0.051 U***	***0.056 U***	***0.05 U***	***0.05 U***	***0.059 U***	***5.4 U***	***0.05 U***	***0.048 U***	***0.051 U***	***16 U***	***0.05 U***	***0.05 U***	***0.051 U***	***0.055 U***	***0.054 U***	***1.5 U***	***0.048 U***	***0.05 U***	***0.05 U***	***0.27 U***	***11 U***	***0.11 U***	***5.9 U***	***1.5 U***	***0.052 U***	**0.24 J**	**0.34 J**	***0.051 U***	**0.13 J**
Total SVOCs	500		**47.362**	**3.978**	**1.5029**	**0.856**	**0.636**	**0.1237**	**10.5645**	**1027.3**	**1.225**	**0.576**	**5.3854**	**2090**	**1.6257**	**0.427**	**4.084**	**20.857**	**2.1225**	**232.12**	**1.014**	**0.924**	**9.405**	**121.85**	**918.2**	**49.081**	**3799**	**1192.6**	**12.44**	**8.484**	**1.331**	**0.621**	**78**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation
Technical and Administrative Guidance Memorandum (TAGM) 4046
Recommended Soil Cleanup Objectives (RSCOs)
(NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

:CO
nalyte was analyzed for, but was not detected above the reported sample quantitation limit.
:ted above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
dentified; the associated numerical value is the approximate concentration of the analyte in the sample.
n estimated quantity, but the result may be biased high.
n estimated quantity, but the result may be biased low.
cted due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not
UJ = The analyte was not detected above the reported sample quan
J = The analyte was positively identified; the associated numerical v
J+ = (Inorganics) The result is an estimated quantity, but the result n
J- = (Inorganics) The result is an estimated quantity, but the result m
R = The sample results are rejected due to serious deficiencies in th
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21GH016 7- 9 2/9/2004	21GH016 13- 15 2/9/2004	21GH016 35- 37 2/9/2004	21GH016 49- 51 2/10/2004	21GH017 1- 3 2/11/2004	21GH017 3- 5 2/11/2004	21GH017 5- 7 3/12/2004	21GH017 13- 15 3/12/2004	21GH018 1- 2.5 2/9/2004	21GH018 3- 5 2/10/2004	21GH018 5- 7 2/11/2004	21GH018 13- 13.4 2/11/2004	21GH019 1- 3 2/9/2004	21GH019 3- 5 2/9/2004	21GH019 5- 7 2/11/2004	21GH019 13- 15 2/11/2004	21GH020 5- 7 2/12/2004	21GH020 13- 14.8 2/12/2004	21GH021 1- 3 2/11/2004	21GH021 DUP 1- 3 2/11/2004	21GH021 3- 5 2/11/2004	21GH021 7- 9 2/12/2004	21GH021 13- 15 2/12/2004	21GH022 7- 9 2/6/2004	21GH022 13- 15 2/6/2004	21GH022 17- 19 2/6/2004	21GH023 5- 7 2/10/2004	21GH023 24- 26 2/10/2004	21GH023 34- 36 2/10/2004	21GH023 48- 50 2/10/2004	21GH024 15- 17 2/5/2004
Metals (mg/Kg)																																	
Aluminum	7,960 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**6540 J**	**5530**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	13.63 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**2.2**	**1.2 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	300 (d)	NS	NS	NS	NS	NS	NS	NS	NS	**46.4**	**41.0 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	0.463 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**0.32 J**	**0.37 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	0.088 U	**0.20 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	11563 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**1150**	**1460 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	36.69 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**15.7**	**14.9**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	30 (d)	NS	NS	NS	NS	NS	NS	NS	NS	**5.6 J**	**5.9 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	35.84 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**20.9**	**19.0**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	14,369 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**13500 J**	**14600**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	237.7 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**31.2**	**10.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	3,129 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**1710**	**2170**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	358.5 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**324**	**355**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	**0.11**	0.018 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	15.3 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**11.6**	**11.0**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	1,197 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**612 J**	**773 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	214.8 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	**99.3 J**	78.3 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	NA	NS	NS	NS	NS	NS	NS	NS	NS	1.0 U	0.95 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	150 (d)	NS	NS	NS	NS	NS	NS	NS	NS	**22.7**	**23.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	81.77 (d)	NS	NS	NS	NS	NS	NS	NS	NS	**35.3**	**29.6**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)																																	
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.5 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

ND = calculated totals are not detected

NA = Not Available

N/A = Not Applicable

mg/Kg = milligram per kilogram

NYSDEC RSCO = New York State Department of Environmental Conservation

Technical and Administrative Guidance Memorandum (TAGM) 4046

Recommended Soil Cleanup Objectives (RSCOs)

(NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs

Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

SCO

nalyte was analyzed for, but was not detected above the reported sample quantitation limit.

cted above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

dentified; the associated numerical value is the approximate concentration of the analyte in the sample.

n estimated quantity, but the result may be biased high.

n estimated quantity, but the result may be biased low.

cted due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.

sb indicates site background

d indicates default NYSDEC RSCO

U = Nondetected result. The analyte was analyzed for, but was not

UJ = The analyte was not detected above the reported sample quan

J = The analyte was positively identified; the associated numerical v

J+ = (Inorganics) The result is an estimated quantity, but the result n

J- = (Inorganics) The result is an estimated quantity, but the result m

R = The sample results are rejected due to serious deficiencies in th

D = Diluted run

DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21GH024 19- 21 2/5/2004	21GH024 27- 29 2/5/2004	21GH024 33- 35 2/5/2004	21GH024 49- 51 2/5/2004	21GH025 9- 11 1/26/2004	21GH025 13- 15 1/26/2004	21GH025 15- 17 1/26/2004	21GH026 1- 3 2/13/2004	21GH026 9- 11 2/16/2004	21GH026 23- 25 2/16/2004	21GH026 27- 29 2/16/2004	21GH026 49- 51 2/16/2004	21GH027 1- 2.5 2/2/2004	21GH027 3- 5 2/2/2004	21GH027 5- 7 2/2/2004	21GH027 23- 25 2/2/2004	21GH027A 29- 31 3/17/2004	21GH027A 89- 91 3/19/2004	21GH027A 117- 119 3/23/2004	21GH028 16- 18 2/6/2004	21GH028 18- 19 2/6/2004	21GH029 15- 17 2/12/2004	21GN001 1- 3 2/12/2004	21GN001 3- 5 2/13/2004	21GN001 15- 17 2/17/2004	21GN001 19- 21 2/17/2004	21GN001 31- 33 2/17/2004	21GN001 49- 51 2/17/2004	21GN002 1- 3 2/13/2004	21GN002 DUP 1- 3 2/13/2004
BTEX (mg/Kg)																																
Benzene	0.06	**6.7**	**22**	**25**	**7.1**	**0.99**	**330**	**420**	0.00023 U	**0.048**	**21**	**1,100**	**0.063**	0.00025 U	0.00023 U	0.00025 U	**1.2**	**33**	**0.0056**	**0.0007 J**	**5.1**	**23**	**3.1**	**0.0022**	**0.0007 J**	**3.5**	**0.071**	**0.022**	0.00028 U	**0.0004 J**	0.00023 U
Ethyl Benzene	5.5	**2.8**	**24**	**54**	**2**	**0.65**	**270**	**250**	**0.0007 J**	**0.0019 J**	**110**	**570**	**0.0061**	0.00022 U	0.0002 U	0.00022 U	**6.7**	**5.7**	0.00028 U	0.00022 U	**2.9**	**24**	**39**	**0.001 J**	**0.0006 J**	**2.2**	**0.025**	**0.0047 J**	0.00024 U	**0.0006 J**	**0.0006 J**
Toluene	1.5	**1.1**	**61**	**85**	**0.16 J**	**0.086 J**	**650**	**720**	**0.0018 J**	**0.015**	**110**	**1,500**	**0.01**	0.00021 U	0.00021 U	0.00021 U	**3.7**	**34**	**0.002 J**	**0.001 J**	**0.35 J**	**30**	**6.6**	0.0052 U	**0.0018 J**	**0.82**	**0.0047 J**	**0.0053 J**	0.00024 U	**0.0017 J**	**0.0019 J**
Xylene (Total)	1.2	**7.4**	**160**	**160**	**0.66**	**0.31 J**	**820**	**790**	**0.0023 J**	**0.0043 J**	**190**	**1,400**	**0.008**	0.00051 U	0.0005 U	0.00051 U	**9.9**	**32**	0.00065 U	0.00052 U	**1.7**	**60**	**44**	**0.0028 J**	**0.0022 J**	**4.2**	**0.055**	**0.011**	0.00058 U	**0.0021 J**	**0.0026 J**
Volatile Organic Compounds (VOCs) (mg/Kg)																																
2-Butanone (Methyl Ethyl Ketone)	0.3	0.23 U	***1.2 U***	***2.3 U***	0.24 U	**0.23 R**	***8.3 U***	***8.3 R***	**0.016**	**0.018**	***2.5 U***	***48 R***	**0.01**	0.001 U	0.001 U	0.001 U	0.23 U	***0.59 R***	**0.0013 R**	**0.0011 R**	0.26 U	***0.48 U***	***0.48 U***	**0.0049 J**	**0.0081**	0.27 U	0.0012 U	0.0012 U	0.0012 U	**0.0071**	**0.011**
Acetone	0.2	***0.22 UJ***	***1.15 U***	***2.2 U***	***0.23 UJ***	***0.22 UJ***	***7.9 U***	***7.9 UJ***	**0.15 J**	**0.15**	***2.4 U***	***45 R***	**0.1**	0.0026 UJ	0.0025 UJ	0.0026 UJ	***0.22 UJ***	***0.57 UJ***	0.016 U	**0.033 J**	***0.25 U***	***0.45 UJ***	***0.45 U***	**0.063**	**0.074 J**	***0.26 UJ***	**0.1 J**	**0.11 J**	**0.12 J**	**0.066 J**	**0.093 J**
Carbon Disulfide	2.7	0.03 U	0.15 U	0.3 U	0.032 U	0.03 U	1.1 U	1.1 U	0.00031 U	**0.0049 J**	0.33 U	***6.2 U***	**0.0012 J**	0.00032 U	0.00031 U	0.00032 U	0.03 UJ	0.077 U	0.00041 U	**0.0006 J**	0.034 U	**0.35 J**	0.062 U	0.00032 U	0.00032 U	0.035 U	**0.0039 J**	**0.001 J**	**0.0007 J**	0.00033 U	0.00031 U
Carbon Tetrachloride	0.6	0.046 U	0.234 U	0.46 U	0.048 U	0.044 U	***1.6 U***	***1.6 U***	0.00022 U	0.00023 U	0.5 U	***9.5 U***	0.00024 U	0.00022 U	0.00022 U	0.00022 U	0.046 U	0.11 U	0.00028 U	0.00023 U	0.052 U	0.089 U	0.093 U	0.00023 U	**0.0015 J**	0.054 U	0.00026 U	0.00025 U	0.00025 U	**0.0016 J**	**0.0015 J**
Chlorobenzene	1.7	0.0097 U	0.0492 U	0.097 U	0.01 U	0.0095 U	0.34 U	0.34 U	0.00016 U	0.00016 U	0.1 U	***2 U***	0.00017 U	0.00016 U	0.00016 U	0.00016 U	0.0097 U	0.025 U	0.0002 U	0.00016 U	0.011 U	0.02 U	0.02 U	0.00016 U	0.00016 U	0.011 U	0.00019 U	0.00018 U	0.00018 U	0.00016 U	0.00016 U
Chloroform	0.3	0.02 U	0.102 U	0.2 U	0.021 U	0.02 U	***0.71 U***	***0.71 U***	0.00024 U	0.00025 U	0.22 U	***4 U***	0.00027 U	0.00024 U	0.00024 U	0.00024 U	0.02 U	0.051 U	0.00031 U	0.00025 U	0.023 U	0.04 U	0.04 U	0.00025 U	**0.0005 J**	0.023 U	0.00029 U	0.00028 U	0.00028 U	**0.0005 J**	**0.0005 J**
cis-1,2-Dichloroethene	NA	0.026 U	0.132 U	0.26 U	0.027 U	0.026 U	0.92 U	0.92 U	0.00031 U	0.00033 U	0.28 U	5.3 U	0.00035 U	0.00032 U	0.00031 U	0.00032 U	0.026 U	0.066 U	0.00041 U	0.00032 U	0.029 U	0.053 U	0.053 U	0.00032 U	0.00032 U	0.03 U	0.00038 U	0.00036 U	0.00036 U	0.00033 U	0.00031 U
Methylene Chloride	0.1	0.015 U	0.0768 U	***0.15 U***	0.016 U	0.015 U	***0.51 U***	***0.55 U***	0.0007 U	0.012 U	***0.16 U***	***3.2 U***	0.0024 U	0.0016 U	0.001 U	0.0014 U	0.015 U	0.038 U	**0.018 B**	0.0021 U	0.017 U	0.029 U	0.031 U	0.0007 U	0.0012 U	0.018 U	0.0011 U	0.0014 U	0.0015 U	0.0007 U	0.0008 U
Styrene	NA	0.019 UJ	**47**	**5.2 J**	0.02 U	0.019 U	**460**	**460**	0.00012 U	0.00013 U	**31**	**680**	**0.0022 J**	0.00013 U	0.00012 U	0.00013 U	**0.24 J**	**0.6 J**	0.00016 U	0.00013 U	0.022 U	**26**	**1.1 J**	0.00013 U	0.00013 U	**0.18 J**	0.00015 U	0.00015 U	0.00015 U	0.00013 U	0.00012 U
Tetrachloroethene	1.4	0.04 U	0.204 U	0.4 U	0.04 U	0.04 U	1.4 U	1.4 U	0.00017 U	0.00019 U	0.44 U	***8.4 U***	0.0002 U	0.00019 U	0.00017 U	0.00019 U	0.04 U	0.1 U	0.00024 U	0.00019 U	0.044 U	0.078 U	0.081 U	0.00019 U	0.00019 U	0.047 U	0.00022 U	0.0002 U	0.0002 U	**0.0002 J**	0.00017 U
Trichloroethene	0.7	0.03 U	0.15 U	0.3 U	0.03 U	0.03 U	***1 U***	***1 U***	0.00027 U	0.0003 U	0.32 U	***6.2 U***	0.00032 U	0.0003 U	0.00027 U	0.0003 U	0.03 U	0.074 U	0.00038 U	0.0003 U	0.032 U	0.057 U	0.06 U	0.0003 U	0.0003 U	0.035 U	0.00035 U	0.00032 U	0.00032 U	0.0003 U	0.00027 U
Total VOCs	1NA	**18**	**314**	**329**	**9.92**	**2.036**	**2,530**	**2,640**	**0.1708**	**0.2421**	**462**	**5,250**	**0.2005**	ND	ND	ND	**22**	**105**	**0.0256**	**0.0353**	**10**	**163**	**94**	**0.0739**	**0.0894**	**11**	**0.2596**	**0.154**	**0.1207**	**0.0802**	**0.1111**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																																
Acenaphthene	50	**11**	**3.1 J**	**4**	0.0037 U	**1.2**	**82 J**	**23 J**	0.0031 U	**1.8 J**	**53 J**	**64 J**	**0.019 J**	0.003 U	0.003 U	0.0032 U	**0.1 J**	**19**	0.0039 U	**0.043 J**	**8.6**	**5.1**	**52**	0.003 U	0.0031 U	0.02 U	**0.028 J**	**0.062 J**	0.0035 U	0.0031 U	0.003 U
Acenaphthylene	41	**14**	**11**	**6.1**	**0.029 J**	**0.15 J**	**630**	**220**	0.0031 U	**4.8**	**170 J**	**180**	**0.082 J**	0.003 U	0.003 U	0.0032 U	**0.26 J**	**17**	0.0039 U	**0.048 J**	**6.2**	**5.1**	**69**	0.003 U	0.0031 U	0.02 U	**0.026 J**	**0.095 J**	0.0035 U	**0.022 J**	**0.032 J**
Anthracene	50	**23**	**15**	**7.2**	**0.038 J**	**0.51 J**	**260**	**98 J**	0.0028 U	**5.8**	**96 J**	**130**	**0.06 J**	**0.012 J**	0.0028 U	0.0029 U	**0.33 J**	**22**	**0.01 J**	**0.1 J**	**11**	**8.7**	**46**	0.0028 U	0.0028 U	0.018 U	**0.029 J**	**0.079 J**	0.0032 U	**0.011 J**	**0.015 J**
Benzo(a)anthracene	0.224	**28**	**15**	**5.8**	**0.033 J**	**0.56**	**130**	**51**	0.01 U	**11**	**120**	**160**	**0.065**	**0.053**	0.0098 U	**0.024 J**	**0.41**	**18**	**0.016 J**	**0.082**	**16**	**11**	**26**	**0.027 J**	**0.019 J**	0.066 U	**0.048**	**0.13**	0.011 U	**0.04**	**0.066**
Benzo(a)pyrene	0.061	**17**	**11**	**3.7**	**0.022 J**	**0.59**	**100**	**36**	0.0027 U	**14**	**110**	**110**	**0.069**	**0.056**	0.0027 U	**0.02 J**	**0.29**	**10**	0.0034 U	**0.064**	**14**	**10**	**19**	**0.023 J**	**0.019 J**	0.018 U	**0.038 J**	**0.092**	0.003 U	**0.043**	**0.061**
Benzo(b)fluoranthene	1.1	**10**	**6.4**	**2**	**0.013 J**	**0.37**	**40**	**14 J**	0.0028 U	**8.5**	**57**	**59**	**0.03 J**	**0.043**	0.0028 U	**0.018 J**	**0.21**	**6**	0.0036 U	**0.036 J**	**8.9**	**6.3**	**8.2**	**0.023 J**	**0.013 J**	0.018 U	**0.019 J**	**0.048**	0.0032 U	**0.026 J**	**0.044**
Benzo(ghi)perylene	50	**6.8 J**	**5**	**1.4 J**	0.0047 U	**0.46 J**	**32 J**	1.9 U	0.004 U	**7.1**	**63 J**	**54 J**	**0.033 J**	**0.04 J**	0.0038 U	0.0041 U	**0.2 J**	**5 J**	0.0049 U	**0.026 J**	**6.2**	**4.2**	**8.1 J**	**0.018 J**	0.004 U	0.026 U	0.0045 U	**0.047 J**	0.0044 U	**0.024 J**	**0.032 J**
Benzo(k)fluoranthene	1.1	**16**	**10**	**3.4**	**0.021 J**	**0.44**	**62**	**21**	0.0038 U	**9.6**	**75**	**100**	**0.056**	**0.048**	0.0038 U	**0.018 J**	**0.26**	**9.8**	0.0048 U	**0.065**	**13**	**9.8**	**16**	**0.025 J**	**0.018 J**	0.025 U	**0.036 J**	**0.094**	0.0043 U	**0.047**	**0.066**
Chrysene	0.4	**25**	**14**	**4.8**	**0.027 J**	**0.6 J**	**140 J**	**52 J**	**0.0084 J**	**12**	**110 J**	**130**	**0.062 J**	**0.062 J**	0.0045 U	**0.024 J**	**0.46 J**	**15**	**0.012 J**	**0.087 J**	**16**	**11**	**23 J**	**0.033 J**	**0.024 J**	0.03 U	**0.048 J**	**0.13 J**	0.0051 U	**0.044 J**	**0.062 J**
Dibenz(a,h)anthracene	0.014	**1.2**	**2.1**	**0.61**	0.0029 U	**0.12**	***1.2 U***	***1.2 U***	0.0024 U	**2.4**	**14 J**	**16**	0.0026 U	0.0024 U	0.0024 U	0.0025 U	0.0055 U	**1.7**	0.003 U	0.0025 U	**2.3**	**1.4**	**2.3 J**	0.0024 U	0.0024 U	***0.016 UJ***	0.0028 UJ	0.0028 UJ	0.0027 UJ	0.0024 U	0.0024 U
Fluoranthene	50	**41**	**21**	**8.7**	**0.056 J**	**1.1**	**220**	**82 J**	**0.012 J**	**21**	**290**	**310**	**0.17 J**	**0.1 J**	0.0012 U	**0.045 J**	**0.7 J**	**34**	**0.018 J**	**0.17 J**	**23**	**16**	**41 J**	**0.043 J**	**0.044 J**	0.0078 U	**0.12 J**	**0.3 J**	**0.013 J**	**0.055 J**	**0.083 J**
Fluorene	50	**39**	**15**	**8.2**	**0.033 J**	**0.48 J**	**310**	**110 J**	0.0025 U	**2.3**	**170 J**	**220**	**0.1 J**	0.0025 U	0.0025 U	0.0026 U	**0.27 J**	**29**	0.0032 U	**0.12 J**	**9.1**	**7.2**	**54**	0.0025 U	0.0025 U	0.016 U	**0.09 J**	**0.19 J**	0.0028 U	0.0025 U	0.0025 U
Indeno(1,2,3-cd)pyrene	3.2	**6.4**	**4.4**	**1.2**	0.0029 U	**0.37**	**26**	1.2 U	0.0024 U	**6.5**	**43**	**45**	**0.025 J**	**0.04**	0.0023 U	0.0025 U	**0.18**	**4.3**	0.003 U	**0.022 J**	**6.1**	**4.1**	**6.8**	**0.015 J**	0.0024 U	0.016 U	0.0027 U	**0.034 J**	0.0027 U	**0.022 J**	**0.031 J**
Naphthalene	13	**140**	**88**	**40**	**0.18 J**	**14**	**4000**	**1700**	0.0033 U	**2.3**	**2300**	**1800**	**0.5**	0.0032 U	0.0032 U	**0.014 J**	**14**	**150**	**0.064 J**	**0.056 J**	**11**	**18**	**480**	0.0032 U	0.0033 U	**27**	**3.8**	**1.5**	**0.096 J**	0.0033 U	**0.028 J**
Phenanthrene	50	**94**	**41**	**20**	**0.12 J**	**1.7**	**930**	**340**	0.0034 U	**21**	**610**	**650**	**0.36 J**	**0.049 J**	0.0033 U	**0.036 J**	**1.2**	**70**	**0.037 J**	**0.38 J**	**38**	**30**	**150**	**0.024 J**	**0.027 J**	**0.13 J**	**0.3 J**	**0.76**	**0.051 J**	**0.025 J**	**0.029 J**
Pyrene	50	**40**	**22**	**9**	**0.056 J**	**1.9**	**390**	**140 J**	**0.012 J**	**26**	**390**	**350**	**0.23 J**	**0.088 J**	0.0025 U	**0.041 J**	**0.84**	**36**	**0.019 J**	**0.19 J**	**38**	**24**	**59**	**0.039 J**	**0.043 J**	**0.053 J**	**0.14 J**	**0.35 J**	**0.02 J**	**0.066 J**	**0.085 J**
Benzo(a)pyrene Equivalents	NA	**22.825**	**15.794**	**5.2488**	**0.026837**	**0.845**	**120.36**	**42.762**	**0.0000084**	**19.108**	**146.86**	**153.53**	**0.081622**	**0.070142**	ND	**0.024404**	**0.37306**	**14.643**	**0.001612**	**0.078737**	**19.546**	**13.649**	**25.583**	**0.029783**	**0.022404**	ND	**0.045108**	**0.11427**	ND	**0.052314**	**0.075822**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																																
2,4-Dimethylphenol	NA	**4.2 J**	**0.96 J**	**0.2 J**	0.041 U	0.076 U	17 U	17 U	0.034 U	0.18 U	20 U	9.2 U	0.037 U	0.033 U	0.033 U	0.035 U	0.077 U	**9.3 J**	0.042 U	0.035 U	0.2 U	**0.044 J**	3.8 U	0.033 U	0.034 U	0.22 U	0.039 U	0.039 U	0.038 U	0.034 U	0.033 U
2-Methylnaphthalene	36.4	**44**	**24**	**14**	**0.048 J**	**3.1**	**2000**	**760**	0.017 U	**1.2 J**	**440**	**440**	**0.14 J**	0.017 U	0.017 U	0.018 U	**2.8**	**58**	**0.019 J**	**0.053 J**	**2 J**	**4.9**	**280**	0.017 U	0.017 U	**0.5 J**	**0.28 J**	**0.27 J**	**0.021 J**	0.017 U	0.017 U
2-Methylphenol	0.1	**2.3 J**	**0.63 J**	**0.19 J**	0.04 U	0.074 U	***16 U***	***16 U***	0.034 U	***0.18 U***	***20 U***	***9.1 U***	0.036 U	0.033 U	0.033 U	0.034 U	**0.073 J**	**4.2 J**	0.042 U	0.034 U	***0.2 U***	***0.18 U***	***3.7 U***	0.033 U	0.034 U	***0.22 U***	0.038 U	0.038 U	0.037 U	0.034 U	0.033 U
4-Methylphenol	0.9	**6.1 J**	**1.7 J**	**0.95 J**	0.044 U	0.081 U	***18 U***	***18 U***	0.037 U	**0.081 J**	***22 U***	***9.9 U***	0.04 U	0.036 U	0.036 U	0.038 U	**0.13 J**	**13**	0.046 U	0.038 U	0.22 U	**0.047 J**	***4.1 U***	0.036 U	0.037 U	0.24 U	0.042 U	0.042 U	0.041 U	0.037 U	0.036 U
bis(2-Ethylhexyl) phthalate	50	0.48 U	0.25 U	0.13 U	**0.12 J**	**0.44 J**	11 U	11 U	0.022 U	**0.68 J**	13 U	6.1 U	0.024 U	0.022 U	0.022 U	**0.2 J**	**0.32 J**	0.6 U	0.028 U	0.19 U	0.13 U	0.12 U	2.5 U	**0.16 J**	0.14 U	0.14 U	**0.14 J**	**0.11 J**	**0.12 J**	0.12 U	0.022 U
Butyl benzyl phthalate	50	0.32 U	0.17 U	0.085 U	0.018 U	0.033 U	7.3 U	7.3 U	0.015 U	0.081 U	8.9 U	4.1 U	0.016 U	0.015 U	0.015 U	0.015 U	0.034 U	0.4 U	0.019 U	0.015 U	0.089 U	0.081 U	1.7 U	0.015 U	0.015 U	0.097 U	0.017 U	0.017 U	0.017 U	0.015 U	0.015 U
Carbazole	NA	**18**	**3.8 J**	**3.3**	**0.016 J**	**0.14 J**	**5.5 J**	1.3 U	0.0027 U	**1.7 J**	**36 J**	**62 J**	**0.022 J**	0.0026 U	0.0026 U	0.0028 U	**0.14 J**	**16**	0.0034 U	**0.036 J**	**1.4 J**	**1.1 J**	**1 J**	0.0026 U	0.0027 U	**0.1 J**	**0.01 J**	**0.024 J**	0.003 U	0.0027 U	0.0026 U
Dibenzofuran	6.2	**28**	**9.6**	**5.3**	**0.022 J**	**0.26 J**	**68 J**	**21 J**	0.019 U	**2.1**	**65 J**	**120**	**0.038 J**	0.018 U	0.018 U	0.02 U	**0.14 J**	**20**	0.024 U	**0.06 J**	**2.7**	**2.1**	**11 J**	0.018 U	0.019 U	0.12 U	**0.037 J**	**0.056 J**	0.021 U	0.019 U	0.018 U
Diethyl phthalate	7.1	0.21 U	0.11 U	0.057 U	0.012 U	0.022 U	4.9 U	4.9 U	0.01 U	0.054 U	5.9 U	2.7 U	0.011 U	0.0097 U	0.0097 U	0.01 U	0.022 U	0.27 U	0.012 U	0.01 U	0.059 U	0.054 U	1.1 U	0.0097 U	0.01 U	0.065 U	0.011 U	0.011 U	0.011 U	0.01 U	0.0097 U
Di-n-butyl phthalate	8.1	0.23 U	0.12 U	0.061 U	0.013 U	0.024 U	5.2 U	5.2 U	0.011 U	0.058 U	6.4 U	2.9 U	0.012 U	0.01 U	0.01 U	0.011 U	0.024 U	0.29 U	0.013 U	0.011 U	0.064 U	0.058 U	1.2 U	0.01 U	0.011 U	0.07 U	0.012 U	0.012 U	0.012 U	0.011 U	0.01 U
Di-n-octyl phthalate	50	0.35 U	0.19 U	0.094 U	0.02 U	0.037 U	8.1 U	8.1 U	0.016 U	0.09 U	9.9 U	4.5 U	0.018 U	0.016 U	0.016 U	0.017 U	0.037 U	0.44 U	0.021 U	0.017 U	0.099 U	0.09 U	1.8 U	0.016 U	0.016 U	0.11 U	0.019 U	0.019 U	0.018 U	0.016 U	0.016 U
N-Nitrosodiphenylamine	NA	0.36 U	0.19 U	0.097 U	0.02 U	0.038 U	8.3 U	8.3 U	0.017 U	0.092 U	10 U	4.6 U	0.018 U	0.016 U	0.016 U	0.018 U	0.038 U	0.46 U	0.021 U	0.018 U	0.1 U	0.092 U	1.9 U	0.016 U	0.017 U	0.11 U	0.019 U	0.019 U	0.019 U	0.017 U	0.016 U
Phenol	0.03	**5.8 J**	**1 J**	**0.25 J**	***0.059 U***	***0.11 U***	***24 U***	***24 U***	***0.05 U***	***0.27 U***	***30 U***	***13 U***	***0.054 U***	***0.048 U***	***0.048 U***	***0.051 U***	**0.19 J**	**2.9 J**	***0.062 U***	***0.051 U***	***0.3 U***	***0.27 U***	***5.5 U***	***0.048 U***	***0.05 U***	***0.32 U***	***0.056 U***	***0.056 U***	***0.055 U***	***0.05 U***	***0.048 U***
Total SVOCs	500	**620.8**	**325.69**	**150.3**	**0.834**	**28.49**	**9425.5**	**3668**	**0.0324**	**161.861**	**5212**	**5000**	**2.061**	**0.591**	ND	**0.44**	**23.503**	**570.2**	**0.195**	**1.638**	**233.5**	**180.091**	**1352.4**	**0.43**	**0.207**	**27.783**	**5.189**	**4.371**	**0.321**	**0.425**	**0.634**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation
Technical and Administrative Guidance Memorandum (TAGM) 4046
Recommended Soil Cleanup Objectives (RSCOs)
(NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

detected above the reported sample quantitation limit.
ntitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
alue is the approximate concentration of the analyte in the sample.
nay be biased high.
nay be biased low.
he ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sa
UJ = The analyte was not detected above the reported sample quantitation limit. However, the rep
J = The analyte was positively identified; the associated numerical value is the approximate concer
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21GH024 19- 21 2/5/2004	21GH024 27- 29 2/5/2004	21GH024 33- 35 2/5/2004	21GH024 49- 51 2/5/2004	21GH025 9- 11 1/26/2004	21GH025 13- 15 1/26/2004	21GH025 15- 17 1/26/2004	21GH026 1- 3 2/13/2004	21GH026 9- 11 2/16/2004	21GH026 23- 25 2/16/2004	21GH026 27- 29 2/16/2004	21GH026 49- 51 2/16/2004	21GH027 1- 2.5 2/2/2004	21GH027 3- 5 2/2/2004	21GH027 5- 7 2/2/2004	21GH027 23- 25 2/2/2004	21GH027A 29- 31 3/17/2004	21GH027A 89- 91 3/19/2004	21GH027A 117- 119 3/23/2004	21GH028 16- 18 2/6/2004	21GH028 18- 19 2/6/2004	21GH029 15- 17 2/12/2004	21GN001 1- 3 2/12/2004	21GN001 3- 5 2/13/2004	21GN001 15- 17 2/17/2004	21GN001 19- 21 2/17/2004	21GN001 31- 33 2/17/2004	21GN001 49- 51 2/17/2004	21GN002 1- 3 2/13/2004	21GN002 DUP 1- 3 2/13/2004
Metals (mg/Kg)																															
Aluminum	7,960 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**6710**	**7090**	**11400**	**8090**	**5570**	**4880**	**7760**	**7250**
Arsenic	13.63 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2.8**	**2.2 J**	**7.3**	**3.3 J**	**1.9 J**	0.84 U	**1.4 J**	**1.4 J**
Barium	300 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**46.1**	**38.4 J**	**26.6 J**	**11.4 J**	**14.3 J**	**36.9 J**	**45.5**	**49.3**
Beryllium	0.463 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.37 J**	**0.43 J**	**0.64**	**0.41 J**	**0.30 J**	**0.32 J**	**0.44**	**0.49**
Cadmium	1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.088 U	**0.12 J**	0.11 U	0.10 U	0.100 U	0.099 U	**0.11 J**	**0.09 J**
Calcium	11563 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2740**	**1520**	**2150**	**747 J**	**1000 J**	**12000**	**1040 J**	**936 J**
Chromium	36.69 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**14.6**	**17.0**	**22.9 J**	**11.2 J**	**10.7 J**	**11.2 J**	**16.5**	**18.2**
Cobalt	30 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**5.3 J**	**6.2 J**	**9.1 J**	**6.0 J**	**4.4 J**	**5.4 J**	**6.3 J**	**7.3 J**
Copper	35.84 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**52**	**45.2 J**	**11.0 J**	**9.4 J**	**12.1 J**	**10.9 J**	**28.7 J**	**27.4 J**
Iron	14,369 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**11900 J**	**13100 J**	**25200**	**14500**	**13200**	**11100**	**15100 J**	**16600 J**
Lead	237.7 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**28.4**	**45.1**	**9.8 J**	**5.0 J**	**4.9 J**	**3.8 J**	**11.6**	**10.6**
Magnesium	3,129 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2120**	**2630**	**5440 J**	**2820 J**	**2760 J**	**5820 J**	**2230**	**1970**
Manganese	358.5 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**289 J**	**268**	**408**	**187**	**91.9**	**333**	**332**	**434**
Mercury	0.1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.13**	**0.03 J**	0.024 UJ	0.021 UJ	0.021 UJ	0.021 UJ	0.018 U	0.018 U
Nickel	15.3 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**11.2**	**11.6**	**22.1**	**13.6**	**13.1**	**18.9**	**11.3**	**11.8**
Potassium	1,197 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**749 J**	**778 J**	**2110**	**801 J**	**1010 J**	**1440**	**805 J**	**764 J**
Sodium	214.8 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**88.8 J**	**139 J**	**994 J**	**533 J**	**250 J**	**454 J**	79.3 U	79.1 U
Thallium	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.0 U	0.98 U	1.3 U	1.1 U	1.1 U	1.1 U	0.97 U	0.96 U
Vanadium	150 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**21.6**	**20.8**	**29.6**	**12.2 J**	**14.1**	**13.5**	**25.2**	**24.0**
Zinc	81.77 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**59.8**	**46.0**	**59.4**	**30.2**	**30.9**	**27.2**	**36.4**	**36.5**
Cyanide (mg/Kg)																																
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation
Technical and Administrative Guidance Memorandum (TAGM) 4046
Recommended Soil Cleanup Objectives (RSCOs)
(NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

detected above the reported sample quantitation limit.
ntitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
alue is the approximate concentration of the analyte in the sample.
nay be biased high.
nay be biased low.
e ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sa
UJ = The analyte was not detected above the reported sample quantitation limit. However, the rep
J = The analyte was positively identified; the associated numerical value is the approximate concer
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21GN002 3- 5 2/13/2004	21GN002 7- 8 2/18/2004	21GN002 13- 15 2/18/2004	21GN002 29- 31 2/18/2004	21GN002 49- 51 2/18/2004	21GT001 7- 9 3/2/2004	21GT001 17- 19 3/2/2004	21GT001 25- 27 3/2/2004	21GT001 49- 51 3/2/2004	21GT002 5- 7 3/4/2004	21GT002 15- 17 3/4/2004	21GT002 25- 27 3/4/2004	21GT002 41- 43 3/5/2004	21GT002 49- 51 3/5/2004	21MH001 1- 3 2/13/2004	21MH001 3- 5 2/13/2004	21MH001 5- 7 2/17/2004	21MH001 15- 17 2/17/2004	21MH001 31- 33 2/18/2004	21MH001 49- 51 2/18/2004	21OT001 1- 3 2/11/2004	21OT001 3- 4.5 2/11/2004	21OT001C 7- 9 3/15/2004	21OT001C 13- 15 3/15/2004	21OT001C 29- 31 3/15/2004	21OT001C 49- 51 3/15/2004	21OT002 5- 6.5 3/3/2004	21OT002A 5- 7 3/10/2004	21OT002A 13- 15 3/10/2004	21OT002A 31- 33 3/10/2004
BTEX (mg/Kg)																															
Benzene	0.06	0.00025 U	**0.0016**	**0.014**	**0.0096**	0.00028 U	**0.0023**	**15**	**96**	**0.017**	**0.016**	**0.4**	**96**	**0.16**	0.00034 U	**0.0003 J**	0.00025 U	**0.0026**	**0.0014**	0.00028 U	**0.0035**	**0.0022**	**0.003**	0.022 U	**15**	**1.2**	**0.041**	**0.002**	**0.0006 J**	**0.4**	**25**
Ethyl Benzene	5.5	**0.0005 J**	**0.0087**	**0.03**	0.00025 U	0.00023 U	0.00022 U	**15**	**310**	**0.017**	0.00022 U	**11**	**460**	**3.4**	**0.081**	0.00021 U	**0.0007 J**	**0.0024 J**	**0.0011 J**	0.00023 U	0.00024 U	0.00022 U	0.00022 U	**0.071 J**	**44**	**2.8**	**0.01**	**0.002 J**	**0.0014 J**	**14**	**480**
Toluene	1.5	**0.0017 J**	**0.0034 J**	**0.011**	**0.0013 J**	0.00024 U	0.00023 U	**0.62 J**	**230**	**0.019**	**0.01**	0.019 U	**120**	**0.062 J**	**0.0021 J**	**0.0016 J**	**0.0021 J**	**0.0054 J**	**0.003 J**	**0.0011 J**	**0.0012 J**	**0.003 J**	**0.0041 J**	0.018 U	**0.86 J**	**5.4**	**0.0029 J**	**0.0016 J**	0.00021 U	**0.081 J**	**94**
Xylene (Total)	1.2	**0.0021 J**	**0.096**	**0.032**	0.0006 U	0.00057 U	0.00053 U	**0.55 J**	**450**	**0.03**	0.00051 U	**1.6**	**650**	**3.5**	**0.088**	**0.0018 J**	**0.0026 J**	**0.0089**	**0.0035 J**	0.00057 U	0.0006 U	0.00052 U	**0.0012 J**	0.025 U	**37**	**13**	**0.014**	**0.0019 J**	0.00051 U	**1.6**	**460**
Volatile Organic Compounds (VOCs) (mg/Kg)																															
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.0077**	**0.01 J**	**0.0063 J**	**0.0064 J**	**0.0058 J**	**0.0011 R**	0.27 U	***8.7 R***	**0.0011 R**	**0.001 R**	**0.22 R**	***5.5 R***	**0.24 R**	**0.0015 R**	**0.01**	**0.013**	0.0011 U	**0.0095**	**0.0012 R**	**0.0012 R**	**0.0011 R**	**0.0011 R**	**0.21 R**	***1.1 R***	**0.23 R**	**0.0012 R**	**0.0011 R**	**0.001 R**	**0.23 R**	***5.9 R***
Acetone	0.2	**0.075 J**	**0.15**	**0.12**	**0.13**	**0.12**	**0.021 J**	***0.26 U***	***8.3 U***	0.0028 UJ	0.0026 UJ	***0.21 U***	***5.3 U***	***0.23 U***	0.0037 U	**0.1 J**	**0.12 J**	**0.11 J**	**0.1 J**	**0.047**	**0.045**	**0.023 J**	**0.026 J**	0.2 UJ	***1 UJ***	***0.22 UJ***	**0.046**	0.0028 UJ	0.0026 UJ	***0.22 UJ***	***5.7 UJ***
Carbon Disulfide	2.7	0.00034 U	**0.0017 J**	0.00034 U	**0.0014 J**	0.00035 U	0.00033 U	0.035 U	1.1 U	0.00035 U	0.00032 U	0.028 UJ	0.72 U	0.031 UJ	0.00046 U	0.00031 U	0.00032 U	**0.0007 J**	**0.0015 J**	0.00035 U	**0.0007 J**	0.00032 U	**0.0006 J**	0.028 U	0.14 U	0.03 U	0.00035 UJ	0.00035 U	0.00032 U	0.03 U	0.77 U
Carbon Tetrachloride	0.6	0.00023 U	0.00023 U	0.00023 U	0.00026 U	0.00025 U	0.00023 U	0.052 U	***1.7 U***	0.00024 U	0.00022 U	0.042 U	***1.1 U***	0.046 U	0.00031 U	0.00022 U	0.00023 U	0.00023 U	0.00024 U	0.00025 U	0.00026 U	0.00023 U	0.00023 U	0.042 U	0.21 U	0.044 U	0.00025 U	0.00024 U	0.00022 U	0.044 U	***1.2 U***
Chlorobenzene	1.7	0.00017 U	0.00017 U	0.00017 U	0.00019 U	0.00018 U	0.00016 U	0.011 U	0.36 U	0.00017 U	0.00016 U	0.009 U	0.23 U	0.0098 U	0.00023 U	0.00016 U	0.00016 U	0.00017 U	0.00017 U	0.00018 U	0.00019 U	0.00016 U	0.00016 U	0.0088 U	0.044 U	0.0095 U	0.00018 U	0.00017 U	0.00016 U	0.0097 U	0.25 U
Chloroform	0.3	0.00026 U	0.00026 U	0.00026 U	0.00029 U	0.00027 U	0.00025 U	0.023 U	***0.74 U***	0.00027 U	0.00024 U	0.018 U	***0.47 U***	0.02 U	0.00035 U	0.00024 U	0.00025 U	0.00026 U	0.00026 U	0.00027 U	0.00028 U	0.00025 U	0.00025 U	0.018 U	0.091 U	0.02 U	0.00027 U	0.00027 U	0.00024 U	0.02 U	***0.51 U***
cis-1,2-Dichloroethene	NA	0.00034 U	0.00034 U	0.00034 U	0.00038 U	0.00035 U	0.00033 U	0.03 U	0.97 U	**0.0008 J**	0.00032 U	0.024 U	0.62 U	0.026 U	0.00046 U	0.00031 U	0.00032 U	0.00034 U	0.00034 U	**0.0014 J**	**0.0014 J**	0.00032 U	0.00033 U	0.024 U	0.12 U	0.026 U	**0.0009 J**	0.00035 U	0.00032 U	0.026 U	0.66 U
Methylene Chloride	0.1	0.001 U	0.0021 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U	0.017 U	***0.55 UJ***	0.002 U	0.00024 U	0.014 U	***0.36 U***	0.015 U	0.0025 U	0.0007 U	0.0007 U	0.0015 U	0.0014 U	0.0016 U	0.0014 U	0.00024 U	0.00025 U	0.014 U	0.068 U	0.014 U	0.0024 U	0.00027 U	0.0008 U	0.015 U	***0.39 U***
Styrene	NA	0.00013 U	0.00013 U	**0.0018 J**	0.00015 U	0.00014 U	0.00013 U	0.022 U	0.71 U	**0.002 J**	0.00013 U	0.018 U	**14**	0.019 U	0.00018 U	0.00012 U	0.00013 U	**0.0029 J**	0.00014 U	0.00014 U	0.00015 U	0.00013 U	0.00013 U	0.017 U	0.087 U	**1.6**	0.00014 U	0.00014 U	0.00013 U	0.019 U	**13 J**
Tetrachloroethene	1.4	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.0002 U	0.00019 U	0.047 U	***1.5 U***	0.0002 U	0.00019 U	0.037 U	0.95 U	0.04 U	0.00025 U	0.00017 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.0002 U	0.00019 U	0.00019 U	0.037 U	0.18 U	0.04 U	0.0002 U	0.0002 U	0.00017 U	0.04 U	1 U
Trichloroethene	0.7	0.0003 U	0.0003 U	0.0003 U	0.00032 U	0.00032 U	0.0003 U	0.035 U	***1.1 U***	**0.001 J**	0.0003 U	0.027 U	0.69 U	0.03 U	0.0004 U	0.00027 U	0.0003 U	0.0003 U	0.0003 U	0.00032 U	0.00032 U	0.0003 U	0.0003 U	0.027 U	0.13 U	0.03 U	0.00032 U	0.00032 U	0.00027 U	0.03 U	***0.77 U***
Total VOCs	1NA	**0.087**	**0.2714**	**0.2151**	**0.1487**	**0.1258**	**0.0233**	**31**	**1,086**	**0.0868**	**0.026**	**13**	**1,340**	**7.122**	**0.1711**	**0.1137**	**0.1384**	**0.1329**	**0.12**	**0.0495**	**0.0518**	**0.0282**	**0.0349**	**0.071**	**97**	**24**	**0.1148**	**0.0075**	**0.002**	**16**	**1,072**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																															
Acenaphthene	50	0.0031 U	**0.99**	**0.049 J**	0.0037 U	0.0035 U	**0.0078 J**	**7.1**	**130**	0.0035 U	**0.032 J**	**25**	**330**	**62**	**0.26 J**	0.0031 U	0.0031 U	**0.03 J**	**0.17 J**	0.0035 U	0.0036 UJ	**0.013 J**	**0.021 J**	**0.26 J**	**50**	**7.1 J**	**0.039 J**	**0.14 J**	**0.12 J**	**0.44 J**	**310**
Acenaphthylene	41	**0.073 J**	**2.4**	**0.061 J**	0.0037 U	0.0035 U	**0.027 J**	0.0082 U	**54 J**	0.0035 U	**0.028 J**	**6.6 J**	**110 J**	**13**	**0.12 J**	0.0031 U	0.0031 U	**0.16 J**	**0.028 J**	0.0035 U	0.0036 UJ	**0.034 J**	**0.22 J**	**0.25 J**	**8 J**	**23**	**0.016 J**	**2.8**	**0.46**	0.085 U	**250 J**
Anthracene	50	**0.046 J**	**2.3**	**0.044 J**	0.0034 U	0.0032 U	**0.019 J**	**1.8**	**52 J**	0.0032 U	**0.064 J**	**14**	**200 J**	**33**	**0.22 J**	0.0028 U	0.0028 U	**0.059 J**	**0.29 J**	0.0032 U	0.0032 UJ	**0.043 J**	**0.11 J**	**0.3 J**	**27 J**	**19**	**0.03 J**	**1.3**	**0.3 J**	**21**	**460**
Benzo(a)anthracene	0.224	**0.15**	**5.8**	**0.06**	0.012 U	0.011 U	**0.05**	**1.3**	**32**	0.011 U	**0.14**	**11**	**150**	**22**	**0.17**	0.01 U	0.01 U	**0.09**	**0.29**	0.011 U	0.011 UJ	**0.17**	**0.28**	**0.24**	**25**	**16**	**0.029 J**	**2.6**	**0.71**	**12**	**210**
Benzo(a)pyrene	0.061	**0.16**	**6.5**	**0.045**	0.0033 U	0.003 U	**0.056**	**2.1**	**29**	0.003 U	**0.14**	**9.6**	**140**	**19**	**0.13**	0.0027 U	0.0027 U	**0.076**	**0.17**	0.003 U	0.0031 UJ	**0.16**	**0.46**	**0.28**	**31**	**15**	**0.024 J**	**3.6**	**1**	**8.7**	**170**
Benzo(b)fluoranthene	1.1	**0.11**	**4.4**	**0.024 J**	0.0034 U	0.0032 U	**0.038 J**	**0.91**	**10**	0.0032 U	**0.079**	**4.1**	**74**	**8.9**	**0.056**	0.0028 U	0.0028 U	**0.038**	**0.12**	0.0032 U	0.0032 UJ	**0.13**	**0.32**	**0.11**	**18**	**7.7**	**0.0097 J**	**2.1**	**0.55**	**7.8**	**86**
Benzo(ghi)perylene	50	**0.092 J**	**2.6**	0.0042 U	0.0047 U	0.0044 U	0.0042 U	**1.5**	**11 J**	0.0044 U	**0.1 J**	**4 J**	**93 J**	**9.3 J**	**0.057 J**	0.004 U	0.004 U	**0.052 J**	**0.098 J**	0.0044 U	0.0045 UJ	**0.13 J**	**0.43**	**0.31 J**	**22 J**	**7 J**	0.0044 U	**1.7**	**0.72**	**7.5 J**	**72 J**
Benzo(k)fluoranthene	1.1	**0.14**	**5.6**	**0.035 J**	0.0046 U	0.0043 U	**0.054**	**1.5**	**18**	0.0043 U	**0.093**	**6.4**	**110**	**13**	**0.1**	0.0038 U	0.0038 U	**0.07**	**0.22**	0.0043 U	0.0044 UJ	**0.17**	**0.36**	**0.31 J**	**28 J**	**15 J**	**0.024 J**	**2.7**	**1 J**	**10**	**160**
Chrysene	0.4	**0.16 J**	**6.1**	**0.063 J**	0.0055 U	0.0051 U	**0.058 J**	**1.5**	**32 J**	0.0051 U	**0.15 J**	**12**	**150 J**	**20**	**0.15 J**	0.0046 U	0.0046 U	**0.096 J**	**0.28 J**	0.0051 U	0.0052 UJ	**0.18 J**	**0.3 J**	**0.31 J**	**27 J**	**15**	**0.026 J**	**4.1**	**0.88**	**14**	**250 J**
Dibenz(a,h)anthracene	0.014	**0.02 J**	**0.74**	0.0026 U	0.0029 U	0.0027 U	0.0026 U	**0.6**	***0.5 U***	0.0027 U	**0.023 J**	**1.2**	**45**	**2.5**	0.0027 U	0.0024 U	0.0024 U	0.0025 UJ	0.0026 UJ	0.0027 U	0.0028 UJ	0.0024 UJ	0.0024 UJ	0.0025 U	***0.31 U***	**2.6**	0.0027 U	**0.52**	**0.24**	***0.066 U***	**41**
Fluoranthene	50	**0.21 J**	**7.9**	**0.12 J**	**0.016 J**	0.0013 U	**0.089 J**	**2**	**51 J**	0.0013 U	**0.31 J**	**18**	**290**	**47**	**0.37 J**	0.0012 U	**0.0099 J**	**0.22 J**	**0.62**	**0.012 J**	0.0014 UJ	**0.23 J**	**0.32 J**	**0.36 J**	**42 J**	**36**	**0.073 J**	**2.4**	**0.86**	**32**	**580**
Fluorene	50	0.0025 U	**1.1**	0.0027 U	0.003 U	0.0028 U	0.0027 U	**2.6**	**80**	0.0028 U	**0.023 J**	**19**	**300**	**40**	**0.24 J**	0.0025 U	0.0025 U	**0.11 J**	**0.19 J**	0.0028 U	0.0029 UJ	**0.012 J**	0.0025 U	**0.29 J**	**33 J**	**25**	**0.033 J**	0.0028 U	**0.043 J**	**26**	**440**
Indeno(1,2,3-cd)pyrene	3.2	**0.084**	**2.5**	0.0025 U	0.0029 U	0.0027 U	0.0025 U	**1.3**	**8.9**	0.0027 U	**0.078**	**3.3**	**77**	**7**	**0.041**	0.0024 U	0.0024 U	**0.036 J**	**0.097**	0.0027 U	0.0027 UJ	**0.11 J**	**0.35 J**	**0.19**	**20**	**6.3**	0.0027 U	**1.3**	**0.6**	**6.2**	**66**
Naphthalene	13	**0.06 J**	**2.9**	**0.13 J**	**0.02 J**	0.0036 U	0.0034 U	**19**	**900**	**0.037 J**	**0.023 J**	**180**	**2200**	**160**	**0.045 J**	0.0033 U	0.0033 U	**1.2**	**0.17 J**	**0.051 J**	0.0037 UJ	**0.025 J**	**0.16 J**	0.0034 U	**520**	**120**	**0.043 J**	**0.29 J**	**0.32 J**	**170**	**2600**
Phenanthrene	50	**0.079 J**	**5.7**	**0.25 J**	**0.039 J**	**0.022 J**	**0.068 J**	**7.8**	**230**	**0.028 J**	**0.3 J**	**70**	**850**	**130**	**0.97**	0.0034 U	0.0034 U	**0.46**	**0.92**	**0.041 J**	0.0039 UJ	**0.15 J**	**0.23 J**	**0.56**	**100**	**110**	**0.12 J**	**1.4**	**0.42**	**88**	**1400**
Pyrene	50	**0.24 J**	**11 J**	**0.16 J**	**0.027 J**	**0.011 J**	**0.1 J**	**2.7**	**80**	0.0029 U	**0.31 J**	**30**	**300**	**64**	**0.48**	**0.0082 J**	**0.012 J**	**0.3 J**	**0.55**	**0.014 J**	0.003 UJ	**0.23 J**	**0.39**	**0.56**	**44 J**	**34**	**0.081 J**	**4.6 J**	**1.4**	**45**	**510**
Benzo(a)pyrene Equivalents	NA	**0.21596**	**8.5721**	**0.053813**	ND	ND	**0.065398**	**3.0675**	**34.302**	ND	**0.19378**	**12.716**	**216.35**	**25.44**	**0.15785**	ND	ND	**0.093196**	**0.22318**	ND	ND	**0.20288**	**0.5589**	**0.33741**	**37.607**	**20.765**	**0.028136**	**4.7511**	**1.43688**	**11.414**	**249.05**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																															
2,4-Dimethylphenol	NA	0.034 U	0.071 U	0.036 U	0.041 U	0.038 U	0.036 U	0.09 U	6.9 U	0.038 U	0.034 U	0.9 U	22 U	0.92 U	0.038 U	0.034 U	0.034 U	0.035 U	0.036 U	0.038 U	0.039 UJ	0.033 U	0.034 U	0.035 U	4.3 U	**1.2 J**	0.038 U	0.037 U	0.034 U	0.92 U	24 U
2-Methylnaphthalene	36.4	**0.018 J**	**1.4**	**0.014 J**	0.021 U	0.019 U	**0.011 J**	**7.1**	**600**	**0.018 J**	**0.011 J**	**91**	**1100**	**69**	**0.022 J**	0.017 U	0.017 U	**0.26 J**	**0.085 J**	**0.012 J**	0.02 UJ	**0.0082 J**	**0.046 J**	**0.071 J**	**150**	**58**	**0.014 J**	**0.13 J**	**0.094 J**	**100**	**900**
2-Methylphenol	0.1	0.034 U	0.07 U	0.035 U	0.04 U	0.037 U	0.035 U	0.088 U	***6.8 U***	0.037 U	0.034 U	***0.89 U***	***22 U***	***0.91 U***	0.037 U	0.034 U	0.034 U	0.034 U	0.035 U	0.037 U	0.038 UJ	0.033 U	0.034 U	0.034 U	***4.3 U***	***0.73 U***	0.037 U	0.036 U	0.034 U	***0.91 U***	***24 U***
4-Methylphenol	0.9	0.037 U	**0.018 J**	0.039 U	0.044 U	0.041 U	0.039 U	0.096 U	***7.4 U***	0.041 U	0.037 U	***0.97 U***	***24 U***	***0.99 U***	0.041 U	0.037 U	0.037 U	0.038 U	0.039 U	0.041 U	0.042 UJ	0.036 U	0.037 U	0.038 U	***4.6 U***	0.79 U	0.041 U	**0.015 J**	**0.018 J**	***0.99 U***	***26 U***
bis(2-Ethylhexyl) phthalate	50	0.58 U	0.46 U	**0.16 J**	**0.14 J**	0.12 U	0.024 U	0.059 U	4.5 U	**0.096 J**	**0.13 J**	0.59 UJ	14 U	0.61 U	0.025 U	0.022 U	0.1 U	**0.24 J**	**0.21 J**	0.2 U	**0.093 J**	0.022 U	0.022 U	0.023 U	2.8 U	0.48 U	0.025 U	**0.16 J**	**0.096 J**	0.61 U	16 U
Butyl benzyl phthalate	50	**0.56**	0.031 U	0.016 U	0.018 U	0.017 U	0.016 U	0.039 U	3 U	0.017 U	0.015 U	0.4 U	9.7 U	0.41 U	0.017 U	0.015 U	0.015 U	0.015 U	0.016 U	0.017 U	0.017 UJ	0.015 U	0.015 U	0.015 U	1.9 U	0.32 U	0.017 U	0.016 U	0.015 U	0.41 U	10 U
Carbazole	NA	0.0027 U	**0.4 J**	**0.026 J**	0.0032 U	0.003 U	0.0029 U	**0.15 J**	**2.9 J**	0.003 U	**0.028 J**	**0.75 J**	**38 J**	**1.8 J**	**0.028 J**	0.0027 U	0.0027 U	0.0028 U	**0.12 J**	0.003 U	0.0031 UJ	**0.014 J**	**0.022 J**	**0.05 J**	**8.3 J**	**9.1**	**0.011 J**	**0.12 J**	**0.03 J**	**2.4 J**	**140 J**
Dibenzofuran	6.2	**0.011 J**	**0.92**	**0.017 J**	0.023 U	0.021 U	0.02 U	**0.48 J**	**12 J**	0.021 U	**0.013 J**	**2.5 J**	**110 J**	**5.5 J**	**0.022 J**	0.019 U	0.019 U	**0.015 J**	**0.13 J**	0.021 U	0.022 UJ	0.018 U	**0.017 J**	**0.13 J**	**20 J**	**19**	0.021 U	**0.14 J**	**0.046 J**	**8.7 J**	**240 J**
Diethyl phthalate	7.1	0.01 U	0.021 U	0.01 U	0.012 U	0.011 U	0.01 U	0.026 U	2 U	0.011 U	0.01 U	0.26 U	6.5 U	0.27 U	0.011 U	0.01 U	0.01 U	0.01 U	0.01 U	0.011 U	0.011 UJ	0.0097 U	0.01 U	0.01 U	1.3 U	0.22 U	0.011 U	0.011 U	0.01 U	0.27 U	7 U
Di-n-butyl phthalate	8.1	0.011 U	0.022 U	0.011 U	0.013 U	0.012 U	0.011 U	0.028 U	2.2 U	0.012 U	0.011 U	0.28 U	7 U	0.29 U	0.012 U	0.011 U	0.011 U	0.011 U	0.011 U	0.012 U	0.012 UJ	0.01 U	0.011 U	0.011 U	1.4 U	0.23 U	0.012 U	0.012 U	0.011 U	0.29 U	7.5 U
Di-n-octyl phthalate	50	**0.12 J**	0.034 U	0.017 U	0.02 U	0.018 U	0.017 U	0.044 U	3.4 U	0.018 U	0.016 U	0.44 U	11 U	0.45 U	0.018 U	0.016 U	0.016 U	0.017 U	0.017 U	0.018 U	0.019 UJ	0.016 U	0.016 U	0.017 U	2.1 U	0.36 U	0.018 U	0.018 U	0.016 U	0.45 U	12 U
N-Nitrosodiphenylamine	NA	0.017 U	0.035 U	0.018 U	0.02 U	0.019 U	0.018 U	0.045 U	3.4 U	0.019 U	0.017 U	0.45 U	11 U	0.46 U	0.019 U	0.017 U	0.017 U	0.018 U	0.018 U	0.019 U	0.019 UJ	0.016 U	0.017 U	0.018 U	2.2 U	0.37 U	0.019 U	0.018 U	0.017 U	0.46 U	12 U
Phenol	0.03	***0.05 U***	***0.1 U***	***0.052 U***	***0.059 U***	***0.055 U***	***0.052 U***	***0.13 U***	***10 U***	***0.055 U***	***0.05 U***	***1.3 U***	***32 U***	***1.3 U***	***0.055 U***	***0.05 U***	***0.05 U***	***0.051 U***	***0.052 U***	***0.055 U***	***0.056 UJ***	***0.048 U***	***0.05 U***	***0.051 U***	***6.3 U***	***1.1 U***	***0.055 U***	***0.054 U***	***0.05 U***	***1.3 U***	***35 U***
Total SVOCs	500	**2.333**	**71.268**	**1.258**	**0.242**	**0.033**	**0.5778**	**61.44**	**2332.8**	**0.179**	**2.075**	**508.45**	**6667**	**727**	**3.481**	**0.0082**	**0.0219**	**3.512**	**4.758**	**0.13**	**0.093**	**1.8092**	**4.036**	**4.581**	**1173.3**	**546**	**0.5727**	**32.115**	**9.907**	**559.74**	**8885**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation
Technical and Administrative Guidance Memorandum (TAGM) 4046
Recommended Soil Cleanup Objectives (RSCOs)
(NYSDEC 1994)

ample quantitation limit.
orted quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
ntration of the analyte in the sample.

and meet the quality control criteria. The presence or absence of the analyte cannot be verified.

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is app
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the s
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control
D = Diluted run
DL = Detection Limit

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21GN002 3- 5 2/13/2004	21GN002 7- 8 2/18/2004	21GN002 13- 15 2/18/2004	21GN002 29- 31 2/18/2004	21GN002 49- 51 2/18/2004	21GT001 7- 9 3/2/2004	21GT001 17- 19 3/2/2004	21GT001 25- 27 3/2/2004	21GT001 49- 51 3/2/2004	21GT002 5- 7 3/4/2004	21GT002 15- 17 3/4/2004	21GT002 25- 27 3/4/2004	21GT002 41- 43 3/5/2004	21GT002 49- 51 3/5/2004	21MH001 1- 3 2/13/2004	21MH001 3- 5 2/13/2004	21MH001 5- 7 2/17/2004	21MH001 15- 17 2/17/2004	21MH001 31- 33 2/18/2004	21MH001 49- 51 2/18/2004	21OT001 1- 3 2/11/2004	21OT001 3- 4.5 2/11/2004	21OT001C 7- 9 3/15/2004	21OT001C 13- 15 3/15/2004	21OT001C 29- 31 3/15/2004	21OT001C 49- 51 3/15/2004	21OT002 5- 6.5 3/3/2004	21OT002A 5- 7 3/10/2004	21OT002A 13- 15 3/10/2004	21OT002A 31- 33 3/10/2004
Metals (mg/Kg)																															
Aluminum	7,960 (sb)	**7950**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**8050**	NS	NS	NS
Arsenic	13.63 (sb)	**2.8 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**6.5**	NS	NS	NS
Barium	300 (d)	**49.5**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**106**	NS	NS	NS
Beryllium	0.463 (sb)	**0.55**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.43 J**	NS	NS	NS
Cadmium	1 (d)	0.089 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.56 J**	NS	NS	NS
Calcium	11563 (sb)	**1290**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**3190**	NS	NS	NS
Chromium	36.69 (sb)	**21.5**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**27.6**	NS	NS	NS
Cobalt	30 (d)	**6.5 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**5.9 J**	NS	NS	NS
Copper	35.84 (sb)	**33.5 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**27.8**	NS	NS	NS
Iron	14,369 (sb)	**19200 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**13400**	NS	NS	NS
Lead	237.7 (sb)	**14.3**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**61.3**	NS	NS	NS
Magnesium	3,129 (sb)	**2320**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2260**	NS	NS	NS
Manganese	358.5 (sb)	**357**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**313**	NS	NS	NS
Mercury	0.1 (d)	**0.03 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.14**	NS	NS	NS
Nickel	15.3 (sb)	**13.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**17.3**	NS	NS	NS
Potassium	1,197 (sb)	**745 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**805 J**	NS	NS	NS
Sodium	214.8 (sb)	80.5 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**260 J**	NS	NS	NS
Thallium	NA	0.98 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.1 U	NS	NS	NS
Vanadium	150 (d)	**30.4**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**36.2**	NS	NS	NS
Zinc	81.77 (d)	**40.0**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**74.7**	NS	NS	NS
Cyanide (mg/Kg)																															
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.5 U	NS	NS	NS

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NYSDEC RSCO = New York State Department of Environmental Conservation

Technical and Administrative Guidance Memorandum (TAGM) 4046

Recommended Soil Cleanup Objectives (RSCOs)

(NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs

Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

ample quantitation limit.

orted quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

ntration of the analyte in the sample.

and meet the quality control criteria. The presence or absence of the analyte cannot be verified.

sb indicates site background

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U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

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J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.

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Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21OT002A 45- 47 3/10/2004	21OT002A 49- 51 3/10/2004	21OT003 9- 11 3/10/2004	21OT003 17- 19 3/10/2004	21OT003 27.5- 29 3/10/2004	21OT003 DUP 27.5- 29 3/10/2004	21OT003 49- 51 3/10/2004	21OT004 11- 13 3/11/2004	21OT004 15- 17 3/11/2004	21OT004 29- 31 3/11/2004	1OT004 DU 29- 31 3/11/2004	21OT004 43- 45 3/11/2004	21OT004 49- 51 3/11/2004	21OT005 5- 7 3/10/2004	21OT005 13- 15 3/10/2004	21OT005 DUP 13- 15 3/10/2004
BTEX (mg/Kg)																	
Benzene	0.06	**0.49 J**	**0.0024**	**1.9**	0.00032 U	**3**	**1.1**	**0.0015**	0.00028 U	**0.079 J**	**0.75**	**0.63**	0.025 U	**0.0008 J**	0.00023 U	**0.001 J**	**0.003**
Ethyl Benzene	5.5	**21**	**0.018**	**1.7**	0.00029 U	**19**	**12**	**0.0027 J**	0.00024 U	**0.11 J**	**14**	**40**	**0.039 J**	0.00025 U	**0.0013 J**	**0.0012 J**	**0.0067**
Toluene	1.5	0.21 U	**0.0038 J**	**0.2 J**	0.00029 U	**27**	**12**	**0.0039 J**	0.00024 U	0.026 U	**4.7**	**3.8**	0.02 U	0.00025 U	**0.0006 J**	0.00024 U	**0.0011 J**
Xylene (Total)	1.2	**5.7 J**	**0.016**	**0.8 J**	0.00069 U	**130**	**65**	**0.015**	0.00058 U	0.035 U	**39**	**41**	0.027 U	0.0006 U	**0.0018 J**	**0.0021 J**	**0.012**
Volatile Organic Compounds (VOCs) (mg/Kg)																	
2-Butanone (Methyl Ethyl Ketone)	0.3	***2.4 R***	**0.0012 R**	***0.51 R***	**0.0049 J**	***0.44 R***	**0.23 R**	**0.0011 R**	0.0012 UJ	0.3 UJ	***0.95 UJ***	***0.48 UJ***	0.23 UJ	0.0012 UJ	**0.001 R**	**0.0012 R**	**0.0013 R**
Acetone	0.2	***2.3 UJ***	0.003 UJ	***0.49 UJ***	0.0035 UJ	***0.42 UJ***	***0.22 UJ***	0.0026 UJ	**0.036**	***0.29 U***	***0.91 U***	***0.45 U***	***0.22 U***	**0.029**	0.0026 UJ	0.0029 UJ	0.0031 UJ
Carbon Disulfide	2.7	0.31 U	0.00038 U	0.067 U	**0.0011 J**	0.056 U	0.03 U	0.00032 U	**0.0009 J**	0.039 U	0.12 U	0.062 U	0.03 U	0.00037 U	0.00032 U	**0.0014 J**	**0.0011 J**
Carbon Tetrachloride	0.6	0.46 U	0.00026 U	0.099 U	**0.002 J**	0.089 U	0.044 U	0.00023 U	0.00025 U	0.058 U	0.18 U	0.095 U	0.044 U	0.00026 U	0.00022 U	0.00025 U	0.00027 U
Chlorobenzene	1.7	0.098 U	0.00019 U	0.021 U	0.00022 U	0.018 U	0.0095 U	0.00016 U	0.00018 U	0.012 U	0.039 U	0.02 U	0.0095 U	0.00019 U	0.00016 U	0.00018 U	0.00019 U
Chloroform	0.3	0.2 U	0.00029 U	0.044 U	**0.0039 J**	0.037 U	0.02 U	0.00025 U	0.00028 U	0.026 U	0.081 U	0.04 U	0.02 U	0.00028 U	0.00024 U	0.00028 U	0.00029 U
cis-1,2-Dichloroethene	NA	0.26 U	**0.0009 J**	0.057 U	0.00043 U	0.048 U	0.026 U	0.00032 U	0.00036 U	0.033 U	0.1 U	0.053 U	0.026 U	0.00037 U	0.00032 U	0.00036 U	0.00038 U
Methylene Chloride	0.1	***0.15 U***	0.0015 U	0.033 U	0.0014 U	0.029 U	0.015 U	0.0021 U	0.005 U	0.02 U	0.06 U	0.031 U	0.014 U	0.0023 U	0.001 U	0.001 U	0.0009 U
Styrene	NA	0.19 U	0.00015 U	0.042 U	0.00017 U	**14**	**4**	**0.0009 J**	0.00015 U	0.024 U	0.077 U	0.039 U	0.019 U	0.00015 U	0.00013 U	0.00014 U	0.00015 U
Tetrachloroethene	1.4	0.4 U	0.0002 U	0.088 U	0.00024 U	0.078 U	0.04 U	0.00019 U	0.0002 U	0.051 U	0.16 U	0.081 U	0.04 U	**0.0023**	0.00017 U	0.0002 U	0.00022 U
Trichloroethene	0.7	0.3 U	0.00032 U	0.064 U	0.00038 U	0.057 U	0.03 U	0.0003 U	0.00032 U	0.037 U	0.12 U	0.06 U	0.03 U	**0.0019**	0.00027 U	0.00032 U	0.00035 U
Total VOCs	1NA	**27**	**0.0411**	**4.6**	**0.0119**	**193**	**94**	**0.024**	**0.0369**	**0.189**	**58**	**85**	**0.039**	**0.034**	**0.0037**	**0.0057**	**0.0239**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																	
Acenaphthene	50	**540**	**0.48**	**0.19 J**	0.0042 U	**18**	**14**	**0.028 J**	**0.28 J**	**5.9**	**24 J**	**120**	**4.3**	**0.21 J**	**0.38**	**0.083 J**	**0.14 J**
Acenaphthylene	41	**100 J**	**0.12 J**	**0.67**	0.0042 U	**22**	**41**	**0.064 J**	**0.12 J**	**1.2**	**55 J**	**320**	**4.1**	**0.23 J**	**0.2 J**	**0.085 J**	**0.12 J**
Anthracene	50	**120**	**0.25 J**	**0.53**	**0.058 J**	**34**	**45**	**0.2 J**	**0.18 J**	**4.1**	**21 J**	**160**	**2.9**	**0.12 J**	**0.78**	**0.097 J**	**0.14 J**
Benzo(a)anthracene	0.224	**120**	**0.18**	**1.1**	**0.064**	**19**	**32**	**0.13**	**0.22**	**11**	**16 J**	**120**	**2.2**	**0.1**	**1.2**	**0.11**	**0.18 J**
Benzo(a)pyrene	0.061	**150**	**0.2**	**1.4**	**0.058**	**14**	**23**	**0.089**	**0.22**	**15**	**20 J**	**110**	**2.2**	**0.1**	**1.1**	**0.12**	**0.18**
Benzo(b)fluoranthene	1.1	**49**	**0.078**	**0.9**	**0.058**	**7.4**	**13**	**0.051**	**0.15**	**17**	**7.8 J**	**46**	**0.84**	**0.039 J**	**0.87**	**0.064**	**0.081**
Benzo(ghi)perylene	50	**87 J**	**0.094 J**	**0.82**	0.0053 U	**5.8 J**	**9.4 J**	**0.031 J**	**0.12 J**	**8.9**	**12 J**	**57 J**	**1.2 J**	**0.054 J**	**0.67**	**0.079 J**	**0.15 J**
Benzo(k)fluoranthene	1.1	**96**	**0.14**	**1.2**	**0.067**	**16**	**22**	**0.086**	**0.16 J**	0.01 UJ	**15 J**	**93 J**	**1.4 J**	**0.06 J**	**1.1**	**0.1 J**	**0.17 J**
Chrysene	0.4	**120**	**0.21 J**	**1.3**	**0.092 J**	**20**	**28**	**0.14 J**	**0.24 J**	**12**	**17 J**	**120**	**2.2**	**0.11 J**	**1.4**	**0.13 J**	**0.22 J**
Dibenz(a,h)anthracene	0.014	**13**	0.0029 U	0.003 U	0.0033 U	***0.065 U***	**4.1**	0.0024 U	**0.052**	**4.6**	**2.1 J**	**20**	**0.28**	0.0028 U	0.0024 U	0.0026 U	0.003 U
Fluoranthene	50	**420**	**0.57**	**1.6**	**0.14 J**	**51**	**64**	**0.29 J**	**0.43 J**	**10**	**46 J**	**300**	**5.4**	**0.29 J**	**2.9**	**0.27 J**	**0.38 J**
Fluorene	50	**340**	**0.33 J**	**0.066 J**	**0.048 J**	**41**	**55**	**0.18 J**	**0.15 J**	**1.2**	**35 J**	**250**	**4.9**	**0.24 J**	**0.4**	**0.099 J**	**0.12 J**
Indeno(1,2,3-cd)pyrene	3.2	**53**	**0.066**	**0.73**	**0.035 J**	**5.6**	**8.9**	**0.029 J**	**0.094**	**8.3**	**7.7 J**	**41**	**0.75**	**0.032 J**	**0.62**	**0.057**	**0.11**
Naphthalene	13	**12 J**	**0.045 J**	**0.47**	**0.098 J**	**51**	**98**	**0.055 J**	**0.12 J**	**0.52 J**	**13 J**	**1000**	**0.22 J**	**0.2 J**	**0.21 J**	**0.26 J**	**0.48**
Phenanthrene	50	**1000**	**1.4**	**0.72**	**0.17 J**	**100**	**160**	**0.65**	**0.61**	**5.8**	**130 J**	**710**	**15**	**0.87**	**2.9**	**0.47**	**0.63**
Pyrene	50	**570**	**0.79**	**2**	**0.14 J**	**40**	**63**	**0.29 J**	**0.6**	**13**	**62 J**	**380**	**8.4**	**0.49**	**2.7**	**0.38 J**	**0.61 J**
Benzo(a)pyrene Equivalents	NA	**186.28**	**0.23401**	**1.6863**	**0.074462**	**17.38**	**32.738**	**0.111**	**0.32024**	**23.242**	**25.417**	**151.75**	**2.8752**	**0.11781**	**1.3814**	**0.14423**	**0.21902**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																	
2,4-Dimethylphenol	NA	9.2 U	0.041 U	0.042 U	0.046 U	0.9 U	0.92 U	0.034 U	**0.091 J**	**0.076 J**	**0.92 R**	7.5 U	0.18 U	0.04 U	0.034 U	0.037 U	**0.01 J**
2-Methylnaphthalene	36.4	**17 J**	**0.026 J**	**0.16 J**	**0.051 J**	**52**	**82**	**0.021 J**	**0.085 J**	**0.26 J**	**28 J**	**490**	**0.74 J**	**0.065 J**	**0.11 J**	**0.092 J**	**0.16 J**
2-Methylphenol	0.1	***9.1 U***	0.04 U	0.041 U	0.045 U	***0.89 U***	***0.91 U***	0.034 U	**0.43 J**	**0.18 J**	***0.9 R***	***7.4 U***	***0.17 U***	0.039 U	0.034 U	0.036 U	0.041 U
4-Methylphenol	0.9	***9.9 U***	0.044 U	**0.01 J**	**0.5**	***0.97 U***	***0.99 U***	0.037 U	**0.66**	**0.48 J**	***0.98 R***	***8 U***	0.19 U	0.043 U	**0.011 J**	**0.58**	**0.3 J**
bis(2-Ethylhexyl) phthalate	50	6.1 U	0.027 U	**0.12 J**	0.03 U	0.59 U	0.61 U	0.022 U	0.026 U	0.061 U	**0.6 R**	4.9 U	0.12 U	0.026 U	**0.25 J**	**0.12 J**	**0.14 J**
Butyl benzyl phthalate	50	4.1 U	0.018 U	0.018 U	0.02 U	0.4 U	0.41 U	0.015 U	0.017 U	0.041 U	**0.4 R**	3.3 U	0.077 U	0.017 U	0.015 U	0.016 U	0.018 U
Carbazole	NA	**5 J**	**0.038 J**	**0.054 J**	0.0037 U	**11**	**14**	**0.045 J**	**0.045 J**	**1.1**	**3.2 J**	**32 J**	**0.21 J**	0.0032 U	**0.17 J**	**0.018 J**	**0.018 J**
Dibenzofuran	6.2	**18 J**	**0.048 J**	**0.09 J**	**0.023 J**	**25**	**36**	**0.07 J**	**0.077 J**	**0.48 J**	**10 J**	**86**	**0.66 J**	**0.015 J**	**0.14 J**	**0.028 J**	**0.037 J**
Diethyl phthalate	7.1	2.7 U	0.012 U	0.012 U	0.014 U	0.26 U	0.27 U	0.01 U	0.012 U	0.027 U	**0.27 R**	2.2 U	0.051 U	0.012 U	0.01 U	0.011 U	0.012 U
Di-n-butyl phthalate	8.1	2.9 U	0.013 U	0.013 U	0.014 U	0.28 U	0.29 U	0.011 U	0.012 U	0.029 U	**0.29 R**	2.3 U	0.055 U	0.012 U	0.011 U	0.012 U	0.013 U
Di-n-octyl phthalate	50	4.5 U	0.02 U	0.02 U	0.022 U	0.44 U	0.45 U	0.016 U	0.019 U	0.045 U	**0.44 R**	3.6 U	0.085 U	0.019 U	0.016 U	0.018 U	0.02 U
N-Nitrosodiphenylamine	NA	4.6 U	0.02 U	0.021 U	0.023 U	0.45 U	0.46 U	0.017 U	**0.032 J**	0.046 U	**0.46 R**	3.7 U	0.088 U	0.02 U	0.017 U	0.018 U	0.021 U
Phenol	0.03	***13 U***	***0.059 U***	***0.06 U***	***0.067 U***	***1.3 U***	***1.3 U***	***0.05 U***	**0.19 J**	**0.56 J**	***1.3 R***	***11 U***	***0.26 U***	***0.058 U***	***0.05 U***	***0.054 U***	***0.06 U***
Total SVOCs	500	**3830**	**5.065**	**14.13**	**1.602**	**532.8**	**812.4**	**2.449**	**5.356**	**121.656**	**524.8**	**4455**	**57.9**	**3.225**	**18.111**	**3.242**	**4.376**

Notes:

ND = calculated totals are not detected

NA = Not Available

N/A = Not Applicable

mg/Kg = milligram per kilogram

NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

oximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

sample.

criteria. The presence or absence of the analyte cannot be verified.

Shaded values exceed NYSDEC RSCOs

Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21OT002A 45- 47 3/10/2004	21OT002A 49- 51 3/10/2004	21OT003 9- 11 3/10/2004	21OT003 17- 19 3/10/2004	21OT003 27.5- 29 3/10/2004	21OT003 DUP 27.5- 29 3/10/2004	21OT003 49- 51 3/10/2004	21OT004 11- 13 3/11/2004	21OT004 15- 17 3/11/2004	21OT004 29- 31 3/11/2004	1OT004 DU 29- 31 3/11/2004	21OT004 43- 45 3/11/2004	21OT004 49- 51 3/11/2004	21OT005 5- 7 3/10/2004	21OT005 13- 15 3/10/2004	21OT005 DUP 13- 15 3/10/2004
Metals (mg/Kg)																	
Aluminum	7,960 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	13.63 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	300 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	0.463 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	11563 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	36.69 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	30 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	35.84 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	14,369 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	237.7 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	3,129 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	358.5 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	15.3 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	1,197 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	214.8 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	150 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	81.77 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)																	
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

roximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
sample.
criteria. The presence or absence of the analyte cannot be verified.

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21OT005	21OT005	21OT006	21OT006	21OT006	21OT006	21OT006	21OT007	21OT007	21OT007	21OT007	21PF001	21PF001	21PF001	21PF001	21PF002	21PF002	21PF002	21PF002	21PF003	21PF003	21PF003	21PF003	21PF004	21PF004	21PF004	21PF004	21PF004	21PF004	21PF004
Depth Interval		23- 25	49- 51	1- 3	3- 5	13- 15	25- 27	49- 51	7- 9	13- 15	25- 27	49- 51	9- 11	11- 13	29- 31	49- 51	7- 9	17- 19	29- 31	49- 51	9- 11	19- 21	33- 35	49- 51	1- 3	3- 5	5- 7	9- 11	13- 15	29- 31	49- 51
Sample Date		3/10/2004	3/10/2004	3/10/2004	3/10/2004	3/24/2004	3/24/2004	3/25/2004	3/18/2004	3/18/2004	3/18/2004	3/19/2004	2/18/2004	2/18/2004	2/18/2004	2/18/2004	2/23/2004	2/23/2004	2/23/2004	2/23/2004	2/24/2004	2/24/2004	2/24/2004	2/24/2004	2/10/2004	2/10/2004	2/11/2004	2/24/2004	2/24/2004	2/24/2004	2/24/2004
BTEX (mg/Kg)																															
Benzene	0.06	**0.046 J**	0.00025 U	0.00023 U	0.00025 U	0.00028 U	**0.29**	0.00025 U	0.00028 U	0.00025 U	**0.027**	0.00028 U	0.025 U	0.022 U	**0.0021**	**0.0008 J**	**0.76**	**0.036**	**0.0048**	**0.0088**	**0.36**	0.0003 U	**0.0043**	**0.0019**	**0.02**	**0.003**	**0.0014 J**	**0.0066**	**0.0081**	**0.0009 J**	**0.0007 J**
Ethyl Benzene	5.5	**0.71**	0.00022 U	0.0002 U	0.00022 U	0.00023 U	**7.8**	0.00023 U	0.00024 U	0.00022 U	**0.064**	0.00024 U	0.021 U	**2.2**	0.00025 U	0.00025 U	**0.34 J**	**0.0094**	0.00023 U	0.00026 U	**4.2**	0.00025 U	0.00027 U	0.00025 U	**0.0014 J**	**0.0019 J**	0.0003 U	**0.0041 J**	**0.0015 J**	0.00025 U	0.00024 U
Toluene	1.5	**0.3 J**	0.00022 U	0.00021 U	0.00021 U	0.00023 U	**2.5**	**0.0014 J**	0.00024 U	0.00022 U	**0.023**	0.00024 U	0.021 U	0.019 U	**0.0012 J**	**0.0012 J**	**0.99**	**0.0036 J**	0.00023 U	0.00026 U	**0.17 J**	0.00025 U	**0.0009 J**	0.00025 U	**0.0062**	**0.0044 J**	**0.0023 J**	**0.0025 J**	**0.0024 J**	0.00026 U	0.00024 U
Xylene (Total)	1.2	**3.0**	0.00052 U	0.0005 U	0.00051 U	0.00056 U	**22**	0.00055 U	0.00058 U	0.00054 U	**0.15**	0.00058 U	0.028 U	**0.22 J**	0.0006 U	0.0006 U	**1.9**	**0.016**	**0.0013 J**	0.00063 U	**1.5**	0.0006 U	0.00064 U	0.0006 U	**0.0028 J**	**0.003 J**	0.00071 U	**0.0029 J**	**0.0021 J**	0.00061 U	0.00058 U
Volatile Organic Compounds (VOCs) (mg/Kg)																															
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.23 R**	**0.0011 R**	**0.001 R**	**0.001 R**	**0.0011 R**	**0.23 R**	**0.0011 R**	**0.0012 R**	**0.0011 R**	**0.0011 R**	**0.0012 R**	**0.24 R**	**0.22 R**	**0.0012 R**	**0.0012 R**	0.24 U	**0.014**	**0.009**	**0.011**	0.24 U	0.0012 U	0.0013 U	0.0012 U	0.001 U	0.001 U	0.0015 U	**0.013 J**	**0.0011 R**	**0.0013 R**	**0.0012 R**
Acetone	0.2	***0.22 UJ***	0.0026 UJ	0.0025 UJ	0.0026 UJ	**0.035 J**	***0.22 U***	**0.059 J**	**0.034**	0.0027 U	**0.026**	**0.033 J**	***0.23 R***	***0.21 R***	**0.057**	**0.047**	***0.23 UJ***	**0.077 J**	**0.061 J**	**0.084 J**	***0.23 UJ***	**0.03 J**	**0.033 J**	**0.032 J**	**0.026 J**	**0.04 J**	0.0036 U	**0.04 J**	**0.03 J**	**0.022 J**	**0.028 J**
Carbon Disulfide	2.7	0.03 U	0.00032 U	0.00031 U	0.00032 U	0.00035 U	0.03 U	0.00034 U	0.00036 UJ	**0.0009 J**	**0.0011 J**	**0.0006 J**	0.031 U	0.029 U	0.00038 U	**0.0009 J**	**0.13 J**	**0.0019 J**	**0.002 J**	0.0004 U	0.032 UJ	**0.0045 J**	**0.001 J**	**0.001 J**	**0.0039 J**	0.00031 U	**0.0008 J**	**0.015**	**0.01**	**0.0014 J**	**0.0012 J**
Carbon Tetrachloride	0.6	0.046 U	0.00023 U	0.00022 U	0.00022 U	0.00024 U	0.044 U	0.00024 U	0.00025 U	0.00023 U	0.00024 U	0.00025 U	0.046 U	0.042 U	0.00026 U	0.00026 U	0.046 U	0.0003 U	0.00024 U	0.00027 U	0.048 U	0.00026 U	0.00028 U	0.00026 U	0.00022 U	0.00022 U	0.00031 U	0.00026 U	0.00024 U	0.00027 U	0.00025 U
Chlorobenzene	1.7	0.0097 U	0.00016 U	0.00016 U	0.00016 U	0.00017 U	0.0097 U	0.00017 U	0.00018 U	0.00017 U	0.00017 U	0.00018 U	0.01 U	0.0092 U	0.00019 U	0.00019 U	0.01 U	0.00022 U	0.00017 U	0.0002 U	0.01 U	0.00019 U	0.0002 U	0.00019 U	0.00016 U	0.00016 U	0.00022 U	0.00019 U	0.00017 U	0.00019 U	0.00018 U
Chloroform	0.3	0.02 U	0.00025 U	0.00024 U	0.00024 U	0.00027 U	0.02 U	0.00026 U	0.00028 U	0.00026 U	0.00026 U	0.00028 U	0.021 U	0.019 U	0.00029 U	0.00028 U	0.021 U	0.00033 U	0.00026 U	0.0003 U	0.021 U	0.00029 U	0.00031 U	0.00028 U	0.00024 U	0.00024 U	0.00034 U	0.00029 U	0.00027 U	0.00029 U	0.00028 U
cis-1,2-Dichloroethene	NA	0.026 U	0.00032 U	0.00031 U	0.00032 U	0.00035 U	0.026 U	0.00034 U	0.00036 U	0.00034 U	0.00034 U	0.00036 U	0.027 U	0.025 U	**0.0007 J**	0.00037 U	0.027 U	0.00043 U	0.00034 U	0.0004 U	0.027 U	0.00038 U	**0.0012 J**	0.00037 U	0.00031 U	0.00031 U	0.00044 U	0.00038 U	0.00035 U	**0.0016 J**	**0.0013 J**
Methylene Chloride	0.1	0.015 U	0.0018 U	0.0006 U	0.001 U	0.0004 U	0.015 U	0.0008 U	0.0017 U	0.0019 U	0.0012 U	0.0037 U	0.016 U	0.014 U	0.0011 U	0.0012 U	0.016 U	0.00033 U	0.0012 U	0.0003 U	0.016 U	0.00029 U	0.00031 U	0.00028 U	0.0007 U	0.00024 U	0.0007 U	0.00029 U	0.00027 U	0.0003 U	0.00028 U
Styrene	NA	**0.12 J**	0.00013 U	0.00012 U	**0.005 J**	0.00014 U	**0.41 J**	0.00014 U	0.00015 U	0.00013 U	0.00014 U	0.00014 U	0.02 U	0.018 U	0.00015 U	0.00015 U	**0.7**	0.00017 U	0.00014 U	0.00016 U	0.02 U	0.00015 U	0.00016 U	0.00015 U	0.00012 U	0.00012 U	0.00018 U	0.00015 U	0.00014 U	0.00015 U	0.00014 U
Tetrachloroethene	1.4	0.04 U	0.00019 U	0.00017 U	0.00019 U	0.0002 U	0.04 U	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.0002 U	0.04 U	0.037 U	0.0002 U	0.0002 U	0.04 U	0.00024 U	0.00019 U	0.00022 U	0.04 U	0.00022 U	0.00022 U	0.0002 U	**0.0004 J**	0.00017 U	0.00025 U	0.0002 U	0.0002 U	0.00022 U	0.0002 U
Trichloroethene	0.7	0.03 U	0.0003 U	0.00027 U	0.0003 U	0.00032 U	0.03 U	0.0003 U	0.00032 U	0.0003 U	0.0003 U	0.00032 U	0.03 U	0.027 U	**0.0011 J**	0.00032 U	0.03 U	0.00038 U	**0.0007 J**	0.00035 U	0.03 U	0.00035 U	**0.0018**	0.00032 U	0.00027 U	0.00027 U	0.0004 U	0.00032 U	0.00032 U	**0.0021**	0.00032 U
Total VOCs	1NA	**4.176**	ND	ND	**0.005**	**0.035**	**33**	**0.0604**	**0.034**	**0.0009**	**0.2911**	**0.0336**	ND	**2.42**	**0.0621**	**0.0499**	**4.82**	**0.1579**	**0.0788**	**0.1038**	**6.23**	**0.0345**	**0.0422**	**0.0349**	**0.0607**	**0.0523**	**0.0045**	**0.0841**	**0.0541**	**0.028**	**0.0312**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																															
Acenaphthene	50	**17 J**	**0.098 J**	0.003 U	**0.0073 J**	**0.014 J**	**63**	**0.022 J**	**0.24 J**	**0.048 J**	**44**	0.0035 U	**0.88**	**1.1**	0.0037 U	0.0036 UJ	**0.55**	0.0042 U	0.0033 U	0.0037 U	**16**	**0.011 J**	0.0039 U	0.0036 U	0.003 U	**0.19 J**	**0.085 J**	**7.2**	**0.66**	0.0038 U	0.0036 U
Acenaphthylene	41	**19**	**0.08 J**	0.003 U	0.003 U	**0.015 J**	**17 J**	**0.043 J**	**0.25 J**	0.0033 U	**180**	0.0035 U	**3.3**	**2.2**	0.0037 U	0.0036 UJ	**4.2**	0.0042 U	0.0033 U	0.0037 U	**14**	**0.018 J**	0.0039 U	0.0036 U	0.003 U	**1**	**6.6**	**3.4**	**0.45**	0.0038 U	0.0036 U
Anthracene	50	**28**	**0.21 J**	0.0028 U	**0.039 J**	**0.011 J**	**57**	**0.062 J**	**0.24 J**	**0.049 J**	**180**	0.0032 U	**1.7**	**2.2**	0.0034 U	0.0032 UJ	**1.1**	0.0038 U	0.003 U	0.0034 U	**12**	**0.024 J**	0.0036 U	0.0033 U	0.0028 U	**0.58**	**1.1**	**10**	**0.21 J**	0.0035 U	0.0032 U
Benzo(a)anthracene	0.224	**19**	**0.21**	**0.015 J**	**0.14**	**0.021 J**	**48**	**0.072**	**0.8**	**0.12**	**120**	0.011 U	**1.6**	**1.3**	0.012 U	0.011 UJ	**0.45**	0.013 U	0.011 U	0.012 U	**12**	**0.03 J**	0.012 U	0.012 U	**0.043**	**1.8**	**0.42**	**19**	**0.63**	0.012 U	0.011 U
Benzo(a)pyrene	0.061	**15**	**0.13**	**0.012 J**	**0.16**	**0.027 J**	**36**	**0.053**	**1**	**0.16**	**92**	0.003 U	**2.5**	**1.1**	0.0033 U	0.0031 UJ	**0.93**	0.0036 U	0.0029 U	0.0033 U	**11**	**0.026 J**	0.0034 U	0.0032 U	**0.046**	**2.9**	**1.9**	**17**	**0.88**	0.0033 U	0.0031 U
Benzo(b)fluoranthene	1.1	**7.3**	**0.076**	**0.01 J**	**0.14**	**0.018 J**	**20**	**0.032 J**	**0.49**	**0.091**	**48**	0.0032 U	**1.3**	**0.46**	0.0034 U	0.0032 UJ	**0.5**	0.0038 U	0.003 U	0.0034 U	**6**	**0.017 J**	0.0036 U	0.0033 U	**0.033 J**	**1.9**	**0.96**	**13**	**0.37**	0.0035 U	0.0032 U
Benzo(ghi)perylene	50	**5.4 J**	**0.049 J**	0.0038 U	**0.12 J**	**0.026 J**	**17 J**	**0.034 J**	**0.49**	**0.098 J**	**30 J**	0.0044 U	**2.6**	**0.71**	0.0047 U	0.0045 UJ	**2.4**	0.0052 U	0.0042 U	0.0047 U	**6.9**	0.0045 U	0.0049 U	0.0046 U	0.0038 U	**3.2**	**5.9**	**10**	**0.68**	0.0048 U	0.0045 U
Benzo(k)fluoranthene	1.1	**14**	**0.12**	**0.013 J**	**0.15**	**0.025 J**	**31**	**0.051**	**1.1**	**0.16**	**86**	0.0043 U	**1.5**	**0.71**	0.0046 U	0.0044 UJ	**0.37**	0.0051 U	0.0041 U	0.0046 U	**8.8**	**0.022 J**	0.0048 U	0.0045 U	**0.039**	**2.3**	**0.81**	**15**	**0.68**	0.0047 U	0.0044 U
Chrysene	0.4	**18**	**0.21 J**	**0.015 J**	**0.19 J**	**0.024 J**	**42**	**0.076 J**	**0.86**	**0.14 J**	**110**	0.0051 U	**1.6**	**1.1**	0.0055 U	0.0052 UJ	**0.54**	0.0061 U	0.0048 U	0.0055 U	**12**	**0.034 J**	0.0057 U	0.0053 U	**0.049 J**	**2.1**	**0.51**	**16**	**0.67**	0.0056 U	0.0052 U
Dibenz(a,h)anthracene	0.014	***0.066 U***	0.0025 U	0.0024 U	0.0024 U	**0.0097 J**	**7.4**	**0.012 J**	0.0028 U	0.0026 U	**14**	0.0027 U	**0.52**	**0.047**	0.0029 U	0.0028 UJ	**0.29**	0.0032 U	0.0026 U	0.0029 U	**2**	0.0028 U	0.003 U	0.0028 U	0.0024 U	**0.85**	0.0033 UJ	**4.7**	**0.16**	0.003 U	0.0028 U
Fluoranthene	50	**39**	**0.4**	**0.026 J**	**0.33 J**	**0.029 J**	**100**	**0.13 J**	**1.1**	**0.17 J**	**230**	0.0013 U	**2.1**	**1.9**	0.0014 U	0.0014 UJ	**0.78**	0.0016 U	0.0013 U	0.0014 U	**17**	**0.08 J**	0.0015 U	0.0014 U	**0.069 J**	**2.2**	**0.43 J**	**34**	**0.97**	0.0014 U	0.0014 U
Fluorene	50	**37**	**0.1 J**	0.0025 U	0.0025 U	**0.015 J**	**81**	**0.062 J**	0.003 U	**0.028 J**	**220**	0.0028 U	**0.16 J**	**2**	0.003 U	0.0029 UJ	**0.45**	0.0034 U	0.0027 U	0.003 U	**14**	**0.017 J**	0.0032 U	0.003 U	0.0025 U	**0.15 J**	**0.3 J**	**5.3**	**0.12 J**	0.0031 U	0.0029 U
Indeno(1,2,3-cd)pyrene	3.2	**4.8**	**0.046**	0.0023 U	**0.1**	**0.019 J**	**16**	**0.026 J**	**0.48**	**0.095**	**29**	0.0027 U	**1.7**	**0.44**	0.0029 U	0.0027 UJ	**1.1**	0.0032 U	0.0025 U	0.0029 U	**5.5**	0.0027 U	0.003 U	0.0028 U	0.0023 U	**2.5**	**2.8**	**9.1**	**0.48**	0.0029 U	0.0027 U
Naphthalene	13	**64**	**0.063 J**	**0.036 J**	0.0032 U	**0.042 J**	**290**	**0.03 J**	**0.38 J**	**0.11 J**	**710**	0.0036 U	**0.86**	**5.4**	0.0039 U	0.0037 UJ	**5.2**	**0.059 J**	0.0034 U	0.0039 U	**35**	**0.029 J**	0.0041 U	0.0038 U	0.0032 U	**1.3**	**0.19 J**	**3.6**	**0.26 J**	0.004 U	0.0037 U
Phenanthrene	50	**110**	**0.48**	**0.015 J**	**0.13 J**	**0.038 J**	**310**	**0.28 J**	**0.51**	**0.15 J**	**600**	**0.014 J**	**1.7**	**6.2**	0.004 U	0.0039 UJ	**1.8**	0.0045 U	0.0036 U	0.004 U	**40**	**0.11 J**	0.0042 U	0.004 U	**0.031 J**	**1.7**	**0.33 J**	**29**	**0.38 J**	0.0041 U	0.0039 U
Pyrene	50	**42 J**	**0.46**	**0.026 J**	**0.29 J**	**0.031 J**	**88**	**0.16 J**	**1.4**	**0.21 J**	**220**	**0.015 J**	**3.5 J**	**3.4 J**	0.0031 U	0.003 UJ	**1.4**	0.0034 U	0.0028 U	0.0031 U	**29**	**0.072 J**	0.0032 U	0.003 U	**0.068 J**	**3**	**0.64**	**32**	**1.6**	**0.013 J**	0.003 U
Benzo(a)pyrene Equivalents	NA	**18.268**	**0.16461**	**0.014645**	**0.19969**	**0.042774**	**52.152**	**0.078586**	**1.18886**	**0.19234**	**126.67**	ND	**3.4966**	**1.3752**	ND	ND	**1.42924**	ND	ND	ND	**15.45**	**0.030954**	ND	ND	**0.054039**	**4.3951**	**2.32661**	**25.976**	**1.19547**	ND	ND
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																															
2,4-Dimethylphenol	NA	0.92 U	0.035 U	0.033 U	0.033 U	0.037 U	1.8 U	0.035 U	0.04 U	0.036 U	3.7 U	0.038 U	0.039 U	0.035 U	0.041 U	0.039 UJ	**0.01 J**	0.045 U	0.036 U	0.041 U	0.19 U	0.039 U	0.042 U	0.04 U	0.033 U	0.034 U	0.046 U	0.19 U	0.037 U	0.042 U	0.039 U
2-Methylnaphthalene	36.4	**42**	**0.021 J**	0.017 U	0.017 U	**0.027 J**	**100**	**0.017 J**	**0.13 J**	**0.032 J**	**260**	0.019 U	**0.26 J**	**0.58**	0.021 U	0.02 UJ	**1.5**	0.023 U	0.018 U	0.021 U	0.099 U	0.02 U	0.022 U	0.02 U	0.017 U	**0.39**	0.023 U	**1.8 J**	**0.055 J**	0.021 U	0.02 U
2-Methylphenol	0.1	***0.91 U***	0.034 U	0.033 U	0.033 U	0.036 U	***1.8 U***	0.034 U	0.039 U	0.035 U	***3.6 U***	0.037 U	0.038 U	0.034 U	0.04 U	0.038 UJ	0.039 U	0.044 U	0.035 U	0.04 U	***0.19 U***	0.038 U	0.042 U	0.039 U	0.033 U	0.034 U	0.045 U	***0.19 U***	0.036 U	0.041 U	0.038 U
4-Methylphenol	0.9	***0.99 U***	0.038 U	0.036 U	0.036 U	**0.093 J**	***2 U***	0.038 U	**0.037 J**	**0.021 J**	***4 U***	0.041 U	**0.044 J**	0.038 U	0.044 U	0.042 UJ	**0.016 J**	0.048 U	0.039 U	0.044 U	0.21 U	0.042 U	0.046 U	0.043 U	0.036 U	**0.025 J**	0.05 U	**0.1 J**	0.04 U	0.044 U	0.042 U
bis(2-Ethylhexyl) phthalate	50	0.61 U	**0.16 J**	0.022 U	**0.18 J**	0.024 U	1.2 U	**0.09 J**	0.089 U	0.15 U	2.4 U	**0.12 J**	0.19 U	0.16 U	0.027 U	**0.088 J**	**0.31 J**	**0.18 J**	**0.16 J**	**0.15 J**	0.13 U	**0.78**	**0.19 J**	0.026 U	0.022 U	0.022 U	0.03 U	0.13 U	**0.092 J**	**0.18 J**	0.025 U
Butyl benzyl phthalate	50	0.41 U	0.015 U	0.015 U	0.015 U	0.016 U	0.81 U	0.015 U	**0.095 J**	0.016 U	1.6 U	0.017 U	**0.088 J**	0.015 U	0.018 U	0.017 UJ	0.017 U	0.02 U	0.016 U	0.018 U	0.085 U	0.017 U	0.019 U	0.017 U	0.015 U	0.015 U	0.02 U	0.085 U	0.016 U	0.018 U	0.017 U
Carbazole	NA	**11**	**0.039 J**	0.0026 U	0.0026 U	0.0029 U	**16 J**	**0.015 J**	**0.063 J**	**0.013 J**	**46**	0.003 U	**0.096 J**	**0.02 J**	0.0032 U	0.0031 UJ	0.0032 U	0.0036 U	0.0029 U	0.0032 U	**0.62 J**	0.0031 U	0.0034 U	0.0032 U	0.0026 U	**0.19 J**	**0.02 J**	**2.9**	**0.017 J**	0.0033 U	0.0031 U
Dibenzofuran	6.2	**22**	**0.038 J**	0.018 U	0.018 U	**0.011 J**	**49**	**0.026 J**	**0.041 J**	**0.012 J**	**130**	0.021 U	**0.18 J**	0.02 U	0.023 U	0.022 UJ	0.022 U	0.025 U	0.02 U	0.023 U	**2.2**	0.022 U	0.024 U	0.022 U	0.018 U	**0.14 J**	0.026 U	**2.2**	**0.023 J**	0.023 U	0.022 U
Diethyl phthalate	7.1	0.27 U	0.01 U	0.0097 U	0.0097 U	0.011 U	0.54 U	0.01 U	0.012 U	0.01 U	1.1 U	0.011 U	0.011 U	0.01 U	0.012 U	0.011 UJ	0.012 U	0.013 U	0.01 U	0.012 U	0.057 U	0.011 U	0.012 U	0.012 U	0.0097 U	0.01 U	0.014 U	0.057 U	0.011 U	0.012 U	0.011 U
Di-n-butyl phthalate	8.1	0.29 U	0.011 U	0.01 U	0.01 U	0.012 U	0.58 U	0.011 U	0.012 U	0.011 U	1.2 U	0.012 U	0.012 U	0.011 U	0.013 U	0.012 UJ	0.012 U	0.014 U	0.011 U	0.013 U	0.061 U	0.012 U	0.013 U	0.012 U	0.01 U	0.011 U	0.014 U	0.061 U	0.012 U	0.013 U	0.012 U
Di-n-octyl phthalate	50	0.45 U	0.017 U	0.016 U	0.016 U	0.018 U	0.9 U	0.017 U	0.019 U	0.017 U	1.8 U	0.018 U	0.019 U	0.017 U	0.02 U	0.019 UJ	0.019 U	0.022 U	0.017 U	0.02 U	0.094 U	0.019 U	0.021 U	0.019 U	0.016 U	0.016 U	0.022 U	0.094 U	0.018 U	0.02 U	0.019 U
N-Nitrosodiphenylamine	NA	0.46 U	0.018 U	0.016 U	0.016 U	0.018 U	0.92 U	0.018 U	**0.034 J**	0.018 U	1.8 U	0.019 U	0.019 U	0.018 U	0.02 U	0.019 UJ	0.02 U	0.022 U	0.018 U	0.02 U	0.097 U	0.019 U	0.021 U	0.02 U	0.016 U	0.017 U	0.023 U	0.097 U	0.018 U	0.021 U	0.019 U
Phenol	0.03	***1.3 U***	***0.051 U***	***0.048 U***	***0.048 U***	***0.054 U***	***2.7 U***	***0.051 U***	***0.058 U***	***0.052 U***	***5.4 U***	***0.055 U***	***0.056 U***	***0.051 U***	***0.059 U***	***0.056 UJ***	***0.058 U***	***0.066 U***	***0.052 U***	***0.059 U***	***0.28 U***	***0.056 U***	***0.062 U***	***0.058 U***	***0.048 U***	***0.05 U***	***0.067 U***	***0.28 U***	***0.054 U***	***0.06 U***	***0.056 U***
Total SVOCs	500	**514.5**	**2.99**	**0.168**	**1.9763**	**0.4957**	**1388.4**	**1.293**	**9.74**	**1.707**	**3349**	**0.149**	**28.188**	**30.867**	ND	**0.088**	**23.896**	**0.239**	**0.16**	**0.15**	**244.02**	**1.27**	**0.19**	ND	**0.378**	**28.415**	**22.995**	**235.3**	**9.387**	**0.193**	ND

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21OT005 23- 25 3/10/2004	21OT005 49- 51 3/10/2004	21OT006 1- 3 3/10/2004	21OT006 3- 5 3/10/2004	21OT006 13- 15 3/24/2004	21OT006 25- 27 3/24/2004	21OT006 49- 51 3/25/2004	21OT007 7- 9 3/18/2004	21OT007 13- 15 3/18/2004	21OT007 25- 27 3/18/2004	21OT007 49- 51 3/19/2004	21PF001 9- 11 2/18/2004	21PF001 11- 13 2/18/2004	21PF001 29- 31 2/18/2004	21PF001 49- 51 2/18/2004	21PF002 7- 9 2/23/2004	21PF002 17- 19 2/23/2004	21PF002 29- 31 2/23/2004	21PF002 49- 51 2/23/2004	21PF003 9- 11 2/24/2004	21PF003 19- 21 2/24/2004	21PF003 33- 35 2/24/2004	21PF003 49- 51 2/24/2004	21PF004 1- 3 2/10/2004	21PF004 3- 5 2/10/2004	21PF004 5- 7 2/11/2004	21PF004 9- 11 2/24/2004	21PF004 13- 15 2/24/2004	21PF004 29- 31 2/24/2004	21PF004 49- 51 2/24/2004
Metals (mg/Kg)																															
Aluminum	7,960 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**6550**	**9410**	**7050**	**3710**	**4300 J**	**12200 J**	**3830 J**	**6240 J**	**6980**	**8470**	**4570**	**5360**	**6250**	**5830**	**11900**	**6390 J**	**7310 J**	**5870 J**	**4310 J**
Arsenic	13.63 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**3.1**	**2.6**	0.85 U	0.80 U	0.88 U	**7.6**	**0.80 J**	**0.95 J**	**5.5 J**	**1.8 J**	**0.86 J**	0.82 UJ	**2.7 J**	**2.7 J**	**6.7 J**	**7.1**	**2.0 J**	**1.6 J**	0.85 U
Barium	300 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**54.8**	**69.8**	**28.6 J**	**51.6**	**168**	**26.0 J**	**21.3 J**	**88.0**	**75.6**	**15.1 J**	**34.5 J**	**55.4**	**39.7 J**	**74.5**	**92.0**	**72.6**	**45.9 J**	**59.6**	**43.3 J**
Beryllium	0.463 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.34 J**	**0.59**	**0.40 J**	**0.25 J**	**0.35 J**	**0.61**	**0.21 J**	**0.37 J**	**0.63**	**0.42 J**	**0.30 J**	**0.34 J**	**0.35 J**	**0.37 J**	**1.3**	**0.48 J**	**0.36 J**	**0.38 J**	**0.27 J**
Cadmium	1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.10 U	0.092 U	0.11 U	0.10 U	0.10 U	0.12 U	0.095 U	0.11 U	0.100 U	0.10 U	0.11 U	0.10 U	**0.21 J**	**0.26 J**	**0.79 J**	0.10 U	0.095 U	0.11 U	0.100 U
Calcium	11563 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**25700 J**	**2690 J**	**882 J**	**8860 J**	**56000**	**2660**	**745 J**	**13400**	**19800 J**	**1960 J**	**1020 J**	**11700 J**	**1560 J**	**3200 J**	**62200 J**	**8440**	**831 J**	**1050 J**	**10800**
Chromium	36.69 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**10.6 J**	**18.6 J**	**12.6 J**	**8.9 J**	**5.8 J**	**23.1 J**	**7.7 J**	**14.1 J**	**14.3**	**13.1**	**11.6**	**13.4**	**14.4**	**14.3**	**12.6**	**17.9**	**12.6**	**12.5**	**9.7**
Cobalt	30 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**3.9 J**	**7.4 J**	**5.1 J**	**4.6 J**	**5.4 J**	**8.9 J**	**3.2 J**	**6.3 J**	**9.0 J**	**5.9 J**	**3.6 J**	**6.2 J**	**6.0 J**	**6.3 J**	**61.1**	**7.5 J**	**4.7 J**	**4.0 J**	**4.7 J**
Copper	35.84 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**13.5 J**	**20.3 J**	**13.4 J**	**9.9 J**	**55.6**	**9.6**	**7.2**	**12.8**	**50.7**	**11.2**	**9.0**	**9.8**	**26.6**	**26.5**	**48.9 J**	**65.8**	**15.9**	**9.2**	**11.5**
Iron	14,369 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**10100**	**21500**	**15800**	**8080**	**9140**	**26900**	**10500**	**14500**	**23900**	**13300**	**11500**	**12300**	**13100**	**13500**	**31300**	**17500 J**	**13200 J**	**13200 J**	**10100 J**
Lead	237.7 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**52.7 J**	**11.8 J**	**6.4 J**	**2.6 J**	**62.5**	**9.2**	**2.1**	**4.9**	**176**	**6.1**	**3.1**	**4.6**	**12.2**	**47.9**	**33.0**	**183**	**10.8**	**4.3**	**4.1**
Magnesium	3,129 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**6010**	**3540**	**3060**	**4380**	**2160**	**5810**	**1610**	**6850**	**3680**	**3150**	**2120**	**6290**	**2770**	**2290**	**11600**	**2330**	**1870**	**2410**	**5360**
Manganese	358.5 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**372**	**409**	**104**	**273**	**182 J**	**414 J**	**58.5 J**	**359 J**	**440**	**154**	**62.8**	**311**	**283**	**310**	**2330**	**332**	**83.2**	**80.9**	**283**
Mercury	0.1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.11 J**	0.019 UJ	0.022 UJ	0.021 UJ	**0.04 J**	0.024 U	0.020 U	0.022 U	**0.32**	0.021 U	0.023 U	0.021 U	**0.09**	**0.10**	**0.08**	**0.45**	**0.02 J**	0.022 U	0.021 U
Nickel	15.3 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**12.7 J**	**14.6 J**	**15.2 J**	**16.8 J**	**9.8 J**	**20.4**	**9.7**	**20.3**	**18.9**	**16.5**	**14.9**	**21**	**13.8**	**12.9**	**109 J**	**18.9**	**10.1**	**14.7**	**16.5**
Potassium	1,197 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**686 J**	**2070**	**915 J**	**1020 J**	**415 J**	**2290 J**	**636 J**	**1860 J**	**953 J**	**789 J**	**876 J**	**1350 J**	**801 J**	**889 J**	**848 J**	**832 J**	**576 J**	**1390**	**1260**
Sodium	214.8 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**518 J**	**179 J**	**166 J**	**228 J**	**225 J**	**289 J**	85.4 U	**316 J**	**195 J**	**264 J**	**131 J**	**356 J**	**87.3 J**	**80.0 J**	**320 J**	**190 J**	85.6 U	**102 J**	**263 J**
Thallium	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.2 U	1.1 U	1.3 U	1.2 U	1.1 UJ	1.3 UJ	1.0 UJ	1.2 UJ	1.2 U	1.2 U	1.3 U	1.2 U	0.96 U	0.98 U	**1.4 J**	1.1 U	1.0 U	1.2 U	1.1 U
Vanadium	150 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**14.1**	**27.2**	**13.0 J**	**11.3 J**	**12.9**	**30.2**	**11.5**	**17.8**	**19.5**	**15.6**	**13.8**	**14.8**	**23.7**	**22.3**	**20.4**	**24.0**	**16.6**	**15.9**	**12.9**
Zinc	81.77 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**36.9 J**	**42.0 J**	**40.1 J**	**23.3 J**	**18.5**	**60.0**	**19.4**	**32.5**	**103**	**35.8**	**23.0**	**30.8**	**30.9**	**51.9**	**165 J**	**111**	**28.5**	**23.0**	**23.7**
Cyanide (mg/Kg)																															
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	**1.2**	0.5 U	0.5 U	0.5 U	**1.6**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.6**	**1.4**	0.5 U	0.5 U	0.5 U

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21PF005 1- 3 2/20/2004	21PF005 DUP 1- 3 2/20/2004	21PF005 3- 5 2/20/2004	21PF005 7- 9 2/24/2004	21PF005 15- 17 2/24/2004	21PF005 29- 31 2/24/2004	21PF005 49- 51 2/24/2004	21PF006 1- 3 2/12/2004	21PF006 DUP 1- 3 2/12/2004	21PF006 3- 5 2/12/2004	21PF006 7- 9 2/19/2004	21PF006 10- 11 2/19/2004	21PF006 12- 13 2/19/2004	21PF006 13- 13.5 2/19/2004	21PF006 33- 35 2/20/2004	21PF006 49- 51 2/20/2004	21PF007 1- 3 2/17/2004	21PF007 DUP 1- 3 2/17/2004	21PF007 3- 5 2/17/2004	21PF007 5- 7 2/18/2004	21PF007 13- 15 2/18/2004	21PF007 31- 33 2/19/2004	21PF007 49- 51 2/19/2004	21PF008 DUP 1- 3 2/16/2004	21PF008 1- 3 2/16/2004	21PF008 3- 5 2/16/2004
BTEX (mg/Kg)																												
Benzene	0.06	0.00025 U	0.00025 U	0.00025 U	**0.65**	**0.27**	**0.0019**	**0.0017**	0.00023 U	0.00023 U	0.00023 U	**0.016**	0.022 U	**32**	**17**	**0.14**	**0.012**	**0.021**	**0.026**	**0.0077**	**0.016**	0.00025 U	0.00028 U	**0.0007 J**	**0.0006 J**	**0.0006 J**	**0.0006 J**
Ethyl Benzene	5.5	0.00022 U	0.00022 U	0.00022 U	**1.8**	**0.71**	**0.0034 J**	0.00022 U	**0.0006 J**	**0.001 J**	**0.0008 J**	**0.0018 J**	**0.15 J**	**240**	**110**	2.8	**0.055**	0.00022 U	0.00022 U	0.00023 U	0.00025 U	0.00022 U	0.00023 U	0.00023 U	0.00022 U	0.00022 U	0.00022 U
Toluene	1.5	0.00022 U	0.00022 U	0.00022 U	**0.38 J**	**0.2 J**	**0.0012 J**	0.00022 U	**0.0055**	**0.0082**	**0.0067**	**0.0051 J**	0.019 U	1.3 U	1 U	**0.16 J**	**0.0036 J**	**0.0036 J**	**0.0053 J**	**0.0022 J**	**0.0024 J**	0.00022 U	0.00024 U	0.00023 U	**0.0014 J**	**0.0015 J**	**0.0013 J**
Xylene (Total)	1.2	**0.0014 J**	**0.0015 J**	0.00052 U	**2**	**0.9**	**0.0031 J**	0.00054 U	**0.0019 J**	**0.0031 J**	**0.003 J**	**0.0023 J**	**0.13 J**	**120**	**51**	**2.5**	**0.044**	0.00055 U	0.00052 U	0.00055 U	0.0006 U	0.00054 U	0.00057 U	0.00056 U	**0.0012 J**	**0.0011 J**	0.00052 U
Volatile Organic Compounds (VOCs) (mg/Kg)																												
1,2,4-Trichlorobenzene	3.4	0.027 U	0.027 U	0.027 U	0.15 U	0.029 U	0.58 U	0.029 U	0.026 U	0.026 U	0.026 U	0.029 U	0.29 U	***12 U***	1.9 U	0.15 U	0.029 U	0.028 U	0.028 U	0.056 U	0.031 U	0.029 UJ	0.03 U	0.029 U	0.026 U	0.026 U	0.027 U
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.0011 R**	**0.0011 R**	**0.0011 R**	**0.22 R**	**0.22 R**	**0.011 J**	**0.0011 R**	0.001 U	0.001 U	0.001 U	0.0011 U	0.22 U	***15 U***	***12 U***	**0.24 R**	**0.0011 R**	0.0011 U	0.0011 U	0.0011 U	**0.0012 R**	**0.0011 R**	0.0012 U	0.0011 U	**0.0065 J**	**0.0068 J**	**0.0076 J**
4-Methyl-2-pentanone	1	0.0008 U	0.0008 U	0.0008 U	0.13 U	0.13 U	0.00083 U	0.00083 U	0.00075 U	0.00078 U	0.00075 U	0.00084 U	0.13 U	***8.4 U***	***6.8 U***	0.14 U	0.00084 U	0.00084 U	0.0008 U	0.00084 U	0.00092 U	0.00083 U	0.00087 U	0.00086 U	0.0008 U	0.0008 U	0.0008 U
Acetone	0.2	**0.033 J**	**0.03 J**	**0.031 J**	***0.22 UJ***	***0.21 UJ***	**0.033 J**	**0.018 J**	**0.03 J**	**0.039 J**	**0.04 J**	**0.032**	***0.21 UJ***	***14 UJ***	***11 UJ***	***0.23 UJ***	**0.042 J**	**0.12 J**	**0.14 J**	**0.098 J**	**0.038**	**0.061**	**0.042**	**0.034**	**0.064**	**0.061**	**0.071**
Carbon Disulfide	2.7	0.00032 U	0.00032 U	0.00032 U	0.029 U	0.029 U	**0.0072**	**0.0016 J**	0.00031 U	0.00032 U	0.00031 U	**0.0008 J**	0.029 U	1.9 U	1.5 U	0.031 U	**0.0007 J**	**0.0033 J**	**0.0051 J**	**0.0029 J**	**0.0016 J**	**0.016**	**0.0013 J**	**0.0013 J**	0.00032 U	0.00032 U	0.00032 U
cis-1,2-Dichloroethene	NA	0.00032 U	0.00032 U	0.00032 U	0.025 U	0.025 U	**0.0009 J**	**0.0019 J**	0.00031 U	0.00032 U	0.00031 U	0.00034 U	0.025 U	1.6 U	1.3 U	0.027 U	**0.0038 J**	0.00034 U	0.00032 U	0.00034 U	0.00037 U	0.00034 U	0.00035 U	**0.0012 J**	0.00032 U	0.00032 U	0.00032 U
Methylene Chloride	0.1	0.00024 U	0.00025 U	0.0009 U	0.014 U	0.014 U	0.001 U	0.0007 U	0.00023 U	0.00024 U	0.00024 U	0.0014 U	0.014 U	***0.94 U***	***0.77 U***	0.015 U	0.0028 U	0.0039 U	0.0038 U	0.0023 U	0.0024 U	0.0017 U	0.0007 U	0.0008 U	0.001 U	0.001 U	0.001 U
Styrene	NA	0.00013 U	0.00013 U	0.00013 U	0.018 U	0.018 U	**0.0008 J**	0.00013 U	0.00012 U	0.00013 U	0.00012 U	0.00014 U	0.018 U	1.2 U	0.97 U	0.02 U	0.00014 U	0.00014 U	0.00013 U	0.00014 U	0.00015 U	0.00013 U	0.00014 U	0.00014 U	0.00013 U	0.00013 U	0.00013 U
Tetrachloroethene	1.4	0.00019 U	0.00019 U	0.00019 U	0.037 U	0.037 U	0.00019 U	0.00019 U	0.00017 U	0.00017 U	0.00017 U	0.00019 U	0.037 U	***2.5 U***	***2.1 U***	0.04 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.00019 U	0.0002 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U
Trichloroethene	0.7	0.0003 U	0.0003 U	0.0003 U	0.027 U	0.027 U	**0.0021**	**0.0019**	0.00027 U	0.00027 U	0.00027 U	0.0003 U	0.027 U	***1.8 U***	***1.5 U***	0.03 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.00032 U	0.0003 U	0.00032 U	**0.002**	0.0003 U	0.0003 U	0.0003 U
Total VOCs	10	**0.0344**	**0.0315**	**0.031**	**4.83**	**2.08**	**0.0646**	**0.0251**	**0.038**	**0.0513**	**0.0505**	**0.058**	**0.28**	**392**	**178**	**5.6**	**0.1611**	**0.1479**	**0.1764**	**0.1108**	**0.058**	**0.077**	**0.0433**	**0.0392**	**0.0737**	**0.071**	**0.0805**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																												
Acenaphthene	50	0.0031 U	0.0031 U	0.0031 U	**10**	**1.2**	**38**	**0.2 J**	0.003 U	0.003 U	0.003 U	**0.31 J**	**36**	**400**	**87**	**3.2**	**1.8**	**0.24 J**	**0.45**	**0.3 J**	**0.83**	0.0033 UJ	0.0035 U	0.0034 U	0.003 U	0.003 U	0.0031 U
Acenaphthylene	41	0.0031 U	0.0031 U	0.0031 U	**2.6**	**0.97**	**27**	**0.53**	**0.032 J**	0.003 U	0.003 U	**7.8**	**8.6**	**52 J**	**11 J**	**1.7 J**	**0.64**	**1.4**	**1.4**	**2.1**	**0.86**	0.0033 UJ	**0.029 J**	**0.029 J**	0.003 U	0.003 U	0.0031 U
Anthracene	50	0.0028 U	0.0028 U	0.0028 U	**4.8**	**1.1**	**25**	**0.33 J**	**0.031 J**	**0.013 J**	0.0028 U	**2.2**	**16**	**210**	**48**	**2.1 J**	**1.2**	**1.2**	**1.7**	**1.7**	**2.6**	**0.034 J**	**0.019 J**	**0.022 J**	0.0028 U	0.0028 U	0.0028 U
Benzo(a)anthracene	0.224	0.01 U	0.01 U	0.01 U	**4.2**	**1.5**	**33**	**0.47**	**0.096**	**0.044**	**0.021 J**	**0.7**	**12**	**160**	**40**	**1.7**	**0.84**	**3.7**	**4.3**	**5.7**	**4.9**	**0.07 J**	**0.039 J**	**0.031 J**	**0.024 J**	**0.021 J**	0.01 U
Benzo(a)pyrene	0.061	0.0027 U	0.0027 U	0.0027 U	**4.4**	**2**	**33**	**0.49**	**0.082**	**0.04**	**0.016 J**	**1.8**	**8.2**	**130**	**30**	**1.2**	**0.7**	**3.8**	**4.4**	**4.8**	**5.2**	0.0029 UJ	**0.035 J**	**0.031 J**	**0.017 J**	**0.014 J**	0.0027 U
Benzo(b)fluoranthene	1.1	0.0028 U	0.0028 U	0.0028 U	**2.4**	**1.1**	**17**	**0.23**	**0.058**	**0.028 J**	**0.016 J**	**0.94**	**3.4**	**66**	**15**	**0.64**	**0.35**	**3**	**4.6**	**3.8**	**4.3**	0.003 UJ	**0.017 J**	**0.011 J**	**0.014 J**	**0.019 J**	0.0028 U
Benzo(ghi)perylene	50	0.004 U	0.004 U	0.004 U	**3**	**1.3**	**18**	**0.24 J**	**0.067 J**	**0.027 J**	0.0038 U	**3**	**2.3 J**	**0.52 J**	**16 J**	**0.67 J**	**0.33 J**	**2.1**	**2.3**	**3.5**	**2.7**	0.0042 UJ	**0.021 J**	**0.018 J**	0.0038 U	0.0038 U	0.004 U
Benzo(k)fluoranthene	1.1	0.0038 U	0.0038 U	0.0038 U	**3.3**	**1.6**	**20**	**0.3**	**0.098**	**0.043**	**0.013 J**	**0.59**	**4.6**	**100**	**23**	**1**	**0.64**	**3**	**3**	**4.4**	**3.7**	0.0041 UJ	**0.025 J**	**0.02 J**	**0.024 J**	**0.012 J**	0.0038 U
Chrysene	0.4	0.0046 U	0.0046 U	0.0046 U	**4.1**	**1.6**	**29**	**0.45**	**0.13 J**	**0.053 J**	**0.02 J**	**0.67**	**14**	**150 J**	**39**	**1.5 J**	**0.81**	**3.7**	**4.3**	**5.9**	**4.6**	**0.065 J**	**0.044 J**	**0.034 J**	**0.027 J**	**0.022 J**	0.0046 U
Dibenz(a,h)anthracene	0.014	0.0024 U	0.0024 U	0.0024 U	**0.7**	**0.49**	**4**	**0.058**	0.0024 U	0.0024 U	0.0024 U	**0.38**	**1.4**	**8.2 J**	**5.9**	0.014 UJ	0.0026 U	**1.1 J**	0.0025 UJ	**0.34 J**	0.0028 U	0.0026 UJ	0.0027 U	0.0026 U	0.0024 UJ	0.0024 UJ	0.0024 UJ
Fluoranthene	50	**0.008 J**	0.0012 U	0.0012 U	**7.3**	**2.5**	**85**	**1.3**	**0.15 J**	**0.073 J**	**0.031 J**	**0.55**	**16**	**300**	**70**	**3.9**	**1.7**	**4.9**	**6.4**	**6.5**	**9.1**	**0.11 J**	**0.08 J**	**0.062 J**	**0.037 J**	**0.029 J**	**0.012 J**
Fluorene	50	0.0025 U	0.0025 U	0.0025 U	**5.7**	**0.76**	**40**	**0.48**	0.0025 U	0.0025 U	0.0025 U	**0.59**	**11**	**210**	**42**	**2.8**	**1.3**	**0.27 J**	**0.52**	**0.34 J**	**0.97**	0.0027 UJ	0.0028 U	**0.027 J**	0.0025 U	0.0025 U	0.0025 U
Indeno(1,2,3-cd)pyrene	3.2	0.0024 U	0.0024 U	0.0024 U	**2**	**1.1**	**12**	**0.14**	**0.055**	**0.02 J**	0.0023 U	**1.6**	**2.1**	**51**	**12**	**0.46 J**	**0.27**	**2.1 J**	**2.5 J**	**3**	**2.5**	0.0025 UJ	**0.014 J**	**0.01 J**	0.0023 U	0.0023 U	0.0024 U
Naphthalene	13	0.0033 U	0.0033 U	0.0033 U	**33**	**4.6**	**0.22 J**	**0.066 J**	**0.011 J**	0.0032 U	0.0032 U	**2.5**	**28**	**2900**	**510**	**24**	**9.4**	**0.43**	**0.56**	**0.76 J**	**0.51**	0.0034 UJ	0.0036 U	**0.036 J**	0.0032 U	0.0032 U	0.0033 U
Phenanthrene	50	0.0034 U	0.0034 U	0.0034 U	**18**	**3.2**	**130**	**1.8**	**0.11 J**	**0.052 J**	**0.022 J**	**0.93**	**58**	**620**	**140**	**8.9**	**5.2**	**3.4**	**5.1**	**4.9**	**7.6**	**0.15 J**	**0.13 J**	**0.14 J**	**0.017 J**	**0.014 J**	0.0034 U
Pyrene	50	**0.014 J**	0.0026 U	0.0026 U	**12**	**3**	**100**	**1.5**	**0.19 J**	**0.089 J**	**0.035 J**	**1.6**	**42**	**440**	**100**	**4.2**	**2.1**	**5.9**	**6.9**	**8.1**	**7.9 J**	**0.14 J**	**0.13 J**	**0.1 J**	**0.039 J**	**0.033 J**	**0.015 J**
Benzo(a)pyrene Equivalents	NA	ND	ND	ND	**5.9971**	**2.8776**	**43.429**	**0.63545**	**0.10401**	**0.049683**	**0.01985**	**2.51057**	**11.41**	**167.05**	**42.869**	**1.4915**	**0.85321**	**5.8137**	**5.5743**	**6.4399**	**6.4116**	**0.007065**	**0.042294**	**0.036434**	**0.021067**	**0.018142**	ND
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																												
2,4-Dimethylphenol	NA	0.034 U	0.034 U	0.034 U	0.18 U	0.036 U	0.73 U	0.037 U	0.033 U	0.033 U	0.033 U	0.037 U	0.36 U	15 U	2.4 U	0.19 U	0.037 U	**0.0092 J**	**0.013 J**	0.071 U	**0.011 J**	0.036 UJ	0.038 U	0.037 U	0.033 U	0.033 U	0.034 U
2-Chloronaphthalene	NA	0.023 U	0.023 U	0.023 U	0.13 U	0.025 U	0.5 U	0.025 U	0.023 U	0.023 U	0.023 U	0.025 U	0.25 U	10 U	1.6 U	0.13 U	0.025 U	0.024 U	0.024 U	0.049 U	0.027 U	0.025 UJ	0.026 U	0.025 U	0.023 U	0.023 U	0.023 U
2-Methylnaphthalene	36.4	0.017 U	0.017 U	0.017 U	**8.9**	**1.5**	0.37 U	**0.035 J**	0.017 U	0.017 U	0.017 U	**0.86**	**6.2**	**400**	**68**	**5.1**	**2.3**	**0.23 J**	**0.28 J**	**0.34 J**	**0.38 J**	**0.0089 J**	0.019 U	**0.022 J**	0.017 U	0.017 U	0.017 U
2-Methylphenol	0.1	0.034 U	0.034 U	0.034 U	***0.18 U***	0.035 U	***0.72 U***	0.036 U	0.033 U	0.033 U	0.033 U	0.036 U	***0.35 U***	***14 U***	***2.4 U***	***0.19 U***	0.036 U	0.034 U	**0.0096 J**	0.07 U	0.038 U	0.035 UJ	0.037 U	0.036 U	0.033 U	0.033 U	0.034 U
4-Methylphenol	0.9	0.037 U	0.037 U	0.037 U	0.2 U	0.039 U	0.78 U	0.04 U	0.036 U	0.036 U	0.036 U	**0.019 J**	**0.16 J**	***16 U***	***2.6 U***	0.21 U	0.04 U	**0.02 J**	**0.038 J**	**0.028 J**	**0.025 J**	0.039 UJ	0.041 U	0.04 U	0.036 U	0.036 U	0.037 U
4-Nitrophenol	0.1	0.011 U	0.011 U	0.011 U	0.059 U	0.012 U	***0.24 U***	0.012 U	0.011 U	0.011 U	0.011 U	0.012 U	***0.11 U***	***5 U***	***0.76 U***	0.065 U	0.012 U	0.011 U	0.011 U	0.024 U	0.013 U	0.012 UJ	0.012 U	0.012 U	0.011 U	0.011 U	0.011 U
bis(2-Ethylhexyl) phthalate	50	**0.33 J**	**0.3 J**	**0.093 J**	**0.44 J**	**0.2 J**	0.48 U	**0.089 J**	0.084 U	0.022 U	0.022 U	**0.083 J**	0.24 U	9.7 U	1.6 U	0.13 U	0.024 U	**0.23 J**	**0.25 J**	**0.74 J**	**0.8**	**0.13 J**	**0.19 J**	**0.12 J**	**0.097 J**	**0.26 J**	**0.13 J**
Butyl benzyl phthalate	50	0.015 U	0.015 U	0.015 U	0.081 U	0.016 U	0.32 U	0.016 U	0.015 U	0.015 U	0.015 U	0.016 U	0.16 U	6.5 U	1 U	0.085 U	0.016 U	0.015 U	0.015 U	0.031 U	**0.21 J**	0.016 UJ	0.017 U	0.016 U	0.015 U	0.015 U	0.015 U
Carbazole	NA	0.0027 U	0.0027 U	0.0027 U	**0.26 J**	**0.13 J**	**0.49 J**	**0.011 J**	0.0026 U	0.0026 U	0.0026 U	0.0029 U	**0.74 J**	**48 J**	**8.9 J**	**0.68 J**	**0.35 J**	**0.21 J**	**0.43**	**0.34 J**	**0.67**	0.0029 UJ	0.003 U	0.0029 U	0.0026 U	0.0026 U	0.0027 U
Dibenzofuran	6.2	0.019 U	0.019 U	0.019 U	**0.64 J**	**0.23 J**	**9.9**	**0.089 J**	0.018 U	0.018 U	0.018 U	0.021 U	**2.4 J**	**64 J**	**13 J**	**1.4 J**	**0.71**	**0.14 J**	**0.29 J**	**0.26 J**	**0.49**	**0.0089 J**	0.021 U	0.021 U	0.018 U	0.018 U	0.019 U
Diethyl phthalate	7.1	0.01 U	0.01 U	0.01 U	0.054 U	0.01 U	0.21 U	0.011 U	0.0097 U	0.0097 U	0.0097 U	0.011 U	0.1 U	4.3 U	0.7 U	0.057 U	0.011 U	0.01 U	0.01 U	0.021 U	0.011 U	0.01 UJ	0.011 U	0.011 U	0.0097 U	0.0097 U	0.01 U
Isophorone	4.4	0.028 U	0.028 U	0.028 U	0.15 U	0.03 U	0.6 U	0.03 U	0.027 U	0.027 U	0.027 U	0.03 U	0.3 U	***12 U***	2 U	0.16 U	0.03 U	0.029 U	0.029 U	0.058 U	0.032 U	0.03 UJ	0.031 U	0.03 U	0.027 U	0.027 U	0.028 U
N-Nitrosodiphenylamine	NA	0.017 U	0.017 U	0.017 U	0.092 U	0.018 U	0.36 U	0.018 U	0.016 U	0.016 U	0.016 U	0.018 U	0.18 U	7.4 U	1.2 U	0.097 U	0.018 U	0.018 U	0.018 U	**0.041 J**	0.019 U	0.018 UJ	0.019 U	0.018 U	0.016 U	0.016 U	0.017 U
Pentachlorophenol	1.0	0.069 U	0.069 U	0.069 U	0.36 U	0.073 U	***1.4 U***	0.073 U	0.064 U	0.064 U	0.064 U	0.073 U	0.69 U	***30 U***	***4.6 U***	0.39 U	0.073 U	0.069 U	0.069 U	0.14 U	0.078 U	0.073 UJ	0.073 U	0.073 U	0.064 U	0.069 U	0.069 U
Phenol	0.03	***0.05 U***	***0.05 U***	***0.05 U***	***0.27 U***	***0.052 U***	***1.1 U***	***0.054 U***	***0.048 U***	***0.048 U***	***0.048 U***	***0.054 U***	***0.52 U***	***21 U***	***3.5 U***	***0.28 U***	***0.054 U***	***0.051 U***	***0.051 U***	***0.1 U***	***0.056 U***	***0.052 UJ***	***0.055 U***	***0.054 U***	***0.048 U***	***0.048 U***	***0.05 U***
Total SVOCs	500	**0.352**	**0.3**	**0.093**	**127.74**	**30.08**	**621.61**	**8.808**	**1.11**	**0.482**	**0.174**	**27.122**	**273.1**	**6309.72**	**1278.8**	**65.15**	**30.64**	**41.0792**	**49.7406**	**57.889**	**60.856**	**0.7168**	**0.773**	**0.713**	**0.296**	**0.424**	**0.157**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21PF005 1- 3 2/20/2004	21PF005 DUP 1- 3 2/20/2004	21PF005 3- 5 2/20/2004	21PF005 7- 9 2/24/2004	21PF005 15- 17 2/24/2004	21PF005 29- 31 2/24/2004	21PF005 49- 51 2/24/2004	21PF006 1- 3 2/12/2004	21PF006 DUP 1- 3 2/12/2004	21PF006 3- 5 2/12/2004	21PF006 7- 9 2/19/2004	21PF006 10- 11 2/19/2004	21PF006 12- 13 2/19/2004	21PF006 13- 13.5 2/19/2004	21PF006 33- 35 2/20/2004	21PF006 49- 51 2/20/2004	21PF007 1- 3 2/17/2004	21PF007 DUP 1- 3 2/17/2004	21PF007 3- 5 2/17/2004	21PF007 5- 7 2/18/2004	21PF007 13- 15 2/18/2004	21PF007 31- 33 2/19/2004	21PF007 49- 51 2/19/2004	21PF008 DUP 1- 3 2/16/2004	21PF008 1- 3 2/16/2004	21PF008 3- 5 2/16/2004
Metals (mg/Kg)																												
Aluminum	7960 (sb)	**5600 J**	5550 J	5340 J	6270 J	6640 J	4320 J	3280 J	6560	5960	5140	4650 J	6650 J	**11500 J**	**9340 J**	6650 J	3450 J	6820	5840	6860	**9080**	6890	4630 J	4510 J	6000 J	5420 J	5860 J
Antimony	NA	1.3 UJ	1.3 UJ	1.3 UJ	0.92 U	0.92 U	0.92 U	0.93 U	0.84 UJ	0.84 UJ	0.84 UJ	1.4 U	1.3 U	2.3 U	1.8 U	1.5 UJ	1.4 UJ	0.89 UJ	0.89 UJ	0.90 UJ	1.5 UJ	1.4 UJ	1.4 U	1.4 U	1.3 UJ	1.3 UJ	1.3 UJ
Arsenic	13.63 (sb)	**0.93 J**	**2.2**	**1.1**	**3.3 J**	**1.6 J**	**7.7**	0.81 U	**2.4 J**	**2.6 J**	**1.7 J**	**4.9 J**	**5.9 J**	**11.6 J**	**6.6 J**	**1.0 J**	0.76 U	**4.7 J**	**3.9 J**	**5.1 J**	**8.8**	**1.8**	**0.82 J**	**0.88 J**	**1.5**	**1.2**	**1.1 J**
Barium	300 (d)	**36.4 J**	**37.7 J**	**42.9 J**	**57.6**	**41.2 J**	**21.0 J**	**25.4 J**	**55.5**	**43.8**	**40.8 J**	**66.2**	**60.6**	**133**	**103**	**34.1 J**	**35.4 J**	**363 J**	**399 J**	**358 J**	**104**	**44.4 J**	**19.7 J**	**42.3 J**	**36.3 J**	**34.8 J**	**40.0 J**
Beryllium	0.463 (sb)	**0.32 J**	**0.32 J**	**0.38 J**	**0.40 J**	**0.40 J**	**0.30 J**	**0.20 J**	**0.51**	**0.38 J**	**0.40 J**	**0.25 J**	**0.43 J**	**1.4**	**0.72**	**0.43 J**	**0.21 J**	**0.42 J**	**0.35 J**	**0.39 J**	**0.46 J**	**0.39 J**	**0.20 J**	**0.29 J**	**0.38 J**	**0.35 J**	**0.36 J**
Cadmium	1 (d)	0.088 U	0.089 U	0.089 U	0.094 U	0.094 U	0.094 U	0.096 U	0.086 U	0.086 U	0.086 U	**0.12 J**	**0.20 J**	**1.4 J**	**1.7**	0.10 U	0.095 U	0.091 U	0.091 U	**0.25 J**	**0.36 J**	0.094 U	0.098 U	0.096 U	0.087 U	0.088 U	0.088 U
Calcium	11563 (sb)	**1170**	**1150**	**1450**	**25600**	**6210**	**1000 J**	**6550**	**2040**	**2300**	**1440**	**110000 J**	**84200 J**	**6800 J**	**7930 J**	**1320**	**7240**	**13700**	**14900**	**24300**	**7620 J**	**1020 J**	**631 J**	**11300 J**	**1030 J**	**1110**	**1100 J**
Chromium	36.69 (sb)	**14.9**	**14.5**	**14.0**	**12.1**	**16.5**	**12.6**	**6.9**	**19.8**	**15.0**	**14.8**	**8.4 J**	**18.5 J**	**26.1 J**	**23.5 J**	**15.6**	**9.7**	**14.7 J**	**12.5 J**	**14.0 J**	**41.0 J**	**13.5 J**	**10.7 J**	**11.0 J**	**14.8**	**17.4**	**14.9**
Cobalt	30 (d)	**5.6 J**	**5.7 J**	**6.4 J**	**5.4 J**	**6.6 J**	**4.4 J**	**4.1 J**	**6.4 J**	**5.5 J**	**6.1 J**	**10.0 J**	**4.5 J**	**15.1 J**	**12.4 J**	**5.3 J**	**5.0 J**	**5.8 J**	**5.2 J**	**6.0 J**	**4.6 J**	**4.5 J**	**2.7 J**	**5.1 J**	**4.8 J**	**5.3 J**	**5.9 J**
Copper	35.84 (sb)	**16.8**	**16.6**	**17.7**	**21.7**	**15.2**	**10.4**	**9.8**	**20.1**	**19.3**	**18.3**	**10.9 J**	**15.8 J**	**84.1 J**	**45.8 J**	**13.3**	**12.5**	**39.3 J**	**41.0 J**	**39.8 J**	**32.5 J**	**16.8 J**	**7.7 J**	**12.4 J**	**15.3**	**15.0**	**16.2**
Iron	14369 (sb)	**12800 J**	**12200 J**	**18800 J**	**29000 J**	**12700 J**	**12200 J**	**7860 J**	**24000**	**14400**	**16300**	**13700**	**15500**	**45300**	**27900**	**16000 J**	**8770 J**	**14000**	**11700**	**14000**	**12400**	**14800**	**8170**	**10800**	**14700 J**	**13400 J**	**14700 J**
Lead	237.7 (sb)	**6.2**	**6.3**	**5.9**	**73.5**	**23.8**	**3.3**	**2.5**	**16.1**	**16.1**	**6.3**	**46.2 J**	**35.8 J**	**311 J**	**100 J**	**6.0**	**2.7**	**518 J**	**426 J**	**775 J**	**169 J**	**12.9 J**	**3.8 J**	**4.6 J**	**8.7**	**5.4**	**4.9**
Magnesium	3129 (sb)	**2080**	**2160**	**2010**	**2730**	**2060**	**2230**	**3610**	**2890**	**2660**	**2080**	**3740**	**4660**	**3860**	**4040**	**3070**	**3940**	**3280 J**	**2870 J**	**3520 J**	**2440**	**2200**	**1780**	**5530**	**1680**	**1810**	**2060**
Manganese	358.5 (sb)	**285 J**	**293 J**	**587 J**	**312**	**169**	**79.1**	**201**	**576**	**276**	**363**	**815 J**	**334 J**	**311 J**	**247 J**	**118 J**	**267 J**	**271**	**262**	**277**	**254**	**134**	**58.8 J**	**262 J**	**309 J**	**301 J**	**351 J**
Mercury	0.1 (d)	**0.03 J**	**0.03 J**	0.019 U	**0.29**	**0.02 J**	0.020 U	0.020 U	**0.09**	**0.05**	0.018 U	**0.07 J**	**0.13 J**	**2.2 J**	**1.0 J**	**0.04 J**	0.020 U	**0.93 J**	**1.1 J**	**1.6 J**	**0.75 J**	0.020 UJ	0.020 U	0.020 U	**0.03**	0.018 U	0.018 U
Nickel	15.3 (sb)	**10.5**	**11.1**	**11.8**	**10.7**	**10.9**	**32.6**	**13.1**	**13.1**	**12.1**	**11.1**	**20.2**	**11.9**	**26.5**	**22.4**	**19.3**	**17.8**	**15.6**	**14.1**	**15.5**	**14.5 J**	**11.2 J**	**9.2 J**	**15.8**	**9.9**	**10.6**	**11.6**
Potassium	1197 (sb)	**787 J**	**872 J**	**719 J**	**785 J**	**888 J**	**645 J**	**728 J**	**1350 J**	**790 J**	**820 J**	**793 J**	**623 J**	**2470 J**	**3430 J**	**1460**	**877 J**	**1560**	**1120 J**	**1230**	**578 J**	**1020 J**	**547 J**	**1200 J**	**684 J**	**753 J**	**781 J**
Selenium	2 (d)	0.93 U	0.94 U	0.94 U	0.92 U	0.92 U	0.92 U	0.93 U	0.84 U	0.84 U	0.84 U	1.0 U	0.97 U	1.6 U	1.3 U	1.1 U	1.0 U	0.89 U	0.89 U	0.90 U	1.1 U	0.99 U	1.0 U	1.0 U	0.92 U	0.92 U	0.92 U
Silver	0.229 (sb)	***0.31 U***	***0.31 U***	***0.31 U***	0.16 U	0.16 U	0.17 U	0.17 U	0.15 U	0.15 U	0.15 U	***0.33 U***	***0.32 U***	**0.96 J**	**0.55 J**	***0.36 U***	***0.33 U***	**0.23 J**	**0.30 J**	**0.30 J**	***0.35 U***	***0.33 U***	***0.34 U***	***0.34 U***	***0.31 U***	***0.31 U***	***0.31 U***
Sodium	214.8 (sb)	**141 J**	**121 J**	**113 J**	**167 J**	84.9 U	85.2 U	**104 J**	78.0 U	**75.5 J**	77.6 U	**519 J**	**200 J**	**533 J**	**341 J**	**204 J**	**176 J**	82.2 U	**94.9 J**	**106 J**	**210 J**	**203 J**	**151 J**	**262 J**	**89.1 J**	**87.6 J**	**117 J**
Thallium	NA	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	0.95 U	0.95 U	0.95 U	1.1 U	1.1 U	1.8 U	1.5 U	1.2 U	1.1 U	1.0 U	1.0 U	1.0 U	1.2 U	1.1 U	1.2 U	1.1 U	1.0 U	1.0 U	1.0 U
Vanadium	150 (d)	**22.4**	**22.2**	**23.8**	**17.0**	**20.8**	**12.8**	**9.3 J**	**26.8**	**26.0**	**24.8**	**13.5**	**20.5**	**35.5**	**27.3**	**18.7**	**12.3**	**20.3**	**17.5**	**18.7**	**32.6**	**20.1**	**13.1**	**13.1**	**22.9**	**22.7**	**23.4**
Zinc	81.77 (d)	**25.5**	**26.5**	**32.8**	**61.4**	**34.8**	**26.0**	**17.8**	**43.3**	**32.8**	**26.0**	**21.5 J**	**42.3 J**	**511 J**	**514 J**	**31.9**	**20.2**	**240**	**238**	**295**	**116 J**	**31.9 J**	**19.2 J**	**26.5 J**	**27.4**	**28.3**	**26.5**
Cyanide (mg/Kg)																											
Cyanide, Total	NA	0.5 U	**0.75**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.1**	0.5 U	**387**	**1.8**	0.5 U	0.5 U	**1.3**	**1.7**	**3.7**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs

Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21PF008 11- 13 2/18/2004	21PF008 21- 23 2/19/2004	21PF008 29- 31 2/19/2004	21PF008 49- 51 2/19/2004	21PF009 7- 9 2/19/2004	21PF009 13- 15 2/19/2004	21PF009 31- 33 2/20/2004	21PF009 49- 51 2/20/2004	21PF010 7- 9 2/23/2004	21PF010 13- 15 2/23/2004	21PF010 27- 29 2/23/2004	21PF010 DUP 27- 29 2/23/2004	21PF010 47- 49 2/23/2004	21PF011 7- 9 2/20/2004	21PF011 11- 13 2/20/2004	21PF011 31- 33 2/20/2004	21PF011 49- 51 2/20/2004	21PF011 DUP 49- 51 2/20/2004	21PF012 DUP 7- 9 2/19/2004	21PF012 7- 9 2/19/2004	21PF012 15- 17 2/19/2004	21PF012 29- 31 2/19/2004	21PF012 49- 51 2/19/2004	21RE001 1- 3 2/17/2004	21RE001 DUP 1- 3 2/17/2004	21RE001 3- 5 2/17/2004
BTEX (mg/Kg)																											
Benzene	0.06	**0.0014**	0.00028 U	0.00028 U	0.00028 U	0.00025 U	0.00025 U	0.00025 U	**0.0008 J**	**0.77**	**0.0068**	**0.0022**	**0.0042**	**0.0008 J**	0.022 U	0.022 U	**0.0008 J**	**0.0007 J**	**0.0003 J**	**2.3**	**0.99**	**0.012**	0.00025 U	0.00028 U	0.00025 U	0.00025 U	0.00025 U
Ethyl Benzene	5.5	0.00022 U	0.00025 U	0.00024 U	0.00025 U	0.00022 U	0.00022 U	**0.0006 J**	0.00022 U	**16**	**0.0051 J**	**0.004 J**	**0.0013 J**	0.00024 U	**1.9**	**1.2**	**0.0012 J**	**0.0011 J**	**0.0005 J**	3.2	**1.5**	**0.01**	0.00022 U	0.00024 U	0.00021 U	0.00022 U	0.00022 U
Toluene	1.5	**0.0012 J**	0.00025 U	0.00024 U	0.00025 U	0.00022 U	0.00022 U	0.00022 U	0.00023 U	**9.9**	**0.018**	**0.0049 J**	**0.0032 J**	0.00024 U	0.019 U	0.018 U	0.00023 U	0.00024 U	0.00023 U	**0.85**	**0.43 J**	**0.0031 J**	0.00022 U	0.00024 U	0.00021 U	0.00022 U	0.00022 U
Xylene (Total)	1.2	0.00053 U	0.0006 U	0.00058 U	0.0006 U	0.00052 U	0.00054 U	**0.0016 J**	0.00055 U	**60**	**0.017**	**0.009**	**0.004 J**	0.00058 U	**3.2**	**1.2**	**0.0022 J**	**0.0025 J**	**0.0016 J**	**1.5**	**0.78**	**0.026**	0.00054 U	0.00058 U	0.00051 U	0.00052 U	0.00052 U
Volatile Organic Compounds (VOCs) (mg/Kg)																											
1,2,4-Trichlorobenzene	3.4	0.029 UJ	0.031 U	0.029 U	0.032 U	0.027 U	0.029 U	0.029 U	0.029 U	0.67 U	0.028 U	0.03 U	0.031 U	0.03 U	0.56 U	0.7 U	0.029 U	0.03 U	0.029 U	0.15 U	0.13 U	0.038 U	0.028 U	0.03 U	0.026 U	0.027 U	0.027 U
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.0058 J**	0.0012 U	0.0012 U	0.0012 U	**0.006**	0.0011 U	**0.0089 J**	**0.0011 R**	***0.83 U***	0.0014 U	**0.017**	**0.011**	0.0012 U	**0.22 R**	**0.21 R**	**0.0011 R**	**0.0012 R**	**0.0011 R**	0.23 U	0.2 U	**0.026**	0.0011 U	0.0012 U	0.001 U	0.0011 U	0.0011 U
4-Methyl-2-pentanone	1	0.00081 U	0.00093 U	0.00089 U	0.00092 U	0.0008 U	0.00083 U	0.00083 U	0.00084 U	0.47 U	0.001 U	0.00089 U	0.00089 U	0.00089 U	0.13 U	0.12 U	0.00086 U	0.0009 U	0.00086 U	0.13 U	0.12 U	0.0011 U	0.00083 U	0.0009 U	0.00078 U	0.0008 U	0.0008 U
Acetone	0.2	**0.056**	0.003 UJ	0.0029 UJ	0.003 UJ	**0.026**	**0.027**	**0.041 J**	**0.03 J**	***0.79 UJ***	0.0033 UJ	**0.087 J**	**0.07 J**	**0.06 J**	***0.21 UJ***	0.2 UJ	**0.047 J**	**0.045 J**	**0.051 J**	***0.22 UJ***	0.2 UJ	**0.14**	**0.04**	**0.044**	**0.12 J**	**0.1 J**	**0.11 J**
Carbon Disulfide	2.7	**0.0014 J**	**0.0016 J**	0.00036 UJ	0.00037 UJ	**0.0019 J**	0.00034 U	0.00034 U	**0.0015 J**	0.11 U	0.00041 U	**0.0053 J**	**0.041**	0.00036 U	0.029 U	0.028 U	**0.0098**	0.00036 U	0.00035 U	0.03 U	0.027 U	**0.0088**	**0.003 J**	**0.0008 J**	0.00032 U	0.00032 U	0.00032 U
cis-1,2-Dichloroethene	NA	0.00033 U	0.00038 U	0.00036 U	0.00037 U	0.00032 U	0.00034 U	0.00034 U	0.00034 U	0.092 U	0.00041 U	**0.0007 J**	0.00036 U	**0.0009 J**	0.025 U	0.024 U	0.00035 U	**0.0007 J**	**0.0004 J**	0.026 U	0.023 U	0.00046 U	0.00034 U	0.00036 U	0.00032 U	0.00032 U	0.00032 U
Methylene Chloride	0.1	0.0013 U	0.00029 U	0.00028 U	0.00028 U	0.00024 U	0.00026 U	0.0008 U	0.0013 U	0.051 U	0.00031 U	0.0004 U	0.0012 U	0.0006 U	0.014 U	0.014 U	0.001 U	0.0015 U	0.001 U	0.015 U	0.013 U	0.00035 U	0.0005 U	0.0008 U	0.001 U	0.0015 U	0.0015 U
Styrene	NA	0.00013 U	0.00015 U	0.00014 U	0.00015 U	0.00013 U	0.00013 U	0.00013 U	0.00014 U	**8.8**	**0.0026 J**	0.00014 U	0.00014 U	0.00014 U	0.018 U	0.017 U	0.00014 U	0.00015 U	0.00014 U	**0.095 J**	**0.063 J**	0.00018 U	0.00013 U	0.00015 U	0.00013 U	0.00013 U	0.00013 U
Tetrachloroethene	1.4	0.00019 U	0.0002 U	0.0002 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.00019 U	0.14 U	0.00024 U	0.0002 U	0.0002 U	**0.002**	0.037 U	0.037 U	0.0002 U	**0.0014**	**0.0008 J**	0.04 U	0.034 U	0.00025 U	0.00019 U	**0.0014**	0.00019 U	0.00019 U	0.00019 U
Trichloroethene	0.7	0.0003 U	0.00032 U	0.00032 U	0.00032 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.1 U	0.00038 U	0.00032 U	0.00032 U	**0.0026**	0.027 U	0.027 U	0.00032 U	**0.0026**	**0.0014**	0.03 U	0.025 U	0.0004 U	0.0003 U	**0.0024**	0.0003 U	0.0003 U	0.0003 U
Total VOCs	10	**0.0658**	**0.0016**	ND	ND	**0.0339**	**0.027**	**0.0521**	**0.0323**	**95.47**	**0.0495**	**0.1301**	**0.1347**	**0.0663**	**5.1**	**2.4**	**0.061**	**0.054**	**0.056**	**7.945**	**3.763**	**0.2259**	**0.043**	**0.0486**	**0.12**	**0.1**	**0.11**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																											
Acenaphthene	50	**0.12 J**	0.0036 U	0.0034 U	0.0036 U	**0.1 J**	**0.02 J**	0.0033 U	0.0034 U	**2.6 J**	**0.021 J**	0.0035 U	0.0036 U	0.0035 U	**10**	**13**	0.0034 U	0.0035 U	0.0034 U	**7.8**	**8.6**	**2.2**	**0.058 J**	0.0035 U	**0.082 J**	**0.012 J**	0.0031 U
Acenaphthylene	41	**0.12 J**	0.0036 U	0.0034 U	0.0036 U	**0.074 J**	0.0033 U	0.0033 U	0.0034 U	**11**	0.0032 U	0.0035 U	0.0036 U	0.0035 U	**30**	**19**	0.0034 U	0.0035 U	0.0034 U	**5.9**	**7.3**	**0.19 J**	**0.041 J**	0.0035 U	**0.031 J**	**0.016 J**	0.0031 U
Anthracene	50	**0.056 J**	0.0032 U	0.0031 U	0.0033 U	**0.24 J**	0.003 U	0.003 U	0.0031 U	**7.6 J**	**0.015 J**	0.0032 U	0.0032 U	0.0032 U	**23**	**17**	0.0031 U	0.0032 U	0.0031 U	**9.3**	**10**	**0.12 J**	**0.054 J**	0.0032 U	**0.22 J**	**0.047 J**	**0.017 J**
Benzo(a)anthracene	0.224	**0.21 J**	0.011 U	0.011 U	0.012 U	**0.0093 J**	0.011 U	0.011 U	0.011 U	**4**	**0.01 J**	0.011 U	0.011 U	0.011 U	**12**	**9.8**	0.011 U	0.011 U	0.011 U	**12**	**12**	**0.019 J**	**0.31**	0.011 U	**1.3**	**0.25**	**0.053**
Benzo(a)pyrene	0.061	**0.26 J**	0.0031 U	0.003 U	0.0032 U	**0.0088 J**	0.0029 U	0.0029 U	0.003 U	**3**	0.0028 U	0.003 U	0.0031 U	0.003 U	**11**	**8.2**	0.003 U	0.003 U	0.003 U	**13**	**13**	**0.014 J**	**0.7**	0.003 U	**2**	**0.3**	**0.04**
Benzo(b)fluoranthene	1.1	**0.12 J**	0.0032 U	0.0031 U	0.0033 U	0.0028 U	0.003 U	0.003 U	0.0031 U	**1.1**	0.0029 U	0.0032 U	0.0032 U	0.0032 U	**4.2**	**2.7**	0.0031 U	0.0032 U	0.0031 U	**8.4**	**7.8**	**0.011 J**	**0.35**	0.0032 U	**1.6**	**0.25**	**0.04**
Benzo(ghi)perylene	50	**0.21 J**	0.0045 U	0.0043 U	0.0046 U	0.004 U	0.0042 U	0.0042 U	0.0043 U	**1.5 J**	0.0041 U	0.0044 U	0.0045 U	0.0044 U	**8.1**	**5.1 J**	0.0043 U	0.0044 U	0.0043 U	**7.9**	**7.8**	0.0056 U	**0.36 J**	0.0044 U	**1.5**	**0.32 J**	**0.024 J**
Benzo(k)fluoranthene	1.1	**0.16 J**	0.0044 U	0.0042 U	0.0045 U	**0.01 J**	0.0041 U	0.0041 U	0.0042 U	**1.4**	0.004 U	0.0043 U	0.0044 U	0.0043 U	**6.6**	**4.4**	0.0042 U	0.0043 U	0.0042 U	**10**	**10**	**0.012 J**	**0.59**	0.0043 U	**1.6**	**0.28**	**0.044**
Chrysene	0.4	**0.23 J**	0.0052 U	0.005 U	0.0053 U	**0.012 J**	0.0048 U	0.0048 U	0.005 U	**3.5 J**	**0.011 J**	0.0051 U	0.0052 U	0.0051 U	**12**	**10**	0.005 U	0.0051 U	0.005 U	**12**	**12**	**0.027 J**	**0.3 J**	0.0051 U	**1.7**	**0.29 J**	**0.051 J**
Dibenz(a,h)anthracene	0.014	0.0026 UJ	0.0028 U	0.0026 U	0.0028 U	0.0024 U	0.0026 UJ	0.0026 U	0.0026 U	***0.061 U***	0.0025 U	0.0027 U	0.0028 U	0.0027 U	***0.05 U***	**1**	0.0026 U	0.0027 U	0.0026 U	**0.84**	**0.79 J**	0.0034 U	**0.21**	0.0027 U	**0.091 J**	**0.015 J**	0.0024 UJ
Fluoranthene	50	**0.4 J**	0.0014 U	0.0013 U	0.0014 U	**0.068 J**	0.0013 U	0.0013 U	0.0013 U	**6.5 J**	**0.018 J**	0.0013 U	**0.011 J**	0.0013 U	**20**	**15**	0.0013 U	0.0013 U	0.0013 U	**19**	**18**	**0.062 J**	**0.22 J**	0.0013 U	**2.3**	**0.51**	**0.1 J**
Fluorene	50	0.0027 UJ	0.0029 U	0.0028 U	0.003 U	**0.083 J**	0.0027 U	0.0027 U	0.0028 U	**6.5 J**	0.0026 U	0.0028 U	0.0029 U	0.0028 U	**18**	**15**	0.0028 U	0.0028 U	0.0028 U	**8**	**9**	**0.48 J**	**0.032 J**	0.0028 U	**0.076 J**	**0.013 J**	0.0025 U
Indeno(1,2,3-cd)pyrene	3.2	**0.14 J**	0.0027 U	0.0026 U	0.0028 U	0.0024 UJ	0.0025 UJ	0.0025 U	0.0026 U	**0.8 J**	0.0025 U	0.0027 U	0.0027 U	0.0027 U	**5.2**	**2.8**	0.0026 U	0.0027 U	0.0026 U	**6.4**	**6.4**	0.0034 U	**0.38**	0.0027 U	**1.4**	**0.25**	**0.02 J**
Naphthalene	13	0.0034 UJ	0.0037 U	0.0035 U	0.0038 U	**0.15 J**	0.0034 U	0.0034 U	0.0035 U	**120**	0.0034 U	0.0036 U	**0.023 J**	0.0036 U	**48**	**120**	0.0035 U	0.0036 U	0.0035 U	**4.1**	**6.9**	**1.2**	**0.043 J**	0.0036 U	**0.017 J**	0.0033 U	0.0033 U
Phenanthrene	50	**0.053 J**	0.0039 U	0.0037 U	0.004 U	**0.14 J**	**0.025 J**	0.0036 U	0.0037 U	**23**	**0.05 J**	0.0038 U	**0.03 J**	**0.021 J**	**80**	**58**	**0.016 J**	0.0038 U	0.0037 U	**13**	**20**	**0.95**	**0.14 J**	**0.013 J**	**1.3**	**0.26 J**	**0.073 J**
Pyrene	50	**0.7 J**	0.003 U	0.0028 U	0.003 U	**0.16 J**	**0.017 J**	0.0028 U	0.0028 U	**13**	**0.031 J**	0.0029 U	**0.019 J**	**0.012 J**	**40**	**34**	**0.011 J**	0.0029 U	0.0028 U	**26**	**27**	**0.09 J**	**0.26 J**	0.0029 U	**2.3**	**0.42**	**0.095 J**
Benzo(a)pyrene Equivalents	NA	**0.30883**	ND	ND	ND	**0.009842**	ND	ND	ND	**3.6075**	**0.001011**	ND	ND	ND	**13.218**	**10.784**	ND	ND	ND	**16.632**	**16.522**	**0.017147**	**1.0202**	ND	**2.5387**	**0.39309**	**0.051791**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																											
2,4-Dimethylphenol	NA	0.036 UJ	0.039 U	0.037 U	0.04 U	0.034 U	0.036 U	0.036 U	0.037 U	0.85 U	0.035 U	0.038 U	0.039 U	0.038 U	0.7 U	0.88 U	0.037 U	0.038 U	0.037 U	0.18 U	0.17 U	0.048 U	0.035 U	0.038 U	0.033 U	0.034 U	0.034 U
2-Chloronaphthalene	NA	0.025 UJ	0.027 U	0.025 U	0.027 U	0.023 U	0.025 U	0.025 U	0.025 U	0.58 U	0.024 U	0.026 U	0.027 U	0.026 U	0.48 U	0.6 U	0.025 U	0.026 U	0.025 U	0.13 U	0.11 U	0.033 U	0.024 U	0.026 U	0.023 U	0.023 U	0.023 U
2-Methylnaphthalene	36.4	0.018 UJ	0.02 U	0.019 U	0.02 U	**0.036 J**	0.018 U	0.018 U	0.019 U	**44**	**0.011 J**	0.019 U	**0.013 J**	0.019 U	**17**	**53**	0.019 U	0.019 U	0.019 U	**0.79 J**	**1.6 J**	**0.096 J**	**0.012 J**	0.019 U	**0.0085 J**	0.017 U	0.017 U
2-Methylphenol	0.1	0.035 UJ	0.038 U	0.036 U	0.039 U	0.034 U	0.035 U	0.035 U	0.036 U	***0.84 U***	0.034 U	0.037 U	0.038 U	0.037 U	***0.69 U***	***0.86 U***	0.036 U	0.037 U	0.036 U	***0.18 U***	***0.16 U***	0.047 U	0.034 U	0.037 U	0.033 U	0.034 U	0.034 U
4-Methylphenol	0.9	0.039 UJ	0.042 U	0.04 U	0.043 U	0.037 U	0.039 U	0.039 U	0.04 U	***0.91 U***	0.038 U	0.041 U	0.042 U	0.041 U	0.75 U	***0.94 U***	0.04 U	0.041 U	0.04 U	**0.085 J**	0.18 U	0.052 U	0.038 U	0.041 U	0.036 U	0.037 U	0.037 U
4-Nitrophenol	0.1	0.012 UJ	0.013 U	0.012 U	0.013 U	0.011 UJ	0.012 UJ	0.012 U	0.012 U	***0.28 U***	0.011 U	0.012 U	0.013 U	0.012 U	***0.23 U***	***0.29 U***	0.012 U	0.012 U	0.012 U	0.062 U	0.056 U	0.016 U	0.011 U	0.012 U	0.011 U	0.011 U	0.011 U
bis(2-Ethylhexyl) phthalate	50	**0.1 J**	0.025 U	0.024 U	0.026 U	**0.08 J**	**0.23 J**	0.024 U	**0.13 J**	0.56 U	**0.21 J**	**0.14 J**	**0.13 J**	**0.14 J**	0.46 UJ	0.58 U	0.024 U	**0.18 J**	**0.18 J**	0.12 U	0.11 U	**0.12 J**	**0.086 J**	**0.095 J**	0.022 U	0.022 U	**0.1 J**
Butyl benzyl phthalate	50	0.016 UJ	0.017 U	0.016 U	0.017 U	0.015 U	0.016 U	0.016 U	0.016 U	0.37 U	0.015 U	0.017 U	0.017 U	0.017 U	0.31 U	0.38 U	0.016 U	0.017 U	0.016 U	0.081 U	0.073 U	0.021 U	0.015 U	0.017 U	0.015 U	0.015 U	0.015 U
Carbazole	NA	0.0029 UJ	0.0031 U	0.0029 U	0.0032 U	0.0027 U	0.0029 U	0.0029 U	0.0029 U	0.068 U	0.0028 U	0.003 U	0.0031 U	0.003 U	**0.38 J**	0.07 U	0.0029 U	0.003 U	0.0029 U	**0.93 J**	**0.85 J**	**0.018 J**	**0.017 J**	0.003 U	**0.27 J**	**0.049 J**	0.0027 U
Dibenzofuran	6.2	0.02 UJ	0.022 U	0.021 U	0.022 U	0.019 U	0.02 U	0.02 U	0.021 U	0.47 U	0.02 U	0.021 U	0.022 U	0.021 U	0.39 U	0.49 U	0.021 U	0.021 U	0.021 U	**1.3 J**	**1.4 J**	**0.012 J**	**0.0079 J**	0.021 U	**0.023 J**	0.019 U	0.019 U
Diethyl phthalate	7.1	0.01 UJ	0.011 U	0.011 U	0.012 U	0.01 U	0.01 U	0.01 U	0.011 U	0.25 U	0.01 U	0.011 U	0.011 U	0.011 U	0.2 U	0.26 U	0.011 U	0.011 U	0.011 U	0.054 U	0.048 U	0.014 U	0.01 U	0.011 U	0.0097 U	0.01 U	0.01 U
Isophorone	4.4	0.03 UJ	0.032 U	0.03 U	0.033 U	0.028 U	0.03 U	0.03 U	0.03 U	0.7 U	0.029 U	0.031 U	0.032 U	0.031 U	0.58 U	0.72 U	0.03 U	0.031 U	0.03 U	**0.2 J**	0.14 U	0.04 U	0.029 U	0.031 U	0.027 U	0.028 U	0.028 U
N-Nitrosodiphenylamine	NA	0.018 UJ	0.019 U	0.018 U	0.02 U	0.017 U	0.018 U	0.018 U	0.018 U	0.42 U	0.018 U	0.019 U	0.019 U	0.019 U	0.35 U	0.44 U	0.018 U	0.019 U	0.018 U	0.092 U	0.083 U	0.024 U	0.018 U	0.019 U	0.016 U	0.017 U	0.017 U
Pentachlorophenol	1.0	0.073 UJ	0.078 U	0.073 U	0.078 U	0.069 U	0.073 U	0.073 U	0.073 U	***1.7 U***	0.069 U	0.073 U	0.078 U	0.073 U	***1.4 U***	***1.7 U***	0.073 U	0.073 U	0.073 U	0.37 U	0.33 U	0.096 U	0.069 U	0.073 U	0.069 U	0.069 U	0.069 U
Phenol	0.03	***0.052 UJ***	***0.056 U***	***0.054 U***	***0.058 U***	***0.05 U***	***0.052 U***	***0.052 U***	***0.054 U***	***1.2 U***	***0.051 U***	***0.055 U***	***0.056 U***	***0.055 U***	***1 U***	***1.3 U***	***0.054 U***	***0.055 U***	***0.054 U***	***0.27 U***	***0.24 U***	***0.07 U***	***0.051 U***	***0.055 U***	***0.048 U***	***0.05 U***	***0.05 U***
Total SVOCs	500	**2.879**	ND	ND	ND	**1.1711**	**0.292**	ND	**0.13**	**249.5**	**0.377**	**0.14**	**0.226**	**0.173**	**345.48**	**388**	**0.027**	**0.18**	**0.18**	**166.945**	**180.44**	**5.621**	**4.1709**	**0.108**	**17.8185**	**3.282**	**0.657**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21PF008 11- 13 2/18/2004	21PF008 21- 23 2/19/2004	21PF008 29- 31 2/19/2004	21PF008 49- 51 2/19/2004	21PF009 7- 9 2/19/2004	21PF009 13- 15 2/19/2004	21PF009 31- 33 2/20/2004	21PF009 49- 51 2/20/2004	21PF010 7- 9 2/23/2004	21PF010 13- 15 2/23/2004	21PF010 27- 29 2/23/2004	21PF010 DUP 27- 29 2/23/2004	21PF010 47- 49 2/23/2004	21PF011 7- 9 2/20/2004	21PF011 11- 13 2/20/2004	21PF011 31- 33 2/20/2004	21PF011 49- 51 2/20/2004	21PF011 DUP 49- 51 2/20/2004	21PF012 DUP 7- 9 2/19/2004	21PF012 7- 9 2/19/2004	21PF012 15- 17 2/19/2004	21PF012 29- 31 2/19/2004	21PF012 49- 51 2/19/2004	21RE001 1- 3 2/17/2004	21RE001 DUP 1- 3 2/17/2004	21RE001 3- 5 2/17/2004
Metals (mg/Kg)																											
Aluminum	7960 (sb)	**7200**	**7520 J**	**4410 J**	**3270 J**	**12500 J**	**6880 J**	**5250 J**	**3480 J**	**8720 J**	**7710 J**	**5610 J**	**6810 J**	**4270 J**	**3720 J**	**6990 J**	**3110 J**	**4770 J**	**5400 J**	**6000 J**	**5960 J**	**13700 J**	**4470 J**	**3800 J**	**6730**	**6250**	**6900**
Antimony	NA	1.4 UJ	1.5 U	1.4 U	1.5 U	1.3 U	1.4 U	1.4 UJ	1.4 UJ	0.86 UJ	0.89 UJ	0.97 UJ	0.98 UJ	0.97 UJ	1.3 UJ	1.3 UJ	1.4 UJ	1.4 UJ	1.4 UJ	1.4 U	1.3 U	1.8 U	1.3 U	1.4 U	0.86 UJ	0.86 UJ	0.87 UJ
Arsenic	13.63 (sb)	**0.88 J**	**0.95 J**	**1.4 J**	**1.1 J**	**12.1 J**	**3.4 J**	0.75 U	0.76 U	**1.3 J**	**1.4 J**	**3.8 J**	**2.9 J**	0.84 U	**4.5**	**4.3**	**1.6**	0.78 U	0.77 U	**9.6 J**	**9.6 J**	**7.8 J**	**1.1 J**	0.79 UJ	**3.5 J**	**3.5 J**	**3.2 J**
Barium	300 (d)	**47.5**	**29.5 J**	**37.6 J**	**30.0 J**	**185**	**35.8 J**	**51.5**	**35.3 J**	**59.2**	**70.5**	**38.7 J**	**35.7 J**	**52.7**	**30.3 J**	**58.4**	**32.5 J**	**60.1**	**44.0 J**	**140**	**249**	**46.3 J**	**22.1 J**	**32.0 J**	**40.9 J**	**37.7 J**	**42.5 J**
Beryllium	0.463 (sb)	**0.34 J**	**0.28 J**	**0.34 J**	**0.24 J**	**0.31 J**	**0.40 J**	**0.35 J**	**0.18 J**	**0.72**	**0.30 J**	**0.21 J**	**0.15 J**	**0.21 J**	**0.10 J**	**0.26 J**	**0.13 J**	**0.28 J**	**0.31 J**	**0.41 J**	**0.40 J**	**0.72**	**0.24 J**	**0.25 J**	**0.41 J**	**0.36 J**	**0.43 J**
Cadmium	1 (d)	0.094 U	0.10 U	0.097 U	0.10 U	**0.15 J**	**0.11 J**	0.094 U	0.095 U	0.088 U	0.091 U	0.099 U	0.10 U	0.099 U	0.091 U	0.091 U	0.096 U	0.098 U	**0.11 J**	**0.56 J**	**0.47 J**	**0.16 J**	0.091 U	0.099 U	0.088 U	**0.09 J**	0.090 U
Calcium	11563 (sb)	**1190 J**	**236 J**	**1020 J**	**9090 J**	**2400 J**	**737 J**	**1050 J**	**4160**	**1660**	**937 J**	**500 J**	**449 J**	**5830**	**1810**	**3000**	**385 J**	**11500**	**15600**	**37400 J**	**30300 J**	**3450 J**	**509 J**	**8160 J**	**1160**	**1230**	**1290**
Chromium	36.69 (sb)	**11.8 J**	**12.6 J**	**11.4 J**	**7.8 J**	**42.8 J**	**12.3 J**	**13.3**	**9.5**	**18.8 J**	**16.8 J**	**8.7 J**	**9.4 J**	**9.2 J**	**8.7**	**17.9**	**9.3**	**11.7**	**13.1**	**13.1 J**	**11.9 J**	**25.0 J**	**8.9 J**	**9.8 J**	**14.5 J**	**13.7 J**	**17.2 J**
Cobalt	30 (d)	**5.5 J**	**3.2 J**	**3.7 J**	**4.0 J**	**9.9 J**	**13.9**	**4.4 J**	**3.3 J**	**20.0**	**5.2 J**	**3.1 J**	**3.0 J**	**3.7 J**	**2.2 J**	**5.0 J**	**1.7 J**	**5.6 J**	**6.1 J**	**7.4 J**	**7.5 J**	**11.2 J**	**3.1 J**	**4.4 J**	**6.4 J**	**5.1 J**	**5.6 J**
Copper	35.84 (sb)	**18.9 J**	**9.1 J**	**9.2 J**	**8.6 J**	**26.5 J**	**17.4 J**	**9.1**	**6.7**	**29.8**	**21.6**	**8.4**	**7.3**	**8.0**	**9.5**	**17.7**	**2.4 J**	**11.5**	**15.1**	**61.5 J**	**61.6 J**	**64.4 J**	**9.0 J**	**9.8 J**	**69.7 J**	**85.4 J**	**72.4 J**
Iron	14369 (sb)	**13000**	**10800**	**12800**	**7920**	**33100**	**9670**	**12600 J**	**8460 J**	**14100**	**13800**	**12300**	**12000**	**9800**	**9600 J**	**15200 J**	**5870 J**	**10800 J**	**12200 J**	**21700**	**16400**	**29200**	**8980**	**9300**	**12600**	**10900**	**11900**
Lead	237.7 (sb)	**19.4 J**	**5.5 J**	**3.9 J**	**2.6 J**	**12.2 J**	**10.6 J**	**4.3**	**3.1**	**14.4**	**7.8**	**4.1**	**4.8**	**2.8**	**8.6**	**9.6**	**2.5**	**4.0**	**5.1**	**848 J**	**567 J**	**26.6 J**	**7.4 J**	**3.8 J**	**18.3 J**	**19.3 J**	**19.1 J**
Magnesium	3129 (sb)	**2260**	**2600**	**1860**	**4460**	**7550**	**2050**	**2320**	**2920**	**3510**	**2870**	**2170**	**2600**	**3870**	**1420**	**2820**	**1300**	**5680**	**6590**	**5030**	**3990**	**5220**	**1740**	**4600**	**2160 J**	**1910 J**	**2250 J**
Manganese	358.5 (sb)	**130**	**69.4 J**	**59.7 J**	**233 J**	**193 J**	**92.3 J**	**75.1 J**	**136 J**	**155 J**	**85.5 J**	**71.6 J**	**77.1 J**	**172 J**	**47.3 J**	**104 J**	**33.1 J**	**294 J**	**437 J**	**414 J**	**267 J**	**667 J**	**82.1 J**	**216 J**	**326**	**258**	**284**
Mercury	0.1 (d)	**0.05 J**	0.018 U	0.020 U	0.021 U	0.019 U	0.017 U	0.019 U	0.020 U	**0.03 J**	**0.02 J**	**0.02 J**	0.021 U	0.021 U	**0.09 J**	**0.05 J**	0.020 U	0.020 U	**0.04 J**	**0.55 J**	**0.52 J**	**0.14 J**	0.019 U	0.018 U	**0.07 J**	**0.07 J**	**0.07 J**
Nickel	15.3 (sb)	**10.4 J**	**10.5**	**13.5**	**14.6**	**39.3**	**23.5**	**16.5**	**12.1**	**42.2**	**12.5**	**11.3**	**9.2 J**	**13.0**	**7.9 J**	**13.1**	**7.0 J**	**17.7**	**20**	**17**	**16.9**	**23.3**	**9.1**	**15.8**	**12.9**	**11.6**	**11.0**
Potassium	1197 (sb)	**1160**	**810 J**	**798 J**	**855 J**	**6450 J**	**918 J**	**1250**	**617 J**	**2370 J**	**2800 J**	**681 J**	**751 J**	**893 J**	**723 J**	**1630**	**731 J**	**1320**	**1400**	**930 J**	**890 J**	**2130 J**	**564 J**	**882 J**	**848 J**	**836 J**	**911 J**
Selenium	2 (d)	0.98 U	1.1 U	1.0 U	1.1 U	0.94 U	0.99 U	0.98 U	1.00 U	0.86 U	0.89 U	0.97 U	0.98 U	0.97 U	0.95 U	0.96 U	1.0 U	1.0 U	1.0 U	1.0 U	0.92 U	1.3 U	0.96 U	1.0 U	**1.0 J**	0.86 U	0.87 U
Silver	0.229 (sb)	***0.33 U***	***0.36 U***	***0.34 U***	***0.36 U***	***0.31 U***	***0.33 U***	***0.33 U***	***0.33 U***	0.15 U	0.16 U	0.17 U	0.18 U	0.17 U	***0.32 U***	***0.32 U***	***0.34 U***	***0.34 U***	***0.34 U***	***0.34 U***	***0.31 U***	***0.44 U***	***0.32 U***	***0.35 U***	**0.15 J**	**0.25 J**	**0.17 J**
Sodium	214.8 (sb)	**156 J**	**205 J**	**182 J**	**317 J**	**273 J**	**229 J**	**175 J**	**165 J**	79.7 U	82.3 U	89.5 U	90.7 U	89.4 U	**121 J**	**139 J**	**436 J**	**275 J**	**273 J**	**239 J**	**235 J**	**558 J**	**173 J**	**217 J**	79.2 U	79.8 U	80.9 U
Thallium	NA	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	0.97 UJ	1.0 UJ	1.1 UJ	1.1 UJ	1.1 UJ	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	1.5 U	1.1 U	1.2 U	0.96 U	0.97 U	0.99 U
Vanadium	150 (d)	**21.3**	**14.6**	**14.7**	**9.6 J**	**47.4**	**19.2**	**14.9**	**10.0 J**	**29.2**	**25.9**	**13.3**	**13.1**	**12.1 J**	**10.9 J**	**19.6**	**9.3 J**	**14.9**	**16.2**	**19.3**	**30.7**	**33.6**	**11.2 J**	**12.1 J**	**24.8**	**20.6**	**23.2**
Zinc	81.77 (d)	**31.2 J**	**25.3 J**	**22.6 J**	**17.3 J**	**48.1 J**	**40.6 J**	**24.6**	**19.2**	**92.2**	**32.8**	**25.3**	**27.8**	**22.3**	**16.0**	**29.9**	**14.2**	**25.5**	**31.4**	**224 J**	**301 J**	**67.7 J**	**22.7 J**	**19.5 J**	**53.5**	**56.8**	**47.4**
Cyanide (mg/Kg)																											
Cyanide, Total	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.99**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NS	NS	NS

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21RE001 7- 9 2/27/2004	21RE001 17- 19 2/27/2004	21RE001 27- 29 2/27/2004	21RE001 49- 51 2/27/2004	21RE002 9- 11 3/1/2004	21RE002 11- 13 3/1/2004	21RE002 27- 29 3/1/2004	21RE002 49- 51 3/1/2004	21RE003 1- 3 2/5/2004	21RE003 12- 14 2/26/2004	21RE003 DUP 12- 14 2/26/2004	21RE003 16- 18 2/26/2004	21RE003 26- 28 2/26/2004	21RE003 48- 50 2/26/2004	21RE004 1- 3 2/18/2004	21RE004 DUP 1- 3 2/18/2004	21RE004 3- 5 2/18/2004	21RE004 9- 11 2/26/2004	21RE004 19- 21 2/26/2004	21RE004 31- 33 2/26/2004	21RE004 39- 41 2/26/2004	21RE005 1- 3 2/6/2004	21RE005 3- 5 2/6/2004	21RE005 10- 11 2/27/2004	21RE005 21- 23 2/27/2004	21RE005 27- 29 2/27/2004	21RE005 49- 51 2/27/2004
BTEX (mg/Kg)																												
Benzene	0.06	**0.0044**	**0.21**	**78**	**0.012**	**0.0035**	**0.34**	**12**	**0.013**	**0.0011**	***0.45 U***	***0.22 U***	**0.19**	**0.24**	**0.0075**	**0.0014**	**0.0016**	**0.012**	**0.88**	**1**	**0.83**	**0.071 J**	**0.0038**	**0.0018**	**2 J**	**210**	**400**	**0.0094**
Ethyl Benzene	5.5	**0.0015 J**	1.2	**17**	**0.0017 J**	**0.0026 J**	**3**	**15**	**0.012**	0.0002 U	**41**	**13**	**0.25 J**	**0.5**	**0.0011 J**	0.00022 U	0.00022 U	**0.016**	**15**	**9.7**	**0.14 J**	**0.38 J**	0.00022 U	0.00024 U	**120**	**420**	**900**	**0.0015 J**
Toluene	1.5	**0.0047 J**	**0.22 J**	**140**	**0.0062**	**0.0021 J**	0.026 U	**38**	**0.0067**	**0.0012 J**	0.38 U	0.19 U	0.02 U	**0.29 J**	**0.0022 J**	**0.0012 J**	**0.0014 J**	**0.0044 J**	**0.76 J**	**0.52 J**	**0.13 J**	**0.22 J**	**0.0023 J**	**0.0022 J**	**2.5 J**	**480**	**710**	**0.0024 J**
Xylene (Total)	1.2	**0.0029 J**	**0.32 J**	**180**	**0.0031 J**	**0.0023 J**	**1.6**	**75**	**0.014**	0.00049 U	**53**	**15**	**0.34 J**	**1.1**	**0.003 J**	0.00051 U	0.00052 U	**0.025**	**15**	**10**	**0.35 J**	**0.73**	**0.0016 J**	0.00058 U	**120**	**750**	**1400**	**0.0032 J**
Volatile Organic Compounds (VOCs) (mg/Kg)																												
1,2,4-Trichlorobenzene	3.4	0.028 U	0.028 U	***18 U***	0.03 U	0.61 U	1.8 U	1.7 U	0.03 U	0.026 U	2.9 U	2.9 U	0.56 U	3.1 U	0.031 U	0.026 U	0.026 U	0.056 U	2.9 U	0.7 U	0.029 U	0.054 U	0.028 U	0.029 U	***8.1 U***	***15 U***	***14 U***	0.032 U
2-Butanone (Methyl Ethyl Ketone)	0.3	0.0011 U	0.21 U	***5.5 U***	**0.008**	**0.0012 R**	**0.3 R**	***2.8 R***	**0.0012 R**	0.001 U	***4.4 R***	***2.2 R***	**0.23 R**	**0.23 R**	**0.0012 R**	**0.0054 J**	**0.0069 J**	**0.007 J**	***1.2 R***	***1.1 R***	**0.23 R**	**0.21 R**	0.0011 U	0.0012 U	***5.1 U***	***9.1 U***	***11 U***	0.0012 U
4-Methyl-2-pentanone	1	0.00081 U	0.12 U	***3.2 U***	0.00089 U	0.00089 U	0.17 U	***1.6 U***	0.00089 U	0.00075 U	***2.5 U***	**9.1**	0.13 U	0.13 U	0.00089 U	0.00078 U	0.0008 U	0.00083 U	0.68 U	0.61 U	0.13 U	0.12 U	0.00083 U	0.00089 U	***2.9 U***	***5.2 U***	***6.3 U***	0.00092 U
Acetone	0.2	0.023 U	0.2 UJ	***5.3 U***	0.048 U	**0.038 J**	***0.28 UJ***	***2.6 UJ***	0.0029 UJ	**0.068 J**	***4.2 UJ***	***2.1 UJ***	***0.22 UJ***	***0.22 UJ***	0.026 U	**0.1**	**0.13**	**0.14**	***1.1 UJ***	***1 UJ***	***0.22 UJ***	0.2 UJ	**0.11**	**0.1**	***4.9 U***	***8.7 U***	***10 U***	0.003 UJ
Carbon Disulfide	2.7	0.00033 U	0.027 U	0.72 U	**0.0006 J**	**0.001 J**	0.038 U	0.36 U	0.00036 U	0.00031 U	0.56 UJ	0.29 UJ	0.03 UJ	0.03 UJ	**0.001 J**	0.00032 U	0.00032 U	**0.0019 J**	0.15 UJ	0.14 UJ	0.03 U	0.028 UJ	0.00034 U	0.00036 U	0.67 U	1.2 U	1.4 U	0.00037 U
cis-1,2-Dichloroethene	NA	0.00033 U	0.023 U	0.62 U	0.00036 U	0.00036 U	0.033 U	0.31 U	**0.001 J**	0.00031 U	0.48 U	0.25 U	0.026 U	0.026 U	**0.004 J**	0.00032 U	0.00032 U	0.00034 U	0.13 U	0.12 U	0.026 U	0.024 U	0.00034 U	0.00036 U	0.57 U	1 U	1.2 U	**0.0044 J**
Methylene Chloride	0.1	0.0006 U	0.014 U	***0.36 U***	0.017 U	0.0027 U	0.019 U	***0.18 U***	0.0017 U	0.0008 U	***0.28 U***	***0.14 U***	0.015 U	0.015 U	0.0013 U	0.0016 U	0.002 U	0.0019 U	0.077 U	0.068 U	0.015 U	0.014 U	**0.036 B**	**0.05 B**	***0.34 U***	***0.6 U***	***0.68 U***	0.0006 U
Styrene	NA	0.00013 U	0.017 U	**36**	0.00014 U	0.00014 U	0.024 U	**9.8**	0.00014 U	0.00012 U	0.35 U	0.18 U	0.019 U	0.019 U	0.00014 U	0.00013 U	0.00013 U	0.00013 U	0.096 U	0.087 U	0.019 U	**0.05 J**	0.00013 U	**0.0012 J**	0.42 U	**260**	**88**	**0.0003 J**
Tetrachloroethene	1.4	0.00019 U	0.037 U	0.95 U	0.0002 U	0.0002 U	0.051 U	0.47 U	0.0002 U	0.00017 U	0.74 U	0.37 U	0.04 U	0.04 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.2 U	0.18 U	0.04 U	0.037 U	0.00019 U	0.0002 U	0.91 U	***1.6 U***	***1.8 U***	0.0002 U
Trichloroethene	0.7	0.0003 U	0.027 U	0.69 U	**0.0035**	0.00032 U	0.037 U	0.35 U	0.00032 U	0.00027 U	0.54 U	0.27 U	0.03 U	0.03 U	0.00032 U	0.0003 U	0.0003 U	0.0003 U	0.15 U	0.13 U	0.03 U	0.027 U	0.0003 U	0.00032 U	0.67 U	***1.2 U***	***1.4 U***	0.00032 U
Total VOCs	10	**0.0135**	**1.95**	**451**	**0.0351**	**0.0495**	**4.94**	**149.8**	**0.0467**	**0.0703**	**94**	**37.1**	**0.78**	**2.13**	**0.0188**	**0.108**	**0.1399**	**0.2063**	**31.64**	**21.22**	**1.45**	**1.451**	**0.1537**	**0.1552**	**244.5**	**2120**	**3498**	**0.0212**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																												
Acenaphthene	50	**0.029 J**	**0.86**	**140 J**	**0.022 J**	**36**	**79**	**14 J**	0.0035 U	**0.0081 J**	**98**	**130**	**23**	**41 J**	0.0036 U	**0.096 J**	**0.097 J**	**4.2**	**180**	**16**	**0.1 J**	**0.77**	**0.063 J**	**0.08 J**	**340**	**67 J**	**120 J**	0.0037 U
Acenaphthylene	41	**0.099 J**	**0.18 J**	**210 J**	**0.037 J**	**15**	**31**	**41**	**0.03 J**	0.003 U	**47**	**49**	**8.2**	**47**	0.0036 U	**1**	**0.94**	**4.4**	**37 J**	**12**	**0.23 J**	**2.4**	**0.69**	**0.14 J**	**42 J**	**300**	**500**	**0.025 J**
Anthracene	50	**0.075 J**	**0.27 J**	**380**	**0.081 J**	**33**	**82**	**45**	**0.02 J**	**0.025 J**	**67**	**81**	**13**	**110**	0.0032 U	**1**	**0.54**	**5.4**	**80**	**14**	**0.24 J**	**2.1**	**0.41**	**0.26 J**	**110 J**	**110 J**	**200**	**0.025 J**
Benzo(a)anthracene	0.224	**0.16**	**0.27**	**370**	**0.093**	**23**	**130**	**27**	**0.014 J**	**0.057**	**60**	**78**	**12**	**98**	**0.009 J**	**2.1**	**0.92**	**4.6**	**56**	**11**	**0.19**	**1.6**	**0.57**	**0.5**	**59**	**70**	**130**	**0.029 J**
Benzo(a)pyrene	0.061	**0.16**	**0.18**	**300**	**0.064**	**20**	**130**	**24**	0.003 U	**0.051**	**40**	**54**	**7.9**	**62**	0.0031 U	**2.2**	**1.2**	**5.6**	**38**	**10**	**0.15**	**1.3**	**0.63**	**0.46**	**47**	**55**	**110**	**0.022 J**
Benzo(b)fluoranthene	1.1	**0.084**	**0.078**	**160**	**0.044**	**8.3**	**74**	**11**	0.0032 U	**0.035 J**	**17**	**24**	**3.5**	**36**	0.0032 U	**1.3**	**0.75**	**3.4**	**16**	**4.1**	**0.077**	**0.64**	**0.52**	**0.46**	**18**	**23**	**40**	**0.0093 J**
Benzo(ghi)perylene	50	**0.094 J**	**0.071 J**	**120 J**	**0.033 J**	**10**	**54**	**10 J**	0.0044 U	**0.029 J**	**16 J**	**21 J**	**3.1 J**	**20 J**	0.0045 U	**1.8**	**0.71**	**2.9**	**13 J**	**4.7 J**	0.0043 U	**0.59 J**	**0.27 J**	**0.17 J**	**19 J**	**20 J**	**38 J**	0.0047 U
Benzo(k)fluoranthene	1.1	**0.15**	**0.16**	**290**	**0.055**	**15**	**120**	**21**	0.0043 U	**0.049**	**26**	**38**	**5.3**	**56**	0.0044 U	**1.8**	**1.2**	**4.6**	**27**	**6.8**	**0.12**	**1.1**	**0.67**	**0.53**	**34**	**37**	**79**	**0.021 J**
Chrysene	0.4	**0.18 J**	**0.31 J**	**310**	**0.084 J**	**28**	**130**	**30**	**0.02 J**	**0.06 J**	**60**	**77**	**12**	**88**	0.0052 U	**2.2**	**0.99**	**4.8**	**54**	**11**	**0.18 J**	**1.6**	**0.62**	**0.5**	**58 J**	**68 J**	**130 J**	**0.031 J**
Dibenz(a,h)anthracene	0.014	**0.026 J**	**0.028 J**	**48**	**0.014 J**	**2.9**	**23**	**1.7 J**	0.0027 U	0.0024 U	**5.9**	**5.1**	***0.051 U***	**10**	0.0028 U	**0.48**	**0.21**	**1**	**3.3 J**	***0.063 U***	0.0026 U	**0.2**	**0.11**	**0.079**	**6.1 J**	**6.6 J**	**13 J**	0.0029 U
Fluoranthene	50	**0.44**	**0.47**	**660**	**0.17 J**	**44**	**170**	**69**	**0.026 J**	**0.13 J**	**130**	**160**	**26**	**200**	**0.018 J**	**3.7**	**1.1**	**7.7**	**94**	**18**	**0.39 J**	**3.7**	**0.83**	**1**	**88 J**	**110 J**	**200**	**0.052 J**
Fluorene	50	**0.076 J**	**0.66**	**520**	**0.08 J**	**36**	**49**	**62**	0.0028 U	0.0025 U	**160**	**190**	**32**	**160**	0.0029 U	**0.26 J**	**0.14 J**	**3.8**	**120**	**22**	**0.33 J**	**3.1**	**0.062 J**	**0.11 J**	**130**	**160 J**	**300**	**0.018 J**
Indeno(1,2,3-cd)pyrene	3.2	**0.075**	**0.06**	**120**	**0.03 J**	**7.8**	**53**	**8.2**	0.0027 U	**0.025 J**	**12**	**15**	**2.3**	**19**	0.0027 U	**1.4**	**0.68**	**2.6**	**11**	**3.9**	**0.047**	**0.55**	**0.26**	**0.17**	**16**	**18 J**	**33**	0.0029 U
Naphthalene	13	**0.03 J**	**6**	**3200**	**0.13 J**	**92**	**4.2 J**	**390**	**0.092 J**	0.0032 U	**490**	**710**	**110**	**750**	**0.059 J**	**0.43**	**1.2**	**2.1**	**690**	**160**	**0.33 J**	**9.8**	**0.2 J**	**0.11 J**	**2600**	**2200**	**3800**	**0.048 J**
Phenanthrene	50	**0.46**	**1.6**	**1800**	**0.37 J**	**150**	**280**	**170**	**0.082 J**	**0.12 J**	**490**	**590**	**100**	**470**	**0.042 J**	**3.9**	**1.2**	**15**	**330**	**77**	**1.1**	**9.3**	**0.79**	**0.92**	**390**	**480**	**880**	**0.11 J**
Pyrene	50	**0.49**	**0.72**	**690**	**0.2 J**	**59**	**170**	**66**	**0.044 J**	**0.12 J**	**220**	**260**	**43**	**190**	**0.023 J**	**4.2 J**	**1.5 J**	**11 J**	**150**	**34**	**0.39 J**	**3.5**	**1**	**0.97**	**150**	**180 J**	**330**	**0.063 J**
Benzo(a)pyrene Equivalents	NA	**0.21958**	**0.25071**	**416.21**	**0.095334**	**26.988**	**180.03**	**30.56**	**0.00142**	**0.06325**	**55.12**	**71.257**	**9.745**	**87.948**	**0.0009**	**3.1802**	**1.65799**	**7.7108**	**49.924**	**11.979**	**0.18278**	**1.7916**	**0.88232**	**0.6578**	**62.798**	**73.138**	**144.22**	**0.026071**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																												
2,4-Dimethylphenol	NA	0.035 U	0.035 U	**72 J**	0.038 U	0.77 U	2.3 U	**11 J**	0.038 U	0.033 U	3.6 U	3.6 U	0.71 U	**6.4 J**	0.039 U	0.033 U	0.033 U	0.071 U	3.7 U	0.89 U	**0.2 J**	**0.19 J**	0.035 U	0.037 U	10 U	18 U	18 U	0.041 U
2-Chloronaphthalene	NA	0.024 U	0.024 U	16 U	0.026 U	0.52 U	1.6 U	1.4 U	0.026 U	0.023 U	2.5 U	2.5 U	0.49 U	2.7 U	0.027 U	0.023 U	0.023 U	0.049 U	2.5 U	0.61 U	0.025 U	0.047 U	0.024 U	0.025 U	7 U	13 U	12 U	0.028 U
2-Methylnaphthalene	36.4	**0.017 J**	**3.4**	**1000**	**0.057 J**	**77**	1.2 U	**110**	**0.064 J**	0.017 U	**370**	**540**	**84**	**320**	**0.023 J**	**0.17 J**	**0.57**	**0.76 J**	**300**	**85**	**0.4**	**6.3**	**0.2 J**	**0.068 J**	**860**	**1200**	**2000**	**0.025 J**
2-Methylphenol	0.1	0.034 U	0.034 U	***23 U***	0.037 U	***0.75 U***	***2.3 U***	**0.58 J**	0.037 U	0.033 U	***3.5 U***	***3.5 U***	***0.7 U***	**1.6 J**	0.038 U	0.033 U	0.033 U	0.07 U	***3.6 U***	***0.87 U***	0.036 U	0.067 U	0.034 U	0.036 U	***10 U***	***18 U***	***17 U***	0.04 U
4-Methylphenol	0.9	0.038 U	0.038 U	**31 J**	0.041 U	0.82 U	***2.5 U***	**3.3 J**	0.041 U	0.036 U	***3.9 U***	***3.9 U***	0.76 U	**3.5 J**	0.042 U	0.036 U	**0.013 J**	**0.062 J**	***4 U***	***0.95 U***	0.04 U	**0.078 J**	0.038 U	0.04 U	***11 U***	***20 U***	***19 U***	0.044 U
4-Nitrophenol	0.1	0.011 U	0.011 U	***7.5 U***	0.012 U	***0.25 U***	***0.76 U***	***0.71 U***	0.012 U	0.011 U	***1.2 U***	***1.1 U***	***0.24 U***	***1.3 U***	0.013 U	0.011 U	0.011 U	0.024 U	***1.2 U***	***0.29 U***	0.012 U	0.023 U	0.011 U	0.012 U	***3.4 U***	***6.2 U***	***5.8 U***	0.013 U
bis(2-Ethylhexyl) phthalate	50	**0.15 J**	**0.079 J**	15 U	0.025 U	0.5 U	1.5 U	1.4 U	0.025 U	0.14 U	2.4 U	2.4 U	0.47 U	2.5 U	0.025 U	**0.17 J**	0.44 U	0.65 U	2.4 U	0.58 U	0.024 U	0.045 U	**0.11 J**	**0.15 J**	6.7 U	12 U	12 U	0.027 U
Butyl benzyl phthalate	50	0.015 U	0.015 U	10 U	0.017 U	0.34 U	1 U	0.93 U	0.017 U	0.015 U	1.6 U	1.6 U	0.31 U	1.7 U	0.017 U	0.015 U	0.015 U	0.031 U	1.6 U	0.39 U	0.016 U	0.03 U	0.015 U	0.016 U	4.5 U	8.1 U	7.7 U	0.018 U
Carbazole	NA	**0.015 J**	**0.097 J**	**170 J**	**0.044 J**	**1.3 J**	**1.3 J**	**28**	0.003 U	0.0026 U	**2.7 J**	**5 J**	**0.81 J**	**58**	0.0031 U	**0.042 J**	**0.1 J**	**0.34 J**	**3.2 J**	0.071 U	**0.14 J**	**0.98**	**0.036 J**	**0.12 J**	**5.1 J**	**5.8 J**	**16 J**	0.0032 U
Dibenzofuran	6.2	**0.018 J**	**0.079 J**	**390**	**0.046 J**	**6.2 J**	**20 J**	**38**	0.021 U	0.018 U	**11 J**	**16 J**	**2.3 J**	**97**	0.022 U	**0.1 J**	**0.085 J**	**0.86**	**16 J**	**3.4 J**	**0.15 J**	**1.6**	**0.037 J**	**0.083 J**	**24 J**	**38 J**	**73 J**	0.023 U
Diethyl phthalate	7.1	0.01 U	0.01 U	6.8 U	0.011 U	0.22 U	0.68 U	0.62 U	0.011 U	0.0097 U	1 U	1 U	0.21 U	1.1 U	0.011 U	0.0097 U	0.0097 U	0.021 U	1.1 U	0.26 U	0.011 U	0.02 U	0.01 U	0.011 U	3 U	5.4 U	5.1 U	0.012 U
Isophorone	4.4	0.029 U	0.029 U	***19 U***	0.031 U	0.63 U	1.9 U	1.7 U	0.031 U	0.027 U	3 U	3 U	0.58 U	3.2 U	0.032 U	0.027 U	0.027 U	0.058 U	3 U	0.73 U	0.03 U	0.056 U	0.029 U	0.03 U	***8.4 U***	***15 U***	***14 U***	0.033 U
N-Nitrosodiphenylamine	NA	0.018 U	0.018 U	12 U	0.019 U	0.38 U	1.2 U	1 U	0.019 U	0.016 U	1.8 U	1.8 U	0.35 U	1.9 U	0.019 U	0.016 U	0.016 U	0.035 U	1.8 U	0.44 U	0.018 U	0.034 U	0.018 U	0.018 U	5.1 U	9.2 U	8.8 U	0.02 U
Pentachlorophenol	1.0	0.069 U	0.069 U	***45 U***	0.073 U	***1.5 U***	***4.6 U***	***4.2 U***	0.073 U	0.064 U	***7.3 U***	***6.9 U***	***1.4 U***	***7.8 U***	0.078 U	0.064 U	0.064 U	0.14 U	***7.3 U***	***1.7 U***	0.073 U	0.14 U	0.069 U	0.073 U	***20 U***	***38 U***	***35 U***	0.078 U
Phenol	0.03	***0.051 U***	***0.051 U***	***34 U***	***0.055 U***	***1.1 U***	***3.4 U***	***3.1 U***	***0.055 U***	***0.048 U***	***5.2 U***	***5.2 U***	***1 U***	***5.6 U***	***0.056 U***	***0.048 U***	***0.048 U***	***0.1 U***	***5.4 U***	***1.3 U***	***0.054 U***	***0.099 U***	***0.051 U***	***0.054 U***	***15 U***	***27 U***	***26 U***	***0.059 U***
Total SVOCs	500	**2.828**	**15.572**	**10981**	**1.654**	**664.5**	**1600.5**	**1180.78**	**0.392**	**0.7091**	**2322.6**	**3043.1**	**488.41**	**2843.5**	**0.174**	**28.348**	**14.145**	**85.122**	**2218.5**	**492.9**	**4.764**	**51.398**	**8.078**	**6.88**	**4996.2**	**5148.4**	**8992**	**0.4783**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21RE001 7- 9 2/27/2004	21RE001 17- 19 2/27/2004	21RE001 27- 29 2/27/2004	21RE001 49- 51 2/27/2004	21RE002 9- 11 3/1/2004	21RE002 11- 13 3/1/2004	21RE002 27- 29 3/1/2004	21RE002 49- 51 3/1/2004	21RE003 1- 3 2/5/2004	21RE003 12- 14 2/26/2004	21RE003 DUP 12- 14 2/26/2004	21RE003 16- 18 2/26/2004	21RE003 26- 28 2/26/2004	21RE003 48- 50 2/26/2004	21RE004 1- 3 2/18/2004	21RE004 DUP 1- 3 2/18/2004	21RE004 3- 5 2/18/2004	21RE004 9- 11 2/26/2004	21RE004 19- 21 2/26/2004	21RE004 31- 33 2/26/2004	21RE004 39- 41 2/26/2004	21RE005 1- 3 2/6/2004	21RE005 3- 5 2/6/2004	21RE005 10- 11 2/27/2004	21RE005 21- 23 2/27/2004	21RE005 27- 29 2/27/2004	21RE005 49- 51 2/27/2004
Metals (mg/Kg)																												
Aluminum	7960 (sb)	**6850 J**	**5940 J**	**11100 J**	**4150 J**	**8820 J**	**5070 J**	**11000 J**	**5630 J**	**7160**	**6150 J**	**6690 J**	**6620 J**	**5420 J**	**2370 J**	**5220**	**4840**	**6720**	**4420 J**	**4780 J**	**5670 J**	**1970 J**	NS	NS	**8180 J**	**5350 J**	**4040 J**	**2760 J**
Antimony	NA	1.3 UJ	1.3 UJ	1.7 UJ	1.4 UJ	1.5 UJ	1.7 UJ	1.6 UJ	1.4 UJ	0.84 U	1.4 U	1.3 U	1.3 U	1.5 U	1.5 U	1.3 UJ	1.3 UJ	1.3 UJ	1.4 U	1.3 U	1.4 U	1.3 U	NS	NS	1.6 UJ	1.4 UJ	1.3 UJ	1.5 UJ
Arsenic	13.63 (sb)	**2.9**	**0.99 J**	**8.2**	0.78 U	**10.1**	**9.7**	**15.1**	**0.90 J**	**1.1 J**	**2.0**	**2.2**	**1.4**	**1.9**	0.81 U	**2.8**	**2.0**	**5.0**	**4.0**	**1.4**	**1.6**	0.71 U	NS	NS	**8.8**	**2.8**	**2.1**	0.84 U
Barium	300 (d)	**40.7 J**	**61.1**	**45.2 J**	**54.2**	**54.6**	**45.5 J**	**45.5 J**	**100**	**51.6**	**52.3**	**79.8**	**62.3**	**32.6 J**	**27.0 J**	**75.5**	**50.4**	**108**	**47.1 J**	**46.6**	**28.0 J**	**29.6 J**	NS	NS	**83.9**	**40.7 J**	**31.3 J**	**36.4 J**
Beryllium	0.463 (sb)	**0.41 J**	**0.33 J**	**0.65**	**0.28 J**	**0.5**	**0.66**	**0.69**	**0.42 J**	**0.54**	**0.38 J**	**0.5**	**0.41 J**	**0.38 J**	**0.18 J**	**0.34 J**	**0.33 J**	**0.38 J**	**0.68**	**0.28 J**	**0.38 J**	**0.13 J**	NS	NS	**1.3**	**0.34 J**	**0.26 J**	**0.18 J**
Cadmium	1 (d)	0.090 U	0.091 U	0.12 U	0.098 U	**0.29 J**	**0.15 J**	0.11 U	0.098 U	**0.14 J**	0.094 U	0.093 U	0.093 U	0.10 U	0.10 U	**0.17 J**	**0.10 J**	**0.24 J**	0.095 U	0.093 U	0.096 U	0.089 U	NS	NS	0.11 U	0.098 U	0.091 U	0.10 U
Calcium	11563 (sb)	**1150 J**	**3590 J**	**4100 J**	**10800 J**	**4430 J**	**2240 J**	**4120 J**	**11900 J**	**1400**	**14900**	**4370**	**3650**	**2150**	**6500**	**2350 J**	**6850 J**	**7300 J**	**19000**	**6480**	**1170 J**	**454 J**	NS	NS	**7720 J**	**6050 J**	**5570 J**	**8990 J**
Chromium	36.69 (sb)	**14.4**	**11.9**	**21.8**	**10.6**	**21.9**	**12.4**	**20.7**	**14.0**	**17.7 J**	**12.8**	**13.2**	**15.6**	**13.4**	**6.7**	**11.7 J**	**11.4 J**	**13.0 J**	**6.8**	**11.0**	**14.4**	**5.2**	NS	NS	**13.9**	**15.1**	**9.3**	**7.5**
Cobalt	30 (d)	**6.1 J**	**5.0 J**	**8.3 J**	**4.6 J**	**5.4 J**	**6.7 J**	**9.2 J**	**7.4 J**	**6.3 J**	**5.6 J**	**6.5 J**	**5.9 J**	**5.9 J**	**3.1 J**	**4.8 J**	**4.5 J**	**5.7 J**	**5.5 J**	**4.5 J**	**6.1 J**	**2.0 J**	NS	NS	**16.4**	**6.0 J**	**4.0 J**	**3.4 J**
Copper	35.84 (sb)	**72.2 J**	**30.4 J**	**24.7 J**	**8.8 J**	**40.9**	**41.3**	**32.1**	**11.1**	**144**	**17.0**	**25.4**	**28.2**	**17.6**	**5.4 J**	**28.8 J**	**26.7 J**	**32.8 J**	**40.5**	**110**	**11.7**	**5.1 J**	NS	NS	**62.9 J**	**21.2 J**	**15.3 J**	**7.1 J**
Iron	14369 (sb)	**12000 J**	**10800 J**	**25600 J**	**9890 J**	**15600 J**	**21600 J**	**26900 J**	**13200 J**	**15500**	**12400**	**14100**	**13400**	**16400**	**5810**	**9840**	**9200**	**13000**	**14300**	**9240**	**14100**	**5710**	NS	NS	**33100 J**	**12800 J**	**8820 J**	**7320 J**
Lead	237.7 (sb)	**18.0**	**48.5**	**93.2**	**3.8 J**	**42.4**	**71.8**	**175**	**5.4**	**14.8**	**37.0 J**	**47.6 J**	**33.8 J**	**34.1 J**	**2.1 J**	**47.1 J**	**46.0 J**	**102 J**	**191 J**	**99.9 J**	**5.1 J**	**1.2 J**	NS	NS	**52.7**	**34.7**	**27.4**	**2.5**
Magnesium	3129 (sb)	**2290**	**2320**	**5300**	**5150**	**2440**	**1050 J**	**4940**	**6270**	**2730**	**2520**	**2800**	**2600**	**2280**	**3530**	**2230**	**4320**	**2140**	**1310**	**2550**	**2890**	**1580**	NS	NS	**2140**	**3230**	**1980**	**4140**
Manganese	358.5 (sb)	**303**	**201**	**485**	**338**	**356**	**259**	**838**	**451**	**408**	**239 J**	**226 J**	**250 J**	**276 J**	**185 J**	**201**	**277**	**331**	**347 J**	**149 J**	**87.9 J**	**45.3 J**	NS	NS	**278**	**434**	**234**	**253**
Mercury	0.1 (d)	**0.10**	**0.08**	**0.52**	0.017 U	**0.21**	**0.18**	**0.6**	0.021 U	0.018 UJ	**0.07**	**0.3**	**0.12**	**0.15**	0.021 U	**0.12 J**	**0.10 J**	**0.34 J**	**0.13**	**0.19**	0.020 U	0.019 U	NS	NS	**0.17**	**0.04 J**	**0.08**	0.022 U
Nickel	15.3 (sb)	**12.1**	**13.5**	**21.4**	**17.3**	**12.5**	**52.8**	**20**	**22.1**	**12.0**	**14.0**	**18**	**13.2**	**12.5**	**15.2**	**15.3 J**	**14.8 J**	**12.7 J**	**14.7**	**10.2**	**18.8**	**9.1**	NS	NS	**57.6**	**18.2**	**10.8**	**15.1**
Potassium	1197 (sb)	**648 J**	**922 J**	**1800 J**	**992 J**	**689 J**	**501 J**	**2040**	**1490**	**1050**	**1000 J**	**923 J**	**1100 J**	**781 J**	**483 J**	**704 J**	**622 J**	**870 J**	**544 J**	**1090 J**	**1170 J**	**348 J**	NS	NS	**593 J**	**1150 J**	**690 J**	**541 J**
Selenium	2 (d)	0.95 U	0.95 U	1.2 U	1.0 U	1.1 U	**2.4**	1.2 U	1.0 U	0.84 U	0.98 U	0.98 U	0.98 U	1.1 U	1.1 U	0.92 U	0.92 U	0.97 U	1.00 U	0.97 U	1.0 U	0.93 U	NS	NS	**4.8**	1.0 U	0.96 U	1.1 U
Silver	0.229 (sb)	***0.32 U***	***0.32 U***	***0.42 U***	***0.34 U***	***0.35 U***	***0.42 U***	***0.39 U***	***0.34 U***	0.15 U	***0.33 U***	***0.33 U***	***0.33 U***	***0.35 U***	***0.35 U***	***0.31 U***	***0.31 U***	***0.32 U***	***0.33 U***	***0.32 U***	***0.33 U***	***0.31 U***	NS	NS	***0.38 U***	***0.34 U***	***0.32 U***	***0.37 U***
Sodium	214.8 (sb)	89.4 U	89.7 U	**1260 J**	**221 J**	**187 J**	**258 J**	**1360 J**	**162 J**	77.3 U	92.7 U	91.9 U	91.9 U	**115 J**	99.6 U	**144 J**	**155 J**	**196 J**	**126 J**	**122 J**	**276 J**	**92.0 J**	NS	NS	**296 J**	**117 J**	**111 J**	104 U
Thallium	NA	1.1 U	1.1 U	1.4 U	1.1 U	1.2 U	1.4 U	1.3 U	1.2 U	0.94 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	1.0 U	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	NS	NS	1.3 U	1.2 U	1.1 U	1.2 U
Vanadium	150 (d)	**21.0**	**15.1**	**29.6**	**12.1**	**32.9**	**17.2**	**29.4**	**16.7**	**30.6**	**18.3**	**21.1**	**19.9**	**34.6**	**7.2 J**	**14.4**	**14.4**	**18.8**	**14.3**	**14.4**	**16.5**	**8.8 J**	NS	NS	**24.5**	**16.6**	**11.7**	**9.2 J**
Zinc	81.77 (d)	**47.9**	**41.5**	**67.0**	**22.0**	**66.3**	**114**	**76.9**	**32.0**	**122**	**29.3**	**38.6**	**37.9**	**33.9**	**13.7**	**54.6 J**	**47.6 J**	**96.1 J**	**61.4**	**45.4**	**30.1**	**12.3**	NS	NS	**115**	**60.7**	**43.5**	**15.3**
Cyanide (mg/Kg)																												
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	0.5 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21RE006 1- 3 2/18/2004	21RE006 3- 5 2/18/2004	21RE006 9- 11 3/2/2004	21RE006 DUP 13- 15 3/2/2004	21RE006 13- 15 3/2/2004	21RE006 29- 31 3/2/2004	21RE006 49- 51 3/2/2004	21RE007 9- 11 3/3/2004	21RE007 11- 13 3/3/2004	21RE007 13- 15 3/3/2004	21RE007 29- 31 3/3/2004	21RE007 49- 51 3/3/2004	21RE008 11- 13 3/1/2004	21RE008 DUP 17- 19 3/1/2004	21RE008 17- 19 3/1/2004	21RE008 29- 31 3/1/2004	21RE008 49- 51 3/1/2004	21RE009 1- 3 2/25/2004	21RE009 DUP 1- 3 2/25/2004	21RE009 3- 5 2/25/2004	21RE009 13- 15 3/4/2004	21RE009 29- 31 3/4/2004	21RE009 DUP 29- 31 3/4/2004	21RE009 31- 33 3/4/2004	21RE009 49- 51 3/4/2004	21RE010 1- 3 2/18/2004
BTEX (mg/Kg)																												
Benzene	0.06	0.00025 U	0.00025 U	**2.4**	0.025 U	0.022 U	**25**	**0.0037**	**0.0026**	0.022 U	0.022 U	**47**	**0.0033**	**0.61**	**1**	**1.3**	**3.4**	**0.0044**	0.00025 U	0.00025 U	0.00023 U	**0.17 J**	**40**	**66**	**1.7**	**0.0066**	0.00023 U
Ethyl Benzene	5.5	0.00022 U	0.00022 U	**76**	**0.47**	**0.27 J**	**13**	0.00024 U	**0.0008 J**	**0.27 J**	**0.24 J**	**28**	0.00025 U	**0.49**	**8.4**	**14**	**2.2**	**0.00024 R**	0.00022 U	0.00022 U	0.0002 U	**0.22 J**	**20**	**19**	**2.3**	0.00026 U	0.0002 U
Toluene	1.5	0.00022 U	0.00023 U	**5.2**	0.02 U	0.018 U	**41**	0.00024 U	**0.0014 J**	**0.057 J**	0.02 U	**94**	**0.0014 J**	**0.33 J**	**0.38 J**	**0.62**	**3.7**	**0.00024 R**	0.00021 U	0.00022 U	0.0002 U	**0.18 J**	**100**	**150**	**1.1**	**0.0021 J**	0.00021 U
Xylene (Total)	1.2	0.00052 U	0.00053 U	**90**	**0.1 J**	**0.06 J**	**64**	0.00058 U	0.00053 U	**0.4 J**	**0.49 J**	**200**	0.0006 U	**0.49 J**	**10**	**17**	**10**	**0.00058 R**	0.00051 U	0.00052 U	0.00049 U	**1.9**	**190**	**240**	**4.4**	0.00061 U	0.0005 U
Volatile Organic Compounds (VOCs) (mg/Kg)																												
1,2,4-Trichlorobenzene	3.4	0.026 U	0.027 U	1.4 U	1.4 UJ	1.4 U	0.73 UJ	0.031 U	0.027 U	0.73 U	0.71 U	***15 U***	0.031 U	0.028 U	0.029 U	0.062 U	0.73 U	0.03 U	0.026 U	0.026 U	0.026 U	1.4 U	***6.9 U***	3.2 U	3 U	0.032 U	0.026 U
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.0011 R**	**0.0011 R**	***0.87 R***	**0.23 R**	**0.21 R**	***1.1 R***	**0.0012 R**	**0.0011 R**	**0.22 R**	**0.22 R**	***2.4 R***	**0.0012 R**	**0.21 R**	**0.22 R**	**0.24 R**	**0.24 R**	**0.0012 R**	0.001 U	0.0011 U	0.001 U	***0.48 R***	***1.1 R***	***2.4 R***	**0.24 R**	**0.0013 R**	**0.001 R**
4-Methyl-2-pentanone	1	0.0008 U	0.00081 U	0.5 U	0.13 U	0.12 U	0.63 U	0.00089 U	0.00081 U	0.13 U	0.13 U	***1.4 U***	0.00093 U	0.12 U	0.13 U	0.14 U	0.14 U	**0.00089 R**	0.00078 U	0.0008 U	0.00075 U	0.27 U	0.63 U	***1.4 U***	**0.14 J**	0.00095 U	0.00077 U
Acetone	0.2	**0.042**	**0.037**	***0.83 U***	***0.22 U***	0.2 U	***1 U***	0.0029 UJ	0.0027 U	***0.21 U***	***0.22 U***	***2.3 U***	0.003 UJ	0.2 UJ	***0.22 UJ***	***0.23 UJ***	***0.23 UJ***	**0.049**	**0.024 J**	**0.025 J**	**0.022 J**	***0.45 U***	***1 U***	***2.3 U***	***0.23 U***	0.0031 UJ	**0.025**
Carbon Disulfide	2.7	0.00032 U	0.00033 U	0.11 U	0.03 U	0.028 U	0.14 U	**0.0013 J**	**0.002 J**	0.029 U	0.029 U	0.31 U	**0.0016 J**	0.028 U	0.029 U	0.032 U	0.031 U	**0.00036 R**	0.00032 U	0.00032 U	**0.0007 J**	0.062 U	0.14 U	0.31 U	0.031 U	0.00038 U	0.00031 U
cis-1,2-Dichloroethene	NA	0.00032 U	0.00033 U	0.097 U	0.026 U	0.024 U	0.12 U	**0.0018 J**	0.00033 U	0.025 U	0.025 U	0.26 U	0.00038 U	0.024 U	0.025 U	0.027 U	0.027 U	**0.0008 J**	0.00032 U	0.00032 U	0.00031 U	0.053 U	0.12 U	0.27 U	0.027 U	0.00038 U	0.00031 U
Methylene Chloride	0.1	0.0016 U	0.001 U	0.055 U	0.015 UJ	0.014 UJ	0.072 UJ	0.0015 U	0.0009 U	0.014 U	0.014 U	***0.15 U***	0.0012 U	0.014 U	0.014 U	0.016 U	0.016 U	0.0025 U	0.00024 U	0.00025 U	0.00023 U	0.03 U	0.072 U	***0.16 U***	0.015 U	0.0013 U	0.001 U
Styrene	NA	0.00013 U	0.00013 U	0.071 U	0.019 U	0.017 U	**12**	0.00014 U	0.00013 U	0.018 U	0.018 U	**20**	0.00015 U	0.017 U	0.018 U	0.02 U	**0.24 J**	**0.00014 R**	0.00013 U	0.00013 U	0.00012 U	0.039 U	**28**	**38**	0.02 U	0.00015 U	0.00012 U
Tetrachloroethene	1.4	0.00019 U	0.00019 U	0.15 U	0.04 U	0.037 U	0.19 U	0.0002 U	0.00019 U	0.037 U	0.037 U	0.4 U	0.00022 U	0.037 U	0.037 U	0.04 U	0.04 U	**0.0002 R**	0.00019 U	0.00019 U	0.00017 U	0.078 U	0.18 U	0.4 U	0.04 U	0.00022 U	0.00017 U
Trichloroethene	0.7	0.0003 U	0.0003 U	0.11 U	0.03 U	0.027 U	0.14 U	0.00032 U	0.0003 U	0.027 U	0.027 U	0.3 U	0.00035 U	0.027 U	0.027 U	0.03 U	0.03 U	**0.00032 R**	0.0003 U	0.0003 U	0.00027 U	0.057 U	0.14 U	0.3 U	0.03 U	0.00035 U	0.00027 U
Total VOCs	10	**0.042**	**0.037**	**173.6**	**0.57**	**0.33**	**155**	**0.0068**	**0.0068**	**0.727**	**0.73**	**389**	**0.0063**	**1.92**	**19.78**	**32.92**	**19.54**	**0.0542**	**0.024**	**0.025**	**0.0227**	**2.47**	**378**	**513**	**9.64**	**0.0087**	**0.025**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																												
Acenaphthene	50	0.003 U	0.0031 U	**11 J**	**72 J**	**35**	**4.3 J**	**0.031 J**	**0.37 J**	**27**	**22**	**92 J**	**0.02 J**	**0.52**	**0.99**	**2.3**	**13**	0.0035 U	0.003 U	0.003 U	0.003 U	**20**	**38 J**	**26 J**	**43**	**0.011 J**	0.003 U
Acenaphthylene	41	**0.054 J**	0.0031 U	**43**	**37 J**	**19 J**	**12 J**	**0.072 J**	**1.2**	**10**	**6.4 J**	**120 J**	0.0036 U	**0.15 J**	**0.2 J**	**0.31 J**	**8.3 J**	0.0035 U	**0.022 J**	**0.031 J**	**0.02 J**	**8.2 J**	**62 J**	**42 J**	**30 J**	0.0036 U	0.003 U
Anthracene	50	**0.052 J**	0.0028 U	**22**	**58 J**	**23**	**10 J**	**0.09 J**	**0.85**	**27**	**14**	**320**	**0.062 J**	**0.42**	**0.53**	**1.1**	**26**	0.0032 U	**0.018 J**	**0.05 J**	**0.019 J**	**20**	**94 J**	**66**	**42**	**0.01 J**	**0.01 J**
Benzo(a)anthracene	0.224	**0.15**	0.01 U	**17**	**30 J**	**16**	**11 J**	**0.11**	**2.7**	**47**	**19**	**240**	**0.087**	**1**	**0.42**	**1.8**	**22**	0.011 U	**0.05**	**0.17**	**0.048**	**34**	**96**	**62**	**49**	**0.012 J**	**0.058**
Benzo(a)pyrene	0.061	**0.16**	0.0027 U	**17**	**20 J**	**13**	**10 J**	**0.099**	**3.5**	**45**	**20**	**220**	0.0031 U	**1.4**	**0.35**	**2.3**	**20**	0.003 U	**0.051**	**0.13**	**0.046**	**34**	**81**	**51**	**39**	**0.0097 J**	**0.049**
Benzo(b)fluoranthene	1.1	**0.11**	0.0028 U	**6.4**	**7.3 J**	**5.3**	**6.4 J**	**0.054**	**2.3**	**28**	**8.9**	**120**	0.0032 U	**0.6**	**0.14**	**1**	**12**	0.0032 U	**0.029 J**	**0.084**	**0.029 J**	**22**	**43**	**28**	**22**	0.0033 U	**0.04**
Benzo(ghi)perylene	50	**0.11 J**	0.004 U	**8.6 J**	**5.4 J**	**5.2 J**	**3.2 J**	0.0045 U	**1.4**	**29**	**14**	**100 J**	0.0045 U	**0.69**	**0.16 J**	**1.3**	**7.3 J**	0.0044 U	**0.037 J**	**0.091 J**	**0.039 J**	**22**	**36 J**	**24 J**	**18 J**	0.0046 U	0.0038 U
Benzo(k)fluoranthene	1.1	**0.15**	0.0038 U	**11**	**20 J**	**8.7**	**10 J**	**0.077**	**3.2**	**40**	**14**	**200**	0.0044 U	**0.99**	**0.26**	**1.9**	**20**	0.0043 UJ	**0.048**	**0.14**	**0.047**	**27**	**76**	**44**	**35**	**0.0089 J**	**0.057**
Chrysene	0.4	**0.17 J**	0.0046 U	**19 J**	**32 J**	**16 J**	**9.8 J**	**0.1 J**	**3.4**	**53**	**21**	**260**	**0.087 J**	**1.2**	**0.63**	**2.4**	**24**	0.0051 U	**0.056 J**	**0.17 J**	**0.057 J**	**34**	**92 J**	**60**	**43**	**0.012 J**	**0.063 J**
Dibenz(a,h)anthracene	0.014	0.0024 U	0.0024 U	***0.12 U***	**1.8 J**	***0.12 U***	***0.065 UJ***	0.0028 U	**0.45**	**8.8**	**3.7**	***1.3 U***	0.0028 U	**0.24**	**0.071**	**0.44**	**2.9**	0.0027 U	0.0024 U	**0.024 J**	0.0024 U	**7.9**	***0.62 U***	**9.1**	**7.3**	0.0028 U	0.0024 U
Fluoranthene	50	**0.26 J**	0.0012 U	**29**	**62 J**	**28**	**24 J**	**0.22 J**	**4.7**	**140**	**53**	**520**	**0.19 J**	**0.94**	**0.56**	**1.8**	**54**	**0.02 J**	**0.097 J**	**0.35 J**	**0.087 J**	**80**	**220**	**130**	**110**	**0.026 J**	**0.11 J**
Fluorene	50	0.0025 U	0.0025 U	**41**	**90 J**	**47**	**21 J**	**0.14 J**	**0.21 J**	**37**	**28**	**400**	**0.051 J**	**0.2 J**	**0.45**	**1.1**	**41**	0.0028 U	0.0025 U	0.0025 U	0.0025 U	**36**	**160**	**100**	**77**	**0.016 J**	0.0025 U
Indeno(1,2,3-cd)pyrene	3.2	**0.1**	0.0024 U	**7.1**	**4.9 J**	0.12 U	**3.2 J**	0.0027 U	**1.3**	**22**	**9.5**	**98**	0.0027 U	**0.53**	**0.16**	**1**	**7**	0.0027 U	**0.03 J**	**0.081**	**0.034 J**	**18**	**33**	**20**	**16**	0.0028 U	**0.024 J**
Naphthalene	13	0.0032 U	0.0033 U	**370**	**40 J**	**34**	**120 J**	**0.1 J**	**0.92**	**10**	**28**	**2900**	**0.055 J**	**2**	**5.7**	**10**	**240**	**0.05 J**	**0.02 J**	0.0032 U	0.0032 U	**5.1 J**	**1200**	**770**	**500**	**0.0097 J**	0.0032 U
Phenanthrene	50	**0.18 J**	0.0034 U	**140**	**250 J**	**160**	**68 J**	**0.54**	**1.9**	**180**	**140**	**1300**	**0.24 J**	**0.96**	**4.2**	**7.8**	**140**	**0.04 J**	**0.065 J**	**0.15 J**	**0.061 J**	**160**	**470**	**340**	**250**	**0.054 J**	**0.057 J**
Pyrene	50	**0.27 J**	0.0026 U	**44**	**100 J**	**46**	**22 J**	**0.22 J**	**5.8 J**	**140 J**	**59 J**	**470 J**	**0.16 J**	**1.4**	**1**	**2.6**	**42**	**0.02 J**	**0.11 J**	**0.36 J**	**0.098 J**	**67**	**180**	**120**	**92**	**0.025 J**	**0.11 J**
Benzo(a)pyrene Equivalents	NA	**0.19767**	ND	**20.179**	**26.252**	**15.233**	**12.1698**	**0.11627**	**4.6154**	**63.953**	**27.601**	**268.06**	**0.008787**	**1.8641**	**0.49623**	**3.1414**	**27.224**	ND	**0.062436**	**0.18907**	**0.057627**	**49.604**	**99.052**	**71.6**	**55.393**	**0.011001**	**0.061833**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																												
2,4-Dimethylphenol	NA	0.033 U	0.034 U	1.8 U	1.8 UJ	1.8 U	**1.4 J**	0.039 U	0.034 U	0.92 U	0.9 U	**44 J**	0.039 U	0.035 U	0.036 U	0.078 U	0.92 U	0.038 U	0.033 U	0.033 U	0.033 U	1.8 U	**13 J**	**14 J**	**3.7 J**	0.04 U	0.033 U
2-Chloronaphthalene	NA	0.023 U	0.023 U	1.2 U	1.2 UJ	1.2 U	0.63 UJ	0.027 U	0.023 U	0.63 U	0.61 U	13 U	0.027 U	0.024 U	0.025 U	0.054 U	0.63 U	0.026 U	0.023 U	0.023 U	0.023 U	1.2 U	6 U	2.7 U	2.6 U	0.027 U	0.023 U
2-Methylnaphthalene	36.4	0.017 U	0.017 U	**41**	**9.1 J**	**11 J**	**40 J**	**0.1 J**	**0.34 J**	**12**	**19**	**780**	**0.024 J**	**0.22 J**	**2.5**	**6.7**	**64**	0.019 U	**0.0074 J**	0.017 U	0.017 U	**31**	**300**	**220**	**200**	0.02 U	0.017 U
2-Methylphenol	0.1	0.033 U	0.034 U	***1.7 U***	***1.7 UJ***	***1.7 U***	***0.9 UJ***	0.038 U	0.034 U	***0.9 U***	***0.88 U***	***18 U***	0.038 U	0.034 U	**0.012 J**	0.077 U	***0.91 U***	0.037 U	0.033 U	0.033 U	0.033 U	***1.7 U***	***8.5 U***	**1.1 J**	***3.7 U***	0.039 U	0.033 U
4-Methylphenol	0.9	0.036 U	0.037 U	***1.9 U***	***1.9 UJ***	***1.9 U***	***0.98 UJ***	0.042 U	**0.02 J**	***0.98 U***	***0.96 U***	***20 U***	0.042 U	0.038 U	0.039 U	0.084 U	***0.99 U***	0.041 U	0.036 U	0.036 U	0.036 U	***1.9 U***	***9.3 U***	***4.3 U***	***4.1 U***	0.043 U	0.036 U
4-Nitrophenol	0.1	0.011 U	0.011 U	***0.58 U***	***0.59 UJ***	***0.59 U***	***0.3 UJ***	0.013 U	0.011 U	***0.3 U***	***0.3 U***	***6.2 U***	0.013 U	0.011 U	0.012 U	0.026 U	***0.32 U***	0.012 U	0.011 U	0.011 U	0.011 U	***0.59 U***	***2.9 U***	**5 J**	**4.6 J**	0.013 U	0.011 U
bis(2-Ethylhexyl) phthalate	50	**0.13 J**	0.1 U	1.2 U	1.2 UJ	1.2 U	0.6 UJ	0.025 U	**0.12 J**	0.6 U	0.59 U	12 U	0.025 U	0.023 U	0.024 U	0.052 U	0.61 U	**0.1 J**	**0.18 J**	**0.23 J**	**0.3 J**	1.2 U	5.7 U	2.6 U	2.5 U	0.026 U	**0.19 J**
Butyl benzyl phthalate	50	0.015 U	0.015 U	0.77 U	0.77 UJ	0.77 U	0.4 UJ	0.017 U	0.015 U	0.4 U	0.39 U	8.1 U	0.017 U	0.015 U	0.016 U	0.034 U	0.41 U	0.017 U	0.015 U	0.015 U	0.015 U	0.77 U	3.8 U	1.7 U	1.7 U	0.017 U	0.015 U
Carbazole	NA	**0.014 J**	0.0027 U	**0.43 J**	**1.2 J**	**0.57 J**	**6.5 J**	**0.05 J**	**0.12 J**	**2.6 J**	**3.6 J**	**180 J**	**0.027 J**	**0.12 J**	**0.045 J**	**0.18 J**	**20**	0.003 U	0.0026 U	0.0026 U	0.0026 U	**3.9 J**	**84 J**	**48**	**24 J**	0.0032 U	0.0026 U
Dibenzofuran	6.2	0.018 U	0.019 U	**4.3 J**	**10 J**	**5.3 J**	**13 J**	**0.077 J**	**0.12 J**	**22**	**8.3 J**	**280**	**0.023 J**	**0.057 J**	0.02 U	**0.15 J**	**34**	0.021 U	0.018 U	0.018 U	0.018 U	**25**	**120**	**77**	**53**	**0.0098 J**	0.018 U
Diethyl phthalate	7.1	0.0097 U	0.01 U	0.51 U	0.51 UJ	0.51 U	0.27 UJ	0.011 U	0.01 U	0.27 U	0.26 U	5.4 U	0.011 U	0.01 U	0.01 U	0.023 U	0.27 U	0.011 U	**0.098 J**	0.0097 U	0.0097 U	0.51 U	2.5 U	1.2 U	1.1 U	0.012 U	0.0097 U
Isophorone	4.4	0.027 U	0.028 U	1.4 U	1.4 UJ	1.4 U	0.75 UJ	0.032 U	0.028 U	0.75 U	0.74 U	***15 U***	0.032 U	0.029 U	0.03 U	0.065 U	0.76 U	0.031 U	0.027 U	0.027 U	0.027 U	1.4 U	***7.1 U***	3.3 U	3.1 U	0.033 U	0.027 U
N-Nitrosodiphenylamine	NA	0.016 U	0.017 U	0.88 U	0.88 UJ	0.88 U	0.46 UJ	0.019 U	0.017 U	0.46 U	0.45 U	9.2 U	0.019 U	0.018 U	0.018 U	0.039 U	0.46 U	0.019 U	0.016 U	0.016 U	0.016 U	0.88 U	4.3 U	2 U	1.9 U	0.02 U	0.016 U
Pentachlorophenol	1.0	0.064 U	0.069 U	***3.5 U***	***3.6 UJ***	***3.5 U***	***1.8 UJ***	0.078 U	0.069 U	***1.8 U***	***1.8 U***	***38 U***	0.078 U	0.069 U	0.073 U	0.16 U	***1.9 U***	0.073 U	0.064 U	0.064 U	0.064 U	***3.6 U***	***17 U***	***7.8 U***	***7.3 U***	0.078 U	0.064 U
Phenol	0.03	***0.048 U***	***0.05 U***	***2.6 U***	***2.6 UJ***	***2.6 U***	***1.3 UJ***	***0.056 U***	***0.05 U***	***1.3 U***	***1.3 U***	***27 U***	***0.056 U***	***0.051 U***	***0.052 U***	***0.11 U***	***1.3 U***	***0.055 U***	***0.048 U***	***0.048 U***	***0.048 U***	***2.6 U***	***13 U***	***5.8 U***	***5.5 U***	***0.058 U***	***0.048 U***
Total SVOCs	500	**1.91**	ND	**831.83**	**850.7**	**473.07**	**395.8**	**2.08**	**34.92**	**880.4**	**491.4**	**8644**	**1.026**	**13.637**	**18.378**	**46.18**	**797.5**	**0.23**	**0.9184**	**2.061**	**0.885**	**655.1**	**3398**	**2257.2**	**1658.6**	**0.2041**	**0.768**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21RE006	21RE006	21RE006	21RE006 DUP	21RE006	21RE006	21RE006	21RE007	21RE007	21RE007	21RE007	21RE007	21RE008	21RE008 DUP	21RE008	21RE008	21RE008	21RE009	21RE009 DUP	21RE009	21RE009	21RE009	21RE009 DUP	21RE009	21RE009	21RE010
Depth Interval		1- 3	3- 5	9- 11	13- 15	13- 15	29- 31	49- 51	9- 11	11- 13	13- 15	29- 31	49- 51	11- 13	17- 19	17- 19	29- 31	49- 51	1- 3	1- 3	3- 5	13- 15	29- 31	29- 31	31- 33	49- 51	1- 3
Sample Date		2/18/2004	2/18/2004	3/2/2004	3/2/2004	3/2/2004	3/2/2004	3/2/2004	3/3/2004	3/3/2004	3/3/2004	3/3/2004	3/3/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	3/1/2004	2/25/2004	2/25/2004	2/25/2004	3/4/2004	3/4/2004	3/4/2004	3/4/2004	3/4/2004	3/4/2004	2/18/2004
Metals (mg/Kg)																											
Aluminum	7960 (sb)	**6860**	**7640**	**9120 J**	6530 J	**9000 J**	5090 J	2690 J	6890	4480	**8810**	7370	2760	6660 J	**8560 J**	7840 J	7930 J	3060	4700	4590	5000	3800 J	4000 J	**10900 J**	5730 J	5550 J	6210
Antimony	NA	1.3 UJ	1.3 UJ	0.89 U	0.91 U	0.90 U	0.93 U	0.98 U	1.3 U	0.92 U	1.3 U	1.4 U	1.5 U	1.3 UJ	1.3 UJ	1.5 UJ	1.5 UJ	0.96 UJ	1.3 UJ	1.3 UJ	1.3 UJ	0.91 UJ	1.1 UJ	1.0 UJ	0.96 UJ	1.0 UJ	1.3 UJ
Arsenic	13.63 (sb)	**2.2**	**1.1**	**7.4**	**7.5**	**6.4**	**3.5 J**	0.85 U	**6.7**	**2.7 J**	**3.0**	**6.9**	0.82 U	**2.8**	**2.0**	**2.8**	**3.9**	0.84 U	**1.1 J**	**0.82 J**	0.69 UJ	**3.1 J**	**5.2 J**	**7.0**	**3.0 J**	**1.6 J**	**2.6**
Barium	300 (d)	**47.5**	**42.9**	**93.1**	**53.5**	**80.1**	**21.0 J**	**38.8 J**	**178**	**62.2**	**66.6**	**31.1 J**	**48.1 J**	**66.1**	**55.6**	**86.1**	**39.1 J**	**39.9 J**	**44.3**	**35.9 J**	**41.7 J**	**32.3 J**	**22.3 J**	**41.3 J**	**30.2 J**	**47.7 J**	**36.1 J**
Beryllium	0.463 (sb)	**0.41 J**	**0.44**	**0.7**	**0.51**	**0.94**	**0.29 J**	**0.22 J**	**0.44 J**	**0.32 J**	**0.44 J**	**0.38 J**	**0.17 J**	**0.53**	**0.55**	**0.75**	**0.44 J**	0.23 U	**0.36 J**	**0.35 J**	**0.36 J**	**0.27 J**	**0.23 J**	**0.64**	**0.33 J**	**0.39 J**	**0.33 J**
Cadmium	1 (d)	**0.16 J**	**0.11 J**	0.092 U	0.093 U	**0.49 J**	0.095 U	0.10 U	**0.76 J**	0.095 U	**0.29 J**	**0.50 J**	0.10 U	0.092 U	0.093 U	0.10 U	0.10 U	0.099 U	0.087 U	0.087 U	0.086 U	0.093 U	0.11 U	0.10 U	0.099 U	0.10 U	0.087 U
Calcium	11563 (sb)	**1330 J**	**1040 J**	**9720**	**2650**	**3900**	**2290**	**7470**	**15900**	**8510**	**5160**	**2510**	**7480**	**43200 J**	**3200 J**	**5070 J**	**8540 J**	**7690**	**1960 J**	**2780 J**	**2040 J**	**9160**	**2650**	**5450**	**5200**	**10800**	**659 J**
Chromium	36.69 (sb)	**15.7 J**	**18.4 J**	**15.9**	**13.1**	**14.5**	**10.5**	**7.9**	**18.2**	**18.1**	**20.5**	**16.7**	**8.2**	**12.5**	**18.7**	**17.8**	**14.0**	**7.9**	**13.1**	**12.7**	**13.4**	**10.6**	**7.2**	**20.5**	**11.1**	**14.4**	**14.5 J**
Cobalt	30 (d)	**5.8 J**	**6.3 J**	**3.5 J**	**4.0 J**	**6.9 J**	**4.8 J**	**3.6 J**	**8.2 J**	**4.9 J**	**10.7 J**	**5.8 J**	**3.4 J**	**5.8 J**	**6.7 J**	**7.5 J**	**6.9 J**	**4.1 J**	**5.8 J**	**5.2 J**	**5.8 J**	**3.6 J**	**3.0 J**	**8.3 J**	**5.2 J**	**7.0 J**	**4.7 J**
Copper	35.84 (sb)	**38.7 J**	**53.3 J**	**52.5 J**	**36.8 J**	**39.9 J**	**7.4 J**	**11.4 J**	**57.4**	**21.1**	**19.9**	**14.0**	**7.0**	**23.5**	**19.1**	**24.5**	**16.8**	6.5 U	**16.6**	**15.8**	**17.7**	**26.5**	**10.3**	**21.3**	**13.7**	**10.7**	**18.9 J**
Iron	14369 (sb)	**13400**	**13000**	**12900 J**	**12500 J**	**14500 J**	**12600 J**	**6610 J**	**17500**	**11200**	**19100**	**16100**	**8350**	**12800 J**	**17700 J**	**18000 J**	**18800 J**	**7910**	**13200**	**15600**	**13800**	**10600 J**	**9180 J**	**22300 J**	**12500 J**	**13600 J**	**13700**
Lead	237.7 (sb)	**22.5 J**	**9.9 J**	**53.1**	**37.9**	**46.7**	**10.1**	**2.0**	**236**	**61.2**	**40.2**	**50.8**	**2.9**	**16.9**	**13.6**	**19.5**	**35.2**	**2.7**	**6.5**	**6.6**	**6.3**	**160**	**25.4**	**64.5**	**24.4**	**4.6**	**54.8 J**
Magnesium	3129 (sb)	**2180**	**2270**	**1910**	**1660**	**2230**	**2440**	**3710**	**7310**	**3460**	**5760**	**3470**	**4010**	**7080**	**3640**	**3100**	**4650**	**4020**	**2460**	**2350**	**2340**	**2640**	**1650**	**4840**	**2840**	**6390**	**1250**
Manganese	358.5 (sb)	**299**	**308**	**75.2**	**150**	**97.8**	**153**	**223**	**237**	**239**	**590**	**344**	**203**	**1040**	**176**	**264**	**309**	**269 J**	**408**	**310**	**340**	**212**	**224**	**671**	**235**	**285**	**275**
Mercury	0.1 (d)	**0.09 J**	0.018 UJ	**0.13**	**0.12**	**0.17**	**0.04**	0.021 U	**0.37**	**0.28**	**0.13**	**0.17**	0.021 U	0.019 U	0.019 U	**0.03 J**	**0.2**	0.021 U	0.018 U	0.018 U	0.018 U	**0.24**	**0.08**	**0.32**	**0.06**	0.019 U	**0.08 J**
Nickel	15.3 (sb)	**11.4 J**	**11.2 J**	**17.2**	**12.4**	**27.2**	**11.7**	**13.7**	**19.3**	**14.1**	**19.3**	**13.3**	**13.8**	**10.6**	**15.5**	**16.6**	**15.0**	**15.7**	**10.3**	**10.5**	**11.6**	**9.7**	**7.5 J**	**19.4**	**12.8**	**23.9**	**9.5 J**
Potassium	1197 (sb)	**785 J**	**773 J**	**1600**	**1100 J**	**1690**	**870 J**	**682 J**	**1750**	**1140**	**2930**	**1350**	**598 J**	**1350**	**1800**	**1490**	**1220 J**	816 U	**643 J**	**715 J**	**683 J**	**822 J**	**1050 J**	**2180**	**1180 J**	**1790 J**	**335 J**
Selenium	2 (d)	0.91 U	0.93 U	0.89 U	0.91 U	0.90 U	0.93 U	0.98 U	0.94 U	0.92 U	0.98 U	1.0 U	1.1 U	0.96 U	0.98 U	1.1 U	1.1 U	0.96 U	0.92 U	0.92 U	0.91 U	0.91 U	1.1 U	**1.4**	0.96 U	1.0 U	0.91 U
Silver	0.229 (sb)	***0.30 U***	***0.31 U***	0.16 U	0.16 U	0.16 U	0.17 U	0.18 U	***0.31 U***	0.17 U	***0.33 U***	***0.34 U***	***0.36 U***	***0.32 U***	***0.33 U***	***0.36 U***	***0.35 U***	0.17 U	***0.31 U***	***0.31 U***	***0.30 U***	0.16 U	0.20 U	0.18 U	0.17 U	0.18 U	***0.30 U***
Sodium	214.8 (sb)	**118 J**	**124 J**	82.6 U	84.3 U	83.0 U	**381 J**	90.2 U	**231 J**	**134 J**	**187 J**	**666 J**	**155 J**	**530 J**	**154 J**	**200 J**	**571 J**	**98.0 J**	**100 J**	86.2 U	85.2 U	**164 J**	**241200**	**989 J**	**254 J**	**122 J**	85.8 U
Thallium	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.1 U	1.0 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.2 U	1.1 U	1.1 U	1.1 U	1.0 U
Vanadium	150 (d)	**23.9**	**23.9**	**12.9**	**16.8**	**20.7**	**12.4**	**8.9 J**	**24.1**	**16.4**	**29.5**	**19.1**	**13.0**	**23.7**	**24.5**	**23.9**	**21.5**	**10.2 J**	**20.5**	**23.0**	**21.1**	**19.7**	**10.0 J**	**26.4**	**14.9**	**17.5**	**19.5**
Zinc	81.77 (d)	**46.4 J**	**36.8 J**	**33.6**	**100**	**90.9**	**28.2**	**15.9**	**252**	**54.6**	**51.2**	**40.8**	**15.7**	**28.1**	**42.2**	**42.0**	**50.4**	**17.0**	**28.0**	**26.5**	**27.8**	**27.6**	**22.1**	**59.9**	**33.3**	**28.4**	**55.5 J**
Cyanide (mg/Kg)																											
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21RE010 DUP 1- 3 2/18/2004	21RE010 3- 5 2/18/2004	21RE010 5- 7 3/1/2004	21RE010 13- 15 3/1/2004	21RE010 27- 29 3/1/2004	21RE010 DUP 27- 29 3/1/2004	21RE010 49- 51 3/1/2004	21RE011 5- 7 2/26/2004	21RE011 19- 21 2/26/2004	21RE011 27- 29 2/26/2004	21RE011 49- 51 2/26/2004	21RE012 5- 7 2/27/2004	21RE012 19- 21 2/27/2004	21RE012 29- 31 2/27/2004	21RE012 DUP 29- 31 2/27/2004	21RE012 49- 51 2/27/2004	21RS001 5- 7 2/9/2004	21RS002 9- 11 1/27/2004	21RS002 15- 17 1/27/2004	21RS003 7- 8 1/27/2004	21RS003 15- 17 1/27/2004	21RS003 19- 20 1/27/2004	21RS004 1- 3 2/4/2004	21RS004 3- 5 2/4/2004	21RS004 5- 7 2/9/2004	21RS004 7- 8 2/9/2004	21RS005 9- 11 2/9/2004	21RS005 13- 15 2/9/2004
BTEX (mg/Kg)																														
Benzene	0.06	**0.0084**	**0.0008 J**	**0.0016**	**7.2**	**180**	**230**	**0.0046**	0.00025 U	**0.41**	**0.88**	0.022 U	**0.003**	**1.9**	**47**	**140**	**0.015**	**0.0028**	0.00025 U	**0.0061**	**0.0064**	0.00025 U	**0.059 J**	0.00023 U	**0.0007 J**	**0.024**	**0.053**	**0.012**	**0.39 J**
Ethyl Benzene	5.5	0.0002 U	0.00022 U	0.00022 U	**140**	**560**	**590**	0.00024 U	0.00022 U	**13**	**1.5**	0.02 U	**0.0007 J**	**2.8**	**21**	**92**	**0.0018 J**	0.00022 U	0.00023 U	**0.0049 J**	**0.0017 J**	0.00022 U	**0.0025 J**	0.0002 U	0.00021 U	0.0002 U	**0.049**	**0.0007 J**	**0.56 J**
Toluene	1.5	**0.0027 J**	**0.0012 J**	0.00023 U	0.76 U	**430**	**520**	**0.002 J**	0.00023 U	**0.34 J**	**3.3**	0.02 U	**0.0017 J**	**0.2 J**	**99**	**230**	**0.007**	**0.0025 J**	0.00023 U	**0.0038 J**	**0.0021 J**	0.00023 U	**0.0023 J**	0.0002 U	0.00021 U	**0.0037 J**	**0.11**	**0.0094**	**0.79 J**
Xylene (Total)	1.2	0.0005 U	0.00052 U	0.00053 U	**12 J**	**820**	**990**	0.00058 U	0.00053 U	**14**	**11**	0.026 U	**0.0026 J**	**2.9**	**150**	**370**	**0.0086**	0.00054 U	0.00055 U	**0.025**	**0.0028 J**	0.00055 U	**0.0041 J**	0.00048 U	0.0005 U	**0.0012 J**	**0.33**	**0.003 J**	**1.5 J**
Volatile Organic Compounds (VOCs) (mg/Kg)																														
1,2,4-Trichlorobenzene	3.4	0.026 U	0.027 U	0.027 U	0.7 U	***15 U***	***15 U***	0.029 U	0.027 U	1.5 U	***7 U***	0.029 U	0.029 U	0.63 U	1.5 U	***14 U***	0.03 U	0.028 U	0.059 U	0.031 U	0.29 U	0.028 U	0.033 U	0.026 U	0.026 U	0.026 U	1.5 U	0.062 U	***31 U***
2-Butanone (Methyl Ethyl Ketone)	0.3	**0.001 R**	**0.0011 R**	**0.0011 R**	***8.7 R***	***9.1 R***	***9.9 R***	**0.0012 R**	**0.0011 R**	**0.23 R**	***0.44 R***	**0.22 R**	0.0011 U	0.24 U	***2.3 U***	***8.3 U***	0.0012 U	**0.0011 R**	0.0011 U	0.0012 U	**0.0011 R**	**0.0011 R**	**0.0013 R**	0.00099 U	0.001 U	**0.001 R**	**0.0012 R**	**0.0012 R**	***1.2 R***
4-Methyl-2-pentanone	1	0.00077 U	0.0008 U	0.00081 U	***5 U***	***5.2 U***	***5.6 U***	0.00089 U	0.00081 U	0.13 U	0.25 U	0.13 U	0.00083 U	0.14 U	***1.3 U***	***4.7 U***	0.00092 U	0.00083 U	0.00084 U	0.00093 U	0.00086 U	0.00084 U	0.001 U	0.00074 U	0.00077 U	0.00075 U	0.00093 U	0.00093 U	0.7 U
Acetone	0.2	**0.015**	**0.031**	**0.026 J**	***8.3 UJ***	***8.7 UJ***	***9.4 UJ***	**0.035 J**	0.024 U	***0.22 UJ***	***0.42 UJ***	***0.22 UJ***	0.03 U	***0.23 U***	***2.2 U***	***7.9 U***	0.021 U	**0.04 J**	**0.012**	**0.02**	**0.029 J**	**0.013 J**	**0.043 J**	**0.11**	**0.12**	**0.032 J**	**0.056 J**	**0.048 J**	***1.2 U***
Carbon Disulfide	2.7	0.00031 U	0.00032 U	0.00033 U	1.1 U	1.2 U	1.3 U	0.00036 U	**0.001 J**	0.03 U	0.056 U	0.029 U	0.00034 U	0.031 U	0.3 U	1.1 U	**0.0008 J**	**0.0033 J**	**0.001 J**	**0.0092**	**0.024 J**	0.00034 UJ	**0.011 J**	0.0003 U	0.00031 U	**0.0007 J**	**0.018**	0.00038 U	0.16 U
cis-1,2-Dichloroethene	NA	0.00031 U	0.00032 U	0.00033 U	0.97 U	1 U	1.1 U	0.00036 U	0.00033 U	0.026 U	0.048 U	0.025 U	0.00034 U	0.027 U	0.26 U	0.92 U	**0.0014 J**	0.00034 U	0.00034 U	0.00038 U	0.00035 U	0.00034 U	0.00041 U	0.0003 U	0.00031 U	0.00031 U	0.00038 U	0.00038 U	0.14 U
Methylene Chloride	0.1	0.0024 U	0.002 U	0.0022 U	***0.6 U***	***0.6 U***	***0.64 U***	0.0039 U	0.0011 U	0.015 U	0.028 U	0.014 U	0.00026 U	0.015 U	***0.15 U***	***0.55 U***	0.0007 U	0.0005 U	0.002 U	0.0074 U	0.0022 U	0.0021 U	**0.026 B**	0.0018 U	**0.0041 B**	0.002 U	0.0015 U	0.0015 U	0.081 U
Styrene	NA	0.00012 U	0.00013 U	0.00013 U	0.71 U	**71**	**85**	0.00014 U	0.00013 U	0.019 U	**1.3**	0.018 U	0.00013 U	0.02 U	**28**	**32**	**0.0021 J**	0.00013 U	0.00014 U	**0.0016 J**	0.00014 U	0.00014 U	0.00016 UJ	0.00012 U	0.00012 U	**0.0005 J**	**0.21**	0.00015 U	0.01 U
Tetrachloroethene	1.4	0.00017 U	0.00019 U	0.00019 U	***1.5 U***	***1.5 U***	***1.7 U***	0.0002 U	0.00019 U	0.04 U	0.074 U	0.037 U	0.00019 U	0.04 U	0.4 U	1.4 U	0.0002 U	**0.0015**	0.00019 U	0.0002 U	0.0002 U	0.00019 U	0.00024 UJ	0.00017 U	0.00017 U	0.00017 U	0.00022 U	0.0002 U	0.21 U
Trichloroethene	0.7	0.00027 U	0.0003 U	0.0003 U	***1.1 U***	***1.1 U***	***1.3 U***	0.00032 U	0.0003 U	0.03 U	0.054 U	0.027 U	0.0003 U	0.03 U	0.3 U	***1 U***	0.00032 U	0.0003 U	0.0003 U	0.00032 U	0.00032 U	0.0003 U	0.00038 U	0.00027 U	0.00027 U	0.00027 U	0.00035 U	0.00032 U	0.15 U
Total VOCs	10	**0.0261**	**0.033**	**0.0276**	**159.2**	**2061**	**2415**	**0.0416**	**0.001**	**27.75**	**17.98**	ND	**0.008**	**7.8**	**345**	**864**	**0.0367**	**0.0501**	**0.013**	**0.0706**	**0.066**	**0.013**	**0.1479**	**0.11**	**0.1248**	**0.0621**	**0.826**	**0.0731**	**3.24**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																														
Acenaphthene	50	0.003 U	**0.057 J**	**0.04 J**	**50**	**100 J**	**88 J**	**0.07 J**	**0.03 J**	**43**	**40 J**	**0.025 J**	**0.023 J**	**22**	**5.6 J**	**93 J**	0.0035 U	**0.02 J**	**0.93**	**1.5**	**4.7**	**0.026 J**	**0.029 J**	**0.0071 J**	**0.01 J**	**0.027 J**	**19 J**	**1.1**	**1200**
Acenaphthylene	41	0.003 U	**0.42**	**0.2 J**	**7 J**	**270**	**220**	**0.18 J**	**0.09 J**	**28**	**92 J**	**0.067 J**	**0.03 J**	**14**	**14 J**	**210**	**0.032 J**	**0.05 J**	**0.84**	**0.16 J**	**4.2**	0.0032 U	0.0038 U	**0.0086 J**	**0.046 J**	**0.32 J**	**180**	**1.2**	**620**
Anthracene	50	**0.012 J**	**0.24 J**	**0.15 J**	**16**	**250**	**210 J**	**0.21 J**	**0.078 J**	**33**	**85 J**	**0.1 J**	**0.05 J**	**27**	**18 J**	**220**	**0.046 J**	**0.079 J**	**1.3**	**0.11 J**	**7.9**	0.0029 U	0.0035 U	**0.029 J**	**0.049 J**	**0.13 J**	**66**	**4.7**	**730**
Benzo(a)anthracene	0.224	**0.076**	**0.51**	**0.29**	**7.8**	**200**	**170**	**0.18**	**0.11**	**24**	**100**	**0.12**	**0.13**	**26**	**18**	**280**	**0.068**	**0.2**	**2.1**	**0.068**	**18**	0.01 U	0.012 U	**0.076**	**0.23**	**0.41**	**140**	**13**	**790**
Benzo(a)pyrene	0.061	**0.076**	**0.65**	**0.37**	**7.3**	**170**	**140**	**0.12**	**0.094**	**13**	**70**	**0.08**	**0.13**	**24**	**14**	**240**	**0.046**	**0.2**	**2**	**0.05**	**24**	0.0028 U	0.0033 U	**0.07**	**0.21**	**0.42**	**160**	**8.8**	**540**
Benzo(b)fluoranthene	1.1	**0.057**	**0.42**	**0.22**	**2.1**	**86**	**60**	**0.061**	**0.056**	**5.8**	**39**	**0.038 J**	**0.12**	**13**	**7.6**	**140**	**0.021 J**	**0.13**	**1.2**	**0.019 J**	**14**	0.0029 U	0.0035 U	**0.048**	**0.17**	**0.31**	**88**	**8.4**	**260**
Benzo(ghi)perylene	50	**0.044 J**	**0.48**	**0.28 J**	**3.1 J**	**81 J**	**64 J**	0.0043 U	**0.044 J**	**4 J**	**25 J**	**0.031 J**	**0.093 J**	**11**	**5.8 J**	**100 J**	**0.016 J**	**0.14 J**	**1.6**	0.0045 U	**21**	0.0041 U	0.0048 U	**0.046 J**	**0.15 J**	**0.37**	**100**	**5**	**240 J**
Benzo(k)fluoranthene	1.1	**0.081**	**0.57**	**0.36**	**4.8**	**170**	**130**	**0.12**	**0.075**	**8**	**68**	**0.068**	**0.13**	**18**	**13**	**220**	**0.042**	**0.18**	**1.7**	**0.036 J**	**19**	0.004 U	0.0047 U	**0.068 J**	**0.24 J**	**0.4**	**130**	**6**	**450**
Chrysene	0.4	**0.08 J**	**0.54**	**0.37 J**	**8.8 J**	**190 J**	**190 J**	**0.18 J**	**0.11 J**	**26**	**93 J**	**0.096 J**	**0.16 J**	**25**	**17 J**	**230**	**0.074 J**	**0.2 J**	**2.7**	**0.071 J**	**18**	0.0047 U	0.0056 U	**0.079 J**	**0.24 J**	**0.43**	**120**	**12**	**660**
Dibenz(a,h)anthracene	0.014	0.0024 U	**0.043**	**0.046**	***0.063 U***	**14 J**	**19 J**	0.0026 U	0.0024 U	***0.13 U***	**12**	0.0026 U	**0.028 J**	**3.7**	**2**	**42**	0.0027 U	**0.034 J**	**0.68**	0.0028 U	**6.9**	0.0025 U	0.003 U	0.0023 U	**0.04**	**0.022 J**	**21**	**1.8**	**28 J**
Fluoranthene	50	**0.13 J**	**0.64**	**0.49**	**15**	**420**	**360**	**0.38 J**	**0.24 J**	**32**	**220**	**0.27 J**	**0.24 J**	**55**	**39**	**570**	**0.15 J**	**0.26 J**	**2.8**	**0.11 J**	**24**	0.0012 U	0.0014 U	**0.15 J**	**0.38**	**0.66**	**160**	**17**	**1200**
Fluorene	50	0.0025 U	**0.071 J**	**0.055 J**	**22**	**420**	**350**	**0.32 J**	**0.082 J**	**38**	**170**	**0.15 J**	**0.027 J**	**33**	**27**	**410**	**0.042 J**	**0.046 J**	**0.73 J**	**0.3 J**	**4.7**	0.0026 U	0.0031 U	0.0024 U	**0.011 J**	0.0025 U	**54**	**1.3**	**1300**
Indeno(1,2,3-cd)pyrene	3.2	**0.04**	**0.39**	**0.22**	**2.3**	**62**	**52**	**0.053**	**0.034 J**	**3.4**	**25**	**0.028 J**	**0.081**	**9.8**	**5.4**	**95**	**0.014 J**	**0.11**	**1.4**	0.0027 U	**17**	0.0025 U	0.0029 U	**0.038**	**0.12**	**0.26**	**74**	**5**	**190**
Naphthalene	13	0.0032 U	**0.21 J**	**0.14 J**	**140**	**3000**	**2300**	**0.14 J**	**0.055 J**	**290**	**1600**	**0.33 J**	**0.027 J**	**82**	**170**	**2900**	**0.041 J**	**0.057 J**	**4.4**	**1.6**	**3.9**	0.0034 U	**0.13 J**	0.0031 U	**0.018 J**	**0.22 J**	**340**	**0.81 J**	**7200**
Phenanthrene	50	**0.042 J**	**0.58**	**0.46**	**69**	**1100**	**940**	**0.94**	**0.42**	**130**	**460**	**0.56**	**0.23 J**	**180**	**100**	**1500**	**0.26 J**	**0.32 J**	**5.9**	**0.4 J**	**25**	0.0035 U	**0.01 J**	**0.12 J**	**0.21 J**	**0.57**	**190**	**18**	**3800**
Pyrene	50	**0.13 J**	**0.8 J**	**0.57**	**24**	**390**	**340**	**0.4 J**	**0.32 J**	**58**	**230**	**0.24 J**	**0.29 J**	**71**	**38**	**570**	**0.15 J**	**0.3 J**	**5.4**	**0.17 J**	**36**	0.0027 U	0.0032 U	**0.14 J**	**0.41**	**0.96**	**280**	**18**	**1600**
Benzo(a)pyrene Equivalents	NA	**0.09419**	**0.83124**	**0.49297**	**8.5768**	**220.69**	**188.69**	**0.15078**	**0.11486**	**16.426**	**99.173**	**0.099376**	**0.19256**	**32.785**	**19.247**	**335.93**	**0.056794**	**0.28**	**3.1697**	**0.059131**	**36.008**	ND	ND	**0.086959**	**0.30464**	**0.54443**	**212.62**	**13.312**	**697.16**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																														
2,4-Dimethylphenol	NA	0.033 U	0.034 U	0.034 U	0.89 U	**8.6 J**	19 U	0.037 U	0.034 U	1.8 U	**5.8 J**	0.037 U	0.037 U	**0.62 J**	**4.7 J**	**46 J**	0.038 U	0.035 U	0.075 U	0.039 U	0.36 U	0.035 U	0.042 U	0.032 U	0.032 U	0.033 U	1.9 U	**0.058 J**	**42 J**
2-Chloronaphthalene	NA	0.023 U	0.023 U	0.023 U	0.61 U	13 U	13 U	0.025 U	0.023 U	1.3 U	6 U	0.025 U	0.025 U	0.54 U	1.3 U	12 U	0.026 U	0.024 U	0.051 U	0.027 U	0.25 U	0.024 U	0.028 U	0.022 U	0.022 U	0.023 U	1.3 U	0.054 U	27 U
2-Methylnaphthalene	36.4	0.017 U	**0.15 J**	**0.086 J**	**160**	**1100**	**950**	**0.13 J**	**0.02 J**	**200**	**390**	**0.11 J**	**0.018 J**	**22**	**54**	**820**	**0.017 J**	**0.018 J**	**0.96**	**0.6**	**1.4 J**	0.018 U	**0.021 J**	0.016 U	0.016 U	**0.036 J**	**89**	**0.4 J**	**2000**
2-Methylphenol	0.1	0.033 U	0.034 U	0.034 U	***0.87 U***	***18 U***	***19 U***	0.036 U	0.034 U	***1.8 U***	***8.6 U***	0.036 U	0.036 U	**0.48 J**	***1.8 U***	***17 U***	0.037 U	0.034 U	0.074 U	0.038 U	***0.35 U***	0.034 U	0.041 U	0.032 U	0.032 U	0.033 U	***1.9 U***	**0.034 J**	***38 U***
4-Methylphenol	0.9	0.036 U	0.037 U	0.037 U	***0.95 U***	***20 U***	***21 U***	0.04 U	0.037 U	***2 U***	***9.4 U***	0.04 U	0.04 U	**0.86 J**	**1.8 J**	**13 J**	0.041 U	0.038 U	**0.04 J**	0.042 U	**0.16 J**	0.038 U	0.044 U	0.035 U	0.035 U	0.036 U	***2.1 U***	**0.15 J**	**20 J**
4-Nitrophenol	0.1	0.011 U	0.011 U	0.011 U	***0.29 U***	***6.1 U***	***6.5 U***	0.012 U	0.011 U	***0.6 U***	***2.9 U***	0.012 U	0.012 U	***0.26 U***	***0.61 U***	***5.7 U***	0.012 U	0.011 U	0.024 U	0.013 U	***0.12 U***	0.011 U	0.014 U	0.011 UJ	0.011 UJ	0.011 U	***0.64 U***	0.026 U	***13 U***
bis(2-Ethylhexyl) phthalate	50	0.16 U	0.44 U	**0.16 J**	0.58 U	12 U	13 U	0.024 U	**0.81**	1.2 U	5.8 U	0.024 U	**0.2 J**	0.52 U	1.2 U	12 U	0.025 U	**0.34 J**	**0.74 J**	**0.17 J**	0.24 U	0.023 U	**0.11 J**	**0.14 J**	**0.15 J**	0.2 U	1.3 U	0.052 U	25 U
Butyl benzyl phthalate	50	0.015 U	0.015 U	0.015 U	0.39 U	8.1 U	8.5 U	0.016 U	**0.19 J**	0.81 U	3.8 U	0.016 U	0.016 U	0.35 U	0.81 U	7.7 U	0.017 U	0.015 U	0.033 U	0.017 U	0.16 U	0.015 U	0.018 U	0.014 U	0.014 U	0.015 U	0.85 U	0.034 U	17 U
Carbazole	NA	0.0026 U	**0.042 J**	**0.032 J**	**0.46 J**	**120 J**	**93 J**	**0.13 J**	**0.016 J**	**0.93 J**	**57 J**	**0.065 J**	**0.026 J**	**6.6 J**	**13 J**	**130 J**	**0.016 J**	**0.022 J**	**0.2 J**	**0.066 J**	**2.1 J**	**0.095 J**	0.0033 U	**0.0098 J**	**0.025 J**	**0.03 J**	**4.2 J**	**1.9**	**250 J**
Dibenzofuran	6.2	0.018 U	**0.05 J**	**0.035 J**	**3.6 J**	**260**	**230**	**0.16 J**	**0.021 J**	1 U	**110**	**0.082 J**	**0.018 J**	**12**	**19 J**	**300**	**0.017 J**	**0.02 J**	**0.2 J**	**0.032 J**	**4**	0.02 U	**0.011 J**	0.018 U	**0.0081 J**	**0.02 J**	**9.2 J**	**1**	**520**
Diethyl phthalate	7.1	0.0097 U	0.01 U	0.01 U	0.26 U	5.4 U	5.7 U	0.011 U	0.01 U	0.54 U	2.6 U	0.011 U	0.011 U	0.23 U	0.54 U	5.1 U	0.011 U	0.01 U	0.022 U	0.011 U	0.1 U	0.01 U	0.012 U	0.0094 U	**0.087 J**	0.0097 U	0.57 U	0.023 U	***11 U***
Isophorone	4.4	0.027 U	0.028 U	0.028 U	0.73 U	***15 U***	***16 U***	0.03 U	0.028 U	1.5 U	***7.2 U***	0.03 U	0.03 U	0.65 U	1.5 U	***14 U***	0.031 U	0.029 U	0.062 U	0.032 U	0.3 U	0.029 U	0.034 U	0.027 U	0.027 U	0.027 U	1.6 U	0.065 U	***32 U***
N-Nitrosodiphenylamine	NA	0.016 U	0.017 U	0.017 U	0.44 U	9.2 U	9.7 U	0.018 U	0.017 U	0.92 U	4.4 U	0.018 U	0.018 U	0.4 U	0.92 U	8.8 U	0.019 U	0.018 U	0.037 U	0.019 U	0.18 U	0.018 U	0.021 U	0.016 U	0.016 U	0.016 U	0.97 U	0.039 U	19 U
Pentachlorophenol	1.0	0.064 U	0.069 U	0.069 U	***1.7 U***	***37 U***	***39 U***	0.073 U	0.069 U	***3.6 U***	***17 U***	0.073 U	0.073 U	***1.6 U***	***3.7 U***	***34 U***	0.073 U	0.069 U	0.15 U	0.078 U	0.73 U	0.069 U	0.082 U	0.064 U	0.064 U	0.064 U	***3.8 U***	0.16 U	***78 U***
Phenol	0.03	***0.048 U***	***0.05 U***	***0.05 U***	***1.3 U***	***27 U***	***28 U***	***0.054 U***	***0.05 U***	***2.7 U***	***13 U***	***0.054 U***	***0.054 U***	***1.2 U***	***2.7 U***	***26 U***	***0.055 U***	***0.051 U***	***0.11 U***	***0.056 U***	***0.52 U***	***0.051 U***	***0.06 U***	***0.047 U***	***0.047 U***	***0.048 U***	***2.8 U***	***0.11 U***	***56 U***
Total SVOCs	500	**0.768**	**6.863**	**4.574**	**543.26**	**8411.6**	**6906**	**3.774**	**2.895**	**937.13**	**3891.8**	**2.46**	**2.051**	**657.06**	**586.9**	**9129**	**1.052**	**2.726**	**37.82**	**5.462**	**255.96**	**0.121**	**0.311**	**1.0295**	**2.8041**	**5.595**	**2224.4**	**125.652**	**23640**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21RE010 DUP 1- 3 2/18/2004	21RE010 3- 5 2/18/2004	21RE010 5- 7 3/1/2004	21RE010 13- 15 3/1/2004	21RE010 27- 29 3/1/2004	21RE010 DUP 27- 29 3/1/2004	21RE010 49- 51 3/1/2004	21RE011 5- 7 2/26/2004	21RE011 19- 21 2/26/2004	21RE011 27- 29 2/26/2004	21RE011 49- 51 2/26/2004	21RE012 5- 7 2/27/2004	21RE012 19- 21 2/27/2004	21RE012 29- 31 2/27/2004	21RE012 DUP 29- 31 2/27/2004	21RE012 49- 51 2/27/2004	21RS001 5- 7 2/9/2004	21RS002 9- 11 1/27/2004	21RS002 15- 17 1/27/2004	21RS003 7- 8 1/27/2004	21RS003 15- 17 1/27/2004	21RS003 19- 20 1/27/2004	21RS004 1- 3 2/4/2004	21RS004 3- 5 2/4/2004	21RS004 5- 7 2/9/2004	21RS004 7- 8 2/9/2004	21RS005 9- 11 2/9/2004	21RS005 13- 15 2/9/2004
Metals (mg/Kg)																													
Aluminum	7960 (sb)	**7880**	**6940**	**5940 J**	**5090 J**	**5380 J**	**4990 J**	**3490 J**	**7140 J**	**8880 J**	**5210 J**	**4460 J**	**10100 J**	**4210 J**	**7060 J**	**6260 J**	**2860 J**	**7100**	**7470**	**8410**	**6780**	**8000**	**11800**	**3520**	**2940**	**3060 J**	**6170 J**	**10400 J**	**1760 J**
Antimony	NA	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.4 UJ	1.5 UJ	1.4 UJ	1.3 U	1.4 U	1.3 U	1.4 U	1.4 UJ	1.5 UJ	1.4 UJ	1.3 UJ	1.4 UJ	0.89 U	0.94 UJ	0.99 UJ	0.91 UJ	0.88 UJ	1.1 UJ	0.82 UJ	0.83 UJ	1.3 U	1.5 U	1.5 U	1.5 U
Arsenic	13.63 (sb)	**2.6**	**3.3**	**2.1**	**2.1**	**1.9**	**1.5**	0.78 U	**1.4**	**2.9**	**1.5**	0.77 U	**13.5**	0.83 U	**2.8**	**3.0**	0.79 U	**3.0 J**	**3.0 J**	**2.3 J**	**31.2**	0.77 U	**2.2 J**	**1.5 J**	**1.2 J**	**1.2**	**7.6**	**4.3**	**1.0 J**
Barium	300 (d)	**36.8 J**	**79.4**	**58.8**	**82.1**	**52.3**	**55.5**	**53.9**	**42.0 J**	**78.1**	**37.3 J**	**51.4**	**57.1**	**34.8 J**	**15.0 J**	**18.9 J**	**36.7 J**	**45.8**	**65.4**	**71.4**	**113**	**55.7**	**52.4 J**	**32.6 J**	**33.1 J**	**41.0 J**	**93.7**	**178**	**205**
Beryllium	0.463 (sb)	**0.40 J**	**0.44 J**	**0.36 J**	**0.39 J**	**0.31 J**	**0.30 J**	**0.26 J**	**0.40 J**	**0.49**	**0.30 J**	**0.30 J**	**0.49**	**0.31 J**	**0.41 J**	**0.31 J**	**0.20 J**	**0.41 J**	**0.79**	**0.33 J**	**0.51**	**0.41 J**	**0.88**	**0.28 J**	**0.25 J**	**0.16 J**	**0.51**	**0.83**	**0.25 J**
Cadmium	1 (d)	0.087 U	**0.14 J**	0.089 U	0.092 U	0.096 U	0.10 U	0.097 U	0.088 U	0.095 U	0.091 U	0.096 U	0.096 U	0.10 U	0.096 U	0.090 U	0.099 U	0.092 U	0.097 U	0.10 U	0.093 U	0.091 U	0.11 U	0.084 U	0.085 U	0.086 U	**0.33 J**	**0.42 J**	0.10 U
Calcium	11563 (sb)	**780 J**	**4130 J**	**2730 J**	**28900 J**	**5800 J**	**9360 J**	**8010 J**	**1140**	**9510**	**2630**	**11300**	**4120 J**	**3640 J**	**992 J**	**705 J**	**8780 J**	**1750**	**2420**	**1500**	**13500**	**1040 J**	**3120**	**747 J**	**794 J**	**767 J**	**35200**	**49400**	**8730**
Chromium	36.69 (sb)	**17.6 J**	**23.0 J**	**13.7**	**11.4**	**10.3**	**9.5**	**8.4**	**15.2**	**17.9**	**11.1**	**11.4**	**50.4**	**10.2**	**13.7**	**10.7**	**7.9**	**21.7**	**27.4**	**19.0**	**16.2**	**13.9**	**21.2**	**7.9**	**6.2**	**6.8**	**10.1**	**17.0**	**4.0**
Cobalt	30 (d)	**6.4 J**	**23.5 J**	**5.8 J**	**5.0 J**	**5.2 J**	**3.8 J**	**4.9 J**	**6.0 J**	**6.3 J**	**4.3 J**	**5.6 J**	**5.4 J**	**4.1 J**	**5.5 J**	**6.3 J**	**4.4 J**	**5.8 J**	**7.1 J**	**7.3 J**	**8.7 J**	**5.6 J**	**8.3 J**	**3.5 J**	**3.1 J**	**3.6 J**	**8.6 J**	**6.4 J**	**2.9 J**
Copper	35.84 (sb)	**21.3 J**	**134 J**	**29.8**	**34.2**	**17.6**	**19.0**	**8.1**	**49.4**	**22.0**	**13.7**	**12.0**	**38.8 J**	**16.3 J**	**10.2 J**	**13.1 J**	**10.0 J**	**42.8**	**43.7**	**11.4**	**40.7**	**16.0**	**15.9**	**12.1 J**	**10.8 J**	**11.0**	**40.5**	**16.9**	**19.4**
Iron	14369 (sb)	**24500**	**16600**	**12400 J**	**11800 J**	**11300 J**	**10200 J**	**9710 J**	**14500**	**15100**	**9080**	**10400**	**15300 J**	**12400 J**	**15900 J**	**15400 J**	**7000 J**	**13300**	**22600**	**26500**	**31400**	**12800**	**21900**	**7340**	**6300**	**6650 J**	**13300 J**	**17400 J**	**7460 J**
Lead	237.7 (sb)	**49.7 J**	**170 J**	**64.3**	**67.6**	**75.8**	**105**	**3.7**	**11.0 J**	**72.0 J**	**21.6 J**	**3.8 J**	**65.0**	**32.9**	**5.9**	**11.1**	**2.9**	**28.5**	**33.9**	**8.6**	**1200**	**8.4**	**5.2**	**38.4 J**	**33.1 J**	**28.8**	**25.9**	**112**	**68.1**
Magnesium	3129 (sb)	**1580**	**2170**	**1860**	**3510**	**2480**	**2260**	**4500**	**2300**	**3920**	**2000**	**5360**	**3480**	**2170**	**3340**	**2790**	**4200**	**2450**	**1900**	**3830**	**2540**	**2040**	**3440**	**1620**	**1370**	**1540**	**3110**	**17800**	**732 J**
Manganese	358.5 (sb)	**452**	**303**	**296**	**363**	**214**	**208**	**296**	**333 J**	**335 J**	**153 J**	**424 J**	**294**	**303**	**182**	**158**	**257**	**330**	**207**	**1250**	**291**	**384**	**267**	**252 J**	**191 J**	**214**	**421**	**936**	**98.6**
Mercury	0.1 (d)	**0.09 J**	**0.29 J**	**0.2**	**0.18**	**0.2**	**7.4**	0.020 U	**0.04**	**0.18**	**0.06**	0.020 U	**0.19**	**0.03 J**	0.020 U	0.019 U	0.021 U	**0.21**	**0.31**	0.021 U	**0.71**	0.019 U	0.023 U	NS	NS	**0.06**	**0.13**	**0.24**	0.021 U
Nickel	15.3 (sb)	**10.6 J**	**19.0 J**	**10.5**	**10.9**	**10.1**	**9.3 J**	**15.3**	**12.8**	**16.7**	**12.8**	**19.5**	**14.1**	**10.6**	**15.6**	**15.6**	**16.2**	**12.0**	**17.2**	**15.7**	**19.3**	**11.0**	**17.4**	**17.7**	**14.0**	**14.7**	**21.2**	**17.3**	**7.6 J**
Potassium	1197 (sb)	**372 J**	**760 J**	**802 J**	**882 J**	**1220**	**1020 J**	**859 J**	**626 J**	**1760 J**	**973 J**	**987 J**	**558 J**	**669 J**	**826 J**	**641 J**	**615 J**	**972 J**	**1020 J**	**3820**	**1150 J**	**961 J**	**2360**	**498 J**	**427 J**	**416 J**	**652 J**	**1900**	**203 J**
Selenium	2 (d)	0.91 U	0.93 U	0.94 U	0.97 U	1.0 U	1.1 U	1.0 U	0.93 U	1.00 U	0.96 U	1.0 U	1.0 U	1.1 U	1.0 U	0.94 U	1.0 U	0.89 U	0.94 U	0.99 U	0.91 U	0.88 U	1.1 U	0.82 U	0.83 U	0.91 U	1.1 U	1.1 U	1.1 U
Silver	0.229 (sb)	***0.30 U***	***0.31 U***	***0.31 U***	***0.32 U***	***0.34 U***	***0.36 U***	***0.34 U***	***0.31 U***	***0.33 U***	***0.32 U***	***0.34 U***	***0.34 U***	***0.36 U***	***0.34 U***	***0.31 U***	***0.35 U***	0.16 U	0.17 U	0.18 U	**0.22 J**	0.16 U	0.19 U	0.15 U	0.15 U	***0.30 U***	***0.35 U***	***0.36 U***	***0.35 U***
Sodium	214.8 (sb)	85.7 U	**174 J**	**105 J**	**166 J**	**803 J**	**709 J**	**147 J**	87.4 U	**107 J**	**294 J**	**446 J**	94.7 U	102 U	**258 J**	**252 J**	**110 J**	**86.6 J**	87.4 U	**184 J**	**369 J**	**102 J**	**258 J**	75.8 U	76.6 U	**111 J**	**391 J**	**484 J**	**161 J**
Thallium	NA	1.0 U	1.0 U	1.0 U	1.1 U	1.1 U	1.2 U	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.0 U	1.1 U	1.1 U	1.0 U	1.00 U	1.2 U	0.92 U	0.93 U	1.0 U	1.2 U	1.2 U	1.2 U
Vanadium	150 (d)	**20.4**	**22.0**	**20.5**	**20.2**	**15.9**	**14.2**	**12.2**	**27.4**	**27.5**	**14.5**	**12.9**	**36.9**	**14.8**	**16.5**	**12.1**	**9.0 J**	**28.5**	**43.1**	**27.6**	**19.3**	**19.4**	**31.8**	**9.9 J**	**7.9 J**	**8.5 J**	**17.4**	**20.4**	**6.9 J**
Zinc	81.77 (d)	**49.3 J**	**708 J**	**123**	**41.3**	**34.4**	**32.0**	**21.2**	**48.6**	**35.8**	**24.0**	**25.4**	**66.3**	**23.2**	**41.5**	**40.0**	**16.7**	**45.8**	**67.3**	**44.4**	**102**	**26.5**	**46.1**	**43.4 J**	**50.5 J**	**36.5**	**46.7**	**99.5**	**10.2**
Cyanide (mg/Kg)																													
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.5 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21RS005 25- 27 2/9/2004	21RS005 29- 31 2/9/2004	21RS005 37- 39 2/10/2004	21SC001 11- 13 2/25/2004	21SC001 15- 17 2/25/2004	21SC001 23- 25 2/25/2004	21SC001 49- 51 2/25/2004	21SC002 13- 15 2/27/2004	21SC002 23- 25 2/27/2004	21SC002 29- 31 2/27/2004	21SC002 49- 51 3/1/2004	21SC003 1- 3 2/19/2004	21SC003 DUP 1- 3 2/19/2004	21SC003 3- 5 2/19/2004	21SC003 9- 11 2/23/2004	21SC003 13- 15 2/23/2004	21SC003 33- 35 2/23/2004	21SC003 49- 51 2/23/2004	21SC004 1- 3 2/12/2004	21SC004 3- 5 2/12/2004	21SC004 5- 7 2/25/2004	21SC004 15- 17 2/25/2004	21SC004 27- 29 2/25/2004	21SC004 49- 51 2/25/2004	21TP004 1- 3 2/2/2004	21TP004 5- 7 2/2/2004	21TP005 1- 3 2/4/2004
BTEX (mg/Kg)																													
Benzene	0.06	**8.4**	**0.052**	**0.0098**	0.025 U	**0.75**	**24**	**0.033**	**0.32**	**0.15**	**0.0056**	**0.0035**	**0.0042**	**0.0009 J**	0.00025 U	**0.0056**	0.025 U	**0.0056**	**0.0032**	0.00025 U	**0.0007 J**	**2.5**	**1.2**	**0.77**	**0.0051**	**0.0011 J**	**0.005**	**0.0008 J**
Ethyl Benzene	5.5	**0.18 J**	**0.001 J**	0.00022 U	**0.23 J**	**12**	**68**	**0.0007 J**	**1.7**	**2.9**	**0.0037 J**	**0.0014 J**	0.00023 U	0.00021 U	0.00022 U	**0.055**	**0.4 J**	**0.0096**	**0.0048 J**	0.00022 U	**0.0008 J**	**1.1**	**29**	**7.6**	**0.0063**	0.00022 U	**0.0007 J**	0.00022 U
Toluene	1.5	**0.69 J**	**0.0035 J**	0.0037 U	0.021 U	**1.2**	**40**	**0.0094**	**0.46 J**	**0.51 J**	**0.0035 J**	**0.0015 J**	**0.0023 J**	**0.0018 J**	0.00023 U	**0.0011 J**	0.021 U	**0.0024 J**	0.00024 U	**0.0039 J**	**0.0082**	**0.33 J**	**9.9**	**7.7**	**0.0048 J**	0.00023 U	**0.0019 J**	**0.0016 J**
Xylene (Total)	1.2	**0.77 J**	0.00091 U	0.00054 U	**0.26 J**	**12**	**120**	**0.0016 J**	**1.7**	**3.4**	**0.0049 J**	**0.0018 J**	0.00057 U	0.0005 U	0.00053 U	**0.078**	**0.38 J**	**0.019**	**0.0094**	0.00052 U	**0.0032 J**	**0.76**	**40**	**20**	**0.012**	0.00053 U	**0.0017 J**	0.00052 U
Volatile Organic Compounds (VOCs) (mg/Kg)																													
1,2,4-Trichlorobenzene	3.4	0.3 U	0.049 U	0.056 U	0.029 U	0.15 U	***15 U***	0.031 U	0.16 U	1.6 U	0.032 U	0.031 U	0.029 U	0.054 U	0.027 U	0.14 U	0.3 U	0.029 U	0.03 U	0.028 U	0.027 U	**0.022 J**	0.32 U	***7.3 U***	0.032 U	0.027 U	0.028 U	0.027 U
2-Butanone (Methyl Ethyl Ketone)	0.3	***0.48 R***	**0.012 J**	**0.0011 R**	0.24 U	0.24 U	***2.4 U***	0.0012 U	0.25 U	0.24 U	0.0013 U	**0.0012 R**	0.0012 U	0.001 U	0.0011 U	0.0012 U	0.24 U	0.0011 U	0.0012 U	0.0011 U	0.001 U	0.23 U	***0.48 U***	0.23 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U
4-Methyl-2-pentanone	1	0.27 U	0.0014 U	0.00083 U	0.14 U	0.14 U	***1.4 U***	0.00092 U	0.14 U	0.14 U	0.00096 U	0.00092 U	0.00087 U	0.00077 U	0.00081 U	0.00092 U	0.14 U	0.00084 U	0.0009 U	0.0008 U	0.00078 U	0.13 U	0.27 U	0.13 U	0.00095 U	0.00081 U	0.0008 U	0.0008 UJ
Acetone	0.2	***0.45 U***	**0.068 J**	0.0027 U	***0.23 UJ***	***0.23 U***	***2.3 U***	**0.028 J**	***0.24 U***	***0.23 U***	0.037 U	**0.031 J**	**0.042 J**	0.0025 UJ	0.0027 UJ	0.003 UJ	***0.23 UJ***	**0.056 J**	**0.055 J**	**0.032 J**	**0.046 J**	***0.22 U***	***0.45 U***	***0.22 U***	**0.031 J**	0.0027 UJ	0.0026 UJ	**0.047 J**
Carbon Disulfide	2.7	0.062 U	**0.024**	**0.0017 J**	0.031 UJ	0.031 UJ	0.32 U	**0.001 J**	0.033 U	0.032 U	**0.0014 J**	0.00037 U	**0.002 J**	0.00031 U	0.00033 UJ	0.00037 U	0.031 U	**0.0007 J**	**0.0009 J**	0.00032 U	0.00032 U	0.03 UJ	0.062 UJ	0.03 UJ	0.00038 U	0.00033 U	**0.0009 J**	0.00032 U
cis-1,2-Dichloroethene	NA	0.053 U	0.00057 U	0.00034 U	0.026 U	0.026 U	0.27 U	**0.0093**	0.028 U	0.027 U	0.00039 U	**0.002 J**	0.00035 U	0.00031 U	0.00033 U	0.00037 U	0.026 U	**0.0008 J**	**0.0022 J**	0.00032 U	0.00032 U	0.026 U	0.053 U	0.026 U	**0.0033 J**	0.00033 U	0.00032 U	0.00032 U
Methylene Chloride	0.1	0.03 U	0.00044 U	0.0007 U	0.015 U	0.015 U	***0.16 U***	0.0005 U	0.016 U	0.016 U	0.0008 U	0.0035 U	0.0019 U	0.0008 U	0.00025 U	0.00028 U	0.015 U	0.0012 U	0.00028 U	0.0008 U	0.0008 U	0.015 U	0.032 U	0.015 U	0.00029 U	0.003 U	0.0048 U	0.00024 U
Styrene	NA	0.039 U	0.00023 U	0.00013 U	0.019 U	0.019 U	**150**	0.00015 U	**0.17 J**	0.02 U	0.00016 U	0.00015 U	0.00014 U	0.00012 U	0.00013 U	0.00015 U	0.019 U	**0.0019 J**	**0.0008 J**	0.00013 U	0.00013 U	0.019 U	0.039 U	**20**	**0.0063 J**	0.00013 U	0.00013 U	0.00013 U
Tetrachloroethene	1.4	0.078 U	0.00032 U	0.00019 U	0.04 U	0.04 U	0.4 U	0.0002 U	0.044 U	0.04 U	0.00022 U	0.0002 U	0.0002 U	0.00017 U	0.00019 U	0.0002 U	0.04 U	0.00019 U	0.0002 U	0.00019 U	0.00017 U	0.04 U	0.084 U	0.04 U	0.00022 U	0.00019 U	0.00019 U	0.00019 U
Trichloroethene	0.7	0.057 U	0.00051 U	0.0003 U	0.03 U	0.03 U	0.3 U	0.00032 U	0.032 U	0.03 U	0.00035 U	0.00032 U	0.00032 U	0.00027 U	0.0003 U	0.00032 U	0.03 U	**0.0011 J**	0.00032 U	0.0003 U	0.00027 U	0.03 U	0.062 U	0.03 U	**0.001 J**	0.0003 U	0.0003 U	0.0003 U
Total VOCs	10	**10.04**	**0.1605**	**0.0115**	**0.49**	**25.95**	**402**	**0.083**	**4.35**	**6.96**	**0.0191**	**0.0412**	**0.0505**	**0.0027**	ND	**0.1397**	**0.78**	**0.0971**	**0.0763**	**0.0359**	**0.0589**	**4.712**	**80.1**	**56.07**	**0.0698**	**0.0011**	**0.0102**	**0.0494**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																													
Acenaphthene	50	**0.27 J**	**0.53 J**	**1.2**	**1.2**	**1.8 J**	**130 J**	**0.0085 J**	**2.8**	**5.6 J**	0.0037 U	**0.19 J**	**0.067 J**	**0.22 J**	**0.046 J**	**4.1**	**3.7 J**	**0.15 J**	0.0035 U	0.0032 U	**0.024 J**	**0.66 J**	**4.6**	**57 J**	**0.18 J**	0.0031 U	**0.075 J**	0.0031 U
Acenaphthylene	41	**0.22 J**	**0.23 J**	**1**	**0.22 J**	**2.4**	**1100**	**0.018 J**	**1.7 J**	**41**	**0.016 J**	**0.13 J**	**0.91**	**9.1**	**2**	**4.9**	**3.3 J**	**0.73**	0.0035 U	0.0032 U	0.0031 U	**3.6**	**8.3**	**410**	**0.98**	0.0031 U	**0.059 J**	0.0031 U
Anthracene	50	**0.32 J**	**0.42 J**	**1.4**	**0.68**	**1.1 J**	**210**	0.0032 U	**1.8 J**	**14 J**	**0.015 J**	**0.26 J**	**0.35 J**	**2.6**	**0.57**	**2.6**	**2.7 J**	**0.39 J**	0.0032 U	**0.028 J**	**0.055 J**	**2.3**	**3.6 J**	**130**	**0.5**	0.0028 U	**0.19 J**	0.0028 U
Benzo(a)anthracene	0.224	**0.39 J**	**0.43**	**1.6**	**0.48**	**0.52**	**160**	0.011 U	**1.3**	**8.9**	**0.012 J**	**0.24**	**0.93**	**3.6**	**1.5**	**4.1**	**1.7**	**0.24**	0.011 U	**0.17**	**0.13**	**4.3**	**2**	**100**	**0.39**	0.01 U	**0.32**	**0.017 J**
Benzo(a)pyrene	0.061	**0.24 J**	**0.29**	**1**	**0.43**	**0.4**	**180**	0.0031 U	**1.4**	**6.4**	**0.01 J**	**0.2**	**1.3**	**7.2**	**2**	**5.9**	**1.3**	**0.19**	0.003 U	**0.15**	**0.09**	**7.5**	**1.5**	**92**	**0.35**	0.0027 U	**0.28**	**0.011 J**
Benzo(b)fluoranthene	1.1	**0.13 J**	**0.15**	**0.56**	**0.22**	**0.14 J**	**54**	0.0032 U	**0.62**	**2.6**	0.0034 U	**0.1**	**0.82**	**4.4**	**1.2**	**3**	**0.51**	**0.067**	0.0032 U	**0.11**	**0.072**	**5.7**	**0.57**	**39**	**0.14**	0.0028 U	**0.21**	**0.011 J**
Benzo(ghi)perylene	50	0.044 U	**0.14 J**	**0.43 J**	**0.26 J**	**0.14 J**	**120 J**	0.0045 U	**0.84 J**	**2.3 J**	0.0047 U	**0.11 J**	**1**	**7.4**	**1.7**	**4.3**	**0.61 J**	**0.082 J**	0.0044 U	**0.098 J**	**0.077 J**	**4.1**	**0.68 J**	**51 J**	**0.21 J**	0.004 U	**0.22 J**	0.004 U
Benzo(k)fluoranthene	1.1	**0.22 J**	**0.23**	**1**	**0.37**	**0.3**	**120**	0.0044 U	**1.1**	**3.8**	0.0046 U	**0.19**	**1.1**	**5**	**1.7**	**4.2**	**0.84**	**0.12**	0.0043 U	**0.21**	**0.14**	**5.5**	**1.2**	**76**	**0.29**	0.0038 U	**0.24**	**0.013 J**
Chrysene	0.4	**0.35 J**	**0.35 J**	**1.5**	**0.51**	**0.52 J**	**160 J**	0.0052 U	**1.4 J**	**9.4 J**	**0.014 J**	**0.24 J**	**0.97**	**4**	**1.5**	**4.7**	**1.7 J**	**0.27 J**	0.0051 U	**0.19 J**	**0.14 J**	**5**	**2.2 J**	**100 J**	**0.39 J**	0.0046 U	**0.33 J**	**0.016 J**
Dibenz(a,h)anthracene	0.014	***0.027 U***	**0.05 J**	**0.18**	**0.078**	0.013 U	***1.3 U***	0.0028 U	**0.24**	**0.79 J**	0.0029 U	**0.016 J**	**0.29**	**1.5**	0.0024 UJ	**1.2**	***0.027 U***	0.0026 U	0.0027 U	0.0025 UJ	0.0024 UJ	**1.5**	**0.23 J**	**12**	**0.042 J**	0.0024 U	**0.055**	0.0024 U
Fluoranthene	50	**0.62 J**	**0.72**	**2.6**	**0.95**	**0.87 J**	**520**	**0.02 J**	**2.1 J**	**12 J**	**0.018 J**	**0.48**	**0.91**	**4.5**	**1.5**	**3.9**	**2.8 J**	**0.39 J**	**0.014 J**	**0.24 J**	**0.27 J**	**4.8**	**3.5 J**	**290**	**1.1**	0.0012 U	**0.78**	**0.028 J**
Fluorene	50	**0.68 J**	**0.58 J**	**2.6**	**0.61**	**1.4 J**	**460**	0.0029 U	**1.2 J**	**17 J**	0.003 U	**0.25 J**	**0.087 J**	**0.4 J**	**0.11 J**	**2.1**	**3.1 J**	**0.46**	0.0028 U	0.0026 U	**0.023 J**	**0.67 J**	**4.4**	**210**	**0.72**	0.0025 U	**0.086 J**	0.0025 U
Indeno(1,2,3-cd)pyrene	3.2	0.027 U	**0.1**	**0.36**	**0.22**	**0.12 J**	**66**	0.0027 U	**0.69**	**1.8 J**	0.0029 U	**0.089**	**0.78**	**5.3**	**1.3 J**	**3**	**0.43**	**0.053**	0.0027 U	**0.096**	**0.067**	**3.8**	**0.54**	**37**	**0.14**	0.0024 U	**0.17**	0.0024 U
Naphthalene	13	**4.4**	**2**	**10**	**8**	**24**	**3700**	**0.06 J**	**28**	**360**	**0.029 J**	**0.054 J**	**0.32 J**	**0.98**	**0.32 J**	**30**	**50**	**3.3**	**0.13 J**	0.0034 U	**0.045 J**	**2.8**	**68**	**1900**	**1.9**	0.0033 U	**0.047 J**	0.0033 U
Phenanthrene	50	**1.8 J**	**2.2**	**7.3**	**2.2**	**4**	**1300**	**0.052 J**	**7.9**	**51**	**0.056 J**	**1**	**0.77**	**4.4**	**0.93**	**7**	**9.6**	**1.4**	**0.039 J**	**0.11 J**	**0.27 J**	**4.9**	**13**	**640**	**2.4**	0.0034 U	**0.8**	**0.013 J**
Pyrene	50	**0.75 J**	**1**	**2.8**	**1.2**	**1.2 J**	**690**	**0.025 J**	**4.1**	**21 J**	**0.032 J**	**0.55**	**1.4**	**6.8**	**2.2**	**7.1**	**4.8**	**0.7**	**0.023 J**	**0.23 J**	**0.28 J**	**8**	**5.1**	**290**	**1.2**	0.0026 U	**0.65**	**0.021 J**
Benzo(a)pyrene Equivalents	NA	**0.29455**	**0.41065**	**1.4435**	**0.60421**	**0.48152**	**209.36**	ND	**1.9134**	**8.5674**	**0.011214**	**0.26104**	**1.85497**	**10.084**	**2.4185**	**8.1567**	**1.5741**	**0.22747**	ND	**0.18989**	**0.11844**	**10.44**	**2.0552**	**122.46**	**0.46229**	ND	**0.40773**	**0.013946**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																													
2,4-Dimethylphenol	NA	0.38 U	0.062 U	**0.34 J**	0.037 U	**0.06 J**	18 U	0.039 U	0.2 U	2 U	0.041 U	0.039 U	0.037 U	**0.058 J**	**0.0096 J**	0.18 U	0.38 U	0.036 U	0.038 U	0.035 U	0.034 U	**0.036 J**	0.41 U	9.2 U	0.04 U	0.034 U	0.035 U	0.034 U
2-Chloronaphthalene	NA	0.26 U	**0.014 J**	0.049 U	0.025 U	0.13 U	13 U	0.027 U	0.14 U	1.4 U	0.028 U	0.027 U	0.025 U	0.046 U	0.023 U	0.12 U	0.26 U	0.025 U	0.026 U	0.024 U	0.023 U	0.051 U	0.28 U	6.3 U	0.027 U	0.023 U	0.024 U	0.023 U
2-Methylnaphthalene	36.4	**1.6 J**	**0.67**	**4.1**	**2.6**	**9.7**	**910**	**0.013 J**	**5.1**	**160**	**0.016 J**	**0.032 J**	**0.13 J**	**0.46 J**	**0.19 J**	**9.7**	**18**	**2**	**0.043 J**	0.018 U	**0.028 J**	**1.1**	**29**	**420**	**0.84**	0.017 U	**0.027 J**	0.017 U
2-Methylphenol	0.1	***0.37 U***	0.061 U	**0.18 J**	0.036 U	**0.048 J**	***18 U***	0.038 U	***0.2 U***	***2 U***	0.04 U	0.038 U	0.036 U	0.066 U	0.034 U	***0.17 U***	***0.37 U***	0.035 U	0.037 U	0.034 U	0.034 U	0.073 U	***0.4 U***	***9.1 U***	0.039 U	0.034 U	0.034 U	0.034 U
4-Methylphenol	0.9	**44**	**7.6**	**0.44 J**	0.04 U	**0.062 J**	***20 U***	0.042 U	0.22 U	***2.2 U***	0.044 U	0.042 U	**0.016 J**	**0.1 J**	**0.032 J**	0.19 U	0.41 U	0.039 U	0.041 U	0.038 U	0.037 U	**0.075 J**	0.44 U	***9.9 U***	0.043 U	0.037 U	0.038 U	0.037 U
4-Nitrophenol	0.1	***0.12 U***	0.02 U	0.024 U	0.012 U	0.061 U	***6.2 U***	0.013 U	0.065 U	***0.66 U***	0.013 U	0.013 U	0.012 U	0.022 UJ	0.011 UJ	0.059 U	***0.12 U***	0.012 U	0.012 U	0.011 U	0.011 U	0.024 U	***0.13 U***	***3.1 U***	0.013 U	0.011 U	0.011 U	0.011 UJ
bis(2-Ethylhexyl) phthalate	50	0.93 U	0.19 U	0.58 U	**0.13 J**	0.12 U	12 U	0.025 U	0.13 U	1.3 U	0.027 U	0.025 U	0.024 U	0.044 U	**0.075 J**	**0.5 J**	0.25 U	**0.21 J**	**0.24 J**	0.19 U	0.022 U	**0.26 J**	0.27 U	6.1 U	**0.15 J**	0.022 U	0.023 U	0.022 U
Butyl benzyl phthalate	50	0.17 U	0.027 U	0.031 U	0.016 U	0.081 U	8.1 U	0.017 U	0.089 U	0.89 U	0.018 U	0.017 U	0.016 U	0.03 U	0.015 U	0.077 U	0.17 U	0.016 U	0.017 U	0.015 U	0.015 U	0.032 U	0.18 U	4.1 U	0.017 U	0.015 U	0.015 U	0.015 U
Carbazole	NA	**0.2 J**	**0.15 J**	**0.78**	**0.049 J**	0.015 U	1.5 U	0.0031 U	**0.058 J**	0.16 U	0.0032 U	**0.014 J**	**0.074 J**	**0.28 J**	**0.06 J**	**0.14 J**	0.03 U	0.0029 U	0.003 U	**0.012 J**	**0.026 J**	**0.36 J**	**0.1 J**	**35 J**	**0.12 J**	0.0027 U	**0.073 J**	0.0027 U
Dibenzofuran	6.2	**0.39 J**	**0.24 J**	**1.3**	**0.072 J**	**0.29 J**	***10 U***	0.022 U	**0.23 J**	**3 J**	0.023 U	**0.063 J**	**0.045 J**	**0.29 J**	0.019 U	**0.24 J**	**0.3 J**	**0.058 J**	0.021 U	0.02 U	**0.018 J**	**0.41 J**	**0.88 J**	**75 J**	**0.16 J**	0.019 U	**0.049 J**	0.019 U
Diethyl phthalate	7.1	0.11 U	0.018 U	0.021 U	**0.37 J**	0.054 U	5.4 U	0.011 U	0.059 U	0.59 U	0.012 U	0.011 U	0.011 U	0.02 U	0.01 U	0.051 U	0.11 U	0.01 U	0.011 U	0.01 U	0.01 U	0.022 U	0.12 U	2.7 U	0.012 U	0.01 U	0.01 U	0.01 U
Isophorone	4.4	0.31 U	0.051 U	0.058 U	0.03 U	0.15 U	***15 U***	0.032 U	0.17 U	1.7 U	0.033 U	0.032 U	0.03 U	0.056 U	0.028 U	0.14 U	0.31 U	0.03 U	0.031 U	0.029 U	0.028 U	0.061 U	0.33 U	***7.6 U***	0.033 U	0.028 U	0.029 U	0.028 U
N-Nitrosodiphenylamine	NA	0.19 U	0.031 U	0.035 U	0.018 U	0.092 U	9.2 U	0.019 U	0.1 U	1 U	0.02 U	0.019 U	0.018 U	0.034 U	0.017 U	0.088 U	0.19 U	0.018 U	0.019 U	0.018 U	0.017 U	0.037 U	0.2 U	4.6 U	0.02 U	0.017 U	0.018 U	0.017 U
Pentachlorophenol	1.0	0.73 U	0.12 U	0.14 U	0.073 U	0.37 U	***38 U***	0.078 U	0.39 U	***4 U***	0.078 U	0.078 U	0.073 U	0.13 U	0.069 U	0.35 U	0.73 U	0.073 U	0.073 U	0.069 U	0.069 U	0.15 U	0.78 U	***19 U***	0.078 U	0.069 U	**0.14 J**	0.069 U
Phenol	0.03	**3.3 J**	**0.73**	***0.1 U***	***0.054 U***	***0.27 U***	***27 U***	***0.056 U***	***0.3 U***	***3 U***	***0.059 U***	***0.056 U***	***0.054 U***	***0.098 U***	***0.05 U***	***0.26 U***	***0.55 U***	***0.052 U***	***0.055 U***	***0.051 U***	***0.05 U***	***0.11 U***	***0.59 U***	***13 U***	***0.058 U***	***0.05 U***	***0.051 U***	***0.05 U***
Total SVOCs	500	**59.88**	**18.824**	**42.67**	**20.849**	**49.07**	**9880**	**0.1965**	**62.578**	**720.59**	**0.218**	**4.208**	**12.269**	**68.588**	**18.9426**	**102.68**	**105.39**	**10.81**	**0.489**	**1.644**	**1.755**	**67.371**	**149.4**	**4964**	**12.202**	ND	**4.801**	**0.13**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC RSCOs	21RS005	21RS005	21RS005	21SC001	21SC001	21SC001	21SC001	21SC002	21SC002	21SC002	21SC002	21SC003	21SC003 DUP	21SC003	21SC003	21SC003	21SC003	21SC004	21SC004	21SC004	21SC004	21SC004	21TP004	21TP004	21TP005
Depth Interval		25- 27	29- 31	37- 39	11- 13	15- 17	23- 25	49- 51	13- 15	23- 25	29- 31	49- 51	1- 3	1- 3	3- 5	9- 11	13- 15	33- 35	49- 51	1- 3	3- 5	5- 7	15- 17	27- 29	49- 51	1- 3	5- 7	1- 3
Sample Date		2/9/2004	2/9/2004	2/10/2004	2/25/2004	2/25/2004	2/25/2004	2/25/2004	2/27/2004	2/27/2004	2/27/2004	3/1/2004	2/19/2004	2/19/2004	2/19/2004	2/23/2004	2/23/2004	2/23/2004	2/23/2004	2/12/2004	2/12/2004	2/25/2004	2/25/2004	2/25/2004	2/25/2004	2/2/2004	2/2/2004	2/4/2004
Metals (mg/Kg)																												
Aluminum	7960 (sb)	**10900 J**	**11300 J**	**2490**	**7370**	**4900**	**7540**	**4260**	**7140 J**	**7710 J**	**7090 J**	**2570 J**	**4920 J**	**5840 J**	**6870 J**	**9180 J**	**5940 J**	**5930 J**	**5500 J**	**7610**	**5500**	**6030**	**5800**	**7170**	**3780**	NS	NS	NS
Antimony	NA	2.9 U	**2.6 J**	0.90 U	1.4 UJ	1.4 UJ	1.4 UJ	1.5 UJ	1.5 UJ	1.5 UJ	1.5 UJ	1.5 UJ	1.4 U	1.3 U	1.3 U	0.82 UJ	0.96 UJ	0.91 UJ	0.97 UJ	0.90 UJ	0.87 UJ	1.4 UJ	1.5 UJ	1.4 UJ	1.5 UJ	NS	NS	NS
Arsenic	13.63 (sb)	**4.7**	**6.6**	0.79 U	**1.2 J**	**1.2 J**	**3.7 J**	0.81 UJ	**3.5**	**4.6**	**1.3 J**	0.81 U	**4.9 J**	**16.8 J**	**7.6 J**	**2.7 J**	**1.1 J**	**1.4 J**	0.84 U	**5.6 J**	**2.6 J**	**4.9 J**	**1.0 J**	**1.7 J**	0.83 UJ	NS	NS	NS
Barium	300 (d)	**22.1 J**	**53.7 J**	**12.4 J**	**56.9**	**18.8 J**	**12.0 J**	**62.1**	**54.2**	**10.8 J**	**34.1 J**	**34.3 J**	**41.9 J**	**62.5**	**69.9**	**67.7**	**41.7 J**	**32.5 J**	**52.4**	**49.2**	**41.8 J**	**65.0**	**30.1 J**	**21.6 J**	**43.4 J**	NS	NS	NS
Beryllium	0.463 (sb)	**0.54 J**	**0.34 J**	**0.12 J**	**0.53**	**0.24 J**	**0.35 J**	**0.29 J**	**0.40 J**	**0.36 J**	**0.34 J**	**0.20 J**	**0.37 J**	**0.47**	**0.51**	**0.68**	**0.33 J**	**0.38 J**	**0.33 J**	**0.48**	**0.40 J**	**0.40 J**	**0.31 J**	**0.33 J**	**0.26 J**	NS	NS	NS
Cadmium	1 (d)	0.20 U	0.16 U	0.093 U	0.097 U	0.096 U	0.099 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	**0.10 J**	**0.13 J**	0.089 U	0.084 U	0.099 U	0.094 U	0.099 U	**0.20 J**	0.089 U	0.097 U	0.10 U	0.098 U	0.10 U	NS	NS	NS
Calcium	11563 (sb)	**3780**	**1660 J**	**865 J**	**3250 J**	**1020 J**	**665 J**	**10600 J**	**45500 J**	**787 J**	**950 J**	**6840 J**	**6700 J**	**9880 J**	**18900 J**	**4600**	**53300**	**1270**	**15000**	**2680**	**1750**	**6980 J**	**1560 J**	**1010 J**	**9190 J**	NS	NS	NS
Chromium	36.69 (sb)	**19.9**	**30.1**	**11.0**	**14.4**	**9.7**	**10.7**	**10.4**	**15.5**	**10.8**	**11.5**	**6.0**	**13.0 J**	**19.1 J**	**13.1 J**	**24.6 J**	**13.3 J**	**13.5 J**	**12.0 J**	**24.0**	**15.8**	**17.4**	**12.5**	**13.5**	**9.0**	NS	NS	NS
Cobalt	30 (d)	**6.4 J**	**5.4 J**	**2.1 J**	**3.5 J**	**4.4 J**	**4.8 J**	**5.8 J**	**6.6 J**	**4.8 J**	**5.5 J**	**3.3 J**	**5.4 J**	**13.9**	**16.6**	**6.8 J**	**5.4 J**	**4.5 J**	**6.5 J**	**5.2 J**	**5.5 J**	**6.6 J**	**11.9 J**	**5.7 J**	**5.0 J**	NS	NS	NS
Copper	35.84 (sb)	**12.5**	**11.6**	**6.8**	**14.9**	**11.9**	**13.1**	**9.8**	**23.4 J**	**15.0 J**	**13.8 J**	**6.0**	**23.9 J**	**48.6 J**	**66.2 J**	**21.0**	**16.4**	**10.7**	**11.8**	**23.8**	**26.6**	**34.5**	**16.9**	**15.6**	**8.7**	NS	NS	NS
Iron	14369 (sb)	**18100 J**	**20600 J**	**6610**	**9230**	**10800**	**14700**	**9990**	**15400 J**	**17100 J**	**17000 J**	**6260 J**	**14100**	**18400**	**16900**	**20800**	**12700**	**15000**	**13500**	**13600**	**15500**	**16600**	**10200**	**16800**	**8810**	NS	NS	NS
Lead	237.7 (sb)	**8.4**	**4.2**	**2.4**	**7.4**	**9.6**	**7.5**	**3.8**	**47.0**	**7.3**	**6.5**	**2.1**	**25.5 J**	**152 J**	**62.3 J**	**9.5**	**9.2**	**4.9**	**4.3**	**36.3**	**12.2**	**159**	**44.4**	**8.4**	**3.3**	NS	NS	NS
Magnesium	3129 (sb)	**4590**	**3470**	**950 J**	**2970**	**2120**	**3110**	**5310**	**4200**	**3280**	**3340**	**3460**	**2640**	**2930**	**5310**	**3310**	**2290**	**2640**	**6590**	**2090**	**2280**	**3260**	**2400**	**3440**	**4800**	NS	NS	NS
Manganese	358.5 (sb)	**99.3**	**176**	**92.8**	**85.4**	**150**	**108**	**354**	**195**	**116**	**107**	**217**	**262 J**	**165 J**	**268 J**	**215 J**	**219 J**	**89.8 J**	**387 J**	**274**	**319**	**297**	**109**	**142**	**277**	NS	NS	NS
Mercury	0.1 (d)	0.041 U	0.033 U	0.019 U	0.020 U	**0.02 J**	0.021 U	0.021 U	**0.09**	0.019 U	0.022 U	0.018 U	**0.06 J**	**0.16 J**	**0.35 J**	**0.09**	0.021 U	0.020 U	0.021 U	**0.08**	**0.02 J**	**1.6**	**0.12**	0.020 U	0.022 U	NS	NS	NS
Nickel	15.3 (sb)	**16.5 J**	**19.6**	**6.6 J**	**9.5**	**9.0 J**	**13.1**	**18.8**	**15.7**	**14.8**	**15.9**	**11.7**	**12.3**	**32.4**	**35.1**	**18.1**	**10.7**	**16.3**	**19.4**	**13.1**	**11.8**	**15.4**	**17.3**	**15.6**	**18**	NS	NS	NS
Potassium	1197 (sb)	**1790 J**	**1420 J**	**550 J**	**803 J**	**834 J**	**595 J**	**900 J**	**759 J**	**502 J**	**772 J**	**619 J**	**1030 J**	**1380 J**	**1250 J**	**2250 J**	**1130 J**	**1480 J**	**1500 J**	**955 J**	**956 J**	**796 J**	**1200 J**	**755 J**	**876 J**	NS	NS	NS
Selenium	2 (d)	***2.1 U***	1.7 U	0.90 U	1.0 U	1.0 U	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	0.92 U	0.93 U	0.82 U	0.96 U	0.91 U	0.97 U	0.90 U	0.87 U	1.0 U	1.1 U	1.0 U	1.1 U	NS	NS	NS
Silver	0.229 (sb)	***0.69 U***	***0.56 U***	0.16 U	***0.34 U***	***0.34 U***	***0.35 U***	***0.36 U***	***0.36 U***	***0.36 U***	***0.37 U***	***0.35 U***	***0.34 U***	***0.31 U***	***0.31 U***	0.15 U	0.17 U	0.16 U	0.17 U	0.16 U	0.16 U	***0.34 U***	***0.37 U***	***0.34 U***	***0.37 U***	NS	NS	NS
Sodium	214.8 (sb)	**2850**	**1400 J**	**82.1 J**	**98.6 J**	**122 J**	**134 J**	**165 J**	**107 J**	**124 J**	103 U	**96.5 J**	**240 J**	**302 J**	**258 J**	**113 J**	88.9 U	**113 J**	**165 J**	**522 J**	**221 J**	**207 J**	**141 J**	**148 J**	103 U	NS	NS	NS
Thallium	NA	2.3 U	1.9 U	1.0 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.0 U	1.0 U	0.92 UJ	1.1 UJ	1.0 UJ	1.1 UJ	1.0 U	0.98 U	1.1 U	1.2 U	1.2 U	1.2 U	NS	NS	NS
Vanadium	150 (d)	**32.2**	**30.3**	**9.4 J**	**22.1**	**13.4**	**14.7**	**11.9 J**	**19.9**	**13.7**	**12.9 J**	**8.3 J**	**22.9**	**19.5**	**19.6**	**32.4**	**20.2**	**16.8**	**16.4**	**41.0**	**26.4**	**24.5**	**15.9**	**14.4**	**11.1 J**	NS	NS	NS
Zinc	81.77 (d)	**43.0**	**37.5**	**11.2**	**28.3**	**23.5**	**36.2**	**24.0**	**43.7**	**45.2**	**44.6**	**15.2**	**31.9 J**	**80.4 J**	**129 J**	**39.0**	**30.3**	**29.3**	**31.0**	**58.5**	**34.1**	**76.2**	**31.8**	**48.4**	**24.3**	NS	NS	NS
Cyanide (mg/Kg)																												
Cyanide, Total	NA	NS	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NS	0.5 U	**0.88**	**2.5**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.1**	0.5 U	0.5 U	0.5 U	NS	NS	NS

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21TP005 8- 10 2/4/2004	21TP007 1- 3 2/2/2004	21TP007 5- 7 2/2/2004	21TP007 8- 10 2/2/2004	21TP009 1- 3 2/9/2004	21TP009 7- 9 2/9/2004	21TP011 2- 3 2/6/2004	21TP011 3- 5 2/6/2004	21TP012 1- 3 2/6/2004	21TP012 3- 5 2/6/2004	21TP012 8- 10 2/11/2004	21TP013 1- 3 2/10/2004	21TP013 3- 5 2/10/2004	21TP013 8- 10 2/10/2004	21TP015 1- 3 2/10/2004	21TP015 3- 5 2/10/2004	21VH001 DUP 1- 3 2/23/2004	21VH001 1- 3 2/23/2004	21VH001 3- 5 2/23/2004	21VH001 5- 7 2/25/2004	21VH001 15- 17 2/26/2004	21VH001 27- 29 2/26/2004	21VH001 49- 51 2/26/2004	21VH002 7- 9 2/24/2004	21VH002 11- 13 2/24/2004	21VH002 29- 31 2/24/2004	21VH002 49- 51 2/25/2004
BTEX (mg/Kg)																													
Benzene	0.06	**0.015**	**0.0017**	**0.0059**	**0.0071**	0.00025 U	**0.082**	0.00028 U	0.00028 U	0.00028 U	0.00025 U	**170**	0.00023 U	0.00025 U	**25**	**0.0006 J**	0.00023 U	0.00023 U	0.00023 U	**0.0007 J**	0.00023 U	**0.02**	**0.0019**	**0.0053**	0.00028 U	**0.47**	**0.0068**	**0.012**
Ethyl Benzene	5.5	**0.0013 J**	0.00021 U	0.00022 U	**0.0016 J**	0.00022 U	**0.0073**	**0.0007 J**	**0.001 J**	0.00023 U	0.00022 U	**360**	0.00021 U	0.00022 U	**26**	**0.0007 J**	0.00021 U	0.0002 U	0.0002 U	0.00022 U	0.00021 U	**0.0014 J**	0.00023 U	0.00023 U	0.00024 U	**0.88**	**0.011**	**0.0014 J**
Toluene	1.5	**0.0049 J**	0.00021 U	**0.0024 J**	**0.0042 J**	0.00021 U	**0.016**	**0.0017 J**	**0.0019 J**	**0.0012 J**	**0.0012 J**	**4 J**	0.00021 U	**0.0011 J**	**34**	**0.0012 J**	0.00021 U	0.00021 U	0.0002 U	0.00022 U	0.00021 U	**0.0014 J**	0.00023 U	0.00023 U	0.00024 U	**0.15 J**	**0.014**	**0.0031 J**
Xylene (Total)	1.2	**0.0029 J**	0.0005 U	0.00052 U	**0.0024 J**	0.00051 U	**0.012**	**0.0013 J**	**0.0012 J**	0.00056 U	0.00053 U	**340**	0.00051 U	0.00052 U	**64**	**0.0037 J**	0.0005 U	0.0005 U	0.00049 U	0.00054 U	0.0005 U	**0.0028 J**	0.00056 U	0.00056 U	0.00058 U	**0.31 J**	**0.041**	0.00057 U
Volatile Organic Compounds (VOCs) (mg/Kg)																													
1,2,4-Trichlorobenzene	3.4	0.032 U	0.026 U	0.027 U	0.027 U	0.026 U	0.059 U	0.027 U	0.028 U	0.027 U	0.027 U	***6.7 U***	0.026 U	0.026 U	0.32 U	0.026 U	0.026 U	0.026 U	0.026 U	0.027 U	0.026 U	0.033 U	0.029 U	0.029 U	NS	0.15 U	0.031 U	0.029 U
2-Butanone (Methyl Ethyl Ketone)	0.3	0.0012 U	0.001 U	0.0011 U	0.0011 U	**0.001 R**	**0.022 J**	0.0011 U	0.0012 U	0.0011 U	0.0011 U	***5.5 U***	**0.0076**	**0.0082**	***0.51 U***	**0.0077**	**0.0091**	**0.012**	**0.0084**	**0.0096**	0.001 U	**0.012 J**	**0.0011 R**	**0.0011 R**	**0.0012 R**	**0.23 R**	**0.0012 R**	0.0012 U
4-Methyl-2-pentanone	1	0.00089 UJ	0.00077 U	0.0008 U	0.00081 U	0.00078 U	0.00086 U	0.00086 U	0.00089 U	0.00086 U	0.00081 U	***3.2 U***	0.00078 U	0.0008 U	0.29 U	0.00075 U	0.00077 U	0.00077 U	0.00075 U	0.00083 U	0.00077 U	0.00096 U	0.00086 U	0.00086 U	0.00089 U	0.13 U	0.00092 U	0.00087 U
Acetone	0.2	**0.069 J**	0.0025 UJ	0.0026 UJ	0.0027 UJ	**0.04 J**	**0.091 J**	**0.079**	**0.097**	**0.1**	**0.11**	***5.3 R***	**0.054 J**	**0.056 J**	**3.4 J**	**0.057 J**	**0.065 J**	**0.056 J**	**0.048 J**	**0.059 J**	**0.026 J**	**0.041 J**	0.023 U	0.022 U	**0.023 J**	***0.22 UJ***	**0.04 J**	0.0028 UJ
Carbon Disulfide	2.7	**0.016 J**	0.00031 U	**0.0013 J**	**0.0034 J**	0.00032 U	**0.014**	0.00035 U	**0.0033 J**	**0.0007 J**	**0.0012 J**	0.72 U	0.00032 U	0.00032 U	0.067 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00034 U	0.00031 U	**0.008**	**0.0014 J**	**0.0019 J**	**0.0016 J**	0.03 U	**0.0032 J**	**0.0012 J**
cis-1,2-Dichloroethene	NA	0.00036 U	0.00031 U	0.00032 U	0.00033 U	0.00032 U	0.00035 U	0.00035 U	0.00036 U	0.00035 U	0.00033 U	0.62 U	0.00032 U	0.00032 U	0.057 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00034 U	0.00031 U	0.00039 U	0.00035 U	0.00035 U	0.00036 U	0.026 U	**0.0016 J**	0.00035 U
Methylene Chloride	0.1	0.0005 U	0.0013 U	0.0046 U	0.0047 U	0.0005 U	0.0012 U	0.0026 U	0.0018 U	0.00026 U	0.0022 U	***0.35 U***	0.0012 U	0.002 U	0.033 U	0.0032 U	0.0032 U	0.00024 U	0.0012 U	0.0009 U	0.00024 U	0.0012 U	0.0014 U	0.0012 U	0.00028 U	0.015 U	0.00028 U	0.0007 U
Styrene	NA	0.00014 U	0.00012 U	0.00013 U	0.00013 U	0.00013 U	**0.0013 J**	0.00014 U	0.00014 U	0.00014 U	0.00013 U	0.45 U	0.00013 U	0.00013 U	**3.8**	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00013 U	0.00012 U	0.00016 U	0.00014 U	0.00014 U	0.00014 U	0.019 U	**0.0022 J**	0.00014 U
Tetrachloroethene	1.4	0.0002 U	0.00017 U	0.00019 U	0.00019 U	0.00019 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00019 U	0.91 U	0.00017 U	0.00019 U	0.088 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00019 U	0.00017 U	0.00022 U	0.0002 U	0.0002 U	0.0002 U	0.04 U	0.0002 U	0.0002 U
Trichloroethene	0.7	0.00032 U	0.00027 U	0.0003 U	0.0003 U	0.0003 U	0.00032 U	0.00032 U	0.00032 U	0.00032 U	0.0003 U	0.67 U	0.00027 U	0.0003 U	0.064 U	0.00027 U	0.00027 U	0.00027 U	0.00027 U	0.0003 U	0.00027 U	0.00035 U	0.00032 U	0.00032 U	0.00032 U	0.03 U	0.00032 U	0.00032 U
Total VOCs	10	**0.1091**	**0.0017**	**0.0096**	**0.0187**	**0.04**	**0.2456**	**0.0827**	**0.1044**	**0.1019**	**0.1124**	**874**	**0.0616**	**0.0653**	**156.2**	**0.0709**	**0.0741**	**0.068**	**0.0564**	**0.0693**	**0.026**	**0.0866**	**0.0033**	**0.0072**	**0.0246**	**1.81**	**0.1198**	**0.0177**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																													
Acenaphthene	50	**1.7**	**0.016 J**	**0.12 J**	**0.009 J**	0.003 U	**3**	**0.013 J**	**0.05 J**	0.0031 U	**0.037 J**	**180**	0.003 U	0.003 U	**15**	0.003 U	0.003 U	0.003 U	**0.01 J**	0.0031 U	0.003 U	**0.66**	**0.009 J**	0.0034 U	NS	**4.4**	**0.05 J**	0.0034 U
Acenaphthylene	41	**2.2**	**0.15 J**	**2**	**0.19 J**	0.003 U	**2.8**	**0.15 J**	**0.16 J**	0.0031 U	**0.017 J**	**44 J**	0.003 U	0.003 U	**12**	**0.02 J**	**0.04 J**	0.003 U	**0.1 J**	0.0031 U	0.003 U	**0.92**	0.0034 U	0.0034 U	NS	**3.6**	0.0036 U	0.0034 U
Anthracene	50	**2.3**	**0.089 J**	**1**	**0.071 J**	0.0028 U	**2.1**	**0.066 J**	**0.11 J**	0.0028 U	**0.022 J**	**160**	**0.0079 J**	0.0028 U	**27**	**0.12 J**	**0.025 J**	0.0028 U	**0.13 J**	0.0028 U	0.0028 U	**2.1**	0.0031 U	0.0031 U	NS	**4.8**	**0.016 J**	0.0031 U
Benzo(a)anthracene	0.224	**5.3**	**0.28**	**2.2**	**0.24**	**0.011 J**	**11**	**0.14**	**0.16**	0.01 U	**0.032 J**	**100**	**0.025 J**	**0.035 J**	**56**	**0.035 J**	**0.096**	**0.037**	**0.055**	**0.034 J**	0.0098 U	**6.1**	0.011 U	0.011 U	NS	**5.1**	**0.016 J**	0.011 U
Benzo(a)pyrene	0.061	**4.7**	**0.34**	**2.8**	**0.28**	**0.018 J**	**16**	**0.17**	**0.24**	**0.014 J**	**0.022 J**	**74**	**0.02 J**	**0.028 J**	**62**	**0.038**	**0.094**	**0.038**	**0.048**	**0.042**	0.0027 U	**4.1**	0.003 U	0.003 U	NS	**5.2**	0.0031 U	0.003 U
Benzo(b)fluoranthene	1.1	**3.6**	**0.25**	**1.4**	**0.13**	**0.012 J**	**14**	**0.14**	**0.14**	**0.0099 J**	0.0028 U	**44**	**0.013 J**	**0.019 J**	**51**	**0.028 J**	**0.065**	**0.031 J**	**0.034 J**	**0.03 J**	0.0028 U	**1.8**	0.0031 U	0.0031 U	NS	**3**	0.0032 U	0.0031 U
Benzo(ghi)perylene	50	**2.9**	**0.18 J**	**0.84**	**0.18 J**	0.0038 U	**4.9**	**0.074 J**	**0.088 J**	0.004 U	0.004 U	**44 J**	**0.012 J**	**0.018 J**	**38**	**0.026 J**	**0.066 J**	0.0038 U	0.0038 U	0.004 U	0.0038 U	**1.3**	0.0043 U	0.0043 U	NS	**3**	0.0045 U	0.0043 U
Benzo(k)fluoranthene	1.1	**3.8**	**0.35**	**2.3**	**0.22**	**0.017 J**	**10**	**0.2**	**0.22**	**0.014 J**	0.0038 U	**71**	**0.018 J**	**0.031 J**	**32**	**0.033 J**	**0.093**	**0.036 J**	**0.049**	**0.036 J**	0.0038 U	**2.8**	0.0042 U	0.0042 U	NS	**3.3**	0.0044 U	0.0042 U
Chrysene	0.4	**5.1**	**0.33 J**	**2.3**	**0.25 J**	**0.015 J**	**11**	**0.15 J**	**0.18 J**	**0.015 J**	**0.027 J**	**100**	**0.022 J**	**0.032 J**	**50**	**0.034 J**	**0.088 J**	**0.041 J**	**0.064 J**	**0.038 J**	0.0045 U	**6**	0.005 U	0.005 U	NS	**5**	**0.013 J**	0.005 U
Dibenz(a,h)anthracene	0.014	**0.35**	**0.053**	**0.24**	**0.058**	0.0024 U	**2.3**	0.0024 U	0.0025 U	0.0024 U	0.0024 U	***0.6 UJ***	0.0024 U	0.0024 U	**5.1**	0.0024 U	**0.019 J**	0.0024 U	0.0024 U	0.0024 U	0.0024 U	**0.53**	0.0026 U	0.0026 U	NS	**0.87**	0.0028 U	0.0026 U
Fluoranthene	50	**6.9**	**0.4**	**2.8**	**0.28 J**	**0.02 J**	**14**	**0.21 J**	**0.24 J**	**0.021 J**	**0.045 J**	**200**	**0.036 J**	**0.047 J**	**62**	**0.06 J**	**0.14 J**	**0.052 J**	**0.14 J**	**0.045 J**	0.0012 U	**5.4**	0.0013 U	0.0013 U	NS	**8.7**	**0.034 J**	**0.0083 J**
Fluorene	50	**1.2**	**0.025 J**	**0.32 J**	0.0025 U	0.0025 U	**2.1**	**0.01 J**	**0.04 J**	0.0025 U	**0.026 J**	**130**	0.0025 U	0.0025 U	**18**	**0.036 J**	0.0025 U	0.0025 U	**0.12 J**	0.0025 U	0.0025 U	**0.49**	0.0028 U	0.0028 U	NS	**5.3**	**0.023 J**	0.0028 U
Indeno(1,2,3-cd)pyrene	3.2	**2.7**	**0.17**	**0.81**	**0.14**	0.0023 U	**5.6**	**0.071**	**0.082**	0.0024 U	0.0024 U	**34**	**0.01 J**	**0.015 J**	**36**	**0.019 J**	**0.054**	0.0023 U	**0.023 J**	**0.025 J**	0.0023 U	**1.4**	0.0026 U	0.0026 U	NS	**2.4**	0.0027 U	0.0026 U
Naphthalene	13	**1.7**	**0.15 J**	**0.55**	**0.033 J**	0.0032 U	**2.2**	**0.057 J**	**0.21 J**	0.0033 U	0.0033 U	**1200**	0.0032 U	0.0032 U	**9**	0.0032 U	**0.012 J**	0.0032 U	**0.21 J**	0.0033 U	0.0032 U	**0.42 J**	0.0035 U	**0.034 J**	NS	**2.8**	**0.052 J**	**0.071 J**
Phenanthrene	50	**6.4**	**0.25 J**	**1.9**	**0.12 J**	**0.016 J**	**3.9**	**0.13 J**	**0.24 J**	**0.014 J**	**0.063 J**	**450**	**0.03 J**	**0.019 J**	**50**	**0.075 J**	**0.084 J**	**0.019 J**	**0.47**	**0.022 J**	0.0033 U	**3.6**	0.0037 U	0.0037 U	NS	**18**	**0.069 J**	0.0037 U
Pyrene	50	**9.6**	**0.52**	**5.7**	**0.58**	**0.022 J**	**17**	**0.24 J**	**0.37 J**	**0.024 J**	**0.062 J**	**220**	**0.038 J**	**0.042 J**	**77**	**0.061 J**	**0.15 J**	**0.055 J**	**0.16 J**	**0.049 J**	0.0025 U	**9.1**	**0.031 J**	0.0028 U	NS	**12**	**0.031 J**	0.0028 U
Benzo(a)pyrene Equivalents	NA	**6.2531**	**0.46683**	**3.5063**	**0.39145**	**0.020485**	**21.471**	**0.20725**	**0.28058**	**0.015145**	**0.025227**	**92.61**	**0.025002**	**0.035242**	**81.77**	**0.046564**	**0.135518**	**0.045201**	**0.059754**	**0.051298**	ND	**5.594**	ND	ND	NS	**7.158**	**0.001613**	ND
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																													
2,4-Dimethylphenol	NA	**0.036 J**	0.033 U	0.034 U	0.034 U	0.033 U	0.074 U	0.034 U	0.035 U	0.034 U	0.034 U	8.4 U	0.033 U	0.033 U	0.4 U	0.033 U	0.033 U	0.033 U	0.033 U	0.034 U	0.033 U	0.042 U	0.037 U	0.037 U	NS	0.18 U	0.039 U	0.037 U
2-Chloronaphthalene	NA	0.027 U	0.023 U	0.023 U	0.023 U	0.023 U	0.051 U	0.023 U	0.024 U	0.023 U	0.023 U	5.8 U	0.023 U	0.023 U	0.27 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.028 U	0.025 U	0.025 U	NS	0.13 U	0.027 U	0.025 U
2-Methylnaphthalene	36.4	**0.54**	**0.091 J**	**0.38**	**0.02 J**	0.017 U	**0.6 J**	**0.039 J**	**0.078 J**	0.017 U	0.017 U	**440**	0.017 U	0.017 U	**2.3 J**	0.017 U	0.017 U	0.017 U	**0.17 J**	0.017 U	0.017 U	**0.21 J**	0.019 U	0.019 U	NS	**0.72 J**	**0.012 J**	0.019 U
2-Methylphenol	0.1	**0.023 J**	0.033 U	0.034 U	0.034 U	0.033 U	0.073 U	0.034 U	0.034 U	0.034 U	0.034 U	***8.3 U***	0.033 U	0.033 U	***0.39 U***	0.033 U	0.033 U	0.033 U	0.033 U	0.034 U	0.033 U	0.041 U	0.036 U	0.036 U	NS	***0.18 U***	0.038 U	0.036 U
4-Methylphenol	0.9	**0.076 J**	0.036 U	**0.015 J**	0.037 U	0.036 U	**0.092 J**	0.037 U	0.038 U	0.037 U	0.037 U	***9 U***	0.036 U	0.036 U	0.43 U	0.036 U	0.036 U	0.036 U	0.036 U	0.037 U	0.036 U	**0.012 J**	0.04 U	0.04 U	NS	**0.048 J**	0.042 U	0.04 U
4-Nitrophenol	0.1	0.013 UJ	0.011 U	0.011 U	0.011 U	0.011 U	0.024 U	0.011 U	0.011 U	0.011 U	0.011 U	***2.7 U***	0.011 U	0.011 U	***0.13 U***	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.014 U	0.012 U	0.012 U	NS	0.06 U	0.013 U	0.012 U
bis(2-Ethylhexyl) phthalate	50	0.026 U	**0.089 J**	0.022 U	**0.075 J**	0.079 U	0.19 U	**0.17 J**	**0.11 J**	**0.59**	**0.85**	5.5 U	**0.078 J**	0.022 U	0.26 U	**0.12 J**	**0.21 J**	**0.21 J**	**0.28 J**	**0.29 J**	0.022 U	**0.26 J**	0.024 U	0.024 U	NS	0.12 U	0.025 U	0.024 U
Butyl benzyl phthalate	50	0.017 U	0.015 U	0.015 U	0.015 U	0.015 U	0.032 U	0.015 U	0.015 U	0.015 U	0.015 U	3.7 U	0.015 U	0.015 U	0.17 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U	0.018 U	0.016 U	0.016 U	NS	0.081 U	0.017 U	0.016 U
Carbazole	NA	**0.44**	**0.02 J**	**0.058 J**	**0.01 J**	0.0026 U	**0.44 J**	**0.012 J**	**0.015 J**	0.0027 U	0.0027 U	**140**	0.0026 U	0.0026 U	**9.4**	**0.025 J**	0.0026 U	0.0026 U	0.0026 U	0.0027 U	0.0026 U	**0.04 J**	0.0029 U	0.0029 U	NS	**0.46 J**	0.0031 U	0.0029 U
Dibenzofuran	6.2	**0.61**	**0.021 J**	**0.072 J**	**0.0089 J**	0.018 U	**0.83**	0.019 U	**0.023 J**	0.019 U	**0.011 J**	**62 J**	0.018 U	0.018 U	**9.7**	**0.018 J**	0.018 U	0.018 U	**0.018 J**	0.019 U	0.018 U	**0.06 J**	0.021 U	0.021 U	NS	**0.99 J**	0.022 U	0.021 U
Diethyl phthalate	7.1	0.012 U	0.0097 U	0.01 U	0.01 U	0.0097 U	0.022 U	0.01 U	0.01 U	**0.12 J**	0.01 U	2.4 U	0.0097 U	0.0097 U	0.12 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.01 U	0.0097 U	0.012 U	0.011 U	0.011 U	NS	0.054 U	0.011 U	**0.1 J**
Isophorone	4.4	0.033 U	0.027 U	0.028 U	0.028 U	0.027 U	0.061 U	0.028 U	0.029 U	0.028 U	0.028 U	***6.9 U***	0.027 U	0.027 U	0.33 U	0.027 U	0.027 U	0.027 U	0.027 U	0.028 U	0.027 U	0.034 U	0.03 U	0.03 U	NS	0.15 U	0.032 U	0.03 U
N-Nitrosodiphenylamine	NA	0.02 U	0.016 U	0.017 U	0.017 U	0.016 U	0.037 U	0.017 U	0.018 U	0.017 U	0.017 U	**7.9 J**	0.016 U	0.016 U	**5.7**	0.016 U	0.016 U	0.016 U	0.016 U	0.017 U	0.016 U	0.021 U	0.018 U	0.018 U	NS	0.092 U	0.019 U	0.018 U
Pentachlorophenol	1.0	0.078 U	0.064 U	0.069 U	0.069 U	0.064 U	0.15 U	0.069 U	0.069 U	0.069 U	0.069 U	***16 U***	0.064 U	0.064 U	0.78 U	0.064 U	0.064 U	0.064 U	0.064 U	0.069 U	0.064 U	0.082 U	0.073 U	0.073 U	NS	0.36 U	0.078 U	0.073 U
Phenol	0.03	***0.058 U***	***0.048 U***	***0.05 U***	***0.05 U***	***0.048 U***	***0.11 U***	***0.05 U***	***0.051 U***	***0.05 U***	***0.05 U***	***12 U***	***0.048 U***	***0.048 U***	***0.58 U***	***0.048 U***	***0.048 U***	***0.048 U***	***0.048 U***	***0.05 U***	***0.048 U***	***0.06 U***	***0.054 U***	***0.054 U***	NS	***0.27 U***	***0.056 U***	***0.054 U***
Total SVOCs	500	**62.175**	**3.774**	**27.805**	**2.8949**	**0.131**	**123.862**	**2.042**	**2.756**	**0.8219**	**1.214**	**3700.9**	**0.3099**	**0.286**	**627.2**	**0.748**	**1.236**	**0.519**	**2.081**	**0.611**	ND	**47.302**	**0.04**	**0.034**	NS	**89.688**	**0.316**	**0.1793**

Notes:

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mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	21TP005 8- 10 2/4/2004	21TP007 1- 3 2/2/2004	21TP007 5- 7 2/2/2004	21TP007 8- 10 2/2/2004	21TP009 1- 3 2/9/2004	21TP009 7- 9 2/9/2004	21TP011 2- 3 2/6/2004	21TP011 3- 5 2/6/2004	21TP012 1- 3 2/6/2004	21TP012 3- 5 2/6/2004	21TP012 8- 10 2/11/2004	21TP013 1- 3 2/10/2004	21TP013 3- 5 2/10/2004	21TP013 8- 10 2/10/2004	21TP015 1- 3 2/10/2004	21TP015 3- 5 2/10/2004	21VH001 DUP 1- 3 2/23/2004	21VH001 1- 3 2/23/2004	21VH001 3- 5 2/23/2004	21VH001 5- 7 2/25/2004	21VH001 15- 17 2/26/2004	21VH001 27- 29 2/26/2004	21VH001 49- 51 2/26/2004	21VH002 7- 9 2/24/2004	21VH002 11- 13 2/24/2004	21VH002 29- 31 2/24/2004	21VH002 49- 51 2/25/2004
Metals (mg/Kg)																													
Aluminum	7960 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**4780**	**5490**	**6420**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.85 U	0.85 U	1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	13.63 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.74 U	**1.2 J**	**14**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	300 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**32.4 J**	**36.7 J**	**81.0**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	0.463 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.30 J**	**0.34 J**	**0.51**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.16 J**	**0.17 J**	**0.24 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	11563 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1410 J**	**1740 J**	**9780 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	36.69 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**12.8**	**14.5**	**12.5**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	30 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**5.5 J**	**5.7 J**	**6.9 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	35.84 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**17.1**	**18.4**	**107**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	14369 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**11300**	**12800**	**14400**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	237.7 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**4.9**	**7.2**	**321**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	3129 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2280**	**2260**	**2660**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	358.5 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**239**	**274**	**297**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.1 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.018 U	**0.02 J**	**0.03 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	15.3 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**10.2**	**11.7**	**13.6**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	1197 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**739 J**	**791 J**	**2030**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	2 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.85 U	0.85 U	1.0 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silver	0.229 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.15 U	0.15 U	**0.31 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	214.8 (sb)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**91.4 J**	**93.6 J**	**208 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.95 U	0.96 U	1.1 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	150 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**17.8**	**21.7**	**26.4**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	81.77 (d)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**23.8**	**26.4**	**64.4**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)																													
Cyanide, Total	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
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Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	Summary Statistics											
		Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	ID for Max Concentration	Min Detected Concentration	ID for Min Concentration	Average Detected Concentration	Min DL for NonDetects	Max DL for NonDetects
BTEX (mg/Kg)													
Benzene	0.06	481	368	113	171	3	1100	21GH026-29	0.0003	21MH001-03	17.42626588	0.00021	2.5
Ethyl Benzene	5.5	481	314	167	100	0	900	21RE005-29	0.00024	21RE008-51	43.44227217	0.00017	0.026
Toluene	1.5	481	322	159	81	0	1500	21GH026-29	0.00024	21RE008-51	34.99239597	0.00018	1.3
Xylene (Total)	1.2	481	313	168	136	0	1400	21GH026-29	0.00058	21RE008-51	76.58976772	0.00028	0.035
Volatile Organic Compounds (VOCs) (mg/Kg)													
1,2,4-Trichlorobenzene	3.4	514	2	512	0	49	0.73	21OT004-31	0.022	21SC004-07	0.376	0.026	81
2-Butanone (Methyl Ethyl Ketone)	0.3	481	238	243	0	87	0.3	21AB001-23	0.001	21BR001-129	0.05671595	0.00099	48
4-Methyl-2-pentanone	1	481	4	477	1	53	9.1	21RE003-14DUP	0.00089	21RE008-51	1.541198333	0.00065	27
Acetone	0.2	481	225	256	1	172	3.4	21TP013-10	0.007	21GH001-33	0.068640221	0.0023	45
Carbon Disulfide	2.7	481	141	340	0	2	1.3	21GH003-19	0.00036	21RE008-51	0.028674789	0.00029	6.2
cis-1,2-Dichloroethene	NA	481	38	443	0	0	0.0093	21SC001-51	0.0004	21PF011-51DUP	0.001630833	0.00027	5.3
Methylene Chloride	0.1	481	12	469	0	54	0.05	21TP010-05	0.0041	21RS004-05	0.022502778	0.0002	3.2
Styrene	NA	481	113	368	0	0	680	21GH026-29	0.00014	21RE008-51	33.53869805	0.0001	2
Tetrachloroethene	1.4	481	13	468	0	16	0.0023	21OT004-51	0.0002	21GN002-03	0.001215556	0.00015	8.4
Trichloroethene	0.7	481	26	455	0	21	0.0035	21RE001-51	0.00032	21RE008-51	0.001508939	0.00027	6.2
Total VOCs	10	**520**	**520**	**0**	**114**	**0**	**5250**	**21GH026-29**	-	-	**114.5289112**	-	**0**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)													
Acenaphthene	50	514	380	134	52	0	1500	21DT002-19	0.0071	21RS004-03	33.96083672	0.003	1
Acenaphthylene	41	514	379	135	67	0	1100	21SC001-25	0.0086	21RS004-03	35.37049955	0.003	1
Anthracene	50	514	414	100	64	0	730	21DT002-19	0.0079	21TP013-03	32.59000397	0.0028	0.93
Benzo(a)anthracene	0.224	514	439	75	287	1	790	21RS005-15	0.0089	21GH016-37	24.87279221	0.0098	3.3
Benzo(a)pyrene	0.061	514	424	90	348	1	540	21RS005-15	0.0082	21GH011-05	21.55537056	0.0027	0.89
Benzo(b)fluoranthene	1.1	514	414	100	191	0	260	21RS005-15	0.0081	21GH011-05	11.27352348	0.0028	0.93
Benzo(ghi)perylene	50	514	366	148	24	0	240	21RS005-15	0.0099	21GH003-03	11.07660869	0.0038	12
Benzo(k)fluoranthene	1.1	514	417	97	206	1	450	21RS005-15	0.0088	21DT005-51	18.24002935	0.0038	1.2
Chrysene	0.4	514	439	75	257	1	660	21RS005-15	0.0084	21GH026-03	23.90226545	0.0045	1.5
Dibenz(a,h)anthracene	0.014	514	227	287	222	50	63	21DT003-21	0.0097	21OT006-15	4.602250458	0.0023	7.3
Fluoranthene	50	514	458	56	89	0	1200	21DT004-23	0.0075	21GH007-03	48.95332171	0.0012	0.39
Fluorene	50	514	360	154	73	0	1300	21RS005-15	0.009	21CH001-51	52.95241093	0.0024	0.82
Indeno(1,2,3-cd)pyrene	3.2	514	368	146	132	1	190	21RS005-15	0.0087	21GH003-03	9.243791632	0.0023	7.2
Naphthalene	13	514	406	108	145	0	10000	21DT002-19	0.0084	21CH001-51	353.6700779	0.0031	0.37
Phenanthrene	50	514	464	50	117	0	3800	21RS005-15	0.0082	21BR001-129	124.8713026	0.0033	1.1
Pyrene	50	514	467	47	93	0	1600	21RS005-15	0.0074	21GH007-03	55.39304891	0.0025	0.85
Benzo(a)pyrene Equivalents	NA	514	514	0	0	0	697.16	21RS005-15	0	-	23.69873888	-	0
Semivolatile Organic Compounds (SVOCs) (mg/Kg)													
2,4-Dimethylphenol	NA	514	71	443	0	0	72	21RE001-29	0.0086	21AB004-51	6.81990631	0.032	39
2-Chloronaphthalene	NA	514	2	512	0	0	0.63	21OT004-31	0.014	21RS005-31	0.322	0.022	70
2-Methylnaphthalene	36.4	514	385	129	110	0	4300	21DT002-19	0.0074	21RE009-03	126.8265009	0.016	1.2
2-Methylphenol	0.1	514	35	479	19	152	8	21DT001-28	0.0096	21PF007-03DUP	0.811175556	0.032	84
4-Methylphenol	0.9	514	115	399	27	92	67	21AB004-27	0.0087	21GH001-51	2.94311942	0.035	42
4-Nitrophenol	0.1	514	3	511	3	138	8.3	21CH001-27	4.6	21RE009-33	6.55	0.011	34
bis(2-Ethylhexyl) phthalate	50	514	171	343	0	2	3.4	21GH006-07	0.075	21TP007-10	0.237732807	0.022	67
Butyl benzyl phthalate	50	514	15	499	0	0	0.56	21GN002-05	0.083	21GH018-05	0.184733333	0.014	45
Carbazole	NA	514	325	189	0	0	250	21RS005-15	0.0098	21RS004-03	11.905153	0.0026	2.9
Dibenzofuran	6.2	514	341	173	98	1	670	21DT004-23	0.0079	21PF012-31	24.01779376	0.018	10
Diethyl phthalate	7.1	514	8	506	0	5	0.37	21SC001-13	0.074	21FA002-03	0.170333333	0.0094	30
Isophorone	4.4	514	2	512	0	44	0.75	21OT004-31	0.2	21PF012-09DUP	0.475	0.027	84
N-Nitrosodiphenylamine	NA	514	7	507	0	0	7.9	21TP012-10	0.032	21OT004-13	1.654111111	0.016	51
Pentachlorophenol	1.0	514	1	513	0	126	0.14	21TP004-07	0.14	21TP004-07	0.14	0.064	78
Phenol	0.03	514	25	489	25	489	5.8	21GH024-21	0.042	21GH009-37	1.081128205	0.047	56
Total SVOCs	500	514	514	0	112	0	25030	21DT002-19	0	-	826.0859312	-	0

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-3
Concentrations of Compounds Detected in SCS Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval Sample Date	NYSDEC RSCOs	Summary Statistics											
		Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	ID for Max Concentration	Min Detected Concentration	ID for Min Concentration	Average Detected Concentration	Min DL for NonDetects	Max DL for NonDetects
Metals (mg/Kg)													
Aluminum	7960 (sb)	274	274	0	52	0	15900	21CH005-27	915	21CH006-09	6580.345887	-	0
Antimony	NA	274	5	269	0	0	2.6	21RS005-31	0.99	21AB001-09	2.01125	0.82	2.9
Arsenic	13.63 (sb)	274	224	50	8	0	41.1	21CH003-09	0.72	21ER001-05	4.455707723	0.69	0.88
Barium	300 (d)	274	274	0	5	0	399	21PF007-03DUP	10.8	21ER002-26	60.42229698	-	-
Beryllium	0.463 (sb)	274	273	1	64	0	1.4	21PF006-13	0.1	21PF011-09	0.413587087	0.23	0.23
Cadmium	1 (d)	274	57	217	2	0	1.7	21PF006-14	0.09	21GN002-03DUP	0.279271242	0.084	0.2
Calcium	11563 (sb)	274	273	1	46	0	110000	21PF006-09	236	21PF008-23	8171.524952	588	588
Chromium	36.69 (sb)	274	274	0	3	0	50.4	21RE012-07	1.8	21CH006-09	14.68246383	-	-
Cobalt	30 (d)	274	274	0	1	0	61.1	21TP014-07	1.7	21PF011-33	6.618681415	-	-
Copper	35.84 (sb)	274	273	1	64	0	144	21RE003-03	2.4	21PF011-33	25.50039844	6.5	6.5
Iron	14369 (sb)	274	274	0	102	0	68200	21CH006-09	5580	21CH005-51	15164.58114	-	-
Lead	237.7 (sb)	274	274	0	17	0	1620	21CH004-13	1.2	21RE004-41	65.01895115	-	-
Magnesium	3129 (sb)	274	274	0	110	0	26200	21FA002-09	732	21RS005-15	3490.694178	-	-
Manganese	358.5 (sb)	274	274	0	59	0	2330	21TP014-07	33.1	21PF011-33	318.5545542	-	-
Mercury	0.1 (d)	272	156	116	90	0	7.4	21RE010-29DUP	0.02	21ER003-13	0.296717326	0.017	0.041
Nickel	15.3 (sb)	274	274	0	110	0	109	21TP014-07	4.4	21CH006-09	16.23345984	-	-
Potassium	1197 (sb)	274	270	4	75	1	6450	21PF009-09	87	21CH006-09	1089.45995	743	1390
Selenium	2 (d)	274	9	265	2	1	4.8	21RE005-11	1	21RE001-03	1.93	0.82	2.1
Silver	0.229 (sb)	274	18	256	13	165	0.96	21PF006-13	0.15	21RE001-03	0.322	0.15	0.69
Sodium	214.8 (sb)	274	215	59	89	3	241200	21RE009-31	75.5	21PF006-03DUP	980.0149762	75.8	472
Thallium	NA	274	2	272	0	0	1.4	21TP014-07	1.1	21CH009-11	1.25	0.92	2.3
Vanadium	150 (d)	274	274	0	0	0	47.4	21PF009-09	4.1	21CH006-09	19.82991233	-	-
Zinc	81.77 (d)	274	274	0	44	0	708	21RE010-05	10.2	21RS005-15	54.3931652	-	-
Cyanide (mg/Kg)													
Cyanide, Total	NA	159	21	138	0	0	387	21PF006-13	0.75	21CH007-15	13.19671717	0.5	0.5

Notes:

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R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence or absence of the analyte cannot be verified.
D = Diluted run
DL = Dilution Limit

Table 5-4
Concentrations of Compounds Detected in OU 1 RI Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval (feet) Sample Date	NYSDEC RSCOs	21FA101 0.5 - 4.5 1/19/2006	21GH101B 19- 21 2/27/2006	21GH101B 21- 25 2/27/2006	21GH101B 41- 43 3/7/2006	21GH101B 106- 108 3/7/2006	21GH102B 31- 35 2/24/2006	21GH102B 45- 47 2/24/2006	21GH103B 14- 16 2/17/2006	21GH103B 56- 58 2/17/2006	21GH103B 79- 83 2/24/2006	21GH103B 82.5- 83.5 2/22/2006	21GH104B 45- 47 3/8/2006	21GH104B 51- 53 3/8/2006	21GH104B 125- 127 3/15/2006	21MWDD08 37- 39 3/17/2006	21MWDD08 47- 49 3/17/2006	23GH101 21- 23 2/22/2006	23GH101 35- 37 2/22/2006	23GH102 31- 33 2/22/2006	23GH102 33- 35 2/22/2006	23GH102 37- 39 2/22/2006	23MWD12 3- 3 1/20/2006	23RE101 0.2 - 5 1/20/2006
BTEX (mg/Kg)																								
Benzene	0.06	0.0022 U	**6 D**	**12 D**	**0.0054 J**	0.0022 U	0.0025 U	**0.02 J**	**29 J**	0.0024 UJ	0.0022 U	0.034 U	**0.34**	**0.021 J**	0.0022 U	**100**	**0.01 J**	**0.0081 J**	0.0024 U	**0.5 J**	**0.0094 J**	0.0025 U	0.0021 U	0.0022 U
Ethyl Benzene	5.5	0.002 U	**2.8 D**	**0.13**	0.0021 U	0.002 U	0.0022 U	**0.0043 J**	**24**	0.0021 U	0.0019 U	**0.065 J**	**0.19**	**0.03**	0.002 U	**65 JD**	0.0022 U	**0.0076 J**	0.0021 U	**0.084 J**	0.0024 U	0.0022 U	0.0019 U	0.002 U
Toluene	1.5	0.0022 U	**0.075**	**0.09**	0.0024 U	0.0023 U	0.0025 U	0.0025 U	**7.8**	0.0024 U	0.0022 U	**0.15 J**	**0.0034 J**	0.0025 U	0.0022 U	**130**	**0.0033 J**	**0.013 J**	0.0024 U	0.057 U	0.0028 U	0.0025 U	0.0022 U	0.0022 U
m,p-Xylene	NA	0.0048 U	**1.1**	**0.055 J**	0.0052 U	0.0049 U	0.0054 U	0.0052 U	**7.5 J**	0.0052 U	0.0048 U	0.14 U	**0.079**	**0.0092 J**	0.0048 U	**180**	0.0053 U	**0.013 J**	0.0051 U	0.14 U	0.0059 U	0.0054 U	0.0047 U	0.0048 U
o-Xylene	NA	0.0021 U	**0.99**	**0.049**	0.0023 U	0.0022 U	0.0024 U	0.0023 U	**3.9 J**	0.0023 U	0.0021 U	0.052 U	**0.027 J**	0.0023 U	0.0021 U	**67**	0.0023 U	**0.0055 J**	0.0023 U	0.054 U	0.0026 U	0.0024 U	0.0021 U	0.0021 U
Total Xylene (calculated)	1.2	ND	**2.09**	**0.104**	ND	ND	ND	ND	**11.4**	ND	ND	ND	**0.106**	**0.0092**	ND	**247**	ND	**0.0185**	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds (VOCs) (mg/Kg)																								
1,1,1-Trichloroethane	0.8	0.0023 U	0.0033 U	0.0032 U	0.0025 U	0.0024 U	0.0026 U	0.0025 U	0.57 UJ	0.0025 UJ	0.0023 U	0.057 U	0.0026 U	0.0025 U	0.0023 U	0.31 U	0.0026 U	0.0031 U	0.0025 U	0.06 U	0.0029 U	0.0026 U	0.0022 U	0.0023 U
1,1,2,2-Tetrachloroethane	0.6	0.0017 U	0.0024 U	0.0024 U	0.0019 U	0.0018 U	0.0019 U	0.0019 U	***0.7 U***	0.0019 U	0.0017 U	0.07 U	0.0019 U	0.0019 U	0.0017 U	**1.5 J**	0.0019 U	0.0023 U	0.0019 U	0.073 U	0.0021 U	0.0019 U	0.0017 U	0.0017 U
1,1,2-Trichloroethane	NA	0.0016 U	0.0023 U	0.0022 U	0.0018 U	0.0017 U	0.0018 U	0.0018 U	0.73 U	0.0018 U	0.0016 U	0.073 U	0.0018 U	0.0018 U	0.0016 U	0.39 U	0.0018 U	0.0022 U	0.0018 U	0.076 U	0.002 U	0.0018 U	0.0016 U	0.0016 U
1,2-Dichlorobenzene	7.9	0.0021 U	0.003 U	0.0029 U	0.0023 U	0.0022 U	0.0024 U	0.0023 U	0.51 U	0.0023 U	0.0021 U	0.051 U	0.0024 U	0.0023 U	0.0021 U	0.28 U	0.0024 U	0.0028 U	0.0023 U	0.054 U	0.0027 U	0.0024 U	0.0021 U	0.0021 U
1,3-Dichlorobenzene	1.6	0.0031 U	0.0044 U	0.0042 U	0.0034 U	0.0031 U	0.0035 U	0.0034 U	0.52 U	0.0033 U	0.0031 U	0.052 U	0.0034 U	0.0034 U	0.0031 U	0.28 U	0.0034 U	0.0041 U	0.0033 U	0.055 U	0.0038 U	0.0035 U	0.003 U	0.0031 U
1,4-Dichlorobenzene	8.5	0.003 U	0.0043 U	0.0041 U	0.0033 U	0.0031 U	0.0034 U	0.0033 U	0.54 U	0.0033 U	0.003 U	0.054 U	0.0033 U	0.0033 U	0.003 U	0.29 U	0.0033 U	0.004 U	0.0032 U	0.057 U	0.0037 U	0.0034 U	0.0029 U	0.003 U
2-Butanone (Methyl Ethyl Ketone)	0.3	0.016 U	0.022 U	0.021 U	0.017 U	0.016 U	0.018 U	0.017 U	***4 U***	0.017 U	0.016 U	***0.4 U***	0.017 U	0.017 U	0.016 U	***2.2 U***	0.017 U	0.021 U	0.017 U	***0.42 U***	0.019 U	0.018 U	0.015 U	0.016 U
2-Hexanone	NA	0.02 U	0.028 U	0.027 U	0.022 U	0.02 U	0.023 U	0.022 U	0.93 U	0.022 U	0.02 U	0.093 U	0.022 U	0.022 U	0.02 U	0.5 U	0.022 U	0.027 U	0.021 U	0.097 U	0.025 U	0.022 U	0.019 U	0.02 U
4-Methyl-2-pentanone	1	0.011 U	0.015 U	0.015 U	0.012 U	0.011 U	0.012 U	0.012 U	***1.9 U***	0.012 U	0.011 U	0.19 U	0.012 U	0.012 U	0.011 U	1 U	0.012 U	0.015 U	0.012 U	0.19 U	0.014 U	0.012 U	0.011 U	0.011 U
Acetone	0.2	**0.09 J**	0.026 U	0.025 U	0.02 U	0.019 U	0.021 U	0.02 UJ	***4.6 U***	0.02 U	0.018 U	***0.46 U***	0.021 U	0.02 U	0.019 U	***2.5 U***	0.021 U	0.025 U	0.02 U	***0.49 U***	0.023 U	0.021 U	**0.083 J**	0.019 U
Carbon Disulfide	2.7	0.002 U	**0.11**	**0.16**	0.0022 U	0.0021 U	**0.013 J**	0.0022 UJ	0.55 UJ	0.0022 UJ	0.002 U	0.055 U	0.0023 U	0.0022 U	0.002 U	0.3 U	0.0022 U	**0.041**	0.0022 U	0.057 U	0.0025 U	0.0023 U	0.002 U	0.002 U
Chlorobenzene	1.7	0.002 U	0.0028 U	0.0027 U	0.0022 U	0.002 U	0.0023 U	0.0022 U	0.52 U	0.0022 U	0.002 U	0.052 U	0.0022 U	0.0022 U	0.002 U	0.28 U	0.0022 U	0.0027 U	0.0022 U	0.054 U	0.0025 U	0.0022 U	0.0019 U	0.002 U
Chloroform	0.3	0.0019 U	0.0027 U	0.0026 U	0.0021 U	0.002 U	0.0022 U	0.0021 U	***0.81 UJ***	0.0021 UJ	0.0019 U	0.081 U	0.0021 U	0.0021 U	0.0019 U	***0.44 U***	0.0021 U	0.0026 U	0.0021 U	0.085 U	0.0024 U	0.0022 U	0.0019 U	0.0019 U
Cyclohexane	NA	0.0018 U	0.0025 U	0.0025 U	0.002 U	0.0018 U	0.002 U	0.002 UJ	0.52 UJ	0.0019 UJ	0.0018 U	0.052 UJ	0.002 U	0.002 U	0.0018 U	0.28 U	0.002 U	0.0024 U	0.0019 U	0.054 UJ	0.0022 U	0.002 U	0.0017 U	0.0018 U
Isopropylbenzene	NA	0.0023 U	**0.047**	**0.011 J**	0.0025 U	0.0023 U	0.0026 U	0.0025 U	**2.5 J**	0.0025 U	0.0023 U	0.047 U	**0.043**	0.0025 U	0.0023 U	0.25 U	0.0025 U	0.0031 U	0.0025 U	0.049 U	0.0029 U	0.0026 U	**0.0043 J**	0.0023 U
Methyl Acetate	NA	0.0048 U	0.0068 U	0.0066 U	0.0052 U	0.0049 U	0.0054 U	0.0052 U	1.2 UJ	0.0052 UJ	0.0048 U	0.12 U	0.0053 U	0.0052 U	0.0048 U	**6**	0.0053 U	0.0064 U	0.0051 U	0.12 U	0.0059 U	0.0054 U	0.0047 U	0.0048 U
Methyl tert-butyl ether	NA	0.002 U	0.0029 U	0.0028 U	0.0022 U	0.0021 U	0.0023 U	0.0022 U	0.5 U	0.0022 U	0.002 U	0.05 U	0.0023 U	0.0022 U	0.002 U	0.27 U	0.0022 U	0.0027 U	0.0022 U	0.053 U	0.0025 U	0.0023 U	0.002 U	0.002 U
Methylcyclohexane	NA	0.0023 U	0.0033 U	0.0032 U	0.0025 U	0.0024 U	0.0026 U	0.0025 U	0.84 UJ	0.0025 UJ	0.0023 U	0.084 UJ	0.0026 U	0.0025 U	0.0023 U	0.46 U	0.0026 U	0.0031 U	0.0025 U	0.088 UJ	0.0029 U	0.0026 U	0.0023 U	0.0023 U
Methylene Chloride	0.1	0.01 U	0.014 U	0.014 U	0.011 U	0.01 U	0.031 U	0.011 U	***0.87 U***	0.03 U	0.01 U	0.087 U	0.011 U	0.011 U	**0.022 J**	***0.47 U***	**0.078**	0.013 U	0.03 U	0.091 U	0.034 U	0.031 U	0.0098 U	0.01 U
Styrene	NA	0.0026 U	0.0036 U	0.0035 U	0.0028 U	0.0026 U	0.0029 U	0.0028 U	0.48 U	0.0027 U	0.0025 U	0.048 U	0.0028 U	0.0028 U	0.0026 U	**7.1**	0.0028 U	0.0034 U	0.0027 U	0.05 U	0.0032 U	0.0029 U	0.0025 U	0.0026 U
Tetrachloroethene	1.4	0.0041 U	0.0057 U	0.0055 U	0.0044 U	0.0041 U	0.0046 U	0.0044 U	0.46 UJ	0.0044 UJ	0.004 U	0.046 U	0.0045 U	0.0044 U	0.0041 U	0.25 U	0.0045 U	0.0054 U	0.0043 U	0.049 U	0.005 U	0.0045 U	0.0039 U	0.0041 U
trans-1,3-Dichloropropene	NA	0.002 U	0.0028 U	0.0028 U	0.0022 U	0.002 U	0.0023 U	0.0022 U	0.6 U	0.0022 U	0.002 U	0.06 U	0.0022 U	0.0022 U	0.002 U	0.32 U	0.0022 U	0.0027 U	0.0022 U	0.063 U	0.0025 U	0.0023 U	0.002 U	0.002 U
Trichloroethene	0.7	0.0017 U	0.0024 U	0.0023 U	0.0019 U	0.0017 U	0.0019 U	0.0019 U	***0.94 UJ***	0.0018 UJ	0.0017 U	0.094 U	0.0019 U	0.0019 U	0.0017 U	0.51 U	0.0019 U	0.0023 U	0.0018 U	0.099 U	0.0021 U	0.0019 U	0.0017 U	0.0017 U
Trichlorofluoromethane	NA	0.0069 U	0.0097 U	0.0094 U	0.0075 UJ	0.007 UJ	0.0078 U	0.0076 U	0.81 UJ	0.0075 UJ	0.0069 U	0.081 UJ	0.0077 UJ	0.0075 UJ	0.0069 U	0.44 U	0.0076 U	0.0092 U	0.0074 U	0.085 UJ	0.0086 U	0.0077 U	0.0067 U	0.0069 U
Total VOC	10	**0.09**	**11.122**	**12.495**	**0.0054**	ND	**0.013**	**0.0243**	**74.7**	ND	ND	**0.215**	**0.6824**	**0.0602**	**0.022**	**556.6**	**0.0913**	**0.0882**	ND	**0.584**	**0.0094**	ND	**0.0873**	ND
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																								
Acenaphthene	50	0.065 U	**0.21 J**	0.089 U	0.071 U	0.068 U	0.073 U	0.074 U	**2.4 JD**	0.072 U	0.065 U	0.066 U	0.074 U	0.072 U	0.065 U	**16**	**0.11 J**	0.089 U	0.07 U	0.069 U	0.082 U	0.071 U	**0.82**	0.065 U
Acenaphthylene	41	0.059 U	0.084 U	0.081 U	0.064 U	0.062 U	0.067 U	0.067 U	**0.52**	0.065 U	0.059 U	0.06 U	0.068 U	0.066 U	0.06 U	**8.9**	0.066 U	0.081 U	0.064 U	0.063 U	0.074 U	0.065 U	**0.28 J**	0.06 U
Anthracene	50	0.055 U	**0.22 J**	**0.088 J**	0.06 U	0.057 U	0.062 U	0.062 U	**3.4 JD**	0.061 U	0.055 U	0.056 U	0.063 U	0.061 U	0.055 U	**14 D**	**0.079 J**	0.075 U	0.059 U	0.058 U	0.069 U	0.06 U	**1.4**	0.055 U
Benzo(a)anthracene	0.224	0.051 U	**0.2 J**	0.07 U	0.056 U	0.053 U	0.058 U	0.058 U	**3.3 JD**	0.056 U	0.051 U	0.052 U	0.058 U	0.057 U	0.051 U	**17 D**	**0.092 J**	0.07 U	0.055 U	0.054 U	0.064 U	0.056 U	**1.3**	**0.088 J**
Benzo(a)pyrene	0.061	0.058 U	**0.2 J**	***0.08 U***	***0.064 U***	0.061 U	***0.066 U***	***0.066 U***	**2.1 JD**	***0.064 U***	0.059 U	0.059 U	***0.067 U***	***0.065 U***	0.059 U	**15 JD**	***0.065 U***	***0.08 U***	***0.063 U***	***0.062 U***	***0.073 U***	***0.064 U***	**0.9**	**0.087 J**
Benzo(b)fluoranthene	1.1	0.04 U	**0.18 J**	0.055 U	0.044 U	0.042 U	0.045 U	0.045 U	**2.2 JD**	0.044 U	0.04 U	0.041 U	0.046 U	0.045 U	0.04 U	**18 JD**	0.045 U	0.055 U	0.043 U	0.043 U	0.05 U	0.044 U	**0.85**	**0.08 J**
Benzo(ghi)perylene	50	0.06 U	**0.14 J**	0.082 U	0.066 U	0.063 U	0.068 U	0.068 U	**0.44 J**	0.066 U	0.061 U	0.061 U	0.069 U	0.067 U	0.061 U	**3.5 J**	0.067 U	0.083 U	0.065 U	0.064 U	0.076 U	0.066 U	**0.092 J**	0.061 U
Benzo(k)fluoranthene	1.1	0.08 UJ	0.11 U	0.11 U	0.087 U	0.084 U	0.091 U	0.091 U	**1.2 J**	0.088 U	0.081 U	0.082 U	0.092 U	0.09 U	0.081 U	**9.9**	**0.25 J**	0.11 U	0.087 U	0.085 U	0.1 U	0.088 U	**0.3 J**	0.081 UJ
Chrysene	0.4	0.066 U	**0.16 J**	0.09 U	0.071 U	0.068 U	0.074 U	0.074 U	**4.2 D**	0.072 U	0.066 U	0.067 U	0.075 U	0.073 U	0.066 U	**10**	0.073 U	0.09 U	0.071 U	0.07 U	0.082 U	0.071 U	**1.3**	**0.084 J**
Dibenz(a,h)anthracene	0.014	***0.046 U***	***0.065 U***	***0.063 U***	***0.05 U***	***0.048 U***	***0.052 U***	***0.052 U***	**0.1 J**	***0.05 U***	***0.046 U***	***0.047 U***	***0.052 U***	***0.051 U***	***0.046 U***	**0.37 J**	**0.22 J**	***0.063 U***	***0.049 U***	***0.049 U***	***0.057 U***	***0.05 U***	**0.083 J**	***0.046 U***
Fluoranthene	50	**0.062 J**	**0.44 J**	**0.11 J**	0.059 U	0.056 U	0.061 U	0.061 U	**5 D**	0.06 U	**0.1 J**	0.055 U	0.062 U	0.06 U	0.055 U	**43 D**	**0.23 J**	0.074 U	0.058 U	0.058 U	0.068 U	0.059 U	**2.8 D**	**0.14 J**
Fluorene	50	0.062 U	**0.16 J**	0.084 U	0.067 U	0.064 U	0.069 U	0.07 U	**2.2**	0.068 U	0.062 U	0.063 U	0.07 U	0.069 U	0.062 U	**16**	**0.11 J**	0.084 U	0.066 U	0.065 U	0.077 U	0.067 U	**1.1**	0.062 U
Indeno(1,2,3-cd)pyrene	3.2	0.046 U	**0.39 J**	0.063 U	0.05 U	0.048 U	0.052 U	0.052 U	**0.17 J**	0.051 U	0.046 U	0.047 U	0.053 U	0.052 U	0.047 U	**0.56 J**	0.052 U	0.063 U	0.05 U	0.049 U	0.058 U	0.05 U	**0.28 J**	**0.053 J**
Naphthalene	13	0.062 U	**0.61**	0.085 U	0.068 U	0.065 U	0.07 U	0.071 U	**15 D**	**0.29 J**	**0.076 J**	0.063 U	**0.27 J**	**0.21 J**	0.063 U	**250 D**	**1.3**	0.085 U	0.067 U	**0.24 J**	0.078 U	0.068 U	**0.49**	0.063 U
Phenanthrene	50	0.058 U	**0.96**	**0.67**	0.063 U	0.06 U	0.066 U	0.066 U	**18 D**	**0.072 J**	**0.2 J**	0.059 U	0.066 U	0.065 U	0.058 U	**81 JD**	**0.45**	0.08 U	0.063 U	0.062 U	0.073 U	0.063 U	**4.2 D**	**0.065 J**
Pyrene	50	**0.073 J**	**0.58**	**0.15 J**	0.07 U	0.067 U	0.073 U	0.073 U	**9.5 D**	0.071 U	**0.13 J**	0.066 U	0.074 U	0.072 U	0.065 U	**64 JD**	**0.28 J**	0.088 U	0.07 U	0.068 U	0.081 U	0.07 U	**4.3 D**	**0.15 J**
Benzo(a)pyrene Equivalents	NA	ND	**0.27716**	ND	ND	ND	ND	ND	**2.7832**	ND	ND	ND	ND	ND	ND	**19.035**	**0.2317**	ND	ND	ND	ND	ND	**1.2303**	**0.109184**
Semivolatile Organic Compounds (SVOCs) (mg/kg)																								
1,1-Biphenyl	NA	0.06 U	0.085 U	0.082 U	0.065 U	0.063 U	0.068 U	0.068 U	**0.48**	0.066 U	0.06 U	0.061 U	0.069 U	0.067 U	0.06 U	**6.9**	0.067 U	0.082 U	0.065 U	0.064 U	0.075 U	0.066 U	0.058 U	0.06 U
2,4,6-Trichlorophenol	NA	0.054 U	0.076 U	0.073 U	0.058 U	0.056 U	0.06 U	0.061 U	0.054 U	0.059 U	0.054 U	0.055 U	0.061 U	0.06 U	0.054 U	0.29 U	0.06 U	0.073 U	0.058 U	0.057 U	0.067 U	0.058 U	0.052 U	0.054 U
2,4-Dichlorophenol	0.4	0.068 U	0.095 U	0.092 U	0.073 U	0.07 U	0.076 U	0.076 U	0.068 U	0.074 U	0.068 U	0.069 U	0.077 U	0.075 U	0.068 U	0.37 U	0.075 U	0.092 U	0.073 U	0.072 U	0.085 U	0.074 U	0.065 U	0.068 U
2,4-Dimethylphenol	NA	0.058 U	0.082 U	0.079 U	0.063 U	0.06 U	0.065 U	0.066 U	0.059 U	0.064 U	0.058 U	0.059 U	0.066 U	0.065 U	0.058 U	**1.6 J**	0.065 U	0.079 U	0.062 U	0.061 U	0.073 U	0.063 U	0.056 U	0.058 U
2-Chlorophenol	0.8	0.058 U	0.082 U	0.08 U	0.063 U	0.061 U	0.066 U	0.066 U	0.059 U	0.064 U	0.058 U	0.059 U	0.066 U	0.065 U	0.059 U	0.32 U	0.065 U	0.08 U	0.063 U	0.062 U	0.073 U	0.063 U	0.056 U	0.059 U
2-Methylnaphthalene	36.4	0.061 U	0.086 U	0.083 U	0.066 U	0.063 U	0.069 U	0.069 U	**1.5**	0.067 U	0.061 U	0.062 U	0.07 U	0.068 U	0.061 U	**30 D**	**0.19 J**	0.084 U	0.066 U	0.065 U	0.077 U	0.066 U	**0.12 J**	0.061 U
2-Methylphenol	0.1	0.061 U	0.086 U	0.083 U	0.066 U	0.063 U	0.068 U	0.069 U	0.061 U	0.067 U	0.061 U	0.062 U	0.069 U	0.068 U	0.061 U	***0.33 U***	0.068 U	0.083 U	0.065 U	0.064 U	0.076 U	0.066 U	0.059 U	0.061 U
2-Nitrophenol	0.33	0.056 U	0.079 U	0.077 U	0.061 U	0.058 U	0.063 U	0.064 U	0.057 U	0.062 U	0.056 U	0.057 U	0.064 U	0.063 U	0.056 U	0.31 U	0.063 U	0.077 U	0.06 U	0.06 U	0.07 U	0.061 U	0.054 U	0.056 U
3+4-Methylphenols	NA	0.058 U	0.081 U	0.079 U	0.063 U	0.06 U	0.065 U	0.065 U	0.058 U	0.063 U	0.058 U	0.059 U	0.066 U	0.064 U	0.058 U	**0.35 J**	0.064 U	0.079 U	0.062 U	0.061 U	0.072 U	0.063 U	0.056 U	0.058 U
4-Nitrophenol	0.1	0.045 UJ	0.064 U	0.062 U	0.049 U	0.047 U	0.051 UJ	0.051 UJ	0.046 U	0.05 UJ	0.045 UJ	0.046 UJ	0.052 U	0.05 U	0.045 U	***0.25 U***	0.05 U	0.062 UJ	0.049 UJ	0.048 UJ	0.057 UJ	0.049 UJ	**0.38 J**	0.045 UJ
bis(2-Ethylhexyl) phthalate	50	**0.075 J**	0.099 U	0.096 U	0.076 U	0.073 U	0.079 U	0.079 U	**0.11 J**	0.077 U	**0.085 J**	0.071 U	0.08 U	0.078 U	**0.11 J**	0.38 U	0.078 U	0.096 U	0.075 U	0.074 U	0.088 U	0.076 U	0.068 U	0.07 U
Carbazole	NA	0.056 U	0.079 U	0.076 U	0.061 U	0.058 U	0.063 U	0.063 U	**0.74**	0.061 U	0.056 U	0.057 U	0.064 U	0.062 U	0.056 U	**7.4**	0.062 U	0.076 U	0.06 U	0.059 U	0.07 U	0.061 U	**0.25 J**	0.056 U
Dibenzofuran	6.2	0.06 U	**0.11 J**	0.082 U	0.066 U	0.063 U	0.068 U	0.068 U	**1.2**	0.066 U	0.061 U	0.061 U	0.069 U	0.067 U	0.061 U	**15**	**0.09 J**	0.083 U	0.065 U	0.064 U	0.076 U	0.066 U	**0.59**	0.061 U
Phenol	0.03	***0.055 U***	***0.078 U***	***0.076 U***	***0.06 U***	***0.057 U***	***0.062 U***	***0.063 U***	***0.056 U***	***0.061 U***	***0.055 U***	***0.056 U***	***0.063 U***	***0.062 U***	***0.056 U***	**0.33 J**	***0.062 U***	***0.076 U***	***0.06 U***	***0.059 U***	***0.069 U***	***0.06 U***	***0.054 U***	***0.056 U***
Total SVOCs	500	**0.21**	**4.56**	**1.018**	ND	ND	ND	ND	**73.76**	**0.362**	**0.591**	ND	**0.27**	**0.21**	**0.11**	**628.81**	**3.401**	ND	ND	**0.24**	ND	ND	**21.835**	**0.747**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
NT = not tested
NS = not sampled
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-4
Concentrations of Compounds Detected in OU 1 RI Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval (feet) Sample Date	NYSDEC RSCOs	21FA101 0.5 - 4.5 1/19/2006	21GH101B 19- 21 2/27/2006	21GH101B 21- 25 2/27/2006	21GH101B 41- 43 3/7/2006	21GH101B 106- 108 3/7/2006	21GH102B 31- 35 2/24/2006	21GH102B 45- 47 2/24/2006	21GH103B 14- 16 2/17/2006	21GH103B 56- 58 2/17/2006	21GH103B 79- 83 2/24/2006	21GH103B 82.5- 83.5 2/22/2006	21GH104B 45- 47 3/8/2006	21GH104B 51- 53 3/8/2006	21GH104B 125- 127 3/15/2006	21MWDD08 37- 39 3/17/2006	21MWDD08 47- 49 3/17/2006	23GH101 21- 23 2/22/2006	23GH101 35- 37 2/22/2006	23GH102 31- 33 2/22/2006	23GH102 33- 35 2/22/2006	23GH102 37- 39 2/22/2006	23MWD12 3- 3 1/20/2006	23RE101 0.2 - 5 1/20/2006
Metals (mg/Kg)																								
Aluminum	7,960 (sb)	**7,260**	**11,600**	**12,800**	**2,450**	**2,200**	**6,970**	**6,140**	**5,230**	**2,520**	**3,030**	**2,600**	**3,270**	**2,050**	**8,220**	**4,370**	**2,430**	**14,000**	**8,460**	**3,970**	**7,750**	**3,610**	**5,760**	**5,280**
Antimony	NA	**7.91**	**12.6**	**3.1 J**	0.388 U	0.372 U	0.412 U	**10.1**	0.361 U	0.402 U	0.359 U	0.368 U	0.406 U	0.401 U	6.6 U	0.397 U	0.400 U	**10.8**	0.392 U	7.0 U	**1.510 J**	0.393 U	0.346 U	**16.6**
Arsenic	13.63 (sb)	**3.34**	**6.9**	**9.1**	**1.070 J**	**0.502 J**	**1.31**	**1.99**	**1.15**	0.480 U	**1.17**	**1.12**	**1.47**	0.479 U	0.43 U	**2.07**	0.478 U	**8.67**	1.19 U	**2.3**	**5.58**	1.21 U	**2.16**	**1.5**
Barium	300 (d)	**35.3**	**47.5**	**26.2 J**	**35.8**	**32.9**	**71**	**48.5**	**53.4**	**59.2**	**81.6**	**92.9**	**43.8**	**17.8 J**	**116**	**31.6**	**19.4 J**	**40.3**	**109**	**33.6**	**26.4 J**	**33.6**	**47.1**	**39.1**
Beryllium	0.463 (sb)	**0.461 J**	**0.68 J**	**0.69 J**	***0.60 U***	***0.57 U***	***0.628 U***	***0.627 U***	***0.561 U***	***0.613 U***	***0.558 U***	***0.56 U***	***0.63 U***	***0.62 U***	**0.57**	***0.61 U***	***0.62 U***	**0.759**	***0.597 U***	***0.586 U***	***0.698 U***	***0.605 U***	**0.397 J**	**0.423 J**
Cadmium	1 (d)	0.037 U	0.05 U	0.05 U	**0.048 J**	**0.046 J**	0.628 U	0.627 U	0.036 U	0.040 U	0.036 U	0.56 U	0.63 U	0.040 U	0.04 U	0.040 U	0.040 U	***7.63 U***	0.039 U	0.586 U	0.698 U	0.605 U	0.035 U	0.036 U
Calcium	11,563 (sb)	**1,430**	**2,250**	**2,640**	**5,570**	**4,530**	**1,610**	**19,500**	**1,310**	**3,090**	**7,200**	**3,170**	**8,660**	**2,650**	**6,240**	**2,180**	**2,330**	**2,760**	**13,400**	**928**	**2,600**	**8,830**	**3,310**	**2,460**
Chromium	36.69 (sb)	**17.2**	**23.9**	**26.4**	**7.13**	**6.2**	**19.1**	**11.8**	**13**	**8.62**	**8.63**	**8.3**	**10.9**	**5.85**	**13.3**	**13.5**	**7.31**	**25.9**	**16.2**	**15**	**16.3**	**9.48**	**10.5**	**12.2**
Cobalt	30 (d)	**5.97**	**10.2**	**10**	6.0 U	5.7 U	**6.160 J**	**5.980 J**	**6.14**	6.12 U	**3.330 J**	5.61 U	6.3 U	6.2 U	**8.8**	**6.23**	6.2 U	**9.41**	**6.81**	5.86 U	6.98 U	6.05 U	**4.500 J**	**5.68**
Copper	35.84 (sb)	**75.2**	**29**	**13.8**	**6.63**	**14.7**	**22.6**	**22.4**	**24.1**	**7.58**	**15.8**	**17.5**	**11.6**	**4.83**	**13.3**	**8.54**	**6.58**	**17.4**	**17.6**	**9.88**	**12.5**	**9.05**	**26.2**	**25.8**
Iron	14369 (sb)	**11,400**	**23,200**	**31,400**	**5,760**	**5,180**	**9,540**	**11,100**	**9,890**	**5,250**	**6,470**	**6,400**	**7,720**	**4,680**	**21,900**	**7,640**	**5,020**	**24,400**	**15,400**	**8,870**	**15,300**	**8,010**	**10,100**	**13,700**
Lead	237.7 (sb)	**14.9**	**26.9**	**17.8**	**3.88**	**3.01**	**7.03**	**7.64**	**14.4**	**2.51**	**4.14**	**6.15**	**5.34**	**3.05**	**7.4**	**4.91**	**3.64**	**16.4**	**9.31**	**6.62**	**12.4**	**5.42**	**45.6**	**7.98**
Magnesium	3,129 (sb)	**2,360**	**4,820**	**6,580**	**2,940**	**2,720**	**3,560**	**8,000**	**1,880**	**2,700**	**2,570**	**2,450**	**3,680**	**2,310**	**5,410**	**2,450**	**2,490**	**6,200**	**7,650**	**2,060**	**4,640**	**4,820**	**2,690**	**2,590**
Manganese	358.5 (sb)	**271**	**287**	**443**	**212**	**156**	**121**	**432**	**250**	**211**	**166**	**118**	**260**	**119**	**189**	**102**	**93.6**	**416**	**368**	**96**	**242**	**233**	**223**	**320**
Mercury	0.1 (d)	**0.048**	**0.187**	**0.023**	0.007 U	0.007 U	**0.010 J**	**0.010 J**	**0.024**	0.007 U	0.006 U	0.006 U	**0.036**	0.007 U	**0.017**	**0.016**	0.007 U	**0.028**	0.007 U	0.007 U	**0.009 J**	0.007 U	**0.115**	**0.008 J**
Nickel	15.3 (sb)	**14.1**	**19.2**	**23.5**	**11.5**	**9.56**	**23.5**	**18.1**	**10.2**	**8.71**	**8.39**	**7.58**	**9.86**	**7.04**	**14.7**	**15.5**	**8.72**	**22.5**	**23.2**	**10.5**	**17.1**	**16.3**	**9.9**	**11**
Potassium	1,197 (sb)	**1,190**	**2,670**	**3,160**	**879**	**953**	**2,210**	**2,150**	**1,290**	**1,040**	**1,380**	**1,270**	**1,240**	**761**	**5,950**	**693**	**819**	**2,910**	**2,500**	**685**	**1,780**	**1,310**	**967**	**1,050**
Selenium	2.0 (d)	**0.492 J**	0.53 U	0.51 U	0.403 U	0.386 U	0.428 U	0.419 U	1.12 U	0.418 U	0.373 U	0.383 U	0.422 U	0.417 U	**1.1**	0.413 U	0.416 U	0.510 U	0.407 U	0.392 U	0.472 U	0.409 U	0.359 U	0.375 U
Silver	0.229 (sb)	**2.3**	**0.89 J**	**1.3 J**	0.093 U	0.089 U	0.099 U	0.097 U	0.087 U	0.097 U	0.086 U	0.089 U	0.098 U	0.097 U	0.09 U	0.096 U	0.096 U	0.118 U	0.094 U	***1.17 U***	0.109 U	0.095 U	**1.65**	**2.92**
Sodium	214.8 (sb)	**166 J-**	**906**	**1290**	***603 U***	***572 U***	**1020**	**729**	**157 J**	**210 J**	**562**	***560 U***	***630 U***	***617 U***	**181 J**	**473 J**	**500 J**	**1270**	30.8 U	***586 U***	***698 U***	***605 U***	27.2 UJ	**219 J-**
Thallium	NA	0.588 U	0.82 U	0.79 U	**3.5**	**1.16**	0.662 U	1.25 U	0.580 U	0.646 U	0.577 U	**1.14**	**1.92**	0.644 U	0.58 U	0.638 U	0.643 U	0.789 U	0.630 U	0.606 U	0.729 U	0.632 U	0.556 U	0.579 U
Vanadium	150 (d)	**26.8**	**32.6**	**33.9**	**8.57**	**8.1**	**21.2**	**17.8**	**16.3**	**7.8**	**14.7**	**10.7**	**12**	6.2 U	**29.3**	**18**	**7.55**	**32.5**	**21.6**	**11.2**	**20.5**	**11.5**	**19.1**	**25.4**
Zinc	81.77 (d)	**44.8**	**105**	**63.3**	**17.2**	**15.2**	**46.4**	**41.2**	**29.2**	**20.8**	**27.8**	**129**	**19**	**11.7**	**22.6**	**39.2**	**13.5**	**67.5**	**42.4**	**22.7**	**43.1**	**21.5**	**48.2**	**31**
Cyanide (mg/Kg)																								
Available Cyanide	NA	0.042 U	**1.1**	**0.47**	**0.046**	0.046 U	**0.37**	0.048 U	**1.9**	**0.13**	0.044 U	0.044 U	0.049 U	0.048 U	0.045 U	**0.37**	0.050 U	**1.7**	0.046 U	NT	**1.1**	NT	**1.4**	0.044 U
Cyanide, Total	NA	0.558 U	0.778 U	**1.6**	0.603 U	0.572 U	0.628 U	0.627 U	0.561 U	0.613 U	0.558 U	0.561 U	0.631 U	0.617 U	0.554 U	0.611 U	0.616 U	0.763 U	0.597 U	0.586 U	0.698 U	0.605 U	0.538 U	0.555 U
Percent Solids																								
Percent Solids	N/A	**94.7**	**62.4**	**67.4**	**86.2**	**87.1**	**78.8**	**83.5**	**87.2**	**84.1**	**90.7**	**89.9**	**81.4**	**83.8**	**88.5**	**80**	**80.6**	**65.5**	**86.4**	**85.3**	**79.1**	**82.6**	**93.4**	**90.1**

Notes:

ND = calculated totals are not detected
NA = Not Available
N/A = Not Applicable
NT = not tested
NS = not sampled
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-4
Concentrations of Compounds Detected in OU 1 RI Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval (feet) Sample Date	NYSDEC RSCOs	23RE101 21- 29 2/17/2006	23RE102 22.5- 23 1/24/2006	23RE102 24.7- 25 1/24/2006	21BR06B/ 21BB01 12-14 3/31/2008	21BR06B/ 21BB01 16-18 3/31/2008	21BR06B/ 21BB01 56-58 3/31/2008	21BR07B/ 21BB02 18-20 4/3/2008	21BR07B/ 21BB02 46-49.4 4/3/2008	21BR08B/ 21PG01 25-26 4/23/2008	21BR08B/ 21PG01 30-32 4/23/2008	21BR08B/ 21PG01 42-44 4/24/2008	21TC01 8-12 4/7/2008	21TC01 21-24 4/7/2008	21TC01 38-40 4/7/2008	21TC02 20-24 4/8/2008	21TC02 42-44 4/8/2008	21PG02 16.0-17.3 4/17/2008	21PG02 17.3-20.0 4/17/2008	21PG02-DUP 17.3-20 4/17/2008	21PG02 36.0-40.0 4/17/2008	21GH030 5/20/2008 17.3-20
BTEX (mg/Kg)																						
Benzene	0.06	**13 J**	**27 J**	0.0024 U	**39 J**	**0.15**	**0.024 J**	0.0043 U	0.0042 U	**0.430 J**	**0.410 J**	0.0043 U	0.0043 U	0.0046 U	0.0043 U	**3**	0.0042 U	0.0041 U	0.0052 U	0.0052 U	0.0043 U	0.0043 U
Ethyl Benzene	5.5	**84**	**160 J**	**0.011 J**	**61 J**	0.0045 U	**0.180**	0.0048 U	0.0046 U	**0.230 0.4**		0.0048 U	0.0048 U	0.0052 U	0.0048 U	**14**	0.0047 U	0.0046 U	**0.084 0.110**		0.0048 U	0.0047 U
Toluene	1.5	**40**	**170 J**	**0.16**	**15 J**	0.0049 U	**0.058**	0.0053 U	0.0051 U	**0.020 J**	**0.046**	0.0053 U	0.0052 U	0.0057 U	0.0053 U	**0.130**	0.0051 U	0.0051 U	0.0063 U	0.0064 U	0.0053 U	0.011 U
m,p-Xylene	NA	**150**	**380 J**	**0.018 J**	**28 J**	0.010 U	**0.1**	0.011 U	0.011 U	**0.076 0.110**		0.011 U	0.011 U	0.012 U	0.011 U	**18**	0.011 U	0.011 U	**0.056 J**	**0.060 J**	0.011 U	0.0045 U
o-Xylene	NA	**63**	**120 J**	**0.96**	**61 J**	0.0042 U	**0.039**	0.0046 U	0.0044 U	**0.094 0.077**		0.0046 U	0.0045 U	0.0049 U	0.0046 U	**8.5**	0.0044 U	0.0044 U	**0.025 J**	**0.029 J**	0.0046 U	0.0052 U
Total Xylene (calculated)	1.2	**213**	**500**	**0.978**	**89**	**0.0071 0.139 0.0078**			**0.0077 0.170**		**0.187 0.0078**		**0.00775**	**0.00845**	**0.0078**	**26.5**	**0.0077**	**0.0077 0.081**		**0.089**	**0.0078**	ND
Volatile Organic Compounds (VOCs) (mg/Kg)																						
1,1,1-Trichloroethane	0.8	***1.6 UJ***	0.63 UJ	0.0025 U	0.630 UJ	0.0053 U	0.0058 U	0.0057 U	0.0055 U	0.0070 U	0.0069 U	0.0057 U	0.0057 U	0.0061 U	0.0057 U	0.0057 U	0.0055 U	0.0055 U	0.0068 U	0.0069 U	0.0057 U	0.0056 U
1,1,2,2-Tetrachloroethane	0.6	***1.9 U***	***0.76 UJ***	0.0019 U	0.6 UJ	0.0050 U	0.0054 U	0.0054 U	0.0051 U	0.0066 U	0.0065 U	0.0054 U	0.0053 U	0.0057 U	0.0054 U	0.0053 U	0.0052 U	0.0051 U	0.0064 U	0.0064 U	0.0054 U	0.0053 U
1,1,2-Trichloroethane	NA	2 U	**0.93 J**	0.0018 U	0.520 UJ	0.0034 U	0.0037 U	0.0037 U	0.0035 U	0.0045 U	0.0044 U	0.0037 U	0.0036 U	0.0039 U	0.0037 U	0.0036 UJ	0.0036 U	0.0035 U	0.0044 U	0.0044 U	0.0037 U	0.0036 U
1,2-Dichlorobenzene	7.9	1.4 U	**1.3 J**	0.0023 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,3-Dichlorobenzene	1.6	1.5 U	**1.3 J**	0.0034 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,4-Dichlorobenzene	8.5	1.5 U	**1.1 J**	0.0033 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Butanone (Methyl Ethyl Ketone)	0.3	***11 U***	***4.4 UJ***	0.017 UJ	3.1 UJ	0.028 U	0.031 U	0.030 U	0.029 U	0.037 U	0.036 U	0.030 U	0.030 U	0.032 U	0.030 U	0.030 UJ	0.029 U	0.029 R	0.036 R	0.036 R	0.030 R	0.030 U
2-Hexanone	NA	2.6 UJ	**11 J**	0.022 U	2.9 UJ	0.024 U	0.027 U	0.026 U	0.025 U	0.032 U	0.032 U	0.026 U	0.026 U	0.028 U	0.026 U	0.026 U	0.026 U	0.025 U	0.032 U	0.032 U	0.026 U	0.026 U
4-Methyl-2-pentanone	1	***5.2 U***	**5.7 J**	0.012 U	2.9 UJ	0.021 U	0.023 U	0.023 U	0.022 U	0.028 U	0.028 U	0.023 U	0.023 U	0.025 U	0.023 U	0.023 U	0.022 U	0.022 U	0.028 U	0.028 U	0.023 U	0.023 U
Acetone	0.2	***13 UJ***	**10 J**	0.02 U	3.5 UJ	0.095 U	0.1 U	0.1 U	0.098 U	0.130 U	0.120 U	0.1 U	0.1 U	0.110 U	0.1 U	0.1 UJ	0.099 U	0.098 U	0.120 U	0.120 U	0.1 U	0.1 U
Carbon Disulfide	2.7	1.5 UJ	**1.1 J**	0.0022 U	0.320 UJ	0.0060 U	0.0066 U	0.0065 U	0.0062 U	**0.033 J**	**0.041**	0.0065 U	0.0064 U	0.0070 U	0.0065 U	0.0064 UJ	0.0063 U	0.0062 U	0.0078 U	0.0078 U	0.0065 U	0.0064 U
Chlorobenzene	1.7	1.4 U	**1.4 J**	0.0022 U	0.450 UJ	0.0042 U	0.0046 U	0.0046 U	0.0044 U	0.0056 U	0.0055 U	0.0046 U	0.0045 U	0.0049 U	0.0046 U	0.0045 U	0.0044 U	0.0044 U	0.0055 U	0.0055 U	0.0046 U	0.0045 U
Chloroform	0.3	***2.2 UJ***	**0.97 J**	0.0021 U	0.730 UJ	0.0050 U	0.0054 U	0.0054 U	0.0051 U	0.0066 U	0.0065 U	0.0054 U	0.0053 U	0.0057 U	0.0054 U	0.0053 U	0.0052 U	0.0051 U	0.0064 U	0.0064 U	0.0054 U	0.0053 U
Cyclohexane	NA	1.4 UJ	0.57 UJ	0.002 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Isopropylbenzene	NA	**18 J**	**11**	0.0025 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methyl Acetate	NA	3.2 UJ	1.3 UJ	0.0052 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methyl tert-butyl ether	NA	1.4 U	**1 J**	0.0022 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methylcyclohexane	NA	2.3 UJ	**2.2 J**	0.0025 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methylene Chloride	0.1	***2.4 U***	***0.96 UJ***	0.011 U	0.620 UJ	0.014 U	0.015 U	0.015 U	0.014 U	0.018 U	0.018 U	0.015 U	0.014 U	0.016 U	0.015 U	0.014 U	0.014 U	0.014 U	0.018 U	0.018 U	0.015 U	0.014 U
Styrene	NA	1.3 U	**7.3 J**	0.0028 U	0.310 UJ	0.0035 U	**0.038**	0.0037 U	0.0036 U	0.0046 U	0.0045 U	0.0037 U	0.0037 U	0.0040 U	0.0037 U	0.0037 U	0.0036 U	0.0036 U	0.0045 U	0.0045 U	0.0037 U	0.0037 U
Tetrachloroethene	1.4	1.3 U	**0.8 J**	0.0044 U	1.6 UJ	0.0069 U	0.0076 U	0.0075 U	0.0072 U	0.0092 U	0.0090 U	0.0075 U	0.0074 U	0.0080 U	0.0075 U	0.0074 U	0.0072 U	0.0071 U	0.0089 U	0.0090 U	0.0075 U	0.0073 U
trans-1,3-Dichloropropene	NA	1.7 U	**0.9 J**	0.0022 U	0.5 UJ	0.0047 U	0.0051 U	0.0051 U	0.0048 U	0.0062 U	0.0061 U	0.0051 U	0.0050 U	0.0054 U	0.0051 U	0.0050 U	0.0049 U	0.0048 U	0.0061 U	0.0061 U	0.0051 U	0.0050 U
Trichloroethene	0.7	***2.6 UJ***	**1.2 J**	0.0019 U	0.550 UJ	0.0041 U	0.0045 U	0.0044 U	0.0042 U	0.0054 U	0.0053 U	0.0044 U	0.0043 U	0.0047 U	0.0044 U	0.0044 U	0.0043 U	0.0042 U	0.0053 U	0.0053 U	0.0044 U	0.0043 U
Trichlorofluoromethane	NA	2.2 UJ	0.89 UJ	0.0075 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Total VOC	10	**368**	**916.2**	**1.149**	**204**	**0.150**	**0.439**	ND	ND	**0.883**	**1.084**	ND	ND	ND	ND	**43.63**	ND	ND	**0.165**	**0.199**	ND	ND
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																						
Acenaphthene	50	**15**	**94 J**	**4.2 J**	**200**	**1**	**0.080 J**	0.0086 U	0.0084 U	0.011 U	**0.097 J**	0.0087 U	**0.330 J**	0.0090 U	0.0086 U	**230**	0.0085 U	0.0082 U	0.011 U	0.010 U	0.0087 U	**1.3**
Acenaphthylene	41	**15**	**140 J**	**4.3 J**	**39 J**	**0.450**	**0.064 J**	0.0058 U	0.0057 U	0.0072 U	0.0068 U	0.0059 U	**0.220 J**	0.0061 U	0.0058 U	**120**	0.0057 U	0.0056 U	0.0071 U	0.0070 U	0.0059 U	**0.430**
Anthracene	50	**90 JD**	**170 J**	**7.1 J**	**140**	**0.780**	**0.053 J**	0.013 U	0.013 U	0.017 U	0.016 U	0.014 U	**0.250 J**	0.014 U	0.013 U	**210**	0.013 U	0.013 U	0.016 U	0.016 U	0.014 U	**0.860**
Benzo(a)anthracene	0.224	**16**	**160 J**	**6.4**	**86**	**0.5**	0.0097 U	0.0096 U	0.0093 U	0.012 U	0.011 U	0.0097 U	**0.9 J**	0.010 U	0.0096 U	**200**	0.0095 U	0.0091 U	0.012 U	0.012 U	0.0097 U	**1.1**
Benzo(a)pyrene	0.061	**11**	**120 J**	**4.4**	**39 J**	**0.300 J**	0.012 U	0.012 U	0.011 U	0.015 U	0.014 U	0.012 U	**0.990 J**	0.012 U	0.012 U	**140**	0.012 U	0.011 U	0.014 U	0.014 U	0.012 U	**1.4**
Benzo(b)fluoranthene	1.1	**14 J**	**150 J**	**4.6**	**45**	**0.320 J**	0.029 U	0.029 U	0.028 U	0.035 U	0.033 U	0.029 U	**0.970**	0.030 U	0.029 U	**130**	0.028 U	0.027 U	0.035 U	0.034 U	0.029 U	**1.5**
Benzo(ghi)perylene	50	**1.4 J**	**24 J**	**0.87 J**	**14 J**	**0.140 J**	0.029 U	0.029 U	0.028 U	0.036 U	0.034 U	0.029 U	**0.580**	0.030 U	0.029 U	**52**	0.028 U	0.027 U	0.035 U	0.035 U	0.029 U	**1**
Benzo(k)fluoranthene	1.1	**6.6 J**	**67 J**	**1.6**	**11 J**	**0.095 J**	0.018 U	0.018 U	0.018 U	0.023 U	0.021 U	0.018 U	**0.4**	0.019 U	0.018 U	**41**	0.018 U	0.017 U	0.022 U	0.022 U	0.018 U	**0.410**
Chrysene	0.4	**14**	**140 J**	**4.7**	**95**	**0.53**	**0.043 J**	0.0074 U	0.0072 U	0.0092 U	0.0086 U	0.0075 U	**0.87**	0.0078 U	0.0074 U	**190**	0.0073 U	0.0071 U	0.0090 U	0.0089 U	0.0075 U	**0.97**
Dibenz(a,h)anthracene	0.014	***0.32 UJ***	**12 J**	**0.15 J**	**10 J**	**0.045 J**	0.030 U	0.029 U	0.029 U	0.036 U	0.034 U	0.030 U	**0.140 J**	0.031 U	0.029 U	**13 J**	0.029 U	0.028 U	0.036 U	0.035 U	0.030 U	**0.260 J**
Fluoranthene	50	**160 D**	**350 J**	**14 J**	**140**	**0.910**	0.4 U	0.0096 U	0.0094 U	0.012 U	0.011 U	0.0097 U	**1.3 J**	0.010 U	0.0097 U	**420**	0.0095 U	0.0092 U	0.012 U	0.012 U	0.0097 U	**1.9**
Fluorene	50	**120 J**	**200 J**	**10**	**100**	**0.670**	**0.059 J**	0.011 U	0.010 U	0.013 U	0.013 U	0.011 U	**0.240 J**	0.011 U	0.011 U	**450**	0.011 U	0.010 U	0.013 U	0.013 U	0.011 U	**0.630**
Indeno(1,2,3-cd)pyrene	3.2	**0.73 J**	**22 J**	**0.95 J**	**18 J**	**0.120 J**	0.010 U	0.010 U	0.0098 U	0.012 U	0.012 U	0.010 U	**0.510**	0.011 U	0.010 U	**48**	0.0099 U	0.0096 U	0.012 U	0.012 U	0.010 U	**0.880**
Naphthalene	13	**780 D**	**1300 J**	**59 J**	**690**	**3.8**	**1.2**	0.0096 U	0.0094 U	**0.180 J**	**0.1 J**	0.0097 U	**0.580**	0.010 U	0.0096 U	**2500**	0.0095 U	0.0092 U	**0.061 J**	**0.110 J**	0.0097 U	**0.420**
Phenanthrene	50	**320 D**	**610 J**	**23 J**	**1300**	**5**	0.4 U	0.012 U	0.012 U	0.015 U	0.014 U	0.013 U	**0.750 J**	0.013 U	0.012 U	**1400**	0.012 U	0.012 U	0.015 U	0.015 U	0.013 U	**1.8**
Pyrene	50	**200 D**	**300 J**	**11 J**	**180**	**1.2**	0.4 U	0.0087 U	0.0085 U	0.011 U	0.010 U	0.0088 U	**1.5 J**	0.0091 U	0.0087 U	**590**	0.0086 U	0.0083 U	0.011 U	0.010 U	0.0088 U	**2.2**
Benzo(a)pyrene Equivalents	NA	**14.153**	**166.01**	**5.7657**	**64.105**	**0.44048**	**0.023568**	**0.0230237**	**0.0224486**	**0.0286696**	**0.0269093**		**0.02352875**	**1.37287**	**0.0241489**	**0.0230237**	**191.4**	**0.02296365**	**0.02187355**	**0.0280645**	**0.02751445**	**0.02352875**	**2.01307**
Semivolatile Organic Compounds (SVOCs) (mg/Kg)																						
1,1-Biphenyl	NA	**8.8**	**76 J**	**2.9**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4,6-Trichlorophenol	NA	0.38 U	0.6 UJ	0.12 U	1 U	0.0087 U	0.0094 U	0.0092 U	0.0090 U	0.011 U	0.011 U	0.0093 U	0.0091 U	0.0097 U	0.0093 U	0.910 U	0.0091 U	0.0088 U	0.011 U	0.011 U	0.0093 U	0.0093 U
2,4-Dichlorophenol	0.4	***0.48 U***	***0.75 UJ***	0.15 U	1 U	0.0089 U	0.0096 U	0.0094 U	0.0092 U	0.012 U	0.011 U	0.0095 U	0.0093 U	0.0099 U	0.0094 U	0.930 U	0.0093 U	0.0090 U	0.012 U	0.011 U	0.0095 U	0.0094 U
2,4-Dimethylphenol	NA	**4.1**	**3.2 J**	0.13 U	1.3 U	0.011 U	0.012 U	0.012 U	0.012 U	0.015 U	0.014 U	0.012 U	0.012 U	0.012 U	0.012 U	1.2 U	0.012 U	0.011 U	0.015 U	0.014 U	0.012 U	0.012 U
2-Chlorophenol	0.8	0.41 U	0.65 UJ	0.13 U	***1.2 U***	0.010 U	0.011 U	0.011 U	0.011 U	0.013 U	0.013 U	0.011 U	0.011 U	0.011 U	0.011 U	***1.1 U***	0.011 U	0.010 U	0.013 U	0.013 U	0.011 U	0.011 U
2-Methylnaphthalene	36.4	**310 D**	**370 J**	**16 J**	**130**	**1.1**	**0.170 J**	0.011 U	0.011 U	0.014 U	0.013 U	0.011 U	**0.120 J**	0.012 U	0.011 U	**1500**	0.011 U	0.011 U	0.014 U	0.014 U	0.011 U	**0.078 J**
2-Methylphenol	0.1	***0.43 U***	***0.67 UJ***	***0.13 U***	1.1 U	0.010 U	0.011 U	0.011 U	0.010 U	0.013 U	0.012 U	0.011 U	0.010 U	0.011 U	0.011 U	1 U	0.010 U	0.010 U	0.013 U	0.013 U	0.011 U	0.011 U
2-Nitrophenol	0.33	***0.4 U***	***0.62 UJ***	0.12 U	1.6 U	0.014 U	0.015 U	0.015 U	0.014 U	0.018 U	0.017 U	0.015 U	0.014 U	0.015 U	0.015 U	1.4 U	0.014 U	0.014 U	0.018 U	0.018 U	0.015 U	0.015 U
3+4-Methylphenols	NA	**3.3**	0.64 UJ	0.13 U	1.3 U	**0.043 J**	0.012 U	0.012 U	0.012 U	NS	NS	NS	0.012 U	0.013 U	0.012 U	1.2 U	0.012 U	0.012 U	0.015 U	0.015 U	0.012 U	0.012 U
4-Nitrophenol	0.1	***0.32 UJ***	***0.5 UJ***	0.098 U	2.5 U	0.022 U	0.024 U	0.024 UJ	0.023 UJ	0.029 U	0.028 U	0.024 U	0.023 U	0.025 UJ	0.024 U	2.3 U	0.023 UJ	0.023 U	0.029 U	0.028 U	0.024 U	0.024 U
bis(2-Ethylhexyl) phthalate	50	0.49 U	0.78 U	0.15 U	1.6 U	0.370 U	0.4 U	0.4 U	0.390 U	0.019 U	0.018 U	0.015 U	0.390 U	0.420 U	0.4 U	1.5 U	0.390 U	**0.043 J**	0.019 U	0.018 U	**0.043 J**	**0.069 J**
Carbazole	NA	**8.4**	**110 J**	**4.8**	3.3 U	**0.054 J**	0.031 U	0.030 U	0.030 U	0.038 U	0.036 U	0.031 U	**0.072 J**	0.032 U	0.030 U	**22 J**	0.030 U	0.029 U	0.037 U	0.037 U	0.031 U	**0.150 J**
Dibenzofuran	6.2	**72 J**	**170 J**	**7.3 J**	1.3 U	**0.069 J**	0.012 U	0.012 U	0.012 U	0.015 U	0.014 U	0.012 U	**0.150 J**	0.013 U	0.012 U	**73**	0.012 U	0.012 U	0.015 U	0.015 U	0.012 U	**0.180 J**
Phenol	0.03	***0.39 U***	***0.61 UJ***	***0.12 U***	1.2 U	**0.083 J**	0.011 U	0.011 U	0.011 U	0.014 U	0.013 U	0.011 U	0.011 U	0.012 U	0.011 U	1.1 U	0.011 U	0.011 U	0.013 U	0.013 U	0.011 U	**0.043 J**
Total SVOCs	500	**2170.33**	**4588.2**	**187.27**	**3237**	**17.209**	**2.869**	ND	ND	**0.180**	**0.197**	ND	**10.872**	ND	ND	**8329**	ND	ND	**0.061**	**0.110**	ND	**17.580**

Notes:

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NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)
Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

sb indicates site background
d indicates default NYSDEC RSCO
U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
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R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
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Bold and italics = nondetected values above NYSDEC RSCOs

Table 5-4
Concentrations of Compounds Detected in OU 1 RI Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval (feet) Sample Date	NYSDEC RSCOs	23RE101 21- 29 2/17/2006	23RE102 22.5- 23 1/24/2006	23RE102 24.7- 25 1/24/2006	21BR06B/ 21BB01 12-14 3/31/2008	21BR06B/ 21BB01 16-18 3/31/2008	21BR06B/ 21BB01 56-58 3/31/2008	21BR07B/ 21BB02 18-20 4/3/2008	21BR07B/ 21BB02 46-49.4 4/3/2008	21BR08B/ 21PG01 25-26 4/23/2008	21BR08B/ 21PG01 30-32 4/23/2008	21BR08B/ 21PG01 42-44 4/24/2008	21TC01 8-12 4/7/2008	21TC01 21-24 4/7/2008	21TC01 38-40 4/7/2008	21TC02 20-24 4/8/2008	21TC02 42-44 4/8/2008	21PG02 16.0-17.3 4/17/2008	21PG02 17.3-20.0 4/17/2008	21PG02-DUP 17.3-20 4/17/2008	21PG02 36.0-40.0 4/17/2008	21GH030 5/20/2008 17.3-20
Metals (mg/Kg)																						
Aluminum	7,960 (sb)	**9,370**	**6,490**	**8,810**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	NA	7.76 U	0.407 U	0.389 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	13.63 (sb)	**9.41**	**4.4**	**3.61**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	300 (d)	**45.6**	**18.9 J**	**14.8 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	0.463 (sb)	***0.776 U***	**0.283 J**	**0.422 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	1 (d)	0.050 U	**0.068 J**	**0.043 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	11,563 (sb)	**3,220**	**2,880**	**915**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	36.69 (sb)	**18.5**	**9.15**	**11**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	30 (d)	**7.88**	**4.510 J**	**5.410 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	35.84 (sb)	**28.5**	**8.9**	**20**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	14369 (sb)	**18,500**	**11,500**	**16,800**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	237.7 (sb)	**120**	**3.73**	**6.05**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	3,129 (sb)	**4,450**	**2,980**	**3,770**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	358.5 (sb)	**266**	**157**	**130**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.1 (d)	**0.395**	0.007 U	0.007 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	15.3 (sb)	**17.8**	**9.15**	**14.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	1,197 (sb)	**2,220**	**1,070**	**1,030**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	2.0 (d)	**1.89**	**0.893 J**	**0.816 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silver	0.229 (sb)	0.120 U	**2.340 J**	**3.350 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	214.8 (sb)	**1710**	**231 J**	**200 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	NA	0.802 U	0.654 U	0.625 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	150 (d)	**23.2**	**9.63**	**13.9**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	81.77 (d)	**70.7**	**32.1**	**58.3**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (mg/Kg)																						
Available Cyanide	NA	**0.97**	**5.6**	**0.32**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide, Total	NA	**0.854**	0.62 U	0.605U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Percent Solids																						
Percent Solids	N/A	**81.6**	**81.9**	**79.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Former East 21st Street Works, New York, NY

Location ID Depth Interval (feet) Sample Date	NYSDEC RSCOs	Summary Statistics											
		Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	ID for Max Concentration	Min Detected Concentration	ID for Min Concentration	Average Detected Concentration	Min DL for NonDetects	Max DL for NonDetects
BTEX (mg/Kg)													
Benzene	0.06	44	20	24	13	0	100	21MWDD08(37-39)031706	0.0054	21GH101B(41-43)030706	11.546395	0.0021	0.034
Ethyl Benzene	5.5	44	20	24	6	0	160	23RE102(22.5-23)012406	0.0043	21GH102B(45-47)022406	20.616295	0.0019	0.0052
Toluene	1.5	44	16	28	5	0	170	23RE102(22.5-23)012406	0.0033	21MWDD08(47-49)031706	22.72179375	0.0022	0.057
m,p-Xylene	NA	44	17	27	0	0	380	23RE102(22.5-23)012406	0.0092	21GH104B(51-53)030806	45.01036471	0.0046	0.14
o-Xylene	NA	44	16	28	0	0	120	23RE102(22.5-23)012406	0.0055	23GH101(21-23)022206	20.35596875	0.0021	0.054
Total Xylene (calculated)	1.2	44	27	17	7	0	500	23RE102(22.5-23)012406	0.0092	21GH104B(51-53)030806	40.4084037	-	-
Volatile Organic Compounds (VOCs) (mg/Kg)													
1,1,1-Trichloroethane	0.8	44	0	44	0	1	-	-	-	-	-	0.0022	1.6
1,1,2,2-Tetrachloroethane	0.6	44	1	43	1	2	1.5	21MWDD08(37-39)031706	1.5	21MWDD08(37-39)031706	1.5	0.0017	1.9
1,1,2-Trichloroethane	NA	44	1	43	0	0	0.93	23RE102(22.5-23)012406	0.93	23RE102(22.5-23)012406	0.93	0.0016	2
1,2-Dichlorobenzene	7.9	26	1	25	0	0	1.3	23RE102(22.5-23)012406	1.3	23RE102(22.5-23)012406	1.3	0.0021	1.4
1,3-Dichlorobenzene	1.6	26	1	25	0	0	1.3	23RE102(22.5-23)012406	1.3	23RE102(22.5-23)012406	1.3	0.003	1.5
1,4-Dichlorobenzene	8.5	26	1	25	0	0	1.1	23RE102(22.5-23)012406	1.1	23RE102(22.5-23)012406	1.1	0.0029	1.5
2-Butanone (Methyl Ethyl Ketone)	0.3	44	0	44	0	6	-	-	-	-	-	0.015	11
2-Hexanone	NA	44	1	43	0	0	11	23RE102(22.5-23)012406	11	23RE102(22.5-23)012406	11	0.019	2.9
4-Methyl-2-pentanone	1	44	1	43	1	2	5.7	23RE102(22.5-23)012406	5.7	23RE102(22.5-23)012406	5.7	0.011	5.2
Acetone	0.2	44	3	41	1	5	10	23RE102(22.5-23)012406	0.083	23MW12D(3)012006	3.391	0.018	13
Carbon Disulfide	2.7	44	7	37	0	0	1.1	23RE102(22.5-23)012406	0.013	21GH102B(31-35)022406	0.214	0.002	1.5
Chlorobenzene	1.7	44	1	43	0	0	1.4	23RE102(22.5-23)012406	1.4	23RE102(22.5-23)012406	1.4	0.0019	1.4
Chloroform	0.3	44	1	43	1	3	0.97	23RE102(22.5-23)012406	0.97	23RE102(22.5-23)012406	0.97	0.0019	2.2
Cyclohexane	NA	26	0	26	0	0	-	-	-	-	-	0.0017	1.4
Isopropylbenzene	NA	26	7	19	0	0	18	23RE101(21-29)021706	0.0043	23MW12D(3)012006	4.515042857	0.0023	0.25
Methyl Acetate	NA	26	1	25	0	0	6	21MWDD08(37-39)031706	6	21MWDD08(37-39)031706	6	0.0047	3.2
Methyl tert-butyl ether	NA	26	1	25	0	0	1	23RE102(22.5-23)012406	1	23RE102(22.5-23)012406	1	0.002	1.4
Methylcyclohexane	NA	26	1	25	0	0	2.2	23RE102(22.5-23)012406	2.2	23RE102(22.5-23)012406	2.2	0.0023	2.3
Methylene Chloride	0.1	44	2	42	0	4	0.078	21MWDD08(47-49)031706	0.022	21GH104B(125-127)031506	0.05	0.0098	2.4
Styrene	NA	44	3	41	0	0	7.3	23RE102(22.5-23)012406	0.038	21BR06B/21BB01(56-58)033108	4.812666667	0.0025	1.3
Tetrachloroethene	1.4	44	1	43	0	0	0.8	23RE102(22.5-23)012406	0.8	23RE102(22.5-23)012406	0.8	0.0039	1.6
trans-1,3-Dichloropropene	NA	44	1	43	0	0	0.9	23RE102(22.5-23)012406	0.9	23RE102(22.5-23)012406	0.9	0.002	1.7
Trichloroethene	0.7	44	1	43	1	0	1.2	23RE102(22.5-23)012406	1.2	23RE102(22.5-23)012406	1.2	0.0017	2.6
Trichlorofluoromethane	NA	26	0	26	2	0	-	-	-	-	-	0.0067	2.2
Total VOC	10	44	28	16	8	0	916.2	23RE102(22.5-23)012406	0.0054	21GH101B(41-43)030706	78.313875	-	-
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)													
Acenaphthene	50	44	15	29	3	0	230	21TC02(20-24)040808	0.08	21BR06B/21BB01/21BB01(56-58)033108	37.70313333	0.0082	0.089
Acenaphthylene	41	44	12	32	2	0	140	23RE102(22.5-23)012406	0.064	21BR06B/21BB01/21BB01(56-58)033108	27.43033333	0.0056	0.084
Anthracene	50	44	15	29	4	0	210	21TC02(20-24)040808	0.053	21BR06B/21BB01/21BB01(56-58)033108	42.54866667	0.013	0.075
Benzo(a)anthracene	0.224	44	14	30	11	0	200	21TC02(20-24)040808	0.088	23RE101(0.2-5)012006	35.20571429	0.0091	0.07
Benzo(a)pyrene	0.061	44	13	31	13	13	140	21TC02(20-24)040808	0.087	23RE101(0.2-5)012006	25.79823077	0.011	0.08
Benzo(b)fluoranthene	1.1	44	13	31	8	0	150	23RE102(22.5-23)012406	0.08	23RE101(0.2-5)012006	28.28461538	0.027	0.055
Benzo(ghi)perylene	50	44	12	32	1	0	52	21TC02(20-24)040808	0.092	23MW12D(3)012006	8.180166667	0.027	0.083
Benzo(k)fluoranthene	1.1	44	12	32	7	0	67	23RE102(22.5-23)012406	0.095	21BR06B/21BB01(16-18)033108	11.64625	0.017	0.11
Chrysene	0.4	44	14	30	11	0	190	21TC02(20-24)040808	0.043	21BR06B/21BB01(56-58)033108	32.98978571	0.0071	0.09
Dibenz(a,h)anthracene	0.014	44	11	33	11	20	13	21TC02(20-24)040808	0.045	21BR06B/21BB01(16-18)033108	3.306181818	0.028	0.32
Fluoranthene	50	44	17	27	4	0	420	21TC02(20-24)040808	0.062	21FA101(0.5-4.5)011906	67.05835294	0.0092	0.4
Fluorene	50	44	14	30	4	0	450	21TC02(20-24)040808	0.059	21BR06B/21BB01(56-58)033108	64.36921429	0.01	0.084
Indeno(1,2,3-cd)pyrene	3.2	44	13	31	3	0	48	21TC02(20-24)040808	0.053	23RE101(0.2-5)012006	7.126384615	0.0096	0.063
Naphthalene	13	44	23	21	7	0	2500	21TC02(20-24)040808	0.061	21PG02(17.3-20.0)041708	243.6494348	0.0092	0.085
Phenanthrene	50	44	17	27	5	0	1400	21TC02(20-24)040808	0.065	23RE101(0.2-5)012006	221.5392353	0.012	0.4
Pyrene	50	44	17	27	5	0	590	21TC02(20-24)040808	0.073	21FA101(0.5-4.5)011906	80.29782353	0.0083	0.4
Benzo(a)pyrene Equivalents	NA	44	26	18	0	0	6734	21TC02(20-24)040808	0.061	21PG02(17.3-20.0)041708	628.2773462	-	-
Semivolatile Organic Compounds (SVOCs) (mg/Kg)													
1,1-Biphenyl	NA	26	5	21	0	0	76	23RE102(22.5-23)012406	0.48	21GH103B(14-16)021706	19.016	0.058	0.085
2,4,6-Trichlorophenol	NA	44	0	44	0	0	-	-	-	-	-	0.0087	1
2,4-Dichlorophenol	0.4	44	0	44	0	2	-	-	-	-	-	0.0089	1
2,4-Dimethylphenol	NA	44	3	41	0	0	4.1	23RE101(21-29)021706	1.6	21MWDD08(37-39)031706	2.966666667	0.011	1.3
2-Chlorophenol	0.8	44	0	44	0	2	-	-	-	-	-	0.01	1.2
2-Methylnaphthalene	36.4	44	13	31	4	0	1500	21TC02(20-24)040808	0.078	21GH030(17.3-20.0)052008	181.4829231	0.011	0.086
2-Methylphenol	0.1	44	0	44	0	4	-	-	-	-	-	0.01	1.1
2-Nitrophenol	0.33	44	0	44	0	2	-	-	-	-	-	0.014	1.6
3+4-Methylphenols	NA	41	3	38	0	0	3.3	23RE101(21-29)021706	0.043	21BR06B(16-18)033108	1.231	0.012	4
4-Nitrophenol	0.1	44	1	43	1	3	0.38	23MW12D(3)012006	0.38	23MW12D(3)012006	0.38	0.022	2.5
bis(2-Ethylhexyl) phthalate	50	44	5	39	0	0	0.11	21GH104B(125-127)031506	0.069	21GH030(17.3-20.0)052008	0.0898	0.014	1.6
Carbazole	NA	44	10	34	0	0	110	23RE102(22.5-23)012406	0.054	21BR06B/21BB01(16-18)033108	15.3866	0.029	3.3
Dibenzofuran	6.2	44	12	32	5	0	170	23RE102(22.5-23)012406	0.069	21BR06B/21BB01(16-18)033108	28.30741667	0.012	1.3
Phenol	0.03	44	3	41	3	25	0.33	21MWDD08(37-39)031706	0.043	21GH030(17.3-20.0)052008	0.152	0.011	1.2
Total SVOCs	500	44	27	17	5	0	8329	21TC02(20-24)040808	0.061	21PG02(17.3-20.0)041708	714.7037778	-	-

Notes:

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NT = not tested
NS = not sampled
mg/Kg = milligram per kilogram
NYSDEC RSCO = New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum (TAGM) 4046 Recommended Soil Cleanup Objectives (RSCOs) (NYSDEC 1994)

Shaded values exceed NYSDEC RSCOs
Bold indicates compound was detected

Bold and italics = nondetected values above NYSDEC RSCOs

sb indicates site background
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J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
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R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
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Table 5-4
Concentrations of Compounds Detected in OU 1 RI Upper Fill and Lower Fill/Natural Soil Analytical Samples
Former East 21st Street Works, New York, NY

Location ID Depth Interval (feet) Sample Date	NYSDEC RSCOs	Summary Statistics											
		Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	ID for Max Concentration	Min Detected Concentration	ID for Min Concentration	Average Detected Concentration	Min DL for NonDetects	Max DL for NonDetects
Metals (mg/Kg)													
Aluminum	7,960 (sb)	26	26	0	7	0	14000	23GH101(21-23)022206	2050	21GH104B(51-53)030806	6024.615385	-	-
Antimony	NA	26	7	19	0	0	16.6	23RE101(0.2-5)012006	1.51	23GH102(33-35)022206	8.945714286	0.346	7.76
Arsenic	13.63 (sb)	26	20	6	0	0	9.41	23RE101(21-29)021706	0.502	21GH101B(106-108)030706	3.4411	0.43	1.21
Barium	300 (d)	26	26	0	0	0	116	21GH104B(125-127)031506	14.8	23RE102(24.7-25)012406	46.97307692	-	-
Beryllium	0.463 (sb)	26	9	17	4	17	0.759	23GH101(21-23)022206	0.283	23RE102(22.5-23)012406	0.520555556	0.558	0.776
Cadmium	1 (d)	26	4	22	0	0	0.068	23RE102(22.5-23)012406	0.043	23RE102(24.7-25)012406	0.05125	0.035	0.698
Calcium	11,563 (sb)	26	26	0	2	0	19500	21GH102B(45-47)022406	915	23RE102(24.7-25)012406	4448.576923	-	-
Chromium	36.69 (sb)	26	26	0	0	0	26.4	21GH101B(21-25)022706	5.85	21GH104B(51-53)030806	13.28346154	-	-
Cobalt	30 (d)	26	16	10	0	0	10.2	21GH101B(19-21)022706	3.33	21GH103B(79-83)022406	6.688125	5.61	6.98
Copper	35.84 (sb)	26	26	0	1	0	75.2	21FA101(0.5-4.5)011906	4.83	21GH104B(51-53)030806	18.07653846	-	-
Iron	14369 (sb)	26	26	0	8	0	31400	21GH101B(21-25)022706	4680	21GH104B(51-53)030806	12120.38462	-	-
Lead	237.7 (sb)	26	26	0	0	0	120	23RE101(21-29)021706	2.51	21GH103B(56-58)021706	14.085	-	-
Magnesium	3,129 (sb)	26	26	0	12	0	8000	21GH102B(45-47)022406	1880	21GH103B(14-16)021706	3798.846154	-	-
Manganese	358.5 (sb)	26	26	0	4	0	443	21GH101B(21-25)022706	93.6	21MWDD08(47-49)031706	226.2153846	-	-
Mercury	0.1 (d)	26	14	12	3	0	0.395	23RE101(21-29)021706	0.008	23RE101(0.2-5)012006	0.066142857	0.006	0.007
Nickel	15.3 (sb)	26	26	0	10	0	23.5	21GH102B(31-35)022406	7.04	21GH104B(51-53)030806	13.91576923	-	-
Potassium	1,197 (sb)	26	26	0	14	0	5950	21GH104B(125-127)031506	685	23GH102(31-33)022206	1660.653846	-	-
Selenium	2.0 (d)	26	5	21	0	0	1.89	23RE101(21-29)021706	0.492	21FA101(0.5-4.5)011906	1.0382	0.359	1.12
Silver	0.229 (sb)	26	7	19	7	1	3.35	23RE102(24.7-25)012406	0.89	21GH101B(19-21)022706	2.107142857	0.086	1.17
Sodium	214.8 (sb)	26	16	10	11	8	1710	23RE101(21-29)021706	157	21GH103B(14-16)021706	614	27.2	698
Thallium	NA	26	4	22	0	0	3.5	21GH101B(41-43)030706	1.14	21GH103B(82.5-83.5)022206	1.93	0.556	1.25
Vanadium	150 (d)	26	25	1	0	0	33.9	21GH101B(21-25)022706	7.55	21MWDD08(47-49)031706	18.154	6.2	6.2
Zinc	81.77 (d)	26	26	0	2	0	129	21GH103B(82.5-83.5)022206	11.7	21GH104B(51-53)030806	41.66923077	-	-
Cyanide (mg/Kg)													
Available Cyanide	NA	26	13	13	0	0	5.6	23RE102(22.5-23)012406	0.046	21GH101B(41-43)030706	1.190461538	-	-
Cyanide, Total	NA	26	1	25	0	0	0.854	23RE101(21-29)021706	0.854	23RE101(21-29)021706	0.854	-	-
Percent Solids													
Percent Solids	N/A	26	26	26	0	0	1.6	21FA101(0.5-4.5)011906	0.854	21GH101B(19-21)022706	82.76923077	-	-

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Table 5-5
Visible Impact Summary Based on Previous Site Characterization Borings
Former East 21st Street Site Works, New York, NY

ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21AB001	51	27-31	very slight NLO
21AB002	51	25-41	NLO/creosote-like odors.
		33-35	red-brown staining , heavy sheen, 1" sand layer saturated with OLM
21AB003	51	9-19	fuel-oil like odors
		22-35	Tar-like odors - naphthalene-like odors
		22-31	lenses of TLM saturation, sheen, brown to black staining, and pockets
21AB004	51	7-17	gasoline-like odor
		17-45	naphthalene-like odor
		17-29	residual OLM (17-19),sheen, lenses of TLM and TLM saturation to 23.5 then globules and lenses of OLM and TLM saturation and heavy sheen, some brown black staining.
21BR001	140.1	NA	Not sampled from 0-50 -no visible or olfactory impacts from 50 to 140.
21CH001	51	10-13	strong to slight petroleum-like odor
		10-11	black staining - metallic sheen
		13-15	slight sheen
		16.6-17	black staining
		21-23	trace black staining
		23-25	slight PLO
		25-33	lenses of sand with traces of free-phase TLM and TLM saturation, black staining and sheen
		25-39	Tar-like odors - naphthalene-like odors
		41-45	Two 1" or 2" black stained sand layers
21CH002	51	9-20	weathered fuel-oil odor, rainbow sheen 15-17
		27-35	frequent TLM globules, up to 3 mm, occasional TLM saturation in fine sand partings, some sheen, and NLO
		41-49	occasional black stained fine sand partings with slight NLO
21CH003	51	9-27	Slightly weathered fuel oil, PLO (10-12)
		12-17	sheen on sample
		28-34	frequent TLM globules up to 3 mm, occasional fine sand partings with residual TLM
		26-34	naphthalene-like odor
21CH004	51	9-26	PLO, sheen and brown/black staining, slight TLO noted only at 26'
		29-42	slight NLO- poor/no recovery from 31-39'
21CH005	51	7-25	intermittent lenses of black stained material and some sheen with slight PLO, styrene-like, or gunpowder-like odors.
		25-30	trace sheen, trace free phase TLM bleb, black staining and TLO, NLO
		35-45	slight NLO
21CH006	51	7-13	slight PLO and trace sheen
		23-27	NLO/burnt wood odor, slight sheen
21CH007	51	11-17	light PLO, trace sheen
		21-26	moderate to slight PLO
21CH008	51	9-27	slight to strong petroleum-like odor and brown/black staining, sheen
		27-31	strong tar-like odor and interbedded sand layers saturated with TLM, sheen, black stain
		31-41	slight naphthalene-like odor
		43-48	strong oil-like odor and brown/black stained sand saturated with oil from 44.5-45.6
21CH009	51	7-31	petroleum/gasoline-like odors gasoline/naphthalene like odors, or petroleum/naphthalene odors with intermittent lenses of sheen, staining, and heavy OLM saturation or residual from 13 to 19 and 21 to 27
		37-41	oil-like odor residual OLM
21DT001	50	13.5-14	liquid in sample approximately 50% OLM
		34-36	slight TLO

Table 5-5
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Former East 21st Street Site Works, New York, NY

ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21DT002	51	8-10	slight weathered oil (petroleum) odor, ALM.
		10-12.5	PLO/GLO, rainbow sheen, stained by residual petroleum, CLM (11-12.5).
		12.5-15	CLM, PLO/GLO, stained with residual petroleum.
		15-17	strong PLO/GLO, saturated with petroleum.
		17-21	strong PLO/GLO, saturated with petroleum, slight sheen.
		21-25	PLO/GLO with possible styrene-like undertones, saturated with petroleum/OLM, slightly viscous/sticky.
		25-27	frequent globules of black OLM/TLM.
		27-29.5	slight burnt wood/weathered petroleum odor.
		29.5-33	slight burnt wood/weathered odor.
		35-37	PLO/GLO with possible acrid styrene-like undertones. Stained dark gray, trace brown residual petroleum/OLM, slight sheen in layer (36.5-36.7)
		37-47	slight PLO/GLO.
21DT003	51	7-11	GLO.
		11-13	GLO, strong PLO in upper half.
		13-17	strong PLO/NLO, heavy sheen, TLM, residual OLM on water in spoon, occassional OLM saturated layers.
		17-19	moderate PLO, moderate sheen.
		19-21	strong NLO, TLM in tip.
		21-24	strong NLO, TLM saturated, moderate sheen.
		24-25	strong NLO, trace TLM.
		25-27.5	SAA, small frequent TLM, occassional sand lenses saturated with TLM.
		27.5-31	slight NLO.
		31-35	slight PLO, trace sheen.
		35-41	slight-strong sweet PLO, heavy sheen (35-37).
		43-45	slight NLO.
21DT004	51	5-11	strong GLO, CLM.
		11-13	SAA, except heavy staining, liquid portion high OLM, trace TLM.
		13-15	strong GLO, heavy sheen, OLM saturated, TLM
		15-17	SAA, bottom tip TLM saturated.
		17-19.5	SAA, OLM and TLM entirely saturated.
		21-22.5	saturated and free phase TLM, strong NLO.
		22.5-27.5	frequent saturated TLM in partings, strong NLO, trace TLM blebs, TLM saturated zones.
		27.5-29	slight-moderate NLO.
		31-33	slight NLO.
		33-37.5	bottom 4": black stained, heavy sheen, strong NLO.
		37.5-45	slight NLO.
21DT005	51	7-9	PLO/GLO, coke (small CLM).
		9-11	PLO/GLO, ALM, WF.
		11-13	PLO/GLO, slight sheen, trace coal.
		13-16.3	strong GLO, heavy sheen, OLM saturated, TLM present and saturated.
		16.3-17	acrid petroleum-like odor.
		17-18.5	ALM layers, purifier waste.
		18.5-19	acrid PLO, ALM, coal specks.
		19-21	slight PLO.
		24.5-25	WF, slight sheen and saturated with black OLM from 24.4-24.5.
		25-29	weathered PLO/burnt wood odor, occasional-throughout black OLM/TLM globules and thin lenses.
		29-30.6	trace residual OLM, residual brown OLM petroleum.
		31-33	GLO/SLO, trace sheen, trace brown residual OLM in partings.
		39-47	slight-distinct PLO/SLO.

Table 5-5
Visible Impact Summary Based on Previous Site Characterization Borings
Former East 21st Street Site Works, New York, NY

ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21DT006	51	7-9	strong PLO/NLO, OLM saturated near bottom.
		9-11	strong PLO/NLO, OLM saturated, trace TLM and CLM.
		11-13	strong PLO/NLO, residual OLM, trace TLM.
		13-15	black stained CLM and ALM, strong GLO, heavy sheen, OLM saturated, TLM.
		15-17.4	slight NLO/PLO, ALM.
		17.4-18.2	moderate NLO/PLO, trace WF.
		18.2-19.5	slight NLO.
		19.5-21	slight PLO/NLO, WF, OLM.
		21-23	heavy sheen near top.
		23-26	slight PLO, heavy sheen near top.
		26-27	strong PLO, tar saturated in cracks.
		27-28.5	strong NLO/PLO, heavy staining, saturated with TLM.
		28.5-29	strong NLO/PLO, slight sheen in pockets.
		29-35	slight NLO, slight HSO (31-35).
		37-39	SAA except 2 layers of 2" thick black stain and residual OLM
		49-51	slight NLO.
21ER001	51	5-7	slight NLO.
		7-13	slight NLO, slight sheen, slight black stain.
		13-18	NLO.
		21-25	slight-distinct NLO.
		47-51	slight NLO.
21ER002	51	5-6.4	trace ALM, asphalt-like material.
		9	cuttings: NLO.
		10-12	strong NLO, trace OLM, with sheen.
		12-24	slight-moderate NLO.
		24-33	occasional trace brown to brown black staining, strong NLO.
		33-34	SAA, with SO.
		34-36	SAA, with NLO.
		37-49	slight septic odor.
21ER003	51	7-8	slight PLO, trace ALM, WF, possible coal/ash.
		9-11	slight PLO, trace sheen.
		11-13	strong NLO/PLO, heavy staining/sheen.
		13-17	strong NLO, trace OLM, with sheen.
		17-21	NLO, sheen on surface of sample, OLM in tip (19-21).
		21-23	NLO.
		23-31	PLO/GLO, slight sheen (23-29), trace-brown residual OLM.
		31-33	PLO/GLO, black stained layer, residual OLM.
		33-35	PLO/GLO, slight sheen in spoon.
		35-51	slight-distinct PLO/GLO.
21FA002	10.3	7-10.2	NLO
21GH001	51	7-9	ALM.
		11-13	trace CLM.
		13-15	piece of clinker.
		15-19	slight-distinct NLO.
		20-25	NLO, piece of clinker (20-21), slight sheen.
		25-31	NLO, non-penetrating sheen on outside of sample.
		31-34	NLO, slight sheen on spoon.
		34-43	slight-moderate NLO, slight sheen on spoon (37-41).
		43-51	slight NLO, slight sheen on outside of sample (43-47).
21GH002	17.3	5-7	slight NLO/PLO, gray black stained layer.
		11-15	trace CLM.
		15-17	black TLM, stained with metallic sheen, very strong NLO.

Table 5-5
Visible Impact Summary Based on Previous Site Characterization Borings
Former East 21st Street Site Works, New York, NY

ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21GH003	51	5-11	slight NLO
		13-17	NLO.
		17-18	blue green metallic sheen throughout, NLO.
		18-31	slight-distinct NLO.
		31-35	slight NLO, burnt wood odor.
		37-47	burnt wood odor.
21GH004	23	7-11	ALM.
		11-13	slight NLO/PLO.
		13-15	moderate NLO, moderate sheen D428(metallic), dark brown staining in spots.
		15-19	moderate-high NLO, stained, sheen, trace CLM and ALM, dark brown TLM blebs, metallic sheens.
21GH005	51	7-7.8	styrene-like odor/fiberglass-like odor.
		9-11	no recovery: wet spoon - styrene-like odor/fiberglass-like odor.
		11-13	moderate styrene-like/petrochemical-like odor, highly stained pockets of coal-like fragments, light stain, slight metallic sheen, 20% OLM/ TLM, 30% ALM
		13-15	slight sheen, highly stained, OLM
		15-19	lightly stained, sheen, 10% OLM, decreasing with depth
		30-31	slight NLO.
		33-51	slight NLO.
21GH006	21	5-9.5	trace CLM.
		9.5-13	slight PLO, trace CLM.
		13-14.3	slight PLO.
		15-17	slight PLO.
		17-19	strong PLO, heavy staining, residual OLM, TLM (below 18').
		19-21	black TLM at tip (coated).
21GH007	51	5-7	trace coal-like particles.
		7-9	CLM, possible trace ALM.
		9-11	CLM
		11-15	slight NLO.
		15-17.8	PLO.
		19-21	moderate NLO/PLO, slight sheen.
		21-23	NLO/PLO, slight sheen, heavily stained.
		23-35	strong PLO/NLO, heavy sheen, trace residual-throughout OLM and possible TLM, occassional dark brown staining (25-27).
		35-37	strong PLO/NLO, heavy sheen, residual OLM.
		37-39	strong PLO/NLO, occasional TLM lenses/partings, heavy sheen, residual OLM throughout.
		39-41	strong PLO/NLO, moderate sheen, dark brown staining.
		41-43	strong PLO/NLO, non-penetrating sheen, and brown staining.
		43-51	PLO/faint-distinct NLO, slight sheen, brown staining on outside of sample.
21GH009	51	5-7.5	moderate styrene/fiberglass-like odor.
		9-10	black stained layer, burnt/styrene-like odor.
		10-13	slight-distinct NLO.
		15-31	slight-distinct NLO.
		33-36.5	appears to be 8-cm thick black staining from 33-35
		36.5-51	slight-light NLO.
21GH010	20.5	5-7	CLM.
		7-9	trace ALM.
		13-15	TLM, coal fragments, trace ALM.
		15-19	moderate-strong NLO, TLM, CLM, trace OLM, sheen.
		19-19.8	strong NLO.

Table 5-5
Visible Impact Summary Based on Previous Site Characterization Borings
Former East 21st Street Site Works, New York, NY

ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21GH011	51	7-11	slight-distinct NLO.
		15-17	moderate to strong NLO, CLM, ALM, coal-like fragments, blue-blue gray layers, light sheen, trace TLM.
		23-27	slight-distinct NLO.
		27-31	NLO, sheen throughout.
		31-33	NLO, metallic blue and green sheen throughout.
		33-35	blue green sheen throughout stratum.
		35-51	slight NLO.
21GH012	18	9-10	possible trace ALM.
		11-15.8	slight NLO.
		17-17.4	strong NLO, sheen.
21GH013	67	7-9	ALM
		9-11	slight NLO, trace CLM.
		11-15	NLO, slight black staining (13-14.5)
		15-27	slight-distinct NLO.
		27-31	trace sheen fragments, NLO.
		31-33	slight NLO.
		41-47	slight NLO, slight sheen
		47-53	slight NLO.
		53-55	slight black staining, slight sheen.
		55-59	slight NLO.
		61-63	slight NLO, slight sheen.
21GH014	46	5-7	trace CLM, possible trace ALM.
		7-9	trace CLM.
		9-13	black (possibly staining) slight PLO.
		21-23	slight PLO, trace CLM and possible ALM.
		25-29	slight NLO.
		33-35	slight PLO/NLO.
		35-37	slight PLO/NLO, ALM
		37-39	strong NLO, heavy sheen.
		39-41.3	strong PLO, heavy sheen, TLM and OLM
		41-42	strong NLO, trace CLM, TLM, OLM
		43-46	moderate NLO, trace sheen.
21GH015	38.2	5-7	trace CLM
		15-17	slight chemical/NLO, trace CLM.
		17-19	slight NLO, trace ALM.
		19-21.8	trace TLM, trace metallic sheen, trace OLM, moderate-strong NLO, stain (21-21.8).
		23-27	trace TLM, trace metallic sheen, trace OLM, strong NLO, stain.
		27-31	moderate NLO/coal-tar odor, heavy metallic sheen, stained.
		31-35	same as above except with TLM
		35-37	wash material only: highly stained, sheens, TLM.
		37-37.3	strong NLO.
21GH016	51	7-9	slight NLO, trace coal layer.
		9-11	NLO, residual OLM layer from 10.8 - 11.
		13-15	NLO
		15-19	NLO, slight black staining.
		19-25	slight-distinct NLO
		32-33	PLO
		33-39	slight NLO.
		41-45	slight NLO.
		47-51	NLO

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ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21GH017	16	7-8.4	coal fragments.
		11-15	strong PLO, black staining and trace pockets of staining, trace residual OLM.
21GH018	13.4	11-13	slight NLO, trace small pockets of black staining.
		13-13.4	strong NLO, slight sheen, slight brown petroleum-like staining, trace OLM.
21GH019	15	7-9	slight NLO.
		9-13	slight NLO, slight-trace black staining.
		13-14.9	NLO, black staining, residual OLM layer.
21GH020	14.9	9-11	slight NLO, trace TLM, trace OL sheen
		13-14.8	strong NLO, brick pieces stained black with OLM in layer, slight sheen layer
21GH021	15	5-9	trace ALM.
		9-11	trace ALM, trace coal particles.
		13-14	strong NLO, slight sheen, black staining.
21GH022	22	7-8.3	slight NLO.
		11-13	slight NLO.
		13-19	strong NLO, heavy sheen, residual OLM.
		20-22	strong NLO, heavy sheen, residual OLM.
21GH023	50	9-11	black stained layer, slight PLO, trace ALM and coal particles.
		11-13	PLO
		13-15	slight-strong PLO, black staining
		15-17	slight NLO, some gray to black staining.
		19-21	wash material only: NLO
		22-24	slight NLO, stained dark gray/black layer.
		24-26	slight NLO
		34-38	slight-distinct NLO
21GH024	50	9-11	black staining, slight PLO, trace ALM and coal particles.
		11-13	PLO.
		13-15	slight-strong PLO, black staining,
		15-17	slight NLO, some gray to black staining.
		19-21	NLO
		22-24	slight NLO, stained dark gray/black.
		24-26	slight NLO
		34-38	slight-distinct NLO
21GH025	17.3	5-7	slight PLO/faint NLO.
		7-11	moderate PLO/faint-moderate NLO, trace fragments of coke-like fragments.
		11-13	moderate NLO/PLO, stained, sheen, some residual TLM
		13-17.3	frequent pockets of TLM with residual product and 4" layer of free phase TLM at 14.5 ft., moderate-strong TLO, stained, black, sheen, viscous.
21GH026	51	9-11	brown to black stained, PLO.
		11-15	slight PLO, WF (11-13).
		16-19	slight NLO, trace ALM, OLM and CLM.
		19-21	strong NLO/styrene-like odor, trace ALM, TLM, sheen (trace metallic), OLM.
		21-23	strong NLO, trace CLM, OLM stained.
		23-29	very strong NLO, sheen-stained, OLM stained/layers.
		29-33	slight-moderate NLO, frequent dark brown to rainbow stained/sheen, OLM stained layers.
		33-35	slight NLO.
		35-37	slight NLO, layers of black stained with rainbow sheen.
		37-43	slight NLO.
		43-51	slight NLO/PLO.

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ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21GH027	27	23.5-25	wash material only: NLO and slight sheen.
21GH028	19	12-14	slight styrene-like odor.
		14-16	moderate PLO, slight rainbow sheen.
		16-18	similar to above except, trace CLM, sheen.
		18-18.8	moderate to strong styrene-like odor, coal, trace WF and CLM.
21GH029	17	5-7	NLO.
		7-8.3	NLO, minor black staining, trace ALM.
		9-9.8	slight naphthalene-like odor, trace black staining and ALM.
		15-17	black staining on brick, faint NLO
			3" of wash material with strong NLO, heavy sheen, material saturated with TLM.
21GH27A	120.2	27-29	mixed naphthalene and organic odors
		29-32.8	mixed naphthalene odors, fine sand partings with residual TLM, trace sheen.
		32.8-35	naphthalene undertones.
		37-41	NLO
		41-43	NLO/burnt
		43-47	NLO
		51-68.2	slight NLO.
		81-89.6	slight NLO.
		99-101	gray stained layer, NLO layer
		101-105	slight NLO.
		107-111	slight NLO.
		113.5-117	slight NLO.
		118.3-120	slight NLO.
21GN001	51	9.3-21	slight-moderate NLO
		23-29	slight NLO.
21GN002	51	7-8	slight NLO, black stain layer, trace CLM.
		11-17	PLO/NLO/fuel oil-like odor.
		19-21	burnt odor.
		25-37	burnt odor.
		37-39	burnt/sewer-like odor.
21GT001	51	7-8	slight NLO, black stain layer, trace CLM.
		11-17	PLO/NLO/fuel oil-like odor.
		19-37	burnt odor.
		37-39	slight burnt/sewer-like odor.
21GT002	51	11-17	moderate-strong gasoline/PLO, moderate-heavy sheen, TLM, CLM, occassional-frequent OLM saturated pockets.
		17-25	slight-moderate PLO, trace sheen.
		25-25.5	similar to above except saturated with OLM.
		25.5-26.5	strong PLO, fissures saturated with TLM.
		26.5-27	strong NLO.
		27-29	NLO, fissures saturated with TLM.
		29-31	NLO.
		31-33	trace sheen.
		39-41	slight naphthalene odor.
		41-43	moderate sweet PLO, heavy sheen layer.
		47-51	slight sweet PLO.
21MH001	51	5-11	slight NLO, trace coal-like particles and ALM (9-11).
		11-17	slight NLO, black staining layer-slight staining (11-16).
21OT001	6.1	2-5	black to gray stained with OLM, PLO, OLO.
21OT001B	10.1	5-6.4	fuel-oil like odor
		7-8.5	fuel-oil-like odor, black staining layer, trace coal fragments.
		9-10.1	strong PLO, stained black, saturated with OLM.

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ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21OT001C	139.1	5-7	slight PLO.
		7-11	slight PLO, trace coal particles
		11-13	PLO, frequent black stained layers, possible residual OLM, ALM, coal fragments.
		13-19	strong PLO, yellow brown to black staining, sheen, saturated-residual OLM, trace ALM (17-19)
		19-23	strong PLO, black stained, residual OLM, sheen, trace ALM, trace
		23-25	PLO and possible NLO, black stained, slight sheen, trace ALM and CLM, coal particles, and residual OLM.
		25-27	slight PLO, ALM, trace black staining, trace sheen.
		27-29	NLO, black staining, slight sheen, trace ALM and coal particles.
		29-31	strong TLO, trace, saturated and free phase TLM.
		31-33	NLO, slight sheen on outside of sample.
		33-39	slight-distinct NLO
		39-41	slight black staining layer.
21OT002A	51	5-9	slight fuel-oil-like odor, coal fragments.
		9-11	strong fuel-oil-like odor, slight dark brown staining
		11-19	strong fuel-oil-like odor, heavy yellow-yellow brown to yellow green staining, trace saturation of OLM (11-13), slight/trace sheen.
		19-25	slight fuel-oil-like odor, slight sheen on outside of sample, trace ALM and coal-like fragments.
		25-27	slight fuel-oil-like odor, trace coal particles.
		27-29	slight TLO, trace CLM, ALM, and coal particles.
		29-31	TLO
		31-32	saturated TLM layers, strong TLO, sheen, dark brown staining.
		32-33	strong NLO.
		33-37	slight NLO, slight sheen on outside of sample.
		37-41	slight NLO
		41-43	trace black staining.
		43-45	slight NLO, slight sheen on outside of sample.
		45-47	TLO, stained black layers, saturated with TLM layer, trace free phase TLM
		47-51	slight NLO
21OT003	51	5-6.3	coal fragments.
		9-11	PLO, slight sheen
		11-15	slight weathered fuel-oil-like odor, ALM, tar paper-like material.
		15-19	very slight-slight weathered fuel-oil-like odor
		21-23	trace coal particles
		23-26	similar to above with musty odor.
		26-27	NLO, frequent TLM globules, black residual ALM
		27-30	NLO, frequent TLM globules and residual to 28.5', trace TLM to 29'
		30-33	slight NLO
21OT004	51	9-11	outside of spoon was wet with OLM with sheen, PLO.
		11-15	PLO to styrene-like odor, pungent, CLM, ALM.
		15-17	upper half of recovery saturated with OLM, red to yellow brown stained, PLO, CLM.
		17-19	ALM
		19-21	PLO/sweet-smelling
		21-25	similar to above except sewer/organic odor.
		25-27	brown to black TLM saturated layer, ALM, very strong NLO.
		27-30.5	TLM layers, sticky-cold-patch-like, saturated layers, NLO
		31-42	very light-light NLO.
		42-45	frequent TLM layers, stain with sheen, sticky texture, moderate NLO.
		45-49	slight NLO

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ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21OT005	51	5-7	gray sheen, PLO.
		7-9	strong PLO, heavy sheen, ALM and CLM.
		9-15	slight-moderate PLO and NLO, ALM and CLM, trace sheen (9-11).
		15-22	slight PLO and NLO
		22-25.5	moderate NLO, near saturated with TLM.
		27-31	very slight NLO, trace small black stains (27-29).
21OT006	51	9-11	slight PLO.
		13-15	ALM, CLM
		17-23	trace white ALM, trace CLM.
		23-25	slight NLO
		25-27	slight to moderate NLO, trace sheen in black stained zone at top of recovery.
		27-31	slight NLO, trace black staining.
		33-37	dark gray staining, slight PLO and NLO.
21OT007	51	5-7	ALM
		13-15	very slight to slight PLO, ALM, trace coal fragments.
		17-21	ALM
		21-24	similar to above except ALM, CLM, coal fragments some charred, slight burnt odor.
		24-25	free phase TLM, moderate NLO.
		25-26	TLM stained/saturated layers (coal-tar consistency), sticky, moderate to strong NLO, sheen.
		26-28	slight NLO.
21PF001	51	7-9	coal fragments, slight naphthalene-like odor.
		9-11	stained coal black, PLO.
		11-13	TLO/PLO, stained black layer, coal fragments, slight sheen.
		13-15	PLO, slight sheen.
		15-17	slight PLO
21PF002	51	7-9	styrene/NLO, sheen, CLM.
		9-11	slight to no NLO.
21PF003	51	7-9	CLM, ALM, stained with residual OLM, OLM odor.
		9-13	CLM, coal, brown residual OLM, sheen, OLM odor.
21PF004	51	9-13	slight chemical/weathered PLO, WF, trace sheen, OLM, TLM (asphalt-like) (in irregular pockets), coal-like fragments.
		13-16	slight chemical/weathered PLO.
		18-21	slight chemical to no odor.
21PF005	51	7-8.8	NLO
		9-11	NLO, stained black layer, ALM with cinders, coal particles.
		11-13	slight NLO, trace coal particles.
		13-15	slight NLO, stained layer.
		15-17	slight NLO.
		21-23	slight NLO.
		27-31	gun powder-like odor, layer stained black with odor

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ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21PF006	51	7-8.5	trace coal-like particles.
		9-11	NLO, stained
		11	no recovery, wash water in spoon stained, sheen, strong NLO
		13	stain-saturated with TLM, strong NLO
		13.5	stain-saturated-trace free phase TLM strong TLO, heavy sheen.
		16-17	stained with TLM, heavy sheen, strong TLO.
		17.4	stained-saturated-trace free phase TLM, sheen, strong TLO and NLO
		20-23	stained-saturated with TLM, strong NLO and TLO.
		23-25	saturated-trace free phase TLM, strong TLO and NLO
		25.5	stained-saturated with TLM, strong TLO and NLO
		27.6	stained-residual TLM product, sheen, strong TLO and NLO
		29-29.2	saturated-stained black with TLM, strong TLO.
		31-32.5	stained-saturated with TLM, strong TLO, sheen.
		32.5-35	slight TLO, trace staining on outside of sample/non-penetrating.
		35-37	stained, TLO.
		37-39	stain and sheen on outside of sample.
		39-51	slight NLO, slight non-penetrating sheen and stain on outside of sample.
21PF007	51	1-7	trace CLM, ALM.
		9-11	slight black staining.
21PF008	51	7-9	tar paper, trace ALM.
		9-15	OLM/PLO.
		15-17	ALM
21PF009	51	8.5-9	staining and odor from residual OLM.
		9-16	SAA except trace coal particles.
21PF010	51	5-9	strong petroleum/styrene-like odor, gray ALM, trace CLM, trace coal fragments, trace decomposed WF.
		9-11	similar to above, except trace ALM, CLM, no decomposed WF.
		13-16	strong PLO, trace gray ALM, CLM, trace coal fragments.
		20-28	slight SWRLO.
		36-39	very slight SWRLO.
21PF011	51	6-9	naphthalene/asphalt-like odor, ALM, trace CLM.
		9-11	SAA except TLM with asphalt-like odor.
		11-15	SAA except TLM, asphalt-like odor, slight sheen, trace OLM, naphthalene-like odor, blue gray metallic luster.
		17-25	naphthalene-like odor, trace WF.
21PF012	51	8-11	light to medium petroleum/gun powder-like/burnt odor, WF, coal-like fragments, trace ALM and CLM.
		11-15	similar to above except coal pieces, trace WF.
		15-27	light burnt/petroleum-like (fuel oil) odor.
		29-30	very slight burnt odor.
21RE001	51	9-13	CLM (9-11), trace ALM.
		15-21	NLO, stain, slight sheen (15-17, 19-21)
		21-23	slight NLO, slight sheen on outside of sample.
		23-25	slight gun powder-like odor, slight sheen on outside of sample.
		25-27	strong NLO
		27-30	strong CLO or TLO, WF, coal fragments, trace free phase TLM.
		30-31	TLO, heavy sheen, stained, saturated with TLM.
		31-39	slight NLO (31-33), slight sheen on outside of sample.

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ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21RE002	51	9-11	PLO, stain
		11-15	strong PLO, slight SLO, heavy sheen, stained-saturated with OLM.
		15-17	TLO, TLM and trace free phase TLM.
		17-19	NLO, slight sheen, trace dark brown staining.
		19-21	PLO, ALM with talc-like texture, unidentified odor, bottom 3" stained with residual OLM, petroleum-like odor.
		21-23	slight NLO, ALM, slight sheen and stain on outside of sample.
		23-25	SAA except 1" thick layers saturated with OLM, stain and petroleum-like odor.
		25-27	possible PLO, ALM, slight sheen on outside of sample.
		27-29	strong TLO, trace free phase TLM, 1" thick layers saturated with TLM.
		29.3-29.7	strong TLO, saturated with TLM
		31-33	slight TLO, sheen, slight sheen on outside of sample.
		37-39	slight NLO, slight staining
		39-41	NLO, stain, NLO.
		41-43	slight NLO.
21RE003	50	10-12	moderate NLO/PLO, ALM, trace coal-like particles, stained.
		12-14	SAA with sheen, trace OLM.
		14-16	SAA except slight burned odor.
		16-20	ALM.
		20-24	slight PLO/NLO, stained, ALM, TLM (asphalt-like material).
		24-26	ALM, weathered PLO to light NLO, trace coal-like pieces.
		26-27.5	SAA except CLM, burnt/creosote-like odor.
		27.5-31	CLO with light NLO, stained, sheen.
		31-36	moderate CLO with slight naphthalene-like odor.
		42-50	CLO.
21RE004	51	4-4.3	ALM, NLO
		5-6	PLO, CLM, ALM.
		7-10	PLO, slight sheen.
		10-11	gray to green gray mottled ALM, PLO
		11-13	PLO, slight sheen.
		13-15	PLO, slight sheen, trace brown residual OLM, ALM.
		15-19	petroleum odor, slight sheen, trace residual OLM.
		19-21	PLO, slight sheen, trace residual OLM, ALM and coal fragments.
		21-25	strong PLO, sheen, residual black to brown OLM throughout sample.
		25-26	SAA except semi-viscous OLM/TLM ("cold patch" consistency).
		26-28.6	petroleum/burnt wood odor.
		28.6-31	PLO, slight sheen.
		31-37	PLO, no sheen.
		37-39	PLO, stained layers
		39-47	PLO
21RE005	51	9-10	PLO.
		10-11	PLO, black residual OLM, slightly viscous.
		11-13	residual OLM.
		13-19	PLO, slight sheen.
		19-27	PLO, sheen, OLM; residual and saturation
		27-30	strong PLO, slight sheen, saturated with OLM/TLM "asphalt cold patch" consistency, slightly viscous.
		31-35	PLO, slight sheen, OLM
		35-37	slight sheen
		37-39	PLO, slight sheen.

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		Depth Interval	Description
21RE006	51	9-11	strong SLO, stained black, residual OLM, metallic sheen, trace ALM.
		11-13	similar to above except black stained, saturated with OLM, metallic sheen, trace OLM.
		13-15	similar to above except brown to black, occasional TLM layers.
		15-19	similar to above except brown, trace stained with OLM and TLM, trace CLM.
		19-27	similar to above, frequent white ALM (unknown clayey/silty material like plaster of paris), unknown odor.
		27-28	similar to above except trace TLM, strong naphthalene-like odor.
		28-37	slight to strong NLO, frequent black stained/sheen layers: residual TLM layers between 29 and 31'.
		37-40	slight SWRLO.
		40-47	SWRLO (sulfur)
21RE007	51	7-11	CLM, trace TLM/asphalt-like.
		11-21	strong GLO.
		21-25	slight-distinct SLO.
		25-27	light NLO.
		27-27.5	SAA, saturated with TLM, very strong naphthalene-like odor.
		27.5-31	strong NLO, frequent medium sand layers up to 5 cm thick with black staining, saturated with TLM,
		31-37	strong NLO
		37-39	SAA except light NLO with faint sewer-like odor.
		39-41	SAA except occasional sewer-like odor.
		44-51	SWRLO with slight NLO with sulfur-like odor.
21RE008	51	5-6.8	very light PLO, faint sulfur-like odor, coal-like fragments.
		7-9	similar to above.
		10-15	light styrene/naphthalene-like odor, residual OLM up to 20%, sheen, trace TLM.
		15-17	moderate NLO, trace ALM, trace CLM.
		17-21	stained with sheen, strong NLO/PLO.
		21-27	slight PLO, occasional pockets of silty sand with CLM and coal-like fragments.
		27-29	trace CLM, trace ALM.
		29-51	slight-strong naphthalene-like odor.
21RE009	51	10-13	GLO
		13-17	strong GLO, completely stained, trace coal fragments.
		19-23	recovered 6" of suspected wash stained, rainbow sheens.
		23-25	TLM saturated, stained, sheen, NLO
		25-27	similar to above, frequent TLM saturated, sticky-cold patch-like lenses.
		29-31	TLM saturated layers, very strong NLO, TLM/asphalt-like pieces.
		31-37	TLM saturated, strong NLO
		37-51	similar to above except SLO (sulfur).

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ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21RE010	51	5-9	trace coal.
		9-11	CLM, PLO (fuel/light end) with possible styrene-like undertones, slight sheen in tip, WF and CLM, trace ALM.
		11-13	PLO with possible styrene-like undertones, slight sheen.
		13-17	PLO, sheen (rainbow), trace black residual OLM.
		17-21	PLO, rainbow sheen, possible sweet styrene-like undertones.
		21-27	PLO, slight sheen, trace brown residual OLM
		27-28.5	loose black OLM/TLM saturated, strong TLM/OLM odor, slight sheen, slightly viscous ("cold-patch" consistency), TLM is black, OLM is red brown.
		28.5-29	slight petroleum/OLM/TLM odor, trace black TLM
		29-31	PLO, slight sheen, trace brown OLM layers
		31-41	slight weathered PLO/burnt wood odor, slight rainbow sheen.
21RE011	51	15-17	slight possible black staining.
		17-19	SAA, slight NLO, slight sheen.
		19-21	NLO, brown staining throughout sample, metallic sheen.
		21-27	NLO, non-penetrating sheen on outside of sample.
		27-29	interbedded with dark brown to black medium to fine layers saturated with TLM, strong NLO, heavy sheen, black to brown stain.
		29-32	strong TLO, trace free phase TLM, trace CLF.
		32-51	strong NLO, sheen on outside of sample.
21RE012	51	5-11	trace ALM, slight-moderate fuel oil-like odor.
		11-13	viscous TLM, moderate NLO
		15-23	moderate NLO, TLM, OLM.
		25-28.5	metallic sheen.
		28.5-30	NLO, trace sheen and stain, trace TLM/TLM stained coal-like pieces.
		30-31	dark brown/black stained TLM layers at low angles, no TLM at bottom.
		35-37	creosote-like odor, NLO
		37-45	NLO
21RS001	11	5-7	Trace CLM, trace ask, trace coal fragments.
		7-8.5	slight NLO, black staining at bottom of sample.
21RS002	21.2	7-9	slight PLO
		9-11	faint sheen
		11-21	slight NLO/PLO, sheen (13-21).
21RS003	31	5-7	slight PLO, trace ash and cinders
		7-8.1	ALM, slight PLO
21RS004	9.5	5-7	trace coal fragments.
		7-7.9	slight naphthalene-like odor, TLM
21RS005	38.1	0-5	ash and cinder fragments.
		5-9	slight creosote-like odor.
		9-13	slight PLO
		13-17	strong RLM odor/asphalt-like odor, TLM, very viscous, sheen stained.
		17-21	slight TLM/asphalt-like odor, occasional 2-4mm thick TLM layers.
		21-35	faint naphthalene-like odor.
21SC001	51	7-8.7	black stained TLM layer, TLM layer appears to be within mortar matrix/fractures.
		10-15	moderate-strong styrene-like odor
		15-17	SAA and sheen
		19-23	strong SLO
		23-25	SAA, and brown staining
		27-31	slight SLO
		31-41	heavy sheen on outer surface of sample - non-penetrating sheen, faint SLO/NLO

Table 5-5
Visible Impact Summary Based on Previous Site Characterization Borings
Former East 21st Street Site Works, New York, NY

ID	Total Depth feet bgs	Visible and Olfactory Impact Summary	
		Depth Interval	Description
21SC002	51	7-7.2	moderate NLO
		8-16	strong NLO, trace TLM, OLM, slight sheen
		16-19	CLM and NLO
		19-25	strong FLO, some sheen, brown staining
		25-27	SAA, 10% OLM
		27-29	slight NLO
		35-39	slight PLO/NLO.
21SC003	51	0-5	black to orange CLM particles to fragments, in fragments of CLM.
		9-15	slight naphthalene-like odor, slight-moderate sheen, staining at top of sample, dark brown staining.
		18.5-25	strong NLO, slight sheen, metallic sheen on outside of sample.
		43-51	slight NLO
21SC004	51	1-5	ALM
		5-8	possible black staining, 7-8: strong styrene/NLO
		11-13	black staining, strong styrene/NLO
		15-19	strong NLO, stained dark brown to black, heavy black staining, heavy golden sheen, trace dark blue sheen, residual OLM
		19-26	brown-black stain and heavy sheen
		27-31	brown stain, heavy sheen, residual OLM
		31-51	non-penetrating stain and sheen on outside of sample, slight NLO
21VH001	51	9-10.3	slight-moderate PLO, trace sheen, trace CLM
		15-17	slight PLO
		18-20	slight HSO
		27-28.5	slight PLO
		30-31	slight petrochemical-like odor
		37-43	slight PLO
21VH002	51	13-15	occasional sheen PID:65 ppm
		15-17	slight NLO, trace sheen, black staining PID:31.5 ppm

Notes:

NLO - naphthalene like odor
PLO - petroleum like odor
HSO - hydrogen sulfide odor
SWRLO - sewer like odor
GLO - gasoline like odor
TLM - tar like material
OLM - oil like material
CLM - coal like material
ALM - ash like material
SAA - same as above
WF - wood fragments

Table 5-6
OU1 RI Visible and Olfactory Impact and Analytical Soil Sample Summary
Former East 21st Street Works, New York, NY

Boring ID	Total Depth feet bgs	Visible and Olfactory Impact Summary		Analytical Sample	
		Depth Interval	Description	Depth	Rationale
21FA102B	93		Upper Fill Soil Sample - 21FA101	0.5-4.5	Delineate west of 21GH014
		90	TLO - PID 0.6 ppm		Competent rock at 23 ft bgs
21FA103B	92	12	Sheen on water in tub		No sample collected. Competent rock at 7 ft bgs
		13.81	OLM in fracture		
		17-22	MGP -tar like odor in fractures - may be from drill water		
		25.16-25.82	fractures with infilling minor TLM staining and TLO		
		29.74-29.94	TLM blebs and TLO in fractures		
		30-34	some sheen and TLO noted		
		44-47.9	some brown staining on fractures and TLO		
		53.7	some brown staining and TLO		
		60	some brown staining and TLO		
		68-73	sheen, TLO some staining		
		76-77	blebs, MGP odor, some staining		
		82-87	some staining and TLO, slight sheen 82-84		
21FA104B	90	45.35'	naphthalene odor in sediment filled fracture - PID 0.4 ppm		No samples collected. Competent rock at 17 ft bgs
		52.5	fracture with OLM sheen on outside of core		
		65	slight TLO at base of core		
		65.03	odor and OLM		
		75	TLO at base and OLM in drilling water - PID 0-7 ppm		
		75-80	TLO at fractures and OLM in drill water		
21FA105B	90.5	N/A	No visible or olfactory impacts noted		No samples collected. Competent rock at 12 ft bgs
21GH101B	108	8-14	TLO - PID 3.5 - 71 ppm		
		13-14	TLM - PID 27.8 ppm		
		16	TLM - PID 9.6 ppm		
		16-19	TLO - PID 150 ppm		
		19-27	NO TLO or TLM but high PID 338-194	19-21	Characterize high PID and ash-like material
				21-25	Vertical extent of ash-like material
		35-35.5	OLM blebs - PID NR		
		37-39	OLM blebs on outside of		
		39'2"	OLM blebs - PID NR	41-43	Vertical extent of overlying OLM blebs
		72	Hydrocarbon like materials - oil sheen on surface in mud tub-PID 3.8 ppm	106-108	Bedrock interface
21GH102B	48.5	N/A	No visible or olfactory impacts noted	31-35	H2S odors
				45-47	Bedrock interface

Table 5-6
OU1 RI Visible and Olfactory Impact and Analytical Soil Sample Summary
Former East 21st Street Works, New York, NY

Boring ID	Total Depth feet bgs	Visible and Olfactory Impact Summary		Analytical Sample	
		Depth Interval	Description	Depth	Rationale
21GH103B	83.5	12-25	HCL odor - PID 84-189 ppm	14-16	Characterize high PID and HCL odor
		28-43	HCL odor - PID 10.7 - 64 ppm		
		44.5 - 58.5	HCL odor - PID 4.7 ppm	56-58	Characterize soil with HCL odor
		60-62	HCL odor PID - 4.0 - 9.3 ppm		
		70-72	HCL odor PID - 8.7 ppm		
		77-81	HCL odor - PID 27 ppm	79-83	Characterize soil with HCL odor
		82-83.5	slight naphthalene odor - PID 3.9 ppm	82.5-83.5	Bedrock interface
21GH104B	126.8	45-51	slight to very slight TLO	45-47	Characterize soil quality of first spoon collected and characterize slight odor
				51-53	Vertical extent of odor
				125-127	Bedrock interface
21MWDD03	62	9-15	TLO - PID 2.7-12 ppm		
		20-31	TLO - PID 34-668 ppm		
		27.8-28	Sheen - PID 668 ppm		
		28-30	Two 1" veins of TLM - PID 668 ppm		
		30-32	Sheen and TLO - PID 171 ppm		
21MWDD04	73	34-35	sheen - OLM at 38? - OLM odor		
		41-48.5	OLM blebs and sheen and TLO		
		50-55	spotty sheen TLO		
21MWDD08	61	38.2-39	TLM saturation and TLO blebs	37-39	Characterize impacts
		38.2-47	TLO	47-49	Vertical extent
23GH101	37	9-17	HCL odor - PID 0 ppm		
		17-19	trace sheen spots - PID 0.3 ppm		poor recovery
				21-23	Delineate north of GH borings
				35-37	Bottom of boring
23GH102	43	25-26	TLO - PID 116 ppm		
		26-31	odor but not TLO - PID 147 ppm		
		32.8	OLM bleb - PID 31 ppm	31-33	Characterize impact
		33.2	OLM bleb - PID 4 ppm	33-35	Vertical extent
				37-39	Vertical extent
23RE101	62		Upper Fill Soil Sample	0.2 - 5	Delineate northeast of 21RE001
				3' (23MW12D)	Characterize odor in preclear excavation soils for this monitoring well.
		7-25	Asphalt Odor - PID 263-1225 ppm		
		15-32	TLO - PID 82-1225 ppm		
		15-17	faint sheen - PID 263 ppm		
		20-32	TLM bands and blebs, some sheen - PID 82-1225 ppm	21-29	Characterize impacts
		37-39.5	OLM blebs - PID 81 ppm		
		37 - 53	TLO - PID 1.7 -18.1 ppm		

Table 5-6
OU1 RI Visible and Olfactory Impact and Analytical Soil Sample Summary
Former East 21st Street Works, New York, NY

Boring ID	Total Depth feet bgs	Visible and Olfactory Impact Summary		Analytical Sample	
		Depth Interval	Description	Depth	Rationale
23RE102	25	6.7 - 19	fuel oil odor		
		11-15	few brown NAPL blebs and sheen		
		15-19	sheen		
		19-25	MGP odor		
		20-23	sheen, TLM, OLM, brown staining	22.5-23	Characterize impacts
				24.7-25	Vertical extent and bottom of boring
21BR01B	90.85	N/A	No visible or olfactory impacts noted		No samples collected. Competent rock at 8.5 ft bgs
21BR02B	91	9-9.6	possible gray staining - PID 0.0 ppm		No samples collected. Competent rock at 28.4 ft bgs
		10-10.3	slight HCL odor - PID 0.0 ppm		
		12-13.3	slight HCL odor - PID 0.0 ppm		
		14-15.2	slight HCL odor - PID 0.0 ppm		
		17.2-17.5	slight organic and HCL odor - PID 0.0 ppm		
21BR03B	90	N/A	No visible or olfactory impacts noted		No samples collected. Competent rock at 9.4 ft bgs
21BR04B	72.4	8.3 - 10.62	Slight to moderate NLO and two lenses of black stain		No samples collected. Top of bedrock at 72.4 ft bgs
		12.4 - 17	few, thin lenses of OLM, sheen and NLO, heaviest saturation between 15 and 17		
21BR05B	90	8.5-9	staining PID 2.5 ppm		No samples collected. Competent rock at 48 ft bgs
		18-19.4	black staining PID 1.2 ppm		
		26-26.7	slight naphthalene odor-PID 34.2 ppm		
		30.6-32.9	faint naphthalene odor - PID 1.9ppm		
		34-48	slight naphthalene odor - PID 3.7 ppm drilling mud contained small block blobs and thin films of OLM		
		48-53	slight naphthalene odor and sheen - PID NR		
		57.5	slight naphthalene odor in fracture PID NR		
21BR06B/ 21BB01	63	8.5-11.5	HCL odor - PID 0.0 ppm		
		12.3-14	sheen and naphthalene odor - PID 127 ppm	12-14	Characterize impacts
		14-14.6	naphthalene odor - PID 17.8 ppm		
		18-18.8	slight naphthalene odor-PID 14.7 ppm	16-18	Vertical extent
		40-58	slight naphthalene odor - PID 0.0 - 99 ppm	56-58	Bedrock interface
21BR07B/ 21BB02	49.4	14.1-14.7	gray staining and burnt odor - PID 0.8 ppm		
		16-18	gray staining and burnt odor - PID 2.2 ppm		
		18.6-19.3	very slight naphthalene odor and staining from 19-19.1- PID 0.7 ppm	18-20	Characterize impacts
				46-49.4	Bedrock interface

Table 5-6
OU1 RI Visible and Olfactory Impact and Analytical Soil Sample Summary
Former East 21st Street Works, New York, NY

Boring ID	Total Depth feet bgs	Visible and Olfactory Impact Summary		Analytical Sample	
		Depth Interval	Description	Depth	Rationale
21BR08B/ 21PG01	150.7	8.5-9.25	very slight MGP odor - PID 2.4 ppm		
		18.65-19.2	very slight MPG odor and burnt odor and very slight staining at 18.7 and 19.1 - PID 3.9 ppm		
		25.15-26	slight MGP odor and staining in sand at 25.2 - PID 9.3 ppm and 46.4 ppm at stain	25-26	Characterize impacts
		36.4	very slight MGP odor - PID 1.7 ppm	30-32 and 42-44	Characterize soil quality near the play ground
		150.1	No odors or visible impacts		Competent rock at 150.1 ft bgs
21PG02	40			16-17.3	Characterize soil quality near the play ground
		17.3 - 20	slight MGP odor - PID 0.0 ppm	17.3 - 20	Characterize odor
				36-40	Bottom of boring
21TC01	40	5.75.5.9	very slight MGP odor - PID 4.8 ppm		
		8-14.6	slight MGP odor and black staining from 8.9 - 12 - PID 14.2 ppm	8-12	Characterize impacts
		16-17.05	very light MGP odor and very light staining 16-16.7 - PID 11.8 ppm		
				21-24	Vertical extent
				38-40	Bottom of boring
21TC02	44	8-9.3	MGP odor - PID 3.8 ppm		
		9.3-12	MGP odor and stain PID 3.8 ppm		
		12-12.45	MGP odor and OLM - PID17.7 ppm		
		12.6 - 16	MGP odor and layers of staining - PID 17.7 ppm		
		16-21.9	MGP odor, PLO, OLM and sheen		
		21.9-22.3	OLM blebs and sheen and TLO - PID 54.8	20-24	Characterize impacts
		22.3-23.4	PLO, MGP odor, OLM sheen - PID 54.8 ppm		
		23.4-23.8	OLM saturated slight PLO and MGP odor - PID 54.8 ppm		
		28.35-30	OLM saturated layers - PID 54 ppm		
				42-44	Vertical extent and bottom of boring
21GH030	20	12.8 -13	black staining and slight asphalt odor - PID 0.8 ppm		
		17.3-19.5	slight MGP odor - PID 1.3 to 13.7 ppm	17.3-20	Bottom of boring at presumed holder base.

Table 5-7
RI NAPL Measurements in OU1 Monitoring Wells
Former East 21st Street Works, New York, NY

Monitoring Well ID	Date Installed	Well Installation Depth (ft)	Measured Total Depth (ft)	Screened Interval (ft)	Date measured and/or removed	Depth to Water (ft)	Depth to NAPL (ft)	NAPL Thickness (ft)	NAPL Volume Removed (gal)	Comments
21MWD03	3/12/2004	37.1	37.10	25-35	4/19/2004	9.99	ND	ND	none	GW sampling event.
			NA		SCS-2004	NA	NA	0.36	NA	Dates not listed in SCS, only NAPL thickness.
			37.00		3/28/2006	9.00	33.18	3.82	none	NAPL confirmed on interface probe.
			37.00		3/31/2006	9.13	33.18	3.82	~1 gallon	~4 gallons of water and NAPL were removed - ~1 gallon was NAPL.
			37.10		4/7/2006	9.08	35.58	1.52	none	Gauging event only.
			37.08		5/23/2006	9.11	33.98	3.10	none	GW Sampling event - TLO on probe following initial DTW reading, TLO in purge water, very slight sheen in purge water, sample tubing placed above NAPL.
			37.00		6/12/2006	9.10	33.75	3.25	none	Gauging event only.
			37.00		9/11/2008	9.05	28.3	8.70	none	Gauging event only.
21MWD04	3/8/2004	37.1	NA	25-35	4/19/2004	6.78	ND	ND	none	H&A SCS gauging event.
			NA		SCS-2004	NA	NA	0.08	NA	Dates not listed in SCS, only NAPL thickness.
			37.00		3/28/2006	6.25	NA	present	~1 gallon	Thickness not determined due to measurement difficulty with probe/weighted string. Bailed ~1 gallon of product and water.
			37.10		4/7/2006	6.45	36.1	1.00	none	Gauging event.
			36.90		5/25/2006	5.50	NA	NA	NA	A few small sheens noted on purge water surface-GW sampling event.
			36.9		6/12/2006	6.24	35.65	1.25	none	Gauging event only.
			36.9		9/10/2008	6.41	34.8	2.10	none	Gauging event only.
21MWDD04	3/21/2006	73	73.06	61-71	4/7/2006	6.84	NA	NA	none	Gauging event.
			73.08		5/25/2006	6.75	ND	ND	none	GW Sampling event - DNAPL first observed after purging began, removed tubing, installed new, water intake a couple of feet above DNAPL surface.
			73.00		5/31/2006	6.00	64	9.08	none	NAPL recovery event. Attempted to pump, no DNAPL removal (too viscous), only water in discharge.
			NA		6/12/2006	6.71	66	7.7	none	Gauging event only (thickness determined using previous total well depth).
			73.00		9/10/2008	6.10	60.8	12.2	none	Gauging event only.
21MWS07	3/9/2004	16	NA	4-14	4/19/2004	8.13	ND	ND	none	GW sampling event.
			15.77		4/7/2006	8.89	ND	ND	none	Gauging event only.
			16.02		5/18/2006	7.88	ND	ND	none	GW sampling event.
			15.82		6/12/2006	7.77	possible trace	possible trace	none	Gauging event only, need to confirm possible trace TLM DNAPL in subsequent event.
			14.00		9/11/2008	8.09	ND	ND	none	ND
21MWD07	3/9/2004	37.1	NA	25-35	4/19/2004	9.45	ND	ND	none	H&A SCS gauging event.
			38.00		3/28/2006	8.70	trace	trace	~.25 gallon	DNAPL on probe, DNAPL and water.
			37.20		4/7/2006	8.99	8.98	trace	none	Gauging event.
			37.20		5/18/2006	8.40	35.9	1.30	none	
			37.20		5/23/2006	9.11	36.1	1.10	none	GW Sampling event, sample tubing installed above the DNAPL.
			37.05		6/12/2006	8.75	ND	present	none	Gauging event - TLM on probe. Thickness not determined due to measurement difficulty with probe/weighted string. Need to confirm thickness in subsequent event.
			37.00		9/11/2008	8.20	36.8	0.2	none	Gauging event.
21MWS10	3/5/2004	18.1	17.81	6-16	4/19/2004	8.13	8.12	0.01	none	OLM/LNAPL noted during SCS.
			17.77		4/7/2006	8.94	ND	ND	none	Gauging event only.
			17.78		5/18/2006	7.99	ND	ND	none	GW sampling event-slight stringy sheen in purge water.
			12.85		6/12/2006	7.67	trace	trace	none	Gauging event - orange LNAPL/OLM on probe.
			16.00		9/2/2008	7.21	ND	ND	none	ND
21MWD10	3/5/2004	37.1	36.96	25-35	4/19/2004	8.87	8.86	0.01	none	OLM/LNAPL noted during SCS.
			37.70		3/28/2006	7.82	36.74	0.96	~1/8 gallon	LNAPL/OLM removed.
			36.97		4/7/2006	9.02	trace	trace	trace	Gauging event, trace TLM DNAPL.
			36.97		5/19/2006	8.63	ND	ND	none	GW sampling event.
			37.16		6/12/2006	8.47	trace	trace	none	Gauging event - OLM/TLM material on outside of well wall and tubing.
			36.28		9/11/2008	8.55	35.28	1	none	Gauging event - OLM/TLM material on outside of well wall and tubing.
23MWD12	2/16/2006	35	NM	23-33	3/29/2006	5.32	ND	present	~ 6 gallons	Well development event. ~6 gallons of NAPL and water were removed. TLM on probe and purge water. Thickness not determined due to measurement difficulty with probe/weighted string.
			35.82		4/7/2006	5.82	trace	trace	trace	Gauging event - trace on bottom.
			36.00		5/22/2006	5.49	34.21	1.79	none	GW sampling event - tubing set above NAPL.
			36.24		6/12/2006	5.68	ND	present	none	Gauging event only. Thickness not determined due to measurement difficulty with probe/weighted string. Need to confirm thickness in subsequent event.
			35.70		9/10/2008	6.35	33.1	2.6	none	Gauging event only.
23MWDD12	2/21/2006	62	62.36	50-60	4/7/2006	25.94	ND	ND	none	Well under pressure, water levels still rising at time of gauging event.
			62.40		5/22/2006	6.68	trace	trace	none	GW Sampling event - Trace TLM DNAPL and TLO on probe after initial reading.
			62.10		6/12/2006	5.96	ND	ND	none	Gauging event only.
			60.00		9/8/2008	6.19	ND	ND	none	ND

Notes
NM = Not Measured
NA = Not Available
ND = Not Detected

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-1 Monitoring Wells														
		21MWS01			21MWD01			21MWS02			21MWD02			21MWS03			
Grab Depth (feet)	AWQSGVs	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	DUP	N/A
Sample Date		4/20/2004	5/23/2006	8/28/2008	4/20/2004	5/23/2006	8/28/2008	4/19/2004	5/16/2006	8/29/2008	4/19/2004	5/16/2006	8/29/2008	4/22/2004	5/23/2006	5/23/2006	9/2/2008
BTEX (ug/L)																	
Benzene	1	0.3 U	**1.8 J**	0.35 U	**1.5**	0.39 U	0.35 U	**0.7**	0.39 U	0.35 U	**24**	**2.4 J**	**7.4**	**3.5**	**2.9 J**	**5.6**	**4.5**
Ethylbenzene	5	**0.6**	0.45 U	0.05 U	0.4 U	0.45 U	0.05 U	0.4 U	0.45 U	0.05 U	0.4 U	0.45 U	0.05 U	**8.5**	0.45 UJ	0.45 U	0.03 U
m,p-Xylene	NA	NS	1.2 U	0.47 U	NS	1.2 U	0.47 U	NS	1.2 U	0.47 U	NS	1.2 U	0.47 U	NS	1.2 UJ	1.2 U	0.27 U
o-Xylene	NA	NS	0.46 U	0.16 U	NS	0.46 U	0.16 U	NS	0.46 U	0.16 U	NS	0.46 U	0.16 U	NS	0.46 UJ	0.46 U	0.09 U
Toluene	5	0.2 U	0.36 U	0.16 U	0.2 U	0.36 U	0.16 U	0.2 U	0.36 U	0.16 U	0.2 U	0.36 U	0.16 U	**1.0**	0.36 UJ	0.36 U	0.09 U
Total Xylene (calculated)	5	**4.1**	0	0	0.2 U	0	0	0.2 U	0	0	**0.4**	0	0	**5.2**	0	0	0
Volatile Organic Compounds (VOCs) (ug/L)																	
1,1,2-Trichloroethane	1	0.3 U	0.41 U	0.32 U	0.3 U	0.41 U	0.32 U	0.3 U	0.41 U	0.32 U	0.3 U	0.41 U	0.32 U	0.3 U	0.41 U	0.41 U	0.19 U
1,1-Dichloroethene	5	0.4 U	0.42 U	0.67 U	0.4 U	0.42 U	0.67 U	0.4 U	0.42 UJ	0.67 U	**0.5**	0.42 UJ	0.67 U	0.4 U	0.42 U	0.42 U	0.39 U
1,2-Dibromoethane (EDB)	0.6	NS	0.32 UJ	0.26 U	NS	0.32 UJ	0.26 U	NS	0.32 U	0.26 U	NS	0.32 U	0.26 U	NS	0.32 UJ	0.32 UJ	0.15 U
1,2-Dichloroethane	0.6	0.3 U	0.34 U	0.41 U	0.3 U	0.34 U	0.41 U	0.3 U	0.34 U	0.41 U	0.3 U	0.34 U	0.41 U	0.3 U	0.34 U	0.34 U	0.24 U
1,2-Dichloropropane	1	0.2 U	0.40 U	0.46 U	0.2 U	0.40 U	0.46 U	0.2 U	0.40 U	0.46 U	0.2 U	0.40 U	0.46 U	0.2 U	0.40 U	0.40 U	0.27 U
2-Butanone (Methyl Ethyl Ketone)	50	2.5 U	1.1 U	1.9 U	2.5 U	1.1 U	1.9 U	2.5 U	1.1 UJ	1.9 U	2.5 U	1.1 UJ	1.9 U	2.5 U	1.1 U	1.1 U	1.1 U
2-Hexanone	50	1.0 U	1.7 U	1.8 U	1.0 U	1.7 U	1.8 U	1.0 U	1.7 U	1.8 U	1.0 U	1.7 U	1.8 U	1.0 U	1.7 U	1.7 U	1.0 UJ
Acetone	50	1.0 U	2.3 U	2.2 U	1.0 U	2.3 U	2.2 U	1.0 U	**2.3 R**	2.2 U	1.0 U	**2.3 R**	2.2 U	1.0 U	2.3 U	2.3 U	1.3 U
Bromodichloromethane	50	0.4 U	0.33 U	0.23 U	0.4 U	0.33 U	0.23 U	0.4 U	0.33 U	0.23 U	0.4 U	0.33 U	0.23 U	0.4 U	0.33 U	0.33 U	0.13 U
Bromomethane	5	0.4 U	0.41 U	1.4 U	0.4 U	0.41 U	1.4 U	0.4 U	0.41 U	1.4 U	0.4 U	0.41 U	1.4 U	0.4 U	0.41 U	0.41 U	0.80 U
Carbon Disulfide	60	0.2 U	0.40 UJ	0.20 U	0.2 U	0.40 UJ	0.20 U	0.2 U	0.40 UJ	0.20 U	0.2 U	0.40 UJ	0.20 U	0.2 U	0.40 U	0.40 UJ	0.12 U
Chlorobenzene	5	0.2 U	0.47 U	0.28 U	**0.7**	0.47 U	0.28 U	0.2 U	0.47 U	0.28 U	0.2 U	0.47 U	0.28 U	0.2 U	0.47 U	0.47 U	0.16 U
Chloroform	7	0.2 U	0.33 U	0.45 U	0.2 U	0.33 U	0.45 U	0.2 U	0.33 U	0.45 U	0.2 U	0.33 U	0.45 U	0.2 U	0.33 U	0.33 U	0.26 U
Chloromethane	5	0.5 U	0.34 UJ	0.37 U	0.5 U	0.34 UJ	0.37 U	0.5 U	0.34 UJ	0.37 U	0.5 U	0.34 UJ	0.37 U	0.5 U	0.34 UJ	0.34 UJ	0.22 U
cis-1,2-Dichloroethene	5	0.2 U	0.29 U	0.72 U	**1.7**	0.29 U	0.72 U	0.2 U	0.29 U	0.72 U	**5.0**	**16**	**25**	0.2 U	0.29 U	0.29 U	0.42 U
cis-1,3-Dichloropropene	0.4	0.2 U	0.36 UJ	0.29 U	0.2 U	0.36 UJ	0.29 U	0.2 U	0.36 U	0.29 U	0.2 U	0.36 U	0.29 U	0.2 U	0.36 UJ	0.36 UJ	0.17 U
Cyclohexane	NA	NS	0.36 UJ	0.57 U	NS	0.36 UJ	0.57 U	NS	0.36 U	0.57 U	NS	0.36 U	0.57 U	NS	0.36 U	0.36 UJ	0.33 U
Isopropylbenzene	5	NS	0.44 U	0.37 U	NS	0.44 U	0.37 U	NS	0.44 U	0.37 U	NS	0.44 U	0.37 U	NS	0.44 UJ	0.44 U	0.22 U
Methyl Acetate	NA	NS	0.20 U	0.45 U	NS	0.20 U	0.45 U	NS	0.20 UJ	0.45 U	NS	0.20 UJ	0.45 U	NS	0.20 U	0.20 U	0.26 U
Methyl tert-butyl ether	10	NS	0.28 U	0.23 U	NS	0.28 U	0.23 U	NS	0.28 U	0.23 U	NS	0.28 U	0.23 U	NS	0.28 U	0.28 U	0.13 U
Methylcyclohexane	NA	NS	0.34 UJ	0.47 U	NS	**1.4 J**	0.47 U	NS	0.34 U	0.47 U	NS	0.34 U	0.47 U	NS	0.34 UJ	0.34 UJ	0.27 U
Naphthalene	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Styrene	5	0.3 U	0.41 U	0.19 U	0.3 U	0.41 U	0.19 U	0.3 U	0.41 U	0.19 U	0.3 U	0.41 U	0.19 U	0.3 U	0.41 UJ	0.41 U	0.11 U
Tetrachloroethene	5	0.3 U	0.48 U	0.97 U	0.3 U	0.48 U	0.97 U	0.3 U	0.48 UJ	0.97 U	**0.6**	0.48 UJ	0.97 U	0.3 U	0.48 U	0.48 U	0.57 U
trans-1,2-Dichloroethene	5	0.2 U	0.40 U	0.44 U	0.2 U	0.40 U	0.44 U	0.2 U	0.40 UJ	0.44 U	**0.3**	0.40 UJ	0.44 U	0.2 UJ	0.40 U	0.40 U	0.26 U
trans-1,3-Dichloropropene	0.4	0.2 U	0.32 UJ	0.31 U	0.2 U	0.32 UJ	0.31 U	0.2 U	0.32 U	0.31 U	0.2 U	0.32 U	0.31 U	0.2 U	0.32 UJ	0.32 UJ	0.18 U
Trichloroethene	5	0.2 U	0.46 U	0.34 U	0.2 U	0.46 U	0.34 U	0.2 U	0.46 U	0.34 U	**2.0**	0.46 U	0.34 U	0.2 U	0.46 U	0.46 U	0.20 U
Vinyl Chloride	2	0.5 U	0.33 U	0.30 U	0.5 U	0.33 U	0.30 U	0.5 U	0.33 UJ	0.30 U	0.5 U	0.33 UJ	0.30 U	0.5 U	0.33 U	0.33 U	0.17 U
Total VOCs	NA	**4.7**	**1.8**	0	**3.9**	**1.4**	0	**0.7**	0	0	**32.8**	**18.4**	**32.4**	**18.2**	**2.9**	**5.6**	**4.5**

NYSDEC Groundwater Standards - New York State Department of Environmental Conservation Ambient Water Quality Standards or Guidance Values (AWQSGVs) listed in Technical and Operations Guidance Series (TOGs) 1.1.1 (NYSDEC 1998)
Bold = Detected analytes
***Bold and Italics*=** Not detect exceeds NYSDEC AWQSGVs
Yellow highlighted values exceed NYSDEC AWQSGVs
NA = Not Applicable
NS= Not Sampled
ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-1 Monitoring Wells															
		21MWS01			21MWD01			21MWS02			21MWD02			21MWS03			
Grab Depth (feet)	AWQSGVs	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	DUP	N/A
Sample Date		4/20/2004	5/23/2006	8/28/2008	4/20/2004	5/23/2006	8/28/2008	4/19/2004	5/16/2006	8/29/2008	4/19/2004	5/16/2006	8/29/2008	4/22/2004	5/23/2006	5/23/2006	9/2/2008
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/l)																	
Acenaphthene	20	**1.4**	1.4 U	0.330 U	**3.7**	1.4 U	0.330 U	**7.7**	**2.6 J**	**4.3 J**	**51**	**45**	**84**	**49**	**16**	**18**	**33 J**
Acenaphthylene	NA	0.070 U	1.3 U	0.360 U	**1.2**	1.3 U	0.360 U	0.070 U	1.3 U	0.360 U	0.071 U	1.3 U	1.8 U	0.070 U	1.3 U	1.3 U	1.8 U
Anthracene	50	**0.1**	1.4 U	1.4 U	0.080 U	1.4 U	1.4 U	**0.5**	1.4 U	1.4 U	0.081 U	1.4 U	7.2 U	**3.2**	1.4 U	1.4 U	7.3 U
Benzo(a)anthracene	0.002	***0.2 U***	***1.1 U***	***1.3 U***	***0.2 U***	***1.1 U***	***1.3 U***	***0.2 U***	***1.1 U***	***1.3 U***	***0.2 U***	***1.1 U***	***6.6 U***	***0.2 U***	***1.1 U***	***1.1 U***	***6.7 U***
Benzo(a)pyrene	NA	0.080 U	1.2 U	0.220 U	0.080 U	1.2 U	0.220 U	0.080 U	1.2 U	0.220 U	0.081 U	1.2 U	1.1 U	0.080 U	1.2 U	1.2 U	1.1 U
Benzo(b)fluoranthene	0.002	***0.2 U***	***0.770 U***	***0.440 U***	***0.2 U***	***0.760 U***	***0.440 U***	***0.2 U***	***0.760 U***	***0.440 U***	***0.2 U***	***0.760 U***	***2.2 U***	***0.2 U***	***0.760 U***	***0.760 U***	***2.2 U***
Benzo(ghi)perylene	NA	0.060 U	1.1 U	0.400 U	0.060 U	1.1 U	0.400 U	0.060 U	1.1 U	0.400 U	0.061 U	1.1 U	2.0 U	0.060 U	1.1 U	1.1 U	2.0 U
Benzo(k)fluoranthene	0.002	***0.2 U***	***1.9 U***	***0.310 U***	***0.2 U***	***1.9 U***	***0.310 U***	***0.2 U***	***1.9 U***	***0.310 U***	***0.2 U***	***1.9 U***	***1.5 U***	***0.2 U***	***1.9 U***	***1.9 U***	***1.5 U***
Chrysene	0.002	***0.070 U***	***1.7 U***	***0.270 U***	***0.070 U***	***1.7 U***	***0.270 U***	***0.070 U***	***1.7 U***	***0.270 U***	***0.071 U***	***1.7 U***	***1.3 U***	***0.070 U***	***1.7 U***	***1.7 U***	***1.3 U***
Dibenz(a,h)anthracene	NA	0.040 U	0.890 U	0.550 U	0.040 U	0.880 U	0.550 U	0.040 U	0.880 U	0.550 U	0.040 U	0.880 U	2.8 U	0.040 U	0.880 U	0.870 U	2.8 U
Fluoranthene	50	0.050 U	1.2 U	0.200 U	0.050 U	1.2 U	0.200 U	**1.5**	1.2 U	0.200 U	**0.7**	1.2 U	1.0 U	**2.5 J**	**1.6 J**	**1.5 J**	1.0 U
Fluorene	50	**0.7**	1.4 U	0.290 U	**0.1 J**	1.4 U	0.290 U	0.1 UJ	1.4 U	0.290 U	**9.7 J**	**7.4 J**	**11 J**	**8.8**	1.4 U	1.4 U	1.4 U
Indeno(1,2,3-cd)pyrene	0.002	***0.080 U***	***0.850 U***	***0.670 U***	***0.080 U***	***0.840 U***	***0.670 U***	***0.080 U***	***0.840 U***	***0.670 U***	***0.081 U***	***0.840 U***	***3.4 U***	***0.080 U***	***0.840 UJ***	***0.840 U***	***3.4 U***
Naphthalene	10	**1.8**	1.4 U	0.290 U	0.040 U	1.4 U	0.290 U	**1.1**	1.4 U	0.290 U	**1.5**	1.4 U	1.4 U	**5.2**	**2.9 J**	**4.9 J**	1.4 U
Phenanthrene	50	**0.6**	1.5 U	1.4 U	**0.4**	1.4 U	1.4 U	**1.3**	1.4 U	1.4 U	0.1 U	1.4 U	6.9 U	**11 J**	1.4 U	1.4 U	7.0 U
Pyrene	50	0.070 U	1.5 U	1.4 U	**0.1**	1.5 U	1.4 U	**2.0**	1.5 U	1.4 U	**0.4**	1.5 U	7.2 U	**4.2**	**2.3 J**	**2.3 J**	7.3 U
Semivolatile Organic Compounds (SVOCs) (ug/L)																	
1,1-Biphenyl	5	NS	1.4 U	0.330 U	NS	1.4 U	0.330 U	NS	1.4 U	0.330 U	NS	1.4 U	1.6 U	NS	1.4 U	1.4 U	1.6 U
2,4-Dimethylphenol	50	0.8 U	1.2 U	0.780 U	0.8 U	1.2 U	0.780 U	0.8 U	1.2 U	0.780 U	0.8 U	1.2 U	3.9 U	0.8 U	1.2 U	1.2 U	3.9 U
2-Methylnaphthalene	NA	**2.5**	1.1 U	0.380 U	0.5 U	1.1 U	0.380 U	0.5 U	1.1 U	0.380 U	0.5 U	1.1 U	1.9 U	**14**	**1.6 J**	**1.8 J**	1.9 U
2-Methylphenol	NA	0.8 U	1.5 U	0.370 U	0.8 U	1.5 U	0.370 U	0.8 U	1.5 U	0.370 U	0.8 U	1.5 U	1.8 U	0.8 U	1.5 U	1.5 U	1.9 U
3+4-Methylphenols	NA	NS	1.3 U	0.400 U	NS	1.3 U	0.400 U	NS	1.3 U	0.400 U	NS	1.3 U	2.0 U	NS	1.3 U	NS	2.0 U
4-Methylphenol	NA	0.5 U	NS	NS	0.5 U	NS	NS	0.5 U	NS	NS	0.5 U	NS	NS	0.5 U	NS	NS	NS
bis(2-Ethylhexyl) phthalate	5	**0.6**	1.6 U	1.3 U	0.6 U	1.6 U	1.3 U	0.6 U	**1.7 J**	1.3 U	0.8 U	1.6 U	6.6 U	0.6 U	1.6 U	1.5 U	6.7 U
Butyl benzyl phthalate	50	0.4 U	1.5 U	0.430 U	0.4 U	1.5 U	0.430 U	0.4 U	1.5 U	0.430 U	0.4 U	1.5 U	2.1 U	0.4 U	1.5 U	1.4 U	2.2 U
Caprolactam	NA	NS	**1.3 R**	1.5 R	NS	**1.3 R**	1.5 R	NS	**1.3 R**	1.5 R	NS	**1.3 R**	7.6 R	NS	**1.3 R**	**1.3 R**	7.6 R
Carbazole	NA	**0.2**	1.3 U	0.240 U	0.080 U	1.3 U	0.240 U	0.080 U	1.3 U	0.240 U	0.081 U	1.3 U	1.2 U	**0.9**	1.3 U	1.3 U	1.2 U
Dibenzofuran	NA	0.3 U	1.3 U	0.320 U	0.3 U	1.3 U	0.320 U	0.3 U	1.3 U	0.320 U	0.3 U	1.3 U	1.6 U	**2.0**	1.3 U	1.3 U	1.6 U
Diethyl phthalate	50	0.2 U	1.4 U	0.330 UJ	0.2 U	1.4 U	0.330 UJ	0.2 U	1.4 U	0.330 UJ	0.3 U	1.4 U	1.6 UJ	0.2 U	1.4 U	1.3 U	1.6 U
Phenol	1	0.5 U	***1.3 R***	0.560 R	0.5 U	***1.3 R***	0.560 R	0.5 U	***1.3 U***	0.560 R	0.5 U	***1.3 U***	2.8 R	0.5 U	***1.3 R***	***1.3 R***	2.8 R
Total SVOCs	NA	**7.9**	0	0	**5.5**	0	0	**14.1**	**4.3**	**4.3**	**63.3**	**52.4**	**95**	**100.8**	**24.4**	**28.5**	**33**
Metals (ug/L)																	
Aluminum	NA	**1440**	**47.4 J**	NS	**1020**	**164 J**	NS	**435**	200 U	NS	**6110**	**439**	NS	**629**	**60.9 J**	**33.7 J**	NS
Antimony	3	***5.8 U***	***60 U***	NS	***5.8 U***	***60 U***	NS	***5.8 U***	***3.170 U***	NS	***3.9 U***	**118**	NS	***5.8 U***	***60 U***	***60 U***	NS
Arsenic	25	**4.7**	3.3 U	NS	**22.0**	**38.7**	NS	3.2 U	3.320 U	NS	**6.2**	3.320 U	NS	**4.1**	3.3 U	3.3 U	NS
Barium	1000	**262**	**45.5 J**	NS	**221**	**264 J**	NS	**154**	**304 J**	NS	**414**	**488 J**	NS	**324**	**245 J**	**265 J**	NS
Beryllium	3	0.30 U	***5 U***	NS	0.30 U	***5 U***	NS	0.30 U	***5 U***	NS	**0.40**	***5 U***	NS	0.30 U	***5 U***	***5 U***	NS
Cadmium	5	0.40 U	0.33 U	NS	0.40 U	0.33 U	NS	0.40 U	5 U	NS	0.40 U	5 U	NS	0.40 U	0.33 U	0.33 U	NS
Calcium	NA	**306000**	**255000**	NS	**81800**	**80600**	NS	**133000**	**187000 J**	NS	**23400**	**37500 J**	NS	**181000**	**124000**	**133000**	NS
Chromium	50	**5.0**	**174 J-**	NS	**4.2**	**115 J-**	NS	1.6 U	10 U	NS	**18.2**	10 U	NS	**2.1**	**338 J-**	**244 J-**	NS
Cobalt	NA	1.7 U	50 U	NS	1.7 U	50 U	NS	1.7 U	50 U	NS	**18.2**	50 U	NS	1.7 U	50 U	50 U	NS
Copper	200	**5.2**	**5.5 J**	NS	**5.2**	3.6 U	NS	3.7 U	3.640 U	NS	**28.1**	**9.470 J**	NS	**4.0**	**14.8 J**	**6.2 J**	NS
Iron	300	**10400**	**800 J-**	NS	**15700**	**22300 J-**	NS	**3640**	**3030**	NS	**57700**	**55500**	NS	**3950**	**1730 J-**	**1540 J-**	NS
Lead	25	2.3 U	2.8 U	NS	**3.5**	5 U	NS	**21.1**	**4.560 J**	NS	**17.0**	**4.160 J**	NS	**12.6**	5 U	2.8 U	NS
Magnesium	35000	**76900**	**51600**	NS	**41500**	**35100**	NS	**26800**	**32200 J**	NS	**11000**	**13500 J**	NS	**42700**	**20400**	**22200**	NS
Manganese	300	**1650**	**185**	NS	**1090**	**729**	NS	**347**	**323 J**	NS	**406**	**444 J**	NS	**389**	**168**	**187**	NS
Mercury	0.7	0.10 U	0.2 U	NS	0.10 U	0.0300 U	NS	0.10 U	0.0300 UJ	NS	0.10 U	0.0300 UJ	NS	0.10 U	0.0300 U	**0.2**	NS
Nickel	100	**5.4**	**65.5 J-**	NS	**3.6**	**44.9 J-**	NS	1.6 U	40 U	NS	**19.1**	40 U	NS	**3.9**	**138 J-**	**113 J-**	NS
Potassium	NA	**52900**	**22400 J**	NS	**30000**	**47100 J**	NS	**10500**	**27400 J+**	NS	**26800**	**47100 J+**	NS	**16800**	**14300 J**	**16100 J**	NS
Selenium	10	8.4 U	**21.1**	NS	4.2 U	3.0 U	NS	4.2 U	3.040 U	NS	7.8 U	3.040 U	NS	4.2 U	10 U	3.0 U	NS
Silver	50	2.8 U	1.6 U	NS	1.4 U	1.6 U	NS	1.4 U	1.640 U	NS	0.70 U	1.640 U	NS	1.4 U	1.6 U	1.6 U	NS
Sodium	20000	**294000**	**84200**	NS	**311000**	**368000**	NS	**88700**	**177000 J**	NS	**162000**	**263000 J**	NS	**120000**	**53100**	**62500**	NS
Thallium	0.5	***4.7 U***	***3.1 U***	NS	***4.7 U***	***3.1 U***	NS	***4.7 U***	**19.7**	NS	***4.4 U***	***10 U***	NS	***4.7 U***	***3.1 U***	***3.1 U***	NS
Vanadium	NA	**5.6**	50 U	NS	**4.1**	50 U	NS	1.8 U	50 U	NS	**22.9**	50 U	NS	1.8 U	50 U	50 U	NS
Zinc	2000	**21.6**	**25.7 J**	NS	**12.9**	**24.7 J**	NS	**13.0**	**21.1 J**	NS	**51.2**	**27.7 J**	NS	**19.3**	**38.6 J**	**22.4 J**	NS
Cyanide (ug/L)																	
Available Cyanide	NA	NS	1.5 U	NS	NS	**3.1**	NS	NS	1.5 UJ	NS	NS	1.5 UJ	NS	NS	1.5 U	1.5 U	NS
Cyanide, Total	200	**27**	**124**	NS	10 U	10 U	NS	**28**	**16**	NS	**120**	**50**	NS	**46**	**48**	**51**	NS

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1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-1 Monitoring Wells																	
		21MWD03	21MWDD03			21MWS04			21MWD04	21MWDD04	21MWS05			21MWD05			21MWS06		
Grab Depth (feet)	AWQSGVs	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	N/A	N/A
Sample Date		5/23/2006	4/12/2006	5/23/2006	9/2/2008	4/22/2004	5/25/2006	9/2/2008	5/25/2006	5/25/2006	4/21/2004	5/17/2006	9/4/2008	4/21/2004	5/17/2006	9/4/2008	4/21/2004	5/17/2006	9/11/2008
BTEX (ug/L)																			
Benzene	1	**46000 D**	**3900 D**	**4100 D**	**17000**	**540**	**330 D**	**11000**	**360 D**	**5500 JD**	**0.4**	0.39 U	0.35 U	**0.5**	**3.3 J**	0.35 U	**0.6**	0.39 U	**9.1**
Ethylbenzene	5	**3900 D**	1.00 U	**24**	**8.6 J**	**380**	**110**	**1100**	**92 D**	**1600 JD**	0.4 U	0.45 U	0.05 U	0.4 U	0.45 U	0.05 U	0.4 U	**2.6 J**	0.05 U
m,p-Xylene	NA	**2700 D**	**32**	**19**	0.47 UJ	NS	**28**	**70 J**	**57 JD**	**1100 JD**	NS	1.2 U	0.47 U	NS	1.2 U	0.47 U	NS	1.2 U	0.47 U
o-Xylene	NA	**1200 D**	**14**	**6.8**	0.16 UJ	NS	**23**	**63 J**	**200**	**530 JD**	NS	0.46 U	0.16 U	NS	0.46 U	0.16 U	NS	0.46 U	0.16 U
Toluene	5	**22000 D**	**45**	**29**	0.16 UJ	**8.7**	**3.2 J**	**21 J**	**150 D**	**94 J**	0.2 U	0.36 U	0.16 U	0.2 U	0.36 U	0.16 U	0.2 U	0.36 U	0.16 U
Total Xylene (calculated)	5	**3900**	**46**	**25.8**	0	**120**	**51**	**133**	**257**	**1630**	0.2 U	0	0	**1.1**	0	0	0.2 U	0	0
Volatile Organic Compounds (VOCs) (ug/L)																			
1,1,2-Trichloroethane	1	0.41 U	1.00 U	0.41 U	0.32 UJ	***3.4 U***	0.41 U	0.32 UJ	0.41 U	0.41 U	0.3 U	0.41 U	0.32 U	0.3 U	0.41 U	0.32 U	0.3 U	0.41 U	0.32 U
1,1-Dichloroethene	5	0.42 U	1.00 U	0.42 U	0.67 UJ	4.3 U	0.42 U	0.67 UJ	0.42 U	0.42 U	0.4 U	0.42 UJ	0.67 U	0.4 U	0.42 UJ	0.67 U	0.4 U	0.42 U	0.67 U
1,2-Dibromoethane (EDB)	0.6	0.32 UJ	***1.00 U***	0.32 UJ	0.26 UJ	NS	**0.32 R**	0.26 UJ	**0.32 R**	**0.32 R**	NS	0.32 U	0.26 U	NS	0.32 U	0.26 U	NS	0.32 U	0.26 U
1,2-Dichloroethane	0.6	0.34 U	***1.00 U***	0.34 U	0.41 UJ	***2.6 U***	0.34 U	0.41 UJ	0.34 U	**60 J**	0.3 U	0.34 U	0.41 U	0.3 U	0.34 U	0.41 U	0.3 U	0.34 U	0.41 U
1,2-Dichloropropane	1	0.40 U	1.00 U	0.40 U	0.46 UJ	***2.3 U***	0.40 U	0.46 UJ	0.40 U	0.40 U	0.2 U	0.40 U	0.46 U	0.2 U	0.40 U	0.46 U	0.2 U	0.40 U	0.46 U
2-Butanone (Methyl Ethyl Ketone)	50	1.1 U	5.00 U	1.1 U	1.9 UJ	25 U	1.1 U	1.9 UJ	1.1 U	1.1 U	2.5 U	1.1 UJ	1.9 U	2.5 U	1.1 UJ	1.9 U	2.5 U	1.1 U	1.9 U
2-Hexanone	50	1.7 U	5.00 U	1.7 U	1.8 UJ	9.7 U	1.7 U	1.8 UJ	1.7 U	1.7 U	1.0 U	1.7 U	1.8 U	1.0 U	1.7 U	1.8 U	1.0 U	1.7 U	1.8 U
Acetone	50	2.3 U	5.00 U	2.3 U	2.2 UJ	9.7 U	2.3 U	**19 J**	2.3 U	2.3 U	1.0 U	**2.3 R**	2.2 U	1.0 U	**2.3 R**	2.2 U	1.0 U	**2.3 R**	2.2 U
Bromodichloromethane	50	0.33 U	1.00 U	0.33 U	0.23 UJ	3.6 U	0.33 U	0.23 UJ	**4.6 J**	0.33 U	0.4 U	0.33 U	0.23 U	0.4 U	0.33 U	0.23 U	0.4 U	0.33 U	0.23 U
Bromomethane	5	0.41 U	1.00 U	0.41 U	1.4 UJ	4.4 U	0.41 U	1.4 UJ	0.41 U	0.41 U	0.4 U	0.41 U	1.4 U	0.4 U	0.41 U	1.4 U	0.4 U	0.41 UJ	1.4 U
Carbon Disulfide	60	0.40 U	1.00 U	0.40 U	0.20 UJ	2.4 UJ	0.40 U	0.20 UJ	0.40 U	0.40 U	0.2 U	0.40 UJ	0.20 U	0.2 U	0.40 UJ	0.20 U	0.2 U	0.40 U	0.20 U
Chlorobenzene	5	0.47 U	1.00 U	0.47 U	0.28 UJ	1.8 U	0.47 U	0.28 UJ	0.47 U	0.47 U	0.2 U	0.47 U	0.28 U	0.2 U	0.47 U	0.28 U	0.2 U	0.47 U	0.28 U
Chloroform	7	0.33 U	1.00 U	0.33 U	0.45 UJ	1.9 U	0.33 U	0.45 UJ	0.33 U	0.33 U	0.2 U	0.33 U	0.45 U	0.2 U	0.33 U	0.45 U	**0.5**	0.33 U	0.45 U
Chloromethane	5	**7.2 J**	1.00 U	0.34 UJ	0.37 UJ	4.6 U	0.34 U	0.37 UJ	0.34 U	0.34 U	0.5 U	0.34 UJ	0.37 U	0.5 U	0.34 UJ	0.37 U	0.5 U	0.34 UJ	0.37 U
cis-1,2-Dichloroethene	5	0.29 U	1.00 U	0.29 U	0.72 UJ	2.4 U	0.29 U	0.72 UJ	0.29 U	0.29 U	0.2 U	0.29 U	0.72 U	**47**	0.29 U	**43 J**	0.2 U	0.29 U	0.72 U
cis-1,3-Dichloropropene	0.4	**310 J**	***1.00 U***	0.36 U	0.29 UJ	***2.4 U***	0.36 UJ	0.29 UJ	0.36 UJ	0.36 UJ	0.2 U	0.36 U	0.29 U	0.2 U	0.36 U	0.29 U	0.2 U	0.36 U	0.29 U
Cyclohexane	NA	**3.2 J**	NS	0.36 U	0.57 UJ	NS	0.36 U	**78**	0.36 U	0.36 U	NS	0.36 U	0.57 U	NS	0.36 U	0.57 U	NS	0.36 U	0.57 U
Isopropylbenzene	5	**71**	1.00 U	0.44 U	0.37 UJ	NS	**39**	**38 J**	**84**	**58 J**	NS	**1.8 J**	0.37 U	NS	0.44 U	0.37 U	NS	0.44 U	**8.3**
Methyl Acetate	NA	0.20 U	NS	0.20 U	0.45 UJ	NS	0.20 U	0.45 UJ	0.20 U	0.20 U	NS	0.20 UJ	0.45 U	NS	0.20 UJ	0.45 U	NS	0.20 UJ	0.45 U
Methyl tert-butyl ether	10	0.28 U	2.00 U	0.28 U	0.23 UJ	NS	0.28 U	0.23 UJ	0.28 U	0.28 U	NS	0.28 U	0.23 U	NS	0.28 U	0.23 U	NS	0.28 U	0.23 U
Methylcyclohexane	NA	**5.9**	NS	0.34 U	0.47 UJ	NS	0.34 U	**34 J**	0.34 U	**35 J**	NS	0.34 U	0.47 U	NS	0.34 U	0.47 U	NS	0.34 U	0.47 U
Naphthalene	10	NS	**35**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Styrene	5	**170**	1.00 U	0.41 U	0.19 UJ	2.8 U	0.41 U	0.19 UJ	**8.1**	**20 J**	0.3 U	0.41 U	0.19 U	0.3 U	0.41 U	0.19 U	0.3 U	0.41 U	0.19 U
Tetrachloroethene	5	0.48 U	1.00 U	0.48 U	0.97 UJ	3.1 U	0.48 U	0.97 UJ	0.48 U	0.48 U	0.3 U	0.48 U	0.97 U	0.3 U	0.48 UJ	0.97 U	0.3 U	0.48 U	0.97 U
trans-1,2-Dichloroethene	5	0.40 U	1.00 U	0.40 U	0.44 UJ	2.5 U	0.40 U	0.44 UJ	0.40 U	0.40 U	0.2 U	0.40 UJ	0.44 U	**2.4**	0.40 UJ	0.44 U	0.2 U	0.40 U	0.44 U
trans-1,3-Dichloropropene	0.4	0.32 U	***1.00 U***	0.32 U	0.31 UJ	***2.1 U***	0.32 UJ	0.31 UJ	**6.1 J**	0.32 UJ	0.2 U	0.32 U	0.31 U	0.2 U	0.32 U	0.31 U	0.2 U	0.32 U	0.31 U
Trichloroethene	5	0.46 U	1.00 U	0.46 U	0.34 UJ	1.8 U	0.46 U	0.34 UJ	0.46 U	0.46 U	0.2 U	0.46 UJ	0.34 U	**0.8**	0.46 U	0.34 U	0.2 U	0.46 U	0.34 U
Vinyl Chloride	2	0.33 U	1.00 U	0.33 U	0.30 UJ	***5.3 U***	0.33 U	0.30 UJ	0.33 U	0.33 U	0.5 U	0.33 UJ	0.30 U	**4**	0.33 UJ	**5.2 J**	0.5 U	0.33 UJ	0.30 U
Total VOCs	NA	**76367.3**	**4026**	**4178.8**	**17008.6**	**1048.7**	**533.2**	**12423**	**961.8**	**8997**	**0.4**	**1.8**	0	**55.8**	**3.3**	**48.2**	**1.1**	**2.6**	**17.4**

NYSDEC Groundwater Standards - New York State Department of Environmental Conservation Ambient Water Quality Standards or Guidance Values (AWQSGVs) listed in Technical and Operations Guidance Series (TOGs) 1.1.1 (NYSDEC 1998)
Bold = Detected analytes
***Bold and Italics*=** Not detect exceeds NYSDEC AWQSGVs
Yellow highlighted values exceed NYSDEC AWQSGVs
NA = Not Applicable
NS= Not Sampled
ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-1 Monitoring Wells																	
		21MWD03	21MWDD03			21MWS04			21MWD04	21MWDD04	21MWS05			21MWD05			21MWS06		
Grab Depth (feet)	AWQSGVs	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	N/A	N/A
Sample Date		5/23/2006	4/12/2006	5/23/2006	9/2/2008	4/22/2004	5/25/2006	9/2/2008	5/25/2006	5/25/2006	4/21/2004	5/17/2006	9/4/2008	4/21/2004	5/17/2006	9/4/2008	4/21/2004	5/17/2006	9/11/2006
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/l)																			
Acenaphthene	20	**31**	NS	**4.5 J**	1.6 U	**76**	**49**	**46 J**	**210 D**	**110 D**	**0.1**	1.4 U	0.330 U	**2.3**	1.4 U	0.330 U	**7.8**	1.4 U	**1.5 J**
Acenaphthylene	NA	**110**	NS	**13**	1.8 U	0.7 U	1.3 U	1.8 U	**26**	**4.1 J**	0.071 U	1.3 U	0.360 U	**3.0**	1.3 U	0.360 U	0.071 U	1.3 U	0.360 U
Anthracene	50	**5.6 J**	NS	**2.4 J**	7.3 U	**9.7**	**7.1 J**	7.3 U	**17**	**7.9 J**	0.081 U	1.4 U	1.4 U	**5.0**	1.4 U	1.4 U	**0.2**	1.4 U	1.4 U
Benzo(a)anthracene	0.002	***1.1 U***	NS	***1.1 U***	***6.7 U***	***1.6 U***	***1.1 U***	***6.7 U***	***1.1 U***	***1.1 U***	***0.2 U***	***1.1 U***	***1.3 U***	**0.7**	***1.1 U***	***1.3 U***	***0.2 U***	***1.1 U***	***1.3 U***
Benzo(a)pyrene	NA	1.2 U	NS	1.2 U	1.1 U	0.8 U	1.2 U	1.1 U	1.2 U	1.2 U	0.081 U	1.2 U	0.220 U	**0.3**	1.2 U	0.220 U	0.082 U	1.2 U	0.220 U
Benzo(b)fluoranthene	0.002	***0.760 U***	NS	***0.760 U***	***2.2 U***	***1.7 U***	***0.760 U***	***2.2 U***	***0.760 U***	***0.760 U***	***0.2 U***	***0.760 U***	***0.440 U***	**0.1 J**	***0.760 U***	***0.440 U***	***0.2 U***	***0.760 U***	***0.440 U***
Benzo(ghi)perylene	NA	1.1 U	NS	1.1 U	2.0 U	0.6 U	1.1 U	2.0 U	1.1 U	1.1 U	0.061 U	1.1 U	0.400 U	0.062 U	1.1 U	0.400 U	0.061 U	1.1 U	0.400 U
Benzo(k)fluoranthene	0.002	***1.9 U***	NS	***1.9 U***	***1.5 U***	***1.7 U***	***1.9 U***	***1.5 U***	***1.9 U***	***1.9 U***	***0.2 U***	***1.9 U***	***0.310 U***	**0.2**	***1.9 U***	***0.310 U***	***0.2 U***	***1.9 U***	***0.310 U***
Chrysene	0.002	***1.7 U***	NS	***1.7 U***	***1.3 U***	***0.7 U***	***1.7 U***	***1.3 U***	***1.7 U***	***1.7 U***	***0.071 U***	***1.7 U***	***0.270 U***	**0.9**	***1.7 U***	***0.270 U***	***0.071 U***	***1.7 U***	***0.270 U***
Dibenz(a,h)anthracene	NA	0.880 U	NS	0.870 U	2.8 U	0.4 U	0.870 U	2.8 U	0.870 U	0.870 U	0.040 U	0.880 U	0.550 U	0.041 U	0.880 U	0.550 U	0.041 U	0.880 U	0.550 U
Fluoranthene	50	**4.6 J**	NS	**3.0 J**	1.0 U	**6.2 J**	**3.9 J**	1.0 U	**9.5 J**	**4.7 J**	0.050 U	1.2 U	0.200 U	**6.5**	1.2 U	0.200 U	**0.8**	1.2 U	0.200 U
Fluorene	50	**32**	NS	**10 J**	1.4 U	**27**	**22**	**18 J**	**69**	**39**	0.1 U	1.4 U	0.290 U	**6.0**	1.4 U	0.290 U	0.1 U	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	0.002	***0.840 UJ***	NS	***0.840 UJ***	***3.4 U***	***0.8 U***	***0.840 U***	***3.4 U***	***0.840 U***	***0.840 U***	***0.081 U***	***0.840 U***	***0.670 U***	***0.082 U***	***0.840 U***	***0.670 U***	***0.082 U***	***0.840 U***	***0.670 U***
Naphthalene	10	**6000 D**	NS	**140 D**	**5.4 J**	**1700**	**610 D**	**1200**	**2200 D**	**4300 D**	**0.2**	1.4 U	0.290 U	**15**	1.4 U	0.290 U	**1.0**	1.4 U	0.290 U
Phenanthrene	50	**37**	NS	**22**	7.0 U	**37 J**	**29**	**21 J**	**110 D**	**48**	**0.2**	1.4 U	1.4 U	**16**	1.4 U	1.4 U	0.1 U	1.4 U	1.4 U
Pyrene	50	**6.8 J**	NS	**4.2 J**	7.3 U	**9.2**	**5.2 J**	7.3 U	**13**	**6.5 J**	0.071 U	1.5 U	1.4 U	**6.4**	1.5 U	1.4 U	**1.0**	1.5 U	1.4 U
Semivolatile Organic Compounds (SVOCs) (ug/L)																			
1,1-Biphenyl	5	1.4 U	NS	**11**	1.6 U	NS	**5.6 J**	**6.1 J**	**61 D**	**50**	NS	1.4 U	0.330 U	NS	1.4 U	0.330 U	NS	1.4 U	0.330 U
2,4-Dimethylphenol	50	**90 D**	NS	1.2 U	3.9 U	8.9 U	1.2 U	**390**	**62 D**	1.2 UJ	0.8 U	1.2 U	0.780 U	0.9 U	1.2 U	0.780 U	0.9 U	1.2 U	0.780 UJ
2-Methylnaphthalene	NA	**530 D**	NS	**31**	1.9 U	**230**	**120 D**	**60**	**340 D**	**380 D**	0.5 U	1.1 U	0.380 U	**6.3**	1.1 U	0.380 U	0.5 U	1.1 U	0.380 U
2-Methylphenol	NA	1.5 U	NS	1.5 U	1.9 U	8.9 U	1.5 U	**25 J**	**1.9 J**	1.5 U	0.8 U	1.5 U	0.370 U	0.9 U	1.5 U	0.370 U	0.9 U	1.5 U	0.370 UJ
3+4-Methylphenols	NA	**43**	NS	**2.1 J**	2.0 U	NS	1.3 U	**44 J**	**19 J**	**7.9 J**	NS	1.3 U	0.400 U	NS	1.3 U	0.400 U	NS	1.3 U	0.400 UJ
4-Methylphenol	NA	NS	NS	NS	NS	4.2 U	NS	NS	NS	NS	0.5 U	NS	NS	0.5 U	NS	NS	0.5 U	NS	NS
bis(2-Ethylhexyl) phthalate	5	1.6 U	NS	1.5 U	6.7 U	***6.0 U***	1.5 U	6.7 U	1.5 U	1.5 U	0.6 U	1.6 U	1.3 U	0.7 U	1.6 U	1.3 U	0.8 U	**2.1 J**	1.3 U
Butyl benzyl phthalate	50	1.5 U	NS	1.4 U	2.2 U	4.2 U	1.4 U	2.2 U	1.4 U	1.4 U	0.4 U	1.5 U	0.430 U	0.4 U	1.5 U	0.430 U	0.4 U	1.5 U	0.430 U
Caprolactam	NA	**1.3 R**	NS	**1.3 R**	7.6 R	NS	1.3 U	7.6 R	1.3 UJ	1.3 UJ	NS	**1.3 R**	1.5 U	NS	**1.3 R**	1.5 U	NS	**1.3 R**	1.5 R
Carbazole	NA	**91 J**	NS	1.3 U	1.2 U	**17**	**14**	**14 J**	**97 D**	**18**	0.081 U	1.3 U	0.240 U	**1.7**	1.3 U	0.240 U	**0.099**	1.3 U	0.240 U
Dibenzofuran	NA	**8.3 J**	NS	1.3 U	1.6 U	**11**	**6.9 J**	**5.6 J**	**32**	**5.4 J**	0.3 U	1.3 U	0.320 U	**3.3**	1.3 U	0.320 U	0.3 U	1.3 U	0.320 U
Diethyl phthalate	50	1.4 U	NS	1.3 U	1.6 U	**3.7**	1.3 U	1.6 U	1.3 U	1.3 U	0.3 U	1.4 U	0.330 U	0.3 U	1.4 U	0.330 U	0.3 U	1.4 U	0.330 UJ
Phenol	1	***1.3 R***	NS	**3.7 J**	2.8 R	**21**	**9.5 J**	**8.1 J**	**3.0 J**	**18**	0.5 U	***1.3 U***	0.560 UJ	0.5 U	***1.3 U***	0.560 UJ	0.5 U	***1.3 U***	0.560 R
Total SVOCs	NA	**6989.3**	NS	**246.9**	**5.4**	**2147.8**	**882.2**	**1837.8**	**3270.4**	**4999.5**	**0.5**	0	0	**73.7**	0	0	**10.899**	**2.1**	**1.5**
Metals (ug/L)																			
Aluminum	NA	**105 J**	NS	**394**	NS	**3370**	**504**	NS	**15.5 J**	**622**	**391**	200 U	NS	**488**	**463**	NS	**460**	200 U	NS
Antimony	3	***60 U***	NS	***60 U***	NS	***5.8 U***	***3.170 U***	NS	***60 U***	***3.170 U***	**5.8**	***3.170 U***	NS	**6**	***3.170 U***	NS	**6.2**	***3.170 U***	NS
Arsenic	25	**3.9 J**	NS	3.3 U	NS	**5.6**	3.320 U	NS	3.320 U	**8.730 J**	3.2 U	3.320 U	NS	**6.4**	**17.0**	NS	3.2 U	3.320 U	NS
Barium	1000	**135 J**	NS	**69.2 J**	NS	**92.7**	200 U	NS	**435 J-**	200 U	**333**	**268 J**	NS	**73.6**	200 U	NS	**137**	200 U	NS
Beryllium	3	***5 U***	NS	***5 U***	NS	0.30 U	0.090 U	NS	0.090 U	0.090 U	0.30 U	***5 U***	NS	0.30 U	***5 U***	NS	0.30 U	***5 U***	NS
Cadmium	5	0.33 U	NS	0.33 U	NS	0.40 U	0.327 UJ	NS	0.327 UJ	0.327 UJ	0.40 U	5 U	NS	0.40 U	5 U	NS	0.40 U	5 U	NS
Calcium	NA	**53500**	NS	**18600**	NS	**100000**	**77100 J**	NS	**211000 J**	**197000 J**	**264000**	**215000 J**	NS	**49400**	**51300 J**	NS	**403000**	**182000 J**	NS
Chromium	50	**116 J-**	NS	**310 J-**	NS	**6.8**	0.343 U	NS	**0.500 J**	**10.1**	**1.8**	10 U	NS	**3.1**	**18.4**	NS	**2.5**	10 U	NS
Cobalt	NA	50 U	NS	50 U	NS	**3.7**	0.370 UJ	NS	0.370 UJ	**0.690 J-**	**4.0**	50 U	NS	1.7 U	50 U	NS	**8.8**	50 U	NS
Copper	200	3.6 U	NS	**4.6 J**	NS	**11.9**	3.640 U	NS	3.640 U	3.640 U	**5.5**	**5.260 J**	NS	**4.6**	3.640 U	NS	3.7 U	3.640 U	NS
Iron	300	**2460 J-**	NS	**3030 J-**	NS	**4120**	**415 J-**	NS	**8140 J-**	**2750 J-**	**4560**	**805**	NS	**5080**	**6510**	NS	**1810**	**285**	NS
Lead	25	2.8 U	NS	2.8 U	NS	**18.3**	2.180 U	NS	2.180 U	2.180 U	**27.3**	**6.750**	NS	2.3 U	**2.370 J**	NS	2.3 U	2.180 U	NS
Magnesium	35000	**54200**	NS	**30500**	NS	**3920**	**3800 J**	NS	**143000 J**	**348000 J**	**58900**	**41000 J**	NS	**31100**	**34200 J**	NS	**64200**	**23300 J**	NS
Manganese	300	**159**	NS	**275**	NS	**112**	**103 J-**	NS	**1180 J-**	**978 J-**	**607**	**322 J**	NS	**427**	**380 J**	NS	**3380**	**30.7 J**	NS
Mercury	0.7	0.0300 U	NS	0.2 U	NS	0.10 U	0.2 U	NS	0.2 U	0.2 U	**0.15**	0.0300 UJ	NS	0.10 U	0.0300 UJ	NS	0.10 U	0.0300 UJ	NS
Nickel	100	**42.1 J-**	NS	**113 J-**	NS	**24.9**	**8.960 J-**	NS	1.560 UJ	**4.460 J-**	**3.5**	40 U	NS	**4.8**	40 U	NS	**15.0**	40 U	NS
Potassium	NA	**53000 J**	NS	**48000 J**	NS	**14800**	**20700**	NS	**72900**	**92500**	**27800**	**36800 J+**	NS	**19100**	**30900 J+**	NS	**28200**	**25300 J+**	NS
Selenium	10	3.0 U	NS	3.0 U	NS	**4.7**	3.040 U	NS	3.040 U	3.040 U	8.4 U	3.040 U	NS	4.2 U	3.040 U	NS	8.4 U	3.040 U	NS
Silver	50	1.6 U	NS	1.6 U	NS	1.4 U	1.640 U	NS	1.640 U	1.640 U	2.8 U	1.640 U	NS	1.4 U	1.640 U	NS	2.8 U	1.640 U	NS
Sodium	20000	**243000**	NS	**882000**	NS	**54800**	**51500**	NS	**652000**	**5120000 D**	**160000**	**157000 J**	NS	**132000**	**169000 J**	NS	**238000**	**265000 J**	NS
Thallium	0.5	***3.1 U***	NS	***3.1 U***	NS	***4.7 U***	***3.050 U***	NS	***3.050 U***	***3.050 U***	***4.7 U***	***3.050 U***	NS	***4.7 U***	***10 U***	NS	***4.7 U***	***3.050 U***	NS
Vanadium	NA	50 U	NS	50 U	NS	**18.5**	**3.300 J**	NS	**1.720 J**	**3.660 J**	1.8 U	50 U	NS	**2.0**	50 U	NS	1.8 U	50 U	NS
Zinc	2000	**45.8 J**	NS	**22.9 J**	NS	**21.9**	**8.870 J-**	NS	**14.6 J-**	**19.0 J-**	**22.4**	**33.8 J**	NS	**9.5**	**22.5 J**	NS	**15.2**	**22.0 J**	NS
Cyanide (ug/L)																			
Available Cyanide	NA	1.5 U	NS	1.5 U	NS	NS	1.5 U	NS	**1.7 J**	**1.5 J**	NS	**1.6 J**	NS	NS	1.5 U	NS	NS	1.5 U	NS
Cyanide, Total	200	**33**	NS	**30**	NS	10 U	**13**	NS	**16**	10 U	**85**	10 U	NS	10 U	10 U	NS	**42**	**20**	NS

NYSDEC Groundwater Standards - New York State Department of Environmental Conservation Ambient Water Quality Standards or Guidance Values (AWQSGVs) listed in Technical and Operations Guidance Series (TOGs) 1.1.1 (NYSDEC 1998)
Bold = Detected analytes
Bold and Italics = Not detect exceeds NYSDEC AWQSGVs
Yellow highlighted values exceed NYSDEC AWQSGVs
NA = Not Applicable
NS= Not Sampled
ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-1 Monitoring Wells																	
		21MWD06			21MWS07			21MWD07		21MWS08			21MWD08			21MWDD08		21MWS09		
Grab Depth (feet)	AWQSGVs	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	N/A	N/A	N/A
Sample Date		4/21/2004	5/17/2006	8/29/2008	4/21/2004	5/18/2006	8/29/2008	4/21/2004	5/23/2006	4/20/2004	5/24/2006	8/28/2008	4/20/2004	5/24/2006	8/28/2008	5/24/2006	9/2/2008	4/20/2004	5/17/2006	8/29/2008
BTEX (ug/L)																				
Benzene	1	**1.3**	0.39 U	0.35 U	**8.5**	**10**	0.35U	**6600**	**2300 D**	**580**	**720 D**	**720**	**7800**	**1000 D**	**1500**	**2200 D**	**5700**	**910**	**15 J**	**140**
Ethylbenzene	5	0.4 U	**2.6 J**	0.05 U	0.4 U	0.45 U	0.05U	**990**	**180 JD**	**110**	**86**	**53**	**1000**	**130**	**93**	**50**	**8.6 J**	**44**	**2.7 J**	**2.3 J**
m,p-Xylene	NA	NS	1.2 U	0.47 U	NS	1.2 U	0.47U	NS	**200 JD**	NS	**31**	**28**	NS	**48**	**33**	**67**	**5.2 J**	NS	1.2 U	0.47 U
o-Xylene	NA	NS	0.46 U	0.16 U	NS	0.46 U	0.16U	NS	**210 JD**	NS	**28**	**24**	NS	**15**	**9.2**	**42**	**7.4 J**	NS	0.46 U	0.16 U
Toluene	5	**0.4**	0.36 U	0.16 U	0.2 U	0.36 U	0.16 U	**590**	**120 JD**	**5.1**	**3.0 J**	**3.1 J**	***15 U***	**4.2 J**	**3.3 J**	**100**	**2.9 J**	**5.2**	0.36 U	0.16 U
Total Xylene (calculated)	5	0.2 U	0	0	**0.4**	0	0	**1700**	**410**	**64**	**59**	**52**	**740**	**63**	**42.2**	**109**	**12.6**	**35**	0	0
Volatile Organic Compounds (VOCs) (ug/L)																				
1,1,2-Trichloroethane	1	0.3 U	0.41 U	0.32 U	0.3 U	0.41 U	0.32 U	***34 U***	0.41 U	***1.7 U***	0.41 U	0.32 U	***34 U***	0.41 U	0.32 U	**6.9 J**	0.32 UJ	***3.4 U***	0.41 U	0.32 U
1,1-Dichloroethene	5	0.4 U	0.42 U	0.67 U	0.4 U	0.42 UJ	0.67 U	***43 U***	0.42 U	2.2 U	0.42 U	0.67 UJ	***43 UJ***	0.42 U	0.67 U	0.42 U	0.67 UJ	4.3 UJ	0.42 U	0.67 U
1,2-Dibromoethane (EDB)	0.6	NS	0.32 U	0.26 U	NS	0.32 U	0.26 U	NS	0.32 UJ	NS	**0.32 R**	0.26 U	NS	**0.32 R**	0.26 U	**0.32 R**	0.26 UJ	NS	0.32 U	0.26 U
1,2-Dichloroethane	0.6	0.3 U	0.34 U	0.41 U	0.3 U	0.34 U	0.41 U	***26 U***	0.34 U	***1.3 U***	0.34 U	0.41 UJ	***26 U***	0.34 U	0.41 U	**54**	0.41 UJ	***2.6 U***	0.34 U	0.41 U
1,2-Dichloropropane	1	0.2 U	0.40 U	0.46 U	0.2 U	0.40 U	0.46 U	***23 U***	0.40 U	***1.2 U***	0.40 U	0.46 U	***23 U***	0.40 U	0.46 U	0.40 U	0.46 UJ	***2.3 U***	0.40 U	0.46 U
2-Butanone (Methyl Ethyl Ketone)	50	2.5 U	1.1 U	1.9 U	2.5 U	1.1 UJ	1.9 U	***250 U***	1.1 U	12 U	1.1 U	1.9 UJ	***250 U***	1.1 U	1.9 U	1.1 U	1.9 UJ	25 U	1.1 U	1.9 U
2-Hexanone	50	1.0 U	1.7 U	1.8 U	1.0 U	1.7 U	1.8 U	***97 U***	1.7 U	4.8 U	1.7 UJ	1.8 U	***97 U***	1.7 UJ	1.8 U	1.7 UJ	1.8 UJ	9.7 U	1.7 U	1.8 U
Acetone	50	1.0 U	**2.3 R**	2.2 U	1.0 U	**2.3 R**	2.2 U	***97 U***	2.3 U	4.8 U	2.3 U	2.2 UJ	***97 UJ***	2.3 U	2.2 U	2.3 U	2.2 UJ	9.7 UJ	**2.3 R**	2.2 U
Bromodichloromethane	50	0.4 U	0.33 U	0.23 U	0.4 U	0.33 U	0.23 U	36 U	0.33 U	1.8 U	0.33 U	0.23 U	36 U	0.33 U	0.23 U	0.33 U	0.23 UJ	3.6 U	0.33 U	0.23 U
Bromomethane	5	0.4 U	0.41 UJ	1.4 U	0.4 U	0.41 U	1.4 U	***44 U***	0.41 U	2.2 U	0.41 U	1.4 UJ	***44 U***	0.41 U	1.4 U	**3.2 J**	1.4 UJ	4.4 U	0.41 UJ	1.4 U
Carbon Disulfide	60	0.2 U	0.40 U	0.20 U	0.2 U	0.40 UJ	0.20 U	24 U	0.40 UJ	1.2 U	**0.87 J**	0.20 UJ	24 UJ	0.40 U	0.20 U	0.40 U	0.20 UJ	2.4 UJ	0.40 U	0.20 U
Chlorobenzene	5	0.2 U	0.47 U	0.28 U	0.2 U	0.47 U	0.28 U	***18 U***	0.47 U	0.9 U	0.47 U	0.28 U	***18 U***	0.47 U	0.28 U	0.47 U	0.28 UJ	1.8 U	0.47 U	0.28 U
Chloroform	7	**1.0**	0.33 U	0.45 U	0.2 U	0.33 U	0.45 U	***19 U***	0.33 U	1.0 U	0.33 U	0.45 UJ	***19 U***	0.33 U	0.45 U	0.33 U	0.45 UJ	1.9 U	0.33 U	0.45 U
Chloromethane	5	0.5 U	0.34 UJ	0.37 U	0.5 U	0.34 UJ	0.37 U	***46 U***	0.34 UJ	2.3 U	0.34 UJ	0.37 UJ	***46 U***	0.34 UJ	0.37 U	**1.4 J**	0.37 UJ	4.6 U	0.34 UJ	0.37 U
cis-1,2-Dichloroethene	5	**11**	**10 J**	**14**	0.2 U	0.29 U	0.72 U	***24 U***	0.29 U	1.2 U	0.29 U	0.72 UJ	***24 U***	0.29 U	0.72 U	**1.1 J**	0.72 UJ	2.4 U	0.29 U	0.72 U
cis-1,3-Dichloropropene	0.4	0.2 U	0.36 U	0.29 U	0.2 U	0.36 U	0.29 U	***24 U***	0.36 UJ	***1.2 U***	0.36 UJ	0.29 U	***24 U***	0.36 UJ	0.29 U	**6.2 J**	0.29 UJ	***2.4 U***	0.36 U	0.29 U
Cyclohexane	NA	NS	0.36 U	0.57 U	NS	**2.5 J**	0.57 U	NS	0.36 UJ	NS	0.36 U	0.57 UJ	NS	0.36 U	0.57 U	**1.4 J**	0.57 UJ	NS	0.36 U	0.57 U
Isopropylbenzene	5	NS	0.44 U	0.37 U	NS	**2.9 J**	0.37 U	NS	**39**	NS	**54 J**	**62**	NS	**7.1 J**	**5.1**	**55 J**	**34 J**	NS	0.44 U	**20**
Methyl Acetate	NA	NS	0.20 UJ	0.45 U	NS	0.20 UJ	0.45 U	NS	0.20 U	NS	0.20 U	0.45 UJ	NS	0.20 U	0.45 U	**11 J**	0.45 UJ	NS	0.20 UJ	0.45 U
Methyl tert-butyl ether	10	NS	0.28 U	0.23 U	NS	0.28 U	0.23 U	NS	0.28 U	NS	0.28 U	0.23 UJ	NS	0.28 U	0.23 U	**0.82 J**	0.23 UJ	NS	0.28 U	0.23 U
Methylcyclohexane	NA	NS	0.34 U	0.47 U	NS	0.34 U	0.47 U	NS	**3.4 J**	NS	**0.74 J**	0.47 UJ	NS	0.34 UJ	**3.7 J**	**1.8 J**	0.47 UJ	NS	0.34 U	0.47 U
Naphthalene	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Styrene	5	0.3 U	0.41 U	0.19 U	0.3 U	0.41 U	0.19 U	***28 U***	**6.2**	1.4 U	**0.59 J**	0.19 U	***28 U***	0.41 UJ	0.19 U	**37 J**	0.19 UJ	2.8 U	0.41 U	0.19 U
Tetrachloroethene	5	**0.4**	**0.67 J**	0.97 U	0.3 U	0.48 UJ	0.97 U	***31 U***	0.48 U	1.6 U	0.48 U	0.97 U	***31 U***	0.48 U	0.97 U	0.48 U	0.97 UJ	3.1 U	0.48 U	0.97 U
trans-1,2-Dichloroethene	5	**0.4**	0.40 U	0.44 U	0.2 U	0.40 UJ	0.44 U	***25 U***	0.40 U	1.2 U	0.40 U	0.44 UJ	***25 UJ***	0.40 U	0.44 U	**1.5 J**	**5.7 J**	2.5 UJ	0.40 U	0.44 U
trans-1,3-Dichloropropene	0.4	0.2 U	0.32 U	0.31 U	0.2 U	0.32 U	0.31 U	***21 U***	0.32 U	***1.0 U***	0.32 UJ	0.31 U	***21 U***	0.32 UJ	0.31 U	0.32 UJ	0.31 UJ	***2.1 U***	0.32 U	0.31 U
Trichloroethene	5	**10**	**7.0 J**	0.34 U	0.2 U	0.46 U	0.34 U	***18 U***	0.46 U	0.9 U	0.46 U	0.34 U	***18 U***	0.46 U	0.34 U	0.46 U	0.34 UJ	1.8 U	0.46 U	0.34 U
Vinyl Chloride	2	0.5 U	0.33 UJ	0.30 U	0.5 U	0.33 UJ	0.30 U	***53 U***	0.33 U	***2.6 U***	0.33 U	0.30 UJ	***53 U***	0.33 U	0.30 U	**2.8 J**	0.30 UJ	***5.3 U***	0.33 UJ	0.30 U
Total VOCs	NA	**24.5**	**20.27**	**14**	**8.9**	**15.4**	0	**9880**	**3058.6**	**759.1**	**924.2**	**890.1**	**9540**	**1204.3**	**1647.3**	**2643.12**	**5763.8**	**994.2**	**17.7**	**162.3**

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Bold = Detected analytes
***Bold and Italics*=** Not detect exceeds NYSDEC AWQSGVs
Yellow highlighted values exceed NYSDEC AWQSGVs
NA = Not Applicable
NS= Not Sampled
ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-1 Monitoring Wells																		
		21MWD06			21MWS07			21MWD07		21MWS08			21MWD08			21MWDD08		21MWS09		
Grab Depth (feet)	AWQSGVs	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	N/A	N/A	N/A
Sample Date		4/21/2004	5/17/2006	8/29/2008	4/21/2004	5/18/2006	8/29/2008	4/21/2004	5/23/2006	4/20/2004	5/24/2006	8/28/2008	4/20/2004	5/24/2006	8/28/2008	5/24/2006	9/2/2008	4/20/2004	5/17/2006	8/29/2008
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/l)																				
Acenaphthene	20	**0.3**	1.4 U	0.330 U	**18**	**21**	**8.8 J**	**64**	**77**	**69**	**13**	**35 J**	**120**	**15**	**15 J**	**61**	**69**	**55**	**2.2 J**	**13 J**
Acenaphthylene	NA	0.074 U	1.3 U	0.360 U	0.076 U	1.3 U	0.360 U	**45**	**8.0 J**	0.4 U	1.3 U	1.8 U	1.4 U	1.3 U	1.8 U	**6.2 J**	1.8 U	**12**	1.3 U	1.8 U
Anthracene	50	0.084 U	1.4 U	1.4 U	**0.8**	1.4 U	1.4 U	8.0 U	**12**	**11**	1.4 U	7.2 U	**8.2**	1.4 U	7.2 U	**5.7 J**	7.2 U	**4.9**	1.4 U	7.2 U
Benzo(a)anthracene	0.002	***0.2 U***	***1.1 U***	***1.3 U***	***0.2 U***	***1.1 U***	***1.3 U***	***15 U***	***1.1 U***	***0.8 U***	***1.1 U***	***6.6 U***	***3.0 U***	***1.1 U***	***6.6 U***	***1.1 U***	***6.6 U***	***0.3 U***	***1.1 U***	***6.6 U***
Benzo(a)pyrene	NA	0.084 U	1.2 U	0.220 U	0.087 U	1.2 U	0.220 U	8.0 U	1.2 U	**0.9**	1.2 U	1.1 U	1.6 U	1.2 U	1.1 U	1.2 U	1.1 U	0.2 U	1.2 U	1.1 U
Benzo(b)fluoranthene	0.002	***0.2 U***	***0.760 U***	***0.440 U***	***0.2 U***	***0.760 U***	***0.440 U***	***16 U***	***0.760 U***	**0.8 J**	***0.760 U***	***2.2 U***	***3.2 U***	***0.760 U***	***2.2 U***	***0.760 U***	***2.2 U***	***0.3 U***	***0.760 U***	***2.2 U***
Benzo(ghi)perylene	NA	0.063 U	1.1 U	0.400 U	0.065 U	1.1 U	0.400 U	6.0 U	1.1 U	**2.6**	1.1 U	2.0 U	1.2 U	1.1 U	2.0 U	1.1 U	2.0 U	0.1 U	1.1 U	2.0 U
Benzo(k)fluoranthene	0.002	***0.2 U***	***1.9 U***	***0.310 U***	***0.2 U***	***1.9 U***	***0.310 U***	***16 U***	***1.9 U***	***0.8 U***	***1.9 UJ***	***1.5 U***	***3.2 U***	***1.9 UJ***	***1.5 U***	***1.9 UJ***	***1.5 U***	***0.3 U***	***1.9 U***	***1.5 U***
Chrysene	0.002	***0.074 U***	***1.7 U***	***0.270 U***	***0.076 U***	***1.7 U***	***0.270 U***	***7.0 U***	***1.7 U***	***0.4 U***	***1.7 U***	***1.3 U***	***1.4 U***	***1.7 U***	***1.3 U***	***1.7 U***	***1.3 U***	***0.1 U***	***1.7 U***	***1.3 U***
Dibenz(a,h)anthracene	NA	0.042 U	0.880 U	0.550 U	0.043 U	0.880 U	0.550 U	4.0 U	0.880 U	**2.3**	0.870 U	2.8 U	0.8 U	0.870 U	2.8 U	0.880 U	2.8 U	0.082 U	0.880 U	2.8 U
Fluoranthene	50	**0.4**	1.2 U	0.200 U	**0.9**	1.2 U	0.200 U	5.0 U	**6.9 J**	**9.7**	**5.4 J**	**9.3 J**	**4.2**	**1.5 J**	1.0 U	**5.6 J**	1.0 U	**3.5**	1.2 U	1.0 U
Fluorene	50	**0.3**	1.4 U	0.290 U	**4.0**	**3.4 J**	**1.1 J**	**87**	**58**	**38**	1.4 U	**28 J**	**19**	1.4 U	1.4 U	**42**	**7.7 J**	**19**	1.4 U	1.4 U
Indeno(1,2,3-cd)pyrene	0.002	***0.084 U***	***0.840 U***	***0.670 U***	***0.087 U***	***0.840 U***	***0.670 U***	***8.0 U***	***0.840 UJ***	**1.9**	***0.840 U***	***3.4 U***	***1.6 U***	***0.840 U***	***3.4 U***	***0.840 U***	***3.4 U***	***0.2 U***	***0.840 U***	***3.4 U***
Naphthalene	10	**1.1**	1.4 U	0.290 U	**5.6**	1.4 U	0.290 U	**13000**	**2200 D**	**520**	1.4 U	1.4 U	**2400**	1.4 U	1.4 U	1.4 U	**43 J**	**340**	**7.5 J**	**11 J**
Phenanthrene	50	**1.2**	1.4 U	1.4 U	**2.4**	1.4 U	1.4 U	**98**	**65**	**63**	1.4 U	**19 J**	**42**	1.4 U	**11 J**	**37**	**9.3 J**	**25**	1.4 U	6.9 U
Pyrene	50	**0.6**	1.5 U	1.4 U	**0.8**	1.5 U	1.4 U	7.0 U	**8.3 J**	**9.7**	**6.1 J**	**7.4 J**	**8.1**	**2.4 J**	7.2 U	**4.8 J**	7.2 U	**3.4**	1.5 U	7.2 U
Semivolatile Organic Compounds (SVOCs) (ug/L)																				
1,1-Biphenyl	5	NS	1.4 U	0.330 U	NS	1.4 U	0.330 U	NS	**46**	NS	1.4 U	1.6 U	NS	1.4 U	1.6 U	**4.5 J**	1.6 U	NS	1.4 U	1.6 U
2,4-Dimethylphenol	50	0.9 U	1.2 U	0.780 UJ	0.9 U	1.2 U	0.780 R	**1700**	**410 D**	4.2 U	1.2 U	3.9 U	17 U	1.2 U	3.9 U	1.2 U	3.9 UJ	1.7 U	1.2 U	3.9 U
2-Methylnaphthalene	NA	0.5 U	1.1 U	0.380 U	**0.7**	**2.3 J**	0.380 U	**740**	**380 D**	**20**	1.1 U	1.9 U	**260**	1.1 U	1.9 U	1.1 U	**5.7 J**	**49**	1.1 U	1.9 U
2-Methylphenol	NA	0.9 U	1.5 U	0.370 UJ	0.9 U	1.5 U	0.370 R	**89**	**53**	4.2 U	1.5 U	1.8 U	17 U	1.5 U	1.8 U	1.5 U	1.8 UJ	1.7 U	1.5 U	1.8 U
3+4-Methylphenols	NA	NS	1.3 U	0.400 UJ	NS	1.3 U	0.400 R	NS	**80**	NS	1.3 U	2.0 U	NS	1.3 U	2.0 U	1.3 U	2.0 UJ	NS	1.3 U	2.0 U
4-Methylphenol	NA	0.6 U	NS	NS	0.6 U	NS	NS	**110**	NS	2.6 U	NS	NS	11 U	NS	NS	NS	NS	1.1 U	NS	NS
bis(2-Ethylhexyl) phthalate	5	0.8 U	1.6 U	1.3 U	0.9 U	1.6 U	1.3 U	***56 U***	1.6 U	2.8 U	1.5 U	6.6 U	***11 U***	1.5 U	6.6 U	1.5 U	6.6 U	1.1 U	1.6 U	6.6 U
Butyl benzyl phthalate	50	**0.6**	1.5 U	0.430 U	0.4 U	1.5 U	0.430 U	40 U	1.5 U	2.0 U	1.4 U	2.1 U	8.0 U	1.4 U	2.1 U	1.5 U	2.1 U	0.8 U	1.5 U	2.1 U
Caprolactam	NA	NS	**1.3 R**	1.5 R	NS	**1.3 R**	1.5 R	NS	**1.3 R**	NS	**1.3 R**	7.6 R	NS	**1.3 R**	7.6 R	**1.3 R**	7.6 R	NS	**1.3 R**	7.6 R
Carbazole	NA	**0.4**	1.3 U	0.240 U	**13**	**2.7 J**	0.240 U	**330**	**380 JD**	**17**	**7.3 J**	**16 J**	**8.5**	1.3 U	1.2 U	**62**	1.2 U	**15**	1.3 U	1.2 U
Dibenzofuran	NA	0.4 U	1.3 U	0.320 U	**1.7**	1.3 U	0.320 U	**94**	**32**	**21**	1.3 U	**6.7 J**	6.8 U	1.3 U	1.6 U	**11**	1.6 U	**12**	1.3 U	1.6 U
Diethyl phthalate	50	0.3 U	1.4 U	0.330 UJ	0.3 U	1.4 U	0.330 U	25 U	1.4 U	1.2 U	1.3 U	1.6 UJ	5.0 U	1.3 U	1.6 UJ	1.3 U	1.6 U	0.5 U	1.4 U	1.6 UJ
Phenol	1	0.6 U	***1.3 U***	0.560 R	0.6 U	***1.3 U***	0.560 R	***52 U***	***1.3 R***	***2.6 U***	**1.4 J**	2.8 R	**16**	***1.3 R***	**26 J**	**7.0 J**	**5.6 J**	***1.1 U***	***1.3 U***	2.8 R
Total SVOCs	NA	**4.9**	0	0	**47.9**	**29.4**	**9.9**	**16357**	**3816.2**	**786.9**	**33.2**	**121.4**	**2886**	**18.9**	**52**	**246.8**	**140.3**	**538.8**	**9.7**	**24**
Metals (ug/L)																				
Aluminum	NA	**1280**	200 U	NS	**233**	200 U	NS	**4270**	**83.2 J**	62.6 U	**27.5 J**	NS	**476**	**24.0 J**	NS	**168 J**	NS	**64.9**	200 U	NS
Antimony	3	***5.8 U***	**60.9**	NS	***5.8 U***	***60 U***	NS	***5.8 U***	***60 U***	***5.8 U***	***60 U***	NS	***5.8 U***	**64.6**	NS	***60 U***	NS	***5.8 U***	***3.170 U***	NS
Arsenic	25	**24.1**	**20.8**	NS	3.2 U	3.320 U	NS	**5.9**	3.3 U	3.2 U	3.3 U	NS	3.2 U	3.3 U	NS	3.3 U	NS	3.2 U	3.320 U	NS
Barium	1000	**84.2**	200 U	NS	**139**	200 U	NS	**165**	**74.5 J**	**144**	**170 J**	NS	**278**	**153 J**	NS	**273 J**	NS	**208**	200 U	NS
Beryllium	3	0.30 U	***5 U***	NS	0.30 U	***5 U***	NS	0.30 U	***5 U***	0.30 U	***5 U***	NS	0.30 U	***5 U***	NS	***5 U***	NS	0.30 U	***5 U***	NS
Cadmium	5	0.40 U	5 U	NS	0.40 U	5 U	NS	0.40 U	0.33 U	0.40 U	0.33 U	NS	0.40 U	0.33 U	NS	0.33 U	NS	0.40 U	5 U	NS
Calcium	NA	**70200**	**51500 J**	NS	**154000**	**137000 J**	NS	**109000**	**77500**	**80500**	**93700**	NS	**64000**	**52000**	NS	**63500**	NS	**256000**	**225000 J**	NS
Chromium	50	**3.0**	**12.3**	NS	**2.2**	10 U	NS	**11.7**	**183 J-**	1.6 U	**104 J-**	NS	**10.4**	**2170 J-**	NS	**124 J-**	NS	1.6 U	10 U	NS
Cobalt	NA	1.7 U	50 U	NS	1.7 U	50 U	NS	**3.0**	50 U	1.7 U	50 U	NS	**6.6**	50 U	NS	50 U	NS	1.7 U	50 U	NS
Copper	200	**5.1**	**8.210 J**	NS	3.7 U	**4.070 J**	NS	**14.5**	3.6 U	3.7 U	3.6 U	NS	3.7 U	**28.2**	NS	**4.4 J**	NS	3.7 U	3.640 U	NS
Iron	300	**46900**	**33100**	NS	**12700**	**13700**	NS	**24600**	**11100 J-**	**531**	**1180 J-**	NS	**9280**	**16900 J-**	NS	**9980 J-**	NS	**1060**	**311**	NS
Lead	25	2.3 U	2.180 U	NS	2.3 U	2.180 U	NS	**6.0**	5 U	2.3 U	**7.4**	NS	2.3 U	**18.3**	NS	**7.9**	NS	**6.6**	**13.9**	NS
Magnesium	35000	**26600**	**20600 J**	NS	**45200**	**41000 J**	NS	**86300**	**49900**	**38500**	**41200**	NS	**88600**	**74900**	NS	**39000**	NS	**68700**	**63100 J**	NS
Manganese	300	**844**	**497 J**	NS	**1880**	**2310 J**	NS	**1660**	**983**	**198**	**263**	NS	**545**	**428**	NS	**1280**	NS	**655**	**63.5 J**	NS
Mercury	0.7	0.10 U	0.0300 UJ	NS	0.10 U	0.0300 UJ	NS	0.10 U	0.2 U	0.10 U	0.0300 U	NS	0.10 U	0.2 U	NS	0.0300 U	NS	0.10 U	0.0300 UJ	NS
Nickel	100	**4.0**	40 U	NS	**3.0**	40 U	NS	**14.9**	**78.2 J-**	1.6 U	40 U	NS	**3.6**	**1180 J-**	NS	**80.6 J-**	NS	**2.4**	40 U	NS
Potassium	NA	**22400**	**27800 J+**	NS	**8260**	**10000 J+**	NS	**30900**	**32300 J**	**18400**	**27400 J**	NS	**56100**	**51300 J**	NS	**25200 J**	NS	**27600**	**41200 J+**	NS
Selenium	10	4.2 U	3.040 U	NS	4.2 U	3.040 U	NS	4.2 U	3.0 U	5.1 U	10 U	NS	4.2 U	10 U	NS	10 U	NS	8.4 U	3.040 U	NS
Silver	50	1.4 U	1.640 U	NS	1.4 U	1.640 U	NS	1.4 U	1.6 U	1.4 U	1.6 U	NS	1.4 U	1.6 U	NS	1.6 U	NS	2.8 U	1.640 U	NS
Sodium	20000	**104000**	**120000 J**	NS	**20700**	**27800 J**	NS	**350000**	**191000**	**44400**	**80000**	NS	**835000**	**492000**	NS	**119000**	NS	**178000**	**139000 J**	NS
Thallium	0.5	***4.7 U***	***3.050 U***	NS	***4.7 U***	***3.050 U***	NS	***4.7 U***	***3.1 U***	***4.7 U***	***3.1 U***	NS	***4.7 U***	***3.1 U***	NS	***3.1 U***	NS	***4.7 U***	***10 U***	NS
Vanadium	NA	**4.8**	50 U	NS	1.8 U	50 U	NS	**10.6**	50 U	1.8 U	0.70 U	NS	**13.0**	50 U	NS	50 U	NS	**2.8**	50 U	NS
Zinc	2000	**19.2**	**29.0 J**	NS	**13.2**	**23.7 J**	NS	**45.5**	**25.7 J**	5.8 U	**32.2 J**	NS	**25.9**	**384 J**	NS	**29.5 J**	NS	**8.8**	**20.9 J**	NS
Cyanide (ug/L)																				
Available Cyanide	NA	NS	1.5 U	NS	NS	1.5 U	NS	NS	1.5 U	NS	1.5 U	NS	NS	1.5 U	NS	1.5 U	NS	NS	1.5 U	NS
Cyanide, Total	200	10 U	10 U	NS	**45**	**25**	NS	**46**	**24**	**180**	**117**	NS	**350**	**102**	NS	**64**	NS	**150**	**24**	NS

NYSDEC Groundwater Standards - New York State Department of Environmental Conservation Ambient Water Quality Standards or Guidance Values (AWQSGVs) listed in Technical and Operations Guidance Series (TOGs) 1.1.1 (NYSDEC 1998)
Bold = Detected analytes
***Bold and Italics*=** Not detect exceeds NYSDEC AWQSGVs
Yellow highlighted values exceed NYSDEC AWQSGVs
NA = Not Applicable
NS= Not Sampled
ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-1 Monitoring Wells																				
		21MWD09			21MWS10			21MWD10			23MWS11				23MWD11			23MWS12		23MWD12	23MWDD12		
Grab Depth (feet)	AWQSGVs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DUP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Date		4/20/2004	5/17/2006	8/28/2008	4/22/2004	5/18/2006	9/2/2008	4/22/2004	4/22/2004	5/19/2006	4/20/2004	5/25/2006	5/25/2006	9/8/2008	4/20/2006	5/25/2006	9/8/2008	5/22/2006	9/8/2008	5/22/2006	4/12/2006	5/22/2006	9/8/2008
BTEX (ug/L)																							
Benzene	1	**35000**	**25000 D**	**35000 J**	**73**	**13**	**13**	**420**	**390**	**350 D**	1.00 U	0.39 UJ	0.39 U	0.35 U	1.00 U	0.39 U	**9.9**	**120 D**	**3000**	**8000 D**	**1100 D**	**240 D**	**150**
Ethylbenzene	5	**4800**	**1200 J**	**4100**	**55**	**9.1 J**	0.05 U	**93**	**97**	**23 J**	1.00 U	0.45 UJ	0.45 U	0.05 U	1.00 U	0.45 U	0.05 U	**68**	**420**	**300 JD**	**390 D**	**57 JD**	**63 J**
m,p-Xylene	NA	NS	**1000 J**	**1700**	NS	1.2 U	0.47 U	NS	NS	**31 J**	2.00 U	1.2 UJ	1.2 U	0.47 U	2.00 U	1.2 U	0.47 U	**180**	**760**	**1500 D**	**1100 D**	**190 JD**	**68 J**
o-Xylene	NA	NS	**410 J**	**560**	NS	**2.6 J**	0.16 U	NS	NS	**25 J**	1.00 U	0.46 UJ	0.46 U	0.16 U	1.00 U	0.46 U	0.16 U	**70**	**300**	**600 D**	**460 D**	**91 JD**	**67 J**
Toluene	5	**3300**	**700 J**	**1200**	**2.6**	0.36 U	0.16 U	**49**	**49**	**11 J**	1.00 U	0.36 UJ	0.36 U	0.16 U	1.00 U	0.36 U	0.16 U	**140 D**	**1800**	**4300 D**	**1500 D**	**280 D**	**91 J**
Total Xylene (calculated)	5	**4500**	**1410**	**2260**	**24**	**2.6**	0	**160**	**160**	**56**	0	0	0	0	0	0	0	**250**	**1060**	**2100**	**1560**	**281**	**135**
Volatile Organic Compounds (VOCs) (ug/L)																							
1,1,2-Trichloroethane	1	***85 U***	***41 U***	0.32 U	0.3 U	0.41 U	0.32 U	***1.7 U***	***1.7 U***	0.41 U	1.00 U	0.41 UJ	0.41 U	0.32 U	1.00 U	0.41 U	0.32 U	0.41 U	0.32 U	0.41 U	1.00 U	0.41 U	0.32 UJ
1,1-Dichloroethene	5	***110 U***	***42 UJ***	0.67 U	0.4 U	0.42 UJ	0.67 U	2.2 U	2.2 U	0.42 U	1.00 U	0.42 UJ	0.42 U	0.67 U	1.00 U	0.42 U	0.67 U	0.42 U	0.67 U	0.42 U	1.00 U	0.42 U	0.67 UJ
1,2-Dibromoethane (EDB)	0.6	NS	***32 U***	0.26 U	NS	0.32 U	0.26 U	NS	NS	0.32 U	***1.00 U***	**0.32 R**	**0.32 R**	0.26 U	***1.00 U***	**0.32 R**	0.26 U	0.32 UJ	0.26 U	0.32 UJ	***1.00 U***	0.32 UJ	0.26 UJ
1,2-Dichloroethane	0.6	***65 U***	***34 U***	0.41 U	0.3 U	0.34 U	0.41 U	***1.3 U***	***1.3 U***	0.34 U	***1.00 U***	0.34 UJ	0.34 U	0.41 U	***1.00 U***	0.34 U	0.41 U	0.34 U	0.41 U	0.34 U	***1.00 U***	0.34 U	0.41 UJ
1,2-Dichloropropane	1	***58 U***	***40 U***	0.46 U	0.2 U	0.40 U	0.46 U	***1.2 U***	***1.2 U***	0.40 U	1.00 U	0.40 UJ	0.40 U	0.46 U	1.00 U	0.40 U	0.46 U	0.40 U	0.46 U	0.40 U	1.00 U	0.40 U	0.46 UJ
2-Butanone (Methyl Ethyl Ketone)	50	***620 U***	***110 UJ***	1.9 U	2.5 U	1.1 UJ	1.9 U	12 U	12 U	1.1 U	5.00 U	1.1 UJ	1.1 U	1.9 U	5.00 U	1.1 U	1.9 U	1.1 U	1.9 U	**81**	5.00 U	1.1 U	1.9 UJ
2-Hexanone	50	***240 U***	***170 U***	1.8 U	1.0 U	1.7 U	1.8 U	4.8 U	4.8 U	1.7 U	5.00 U	1.7 UJ	1.7 U	1.8 U	5.00 U	1.7 U	1.8 U	1.7 U	1.8 U	**6.9 J**	5.00 U	1.7 U	1.8 UJ
Acetone	50	***240 U***	***230 R***	2.2 U	1.0 U	**2.3 R**	2.2 U	4.8 U	4.8 U	**2.3 R**	5.00 U	2.3 UJ	2.3 U	2.2 U	5.00 U	2.3 U	2.2 U	2.3 UJ	2.2 U	**400 J**	5.00 U	2.3 UJ	2.2 UJ
Bromodichloromethane	50	***90 U***	33 U	0.23 U	0.4 U	0.33 U	0.23 U	1.8 U	1.8 U	0.33 U	1.00 U	0.33 UJ	0.33 U	0.23 U	1.00 U	0.33 U	0.23 U	0.33 U	0.23 U	0.33 U	1.00 U	0.33 U	0.23 UJ
Bromomethane	5	***110 U***	***41 UJ***	1.4 U	0.4 U	0.41 U	1.4 U	2.2 U	2.2 U	0.41 UJ	1.00 U	0.41 UJ	0.41 U	1.4 U	1.00 U	0.41 U	1.4 U	0.41 U	1.4 U	0.41 U	1.00 U	0.41 U	1.4 UJ
Carbon Disulfide	60	60 U	40 U	0.20 U	0.2 U	0.40 UJ	0.20 U	1.2 U	1.2 U	0.40 U	2.00 U	0.40 UJ	0.40 U	0.20 U	2.00 U	0.40 U	0.20 U	0.40 U	0.20 U	0.40 U	1.00 U	0.40 U	**12 J**
Chlorobenzene	5	***45 U***	***47 U***	0.28 U	0.2 U	0.47 U	0.28 U	0.9 U	0.9 U	0.47 U	1.00 U	0.47 UJ	0.47 U	0.28 U	1.00 U	0.47 U	0.28 U	0.47 U	0.28 U	0.47 U	1.00 U	0.47 U	0.28 UJ
Chloroform	7	***48 U***	***33 U***	0.45 U	0.2 U	0.33 U	0.45 U	1.0 U	1.0 U	0.33 U	1.00 U	0.33 UJ	0.33 U	0.45 U	1.00 U	0.33 U	0.45 U	0.33 U	0.45 U	0.33 U	1.00 U	0.33 U	0.45 UJ
Chloromethane	5	***120 U***	***34 UJ***	0.37 U	0.5 U	0.34 UJ	0.37 U	2.3 U	2.3 U	0.34 UJ	1.00 U	0.34 UJ	0.34 UJ	0.37 U	1.00 U	0.34 U	0.37 U	0.34 U	0.37 U	0.34 U	1.00 U	0.34 U	0.37 UJ
cis-1,2-Dichloroethene	5	***60 U***	***29 U***	0.72 U	0.2 U	0.29 U	0.72 U	1.2 U	1.2 U	0.29 U	1.00 U	0.29 UJ	0.29 U	0.72 U	**5.8**	0.29 U	**32**	0.29 U	0.72 U	**5.9**	1.00 U	0.29 U	0.72 UJ
cis-1,3-Dichloropropene	0.4	***60 U***	***36 U***	0.29 U	0.2 U	0.36 U	0.29 U	***1.2 U***	***1.2 U***	0.36 U	***1.00 U***	0.36 UJ	0.36 UJ	0.29 U	***1.00 U***	0.36 UJ	0.29 U	0.36 U	0.29 U	0.36 U	***1.00 U***	0.36 U	0.29 UJ
Cyclohexane	NA	NS	36 U	**17**	NS	**3.6 J**	0.57 U	NS	NS	**3.9 J**	NS	0.36 UJ	0.36 U	0.57 U	NS	0.36 U	0.57 U	0.36 UJ	0.57 U	0.36 UJ	NS	0.36 UJ	0.57 UJ
Isopropylbenzene	5	NS	***44 U***	**110**	NS	**5.7**	**6.2**	NS	NS	**40 J**	1.00 U	0.44 UJ	0.44 U	0.37 U	1.00 U	0.44 U	0.37 U	**2.0 J**	**17 J**	**31**	**20**	**12**	**4.6 J**
Methyl Acetate	NA	NS	20 UJ	0.45 U	NS	0.20 UJ	0.45 U	NS	NS	0.20 UJ	NS	0.20 UJ	0.20 U	0.45 U	NS	0.20 U	0.45 U	0.20 U	0.45 U	0.20 U	NS	0.20 U	0.45 UJ
Methyl tert-butyl ether	10	NS	***28 U***	0.23 U	NS	0.28 U	0.23 U	NS	NS	0.28 U	2.00 U	0.28 UJ	0.28 U	0.23 U	2.00 U	0.28 U	0.23 U	0.28 U	0.23 U	0.28 U	2.00 U	0.28 U	0.23 UJ
Methylcyclohexane	NA	NS	34 U	0.47 U	NS	**2.2 J**	0.47 U	NS	NS	**3.0 J**	NS	0.34 UJ	0.34 U	0.47 U	NS	0.34 U	0.47 U	**4.1 J**	0.47 U	0.34 U	NS	**1.1 J**	**1.9 J**
Naphthalene	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.00 U	NS	NS	NS	2.00 U	NS	NS	NS	NS	NS	**6600 D**	NS	NS
Styrene	5	***70 U***	***41 U***	0.19 U	0.3 U	0.41 U	0.19 U	1.4 U	1.4 U	0.41 U	1.00 U	0.41 UJ	0.41 U	0.19 U	1.00 U	0.41 U	0.19 U	**30**	0.19 U	**510 D**	**220 D**	**110**	**25 J**
Tetrachloroethene	5	***78 U***	***48 UJ***	0.97 U	0.3 U	0.48 UJ	0.97 U	1.6 U	1.6 U	0.48 U	1.00 U	0.48 UJ	0.48 U	0.97 U	1.00 U	0.48 U	0.97 U	0.48 U	0.97 U	0.48 U	1.00 U	0.48 U	0.97 UJ
trans-1,2-Dichloroethene	5	***62 U***	***40 UJ***	0.44 U	0.2 UJ	0.40 UJ	0.44 U	1.2 UJ	1.2 UJ	0.40 U	1.00 U	0.40 UJ	0.40 U	0.44 U	1.00 U	0.40 U	0.44 U	0.40 U	0.44 U	0.40 U	1.00 U	0.40 U	0.44 UJ
trans-1,3-Dichloropropene	0.4	***52 U***	***32 U***	0.31 U	0.2 U	0.32 U	0.31 U	***1.0 U***	***1.0 U***	0.32 U	***1.00 U***	0.32 UJ	0.32 UJ	0.31 U	***1.00 U***	0.32 UJ	0.31 U	0.32 U	0.31 U	0.32 U	***1.00 U***	0.32 U	0.31 UJ
Trichloroethene	5	***45 U***	***46 U***	0.34 U	0.2 U	0.46 U	0.34 U	0.9 U	0.9 U	0.46 U	1.00 U	0.46 UJ	0.46 U	0.34 U	1.00 U	0.46 U	0.34 U	0.46 U	0.34 U	0.46 U	1.00 U	0.46 U	0.34 UJ
Vinyl Chloride	2	***130 U***	***33 UJ***	0.30 U	0.5 U	0.33 UJ	0.30 U	***2.6 U***	***2.6 U***	0.33 UJ	1.00 U	0.33 UJ	0.33 U	0.30 U	1.00 U	0.33 U	0.30 U	0.33 U	0.30 U	0.33 U	1.00 U	0.33 U	0.30 UJ
Total VOCs	NA	**47600**	**28310**	**42687**	**154.6**	**36.2**	**19.2**	**722**	**696**	**486.9**	0	0	0	0	**5.8**	0	**41.9**	**614.1**	**6297**	**15734.8**	**11390**	**981.1**	**482.5**

NYSDEC Groundwater Standards - New York State Department of Environmental Conservation Ambient Water Quality Standards or Guidance Values (AWQSGVs) listed in Technical and Operations Guidance Series (TOGs) 1.1.1 (NYSDEC 1998)
Bold = Detected analytes
Bold and Italics = Not detect exceeds NYSDEC AWQSGVs
Yellow highlighted values exceed NYSDEC AWQSGVs
NA = Not Applicable
NS= Not Sampled
ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-1 Monitoring Wells																					
		21MWD09			21MWS10			21MWD10			23MWS11				23MWD11			23MWS12		23MWD12	23MWDD12		
Grab Depth (feet)	AWQSGVs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DUP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample Date		4/20/2004	5/17/2006	8/28/2008	4/22/2004	5/18/2006	9/2/2008	4/22/2004	4/22/2004	5/19/2006	4/20/2004	5/25/2006	5/25/2006	9/8/2008	4/20/2006	5/25/2006	9/8/2008	5/22/2006	9/8/2008	5/22/2006	4/12/2006	5/22/2006	9/8/2008
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/l)																							
Acenaphthene	20	**100**	**79**	**69**	**34**	**24**	**17 J**	**92**	**81**	**61**	NS	1.4 U	1.4 U	0.330 U	NS	1.4 U	0.330 U	**15**	**14 J**	**46 J**	NS	**34**	**37 J**
Acenaphthylene	NA	1.4 U	**2.3 J**	1.8 U	0.073 U	1.3 U	1.8 U	1.4 U	0.7 U	**2.9 J**	NS	1.3 U	1.3 U	0.360 U	NS	1.3 U	0.360 U	**28**	1.8 U	**180 D**	NS	**79**	**61**
Anthracene	50	**5.2**	**5.6 J**	7.2 U	**7.9**	**6.0 J**	7.3 U	**11**	0.8 U	**9.2 J**	NS	1.4 U	1.4 U	1.4 U	NS	1.4 U	1.4 U	**9.2 J**	7.2 U	**86 J**	NS	**12**	**9.2 J**
Benzo(a)anthracene	0.002	***3.0 U***	***1.1 U***	***6.6 U***	**5.3**	**2.9 J**	***6.7 U***	***3.0 U***	***1.5 U***	***1.1 U***	NS	***1.1 U***	***1.1 U***	***1.3 U***	NS	***1.1 U***	***1.3 U***	**2.3 J**	***6.6 U***	**15 J**	NS	***1.1 U***	***6.6 U***
Benzo(a)pyrene	NA	1.6 U	1.2 U	1.1 U	**4.2**	**1.9 J**	1.1 U	1.6 U	0.8 U	1.2 U	NS	1.2 U	1.2 U	0.220 U	NS	1.2 U	0.220 U	**1.3 J**	1.1 U	**10 J**	NS	1.2 U	1.1 U
Benzo(b)fluoranthene	0.002	***3.2 U***	***0.760 U***	***2.2 U***	**2.1**	**1.6 J**	***2.2 U***	***3.2 U***	***1.6 U***	***0.760 U***	NS	***0.760 U***	***0.760 U***	***0.440 U***	NS	***0.760 U***	***0.440 U***	**1.5 J**	***2.2 U***	**11 J**	NS	***0.760 U***	***2.2 U***
Benzo(ghi)perylene	NA	1.2 U	1.1 U	2.0 U	**2.1**	1.1 U	2.0 U	1.2 U	0.6 U	1.1 U	NS	1.1 U	1.1 U	0.400 U	NS	1.1 U	0.400 U	1.1 U	2.0 U	**3.2 J**	NS	1.1 U	2.0 U
Benzo(k)fluoranthene	0.002	***3.2 U***	***1.9 U***	***1.5 U***	**3.8**	***1.9 U***	***1.5 U***	***3.2 U***	***1.6 U***	***1.9 U***	NS	***1.9 U***	***1.9 U***	***0.310 U***	NS	***1.9 U***	***0.310 U***	***1.9 U***	***1.5 U***	**5.1 J**	NS	***1.9 U***	***1.5 U***
Chrysene	0.002	***1.4 U***	***1.7 U***	***1.3 U***	**5.4**	**2.7 J**	***1.3 U***	***1.4 U***	***0.7 U***	***1.7 U***	NS	***1.7 U***	***1.7 U***	***0.270 U***	NS	***1.7 U***	***0.270 U***	**2.5 J**	***1.3 U***	**13 J**	NS	***1.7 U***	***1.3 U***
Dibenz(a,h)anthracene	NA	0.8 U	0.880 U	2.8 U	0.042 U	0.880 U	2.8 U	0.8 U	0.4 U	0.880 U	NS	0.870 U	0.870 U	0.550 U	NS	0.870 U	0.550 U	0.870 U	2.8 U	**0.880 R**	NS	0.880 U	2.8 U
Fluoranthene	50	**3.9**	**4.6 J**	1.0 U	**19 J**	**13**	**7.5 J**	**12 J**	**10 J**	**9.8 J**	NS	1.2 U	1.2 U	0.200 U	NS	1.2 U	0.200 U	**10**	1.0 U	**73 J**	NS	**5.6 J**	**5.5 J**
Fluorene	50	**29**	**40**	**27 J**	**60**	**37**	**30 J**	**110**	**99**	**110 D**	NS	1.4 U	1.4 U	0.290 U	NS	1.4 U	0.290 U	**25**	**12 J**	**89 J**	NS	**45**	**51 J**
Indeno(1,2,3-cd)pyrene	0.002	***1.6 U***	***0.840 U***	***3.4 U***	**1.7**	***0.840 U***	***3.4 U***	***1.6 U***	***0.8 U***	***0.840 U***	NS	***0.840 U***	***0.840 UJ***	***0.670 U***	NS	***0.840 U***	***0.670 U***	***0.840 UJ***	***3.4 U***	**1.3 J**	NS	***0.840 UJ***	***3.4 U***
Naphthalene	10	**4200**	**2800 D**	**2800**	**140**	**9.0 J**	1.4 U	**2300**	**2300**	**390 D**	NS	1.4 U	1.4 U	0.290 U	NS	1.4 U	0.290 U	**430 D**	**330**	**3500 D**	NS	**1600 D**	**660**
Phenanthrene	50	**30**	**44**	**23 J**	**110 J**	**62**	**16 J**	**110 J**	**100 J**	**96 JD**	NS	1.4 U	1.4 U	1.4 U	NS	1.4 U	1.4 U	**30**	**12 J**	**120 D**	NS	**43**	**55**
Pyrene	50	**4.9**	**3.9 J**	7.2 U	**21**	**14**	7.3 U	**12**	**11**	**6.6 J**	NS	1.5 U	1.5 U	1.4 U	NS	1.5 U	1.4 U	**7.5 J**	7.2 U	**48 J**	NS	**5.1 J**	7.2 U
Semivolatile Organic Compounds (SVOCs) (ug/L)																							
1,1-Biphenyl	5	NS	**28**	**22 J**	NS	1.4 U	1.6 U	NS	NS	**12**	NS	1.4 U	1.4 U	0.330 U	NS	1.4 U	0.330 U	**7.6 J**	1.6 U	**76 J**	NS	**28**	**27 J**
2,4-Dimethylphenol	50	**230**	**170 D**	**77**	0.9 U	1.2 U	3.9 U	17 U	8.5 U	**3.7 J**	NS	1.2 U	1.2 U	0.780 U	NS	1.2 U	0.780 U	**61 D**	**40 J**	**4100 D**	NS	**110 D**	**11 J**
2-Methylnaphthalene	NA	**280**	**240 D**	**200**	**140**	**1.4 J**	1.9 U	**230**	**210**	**97 JD**	NS	1.1 U	1.1 U	0.380 U	NS	**1.3 J**	0.380 U	**53 D**	**26 J**	**410 D**	NS	**220 D**	**6.2 J**
2-Methylphenol	NA	**23**	**25**	**19 J**	0.9 U	1.5 U	1.9 U	17 U	8.5 U	1.5 U	NS	1.5 U	1.5 U	0.370 U	NS	1.5 U	0.370 U	**9.1 J**	**9.0 J**	**930 D**	NS	**15**	1.8 U
3+4-Methylphenols	NA	NS	**39**	**27 J**	NS	1.3 U	2.0 U	NS	NS	1.3 U	NS	1.3 U	1.3 U	0.400 U	NS	1.3 U	0.400 U	**43**	**12 J**	**6300 D**	NS	**84**	2.0 U
4-Methylphenol	NA	**41**	NS	NS	0.6 U	NS	NS	11 U	5.4 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
bis(2-Ethylhexyl) phthalate	5	***11 U***	1.6 U	6.6 U	0.6 U	1.6 U	6.7 U	***11 U***	***5.6 U***	1.6 U	NS	1.5 U	1.5 U	1.3 U	NS	1.5 U	1.3 U	1.5 U	6.6 U	**1.6 R**	NS	1.6 U	6.6 U
Butyl benzyl phthalate	50	8.0 U	1.5 U	2.1 U	0.4 U	1.5 U	2.2 U	8.0 U	4.0 U	1.5 U	NS	1.4 U	1.4 U	0.430 U	NS	1.4 U	0.430 U	1.4 U	2.1 U	**1.5 R**	NS	1.5 U	2.1 U
Caprolactam	NA	NS	**1.3 R**	7.6 R	NS	**1.3 R**	7.6 R	NS	NS	**1.3 R**	NS	1.3 UJ	1.3 U	1.5 R	NS	1.3 U	1.5 R	**1.3 R**	7.6 R	**1.3 R**	NS	**1.3 R**	7.6 R
Carbazole	NA	**140**	**96 JD**	**110**	**120**	**65**	**32 J**	**160**	**150**	**160 D**	NS	1.3 U	1.3 U	0.240 U	NS	1.3 U	0.240 U	**65 J**	**22 J**	**530 JD**	NS	**290 D**	**70**
Dibenzofuran	NA	**50**	**39**	**30 J**	**45**	**30**	**23 J**	**110**	**100**	**96 JD**	NS	1.3 U	1.3 U	0.320 U	NS	1.3 U	0.320 U	**21**	**9.8 J**	**64 J**	NS	**38**	**43 J**
Diethyl phthalate	50	5.0 U	1.4 U	1.6 UJ	0.3 U	1.4 U	1.6 U	5.0 U	**3.5**	1.4 U	NS	1.3 U	1.3 U	0.330 U	NS	1.3 U	0.330 U	1.3 U	1.6 U	**1.4 R**	NS	1.4 U	1.6 U
Phenol	1	**38**	**120 JD**	**250**	0.5 U	***1.3 U***	2.8 R	***10 U***	***5.2 U***	**4.3 J**	NS	***1.3 U***	***1.3 R***	0.560 R	NS	***1.3 U***	0.560 R	***1.3 R***	**6.1 J**	**52 J**	NS	***1.3 R***	2.8 R
Total SVOCs	NA	**5175**	**3736.4**	**3654**	**721.5**	**270.5**	**125.5**	**3147**	**3064.5**	**1058.5**	NS	0	0	0	NS	**1.3**	0	**822**	**492.9**	**16662.6**	NS	**2608.7**	**1035.9**
Metals (ug/L)																							
Aluminum	NA	**1460**	200 U	NS	**812**	200 U	NS	**344**	**357**	200 U	NS	**64.8 J**	5.310 U	NS	NS	**62.4 J**	NS	**77.4 J-**	NS	**1140 J-**	NS	**265 J-**	NS
Antimony	3	***5.8 U***	***3.170 U***	NS	***5.8 U***	***3.170 U***	NS	***5.8 U***	***5.8 U***	***60 U***	NS	***3.170 U***	***3.170 U***	NS	NS	***3.170 U***	NS	***3.2 UJ***	NS	***60 U***	NS	***3.2 UJ***	NS
Arsenic	25	**5.3**	3.320 U	NS	3.2 U	3.320 U	NS	3.2 U	3.2 U	3.320 U	NS	**10.8**	**9.810 J**	NS	NS	3.320 U	NS	3.3 U	NS	**9.1 J**	NS	3.3 U	NS
Barium	1000	**648**	**664 J**	NS	**213**	**250 J**	NS	**360**	**360**	**389 J**	NS	**243 J-**	**222 J-**	NS	NS	**524 J-**	NS	**332 J-**	NS	**121 J-**	NS	**69.7 J-**	NS
Beryllium	3	0.30 U	***5 U***	NS	0.30 U	***5 U***	NS	0.30 U	0.30 U	***5 U***	NS	0.090 U	0.090 U	NS	NS	0.090 U	NS	***5 U***	NS	***5 U***	NS	0.09 UJ	NS
Cadmium	5	0.40 U	5 U	NS	0.40 U	5 U	NS	0.40 U	0.40 U	5 U	NS	0.327 UJ	**0.327 J**	NS	NS	0.327 UJ	NS	0.33 UJ	NS	0.33 UJ	NS	0.33 UJ	NS
Calcium	NA	**63400**	**46100 J**	NS	**196000**	**248000 J**	NS	**164000**	**165000**	**144000 J**	NS	**184000 J**	**168000 J**	NS	NS	**89600 J**	NS	**281000 J**	NS	**62900 J**	NS	**179000 J**	NS
Chromium	50	**9.0**	10 U	NS	**3.0**	10 U	NS	**2.4**	**3.0**	**15.9**	NS	**9.200 J**	**6.520 J**	NS	NS	**1.790 J**	NS	**209 J-**	NS	**93.0 J-**	NS	**170 J-**	NS
Cobalt	NA	**7.0**	50 U	NS	1.7 U	50 U	NS	1.7 U	1.7 U	50 U	NS	**0.570 J-**	0.370 UJ	NS	NS	**1.020 J-**	NS	0.37 UJ	NS	50 U	NS	0.37 UJ	NS
Copper	200	**7.4**	**7.920 J**	NS	**6.0**	3.640 U	NS	3.7 U	3.7 U	**7.630 J**	NS	3.640 U	3.640 U	NS	NS	3.640 U	NS	**7.8 J-**	NS	**6.8 J-**	NS	**7.4 J-**	NS
Iron	300	**8980**	**2610**	NS	**4000**	**1750**	NS	**7030**	**7110**	**4930**	NS	**2260 J-**	**2010 J-**	NS	NS	**4900 J-**	NS	**10300 J-**	NS	**29900 J-**	NS	**6670 J-**	NS
Lead	25	**15.2**	2.180 U	NS	**44.1**	**2.720 J**	NS	**4.9**	**4.3**	2.180 U	NS	2.180 U	2.180 U	NS	NS	2.180 U	NS	**10.7 J-**	NS	**20.0 J-**	NS	5 U	NS
Magnesium	35000	**45000**	**38600 J**	NS	**48200**	**71400 J**	NS	**62200**	**62700**	**51600 J**	NS	**23500 J**	**21200 J**	NS	NS	**80200 J**	NS	**32100 J**	NS	**129000 J**	NS	**380000 J**	NS
Manganese	300	**847**	**552 J**	NS	**392**	**334 J**	NS	**1090**	**1090**	**960 J**	NS	**585 J-**	**533 J-**	NS	NS	**635 J-**	NS	**1080 J-**	NS	**805 J-**	NS	**883 J-**	NS
Mercury	0.7	0.10 U	0.0300 UJ	NS	0.10 U	0.0300 UJ	NS	0.10 U	0.10 U	0.0300 UJ	NS	0.0300 UJ	0.2 U	NS	NS	0.2 U	NS	0.2 U	NS	0.2 U	NS	0.2 U	NS
Nickel	100	**5.8**	40 U	NS	**3.9**	40 U	NS	**3.3**	**1.9**	40 U	NS	**5.500 J-**	**3.290 J-**	NS	NS	1.560 UJ	NS	**126 J-**	NS	40 U	NS	**91.7 J-**	NS
Potassium	NA	**28800**	**51500 J+**	NS	**32600**	**55700 J+**	NS	**19700**	**20100**	**30700 J+**	NS	**24100**	**21200**	NS	NS	**68900**	NS	**66000 J**	NS	**88500 J**	NS	**112000 J**	NS
Selenium	10	4.2 U	3.040 U	NS	4.2 U	3.040 U	NS	4.2 U	4.2 U	3.040 U	NS	3.040 U	3.040 U	NS	NS	3.040 U	NS	10 U	NS	10 U	NS	3.0 U	NS
Silver	50	1.4 U	1.640 U	NS	1.4 U	1.640 U	NS	1.4 U	1.4 U	1.640 U	NS	1.640 U	1.640 U	NS	NS	1.640 U	NS	1.6 UJ	NS	1.6 UJ	NS	1.6 UJ	NS
Sodium	20000	**332000**	**481000 J**	NS	**193000**	**465000 J**	NS	**138000**	**139000**	**169000 J**	NS	**92300**	**85800**	NS	NS	**598000**	NS	**525000 J**	NS	**866000 J**	NS	**4790000 JD**	NS
Thallium	0.5	***4.7 U***	***3.050 U***	NS	***4.7 U***	***3.050 U***	NS	***4.7 U***	***4.7 U***	***10 U***	NS	***3.050 U***	***3.050 U***	NS	NS	***3.050 U***	NS	***3.1 U***	NS	***3.1 U***	NS	***3.1 U***	NS
Vanadium	NA	**8.3**	50 U	NS	**2.7**	50 U	NS	1.8 U	**2.3**	50 U	NS	**2.640 J**	**1.720 J**	NS	NS	**2.190 J**	NS	50 U	NS	50 U	NS	0.70 UJ	NS
Zinc	2000	**22.8**	**24.1 J**	NS	**21.6**	**21.2 J**	NS	**11.0**	**10.4**	**53.4 J**	NS	**12.4 J-**	**11.2 J-**	NS	NS	**11.9 J-**	NS	**39.8 J**	NS	**50.8 J**	NS	**25.1 J**	NS
Cyanide (ug/L)																							
Available Cyanide	NA	NS	1.5 U	NS	NS	1.5 U	NS	NS	NS	1.5 U	NS	**1.8 J**	**1.9 J**	NS	NS	**2.1**	NS	1.5 U	NS	1.5 U	NS	1.5 U	NS
Cyanide, Total	200	**120**	**28**	NS	10 U	10 U	NS	**29**	**33**	**29**	NS	10 U	10 U	NS	NS	10 U	NS	10 U	NS	**29**	NS	10 U	NS

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ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-2 Monitoring Wells																		
		EBMWD13		EBMWDD13		EBMWD14	EBMWDD14		EBMWD15		EBMWDD15	20MWS16		20MWD16		20MWS17			20MWD17		EBMWD18
Grab Depth (feet)	AWQSGVs	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	DUP	N/A	N/A	N/A	N/A
Sample Date		5/22/2006	9/3/2008	5/22/2006	9/3/2008	5/19/2006	5/19/2006	8/27/2008	5/24/2006	9/3/2008	5/24/2006	5/24/2006	9/9/2008	5/24/2006	9/9/2008	5/18/2006	5/18/2006	9/5/2008	5/18/2006	9/5/2008	5/17/2006
BTEX (ug/L)																					
Benzene	1	**580 D**	**340**	0.39 U	0.35 U	**330 D**	0.39 U	**34**	**190 D**	**290**	**120 D**	0.39 U	0.35 U	0.39 U	0.35 U	0.39 U	0.39 U	0.35 U	**2.6 J**	**3.7 J**	**73**
Ethylbenzene	5	**24**	**8.6**	0.45 U	0.05 U	0.45 U	0.45 UJ	**7.8**	**150 D**	**280**	**280 D**	0.45 U	0.05 U	0.45 U	0.05 U	0.45 U	0.45 U	0.05 U	0.45 U	0.05 U	**44 J**
m,p-Xylene	NA	**27**	0.47 U	1.2 U	0.47 U	**290 J**	1.2 U	**2.0 J**	**150**	**130**	**320 D**	1.2 U	0.47 U	1.2 U	0.47 U	1.2 U	1.2 U	0.47 U	1.2 U	0.47 U	**77**
o-Xylene	NA	**25**	**9.7**	0.46 U	0.16 U	**170 D**	0.46 U	**4.6 J**	**130**	**170**	**150 D**	0.46 U	0.16 U	0.46 U	0.16 U	0.46 U	0.46 U	0.16 U	0.46 U	0.16 U	**30**
Toluene	5	**7**	0.16 U	0.36 U	0.16 U	**90 J**	0.36 U	0.16 U	**49**	**21**	**360 D**	0.36 U	0.16 U	0.36 U	0.16 U	0.36 U	0.36 U	0.16 U	0.36 U	0.16 U	**58**
Total Xylene (calculated)	5	**52**	**9.7**	0	0	**460**	0	**6.6**	**280**	**300**	**470**	0	0	0	0	0	0	0	0	0	**107**
Volatile Organic Compounds (VOCs) (ug/L)																					
1,1,2-Trichloroethane	1	0.41 U	0.32 U	0.41 U	0.32 U	0.41 U	0.41 U	0.32 U	0.41 U	0.32 U	0.41 U	0.41 U	0.32 U	0.41 U	0.32 U	0.41 U	0.41 U	0.32 U	0.41 U	0.32 U	0.41 U
1,1-Dichloroethene	5	0.42 U	0.67 U	0.42 U	0.67 U	0.42 U	0.42 UJ	0.67 U	0.42 U	0.67 U	0.42 U	0.42 U	0.67 U	0.42 U	0.67 U	0.42 UJ	0.42 UJ	0.67 U	0.42 UJ	0.67 U	0.42 UJ
1,2-Dibromoethane (EDB)	0.6	0.32 UJ	0.26 U	0.32 UJ	0.26 U	0.32 U	0.32 U	0.26 U	**0.32 R**	0.26 U	**0.32 R**	**0.32 R**	0.26 U	**0.32 R**	0.26 U	0.32 U	0.32 U	0.26 U	0.32 U	0.26 U	0.32 U
1,2-Dichloroethane	0.6	0.34 U	0.41 U	0.34 U	0.41 U	0.34 U	0.34 U	0.41 U	**4.6 J**	0.41 U	0.34 U	0.34 U	0.41 U	0.34 U	0.41 U	0.34 U	0.34 U	0.41 U	0.34 U	0.41 U	0.34 U
1,2-Dichloropropane	1	0.40 U	0.46 U	0.40 U	0.46 U	0.40 U	0.40 U	0.46 U	**0.61 J**	0.46 U	0.40 U	0.40 U	0.46 U	0.40 U	0.46 U	0.40 U	0.40 U	0.46 U	0.40 U	0.46 U	0.40 U
2-Butanone (Methyl Ethyl Ketone)	50	1.1 U	1.9 U	1.1 U	1.9 U	1.1 U	1.1 UJ	1.9 U	1.1 U	1.9 U	1.1 U	1.1 U	1.9 U	1.1 U	1.9 U	1.1 UJ	1.1 UJ	1.9 U	1.1 UJ	1.9 U	1.1 UJ
2-Hexanone	50	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.8 U	1.7 UJ	1.8 U	1.7 UJ	1.7 UJ	1.8 U	1.7 UJ	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
Acetone	50	2.3 UJ	2.2 U	2.3 UJ	2.2 U	**2.3 R**	**2.3 R**	2.2 U	2.3 U	2.2 U	2.3 U	2.3 U	2.2 U	2.3 U	2.2 U	**2.3 R**	**2.3 R**	2.2 U	**2.3 R**	2.2 U	**2.3 R**
Bromodichloromethane	50	0.33 U	0.23 U	0.33 U	0.23 U	0.33 U	0.33 U	0.23 U	0.33 U	0.23 U	0.33 U	0.33 U	0.23 U	0.33 U	0.23 U	0.33 U	0.33 U	0.23 U	0.33 U	0.23 U	0.33 U
Bromomethane	5	0.41 U	1.4 U	0.41 U	1.4 U	0.41 UJ	0.41 U	1.4 U	0.41 U	1.4 U	0.41 U	0.41 U	1.4 U	0.41 U	1.4 U	0.41 UJ	0.41 U	1.4 U	0.41 U	1.4 U	0.41 U
Carbon Disulfide	60	0.40 U	0.20 U	0.40 U	0.20 U	0.40 U	0.40 UJ	0.20 U	0.40 U	0.20 U	0.40 U	0.40 U	0.20 U	0.40 U	0.20 U	0.40 UJ	0.40 UJ	0.20 U	0.40 UJ	0.20 U	0.40 UJ
Chlorobenzene	5	0.47 U	0.28 U	0.47 U	0.28 U	0.47 U	0.47 U	0.28 U	0.47 U	0.28 U	0.47 U	0.47 U	0.28 U	0.47 U	0.28 U	0.47 U	0.47 U	0.28 U	0.47 U	0.28 U	0.47 U
Chloroform	7	0.33 U	0.45 U	0.33 U	0.45 U	0.33 U	0.33 U	0.45 U	0.33 U	0.45 U	0.33 U	0.33 U	0.45 U	0.33 U	0.45 U	0.33 U	0.33 U	0.45 U	0.33 U	0.45 U	0.33 U
Chloromethane	5	0.34 U	0.37 U	0.34 U	0.37 U	0.34 UJ	0.34 UJ	0.37 U	0.34 UJ	0.37 U	0.34 UJ	0.34 UJ	0.37 U	0.34 UJ	0.37 U	0.34 UJ	0.34 UJ	0.37 U	0.34 UJ	0.37 U	0.34 UJ
cis-1,2-Dichloroethene	5	**3.4 J**	**5.7**	0.29 U	0.72 U	0.29 U	0.29 U	0.72 U	**14 J**	**14**	0.29 U	0.29 U	0.72 U	0.29 U	**6**	0.29 U	0.29 U	0.72 U	**9.3**	**13**	**4.5 J**
cis-1,3-Dichloropropene	0.4	0.36 U	0.29 U	0.36 U	0.29 U	0.36 U	0.36 U	0.29 U	**4.9 J**	0.29 U	0.36 UJ	0.36 UJ	0.29 U	0.36 UJ	0.29 U	0.36 U	0.36 U	0.29 U	0.36 U	0.29 U	0.36 U
Cyclohexane	NA	0.36 UJ	**3.9 J**	0.36 UJ	0.57 U	**5.7 J**	0.36 UJ	0.57 U	**9.8**	**18**	**6.8**	0.36 U	0.57 U	0.36 U	0.57 U	0.36 UJ	0.36 U	0.57 U	0.36 U	0.57 U	**4.2 J**
Isopropylbenzene	5	**33**	**35**	0.44 U	0.37 U	**12 J**	0.44 U	0.37 U	**33 J**	**53**	**4.9 J**	0.44 UJ	0.37 U	0.44 UJ	0.37 U	0.44 U	0.44 U	0.37 U	0.44 U	0.37 U	**5.7**
Methyl Acetate	NA	0.20 U	0.45 U	0.20 U	0.45 U	0.20 UJ	0.20 UJ	0.45 U	0.20 U	0.45 U	0.20 U	0.20 U	0.45 U	0.20 U	0.45 U	0.20 UJ	0.20 UJ	0.45 U	0.20 UJ	0.45 U	0.20 UJ
Methyl tert-butyl ether	10	0.28 U	0.23 U	0.28 U	0.23 U	**1.2 J**	0.28 U	0.23 U	0.28 U	0.23 U	0.28 U	0.28 U	0.23 U	0.28 U	0.23 U	0.28 U	0.28 U	0.23 U	0.28 U	0.23 U	0.28 U
Methylcyclohexane	NA	**3.8 J**	**4.9 J**	0.34 U	0.47 U	**4.6 J**	0.34 U	0.47 U	**9.3**	**19**	**12 J**	0.34 UJ	0.47 U	0.34 UJ	0.47 U	0.34 U	0.34 U	0.47 U	0.34 U	0.47 U	**8.5**
Naphthalene	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Styrene	5	0.41 U	0.19 U	0.41 U	0.19 U	**2.4 J**	0.41 U	0.19 U	**1.5 J**	0.19 U	**140 D**	0.41 UJ	0.19 U	0.41 UJ	0.19 U	0.41 U	0.41 U	0.19 U	0.41 U	0.19 U	**36**
Tetrachloroethene	5	0.48 U	0.97 U	0.48 U	0.97 U	0.48 U	0.48 U	0.97 U	0.48 U	0.97 U	0.48 U	0.48 U	0.97 U	0.48 U	0.97 U	0.48 UJ	0.48 UJ	0.97 U	**1.6 J**	0.97 U	0.48 UJ
trans-1,2-Dichloroethene	5	0.40 U	0.44 U	0.40 U	0.44 U	0.40 U	0.40 U	0.44 U	**0.98 J**	0.44 U	0.40 U	0.40 U	0.44 U	0.40 U	0.44 U	0.40 UJ	0.40 UJ	0.44 U	0.40 UJ	0.44 U	0.40 UJ
trans-1,3-Dichloropropene	0.4	0.32 U	0.31 U	0.32 U	0.31 U	0.32 U	0.32 U	0.31 U	0.32 UJ	0.31 U	0.32 UJ	0.32 UJ	0.31 U	0.32 UJ	0.31 U	0.32 U	0.32 U	0.31 U	0.32 U	0.31 U	0.32 U
Trichloroethene	5	0.46 U	0.34 U	0.46 U	0.34 U	0.46 U	0.46 UJ	0.34 U	**1.6 J**	0.34 U	0.46 U	0.46 U	0.34 U	0.46 U	**4.6 J**	0.46 U	0.46 U	0.34 U	0.46 U	**5.7**	0.46 U
Vinyl Chloride	2	0.33 U	0.30 U	0.33 U	0.30 U	0.33 UJ	0.33 UJ	0.30 U	0.33 U	0.30 U	0.33 U	0.33 U	0.30 U	0.33 U	0.30 U	0.33 UJ	0.33 UJ	0.30 U	0.33 UJ	0.30 U	**4.7 J**
Total VOCs	NA	**703.2**	**407.8**	0	0	**905.9**	0	**48.4**	**749.29**	**995**	**1393.7**	0	0	0	**10.6**	0	0	0	**13.5**	**22.4**	**345.6**

NYSDEC Groundwater Standards - New York State Department of Environmental Conservation Ambient Water Quality Standards or Guidance Values (AWQSGVs) listed in Technical and Operations Guidance Series (TOGs) 1.1.1 (NYSDEC 1998)
Bold = Detected analytes
***Bold and Italics*=** Not detect exceeds NYSDEC AWQSGVs
Yellow highlighted values exceed NYSDEC AWQSGVs
NA = Not Applicable
NS= Not Sampled
ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-2 Monitoring Wells																		
		EBMWD13		EBMWDD13		EBMWD14	EBMWDD14		EBMWD15		EBMWDD15	20MWS16		20MWD16		20MWS17			20MWD17		EBMWD18
Grab Depth (feet)	AWQSGVs	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	DUP	N/A	N/A	N/A	N/A
Sample Date		5/22/2006	9/3/2008	5/22/2006	9/3/2008	5/19/2006	5/19/2006	8/27/2008	5/24/2006	9/3/2008	5/24/2006	5/24/2006	9/9/2008	5/24/2006	9/9/2008	5/18/2006	5/18/2006	9/5/2008	5/18/2006	9/5/2008	5/17/2006
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/l)																					
Acenaphthene	20	**99**	**110**	1.4 U	0.330 U	**32**	1.4 U	**1.7 J**	**110**	**210**	**27**	1.4 U	0.320 U	1.4 U	1.6 U	1.4 U	1.4 U	0.330 U	1.4 U	0.330 U	**56**
Acenaphthylene	NA	**23**	**18**	1.3 U	0.360 U	**20**	1.3 U	0.360 U	**40**	**8.3 J**	**120**	1.3 U	0.350 U	1.3 U	1.8 U	1.3 U	1.3 U	0.360 U	1.3 U	0.360 U	**26**
Anthracene	50	**10**	**9.5 J**	1.4 U	1.4 U	**4.5 J**	1.4 U	1.5 U	**7.9 J**	**9.3 J**	**10**	1.4 U	1.4 U	1.4 U	7.2 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	**12**
Benzo(a)anthracene	0.002	***1.1 U***	***1.3 U***	***1.1 U***	***1.3 U***	**1.2 J**	***1.1 U***	***1.3 U***	***1.1 U***	***1.3 U***	***1.1 U***	***1.1 U***	***1.3 U***	***1.1 U***	***6.6 U***	***1.1 U***	***1.1 U***	***1.3 U***	***1.1 U***	***1.3 U***	**2.2 J**
Benzo(a)pyrene	NA	1.2 U	0.220 U	1.2 U	0.220 U	1.2 U	1.2 U	0.230 U	1.2 U	0.220 U	1.2 U	1.2 U	0.220 U	1.2 U	1.1 U	1.2 U	1.2 U	0.220 U	1.2 U	0.220 U	**1.7 J**
Benzo(b)fluoranthene	0.002	***0.760 U***	***0.440 U***	***0.760 U***	***0.440 U***	***0.760 U***	***0.760 U***	***0.440 U***	***0.760 U***	***0.440 U***	***0.760 U***	***0.760 U***	***0.430 U***	***0.760 U***	***2.2 U***	***0.760 U***	***0.760 U***	***0.440 U***	***0.760 U***	***0.440 U***	***0.760 U***
Benzo(ghi)perylene	NA	1.1 U	0.400 U	1.1 U	0.400 U	1.1 U	1.1 U	0.400 U	1.1 U	0.400 U	1.1 U	1.1 U	0.390 U	1.1 U	2.0 U	1.1 U	1.1 U	0.400 U	1.1 U	0.400 U	1.1 U
Benzo(k)fluoranthene	0.002	***1.9 U***	***0.310 U***	***1.9 U***	***0.310 U***	***1.9 U***	***1.9 U***	***0.310 U***	***1.9 UJ***	***0.310 U***	***1.9 UJ***	***1.9 UJ***	***0.300 U***	***1.9 UJ***	***1.5 U***	***1.9 U***	***1.9 U***	***0.310 U***	***1.9 U***	***0.310 U***	***1.9 U***
Chrysene	0.002	***1.7 U***	***0.270 U***	***1.7 U***	***0.270 U***	***1.7 U***	***1.7 U***	***0.270 U***	***1.7 U***	***0.270 U***	***1.7 U***	***1.7 U***	***0.260 U***	***1.7 U***	***1.3 U***	***1.7 U***	***1.7 U***	***0.270 U***	***1.7 U***	***0.270 U***	**2.1 J**
Dibenz(a,h)anthracene	NA	0.880 U	0.550 U	0.870 U	0.550 U	0.880 U	0.880 U	0.560 U	0.880 U	0.550 U	0.880 U	0.880 U	0.550 U	0.870 U	2.8 U	0.880 U	0.880 U	0.550 U	0.880 U	0.550 U	0.880 U
Fluoranthene	50	**7.0 J**	**7.6 J**	1.2 U	0.200 U	**4.4 J**	1.2 U	0.210 U	**5.4 J**	**4.6 J**	**6.4 J**	1.2 U	0.200 U	1.2 U	1.0 U	1.2 U	1.2 U	0.200 U	1.2 U	0.200 U	**11**
Fluorene	50	**45**	**41**	1.4 U	0.290 U	**17**	1.4 U	0.290 U	**46**	**56**	**35**	1.4 U	0.280 U	1.4 U	1.4 U	1.4 U	1.4 U	0.290 U	1.4 U	0.290 U	**28**
Indeno(1,2,3-cd)pyrene	0.002	***0.840 UJ***	***0.670 U***	***0.840 UJ***	***0.670 U***	***0.840 U***	***0.840 U***	***0.680 U***	***0.840 U***	***0.670 U***	***0.840 U***	***0.840 U***	***0.670 U***	***0.840 U***	***3.4 U***	***0.840 U***	***0.840 U***	***0.670 U***	***0.840 U***	***0.670 U***	***0.840 U***
Naphthalene	10	**110**	**15**	**2.6 J**	**2.8 J**	**1100 D**	**1.9 J**	**35**	**1500 D**	**2400**	**2700 D**	1.4 U	0.280 U	1.4 U	1.4 U	1.4 U	1.4 U	0.290 U	1.4 U	0.290 U	1.4 U
Phenanthrene	50	**47**	**36**	1.4 U	1.4 U	**23**	1.4 U	1.4 U	**46**	**71**	**62**	1.4 U	1.4 U	1.4 U	6.9 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	**54**
Pyrene	50	**5.7 J**	**5.3 J**	1.5 U	1.4 U	**9.0 J**	1.5 U	1.5 U	**4.3 J**	**3.5 J**	**7.6 J**	1.5 U	1.4 U	1.5 U	7.2 U	1.5 U	1.5 U	1.4 U	1.5 U	1.4 U	**21**
Semivolatile Organic Compounds (SVOCs) (ug/L)																					
1,1-Biphenyl	5	**7.5 J**	**2.8 J**	1.4 U	0.330 U	**14**	1.4 U	0.330 U	**8.1 J**	**32**	**31**	1.4 U	0.320 U	1.4 U	1.6 U	1.4 U	1.4 U	0.330 U	1.4 U	0.330 U	**30**
2,4-Dimethylphenol	50	1.2 U	0.780 U	1.2 U	0.780 UJ	**10 J**	1.2 U	0.780 UJ	1.2 U	**3.3 J**	1.2 U	1.2 U	0.770 U	1.2 U	3.9 R	1.2 UJ	1.2 U	0.780 U	1.2 U	0.780 U	1.2 U
2-Methylnaphthalene	NA	**27**	**1.1 J**	1.1 U	0.380 U	**130 D**	1.1 U	**1.4 J**	**140 D**	**160**	**260 D**	1.1 U	0.370 U	1.1 U	1.9 U	1.1 U	1.1 U	0.380 U	1.1 U	0.380 U	1.1 U
2-Methylphenol	NA	1.5 U	0.370 U	1.5 U	0.370 UJ	1.5 U	1.5 U	0.370 UJ	1.5 U	0.370 U	1.5 U	1.5 U	0.360 U	1.5 U	1.8 R	1.5 U	1.5 U	0.370 U	1.5 U	0.370 U	1.5 U
3+4-Methylphenols	NA	1.3 U	0.400 U	**1.4 J**	0.400 UJ	1.3 U	1.3 U	0.400 UJ	1.3 U	0.400 U	1.3 U	1.3 U	0.390 U	1.3 U	2.0 R	1.3 U	1.3 U	0.400 U	1.3 U	0.400 U	1.3 U
4-Methylphenol	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
bis(2-Ethylhexyl) phthalate	5	1.6 U	1.3 U	1.5 U	1.3 U	1.6 U	1.6 U	1.3 U	1.6 U	1.3 U	1.5 U	1.6 U	1.3 U	1.5 U	6.6 U	1.6 U	1.6 U	1.3 U	1.6 U	1.3 U	1.6 U
Butyl benzyl phthalate	50	1.5 U	0.430 U	1.4 U	0.430 U	1.5 U	1.5 U	0.430 U	1.5 U	0.430 U	1.5 U	1.5 U	0.420 U	1.4 U	2.1 U	1.5 U	1.5 U	0.430 U	1.5 U	0.430 U	1.5 U
Caprolactam	NA	**1.3 R**	1.5 U	**1.3 R**	1.5 U	**1.3 R**	**1.3 R**	1.5 R	**1.3 R**	1.5 U	**1.3 R**	**1.3 R**	1.5 R	**1.3 R**	7.6 R	**1.3 R**	**1.3 R**	1.5 U	**1.3 R**	1.5 U	**1.3 R**
Carbazole	NA	**120 J**	**49**	1.3 U	0.240 U	**5.5 J**	1.3 U	0.250 U	**130 D**	**75**	**7.9 J**	1.3 U	0.240 U	1.3 U	1.2 U	1.3 U	1.3 U	0.240 U	1.3 U	0.240 U	1.3 U
Dibenzofuran	NA	**46**	**50**	1.3 U	0.320 U	**1.9 J**	1.3 U	0.320 U	**33**	**49**	**6.2 J**	1.3 U	0.310 U	1.3 U	1.6 U	1.3 U	1.3 U	0.320 U	1.3 U	0.320 U	**1.6 J**
Diethyl phthalate	50	1.4 U	0.330 U	1.3 U	0.330 U	1.4 U	1.4 U	0.330 U	1.4 U	0.330 U	1.3 U	1.4 U	0.320 U	1.3 U	1.6 U	1.4 U	1.4 U	0.330 U	1.4 U	0.330 U	1.4 U
Phenol	1	**14 J**	**13**	***1.3 R***	0.560 UJ	***1.3 U***	***1.3 U***	0.570 R	**2.9 J**	0.560 U	***1.3 R***	***1.3 R***	0.560 R	***1.3 R***	***2.8 R***	***1.3 U***	***1.3 U***	0.560 UJ	***1.3 U***	0.560 UJ	**1.5 J**
Total SVOCs	NA	**561.2**	**358.3**	**4**	**2.8**	**1372.5**	**1.9**	**38.1**	**2073.6**	**3082**	**3273.1**	0	0	0	0	0	0	0	0	0	**247.1**
Metals (ug/L)																					
Aluminum	NA	**191 J-**	NS	5.3 UJ	NS	5.310 U	**335**	NS	**99.9 J**	NS	**214**	**834**	NS	**5.5 J**	NS	**219**	200 U	NS	200 U	NS	**852**
Antimony	3	***3.2 UJ***	NS	***3.2 UJ***	NS	***3.170 U***	***3.170 U***	NS	***60 U***	NS	***3.2 U***	***60 U***	NS	***60 U***	NS	***3.170 U***	***3.170 U***	NS	***60 U***	NS	***3.170 U***
Arsenic	25	**6.2 J**	NS	3.3 U	NS	3.320 U	10 U	NS	3.3 U	NS	3.3 U	3.3 U	NS	3.3 U	NS	3.320 U	3.320 U	NS	3.320 U	NS	3.320 U
Barium	1000	**218 J-**	NS	**4.7 J-**	NS	200 U	200 U	NS	**159 J**	NS	**31.5 J**	**33.6 J**	NS	**47.6 J**	NS	**229 J**	**234 J**	NS	**204 J**	NS	200 U
Beryllium	3	0.09 UJ	NS	***5 U***	NS	***5 U***	***5 U***	NS	***5 U***	NS	0.09 U	***5 U***	NS	***5 U***	NS	***5 U***	***5 U***	NS	***5 U***	NS	***5 U***
Cadmium	5	0.33 UJ	NS	0.33 UJ	NS	5 U	5 U	NS	0.33 U	NS	0.33 U	0.33 U	NS	0.33 U	NS	5 U	5 U	NS	5 U	NS	5 U
Calcium	NA	**50800 J**	NS	**231000 J**	NS	**172000 J**	**360000 J**	NS	**40300**	NS	**308000**	**84500**	NS	**48600**	NS	**112000 J**	**117000 J**	NS	**32100 J**	NS	**41200 J**
Chromium	50	**236 J-**	NS	**256 J-**	NS	10 U	10 U	NS	**170 J-**	NS	**153 J-**	**48.7 J-**	NS	**183 J-**	NS	10 U	10 U	NS	10 U	NS	10 U
Cobalt	NA	0.37 UJ	NS	0.37 UJ	NS	50 U	50 U	NS	50 U	NS	0.37 U	50 U	NS	50 U	NS	50 U	50 U	NS	50 U	NS	50 U
Copper	200	**9.0 J-**	NS	**18.2 J-**	NS	3.640 U	**5.550 J**	NS	**4.6 J**	NS	**6.7 J**	**3.8 J**	NS	3.6 U	NS	**4.360 J**	3.640 U	NS	**6.650 J**	NS	3.640 U
Iron	300	**30200 J-**	NS	**2700 J-**	NS	**179**	**1330**	NS	**19000 J-**	NS	**2490 J-**	**6650 J-**	NS	**1420 J-**	NS	**1270**	**1040**	NS	**12300**	NS	**1870**
Lead	25	**39.8 J-**	NS	2.8 UJ	NS	2.180 U	2.180 U	NS	**5.1**	NS	2.8 U	**6.1**	NS	2.9 U	NS	**18.2 J**	**3.420 J**	NS	2.180 U	NS	**4.340 J**
Magnesium	35000	**53700 J**	NS	**516000 J**	NS	**558000 J**	**390000 J**	NS	**37500**	NS	**353000**	**13000**	NS	**28900**	NS	**9880 J**	**10600 J**	NS	**30300 J**	NS	**26400 J**
Manganese	300	**478 J-**	NS	**716 J-**	NS	**37.2 J**	**753 J**	NS	**761**	NS	**1040**	**657**	NS	**683**	NS	**192 J**	**183 J**	NS	**600 J**	NS	**231 J**
Mercury	0.7	0.2 U	NS	0.2 U	NS	0.0300 UJ	0.0300 UJ	NS	0.0300 U	NS	0.0300 U	0.2 U	NS	0.2 U	NS	**0.0400 J-**	**0.0800 J-**	NS	0.0300 UJ	NS	0.0300 UJ
Nickel	100	**141 J-**	NS	**103 J-**	NS	40 U	40 U	NS	**59.0 J-**	NS	**74.4 J-**	40 U	NS	**63.2 J-**	NS	40 U	40 U	NS	40 U	NS	40 U
Potassium	NA	**57600 J**	NS	**146000 J**	NS	**103000 J+**	**109000 J+**	NS	**47800 J**	NS	**151000 J**	**21600 J**	NS	**23000 J**	NS	**24800 J+**	**26500 J+**	NS	**37400 J+**	NS	**49500 J+**
Selenium	10	10 U	NS	3.0 U	NS	3.040 U	3.040 U	NS	3.0 U	NS	3.0 U	3.0 U	NS	3.0 U	NS	3.040 U	3.040 U	NS	3.040 U	NS	3.040 U
Silver	50	1.6 UJ	NS	1.6 UJ	NS	1.640 U	1.640 U	NS	1.6 U	NS	1.6 U	1.6 U	NS	1.6 U	NS	**1.840 J**	1.640 U	NS	1.640 U	NS	1.640 U
Sodium	20000	**256000 J**	NS	**6040000 JD**	NS	**9410000 JD**	**7020000 J**	NS	**139000**	NS	**5060000 D**	**68100**	NS	**71400**	NS	**175000 J**	**208000 J**	NS	**310000 J**	NS	**194000 J**
Thallium	0.5	***3.1 U***	NS	***3.1 U***	NS	***3.050 U***	***10 U***	NS	***3.1 U***	NS	***3.1 U***	***3.1 U***	NS	***3.1 U***	NS	***10 U***	***3.050 U***	NS	***3.050 U***	NS	***10 U***
Vanadium	NA	50 U	NS	0.70 UJ	NS	50 U	50 U	NS	50 U	NS	0.70 U	50 U	NS	0.70 U	NS	50 U	50 U	NS	50 U	NS	50 U
Zinc	2000	**40.8 J**	NS	**23.9 J**	NS	**11.8 J**	**12.0 J**	NS	**22.6 J**	NS	**18.9 J**	**191 J**	NS	**23.6 J**	NS	**105 J**	**87.1 J**	NS	**20.9 J**	NS	**22.0 J**
Cyanide (ug/L)																					
Available Cyanide	NA	1.5 U	NS	1.5 U	NS	1.5 U	1.5 U	NS	1.5 U	NS	1.5 U	1.5 U	NS	1.5 U	NS	1.5 U	1.5 U	NS	1.5 U	NS	1.5 U
Cyanide, Total	200	10 U	NS	**16**	NS	10 U	10 U	NS	10 U	NS	10 U	10 U	NS	10 U	NS	10 U	10 U	NS	10 U	NS	10 U

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NA = Not Applicable
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ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
J- = (Inorganics) The result is an estimated quantity, but the result may be biased low.
R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.
D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-2 Monitoring Wells																
		EBMWDD18			23MWDD20		23MWD22	20MWD23	20MWD23	EBMWD24	EBMWDD24	EBMWD25	EBMWDD25	AC101				
Grab Depth (feet)	AWQSGVs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DUP	N/A	N/A	N/A	N/A	13-15	28-30	58-60	60-64	66-70
Sample Date		4/12/2006	5/17/2006	9/4/2008	5/25/2006	9/8/2008	9/26/2008	9/29/2008	9/29/2008	9/25/2008	9/25/2008	9/25/2008	9/25/2008	4/27/2006	4/27/2006	4/28/2006	5/9/2006	5/5/2006
BTEX (ug/L)																		
Benzene	1	**7.5**	**5.2**	**5.8**	0.39 U	**4.4 J**	**26**	**3.8 J**	**5.3**	0.35 U	0.35 U	0.35 U	**4.9 J**	0.39 U	**3900 D**	**0.61 J**	**120**	**3.1 J**
Ethylbenzene	5	1.00 U	**6.6 J**	0.05 U	0.45 U	0.05 U	**0.56 J**	**4.5 J**	**8.9**	0.05 U	0.05 U	**3.6 J**	**69**	0.45 U	**290 D**	**0.62 J**	**38**	**4.3 J**
m,p-Xylene	NA	2.00 U	**2.2 J**	0.47 U	1.2 U	0.47 U	0.47 U	**3.4 J**	**7.2 J**	0.47 U	0.47 U	0.47 U	**34**	1.2 U	**77**	1.2 U	**9.4 J**	**3.4 J**
o-Xylene	NA	1.00 U	**1.7 J**	0.16 U	0.46 U	0.16 U	0.16 U	**5.6**	**10**	0.16 U	0.16 U	0.16 U	**26**	**2.2 J**	**160**	**2.2 J**	**40 J**	**8.9**
Toluene	5	1.00 U	**1.2 J**	0.16 U	0.36 U	0.16 U	0.16 U	**3.8 J**	**5.6**	0.16 U	0.16 U	0.16 U	**14**	0.36 U	**49**	0.36 U	**21 J**	0.36 U
Total Xylene (calculated)	5	0	**3.9**	0	0	0	0	**9**	**17.2**	0	0	0	**60**	2.2	**237**	2.2	**49.4**	**12.3**
Volatile Organic Compounds (VOCs) (ug/L)																		
1,1,2-Trichloroethane	1	1.00 U	0.41 U	0.32 U	0.41 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.41 U	0.41 U	0.41 U	***2.0 U***	0.41 U
1,1-Dichloroethene	5	1.00 U	0.42 UJ	0.67 U	0.42 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.42 U	0.42 U	0.42 U	**2.1 R**	0.42 U
1,2-Dibromoethane (EDB)	0.6	***1.00 U***	0.32 U	0.26 U	**0.32 R**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.32 U	0.32 U	0.32 U	***1.6 U***	0.32 U
1,2-Dichloroethane	0.6	***1.00 U***	0.34 U	0.41 U	0.34 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.34 U	0.34 U	0.34 U	***1.7 U***	0.34 U
1,2-Dichloropropane	1	1.00 U	0.40 U	0.46 U	0.40 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.40 U	0.40 U	0.40 U	***2.0 UJ***	0.40 U
2-Butanone (Methyl Ethyl Ketone)	50	5.00 U	1.1 UJ	1.9 U	1.1 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.1 U	1.1 U	1.1 U	5.7 UJ	**1.7 J**
2-Hexanone	50	5.00 U	1.7 U	1.8 U	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	8.4 U	1.7 U
Acetone	50	5.00 U	**2.3 R**	2.2 U	2.3 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	**2.3 R**	**2.3 R**	2.3 U	11 U	2.3 U
Bromodichloromethane	50	1.00 U	0.33 U	0.23 U	0.33 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.33 U	0.33 U	0.33 U	1.7 U	0.33 U
Bromomethane	5	1.00 U	0.41 U	1.4 U	0.41 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.41 U	0.41 U	0.41 U	2.1 U	0.41 U
Carbon Disulfide	60	1.00 U	0.40 UJ	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.40 U	0.40 U	0.40 U	2.0 UJ	0.40 U
Chlorobenzene	5	1.00 U	0.47 U	0.28 U	0.47 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.47 U	0.47 U	0.47 U	2.3 U	0.47 U
Chloroform	7	1.00 U	0.33 U	0.45 U	0.33 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.33 U	0.33 U	0.33 U	1.7 U	0.33 U
Chloromethane	5	1.00 U	0.34 UJ	0.37 U	0.34 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.34 U	0.34 U	0.34 U	1.7 U	0.34 U
cis-1,2-Dichloroethene	5	**18**	**17**	**26**	0.29 U	0.72 U	**1.6 J**	**30**	**30**	0.72 U	**28**	**42**	0.72 U	0.29 U	**2.8 J**	0.29 U	1.5 U	0.29 U
cis-1,3-Dichloropropene	0.4	***1.00 U***	0.36 U	0.29 U	0.36 UJ	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.36 U	0.36 U	0.36 U	***1.8 U***	0.36 U
Cyclohexane	NA	NS	**2.4 J**	0.57 U	0.36 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.36 U	0.36 U	0.36 U	1.8 UJ	0.36 U
Isopropylbenzene	5	1.00 U	**2.3 J**	0.37 U	0.44 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	**7.6**	0.44 U	**26**	0.44 U	**3.4 J**	**0.88 J**
Methyl Acetate	NA	NS	0.20 UJ	0.45 U	0.20 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.20 UJ	0.20 UJ	0.20 U	1.0 UJ	0.20 UJ
Methyl tert-butyl ether	10	2.00 U	0.28 U	0.23 U	0.28 U	0.23 U	**0.56 J**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.28 U	0.28 U	0.28 U	1.4 UJ	0.28 U
Methylcyclohexane	NA	NS	**0.90 J**	0.47 U	0.34 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	**11**	0.34 U	0.34 U	0.34 U	1.7 U	0.34 U
Naphthalene	10	2.00 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Styrene	5	1.00 U	**0.52 J**	0.19 U	0.41 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	**7.7**	0.41 U	0.41 U	0.41 U	2.0 U	0.41 U
Tetrachloroethene	5	1.00 U	0.48 UJ	0.97 U	0.48 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	**7.9**	0.97 U	0.48 U	0.48 U	0.48 U	2.4 UJ	0.48 UJ
trans-1,2-Dichloroethene	5	1.00 U	**2.1 J**	**3.6 J**	0.40 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.40 U	0.40 U	0.40 U	2.0 UJ	0.40 U
trans-1,3-Dichloropropene	0.4	***1.00 U***	0.32 U	0.31 U	0.32 UJ	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.32 U	0.32 U	0.32 U	***1.6 U***	0.32 U
Trichloroethene	5	**5.6**	**4.7 J**	**4.1 J**	0.46 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	**7**	0.34 U	0.46 U	0.46 U	0.46 U	2.3 UJ	0.46 U
Vinyl Chloride	2	1.00 U	0.33 UJ	0.30 U	0.33 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.33 U	0.33 U	0.33 U	1.6 U	0.33 U
Total VOCs	NA	**31.1**	**46.82**	**39.5**	0	**4.4**	**28.72**	**51.1**	**67**	0	**28**	**60.5**	**174.2**	**2.2**	**4504.8**	**3.43**	**231.8**	**22.28**

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Grab Depth (feet)	AWQSGVs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DUP	N/A	N/A	N/A	N/A	13-15	28-30	58-60	60-64	66-70
Sample Date		4/12/2006	5/17/2006	9/4/2008	5/25/2006	9/8/2008	9/26/2008	9/29/2008	9/29/2008	9/25/2008	9/25/2008	9/25/2008	9/25/2008	4/27/2006	4/27/2006	4/28/2006	5/9/2006	5/5/2006
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/l)																		
Acenaphthene	20	NS	**11**	**4.3 J**	1.4 U	0.330 U	1.7 U	1.6 U	1.6 U	1.6 U	3.2 U	1.6 U	**74**	NS	NS	NS	NS	NS
Acenaphthylene	NA	NS	**5.2 J**	**1.9 J**	1.3 U	0.360 U	1.8 U	**6.7 J**	**7.6 J**	1.8 U	3.5 U	1.8 U	**25 J**	NS	NS	NS	NS	NS
Anthracene	50	NS	1.4 U	1.4 U	1.4 U	1.4 U	7.4 U	7.2 U	7.2 U	7.3 U	14 U	7.2 U	**11 J**	NS	NS	NS	NS	NS
Benzo(a)anthracene	0.002	NS	***1.1 U***	***1.3 U***	***1.1 U***	***1.3 U***	***6.8 U***	***6.6 U***	***6.6 U***	***6.7 U***	***13 U***	***6.6 U***	***6.6 U***	NS	NS	NS	NS	NS
Benzo(a)pyrene	NA	NS	1.2 U	0.220 U	1.2 U	0.220 U	1.1 U	1.1 U	1.1 U	1.1 U	2.2 U	1.1 U	1.1 U	NS	NS	NS	NS	NS
Benzo(b)fluoranthene	0.002	NS	***0.760 U***	***0.440 U***	***0.760 U***	***0.440 U***	***2.2 U***	***2.2 U***	***2.2 U***	***2.2 U***	***4.3 U***	***2.2 U***	***2.2 U***	NS	NS	NS	NS	NS
Benzo(ghi)perylene	NA	NS	1.1 U	0.400 U	1.1 U	0.400 U	2.0 U	2.0 U	2.0 U	2.0 U	3.9 U	2.0 U	2.0 U	NS	NS	NS	NS	NS
Benzo(k)fluoranthene	0.002	NS	***1.9 U***	***0.310 U***	***1.9 U***	***0.310 U***	***1.6 U***	***1.5 U***	***1.5 U***	***1.5 U***	***3.0 U***	***1.5 U***	***1.5 U***	NS	NS	NS	NS	NS
Chrysene	0.002	NS	***1.7 U***	***0.270 U***	***1.7 U***	***0.270 U***	***1.4 U***	***1.3 U***	***1.3 U***	***1.3 U***	***2.6 U***	***1.3 U***	***1.3 U***	NS	NS	NS	NS	NS
Dibenz(a,h)anthracene	NA	NS	0.880 U	0.550 U	0.870 U	0.550 U	2.8 U	2.8 U	2.8 U	2.8 U	5.4 U	2.8 U	2.8 U	NS	NS	NS	NS	NS
Fluoranthene	50	NS	1.2 U	0.200 U	1.2 U	0.200 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	**7.4 J**	NS	NS	NS	NS	NS
Fluorene	50	NS	1.4 U	0.290 U	1.4 U	0.290 U	1.5 U	**12 J**	**12 J**	1.4 U	2.8 U	1.4 U	**44 J**	NS	NS	NS	NS	NS
Indeno(1,2,3-cd)pyrene	0.002	NS	***0.840 U***	***0.670 U***	***0.840 U***	***0.670 U***	***3.4 U***	***3.4 U***	***3.4 U***	***3.4 U***	***6.6 U***	***3.4 U***	***3.4 U***	NS	NS	NS	NS	NS
Naphthalene	10	NS	1.4 U	0.290 U	1.4 U	0.290 U	1.5 U	**69**	**89**	1.4 U	2.8 U	**29 J**	**600**	NS	NS	NS	NS	NS
Phenanthrene	50	NS	1.4 U	1.4 U	1.4 U	1.4 U	7.1 U	**24 J**	**22 J**	7.0 U	14 U	6.9 U	**79**	NS	NS	NS	NS	NS
Pyrene	50	NS	1.5 U	1.4 U	1.5 U	1.4 U	7.3 U	7.2 U	7.2 U	7.3 U	14 U	7.2 U	**9.7 J**	NS	NS	NS	NS	NS
Semivolatile Organic Compounds (SVOCs) (ug/L)																		
1,1-Biphenyl	5	NS	1.4 U	0.330 U	1.4 U	0.330 U	1.7 U	1.6 U	1.6 U	1.6 U	3.2 U	1.6 U	**40 J**	NS	NS	NS	NS	NS
2,4-Dimethylphenol	50	NS	1.2 U	0.780 UJ	1.2 U	0.780 U	4.0 U	3.9 UJ	3.9 UJ	3.9 U	7.6 U	3.9 R	3.9 UJ	NS	NS	NS	NS	NS
2-Methylnaphthalene	NA	NS	1.1 U	0.380 U	1.1 U	0.380 U	1.9 U	**19 J**	**20 J**	1.9 U	3.7 U	1.9 U	**130**	NS	NS	NS	NS	NS
2-Methylphenol	NA	NS	1.5 U	0.370 UJ	1.5 U	0.370 U	1.9 U	1.8 UJ	1.8 UJ	1.9 U	3.6 U	1.8 R	1.8 UJ	NS	NS	NS	NS	NS
3+4-Methylphenols	NA	NS	1.3 U	0.400 UJ	1.3 U	0.400 U	2.0 U	2.0 UJ	2.0 UJ	2.0 U	3.9 U	2.0 R	2.0 UJ	NS	NS	NS	NS	NS
4-Methylphenol	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
bis(2-Ethylhexyl) phthalate	5	NS	1.6 U	1.3 U	1.5 U	1.3 U	6.8 U	6.6 U	6.6 U	6.7 U	13 U	6.6 U	6.6 U	NS	NS	NS	NS	NS
Butyl benzyl phthalate	50	NS	1.5 U	0.430 U	1.4 U	0.430 U	2.2 U	2.1 U	2.1 U	2.2 U	4.2 U	2.1 U	2.1 U	NS	NS	NS	NS	NS
Caprolactam	NA	NS	**1.3 R**	1.5 U	1.3 U	1.5 R	7.7 U	7.6 UJ	7.6 U	7.6 U	15 U	7.6 R	7.6 UJ	NS	NS	NS	NS	NS
Carbazole	NA	NS	1.3 U	0.240 U	1.3 U	0.240 U	1.2 U	**8.8 J**	**10 J**	1.2 U	2.4 U	1.2 U	1.2 U	NS	NS	NS	NS	NS
Dibenzofuran	NA	NS	1.3 U	0.320 U	1.3 U	0.320 U	1.6 U	**6.4 J**	**6.5 J**	1.6 U	3.1 U	1.6 U	1.6 U	NS	NS	NS	NS	NS
Diethyl phthalate	50	NS	1.4 U	0.330 U	1.3 U	0.330 U	1.7 U	1.6 U	1.6 U	1.6 U	3.2 U	1.6 U	1.6 U	NS	NS	NS	NS	NS
Phenol	1	NS	***1.3 U***	0.560 UJ	***1.3 U***	0.560 R	***2.9 U***	***2.8 UJ***	***2.8 UJ***	***2.8 UJ***	***5.5 U***	***2.8 R***	***2.8 UJ***	NS	NS	NS	NS	NS
Total SVOCs	NA	NS	**16.2**	**6.2**	0	0	0	**145.9**	**167.1**	0	0	**29**	**1020.1**	NS	NS	NS	NS	NS
Metals (ug/L)																		
Aluminum	NA	NS	200 U	NS	**41.7 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	3	NS	***3.170 U***	NS	***3.170 U***	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	25	NS	3.320 U	NS	**11.4**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1000	NS	200 U	NS	200 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	3	NS	***5 U***	NS	0.090 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	5	NS	5 U	NS	0.327 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	NA	NS	**44700 J**	NS	**74100 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	50	NS	10 U	NS	**7.260 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	NA	NS	50 U	NS	0.370 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	200	NS	**7.850 J**	NS	3.640 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	300	NS	**482**	NS	**781 J-**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	25	NS	2.180 U	NS	2.180 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	35000	NS	**35000 J**	NS	**121000 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	300	NS	**251 J**	NS	**107 J-**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.7	NS	0.0300 UJ	NS	0.2 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	100	NS	40 U	NS	1.560 UJ	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	NA	NS	**35700 J+**	NS	**74600**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	10	NS	**3.040 J+**	NS	3.040 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Silver	50	NS	1.640 U	NS	1.640 U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	20000	NS	**360000 J**	NS	**1730000 D**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	0.5	NS	***3.050 U***	NS	***3.050 U***	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NA	NS	50 U	NS	**1.120 J**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	2000	NS	**22.1 J**	NS	**9.250 J-**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide (ug/L)																		
Available Cyanide	NA	NS	1.5 U	NS	**2.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cyanide, Total	200	NS	10 U	NS	**31**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

NYSDEC Groundwater Standards - New York State Department of Environmental Conservation Ambient Water Quality Standards or Guidance Values (AWQSGVs) listed in Technical and Operations Guidance Series (TOGs) 1.1.1 (NYSDEC 1998)
Bold = Detected analytes
Bold and Italics= Not detect exceeds NYSDEC AWQSGVs
Yellow highlighted values exceed NYSDEC AWQSGVs
NA = Not Applicable
NS= Not Sampled
ug/L = micrograms per Liter
mg/L = milligrams per Liter
1,2,4-Trichlorobenzene,1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene,Naphthalene were analyzed under methods SW8260 (RETEC) and SW8270(Haley & Aldrich)
U = Non-detected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+ = (Inorganics) The result is an estimated quantity, but the result may be biased high.
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D = Diluted run
DL = Detection Limit

Table 5-8
Concentrations of Compounds Detected in SCS and RI Groundwater Analytical Samples
Former East 21st Street Works, New York, NY

Location ID	NYSDEC	OU-2 Monitoring Wells										
		23N101			LR02		LR08		LR11	LR17		
Grab Depth (feet)	AWQSGVs	15-19	31-35	56-60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Sample Date		5/3/2006	5/5/2006	5/5/2006	5/22/2006	9/4/2008	5/19/2006	8/27/2008	5/24/2006	5/19/2006	9/5/2008	
BTEX (ug/L)												
Benzene	1	0.39 U	**6.5**	**3.0 J**	***39 U***	0.35 U	***1.9 U***	0.35 U	0.39 U	***1.9 U***	0.35 U	
Ethylbenzene	5	0.45 U	0.45 U	0.45 U	***45 U***	0.05 U	2.3 U	0.05 U	0.45 U	2.3 U	0.05 U	
m,p-Xylene	NA	1.2 U	1.2 U	1.2 U	120 U	0.47 U	5.9 U	0.47 U	1.2 U	5.9 U	0.47 U	
o-Xylene	NA	0.46 U	0.46 U	0.46 U	46 U	0.16 U	2.3 U	0.16 U	0.46 U	2.3 U	0.16 U	
Toluene	5	0.36 U	0.36 U	0.36 U	***36 U***	0.16 U	1.8 U	0.16 U	0.36 U	1.8 U	0.16 U	
Total Xylene (calculated)	5	0	0	0	0	0	0	0	0	0	0	
Volatile Organic Compounds (VOCs) (ug/L)												
1,1,2-Trichloroethane	1	0.41 U	0.41 U	0.41 U	***41 U***	0.32 U	***2.0 U***	0.32 U	0.41 U	***2.0 U***	0.32 U	
1,1-Dichloroethene	5	0.42 U	0.42 U	0.42 U	***42 U***	0.67 U	2.1 U	0.67 U	0.42 U	2.1 U	0.67 U	
1,2-Dibromoethane (EDB)	0.6	0.32 U	0.32 U	0.32 U	***32 UJ***	0.26 U	***1.6 U***	0.26 U	**0.32 R**	***1.6 U***	0.26 U	
1,2-Dichloroethane	0.6	0.34 U	0.34 U	0.34 U	***34 U***	0.41 U	***1.7 U***	0.41 U	0.34 U	***1.7 U***	0.41 U	
1,2-Dichloropropane	1	0.40 U	0.40 U	0.40 U	***40 U***	0.46 U	***2.0 U***	0.46 U	0.40 U	***2.0 U***	0.46 U	
2-Butanone (Methyl Ethyl Ketone)	50	1.1 U	**3.9 J**	1.1 U	***110 U***	1.9 U	5.7 U	1.9 U	1.1 U	5.7 U	1.9 U	
2-Hexanone	50	1.7 U	1.7 U	1.7 U	***170 U***	1.8 U	8.4 U	1.8 U	1.7 UJ	8.4 U	1.8 U	
Acetone	50	2.3 U	2.3 U	2.3 U	***230 U***	2.2 U	**11 R**	2.2 U	2.3 U	**11 R**	2.2 U	
Bromodichloromethane	50	0.33 U	0.33 U	0.33 U	33 U	0.23 U	1.7 U	0.23 U	0.33 U	1.7 U	0.23 U	
Bromomethane	5	0.41 U	0.41 U	0.41 U	***41 U***	1.4 U	2.1 UJ	1.4 U	0.41 U	2.1 UJ	1.4 U	
Carbon Disulfide	60	0.40 U	0.40 U	0.40 U	40 U	0.20 U	2.0 U	0.20 U	0.40 U	2.0 U	0.20 U	
Chlorobenzene	5	0.47 U	0.47 U	0.47 U	***47 U***	0.28 U	2.3 U	0.28 U	0.47 U	2.3 U	0.28 U	
Chloroform	7	0.33 U	0.33 U	0.33 U	***33 U***	0.45 U	1.7 U	0.45 U	0.33 U	1.7 U	0.45 U	
Chloromethane	5	0.34 U	0.34 U	0.34 U	***34 UJ***	0.37 U	1.7 UJ	0.37 U	0.34 UJ	1.7 UJ	0.37 U	
cis-1,2-Dichloroethene	5	0.29 U	0.29 U	0.29 U	***29 U***	0.72 U	1.5 U	0.72 U	0.29 U	1.5 U	0.72 U	
cis-1,3-Dichloropropene	0.4	0.36 U	0.36 U	0.36 U	***36 U***	0.29 U	***1.8 U***	0.29 U	0.36 UJ	***1.8 U***	0.29 U	
Cyclohexane	NA	0.36 U	0.36 U	0.36 U	36 U	0.57 U	1.8 U	0.57 U	0.36 U	1.8 U	0.57 U	
Isopropylbenzene	5	0.44 U	0.44 U	0.44 U	***44 U***	0.37 U	2.2 U	0.37 U	0.44 UJ	2.2 U	0.37 U	
Methyl Acetate	NA	0.20 UJ	0.20 UJ	0.20 UJ	20 U	0.45 U	1.0 UJ	0.45 U	0.20 U	1.0 UJ	0.45 U	
Methyl tert-butyl ether	10	0.28 U	0.28 U	0.28 U	***28 U***	0.23 U	1.4 U	0.23 U	0.28 U	1.4 U	0.23 U	
Methylcyclohexane	NA	0.34 U	0.34 U	0.34 U	34 U	0.47 U	1.7 U	0.47 U	0.34 UJ	**3.0 J**	0.47 U	
Naphthalene	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Styrene	5	0.41 U	0.41 U	0.41 U	***41 U***	0.19 U	2.0 U	0.19 U	0.41 UJ	2.0 U	0.19 U	
Tetrachloroethene	5	0.48 UJ	0.48 UJ	0.48 UJ	***48 U***	**4.0 J**	2.4 U	0.97 UJ	0.48 U	2.4 U	0.97 U	
trans-1,2-Dichloroethene	5	0.40 U	0.40 U	0.40 U	***40 U***	0.44 U	2.0 U	0.44 U	0.40 U	2.0 U	0.44 U	
trans-1,3-Dichloropropene	0.4	0.32 U	0.32 U	0.32 U	***32 U***	0.31 U	***1.6 U***	0.31 U	0.32 UJ	***1.6 U***	0.31 U	
Trichloroethene	5	0.46 U	0.46 U	0.46 U	***46 U***	0.34 U	2.3 U	0.34 U	0.46 U	2.3 U	0.34 U	
Vinyl Chloride	2	0.33 U	0.33 U	0.33 U	***33 U***	0.30 U	1.6 UJ	0.30 U	0.33 U	1.6 UJ	0.30 U	
Total VOCs	NA	0	**10.4**	**3**	0	**4**	0	0	0	**3**	0	

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Sample Date		5/3/2006	5/5/2006	5/5/2006	5/22/2006	9/4/2008	5/19/2006	8/27/2008	5/24/2006	5/19/2006	9/5/2008	
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/l)												
Acenaphthene	20	NS	NS	NS	1.4 U	0.330 U	1.4 U	0.330 U	1.4 U	1.4 U	1.6 U	
Acenaphthylene	NA	NS	NS	NS	1.3 U	0.360 U	1.3 U	0.360 U	1.3 U	1.3 U	1.8 U	
Anthracene	50	NS	NS	NS	1.4 U	1.4 U	1.4 U	1.5 U	1.4 U	1.4 U	7.2 U	
Benzo(a)anthracene	0.002	NS	NS	NS	***1.1 U***	***1.3 U***	***1.1 U***	***1.4 U***	***1.1 U***	***1.1 U***	***6.6 U***	
Benzo(a)pyrene	NA	NS	NS	NS	1.2 U	0.220 U	1.2 U	0.230 U	1.2 U	1.2 U	1.1 U	
Benzo(b)fluoranthene	0.002	NS	NS	NS	***0.760 U***	***0.440 U***	***0.760 U***	***0.450 U***	***0.760 U***	***0.760 U***	***2.2 U***	
Benzo(ghi)perylene	NA	NS	NS	NS	1.1 U	0.400 U	1.1 U	0.410 U	1.1 U	1.1 U	2.0 U	
Benzo(k)fluoranthene	0.002	NS	NS	NS	***1.9 U***	***0.310 U***	***1.9 U***	***0.310 U***	***1.9 UJ***	***1.9 U***	***1.5 U***	
Chrysene	0.002	NS	NS	NS	***1.7 U***	***0.270 U***	***1.7 U***	***0.270 U***	***1.7 U***	***1.7 U***	***1.3 U***	
Dibenz(a,h)anthracene	NA	NS	NS	NS	0.870 U	0.550 U	0.880 U	0.560 U	0.870 U	0.880 U	2.8 U	
Fluoranthene	50	NS	NS	NS	1.2 U	0.200 U	1.2 U	0.210 U	1.2 U	1.2 U	**6.4 J**	
Fluorene	50	NS	NS	NS	1.4 U	0.290 U	1.4 U	0.290 U	1.4 U	1.4 U	1.4 U	
Indeno(1,2,3-cd)pyrene	0.002	NS	NS	NS	***0.840 UJ***	***0.670 U***	***0.840 U***	***0.690 U***	***0.840 U***	***0.840 U***	***3.4 U***	
Naphthalene	10	NS	NS	NS	1.4 U	0.290 U	1.4 U	0.290 U	1.4 U	1.4 U	1.4 U	
Phenanthrene	50	NS	NS	NS	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	6.9 U	
Pyrene	50	NS	NS	NS	1.5 U	1.4 U	**3.5 J**	**1.8 J**	1.5 U	1.5 U	**11 J**	
Semivolatile Organic Compounds (SVOCs) (ug/L)												
1,1-Biphenyl	5	NS	NS	NS	1.4 U	0.330 U	1.4 U	0.330 U	1.4 U	1.4 U	1.6 U	
2,4-Dimethylphenol	50	NS	NS	NS	1.2 U	0.780 U	1.2 U	0.790 UJ	1.2 U	1.2 U	3.9 U	
2-Methylnaphthalene	NA	NS	NS	NS	1.1 U	0.380 U	1.1 U	0.390 U	1.1 U	1.1 U	1.9 U	
2-Methylphenol	NA	NS	NS	NS	1.5 U	0.370 U	1.5 U	0.380 UJ	1.5 U	1.5 U	1.8 U	
3+4-Methylphenols	NA	NS	NS	NS	1.3 U	0.400 U	1.3 U	**3.5 J**	1.3 U	1.3 U	2.0 U	
4-Methylphenol	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
bis(2-Ethylhexyl) phthalate	5	NS	NS	NS	1.5 U	1.3 U	1.6 U	1.4 U	1.5 U	**4.1 J**	6.6 U	
Butyl benzyl phthalate	50	NS	NS	NS	1.4 U	0.430 U	1.5 U	0.440 U	1.4 U	1.5 U	2.1 U	
Caprolactam	NA	NS	NS	NS	**1.3 R**	1.5 U	**1.3 R**	1.5 R	**1.3 R**	**1.3 R**	7.6 U	
Carbazole	NA	NS	NS	NS	1.3 U	0.240 U	1.3 U	0.250 U	1.3 U	1.3 U	1.2 U	
Dibenzofuran	NA	NS	NS	NS	1.3 U	0.320 U	1.3 U	0.320 U	1.3 U	1.3 U	1.6 U	
Diethyl phthalate	50	NS	NS	NS	1.3 U	0.330 U	1.4 U	0.330 U	1.3 U	1.4 U	1.6 U	
Phenol	1	NS	NS	NS	***1.3 R***	0.560 UJ	***1.3 U***	0.570 R	***1.3 R***	***1.3 U***	***2.8 UJ***	
Total SVOCs	NA	NS	NS	NS	0	0	**3.5**	**5.3**	0	**4.1**	**17.4**	
Metals (ug/L)												
Aluminum	NA	NS	NS	NS	**2180 J-**	NS	**297**	NS	**24.6 J**	200 U	NS	
Antimony	3	NS	NS	NS	***60 U***	NS	***3.170 U***	NS	***3.2 U***	***3.170 U***	NS	
Arsenic	25	NS	NS	NS	3.3 U	NS	3.320 U	NS	3.3 U	10 U	NS	
Barium	1000	NS	NS	NS	**197 J-**	NS	**221 J**	NS	**91.8 J**	200 U	NS	
Beryllium	3	NS	NS	NS	***5 U***	NS	***5 U***	NS	***5 U***	***5 U***	NS	
Cadmium	5	NS	NS	NS	0.33 UJ	NS	5 U	NS	**0.34 J**	5 U	NS	
Calcium	NA	NS	NS	NS	**120000 J**	NS	**145000 J**	NS	**83600**	**74600 J**	NS	
Chromium	50	NS	NS	NS	**315 J-**	NS	10 U	NS	**251 J-**	10 U	NS	
Cobalt	NA	NS	NS	NS	50 U	NS	50 U	NS	0.37 U	50 U	NS	
Copper	200	NS	NS	NS	**17.4 J-**	NS	**30.7**	NS	**3.9 J**	**22.2 J**	NS	
Iron	300	NS	NS	NS	**7820 J-**	NS	**324**	NS	**1460 J-**	**177**	NS	
Lead	25	NS	NS	NS	**12.1 J-**	NS	2.180 U	NS	5 U	**4.260 J**	NS	
Magnesium	35000	NS	NS	NS	**62100 J**	NS	**44800 J**	NS	**64800**	**15600 J**	NS	
Manganese	300	NS	NS	NS	**779 J-**	NS	**395 J**	NS	**78.0**	15 U	NS	
Mercury	0.7	NS	NS	NS	0.2 U	NS	0.0300 UJ	NS	0.2 U	0.0300 UJ	NS	
Nickel	100	NS	NS	NS	**190 J-**	NS	40 U	NS	**167 J-**	40 U	NS	
Potassium	NA	NS	NS	NS	**34900 J**	NS	**90200 J+**	NS	**105000 J**	**64300 J+**	NS	
Selenium	10	NS	NS	NS	10 U	NS	3.040 U	NS	**14.5**	3.040 U	NS	
Silver	50	NS	NS	NS	1.6 UJ	NS	1.640 U	NS	1.6 U	1.640 U	NS	
Sodium	20000	NS	NS	NS	**751000 J**	NS	**86700 J**	NS	**2080000 D**	**141000 J**	NS	
Thallium	0.5	NS	NS	NS	***3.1 U***	NS	***3.050 U***	NS	***3.1 U***	***3.050 U***	NS	
Vanadium	NA	NS	NS	NS	50 U	NS	50 U	NS	50 U	50 U	NS	
Zinc	2000	NS	NS	NS	**57.7 J**	NS	**68.5 J**	NS	**41.6 J**	**55.7 J**	NS	
Cyanide (ug/L)												
Available Cyanide	NA	NS	NS	NS	1.5 U	NS	1.5 U	NS	1.5 U	1.5 U	NS	
Cyanide, Total	200	NS	NS	NS	10 U	NS	**117**	NS	10 U	10 U	NS	

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		Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	ID for Max Concentration	Min Detected Concentration	ID for Min Concentration	Average Detected Concentration	Min DL for NonDetects	Max DL for NonDetects
BTEX (ug/L)													
Benzene	1	122	80	42	75	3	46000	21MWD03-052306	0.4	21MWS05-042104	2981.283125	0.3	39
Ethylbenzene	5	122	56	66	46	1	4800	21MWD09-042004	0.56	AC103-092608	396.6451584	0.03	45
m,p-Xylene	NA	103	37	66	0	0	2700	21MWD03-052306	2	EBMWDD14-082708	303.1466667	0.27	120
o-Xylene	NA	103	41	62	0	0	1200	21MWD03-052306	1.7	EBMWDD18-051706	131.3162088	0.09	46
Toluene	5	122	45	77	34	2	22000	21MWD03-052306	0.4	21MWD06-042104	645.7425134	0.09	36
Total Xylene (calculated)	5	122	100	22	34	0	42560	21MWD09-082808	0.4	21MWS07-042104	1883.148151	-	-
Volatile Organic Compounds (VOCs) (ug/L)													
1,1,2-Trichloroethane	1	122	1	121	1	13	6.9	21MWDD08-052406	6.9	21MWDD08-052406	6.9	0.19	85
1,1-Dichloroethene	5	122	2	120	0	5	2.1	AC101(60-64)050906	0.5	21MWD02-041904	1.3	0.39	110
1,2-Dibromoethane (EDB)	0.6	103	15	88	0	0	0.32	LR11-052406	0.32	LR11-052406	0.32	0.15	32
1,2-Dichloroethane	0.6	122	3	119	2	5	60	21MWDD04-052506	4.6	EBMWD15-052406	39.53333333	0.24	65
1,2-Dichloropropane	1	122	1	121	0	13	0.61	EBMWD15-052406	0.61	EBMWD15-052406	0.61	0.2	58
2-Butanone (Methyl Ethyl Ketone)	50	122	3	119	1	5	81	23MWD12-052206	1.7	AC101(66-70)050506	28.86666667	1.1	620
2-Hexanone	50	122	1	121	0	5	6.9	23MWD12-052206	6.9	23MWD12-052206	6.9	1	240
Acetone	50	122	23	99	1	5	400	23MWD12-052206	2.3	EBMWDD18-051706	20.08409091	1	240
Bromodichloromethane	50	122	1	121	0	1	4.6	21MWD04-052506	4.6	21MWD04-052506	4.6	0.13	90
Bromomethane	5	122	1	121	0	5	3.2	21MWDD08-052406	3.2	21MWDD08-052406	3.2	0.4	110
Carbon Disulfide	60	122	2	120	0	0	12	23MWDD12-090808	0.87	21MWS08-052406	6.435	0.12	60
Chlorobenzene	5	122	1	121	0	5	0.7	21MWD01-042004	0.7	21MWD01-042004	0.7	0.16	47
Chloroform	7	122	2	120	0	5	1	21MWD06-042104	0.5	21MWS06-042104	0.75	0.2	48
Chloromethane	5	122	2	120	1	5	7.2	21MWD03-052306	1.4	21MWDD08-052406	4.3	0.22	120
cis-1,2-Dichloroethene	5	122	30	92	23	5	47	21MWD05-042104	1.1	21MWDD08-052406	16.47276786	0.2	60
cis-1,3-Dichloropropene	0.4	122	3	119	3	18	310	21MWD03-052306	4.9	EBMWD15-052406	107.0333333	0.17	60
Cyclohexane	NA	98	14	84	0	0	78	21MWS04-090208	1.4	21MWDD08-052406	16.7875	0.33	36
Isopropylbenzene	5	103	38	65	30	2	110	21MWD09-082808	0.88	AC101(66-70)050506	28.28898462	0.22	44
Methyl Acetate	NA	98	1	97	0	0	11	21MWDD08-052406	11	21MWDD08-052406	11	0.2	20
Methyl tert-butyl ether	10	103	3	100	0	2	1.2	EBMWD14-051906	0.56	AC103-092608	0.785	0.13	28
Methylcyclohexane	NA	98	23	75	0	0	35	21MWDD04-052506	0.74	21MWS08-052406	9.17127451	0.27	34
Naphthalene	10	5	2	3	2	0	6600	23MWDD12-041206	35	21MWDD03-041206	3317.5	2	2
Styrene	5	122	17	105	13	5	510	23MWD12-052206	0.52	EBMWDD18-051706	51.252	0.11	70
Tetrachloroethene	5	122	6	116	1	5	7.9	EBMWD25-092508	0.4	21MWD06-042104	3.38375	0.3	78
trans-1,2-Dichloroethene	5	122	8	114	1	5	5.7	21MWDD08-090208	0.3	21MWD02-041904	2.965	0.2	62
trans-1,3-Dichloropropene	0.4	122	1	121	1	18	6.1	21MWD04-052506	6.1	21MWD04-052506	6.1	0.18	52
Trichloroethene	5	122	11	111	5	5	10	21MWD06-042104	0.8	21MWD05-042104	4.939285714	0.2	46
Vinyl Chloride	2	122	4	118	4	10	5.2	21MWD05-090408	2.8	21MWDD08-052406	4.516666667	0.17	130
Total VOCs	NA	122	110	12	0	0	76367.3	21MWD03-052306	4	LR02-090408	2956.503313	-	-

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Polynuclear Aromatic Hydrocarbons (PAHs) (ug/l)													
Acenaphthene	20	109	65	44	39	0	210	EBMWD15-090308	0.1	21MWS05-042104	45.12242563	0.32	3.2
Acenaphthylene	NA	109	28	81	0	0	180	23MWD12-052206	1.2	21MWD01-042004	27.15238095	0.07	3.5
Anthracene	50	109	35	74	1	0	86	23MWD12-052206	0.1	21MWS01-042004	9.678225806	0.08	14
Benzo(a)anthracene	0.002	109	7	102	7	60	15	23MWD12-052206	0.7	21MWD05-042104	4.228571429	0.2	15
Benzo(a)pyrene	NA	109	7	102	0	0	10	23MWD12-052206	0.3	21MWD05-042104	2.9	0.08	8
Benzo(b)fluoranthene	0.002	109	6	103	6	61	11	23MWD12-052206	0.1	21MWD05-042104	2.85	0.2	16
Benzo(ghi)perylene	NA	109	3	106	0	0	3.2	23MWD12-052206	2.1	21MWS10-042204	2.633333333	0.06	6
Benzo(k)fluoranthene	0.002	109	3	106	3	64	5.1	23MWD12-052206	0.2	21MWD05-042104	3.033333333	0.2	16
Chrysene	0.002	109	6	103	6	61	13	23MWD12-052206	0.9	21MWD05-042104	4.433333333	0.07	7
Dibenz(a,h)anthracene	NA	109	2	107	0	0	2.3	21MWS08-042004	0.88	23MWD12-052206	1.59	0.04	5.4
Fluoranthene	50	109	44	65	1	0	73	23MWD12-052206	0.4	21MWD06-042104	7.236486486	0.05	5
Fluorene	50	109	50	59	10	0	110	21MWD10-051906	0.1	21MWD01-042004	30.82579365	0.1	2.8
Indeno(1,2,3-cd)pyrene	0.002	109	3	106	3	64	1.9	21MWS08-042004	1.3	23MWD12-052206	1.633333333	0.08	8
Naphthalene	10	109	54	55	38	0	13000	21MWD07-042104	0.2	21MWS05-042104	1001.195128	0.04	2.8
Phenanthrene	50	109	48	61	15	0	120	23MWD12-052206	0.2	21MWS05-042104	38.50637363	0.1	14
Pyrene	50	109	45	64	0	0	48	23MWD12-052206	0.1	21MWD01-042004	6.980128205	0.07	14
Semivolatile Organic Compounds (SVOCs) (ug/L)													
1,1-Biphenyl	5	90	22	68	20	0	76	23MWD12-052206	2.8	EBMWD13-090308	23.959375	0.32	3.2
2,4-Dimethylphenol	50	109	16	93	11	0	4100	23MWD12-052206	3.3	EBMWD15-090308	367.8890909	0.77	17
2-Methylnaphthalene	NA	109	44	65	0	0	740	21MWD07-042104	0.7	21MWS07-042104	112.6833333	0.37	3.7
2-Methylphenol	NA	109	11	98	0	0	930	23MWD12-052206	1.9	21MWD04-052506	80.45833333	0.36	17
3+4-Methylphenols	NA	89	14	75	0	0	6300	23MWD12-052206	1.4	EBMWDD13-052206	341.7825	0.39	3.9
4-Methylphenol	NA	19	2	17	0	0	110	21MWD07-042104	41	21MWD09-042004	75.5	0.5	11
bis(2-Ethylhexyl) phthalate	5	109	5	104	0	6	4.1	LR17-051906	0.6	21MWS01-042004	2.02	0.6	56
Butyl benzyl phthalate	50	109	2	107	0	0	1.5	23MWD12-052206	0.6	21MWD06-042104	1.05	0.4	40
Caprolactam	NA	90	41	49	0	0	1.3	LR17-051906	1.3	LR17-051906	1.3	1.3	15
Carbazole	NA	109	43	66	0	0	530	23MWD12-052206	0.099	21MWS06-042104	67.53998485	0.08	2.4
Dibenzofuran	NA	109	38	71	0	0	110	21MWD10-042204	1.6	EBMWD18-051706	27.96964286	0.3	6.8
Diethyl phthalate	50	109	3	106	0	0	3.7	21MWS04-042204	1.4	23MWD12-052206	2.866666667	0.2	25
Phenol	1	109	21	88	21	41	250	21MWD09-082808	1.4	21MWS08-052406	36.14333333	0.5	52
Total SVOCs	NA	109	93	16	0	0	16662.6	23MWD12-052206	1.5	21MWS06-082908	901.1199983	-	-
Metals (ug/L)													
Aluminum	NA	67	50	17	0	0	6110	21MWD02-041904	5.5	20MWD16-052406	673.888	5.3	200
Antimony	3	67	6	61	6	61	118	21MWD02-051606	5.8	21MWS05-042104	43.58333333	3.17	60
Arsenic	25	67	19	48	1	0	38.7	21MWD01-052306	3.9	21MWD03-052306	11.61789474	3.2	10
Barium	1000	67	54	13	0	0	664	21MWD09-051706	4.7	EBMWDD13-052206	227.5111111	200	200
Beryllium	3	67	1	66	0	38	0.4	21MWD02-041904	0.4	21MWD02-041904	0.4	0.09	5
Cadmium	5	67	2	65	0	0	0.34	LR11-052406	0.327	DUP-052506	0.3335	0.327	5
Calcium	NA	67	67	0	0	0	403000	21MWS06-042104	18600	21MWDD03-052306	133262.6866		
Chromium	50	67	46	21	20	0	2170	21MWD08-052406	0.5	21MWD04-052506	133.3276087	0.343	10
Cobalt	NA	67	10	57	0	0	18.2	21MWD02-041904	0.57	23MWS11-052506	5.358	0.37	50
Copper	200	67	39	28	0	0	30.7	LR08-051906	3.8	20MWS16-052406	9.401794872	3.6	3.7
Iron	300	67	67	0	64	0	57700	21MWD02-041904	177	LR17-051906	8679.701493		
Lead	25	67	31	36	3	0	44.1	21MWS10-042204	2.37	21MWD05-051706	11.74129032	2.18	5
Magnesium	35000	67	67	0	42	0	558000	EBMWD14-051906	3800	21MWS04-052506	79252.23881		
Manganese	300	67	66	1	48	0	3380	21MWS06-042104	30.7	21MWS06-051706	654.6272727	15	15
Mercury	0.7	67	4	63	0	0	0.2	DUP-052306	0.04	20MWS17-051806	0.1175	0.03	0.2
Nickel	100	67	39	28	9	0	1180	21MWD08-052406	1.9	21MWD10-042204D	77.32846154	1.56	40
Potassium	NA	67	67	0	0	0	151000	EBMWDD15-052406	8260	21MWS07-042104	44506.86567		
Selenium	10	67	4	63	2	0	21.1	21MWS01-052306	3.04	EBMWDD18-051706	10.835	3	10
Silver	50	67	1	66	0	0	1.84	20MWS17-051806	1.84	20MWS17-051806	1.84	0.7	2.8
Sodium	20000	67	67	0	67	0	9410000	EBMWD14-051906	20700	21MWS07-042104	832582.0896		
Thallium	0.5	67	1	66	1	66	19.7	21MWS02-051606	19.7	21MWS02-051606	19.7	3.05	10
Vanadium	NA	67	19	48	0	0	22.9	21MWD02-041904	1.12	23MWDD20-052506	5.997368421	0.7	50
Zinc	2000	67	66	1	0	0	384	21MWD08-052406	8.8	21MWS09-042004	35.52151515	5.8	5.8
Cyanide (ug/L)													
Available Cyanide	NA	48	8	40	0	0	3.1	21MWD01-052306	1.5	21MWDD04-052506	1.9875	1.5	1.5
Cyanide, Total	200	67	36	31	1	0	350	21MWD08-042004	13	21MWS04-052506	64.11111111	10	10

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DL = Detection Limit

Table 5-9
Summary of Geochemical Data for MNA Evaluation
Former East 21st Street Works, New York, NY

Location ID Sample Date	21MWS01 5/23/2006	21MWS01 8/28/2008	21MWD01 5/23/2006	21MWD01 8/28/2008	21MWS03 5/23/2006	21MWS03 9/2/2008	21MWD03 5/23/2006	21MWDD03 5/23/2006	21MWDD03 9/2/2008	21MWD07 5/23/2006	23MWS11 5/25/2006	23MWS11 9/8/2008
MNA (mg/L)												
Alkalinity as $CaCO_3$	340	**760**	410	**410**	350	**340**	680	550	**570**	780	330	**330**
Nitrate	**35**	0.05 U	0.5 U	**0.06**	**24**	0.05 U	**1.6**	**1.7**	0.05 U	0.5 U	**3.8**	**0.17**
Sulfate	**540**	**150**	1.0 U	**6.8**	**50**	**8.2**	**1.6**	**200**	**130**	**8.4**	**77**	**16**
Sulfide	2.0 U	**4.7**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Iron, total	**0.27**	**4.4**	**25**	**23**	**0.30**	**0.55**	**2.3**	**1.6**	**0.79**	**11**	**2.4**	**4.1**
Iron, dissolved	**0.064**	**1**	**3.5**	**3.5**	0.050 U	**0.43**	**1.5**	**0.1**	**0.15**	**0.066**	**0.18**	**0.21**
Manganese, total	**0.21**	**0.36**	**0.94**	**0.87**	**0.17**	**0.26**	**0.17**	**0.28**	**0.058**	**1.10**	**0.65**	**0.27**
Manganese, dissolved	**0.2**	**0.33**	**0.87**	**0.74**	**0.17**	**0.24**	**0.17**	**0.26**	**0.048**	**1.1**	**0.61**	**0.25**
Carbon Dioxide	**64**	**82**	**150**	**130**	**37**	**21**	**74**	**12**	**9.5**	**100**	**24**	**18**
Methane (µg/L)	**920**	**2,700**	**3,600**	**1,800**	**2,300**	**2,000**	**9,000**	**950**	**510**	**13,000**	**1,900**	**430**
Nitrogen	**21**	**16**	**21**	**15**	**23**	**15**	**23**	**21**	**20**	**15**	**21**	**16**
Oxygen	**7.5**	**2**	**2.1**	**3**	**3.7**	**4.1**	**8.3**	**2.2**	**4**	**7.3**	**1.5**	**3.9**
Field Data - Monitoring Information during purging												
pH (S.U.)	7.37	7.42	6.52	6.95	7.65	10.91	7.52	7.59	9.91	6.78	7.87	8.99
Conductivity (mS/cm)	1.95	2.45	3.04	3.2	0.0697	0.9	1.8	4.88	4.69	1.91	1.47	0.626
Temp (°C)	17.2	22.93	19.99	23.33	16.9	21.07	19	15.89	18.88	14.7	17.4	21.67
Dissolved Oxygen (mg/L)	0	0.31	1.86	0.44	0	0.53	0	2.09	0.32	2.12	0	0.51
Turbidity (NTU)	6.4	5.97	14.8	7.46	4.49	1.3	8.8	27	21.6	11	3.63	11.98
ORP (mv)	39	-277	-141	-164	-37	-127	-126	-198	-217	-172	-152	-169

Notes

All Field Reading presented are the stabilized final readings

Bold indicated detected results

µg/L = micrograms per Liter

mg/L = miligrams per Liter

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

°C - degrees Centrigrade

mS/cm - milliSiemen per centimeter

S.U. - Standard Unit

ORP - Oxidation Reduction Potential

mv - millivolt

NTU - Nephelometric Turbidity Unit

Table 5-9
Summary of Geochemical Data for MNA Evaluation
Former East 21st Street Works, New York, NY

Location ID Sample Date	23MWD11 5/22/2006	23MWD11 9/8/2008	23MWS12 5/22/2006	23MWS12 9/8/2008	23MWD12 5/22/2006	23MWDD12 5/22/2006	23MWDD12 9/8/2008	EBMWD13 5/22/2006	EBMWD13 9/3/2008	EBMWDD13 5/22/2006	EBMWDD13 9/3/2008	EBMWD15 9/3/2008
MNA (mg/L)												
Alkalinity as $CaCO_3$	790	**880**	540	**700**	1100	330	**300**	580	**450**	210	**200**	**230**
Nitrate	**1.6**	**0.16**	0.5 U	**0.09**	**6.3**	**21**	0.25 U	0.5 U	**0.29**	**20**	0.05 U	**0.17**
Sulfate	**100**	**3.2**	**62**	<1	**31**	**950**	**610**	**84**	**120**	**1900**	**1100**	1 U
Sulfide	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Iron, total	**5.6**	**4.4**	**9.2**	**20**	**31**	**7.1**	**3.3**	**29**	**28**	**2.8**	**2.7**	**23**
Iron, dissolved	**0.096**	**0.15**	**1.7**	**0.96**	**0.2**	**0.051**	**0.17**	**1.1**	**3.4**	**0.54**	**0.45**	**0.91**
Manganese, total	**0.74**	**0.44**	**1.20**	**0.67**	**0.88**	**0.88**	**0.6**	**0.53**	**0.5**	**0.71**	**0.91**	**0.75**
Manganese, dissolved	**0.69**	**0.42**	**1.2**	**0.64**	**0.78**	**0.89**	**0.58**	**0.5**	**0.4**	**0.74**	**0.087**	**0.59**
Carbon Dioxide	**84**	**86**	**160**	**190**	**240**	**27**	**16**	**140**	**110**	**22**	**11**	**86**
Methane (µg/L)	**7,900**	**6,700**	**5,300**	**8,400**	**10,000**	**780**	**160**	**9,200**	**2,400**	**55**	**34**	**5,100**
Nitrogen	**17**	**11**	**16**	**8.4**	**12**	**20**	**21**	**18**	**17**	**19**	**20**	**22**
Oxygen	**8.0**	**2.8**	**2.7**	**1.8**	**1.1**	**0.76**	**5.3**	**0.94**	**1.3**	**2.0**	**5.4**	**1.8**
Field Data - Monitoring Information during purging												
pH (S.U.)	7.07	9.28	6.71	8.47	7.27	7.76	12.26	7.19	12.62	7.3	9.72	10.81
Conductivity (mS/cm)	3.45	4.07	5.69	2.61	6.64	31.8	30.6	2.28	2.17	41.1	41.6	1.54
Temp (°C)	19.07	19.39	14.6	20.82	15.5	15.4	17.99	17	21.34	16.2	20.48	21.08
Dissolved Oxygen (mg/L)	2.05	0.41	2.16	0.37	0	0	0.31	0	0.38	0	0.34	0.97
Turbidity (NTU)	8.8	8.7	1.32	8.56	38	30	4.48	23	5.6	8.9	7.8	5.7
ORP (mv)	-144	-154	-106	-147	-148	-189	-263	-144	-184	-252	-272	-153

Notes

All Field Reading presented are the stabilized final readings

Bold indicated detected results

µg/L = micrograms per Liter

mg/L = miligrams per Liter

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

°C - degrees Centrigrade

mS/cm - milliSiemen per centimeter

S.U. - Standard Unit

ORP - Oxidation Reduction Potential

mv - millivolt

NTU - Nephelometric Turbidity Unit

Table 5-9
Summary of Geochemical Data for MNA Evaluation
Former East 21st Street Works, New York, NY

Location ID Sample Date	20MWS16 5/24/2006	20MW16S 5/24/2006	20MWD16 5/24/2006	20MWD16 9/9/2008	EBMWD18 9/4/2008	EBMWDD18 9/4/2008	LR02 5/22/2006	LR02 9/4/2008	23MWDD20 5/25/2006	23MWDD20 9/8/2008	EBMWD24 9/25/2008	EBMWDD24 9/25/2008
MNA (mg/L)												
Alkalinity as $CaCO_3$	210	210	240	**220**	**280**	**250**	680	**670**	520	**500**	**270**	**310**
Nitrate	0.5 U	0.5 U	**1.7**	**1.1**	**0.28**	**0.07**	0.5 U	**0.07**	**1.7**	**0.19**	**0.9**	**3.8**
Sulfate	**100**	**100**	**89**	**120**	**63**	**120**	**170**	**81**	**370**	**260**	**180**	**180**
Sulfide	2.0 U	2.0 U	2.0 U	2.0 U	**4.4**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Iron, total	**7.8**	**7.8**	**0.97**	**1.5**	**15**	**0.54**	**7.0**	**10**	**1.4**	**1.4**	**1.5**	**2.7**
Iron, dissolved	0.050 U	0.050 U	0.050 U	**0.14**	**0.72**	**0.11**	0.050 U	**0.18**	**0.079**	**0.12**	0.05 U	0.05 U
Manganese, total	**0.84**	**0.84**	**0.90**	**0.97**	**0.22**	**0.3**	**0.92**	**0.94**	**0.13**	**0.14**	**0.21**	**0.49**
Manganese, dissolved	**0.82**	**0.82**	**0.85**	**0.93**	**0.17**	**0.31**	**0.83**	**0.76**	**0.13**	**0.13**	**0.18**	**0.44**
Carbon Dioxide	**68**	**68**	**20**	**16**	**10**	**8**	**28**	**29**	**25**	**20**	**6.3**	**14**
Methane (µg/L)	**900**	**900**	**390**	**120**	**710**	**62**	**97**	**74**	**68**	**26**	**97**	**160**
Nitrogen	**24**	**24**	**30**	**24**	**18**	**21**	**18**	**19**	**27**	**20**	**22**	**19**
Oxygen	**8.4**	**8.4**	**3.7**	**4**	**3.2**	**4.4**	**4.4**	**6.7**	**2.9**	**4.1**	**4.1**	**3.3**
Field Data - Monitoring Information during purging												
pH (S.U.)	6.97	8.74	7.03	10.05	9.88	9.37	7.45	10.74	7.49	9.04	8.18	7.66
Conductivity (mS/cm)	0.744	1.02	1.19	1.12	0.906	2.18	6.83	5.78	8.63	8.81	2.13	1.61
Temp (°C)	19.4	22.91	21.83	24.15	19.69	19.94	15.86	23.07	18.4	20.18	23.05	23.11
Dissolved Oxygen (mg/L)	0	0.44	1.82	0.42	0.35	0.36	2.15	2.65	1.8	0.35	0	0
Turbidity (NTU)	17	5.73	3	3.63	31	6.6	280	108	25.4	10.97	60.6	99.6
ORP (mv)	-94	-109	-131	-135	-216	-157	-178	-145	-136	-134	-206	-167

Notes

All Field Reading presented are the stabilized final readings

Bold indicated detected results

µg/L = micrograms per Liter

mg/L = miligrams per Liter

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

°C - degrees Centrigrade

mS/cm - milliSiemen per centimeter

S.U. - Standard Unit

ORP - Oxidation Reduction Potential

mv - millivolt

NTU - Nephelometric Turbidity Unit

Table 5-9
Summary of Geochemical Data for MNA Evaluation
Former East 21st Street Works, New York, NY

Location ID Sample Date	EBMWD25 9/25/2008	EBMWDD25 9/25/2008
MNA (mg/L)		
Alkalinity as $CaCO_3$	**250**	**230**
Nitrate	**2.7**	**12**
Sulfate	**180**	**800**
Sulfide	2.0 U	2.0 U
Iron, total	**0.97**	**2.2**
Iron, dissolved	0.05 U	0.05 U
Manganese, total	**1.9**	**1.5**
Manganese, dissolved	**1.8**	**1.5**
Carbon Dioxide	**14**	**12**
Methane (µg/L)	**16**	**310**
Nitrogen	**17**	**26**
Oxygen	**7.6**	**3.8**
Field Data - Monitoring Information during purging		
pH (S.U.)	8.96	9.46
Conductivity (mS/cm)	0.933	17
Temp (°C)	19.76	18.2
Dissolved Oxygen (mg/L)	0.69	2.19
Turbidity (NTU)	10.11	28.2
ORP (mv)	-111	-142

Notes

All Field Reading presented are the stabilized final readings

Bold indicated detected results

µg/L = micrograms per Liter

mg/L = miligrams per Liter

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

°C - degrees Centrigrade

mS/cm - milliSiemen per centimeter

S.U. - Standard Unit

ORP - Oxidation Reduction Potential

mv - millivolt

NTU - Nephelometric Turbidity Unit

Table 5-10
Concentrations of Compounds Detected in Soil Gas and Ambient Air Samples
Former East 21st Street Works, New York, NY

Sample ID			FASG101	FASG102	FASGAmb	23SG101	23SG102	23SG103	23Amb103
Sampling Date			1/24/2006	1/24/2006	1/24/2006	2/21/2006	2/22/2006	2/16/2006	2/15/2006
Sampling Depth (ft bgs)	75th Percentile	90th Percentile	5.5 - 6.0	4.5 - 5.5	NA	5.0 - 5.5	5.0 - 5.5	4.0 - 4.5	NA
Type of Sample			Soil Gas	Soil Gas	Ambient Air	Soil Gas	Soil Gas	Soil Gas	Ambient Air
Possibly MGP Related or Other Sources [1] (µg/m³)									
1,2,4-Trimethylbenzene	4.4	11	120	240	0.98	180	3.8	370	2.6
1,3,5-Trimethylbenzene	1.7	3.8	47	98	0.75 U	80	1.2	220	0.80
2,3-Dimethylpentane	2.1	7.9	3.2 U	5.4 U	3.1 U	5.6 U	3.4 U	30	3.0 U
2-Hexanone	NA	NA	3.2 U	5.4 U	3.1 U	5.6 U	3.4 U	20 U	3.0 U
2-Methylpentane	NA	NA	2.8 U	18	2.7 U	7.2	3.0 U	17 U	3.8
4-Ethyltoluene	NA	NA	88 J	180 J	3.7 U	180 J	4.1 U	580	3.6 U
4-Methyl-2-pentanone	0.98	3	3.2 U	5.4 U	3.1 U	5.6 U	3.4 U	20 U	3.0 U
Benzene	5.7	15	3.8	86	1.9	7.5	0.95	8.3	4.3
Carbon Disulfide	NA	NA	4.6	83	2.4 U	5.9	2.6 U	15 U	2.3 U
Cyclohexane	2.9	9.1	32	26	2.6 U	60	2.9 U	52	2.5 U
Ethylbenzene	2.8	7.3	45	99	0.69	95	0.73 U	490	2.1
Heptane	7.7	19	68	28	3.1 U	140	3.4 U	230	3.0 U
Hexane	6.5	19	3.9	25	2.7 U	10	3.0 U	17 U	3.4
2,2,4-Trimethylpentane	2.6	7.3	3.7 U	6.1 U	3.6 U	6.4 U	3.9 U	22 U	3.4 U
Indan	NA	NA	9.1	24	3.7 U	12	4.1 U	23 U	3.5 U
Indene	NA	NA	3.8 U	110	3.6 U	6.5 U	4.0 U	23 U	3.5 U
Isopentane	NA	NA	7.2	260 J	7.3	19 J	6.7 J	20 J	18 J
Naphthalene	NA	NA	4.1 U	46 J	4.0 U	7.1 U	4.4 U	25 U	3.8 U
Styrene	0.68	1.3	0.67 U	110	0.65 U	1.2 U	0.72 U	4.1 U	0.62 U
Thiophene	NA	NA	2.7 U	4.5 U	2.6 U	4.7 U	2.9 U	16 U	2.5 U
Toluene	25	59	47	100	4.7	110	1.5	570	12
m/p-Xylenes	4.7	12	140	240	2.1	340	1.4	1400	7.2
o-Xylene	3.1	7.9	55	120	0.79	130	0.72 J	570	2.5
Not MGP Related [2] (µg/m³)									
1,1,1-Trichloroethane	1.4	3.5	0.86 U	6.3	0.83 U	1.5 U	0.92 U	5.2 U	0.80 U
1,1,2,2-Tetrachloroethane	0.2	0.23	1.1 U	1.8 U	1.0 U	1.9 U	1.2 U	6.6 U	1.0 U
1,1,2-Trichloroethane	0.2	0.24	0.86 U	1.4 U	0.83 U	1.5 U	0.92 U	5.2 U	0.80 U
1,1-Dichloroethane	0.19	0.23	0.64 U	1.1 U	0.62 U	1.1 U	0.68 U	3.9 U	0.59 U
1,1-Dichloroethene	0.19	0.23	0.63 U	1.6	0.60 U	1.1 U	0.67 U	3.8 U	0.58 U
1,2,4-Trichlorobenzene	0.24	3	5.9 U	9.8 U	5.6 U	10 U	6.2 U	36 U	5.4 U
1,2-Dibromoethane (EDB)	0.19	0.23	1.2 U	2.0 U	1.2 U	2.1 U	1.3 U	7.4 U	1.1 U
1,2-Dichlorobenzene	0.24	0.78	0.95 U	1.6 U	0.91 U	1.6 U	1.0 U	5.8 U	0.88 U
1,2-Dichloroethane	0.19	0.22	0.64 U	6.2	0.62 U	1.1 U	0.68 U	3.9 U	0.59 U
1,2-Dichloropropane	0.2	0.24	0.73 U	1.2 U	0.70 U	1.2 U	0.78 U	4.4 U	0.67 U
1,3-Butadiene	NA	NA	3.7	2.9 U	1.7 U	3.5	1.8 U	11 U	1.6 U
1.3-Dichlorobenzene	0.24	0.66	0.95 U	1.6 U	0.91 U	1.6 U	1.0 U	5.8 U	0.88 U
1,4-Dichlorobenzene	0.54	1.3	0.95 U	1.6 U	0.91 U	1.6 U	1.0 U	5.8 U	0.88 U
1,4-Dioxane	NA	NA	2.8 U	4.7 U	2.7 U	4.9 U	3.0 U	17 U	2.6 U
2-Butanone (MEK)	7.5	14	5.0	61	2.3	4.1	2.5 U	14 U	2.2 U
Acetone	46	110	36	290 J	15	21	5.9	21	10
Benzyl chloride	NA	NA	0.82 U	1.4 U	0.79 U	1.4 U	0.87 U	5.0 U	0.76 U
Bromodichloromethane	NA	NA	5.3 U	8.8 U	5.1 U	9.1 U	5.6 U	32 U	4.9 U
Bromoform	NA	NA	8.2 U	14 U	7.8 U	14 U	8.7 U	50 U	7.5 U
Bromomethane	0.24	0.58	0.61 U	1.0 U	0.59 U	1.0 U	0.65 U	3.7 U	0.57 U
Carbon Tetrachloride	0.68	0.87	0.99 U	320	0.96 U	1.7 U	1.0 U	6.0 U	0.92 U
Chlorobenzene	0.19	0.23	0.73 U	1.2 U	0.70 U	1.2 U	0.77 U	4.4 U	0.67 U
Chloroethane	0.2	0.25	0.42 U	1.1 J	0.40 U	0.72 U	0.44 U	2.5 U	0.38 U
Chloroform	0.54	1.4	2.6	510	0.74 U	1.3 U	1.5	4.7 U	0.71 U
Chloromethane	2	3.3	0.95	0.54 U	1.3	0.56 U	0.35 U	2.0 U	1.3
cis-1,2-Dichloroethene	0.2	0.24	0.63 U	1.0 U	0.60 U	1.1 U	0.67 U	3.8 U	0.58 U
cis-1,3-Dichloropropene	0.2	0.24	0.72 U	1.2 U	0.69 U	1.2 U	0.76 U	4.4 U	0.66 U
Dibromochloromethane	NA	NA	6.7 U	11 U	6.5 U	12 U	7.2 U	41 U	6.2 U
Ethanol	610	1600	20	2.5 U	24	3.6	2.5	9.0 U	25
Trichlorofluoromethane (Freon 11)	5.5	17	2.0	17	1.9	2.2	4.6	5.4 U	1.7
1,1,2-Trichlorotrifluoroethane (Freon 113)	1.1	1.8	1.2 U	2.0 U	1.2 U	2.1 U	1.3 U	7.4 U	1.1 U
1,2-Dichlorotetrafluoroethane	0.21	0.63	1.1 U	1.8 U	1.1 U	1.9 U	1.2 U	6.7 U	1.0 U
Dichlorodifluoromethane (Freon 12)	5.6	15	4.2	5.6	3.4	3.7	1.7	4.7 U	5.7
Helium			0.11	3.3	0.015 U	0.014 U	0.017 U	1.8	0.015 U
Hexachlorobutadiene (C-46)	0.25	4.8	8.4 U	14 U	8.1 U	14 U	9.0 U	51 U	7.8 U
Methyl tert-Butyl Ether	6.7	27	2.8 U	4.7 U	2.7 U	4.9 U	3.0 U	17 U	2.6 U
Methylene Chloride (Dichloromethane)	6.3	22	1.3	11	1.5	1.5	0.58 U	3.3 U	1.5
2-Propanol	NA	NA	1.9 U	11	2.5	3.3 U	2.1 U	12 U	3.8
Propene	NA	NA	50	2.3 U	1.9	23	4.6	8.3 U	1.2 U
Tetrachloroethene	1.2	2.9	8.6	180	1.0 U	26	18	40	2.4
Tetrahydrofuran	0.32	3.3	2.3 U	3.9 U	2.2 U	4.0 U	2.5 U	14 U	2.2 U
Trans-1,2-Dichloroethene	NA	NA	3.1 U	5.2 U	3.0 U	5.4 U	3.3 U	19 U	2.9 U
Trans-1,3-Dichloropropene	0.18	0.22	0.72 U	1.2 U	0.69 U	1.2 U	0.76 U	4.4 U	0.66 U
Trichloroethene	0.23	0.48	1.0	200	0.82 U	2.0	1.5	12	0.78 U
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.2	0.23	0.40 U	0.67 U	0.39 U	0.70 U	0.43 U	2.4 U	0.37 U

Notes:

U - Not detected at the detection limit indicated.

J - Estimated Concentration.

NA - Not Available. No data available for background concentrations of these compounds.

DUP - As suffix on Sample ID indicates that the sample is a field duplicate.

1. These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.

2. These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.

Summary statistics include soil gas samples only. Ambient air results are not included in the statistical summary

Table 5-10
Concentrations of Compounds Detected in Soil Gas and Ambient Air Samples
Former East 21st Street Works, New York, NY

Sample ID / Sampling Date / Sampling Depth (ft bgs) / Type of Sample	Summary Statistics											
	Samples	Detects	Non-Detects	Exceedances	DL Exceedances	Max Detected Concentration	ID for Max Concentration	Min Detected Concentration	ID for Min Concentration	Average Detected Concentration	Min DL for NonDetects	Max DL for NonDetects
Possibly MGP Related or Other Sources [1] (µg/m³)												
1,2,4-Trimethylbenzene	5	5	0	4	4	370	23SG103	3.8	23SG102	182.76	-	-
1,3,5-Trimethylbenzene	5	5	0	4	4	220	23SG103	1.2	23SG102	89.24	-	-
2,3-Dimethylpentane	5	1	4	1	1	30	23SG103	30	23SG103	30	3.2	5.6
2-Hexanone	5	0	5	0	0	-	-	-	-	-	3.2	20
2-Methylpentane	5	2	3	0	0	18	FASG102	7.2	23SG101	12.6	2.8	17
4-Ethyltoluene	5	4	1	0	0	580	23SG103	88	FASG101	257	4.1	4.1
4-Methyl-2-pentanone	5	0	5	0	0	-	-	-	-	-	3.2	20
Benzene	5	5	0	3	1	86	FASG102	0.95	23SG102	21.31	-	-
Carbon Disulfide	5	3	2	0	0	83	FASG102	4.6	FASG101	31.16666667	2.6	15
Cyclohexane	5	4	1	4	4	60	23SG101	26	FASG102	42.5	2.9	2.9
Ethylbenzene	5	4	1	4	4	490	23SG103	45	FASG101	182.25	0.73	0.73
Heptane	5	4	1	4	4	230	23SG103	28	FASG102	116.5	3.4	3.4
Hexane	5	3	2	2	1	25	FASG102	3.9	FASG101	12.96666667	3	17
2,2,4-Trimethylpentane	5	0	5	0	0	-	-	-	-	-	3.7	22
Indan	5	3	2	0	0	24	FASG102	9.1	FASG101	15.03333333	4.1	23
Indene	5	1	4	0	0	110	FASG102	110	FASG102	110	3.8	23
Isopentane	5	5	0	0	0	260	FASG102	6.7	23SG102	62.58	-	-
Naphthalene	5	1	4	0	0	46	FASG102	46	FASG102	46	4.1	25
Styrene	5	1	4	1	1	110	FASG102	110	FASG102	110	0.67	4.1
Thiophene	5	0	5	0	0	-	-	-	-	-	2.7	16
Toluene	5	5	0	4	3	570	23SG103	1.5	23SG102	165.7	-	-
m/p-Xylenes	5	5	0	4	4	1400	23SG103	1.4	23SG102	424.28	-	-
o-Xylene	5	5	0	4	4	570	23SG103	0.72	23SG102	175.144	-	-
Not MGP Related [2] (µg/m³)												
1,1,1-Trichloroethane	**5**	1	4	1	1	6.3	FASG102	6.3	FASG102	6.3	0.86	5.2
1,1,2,2-Tetrachloroethane	5	0	5	0	0	-	-	-	-	-	1.1	6.6
1,1,2-Trichloroethane	5	0	5	0	0	-	-	-	-	-	0.86	5.2
1,1-Dichloroethane	5	0	5	0	0	-	-	-	-	-	0.64	3.9
1,1-Dichloroethene	5	1	4	1	1	1.6	FASG102	1.6	FASG102	1.6	0.63	3.8
1,2,4-Trichlorobenzene	5	0	5	0	0	-	-	-	-	-	5.9	36
1,2-Dibromoethane (EDB)	5	0	5	0	0	-	-	-	-	-	1.2	7.4
1,2-Dichlorobenzene	5	0	5	0	0	-	-	-	-	-	0.95	5.8
1,2-Dichloroethane	5	1	4	1	1	6.2	FASG102	6.2	FASG102	6.2	0.64	3.9
1,2-Dichloropropane	5	0	5	0	0	-	-	-	-	-	0.73	4.4
1,3-Butadiene	5	2	3	0	0	3.7	FASG101	3.5	23SG101	3.6	1.8	11
1.3-Dichlorobenzene	5	0	5	0	0	-	-	-	-	-	0.95	5.8
1,4-Dichlorobenzene	5	0	5	0	0	-	-	-	-	-	0.95	5.8
1,4-Dioxane	5	0	5	0	0	-	-	-	-	-	2.8	17
2-Butanone (MEK)	5	3	2	1	1	61	FASG102	4.1	23SG101	23.36666667	2.5	14
Acetone	5	5	0	1	1	290	FASG102	5.9	23SG102	74.78	-	-
Benzyl chloride	5	0	5	0	0	-	-	-	-	-	0.82	5
Bromodichloromethane	5	0	5	0	0	-	-	-	-	-	5.3	32
Bromoform	5	0	5	0	0	-	-	-	-	-	8.2	50
Bromomethane	5	0	5	0	0	-	-	-	-	-	0.61	3.7
Carbon Tetrachloride	5	1	4	1	1	320	FASG102	320	FASG102	320	0.99	6
Chlorobenzene	5	0	5	0	0	0					0.73	4.4
Chloroethane	5	1	4	1	1	1.1	FASG102	1.1	FASG102	1.1	0.42	2.5
Chloroform	5	3	2	3	3	510	FASG102	1.5	23SG102	171.3666667	1.3	4.7
Chloromethane	5	1	4	0	0	0.95	FASG101	0.95	FASG101	0.95	0.35	2
cis-1,2-Dichloroethene	5	0	5	0	0	-	-	-	-	-	0.63	3.8
cis-1,3-Dichloropropene	5	0	5	0	0	-	-	-	-	-	0.72	4.4
Dibromochloromethane	5	0	5	0	0	-	-	-	-	-	6.7	41
Ethanol	5	3	2	0	0	20	FASG101	2.5	23SG102	8.7	2.5	9
Trichlorofluoromethane (Freon 11)	5	4	1	1	0	17	FASG102	2	FASG101	6.45	5.4	5.4
1,1,2-Trichlorotrifluoroethane (Freon 113)	5	0	5	0	0	-	-	-	-	-	1.2	7.4
1,2-Dichlorotetrafluoroethane	5	0	5	0	0	-	-	-	-	-	1.1	6.7
Dichlorodifluoromethane (Freon 12)	5	4	1	0	0	5.6	FASG102	1.7	23SG102	3.8	4.7	4.7
Helium	5	3	2	0	0	3.3	FASG102	0.11	FASG101	1.736666667	0.014	0.017
Hexachlorobutadiene (C-46)	5	0	5	0	0	-	-	-	-	-	8.4	51
Methyl tert-Butyl Ether	5	0	5	0	0	-	-	-	-	-	2.8	17
Methylene Chloride (Dichloromethane)	5	3	2	1	0	11	FASG102	1.3	FASG101	4.6	0.58	3.3
2-Propanol	5	1	4	0	0	11	FASG102	11	FASG102	11	1.9	12
Propene	5	3	2	0	0	50	FASG101	4.6	23SG102	25.86666667	2.3	8.3
Tetrachloroethene	5	5	0	5	5	180	FASG102	8.6	FASG101	54.52	-	-
Tetrahydrofuran	5	0	5	0	0	-	-	-	-	-	2.3	14
Trans-1,2-Dichloroethene	5	0	5	0	0	-	-	-	-	-	3.1	19
Trans-1,3-Dichloropropene	5	0	5	0	0	-	-	-	-	-	0.72	4.4
Trichloroethene	5	5	0	5	5	200	FASG102	1	FASG101	43.3	-	-
Vinyl Acetate	5	0	5	0	0	-	-	-	-	-	-	-
Vinyl Chloride	5	0	5	0	0	-	-	-	-	-	0.4	2.4

Notes:

U - Not detected at the detection limit indicated.

J - Estimated Concentration.

NA - Not Available. No data available for background concentrations of these compounds.

DUP - As suffix on Sample ID indicates that the sample is a field duplicate.

1. These compounds may be related to either MGP sources or non-MGP sources, or both. MGP sources include MGP tars and petroleum feedstocks used in MGP processes, such as the carburetted water gas process. Non-MGP sources include cleaning products, floor wax and polish, vehicle exhaust, construction materials, and cigarette smoke.

2. These compounds are not related to MGP sources and are present due to non-MGP sources, such as vehicle exhaust, heating and air conditioning systems, cleaning agents, art supplies, paints, etc.

Summary statistics include soil gas samples only. Ambient air results are not included in the statistical summary

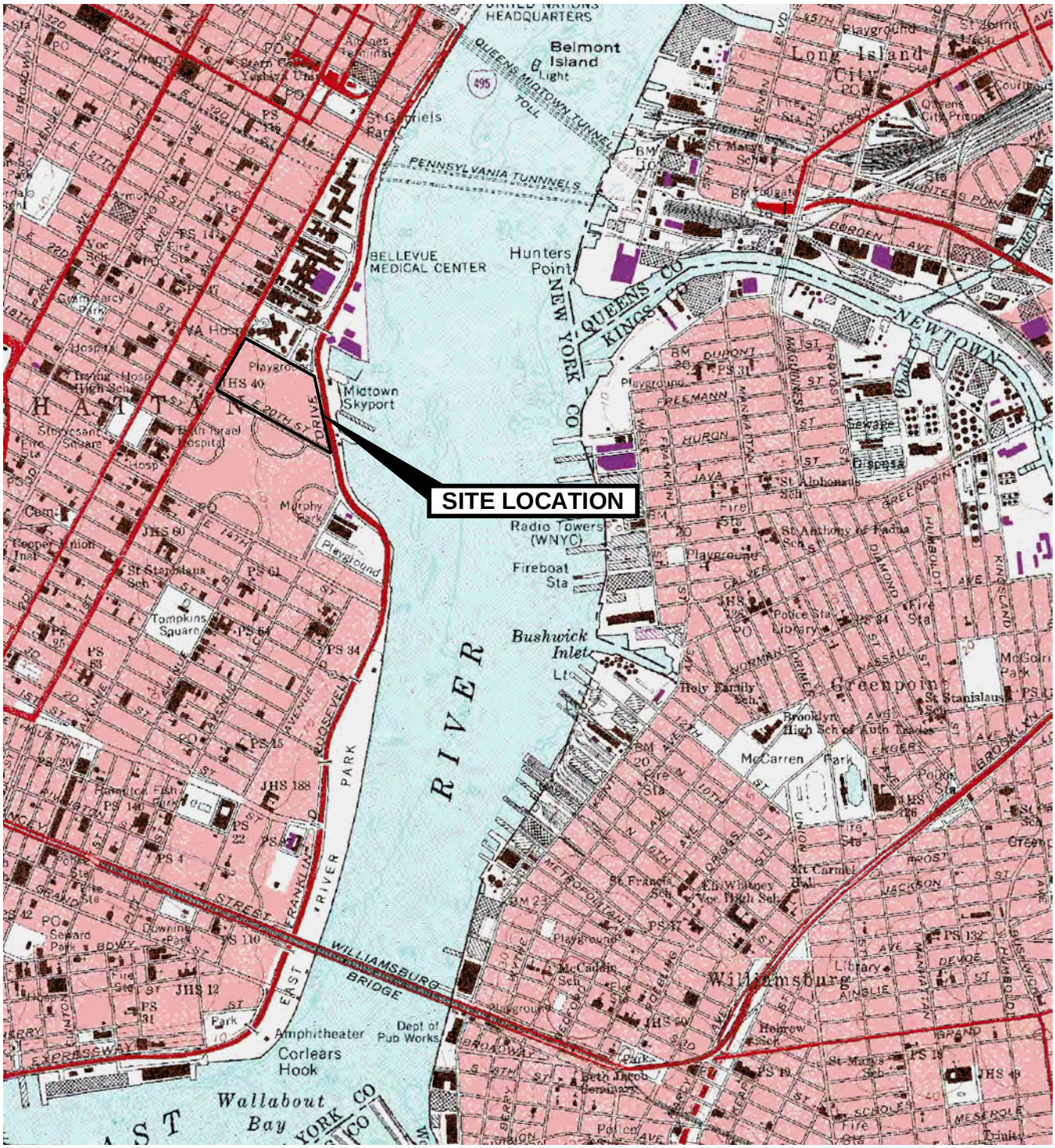
Table 6-1
Exposure Pathway Analysis - Potential Peter Cooper Village Area Receptors
Former East 21st Street Works, New York, NY

Receptor	Exposure Medium	Exposure Pathway	Pathway Not Considered Complete	Pathway Considered Potentially Complete, But Not Likely to Result in Exposure	Pathway Potentially Complete and Will Be Addressed in the Alternatives Analysis Report for the Site	Rationale for Inclusion or Exclusion
Apartment Building Resident						
Apartment Building Resident	**Surface Soil (0-2 inches)**	Ingestion	X	---	---	Apartment building residents may be exposed to residuals in surface soil or particulates, therefore the exposure pathway is considered potentially complete. Since the concentrations of MGP-related COC in surface soil is low, the site is covered with grass or landscape materials, and the residents would only be in the areas with surface soil present for a short time, exposure is not likely.
		Dermal Contact	---	X	---	
		Inhalation of Particulates	---	X	---	
		Inhalation of Volatiles in Ambient Air	---	X	---	Apartment building residents may be exposed to VOCs emanating from on-site residual materials; however, SVI evaluation sampling performed in each of the site buildings indicated that the concentrations of possibly MGP-related COC were low or attributable to non-MGP sources, therefore, exposure is not likely.
		Inhalation of Volatiles in Indoor Air	---	X	---	
	Subsurface Soil (>2 inches)	Ingestion	X	---	---	Apartment building residents are not likely to contact subsurface soils. However, if planned or emergency work involves cutting or drilling through the concrete slabs in the basements of site buildings, there is the possibility that VOCs could be released into the air. Therefore, the inhalation of VOCs in indoor air pathway is considered potentially complete and will be addressed in the alternatives analysis report.
		Dermal Contact	X	---	---	
		Inhalation of Particulates	X	---	---	
		Inhalation of Volatiles in Ambient Air	X	---	---	
		Inhalation of Volatiles in Indoor Air	---	---	X	
	Groundwater	Ingestion	X	---	---	Apartment building residents are not likely to contact groundwater. However, if planned or emergency work involves cutting or drilling through the concrete slabs in the basements of site buildings, there is the possibility that VOCs could be released into the air. Therefore, the inhalation of VOCs in indoor air pathway is considered potentiall complete and will be addressed in the alternatives analysis report.
		Dermal contact	X	---	---	
		Inhalation of Volatiles in Ambient Air	X	---	---	
		Inhalation of Volatiles in Indoor Air	---	---	X	
	Surface Water	Ingestion	X	---	---	Surface water is not present at the Site.
		Dermal contact	X	---	---	
Commercial Building Occupant						
Commercial Building Occupant	**Surface Soil (0-2 inches)**	Ingestion	X	---	---	Surface soil is not present at the property.
		Dermal Contact	X	---	---	
		Inhalation of Particulates	X	---	---	
		Inhalation of Volatiles in Ambient Air	---	X	---	A commercial building occupant may be exposed to VOCs emanating from on-site residual materials; however, SVI evaluation sampling performed in the building indicated that the concentrations of possibly MGP-related COC were low or attributable to non-MGP sources, therefore, exposure is not likely.
		Inhalation of Volatiles in Indoor Air	---	X	---	
	Subsurface Soil (>2 inches)	Ingestion	X	---	---	A commercial building occupant is not likely to contact subsurface soils. However, if planned or emergency work involves cutting or drilling through the concrete slabs in the basements of site buildings, there is the possibility that VOCs could be released into the air. Therefore, the inhalation of VOCs in indoor air pathway is considered potentiall complete and will be addressed in the alternatives analysis report.
		Dermal Contact	X	---	---	
		Inhalation of Particulates	X	---	---	
		Inhalation of Volatiles in Ambient Air	X	---	---	
		Inhalation of Volatiles in Indoor Air	---	---	X	
	Groundwater	Ingestion	X	---	---	A commercial building occupant is not likely to contact groundwater. However, if planned or emergency work involves cutting or drilling through the concrete slabs in the basements of site buildings, there is the possibility that VOCs could be released into the air. Therefore, the inhalation of VOCs in indoor air pathway is considered potentiall complete and will be addressed in the alternatives analysis report.
		Dermal contact	X	---	---	
		Inhalation of Volatiles in Ambient Air	X	---	---	
		Inhalation of Volatiles in Indoor Air	---	---	X	
	Surface Water	Ingestion	X	---	---	Surface water is not present at the Site.
		Dermal contact	X	---	---	
Maintainence Worker - Indoor						
Maintainence Worker - Indoor	**Surface Soil (0-2 inches)**	Ingestion	X	---	---	An indoor maintenance worker would not contact surface soil.
		Dermal Contact	X	---	---	
		Inhalation of Particulates	X	---	---	
		Inhalation of Volatiles in Ambient Air	---	X	---	SVI evaluation sampling performed in all site buildings indicates that the concentrations of possibly MGP-related COC were low or attributable to non-MGP sources.
		Inhalation of Volatiles in Indoor Air	---	X	---	
	Subsurface Soil (>2 inches)	Ingestion	X	---	---	An indoor maintenance worker would not contact subsurface surface soil. However, if planned or emergency work involves cutting or drilling through the concrete slabs in the basements of site buildings, there is the possibility that VOCs could be released into the air. Therefore, the inhalation of VOCs in indoor air pathway is considered potentiall complete and will be addressed in the alternatives analysis report.
		Dermal Contact	X	---	---	
		Inhalation of Particulates	X	---	---	
		Inhalation of Volatiles in Ambient Air	X	---	---	
		Inhalation of Volatiles in Indoor Air	---	---	X	
	Groundwater	Ingestion	X	---	---	Sumps with groundwater are not present in the buildings. However, if planned or emergency work involves cutting or drilling through the concrete slabs in the basements of site buildings, there is the possibility that VOCs could be released into the air. Therefore, the inhalation of VOCs in indoor air pathway is considered potentiall complete and will be addressed in the alternatives analysis report.G9
		Dermal contact	X	---	---	
		Inhalation of Volatiles in Ambient Air	X	---	---	
		Inhalation of Volatiles in Indoor Air	X	---	X	
	Surface Water	Ingestion	X	---	---	Surface water is not present at the Site.
		Dermal contact	X	---	---	

Table 6-1
Exposure Pathway Analysis - Potential On-site Receptors
Former East 21st Street Works, New York, NY

Receptor	Exposure Medium	Exposure Pathway	Pathway Not Considered Complete	Pathway Considered Potentially Complete, But Not Likely to Result in Exposure	Pathway Potentially Complete and Will Be Addressed in the Remedial Action Selection Report for the Site	Rationale for Inclusion or Exclusion
Landscaper/Groundskeeper						
Landscaper Groundskeeper	**Surface Soil (0-2 inches)**	Ingestion	X	---	---	Outdoor maintenance workers who mow the grass or maintain the landscape materials on the site may be exposed to residuals in surface soil or particulates, therefore the exposure pathway is considered potentially complete. Since the site is covered with grass, the concentrations of COC are low, and the workers would only be on site in these areas for a short time, exposure is not likely.
		Dermal Contact	---	X	---	
		Inhalation of Particulates	---	X	---	
		Inhalation of Volatiles in Ambient Air	---	X	---	Outdoor Maintenance Workers may be infrequently exposed to ambient air VOCs emanating from site impacted materials and NAPL; however, exposure is not likely due pavement cover, atmospheric mixing, and dilution of the VOCs in ambient air.
	Subsurface Soil (>2 inches)	Ingestion	X	---	---	Outdoor maintenance workers are not likely to contact subsurface soils during their workday.
		Dermal Contact	X	---	---	
		Inhalation of Particulates	X	---	---	
		Inhalation of Volatiles in Ambient Air	X	---	---	
	Groundwater	Ingestion	X	---	---	Outdoor Maintenance Workers are not likely to contact groundwater during their workday.
		Dermal contact	X	---	---	
		Inhalation of Volatiles in Ambient Air	X	---	---	
	Surface Water	Ingestion	---	X	---	Outdoor maintenance workers may be exposed to surface water during storm events; however, exposure is not likely as it is unlikely that the grass mowing or other maintenance work would be performed where surface water is present. In addition, the majority of the site is paved, which would serve to limit surface water contact with residuals.
		Dermal contact	---	X	---	
Outdoor Subsurface Maintenance or Utility Worker						
Outdoor Subsurface Maintenance or Utility Worker	**Surface Soil (0-2 inches)**	Ingestion	---	X	---	Outdoor subsurface maintenance or utility workers who repair or maintain equipment at the site may be exposed to residuals in surface soil or particulates, therefore the exposure pathway is considered potentially complete. Since the site is covered with pavement, buildings and grass and the concentrations of COC in surface soil is low, and the workers would only be on site for a short time, exposure is not likely.
		Dermal contact	---	X	---	
		Inhalation of Particulates	---	X	---	
		Inhalation of Volatiles in Ambient Air	---	X	---	
	Subsurface Soil (>2 inches)	Ingestion	---	X	---	Outdoor subsurface maintenance or utility workers may be exposed to NAPL or other residuals in subsurface soil, dust, or VOCs in ambient air while completing excavation work to repair or replace subsurface utilities or other equipment that is present at the Site. Therefore, the pathway will be addressed in the alternatives analysis of potential remedial actions for the site.
		Dermal contact	---	---	X	
		Inhalation of Particulates	---	---	X	
		Inhalation of Volatiles in Ambient Air	---	---	X	
	Groundwater	Ingestion	---	X	---	Outdoor subsurface maintenance or utility workers may be exposed to residuals in groundwater and VOCs in ambient air while completing excavation work to repair or replace pipes or other equipment that is present at the Site. Therefore, the pathway will be addressed in the alternatives analysis of potential remedial actions for the Site.
		Dermal contact	---	---	X	
		Inhalation of Volatiles in Ambient Air	---	---	X	
	Surface Water	Ingestion	---	X	---	Surface water does not collect or pool in the Peter Cooper Village Area, therefore, subsurface utility repair work is unlikely to involve contact with this media.
		Dermal contact	---	X	---	
Visitor or Trespasser						
Site Visitor or Trespasser	**Surface Soil (0-2 inches)**	Ingestion	---	X	---	Visitors and trespassers may be exposed to residuals in surface soil and VOCs in ambient air while visiting the site; however, the concentrations of COC in surface soil is low, the site is covered with grass or pavement, the visitors or trespassers would only be on-site for a short time, and the site is secured and is an active facility with on-site personnel, therefore, exposure is not likely.
		Dermal contact	---	X	---	
		Inhalation of Particulates	---	X	---	
		Inhalation of Volatiles in Ambient Air	---	X	---	
	Subsurface Soil (>2 inches)	Ingestion	X	---	---	Visitors or trespassers would not be exposed to subsurface soil while visiting the Site.
		Dermal contact	X	---	---	
		Inhalation of Particulates	X	---	---	
		Inhalation of Volatiles in Ambient Air	---	---	X	
	Groundwater	Ingestion	X	---	---	Visitors or trespassers would not be exposed to groundwater while visiting the Site.
		Dermal contact	X	---	---	
		Inhalation of Volatiles in Ambient Air	---	---	X	
	Surface Water	Ingestion	X	---	---	Visitors or trespassers may potentially be exposed to surface water while visiting the site; however, surface water does not pool on the site, and any contact would be likely to be for only a brief period of time, therefore, exposure is not likely.
		Dermal contact	X	---	---	

Figures



UNITED STATES GEOLOGIC SURVEY
BROOKLYN QUADRANGLE
NEW YORK
7.5 MINUTE SERIES (TOPOGRAPHY)

BROOKLYN, N.Y.
1967
PHOTOREVISED 1979

SCALE 1:24000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729			**SITE LOCATION MAP**
DATE: **11/17/08**	DRWN: **BcV/W-MA**		**FIGURE 2-1**

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Vilage\01869\CADD\OU1-2008\SITE_LOC_TOPO.dwg Layout: ANSI_AVI-LJ User: VershonB Plotted: Nov 17, 2008 - 4:24pm Xref's:

LEGEND

EXISTING STRUCTURES

HISTORICAL STRUCTURES

LIMIT OF OU1

EAST 23rd STREET

EAST 20th STREET

FIRST AVENUE

AVENUE "C"

EAST RIVER

PETER COOPER ROAD

HISTORIC BOUNDARY OF FORMER EAST 21ST STREET MGP WORKS

PARKING GARAGE

SOLAR ONE BLDG.

1 STORY BRICK BUILDING

15 STORY BRICK BUILDING No. 13

15 STORY BRICK BUILDING No. 15

15 STORY BRICK BUILDING No. 17

15 STORY BRICK BUILDING No. 19

15 STORY BRICK BUILDING No. 21

STOCK ROOM

METER PROVING ROOM

RECEIVING ROOM

GAS STORE REPAIR SHOP

METER SHOP

GASHOLDER 6

GASHOLDER 4

GASHOLDER 2

GASHOLDER 5

GASHOLDER 3

GASHOLDER 1

GASHOLDER 7

GASHOLDER 8

GOVERNER HOUSE

VALVE HOUSE

TIN SHOP

MACHINE SHOP

WAGON SHED

GENERATORS

OFFICE

ENGINE ROOM

CARPENTER SHOP

SMITH SHOP

METER HOUSE

SCRUBBERS

PURIFIERS

RETORTS

CONDENSER

TAR SEPARATOR

DRIP TANK

DRIP TANKS

UNDERGROUND GAS OIL TANKS

WATER TANK

PUMP HOUSE (FIRE)

STORAGE TANK OIL TANKS

COAL HOUSE

STORE HOUSE

OIL TANK

TANK ENCLOSURE

15 STORY BRICK BUILDING No. 1

15 STORY BRICK BUILDING No. 3

15 STORY BRICK BUILDING No. 5

15 STORY BRICK BUILDING No. 7

15 STORY BRICK BUILDING No. 9

15 STORY BRICK BUILDING No. 11

15 STORY BRICK BUILDING No. 12

15 STORY BRICK BUILDING No. 14

15 STORY BRICK BUILDING No. 16

15 STORY BRICK BUILDING No. 18

15 STORY BRICK BUILDING No. 10

60 0 120

1"=120'

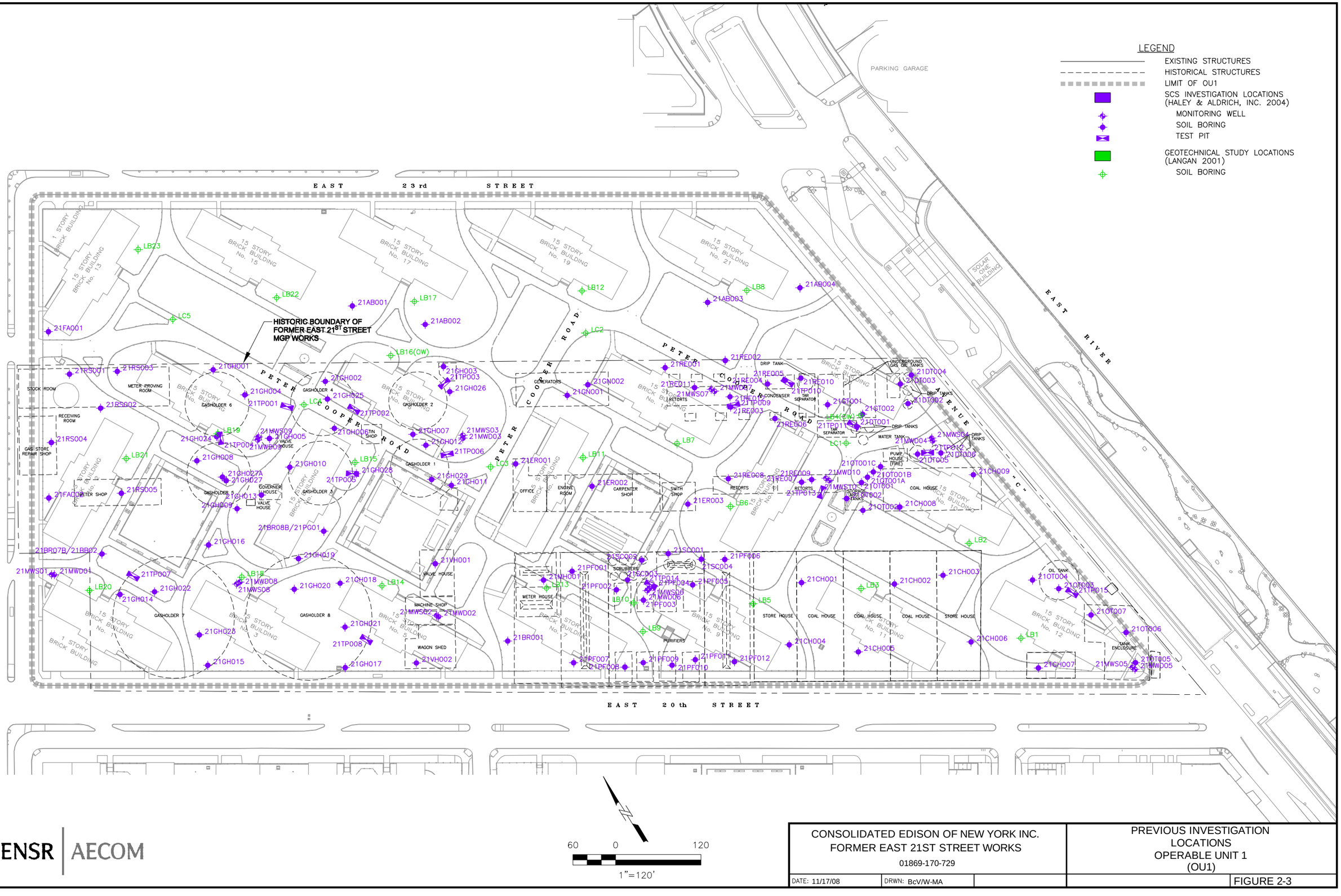
ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

CURRENT SITE LAYOUT AND FORMER MGP STRUCTURES OPERABLE UNIT 1 (OU1)

DATE: 11/17/08 | DRWN: BcV/W-MA

FIGURE 2-2



ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729	PREVIOUS INVESTIGATION LOCATIONS OPERABLE UNIT 1 (OU1)
DATE: 11/17/08 | DRWN: BcV/W-MA	FIGURE 2-3

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\PREVIOUS_INVEST.dwg Layout: ANSI_B(-L) User: VershonB Plotted: Nov 17, 2008 - 4:52pm Xref's:

LEGEND

- EXISTING STRUCTURES
- HISTORICAL STRUCTURES
- LIMIT OF OU1
- RI INVESTIGATION LOCATIONS (RETEC 2006)
- MONITORING WELL
- SOIL BORING
- SURFACE SOIL
- SOIL GAS
- RI INVESTIGATION LOCATIONS (ENSR/AECOM 2008)
- EBMWD24 MONITORING WELL
- 21TC01 BORING
- PREVIOUS INVESTIGATION LOCATIONS

HISTORIC BOUNDARY OF FORMER EAST 21ST STREET MGP WORKS

EAST 23rd STREET

EAST 20th STREET

FIRST AVENUE

PETER COOPER ROAD

EAST RIVER

PARKING GARAGE

SOLAR ONE BUILDING

60 0 120

1"=120'

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729			RI INVESTIGATION LOCATIONS OPERABLE UNIT 1 (OU1)
DATE: 11/17/08	DRWN: BcV/W-MA		FIGURE 3-1

NOTES:

–RETEC ASSUMES THE ELECTRICAL DUCTS, GAS MAINS, STEAM MAINS, FIBER OPTIC CABLE LINES, TELEPHONE LINES AND STORM DRAINS TO BE LOCATED IN THE SUBSURFACE AT VARIOUS DEPTHS RANGING BETWEEN 3' AND 7' BELOW GROUND SURFACE.

1. UTILITY LOCATIONS SHOWN ARE OBTAINED FROM FIELD OBSERVATION, DETECTION BY ELECTRONIC DEVICE, AND AVAILABLE MAPS AND PLANS OF THE UTILITY OWNERS OR AUTHORITIES. THIS INFORMATION HAS NOT BEEN CONFIRMED AS EITHER ACCURATE OR COMPLETE. ACTUAL UTILITY LOCATIONS AND DEPTHS WILL BE VERIFIED PRIOR TO ANY SUBSURFACE ACTIVITY.
2. THE LOCATIONS AND ELEVATIONS OF UTILITIES SHOWN WERE ESTIMATED, BASED ON INFORMATION IN THE FOLLOWING PLANS PREPARED BY OTHERS AND INTERPRETED BY THE RETEC GROUP, INC.
   * SITE PLAN OF OUTSIDE UTILITIES, PREPARED BY PETER COOPER BOARD OF DESIGN, NEW YORK, NY, DATED AUGUST 21, 1947.
   * NORTH BRANCH INTERCEPTING SEWER CONTRACT No. 3, SHEETS 3 THROUGH 6, PLAN AND PROFILE, PREPARED BY CITY OF NEW YORK DEPARTMENT OF PUBLIC WORKS, DIVISION OF SEWAGE DISPOSAL, BUREAU OF SEWAGE DISPOSAL DESIGN P.W. 53 NEWTON CREEK POLLUTION CONTROL PROJECT, DATED JULY 1967.
   * ELECTRONIC BASE PLAN PROVIDED BY HALEY AND ALDRICH: COMPOSITE UTILITY PLAN, FIGURE 1, DATED 2004.
   * THE 108" INTERCEPTING SEWER IS APPROXIMATELY 25'–35' bgs.
   * ALL WATER MAINS ARE APPROXIMATELY 42"–48" bgs.

OUTFALL # NCM047
SPDES PERMIT #
NY0026204

OUTFALL # NCM087
SPDES PERMIT # NY0026204

OUTFALL # NCM048
SPDES PERMIT #
NY0026204

LEGEND
- EXISTING STRUCTURES
- ELECTRICAL DUCT
- GAS
- WATER
- SEWER DRAIN
- STORM SEWER
- TELEPHONE
- FIBER OPTIC CABLE
- STEAM
- LIMITS OF OU1

30 0 60
1"=60'

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729			UNDERGROUND UTILITIES OPERABLE UNIT 1 (OU1)
DATE: 11/17/08	DRWN: BcV/W-MA		FIGURE 3-2

LEGEND

EXISTING STRUCTURES
PROPOSED UNDER DRAIN
YARD AND COURT DRAIN
SEWER DRAIN
STORM SEWER
MANHOLES
CATCHBASINS
MONITORING WELL
SOIL BORING
TEST PIT
SURFACE SOIL
SOIL GAS
APPROXIMATE EXTENT OF OLM/TLM IMPACTED SOILS BETWEEN 10 AND 20 FT. BELOW GROUND SURFACE
APPROX. LOCATION OF VALVE EXCAVATION
OBSERVED (SEE RIGHT)
MGP (M) (MGP-LIKE IMPACTS OBSERVED)
MGP & PETROLEUM (M/P) (MGP-LIKE AND PETROLEUM-LIKE IMPACTS OBSERVED)
PETROLEUM (P) (PETROLEUM-LIKE IMPACTS OBSERVED)
HISTORIC FILL (H) (NO IMPACTS OBSERVED)

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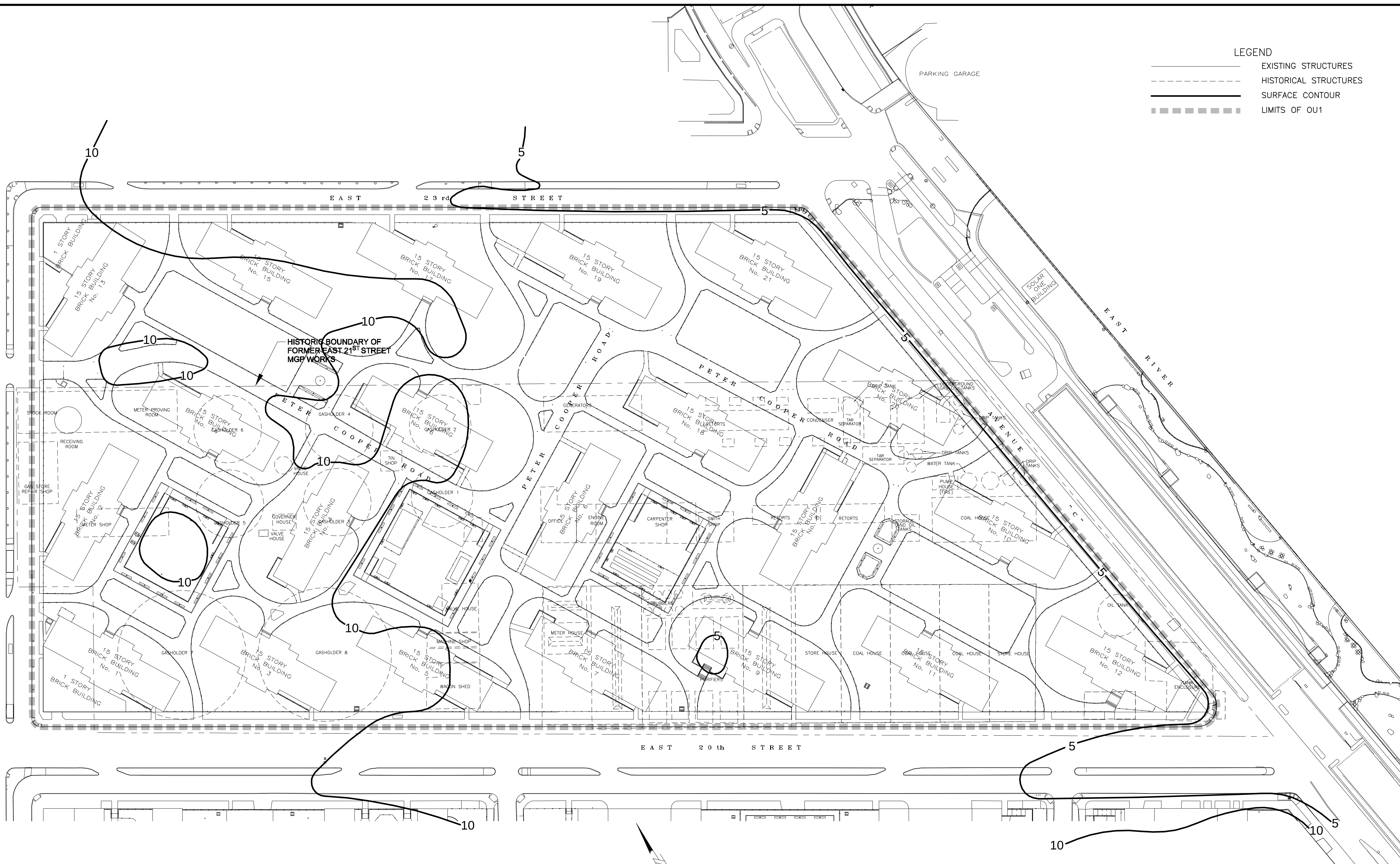
CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

OIL WATER UNDERDRAIN SYSTEM INVESTIGATION

OPERABLE UNIT 1 (OU1)

DATE: 11/17/08 | DRWN: BcV/W-MA | FIGURE 3-3



File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Vilage\01869\CADD\OU1-2008\SITE_TOPO_CONTOURS.dwg Layout: ANSI_BI-LJ User: VershonB Plotted: Nov 17, 2008 - 5:11pm Xref's:

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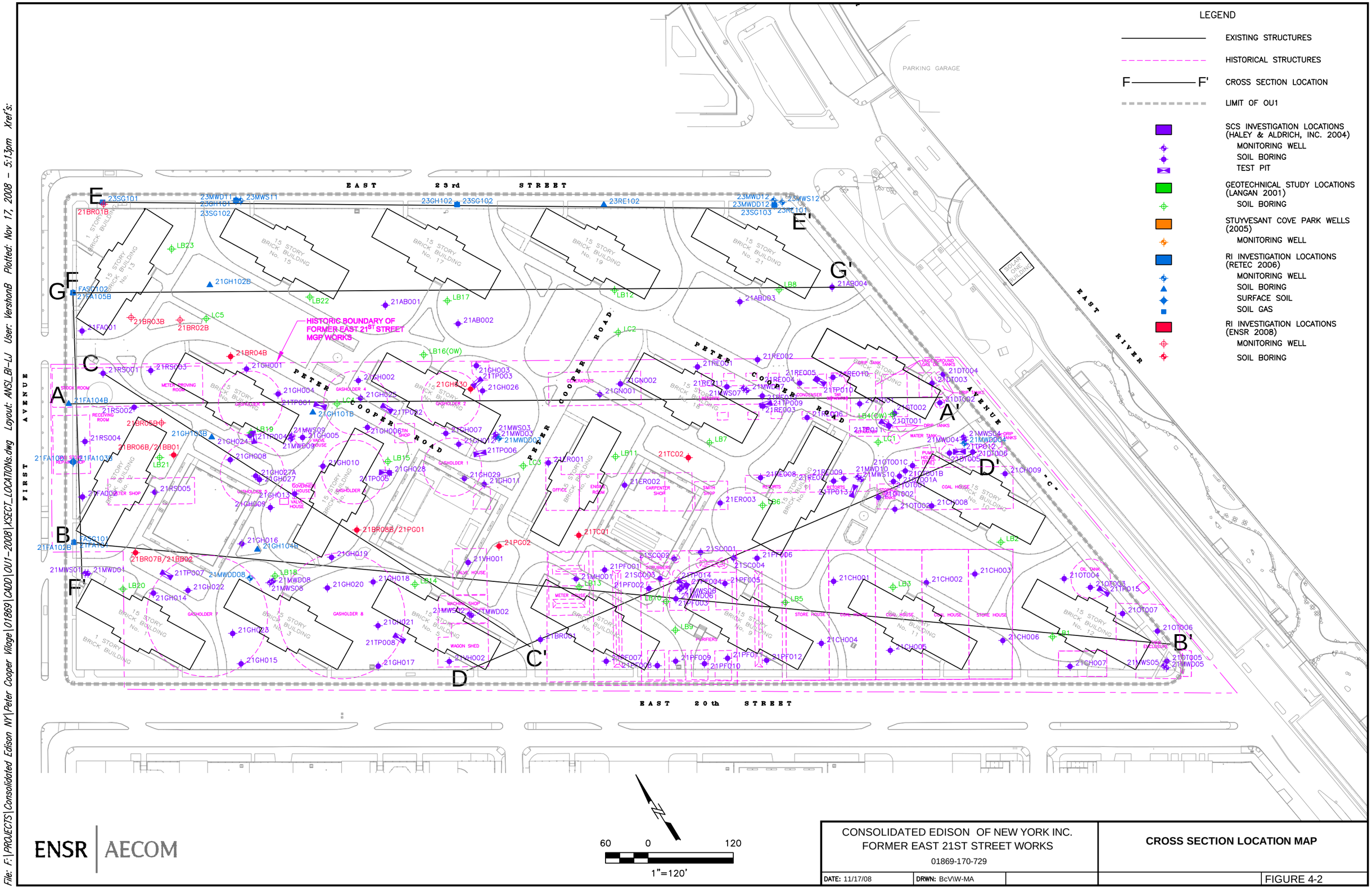
CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

SITE TOPOGRAPHY

DATE: 11/17/08 | DRWN: BcV/W-MA

FIGURE 4-1



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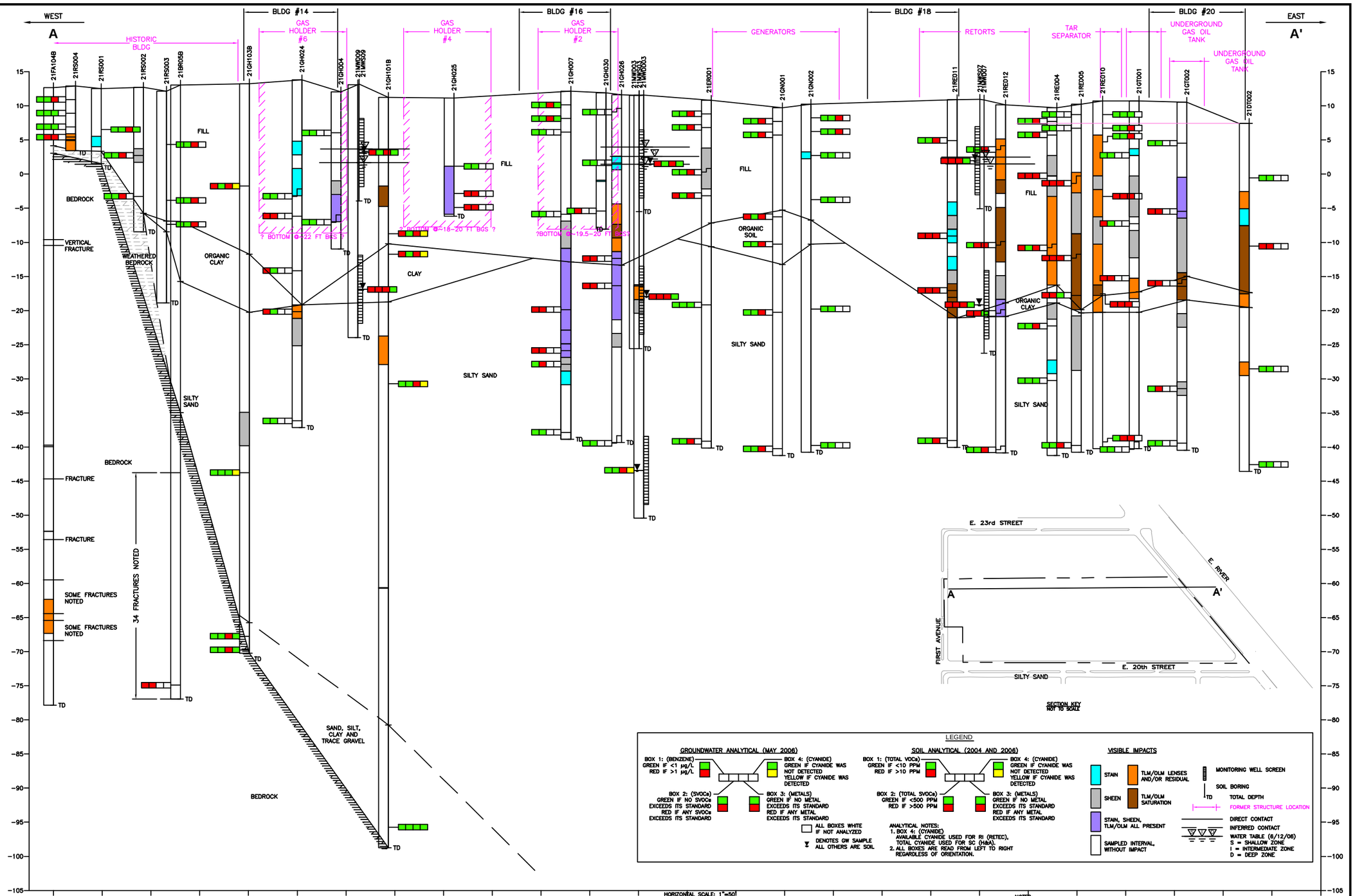
CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

CROSS SECTION LOCATION MAP

DATE: 11/17/08 | DRWN: BcV\W-MA | FIGURE 4-2

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\XSECT_LOCATIONs.dwg Layout: ANSL_BI-LJ User: VershonB Plotted: Nov 17, 2008 - 5:13pm Xref's:

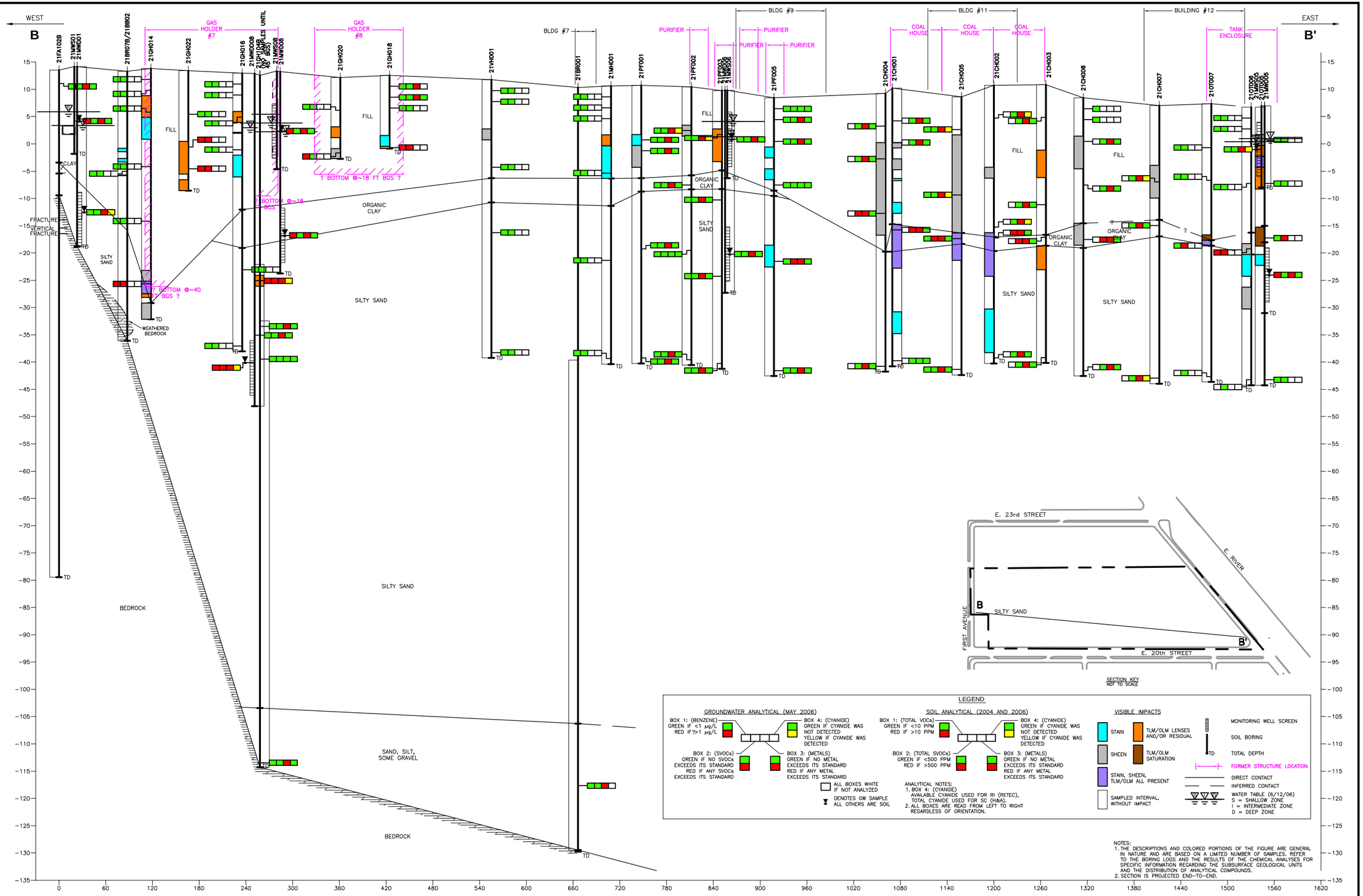


NOTES:
1. THE DESCRIPTIONS AND COLORED PORTIONS OF THE FIGURE ARE GENERAL IN NATURE AND ARE BASED ON A LIMITED NUMBER OF SAMPLES. REFER TO THE BORING LOGS AND THE RESULTS OF THE CHEMICAL ANALYSES FOR SPECIFIC INFORMATION REGARDING THE SUBSURFACE GEOLOGICAL UNITS AND THE DISTRIBUTION OF ANALYTICAL COMPOUNDS.
2. SECTION IS PROJECTED END-TO-END.

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729		CROSS SECTION A-A' OPERABLE UNIT 1 (OU1)
DATE: 11/17/08	DRWN: BcV/W-MA	FIGURE 4-3

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\XSECT_A-A.dwg Layout: A-A User: VershonB Plotted: Nov 17, 2008 - 5:15pm Xref's:



LEGEND

GROUNDWATER ANALYTICAL (MAY 2006)

BOX 1: (BENZENE) GREEN IF <1 µg/L, RED IF?>1 µg/L
BOX 2: (SVOCs) GREEN IF NO SVOCs EXCEEDS ITS STANDARD, RED IF ANY SVOCs EXCEEDS ITS STANDARD
BOX 3: (METALS) GREEN IF NO METAL EXCEEDS ITS STANDARD, RED IF ANY METAL EXCEEDS ITS STANDARD
BOX 4: (CYANIDE) GREEN IF CYANIDE WAS NOT DETECTED, YELLOW IF CYANIDE WAS DETECTED
ALL BOXES WHITE IF NOT ANALYZED
DENOTES GW SAMPLE ALL OTHERS ARE SOIL

SOIL ANALYTICAL (2004 AND 2006)

BOX 1: (TOTAL VOCs) GREEN IF <10 PPM, RED IF >10 PPM
BOX 2: (TOTAL SVOCs) GREEN IF <500 PPM, RED IF >500 PPM
BOX 3: (METALS) GREEN IF NO METAL EXCEEDS ITS STANDARD, RED IF ANY METAL EXCEEDS ITS STANDARD
BOX 4: (CYANIDE) GREEN IF CYANIDE WAS NOT DETECTED, YELLOW IF CYANIDE WAS DETECTED

ANALYTICAL NOTES:
1. BOX 4: (CYANIDE) AVAILABLE CYANIDE USED FOR RI (RETEC), TOTAL CYANIDE USED FOR SC (H&A).
2. ALL BOXES ARE READ FROM LEFT TO RIGHT REGARDLESS OF ORIENTATION.

VISIBLE IMPACTS

STAIN
SHEEN
STAIN, SHEEN, TLM/OLM ALL PRESENT
SAMPLED INTERVAL, WITHOUT IMPACT
TLM/OLM LENSES AND/OR RESIDUAL
TLM/OLM SATURATION

MONITORING WELL SCREEN
SOIL BORING
TD TOTAL DEPTH
FORMER STRUCTURE LOCATION
DIRECT CONTACT
INFERRED CONTACT
WATER TABLE (6/12/06)
S = SHALLOW ZONE
I = INTERMEDIATE ZONE
D = DEEP ZONE

NOTES:
1. THE DESCRIPTIONS AND COLORED PORTIONS OF THE FIGURE ARE GENERAL IN NATURE AND ARE BASED ON A LIMITED NUMBER OF SAMPLES. REFER TO THE BORING LOGS AND THE RESULTS OF THE CHEMICAL ANALYSES FOR SPECIFIC INFORMATION REGARDING THE SUBSURFACE GEOLOGICAL UNITS AND THE DISTRIBUTION OF ANALYTICAL COMPOUNDS.
2. SECTION IS PROJECTED END-TO-END.

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CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

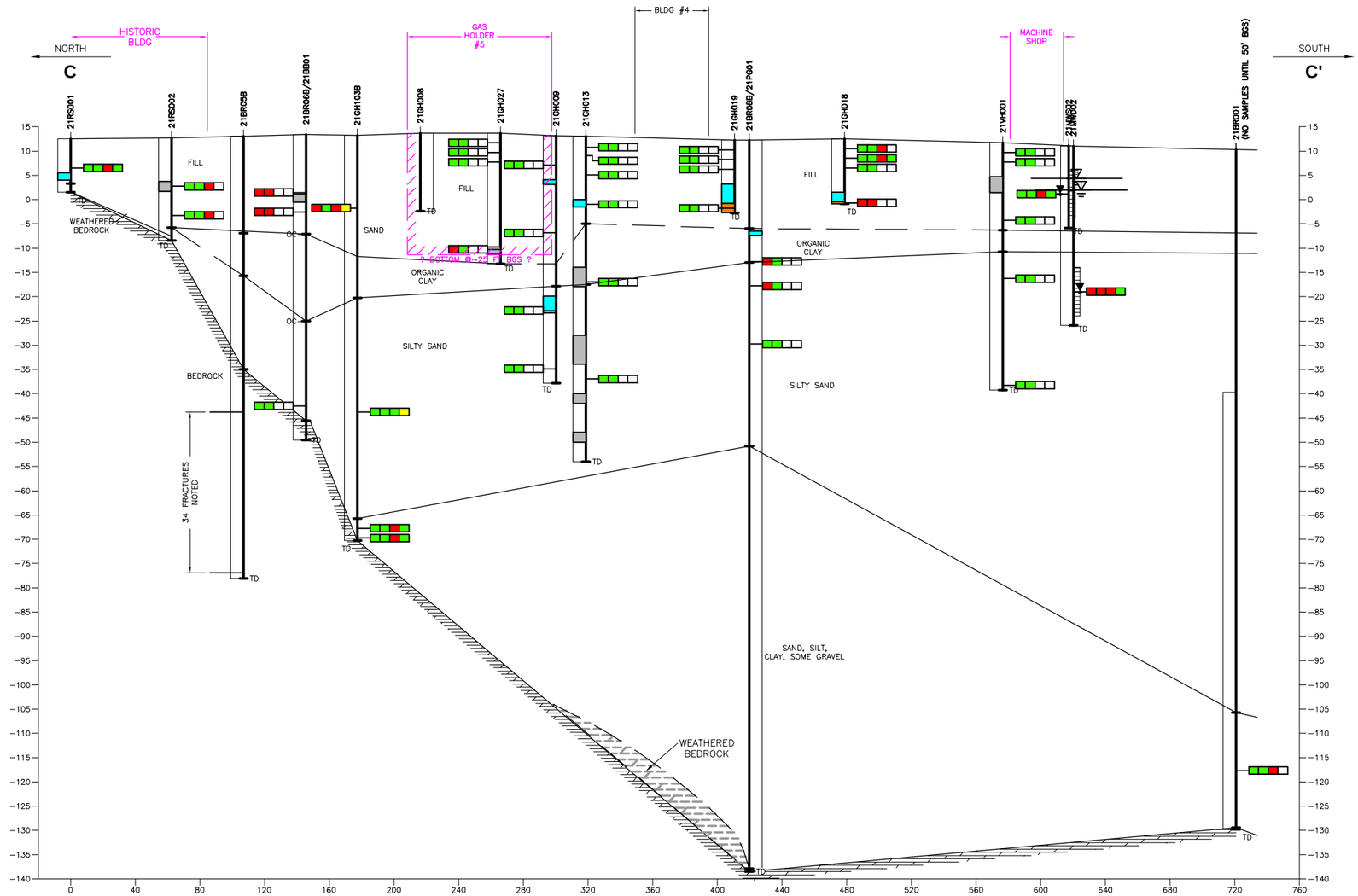
DATE: **11/17/08** | DRWN: **BcV/W-MA**

CROSS SECTION B-B'

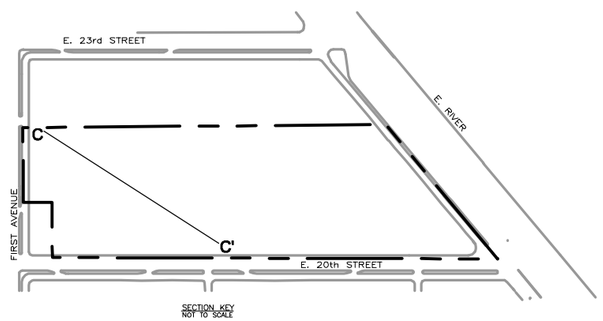
OPERABLE UNIT 1 (OU1)

FIGURE 4-4

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\XSECT_B-B.dwg Layout: B-B User: VershonB Plotted: Nov 18, 2008 - 2:30pm Xref's:



(VERTICAL EXAGGERATION: 3)



SECTION KEY
NOT TO SCALE

LEGEND

GROUNDWATER ANALYTICAL (MAY 2006)

BOX 1: (BENZENE) GREEN IF <1 µg/L, RED IF >1 µg/L
BOX 2: (SVOCs) GREEN IF NO SVOCs EXCEEDS ITS STANDARD, RED IF ANY SVOCs EXCEEDS ITS STANDARD
BOX 3: (METALS) GREEN IF NO METAL EXCEEDS ITS STANDARD, RED IF ANY METAL EXCEEDS ITS STANDARD
BOX 4: (CYANIDE) GREEN IF CYANIDE WAS NOT DETECTED, YELLOW IF CYANIDE WAS DETECTED
ALL BOXES WHITE IF NOT ANALYZED
DENOTES GW SAMPLE, ALL OTHERS ARE SOIL

SOIL ANALYTICAL (2004 AND 2006)

BOX 1: (TOTAL VOCs) GREEN IF <10 PPM, RED IF >10 PPM
BOX 2: (TOTAL SVOCs) GREEN IF <500 PPM, RED IF >500 PPM
BOX 3: (METALS) GREEN IF NO METAL EXCEEDS ITS STANDARD, RED IF ANY METAL EXCEEDS ITS STANDARD
BOX 4: (CYANIDE) GREEN IF CYANIDE WAS NOT DETECTED, YELLOW IF CYANIDE WAS DETECTED

ANALYTICAL NOTES:
1. BOX 4: (CYANIDE) AVAILABLE CYANIDE USED FOR RI (RETEC), TOTAL CYANIDE USED FOR SC (H&A).
2. ALL BOXES ARE READ FROM LEFT TO RIGHT REGARDLESS OF ORIENTATION.

VISIBLE IMPACTS

STAIN
SHEEN
STAIN, SHEEN, TLM/OLM ALL PRESENT
SAMPLED INTERVAL, WITHOUT IMPACT
TLM/OLM LENSES AND/OR RESIDUAL
TLM/OLM SATURATION
MONITORING WELL SCREEN
SOIL BORING
TD TOTAL DEPTH
FORMER STRUCTURE LOCATION
DIRECT CONTACT
INFERRED CONTACT
WATER TABLE (6/12/06)
S = SHALLOW ZONE
I = INTERMEDIATE ZONE
D = DEEP ZONE

NOTES:
1. THE DESCRIPTIONS AND COLORED PORTIONS OF THE FIGURE ARE GENERAL IN NATURE AND ARE BASED ON A LIMITED NUMBER OF SAMPLES. REFER TO THE BORING LOGS AND THE RESULTS OF THE CHEMICAL ANALYSES FOR SPECIFIC INFORMATION REGARDING THE SUBSURFACE GEOLOGICAL UNITS AND THE DISTRIBUTION OF ANALYTICAL COMPOUNDS.
2. SECTION IS PROJECTED END-TO-END.

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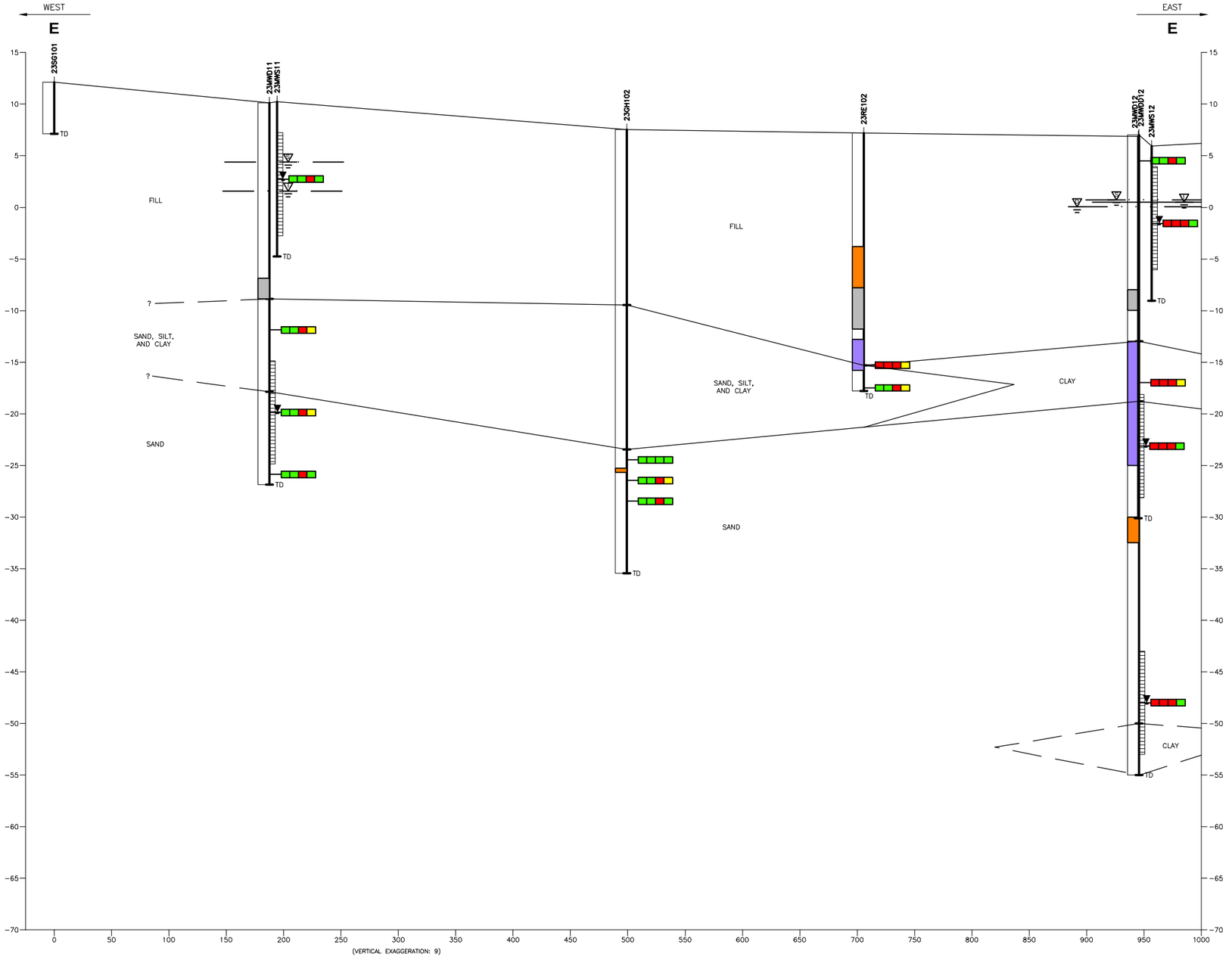
CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

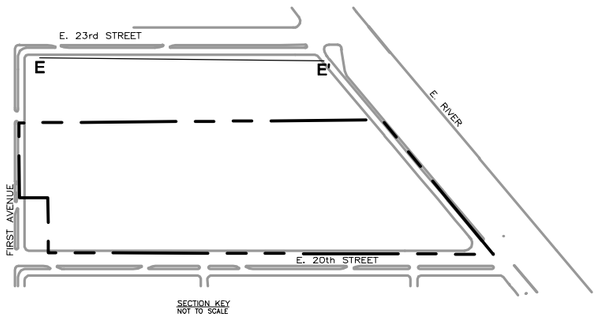
CROSS SECTION C-C'

OPERABLE UNIT 1 (OU1)

DATE: **11/17/08** | DRWN: **BcV/W-MA** | **FIGURE 4-5**

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\XSECT_C-C.dwg Layout: C-C User: VershonB Plotted: Nov 17, 2008 - 5:19pm Xref's:





LEGEND

GROUNDWATER ANALYTICAL (MAY 2006)

BOX 1: (BENZENE) GREEN IF <1 µg/L RED IF >1 µg/L

BOX 2: (SVOCs) GREEN IF NO SVOCs EXCEEDS ITS STANDARD RED IF ANY SVOCs EXCEEDS ITS STANDARD

BOX 3: (METALS) GREEN IF NO METAL EXCEEDS ITS STANDARD RED IF ANY METAL EXCEEDS ITS STANDARD

BOX 4: (CYANIDE) GREEN IF CYANIDE WAS NOT DETECTED YELLOW IF CYANIDE WAS DETECTED

ALL BOXES WHITE IF NOT ANALYZED

DENOTES GW SAMPLE ALL OTHERS ARE SOIL

SOIL ANALYTICAL (2004 AND 2006)

BOX 1: (TOTAL VOCs) GREEN IF <10 PPM RED IF >10 PPM

BOX 2: (TOTAL SVOCs) GREEN IF <500 PPM RED IF >500 PPM

BOX 3: (METALS) GREEN IF NO METAL EXCEEDS ITS STANDARD RED IF ANY METAL EXCEEDS ITS STANDARD

BOX 4: (CYANIDE) GREEN IF CYANIDE WAS NOT DETECTED YELLOW IF CYANIDE WAS DETECTED

ANALYTICAL NOTES:
1. BOX 4: (CYANIDE) AVAILABLE CYANIDE USED FOR RI (RETEC), TOTAL CYANIDE USED FOR SC (H&A).
2. ALL BOXES ARE READ FROM LEFT TO RIGHT REGARDLESS OF ORIENTATION.

VISIBLE IMPACTS

STAIN
SHEEN
STAIN, SHEEN, TLM/OLM ALL PRESENT
SAMPLED INTERVAL, WITHOUT IMPACT
TLM/OLM LENSES AND/OR RESIDUAL
TLM/OLM SATURATION

MONITORING WELL SCREEN
SOIL BORING
TD TOTAL DEPTH
FORMER STRUCTURE LOCATION
DIRECT CONTACT
INFERRED CONTACT
WATER TABLE (6/12/06)
S = SHALLOW ZONE
I = INTERMEDIATE ZONE
D = DEEP ZONE

NOTES:
1. THE DESCRIPTIONS AND COLORED PORTIONS OF THE FIGURE ARE GENERAL IN NATURE AND ARE BASED ON A LIMITED NUMBER OF SAMPLES. REFER TO THE BORING LOGS AND THE RESULTS OF THE CHEMICAL ANALYSES FOR SPECIFIC INFORMATION REGARDING THE SUBSURFACE GEOLOGICAL UNITS AND THE DISTRIBUTION OF ANALYTICAL COMPOUNDS.
2. SECTION IS PROJECTED END-TO-END.

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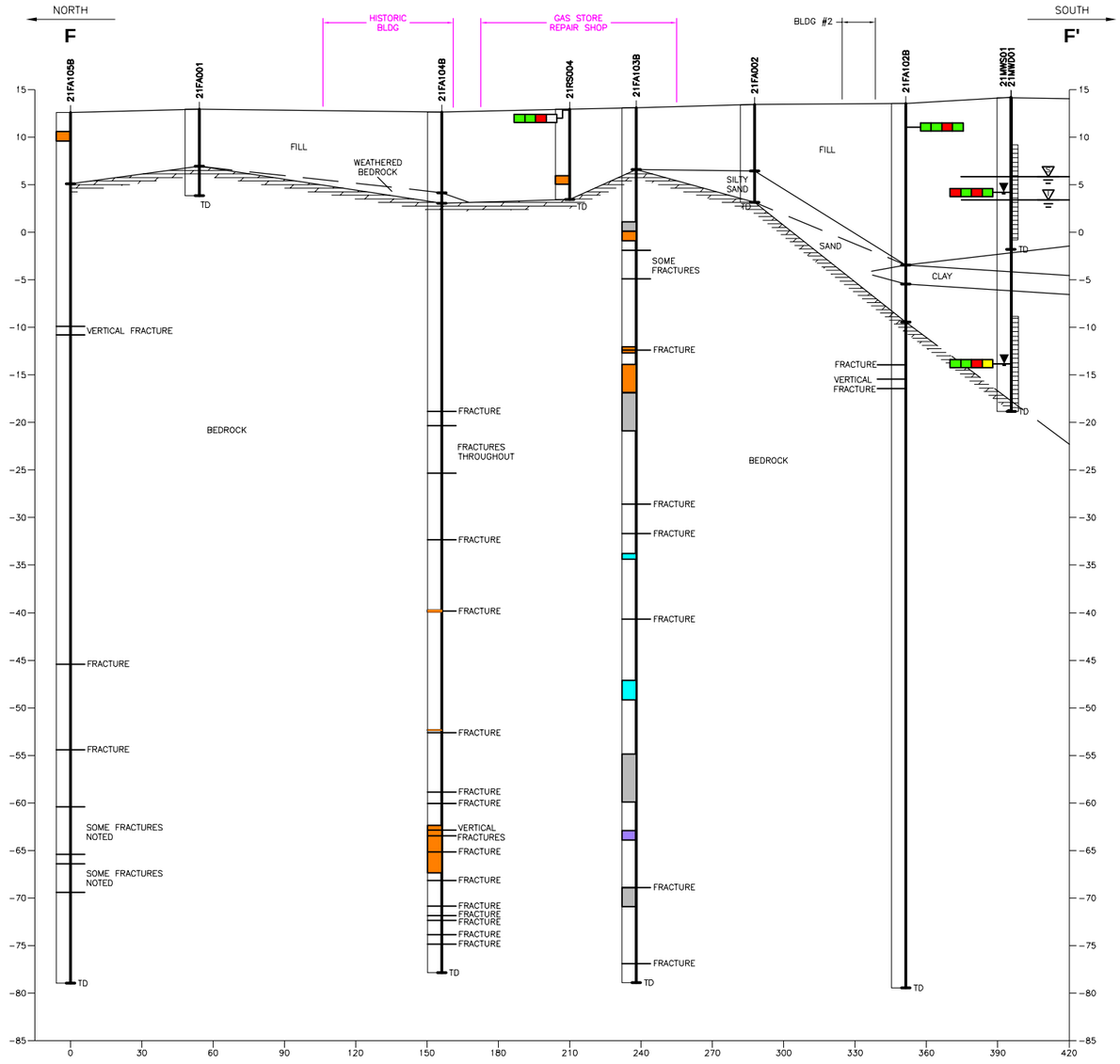
CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

CROSS SECTION E-E'

OPERABLE UNIT 1 (OU1)

DATE: **11/17/08** | DRWN: **BcV/W-MA** | **FIGURE 4-7**



(VERTICAL EXAGGERATION: 4)

LEGEND

GROUNDWATER ANALYTICAL (MAY 2006)

BOX 1: (BENZENE) GREEN IF <1 µg/L RED IF >1 µg/L

BOX 2: (SVOCs) GREEN IF NO SVOCs EXCEEDS ITS STANDARD RED IF ANY SVOCs EXCEEDS ITS STANDARD

BOX 3: (METALS) GREEN IF NO METAL EXCEEDS ITS STANDARD RED IF ANY METAL EXCEEDS ITS STANDARD

BOX 4: (CYANIDE) GREEN IF CYANIDE WAS NOT DETECTED YELLOW IF CYANIDE WAS DETECTED

ALL BOXES WHITE IF NOT ANALYZED

DENOTES GW SAMPLE ALL OTHERS ARE SOIL

SOIL ANALYTICAL (2004 AND 2006)

BOX 1: (TOTAL VOCs) GREEN IF <10 PPM RED IF >10 PPM

BOX 2: (TOTAL SVOCs) GREEN IF <500 PPM RED IF >500 PPM

BOX 3: (METALS) GREEN IF NO METAL EXCEEDS ITS STANDARD RED IF ANY METAL EXCEEDS ITS STANDARD

BOX 4: (CYANIDE) GREEN IF CYANIDE WAS NOT DETECTED YELLOW IF CYANIDE WAS DETECTED

ANALYTICAL NOTES:
1. BOX 4: (CYANIDE) AVAILABLE CYANIDE USED FOR RI (RETEC), TOTAL CYANIDE USED FOR SC (H&A).
2. ALL BOXES ARE READ FROM LEFT TO RIGHT REGARDLESS OF ORIENTATION.

VISIBLE IMPACTS

STAIN
SHEEN
STAIN, SHEEN, TLM/OLM ALL PRESENT
SAMPLED INTERVAL, WITHOUT IMPACT
TLM/OLM LENSES AND/OR RESIDUAL
TLM/OLM SATURATION

MONITORING WELL SCREEN
SOIL BORING
TD TOTAL DEPTH
FORMER STRUCTURE LOCATION
DIRECT CONTACT
INFERRED CONTACT
WATER TABLE (6/12/06)
S = SHALLOW ZONE
I = INTERMEDIATE ZONE
D = DEEP ZONE

NOTES:
1. THE DESCRIPTIONS AND COLORED PORTIONS OF THE FIGURE ARE GENERAL IN NATURE AND ARE BASED ON A LIMITED NUMBER OF SAMPLES. REFER TO THE BORING LOGS AND THE RESULTS OF THE CHEMICAL ANALYSES FOR SPECIFIC INFORMATION REGARDING THE SUBSURFACE GEOLOGICAL UNITS AND THE DISTRIBUTION OF ANALYTICAL COMPOUNDS.
2. SECTION IS PROJECTED END-TO-END.

ENSR | AECOM

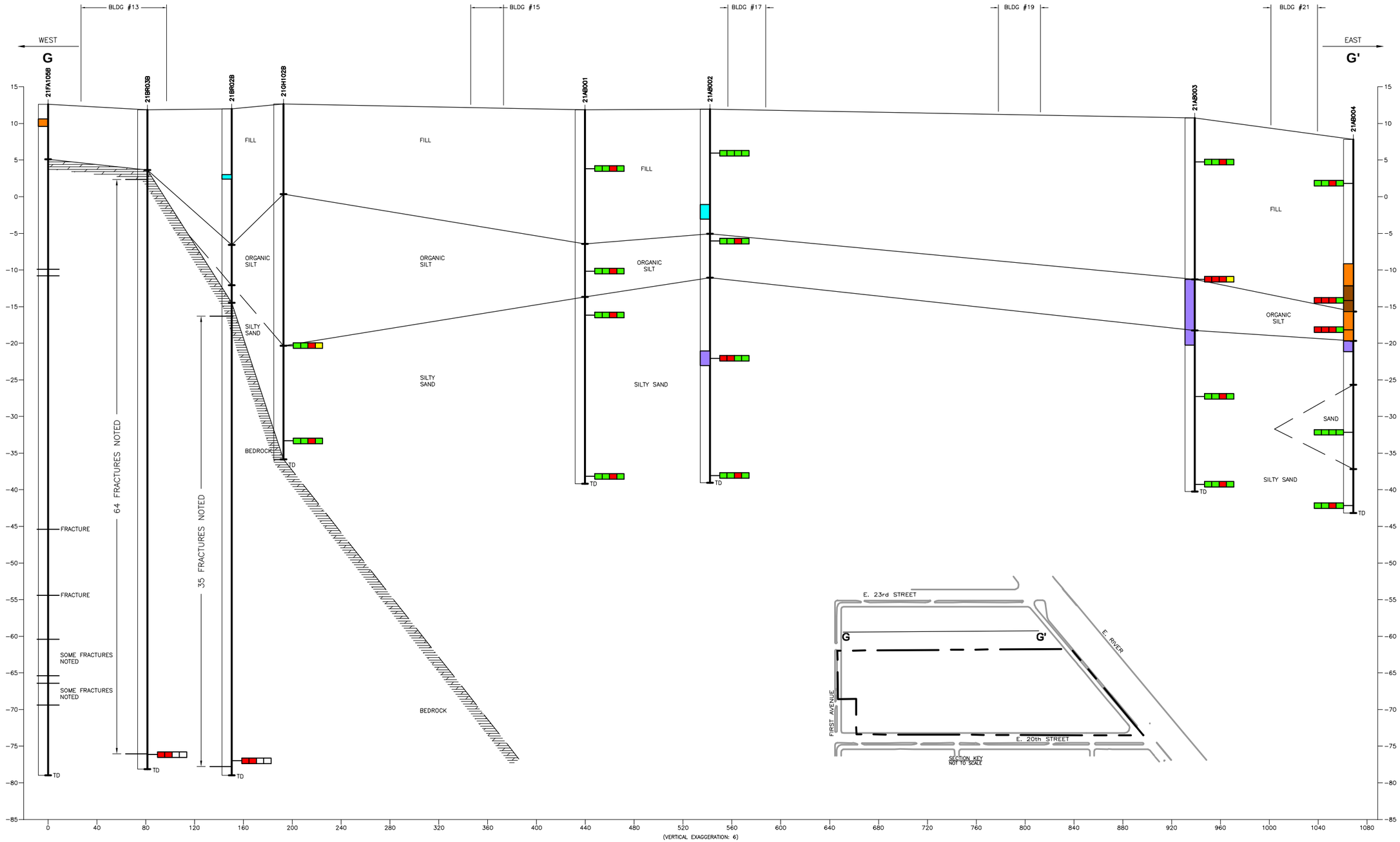
CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

CROSS SECTION F-F'

OPERABLE UNIT 1 (OU1)

DATE: **11/17/08** | DRWN: **BcV/W-MA** | **FIGURE 4-8**

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\XSECT_F-F.dwg Layout: F-F User: VershonB Plotted: Nov 17, 2008 - 5:25pm Xref's:



LEGEND

GROUNDWATER ANALYTICAL (MAY 2006)

BOX 1: (BENZENE)
GREEN IF <1 µg/L
RED IF >1 µg/L

BOX 2: (SVOCs)
GREEN IF NO SVOCs EXCEEDS ITS STANDARD
RED IF ANY SVOCs EXCEEDS ITS STANDARD

BOX 3: (METALS)
GREEN IF NO METAL EXCEEDS ITS STANDARD
RED IF ANY METAL EXCEEDS ITS STANDARD

BOX 4: (CYANIDE)
GREEN IF CYANIDE WAS NOT DETECTED
YELLOW IF CYANIDE WAS DETECTED

ALL BOXES WHITE IF NOT ANALYZED

DENOTES GW SAMPLE
ALL OTHERS ARE SOIL

SOIL ANALYTICAL (2004 AND 2006)

BOX 1: (TOTAL VOCs)
GREEN IF <10 PPM
RED IF >10 PPM

BOX 2: (TOTAL SVOCs)
GREEN IF <500 PPM
RED IF >500 PPM

BOX 3: (METALS)
GREEN IF NO METAL EXCEEDS ITS STANDARD
RED IF ANY METAL EXCEEDS ITS STANDARD

BOX 4: (CYANIDE)
GREEN IF CYANIDE WAS NOT DETECTED
YELLOW IF CYANIDE WAS DETECTED

ANALYTICAL NOTES:
1. BOX 4: (CYANIDE)
AVAILABLE CYANIDE USED FOR RI (RETEC),
TOTAL CYANIDE USED FOR SC (H&A).
2. ALL BOXES ARE READ FROM LEFT TO RIGHT REGARDLESS OF ORIENTATION.

VISIBLE IMPACTS

STAIN
SHEEN
STAIN, SHEEN, TLM/OLM ALL PRESENT
SAMPLED INTERVAL, WITHOUT IMPACT
TLM/OLM LENSES AND/OR RESIDUAL
TLM/OLM SATURATION

MONITORING WELL SCREEN
SOIL BORING
TD TOTAL DEPTH
FORMER STRUCTURE LOCATION
DIRECT CONTACT
INFERRED CONTACT
WATER TABLE (6/12/06)
S = SHALLOW ZONE
I = INTERMEDIATE ZONE
D = DEEP ZONE

NOTES:
1. THE DESCRIPTIONS AND COLORED PORTIONS OF THE FIGURE ARE GENERAL IN NATURE AND ARE BASED ON A LIMITED NUMBER OF SAMPLES. REFER TO THE BORING LOGS AND THE RESULTS OF THE CHEMICAL ANALYSES FOR SPECIFIC INFORMATION REGARDING THE SUBSURFACE GEOLOGICAL UNITS AND THE DISTRIBUTION OF ANALYTICAL COMPOUNDS.
2. SECTION IS PROJECTED END-TO-END.

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

CROSS SECTION G-G'

OPERABLE UNIT 1 (OU1)

DATE: **11/17/08** | DRWN: **BcV/W-MA** | **FIGURE 4-9**

LEGEND

- EXISTING STRUCTURES
- HISTORICAL STRUCTURES
- LIMIT OF OU 1
- −130.6 — TOP OF BEDROCK ELEVATION (NAVD 88)
- APPROXIMATE LOCATION OF NAPL SEEP IN BEDROCK STEAM TUNNEL
- 21RS001 −0.2 — SOIL BORING BY HA
- 21FA104B 1.32 — SOIL BORING BY RETEC
- HB-62 −119.23 — SOIL BORING HISTORICAL (1946)
- 21BR05B — BORING INSTALLED 2008
- BEDROCK CONTOURS 10' INTERVAL (DASHED WHERE INFERRED)

HISTORIC BOUNDARY OF FORMER EAST 21ST STREET MGP WORKS

EAST 23rd STREET

EAST 20th STREET

FIRST AVENUE

PETER COOPER ROAD

EAST RIVER

PARKING GARAGE

SOLAR ONE BUILDING

"C" TUNNEL

60 0 120

1"=120'

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729			TOP OF BEDROCK CONTOUR MAP OPERABLE UNIT 1 (OU1)
DATE: 11/17/08	DRWN: MAW/BIL		FIGURE 4-10

ENSR | AECOM

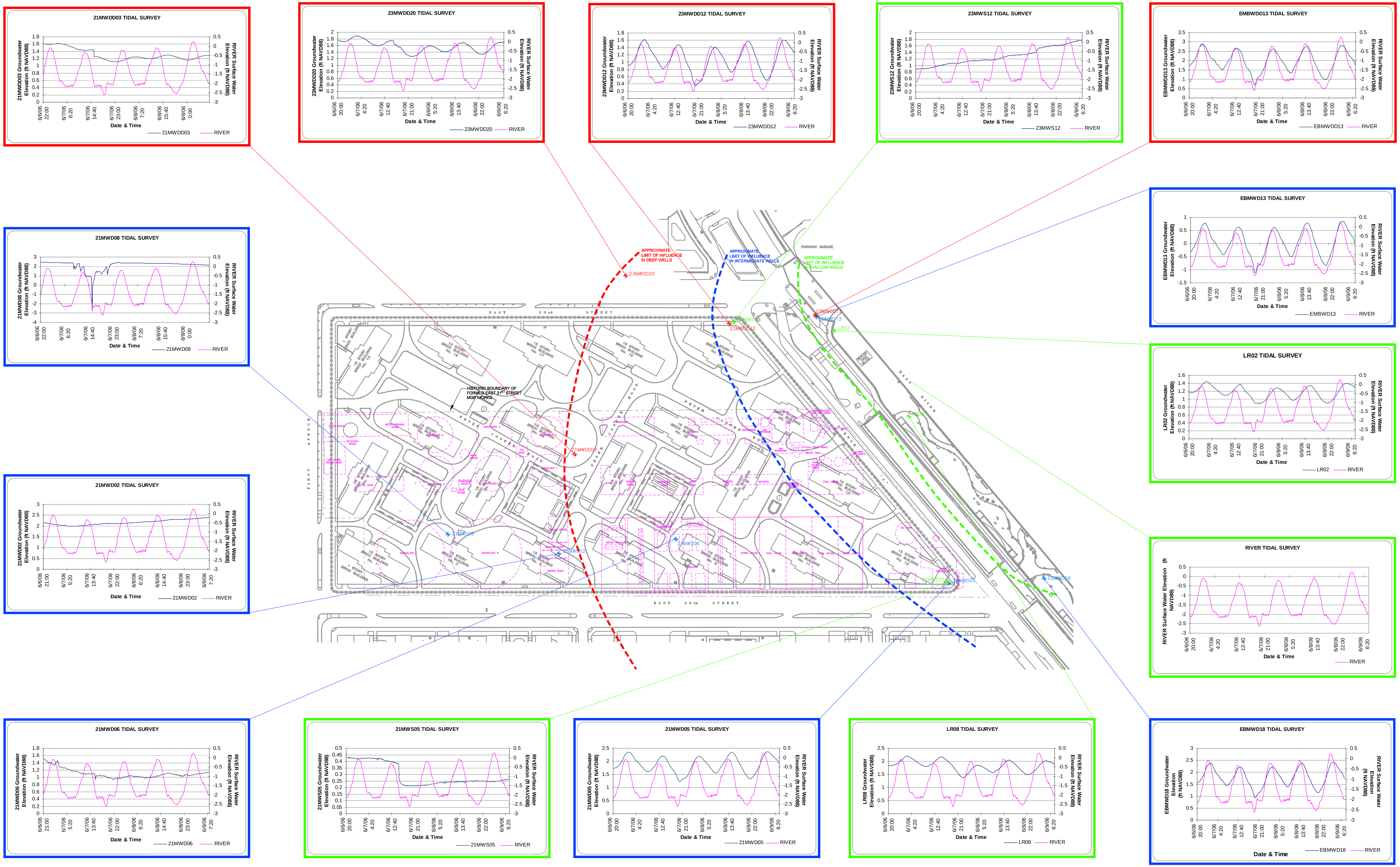
CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS

01869-170-729

UNCONFINED AQUIFER GROUNDWATER ELEVATION CONTOURS MAY/JUNE 2006 AND SEPTEMBER 24, 2008 OPERABLE UNIT 1 (OU1)

DATE: 11/17/08 | DRWN: BcV/W-MA

FIGURE 4-11



ENSR | AECOM

1"=120'

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS

01869-170-729

DATE: 11/17/08 | DRWN: BcV/W-MA

TIDAL INFLUENCE ON GROUNDWATER ELEVATIONS OPERABLE UNIT 1 (OU1)

FIGURE 4-12

LEGEND:

- LIMIT OF OU1
- 21MWS10 — DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED MONITORING WELLS
- 21GH022 — DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED SOIL BORINGS
- 21TP007 — DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PITS

EXPLORATION DESIGNATION
SAMPLE DESIGNATION
DUP = INDICATES DUPLICATE SAMPLE
FP = INDICATES FINGERPRINT ANALYSIS ALSO CONDUCTED

14GH002	14GH002-00DUP 0 - 0.2 Ft mg/kg	14GH002-00FP 0 - 0.2 Ft mg/kg	
VOCs			VOLATILE ORGANIC COMPOUNDS
ETHYLBENZENE	--	0.0008 J	ANALYTICAL RESULT OF LISTED CONSTITUENT
XYLENES (TOTAL)	0.017	NT	J = INDICATES ESTIMATED VALUE, NT = INDICATES NOT TESTED, -- = INDICATES NOT ABOVE REPORTING DETECTION LIMIT (RDL) AS PER DATA VALIDATION
TOTAL VOCs			
TOTAL VOCs	0.1345	--	TOTAL VOCs INCLUDES TARGETED COMPOUNDS ONLY
SVOCs			SEMIVOLATILE ORGANIC COMPOUNDS
BENZO(A)PYRENE	4.5	6.2	SHADED AREA INDICATES EXCEEDENCE OF CRITERIA (SEE NOTE 2)
TOTAL SVOCs			
TOTAL SVOCs	4.5	6.2	TOTAL SVOCs INCLUDES TARGETED COMPOUNDS ONLY

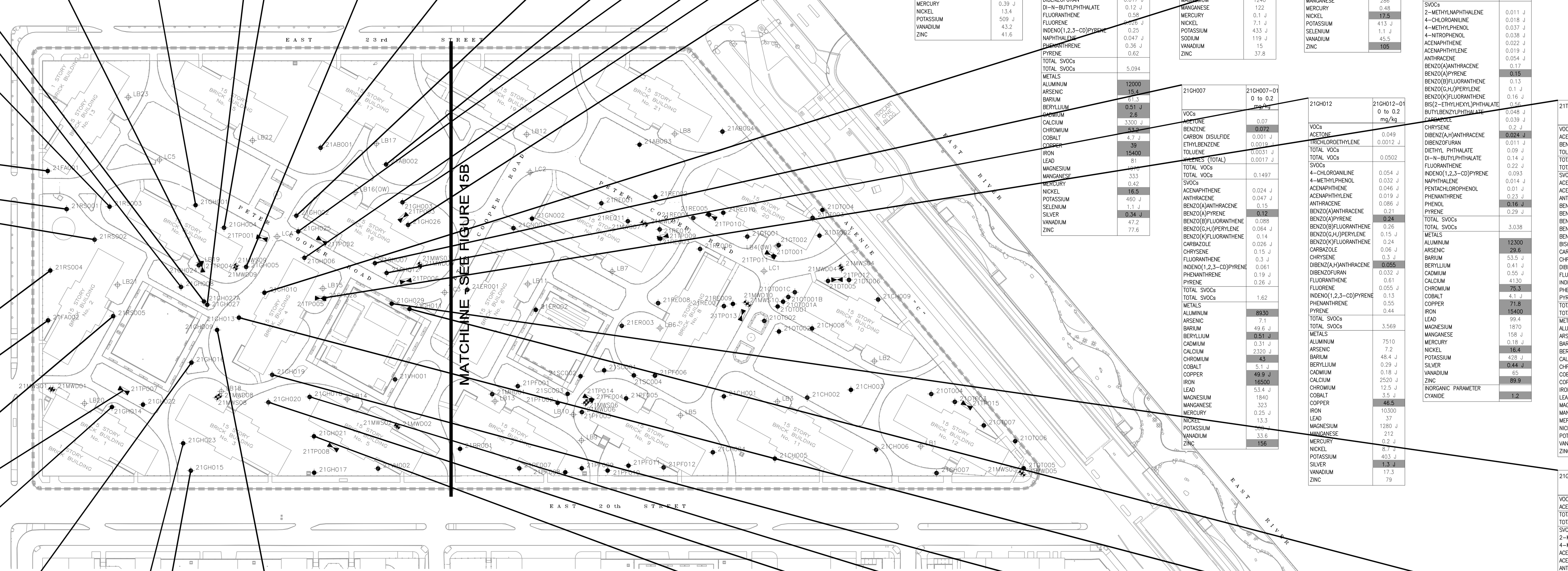
SAMPLE DEPTH
UNITS

NOTES:

1. THIS FIGURE WAS DERIVED FROM FIGURE 15A OF THE SITE CHARACTERIZATION STUDY SCS REPORT (H&A 2004).
2. SOIL ANALYTICAL RESULTS FOR VOCS AND SVOCS WERE COMPARED TO NYSDEC RESIDENTIAL SOIL CLEANUP OBJECTIVES (RSCO) FROM TECHNICAL AND GUIDANCE MEMORANDUM (TAGM) #4046. METALS AND CYANIDE SOIL RESULTS WERE COMPARED TO THE HIGHER OF THE CALCULATED SITE-SPECIFIC BACKGROUND VALUES (SSBV) OR RSCO. SHADED VALUES INDICATE AN EXCEEDENCE OF CRITERIA.
3. VOC: VOLATILE ORGANIC COMPOUNDS. SVOCS: SEMIVOLATILE ORGANIC COMPOUNDS. METALS: TARGET ANALYTE LIST METALS. MG/KG: MILLIGRAMS PER KILOGRAM, OR PARTS PER MILLION (PPM).
4. TABLES II, VII AND XII IN SITE CHARACTERIZATION REPORT SUMMARIZE THE TESTING PARAMETERS AND RESULTS. FULL LABORATORY TESTING RESULTS ARE PROVIDED IN REPORT APPENDIX E. SCS SURFACE SOIL ANALYTICAL RESULTS ARE ALSO PROVIDED IN THE RI REPORT.

50 0 100
1"=100'

SOIL CRITERIA	NYSDEC RSCOs	Site Background Values
BTEX (mg/Kg)		
Benzene	0.06	0.00202
Ethylbenzene	5.5	0.00014
Toluene	1.5	0.0028
Xylene (Total)	1.2	0.00047
VOC (mg/Kg)		
1,2-Dichlorobenzene	7.9	NA
1,4-Dichlorobenzene	8.5	0.0265
2-Butanone (Methyl Ethyl Ketone)	0.3	0.00202
Acetone	0.2	0.043
Carbon Disulfide	2.7	0.00156
Carbon Tetrachloride	0.6	NA
Chloroform	0.3	NA
Methylene Chloride	0.1	0.00104
Styrene	NA	NA
Trichloroethylene	0.7	0.00021
Total VOC	10	NA
PAH (mg/kg)		
Acenaphthene	50	0.117
Acenaphthylene	41	0.259
Anthracene	50	0.488
Benzo(a)anthracene	0.224	2.599
Benzo(a)pyrene	0.061	1.046
Benzo(b)fluoranthene	1.1	0.728
Benzo(ghi)perylene	50	0.565
Benzo(k)fluoranthene	1.1	0.996
Chrysene	0.4	1.267
Dibenz(a,h)anthracene	0.014	0.162
Fluoranthene	50	3.416
Fluorene	50	0.267
Indeno(1,2,3-cd)pyrene	3.2	0.509
Naphthalene	13	0.476
Phenanthrene	50	3.949
Pyrene	50	4.525
SVOC (mg/Kg)		
2,4-Dimethylphenol	NA	0.021
2-Methylnaphthalene	36.4	0.106
2-Methylphenol	0.1	0.021
4-Chloroaniline	0.22	NA
4-Methylphenol	0.9	0.08
4-Nitrophenol	0.1	NA
bis(2-Ethylhexyl) phthalate	50	0.823
Carbazole	NA	0.131
Dibenzofuran	6.2	0.197
Diethyl phthalate	7.1	0.01
Di-n-butyl phthalate	8.1	0.064
Pentachlorophenol	1	NA
Phenol	0.03	0.042
Total SVOC	500	NA
Metals (mg/Kg)		
Aluminum	SB	7960
Arsenic	7.5 or SB	13.63
Barium	300 or SB	124.7
Beryllium	0.16 or SB	0.463
Cadmium	1 or SB	0.2
Calcium	SB	11563
Chromium	10 or SB	36.69
Cobalt	30 or SB	5.698
Copper	25 or SB	35.84
Iron	2000 or SB	14369
Lead	SB	237.7
Magnesium	SB	3129
Manganese	SB	358.5
Mercury	0.1	1.305
Nickel	13 or SB	15.3
Potassium	SB	1197
Silver	SB	0.229
Sodium	SB	214.8
Vanadium	150 or SB	30.25
Zinc	20 or SB	81.77
Cyanide (mg/Kg)		
Cyanide, Total	NA	0.705



21RS003	21RS003-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.011 J
BENZENE	0.0011 J
TOTAL VOCs	
TOTAL VOCs	0.0121
SVOCs	
2-METHYLNAPHTHALENE	0.011 J
ACENAPHTHYLENE	0.035 J
ANTHRACENE	0.033 J
BENZO(A)ANTHRACENE	0.15
BENZO(A)PYRENE	0.21
BENZO(B)FLUORANTHENE	0.17
BENZO(G,H,I)PERYLENE	0.14 J
BENZO(K)FLUORANTHENE	0.17
BIS(2-ETHYLHEXYL)PHTHALATE	0.25 J
CHRYSENE	0.2 J
FLUORANTHENE	0.24 J
INDENO(1,2,3-CD)PYRENE	0.12
PHENANTHRENE	0.12 J
PYRENE	0.29 J
TOTAL SVOCs	
TOTAL SVOCs	2.139
METALS	
ALUMINUM	8780
ARSENIC	18.9
BARIUM	62.2
BERYLLIUM	0.36 J
CADMIUM	0.29 J
CALCIUM	3490
CHROMIUM	64.8
COBALT	3.7 J
COPPER	57.2
IRON	13900
LEAD	109
MAGNESIUM	1710
MANGANESE	275
MERCURY	0.27
NICKEL	16.3
POTASSIUM	533 J
SILVER	0.5 J
SODIUM	135 J
VANADIUM	48.1
ZINC	83.6

21GH008	21GH008-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.047
BENZENE	0.0017
TOTAL VOCs	
TOTAL VOCs	0.0487
SVOCs	
2-METHYLNAPHTHALENE	0.025 J
4-METHYLPHENOL	0.014 J
ACENAPHTHENE	0.031 J
ACENAPHTHYLENE	0.077 J
ANTHRACENE	0.11 J
BENZO(A)ANTHRACENE	0.36
BENZO(A)PYRENE	0.39
BENZO(B)FLUORANTHENE	0.29
BENZO(G,H,I)PERYLENE	0.2 J
BENZO(K)FLUORANTHENE	0.39
BIS(2-ETHYLHEXYL)PHTHALATE	0.5 J
CARBAZOLE	0.052 J
CHRYSENE	0.39 J
DIBENZ(A,H)ANTHRACENE	0.05 J
DIBENZOFURAN	0.016 J
FLUORANTHENE	0.69
FLUORENE	0.033 J
INDENO(1,2,3-CD)PYRENE	0.18
NAPHTHALENE	0.07 J
PHENANTHRENE	0.4 J
PHENOL	0.094 J
PYRENE	0.68 J
TOTAL SVOCs	
TOTAL SVOCs	5.042
METALS	
ALUMINUM	8600
ARSENIC	13.2
BARIUM	81.1 J
BERYLLIUM	0.38 J
CADMIUM	0.6 J
CALCIUM	6880
CHROMIUM	75.3
COBALT	4.5 J
COPPER	52.2 J
IRON	14000 J
LEAD	106 J
MAGNESIUM	2930
MANGANESE	299 J
MERCURY	0.31
NICKEL	18.3
POTASSIUM	686 J
SILVER	0.51 J
VANADIUM	39
ZINC	112

21GH027A	21GH027A-01 0 to 0.2 mg/kg
TOTAL VOCs	
TOTAL VOCs	--
SVOCs	
4-NITROPHENOL	0.013 J
ANTHRACENE	0.014 J
BENZO(A)ANTHRACENE	0.071
BENZO(A)PYRENE	0.072
BENZO(B)FLUORANTHENE	0.072
BENZO(G,H,I)PERYLENE	0.047 J
BENZO(K)FLUORANTHENE	0.09
BIS(2-ETHYLHEXYL)PHTHALATE	0.35 J
CHRYSENE	0.1 J
FLUORANTHENE	0.14 J
INDENO(1,2,3-CD)PYRENE	0.044
PENTACHLOROPHENOL	0.084 J
PHENANTHRENE	0.079 J
PYRENE	0.13 J
TOTAL SVOCs	
TOTAL SVOCs	1.306
METALS	
ALUMINUM	9630 J
ARSENIC	35
BARIUM	34.6 J
BERYLLIUM	0.24 J
CADMIUM	0.51 J
CALCIUM	470 J
CHROMIUM	31.1 J
COBALT	1.8 J
COPPER	69.6
IRON	14400
LEAD	61.7
MAGNESIUM	796 J
MANGANESE	206 J
MERCURY	0.29
NICKEL	5.1 J
POTASSIUM	328 J
SILVER	0.36 J
VANADIUM	31.8
ZINC	31.6

21TP004	21TP004-01 0 to 0.2 mg/kg
VOCs	
BENZENE	0.0009 J
TOTAL VOCs	
TOTAL VOCs	0.0009
SVOCs	
2-METHYLNAPHTHALENE	0.023 J
4-METHYLPHENOL	0.016 J
ACENAPHTHENE	0.038 J
ACENAPHTHYLENE	0.032 J
ANTHRACENE	0.097 J
BENZO(A)ANTHRACENE	0.29
BENZO(A)PYRENE	0.27
BENZO(B)FLUORANTHENE	0.24
BENZO(G,H,I)PERYLENE	0.18 J
BENZO(K)FLUORANTHENE	0.28
BIS(2-ETHYLHEXYL)PHTHALATE	0.33 J
CARBAZOLE	0.059 J
CHRYSENE	0.34 J
DIBENZ(A,H)ANTHRACENE	0.043
DIBENZOFURAN	0.031 J
DI-N-BUTYLPHTHALATE	0.084 J
FLUORANTHENE	0.62
FLUORENE	0.037 J
INDENO(1,2,3-CD)PYRENE	0.17
NAPHTHALENE	0.038 J
PHENANTHRENE	0.47
PYRENE	0.6
TOTAL SVOCs	
TOTAL SVOCs	4.288
METALS	
ALUMINUM	8740
ARSENIC	16.9
BARIUM	53.6 J
BERYLLIUM	0.38 J
CADMIUM	0.44 J
CALCIUM	2820
CHROMIUM	41.3
COBALT	3.8 J
COPPER	37.3
IRON	13000
LEAD	66.5
MAGNESIUM	1540 J
MANGANESE	276
MERCURY	0.31
NICKEL	11.7 J
POTASSIUM	498 J
VANADIUM	34.6
ZINC	57.5

21GH001	21GH001-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.01 J
BENZENE	0.0027 J
ETHYLBENZENE	0.0003 J
TOLUENE	0.0011 J
XYLENES (TOTAL)	0.0016 J
TOTAL VOCs	
TOTAL VOCs	0.0157
SVOCs	
2-METHYLNAPHTHALENE	0.0081 J
ACENAPHTHENE	0.023 J
ACENAPHTHYLENE	0.018 J
ANTHRACENE	0.058 J
BENZO(A)ANTHRACENE	0.18
BENZO(A)PYRENE	0.18
BENZO(B)FLUORANTHENE	0.13
BENZO(G,H,I)PERYLENE	0.11 J
BENZO(K)FLUORANTHENE	0.19
BIS(2-ETHYLHEXYL)PHTHALATE	0.31 J
CARBAZOLE	0.035 J
CHRYSENE	0.18 J
DIBENZ(A,H)ANTHRACENE	0.04
DIBENZOFURAN	0.011 J
DI-N-BUTYLPHTHALATE	0.068 J
FLUORANTHENE	0.37
FLUORENE	0.02 J
INDENO(1,2,3-CD)PYRENE	0.1
NAPHTHALENE	0.014 J
PHENANTHRENE	0.23 J
PYRENE	0.33 J
TOTAL SVOCs	
TOTAL SVOCs	2.6051
METALS	
ALUMINUM	8500
ARSENIC	7.9
BARIUM	54
BERYLLIUM	0.42 J
CADMIUM	0.16 J
CALCIUM	2060
CHROMIUM	47.1
COBALT	5.2 J
COPPER	42.2
IRON	13800
LEAD	66.3 J
MAGNESIUM	2120
MANGANESE	248
MERCURY	0.3 J
NICKEL	13.7
POTASSIUM	606 J
VANADIUM	37.5
ZINC	70

21GH027	21GH027-01 0 to 0.2 mg/kg
VOCs	
BENZENE	0.0008 J
TOTAL VOCs	
TOTAL VOCs	0.0008
SVOCs	
2-METHYLNAPHTHALENE	0.025 J
ACENAPHTHENE	0.024 J
ACENAPHTHYLENE	0.02 J
ANTHRACENE	0.068 J
BENZO(A)ANTHRACENE	0.24
BENZO(A)PYRENE	0.21
BENZO(B)FLUORANTHENE	0.22
BENZO(G,H,I)PERYLENE	0.13 J
BENZO(K)FLUORANTHENE	0.25
BIS(2-ETHYLHEXYL)PHTHALATE	0.66
CARBAZOLE	0.046 J
CHRYSENE	0.3 J
DIBENZ(A,H)ANTHRACENE	0.04 J
DIBENZOFURAN	0.018 J
DI-N-BUTYLPHTHALATE	0.25 J
FLUORANTHENE	0.52
FLUORENE	0.03 J
INDENO(1,2,3-CD)PYRENE	0.12
NAPHTHALENE	0.036 J
PHENANTHRENE	0.34 J
PYRENE	0.53
TOTAL SVOCs	
TOTAL SVOCs	4.077
METALS	
ALUMINUM	9340
ARSENIC	39.1
BARIUM	44.7 J
BERYLLIUM	0.31 J
CADMIUM	0.65 J
CALCIUM	758 J
CHROMIUM	41.9
COBALT	1.8 J
COPPER	88.2
IRON	14200
LEAD	96
MAGNESIUM	812 J
MANGANESE	150
MERCURY	0.41
NICKEL	8 J
POTASSIUM	402 J
SODIUM	171 J
VANADIUM	52.7
ZINC	30.5
INORGANIC PARAMETER	
CYANIDE	1

21GH005	21GH005-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.013
BENZENE	0.0019 J
ETHYLBENZENE	0.0022 J
XYLENES (TOTAL)	0.0035 J
TOTAL VOCs	
TOTAL VOCs	0.0206
SVOCs	
2-METHYLNAPHTHALENE	0.13 J
4-METHYLPHENOL	0.012 J
ACENAPHTHENE	0.13 J
ACENAPHTHYLENE	0.052 J
ANTHRACENE	0.25 J
BENZO(A)ANTHRACENE	0.68
BENZO(A)PYRENE	0.66
BENZO(B)FLUORANTHENE	0.58
BENZO(G,H,I)PERYLENE	0.27 J
BENZO(K)FLUORANTHENE	0.7
BIS(2-ETHYLHEXYL)PHTHALATE	0.64
CARBAZOLE	0.17 J
CHRYSENE	0.74
DIBENZ(A,H)ANTHRACENE	0.13
DIBENZOFURAN	0.053 J
DI-N-BUTYLPHTHALATE	0.17 J
FLUORANTHENE	1.6
FLUORENE	0.11 J
INDENO(1,2,3-CD)PYRENE	0.28
NAPHTHALENE	0.52
PHENANTHRENE	1.1
PYRENE	1.4 J
TOTAL SVOCs	
TOTAL SVOCs	10.377
METALS	
ALUMINUM	9100
ARSENIC	29.2
BARIUM	81.7 J
BERYLLIUM	0.35 J
CADMIUM	0.63 J
CALCIUM	5070
CHROMIUM	141
COBALT	4.4 J
COPPER	111 J
IRON	14700 J
LEAD	168 J
MAGNESIUM	1950
MANGANESE	169 J
MERCURY	0.52
NICKEL	20.1
POTASSIUM	529 J
SILVER	0.78 J
VANADIUM	63.6
ZINC	253

21GH004	21GH004-01 0 to 0.2 mg/kg
VOCs	
BENZENE	0.0006 J
TOTAL VOCs	
TOTAL VOCs	0.0006
SVOCs	
2-METHYLNAPHTHALENE	0.012 J
ACENAPHTHENE	0.068 J
ACENAPHTHYLENE	0.029 J
ANTHRACENE	0.16 J
BENZO(A)ANTHRACENE	0.48
BENZO(A)PYRENE	0.49
BENZO(B)FLUORANTHENE	0.44
BENZO(G,H,I)PERYLENE	0.28 J
BENZO(K)FLUORANTHENE	0.46
BIS(2-ETHYLHEXYL)PHTHALATE	0.81
CARBAZOLE	0.085 J
CHRYSENE	0.57
DIBENZ(A,H)ANTHRACENE	0.09
DIBENZOFURAN	0.03 J
DI-N-BUTYLPHTHALATE	0.19 J
FLUORANTHENE	1
FLUORENE	0.065 J
INDENO(1,2,3-CD)PYRENE	0.26
PHENANTHRENE	0.73
PYRENE	0.99
TOTAL SVOCs	
TOTAL SVOCs	7.239

21AB001	21AB001-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.044
TOTAL VOCs	
TOTAL VOCs	0.044
SVOCs	
1,2-DICHLOROBENZENE	0.033 J
2-METHYLNAPHTHALENE	0.011 J
4-METHYLPHENOL	0.0087 J
ACENAPHTHENE	0.02 J
ANTHRACENE	0.065 J
BENZO(A)ANTHRACENE	0.35
BENZO(A)PYRENE	0.36
BENZO(B)FLUORANTHENE	0.3
BENZO(G,H,I)PERYLENE	0.17 J
BENZO(K)FLUORANTHENE	0.41 J
BIS(2-ETHYLHEXYL)PHTHALATE	0.53
CARBAZOLE	0.028 J
CHRYSENE	0.42 J
DIBENZ(A,H)ANTHRACENE	0.023 J
DIBENZOFURAN	0.009 J
DI-N-BUTYLPHTHALATE	0.16 J
FLUORANTHENE	0.57
INDENO(1,2,3-CD)PYRENE	0.18
PHENANTHRENE	0.23 J
PYRENE	0.51 J
TOTAL SVOCs	
TOTAL SVOCs	4.3877
METALS	
ALUMINUM	9400 J
ARSENIC	39.2
BARIUM	56.5
CALCIUM	3030
CHROMIUM	67.4
COBALT	3.4 J
COPPER	86.9
IRON	12900 J
LEAD	117 J
MAGNESIUM	1290
MANGANESE	238
MERCURY	0.44 J
NICKEL	15.4
POTASSIUM	415 J
SELENIUM	1.3
SILVER	0.33 J
VANADIUM	54.5
ZINC	74.5

21GH002	21GH002-01 0 to 0.2 mg/kg
VOCs	
2-BUTANONE	0.019 J
ACETONE	0.076 J
BENZENE	0.018
CARBON DISULFIDE	0.001 J
METHYLENE CHLORIDE	0.021
TOLUENE	0.0075
TOTAL VOCs	
TOTAL VOCs	0.1425
SVOCs	
2-METHYLNAPHTHALENE	0.024 J
ACENAPHTHENE	0.023 J
ANTHRACENE	0.051 J
BENZO(A)ANTHRACENE	0.17
BENZO(A)PYRENE	0.17
BENZO(B)FLUORANTHENE	0.18
BENZO(G,H,I)PERYLENE	0.14 J
BENZO(K)FLUORANTHENE	0.18
BIS(2-ETHYLHEXYL)PHTHALATE	0.33 J
CARBAZOLE	0.028 J
CHRYSENE	0.22 J
DIBENZOFURAN	0.014 J
FLUORANTHENE	0.35 J
INDENO(1,2,3-CD)PYRENE	0.12
PHENANTHRENE	0.23 J
PYRENE	0.42
TOTAL SVOCs	
TOTAL SVOCs	2.65
METALS	
ALUMINUM	7160
ARSENIC	23.6
BARIUM	44.8 J
BERYLLIUM	0.26 J
CADMIUM	0.45 J
CALCIUM	5640
CHROMIUM	59.4
COBALT	2.6 J
COPPER	60.8
IRON	11400
LEAD	89.1 J
MAGNESIUM	1910 J
MANGANESE	211 J
MERCURY	0.29 J
NICKEL	11.6
POTASSIUM	345 J
SILVER	0.43 J
VANADIUM	43.8
ZINC	105 J

21GH025	21GH025-01 0 to 0.2 mg/kg
VOCs	
BENZENE	0.034
CARBON DISULFIDE	0.001 J
ETHYLBENZENE	0.0026 J
METHYLENE CHLORIDE	0.048
STYRENE	0.002 J
TOLUENE	0.023
XYLENES (TOTAL)	0.0084
TOTAL VOCs	
TOTAL VOCs	0.119
SVOCs	
2-METHYLNAPHTHALENE	3.4
4-METHYLPHENOL	0.069 J
ACENAPHTHENE	3.7
ACENAPHTHYLENE	0.69 J
ANTHRACENE	2.9
BENZO(A)ANTHRACENE	2.3
BENZO(A)PYRENE	1.8
BENZO(B)FLUORANTHENE	1.2
BENZO(G,H,I)PERYLENE	1
BENZO(K)FLUORANTHENE	1.6
BIS(2-ETHYLHEXYL)PHTHALATE	0.51 J
CARBAZOLE	1
CHRYSENE	2.4
DIBENZ(A,H)ANTHRACENE	0.4
DIBENZOFURAN	2.3
FLUORANTHENE	5.6
FLUORENE	2.8
INDENO(1,2,3-CD)PYRENE	0.92
NAPHTHALENE	8.6
PHENANTHRENE	9.4
PYRENE	6
TOTAL SVOCs	
TOTAL SVOCs	58.589
METALS	
ALUMINUM	5810
ARSENIC	5.5 J
BARIUM	44.2 J
BERYLLIUM	0.26 J
CALCIUM	18300
CHROMIUM	20.5
COBALT	2.6 J
COPPER	53.9
IRON	9380
LEAD	57.2 J
MAGNESIUM	3020 J
MANGANESE	141 J
MERCURY	0.3 J
NICKEL	7.7 J
POTASSIUM	530 J
SODIUM	167 J
VANADIUM	16.1
ZINC	68.5 J

21AB002	21AB002-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.036
TOTAL VOCs	
TOTAL VOCs	0.036
SVOCs	
ANTHRACENE	0.02 J
BENZO(A)ANTHRACENE	0.084
BENZO(A)PYRENE	0.083
BENZO(B)FLUORANTHENE	0.08
BENZO(G,H,I)PERYLENE	0.053 J
BENZO(K)FLUORANTHENE	0.092 J
BIS(2-ETHYLHEXYL)PHTHALATE	0.69
CARBAZOLE	0.012 J
CHRYSENE	0.12 J
FLUORANTHENE	0.16 J
INDENO(1,2,3-CD)PYRENE	0.047
PHENANTHRENE	0.1 J
PYRENE	0.15 J
TOTAL SVOCs	
TOTAL SVOCs	1.691
METALS	
ALUMINUM	11500 J
ARSENIC	13.8
BARIUM	59.3
CALCIUM	1350
CHROMIUM	43
COBALT	4.8 J
IRON	16500 J
LEAD	51.6 J
MAGNESIUM	1930
MANGANESE	280
MERCURY	0.39 J
NICKEL	13.4
POTASSIUM	509 J
VANADIUM	43.2
ZINC	41.6

21GH003	21GH003-01 0 to 0.2 mg/kg
VOCs	
2-BUTANONE	0.014
ACETONE	0.096 J
BENZENE	0.0009 J
ETHYLBENZENE	0.0022 J
TOLUENE	0.0024 J
XYLENES (TOTAL)	0.016
TOTAL VOCs	
TOTAL VOCs	0.1315
SVOCs	
2-METHYLNAPHTHALENE	0.025 J
4-METHYLPHENOL	0.06 J
4-NITROPHENOL	0.016 J
ACENAPHTHENE	0.037 J
ACENAPHTHYLENE	0.065 J
ANTHRACENE	0.11 J
BENZO(A)ANTHRACENE	0.39
BENZO(A)PYRENE	0.41
BENZO(B)FLUORANTHENE	0.28
BENZO(G,H,I)PERYLENE	0.29 J
BENZO(K)FLUORANTHENE	0.41
BIS(2-ETHYLHEXYL)PHTHALATE	0.44 J
CARBAZOLE	0.05 J
CHRYSENE	0.42 J
DIBENZ(A,H)ANTHRACENE	0.071
DIBENZOFURAN	0.017 J
DI-N-BUTYLPHTHALATE	0.12 J
FLUORANTHENE	0.58
FLUORENE	0.026 J
INDENO(1,2,3-CD)PYRENE	0.25
NAPHTHALENE	0.047 J
PHENANTHRENE	0.36 J
PYRENE	0.62
TOTAL SVOCs	
TOTAL SVOCs	5.094
METALS	
ALUMINUM	12000
ARSENIC	15.4
BARIUM	61.3
BERYLLIUM	0.51 J
CADMIUM	2.6
CALCIUM	3300 J
CHROMIUM	53.2
COBALT	4.7 J
COPPER	39
IRON	15400
LEAD	81
MAGNESIUM	1870
MANGANESE	333
MERCURY	0.42
NICKEL	16.5
POTASSIUM	460 J
SELENIUM	1.1 J
SILVER	0.34 J
VANADIUM	47.2
ZINC	77.6

21GH006	21GH006-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.076
TOLUENE	0.0013 J
TRICHLOROETHYLENE	0.001 J
TOTAL VOCs	
TOTAL VOCs	0.0783
SVOCs	
2-METHYLNAPHTHALENE	0.063 J
4-METHYLPHENOL	0.02 J
ACENAPHTHENE	0.33 J
ACENAPHTHYLENE	0.026 J
ANTHRACENE	0.52
BENZO(A)ANTHRACENE	0.93
BENZO(A)PYRENE	0.94
BENZO(B)FLUORANTHENE	0.83
BENZO(G,H,I)PERYLENE	0.47
BENZO(K)FLUORANTHENE	0.97
CARBAZOLE	0.27 J
CHRYSENE	1
DIBENZ(A,H)ANTHRACENE	0.22
DIBENZOFURAN	0.12 J
FLUORANTHENE	2.6
FLUORENE	0.24 J
INDENO(1,2,3-CD)PYRENE	0.45
NAPHTHALENE	0.077 J
PHENANTHRENE	2
PYRENE	1.9
TOTAL SVOCs	
TOTAL SVOCs	13.976
METALS	
ALUMINUM	6950
ARSENIC	4.6
BARIUM	27.7 J
BERYLLIUM	0.26 J
CADMIUM	0.11 J
CALCIUM	1590 J
CHROMIUM	11.5 J
COBALT	2.9 J
COPPER	11.5
IRON	9390
LEAD	33.1
MAGNESIUM	1240
MANGANESE	122
MERCURY	0.1 J
NICKEL	7.1 J
POTASSIUM	433 J
SODIUM	119 J
VANADIUM	15
ZINC	37.8

21GH026	21GH026-01 0 to 0.2 mg/kg
VOCs	
2-BUTANONE	0.013
ACETONE	0.14 J
BENZENE	0.0008 J
ETHYLBENZENE	0.0006 J
TOLUENE	0.002 J
XYLENES (TOTAL)	0.0028 J
TOTAL VOCs	
TOTAL VOCs	0.1592
SVOCs	
2-METHYLNAPHTHALENE	0.01 J
ACENAPHTHENE	0.0096 J
ACENAPHTHYLENE	0.037 J
ANTHRACENE	0.05 J
BENZO(A)ANTHRACENE	0.21
BENZO(A)PYRENE	0.22
BENZO(B)FLUORANTHENE	0.19
BENZO(G,H,I)PERYLENE	0.15 J
BENZO(K)FLUORANTHENE	0.22
CARBAZOLE	0.021 J
CHRYSENE	0.26 J
DIBENZ(A,H)ANTHRACENE	0.029 J
FLUORANTHENE	0.42 J
INDENO(1,2,3-CD)PYRENE	0.13
NAPHTHALENE	0.018 J
PHENANTHRENE	0.21 J
PYRENE	0.42 J
TOTAL SVOCs	
TOTAL SVOCs	2.6046
METALS	
ALUMINUM	12500
ARSENIC	15.6
BARIUM	76.5
BERYLLIUM	0.63
CADMIUM	0.76 J
CALCIUM	2290
CHROMIUM	53.1
COBALT	4.7 J
COPPER	52.4 J
IRON	14700 J
LEAD	125
MAGNESIUM	2010
MANGANESE	286
MERCURY	0.48
NICKEL	17.5
POTASSIUM	413 J
SELENIUM	1.1 J
VANADIUM	45.5
ZINC	105

21GH010	21GH010-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.14
BENZENE	0.0033
METHYLENE CHLORIDE	0.014
TOTAL VOCs	
TOTAL VOCs	0.1573
SVOCs	
2-METHYLNAPHTHALENE	0.011 J
4-CHLOROANILINE	0.018 J
4-METHYLPHENOL	0.037 J
4-NITROPHENOL	0.038 J
ACENAPHTHENE	0.022 J
ACENAPHTHYLENE	0.019 J
ANTHRACENE	0.054 J
BENZO(A)ANTHRACENE	0.17
BENZO(A)PYRENE	0.15
BENZO(B)FLUORANTHENE	0.13
BENZO(G,H,I)PERYLENE	0.1 J
BENZO(K)FLUORANTHENE	0.16 J
BIS(2-ETHYLHEXYL)PHTHALATE	0.56
BUTYLBENZYLPHTHALATE	0.048 J
CARBAZOLE	0.039 J
CHRYSENE	0.2 J
DIBENZ(A,H)ANTHRACENE	0.024 J
DIBENZOFURAN	0.011 J
DIETHYL PHTHALATE	0.09 J
DI-N-BUTYLPHTHALATE	0.14 J
FLUORANTHENE	0.22 J
INDENO(1,2,3-CD)PYRENE	0.093
NAPHTHALENE	0.014 J
PENTACHLOROPHENOL	0.01 J
PHENANTHRENE	0.23 J
PHENOL	0.16 J
PYRENE	0.29 J
TOTAL SVOCs	
TOTAL SVOCs	3.038
METALS	
ALUMINUM	12300
ARSENIC	29.6
BARIUM	53.5 J
BERYLLIUM	0.41 J
CADMIUM	0.55 J
CALCIUM	4130
CHROMIUM	75.3
COBALT	4.1 J
COPPER	71.8
IRON	15400
LEAD	99.4
MAGNESIUM	1870
MANGANESE	158 J
MERCURY	0.18 J
NICKEL	16.4
POTASSIUM	428 J
SILVER	0.44 J
VANADIUM	65
ZINC	89.9
INORGANIC PARAMETER	
CYANIDE	1.2

21FA001	21FA001-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.058
BENZENE	0.0015
TRICHLOROETHYLENE	0.0007 J
TOTAL VOCs	
TOTAL VOCs	0.0602
SVOCs	
2-METHYLNAPHTHALENE	0.011 J
4-METHYLPHENOL	0.009 J
ACENAPHTHENE	0.033 J
ACENAPHTHYLENE	0.018 J
ANTHRACENE	0.082 J
BENZO(A)ANTHRACENE	0.2
BENZO(A)PYRENE	0.21
BENZO(B)FLUORANTHENE	0.24
BENZO(G,H,I)PERYLENE	0.11 J
BENZO(K)FLUORANTHENE	0.25
CARBAZOLE	0.048 J
CHRYSENE	0.26 J
DIBENZ(A,H)ANTHRACENE	0.048
DIBENZOFURAN	0.016 J
FLUORANTHENE	0.46
FLUORENE	0.029 J
INDENO(1,2,3-CD)PYRENE	0.11
PHENANTHRENE	0.33 J
PYRENE	0.41 J
TOTAL SVOCs	
TOTAL SVOCs	2.874
METALS	
ALUMINUM	9790
ARSENIC	21.4
BARIUM	59.1
BERYLLIUM	0.43 J
CADMIUM	0.76 J
CALCIUM	2230 J
CHROMIUM	37.5 J
COBALT	3.4 J
COPPER	46.6
IRON	12200
LEAD	89
MAGNESIUM	1270
MANGANESE	212
MERCURY	0.32 J
NICKEL	12.2
POTASSIUM	422 J
SELENIUM	1.2
VANADIUM	30.3
ZINC	84

21RS001	21RS001-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.034 J
BENZENE	0.0008 J
TOLUENE	0.0034 J
TOTAL VOCs	
TOTAL VOCs	0.0382
SVOCs	
2-METHYLNAPHTHALENE	0.043 J
4-METHYLPHENOL	0.02 J
ACENAPHTHENE	0.032 J
ACENAPHTHYLENE	0.09 J
ANTHRACENE	0.13 J
BENZO(A)ANTHRACENE	0.38
BENZO(A)PYRENE	0.37
BENZO(B)FLUORANTHENE	0.28
BENZO(G,H,I)PERYLENE	0.22 J
BENZO(K)FLUORANTHENE	0.38
BIS(2-ETHYLHEXYL)PHTHALATE	0.21 J
CARBAZOLE	0.041 J
CHRYSENE	0.41 J
DIBENZ(A,H)ANTHRACENE	0.079
DIBENZOFURAN	0.039 J
FLUORANTHENE	0.6
FLUORENE	0.068 J
INDENO(1,2,3-CD)PYRENE	0.19
NAPHTHALENE	0.13 J
PHENANTHRENE	0.42 J
PYRENE	0.63
TOTAL SVOCs	
TOTAL SVOCs	4.762
METALS	
ALUMINUM	6140
ARSENIC	5.3 J
BARIUM	55.7
BERYLLIUM	0.31 J
CADMIUM	0.69 J
CALCIUM	32800
CHROMIUM	15.4
COBALT	3.3 J
COPPER	27.9
IRON	10200
LEAD	64
MAGNESIUM	15100
MANGANESE	200
MERCURY	0.24
NICKEL	9.8 J
POTASSIUM	534 J
SILVER	0.23 J
SODIUM	103 J
VANADIUM	19.4
ZINC	65.9

21RS005	21RS005-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.075 J
BENZENE	0.002 J
TOLUENE	0.001 J
TOTAL VOCs	
TOTAL VOCs	0.078
SVOCs	
2-METHYLNAPHTHALENE	0.27 J
ACENAPHTHENE	0.2 J
ACENAPHTHYLENE	0.53
ANTHRACENE	0.63
BENZO(A)ANTHRACENE	2.2
BENZO(A)PYRENE	2.7 J
BENZO(B)FLUORANTHENE	2 J
BENZO(G,H,I)PERYLENE	2.7 J
BENZO(K)FLUORANTHENE	2.1 J
BIS(2-ETHYLHEXYL)PHTHALATE	0.25 J
CARBAZOLE	0.21 J
CHRYSENE	2.3
DIBENZ(A,H)ANTHRACENE	0.8 J
DIBENZOFURAN	0.2 J
FLUORANTHENE	3
FLUORENE	0.23 J
INDENO(1,2,3-CD)PYRENE	2.2 J
NAPHTHALENE	1.2
PHENANTHRENE	2.6
PYRENE	5.4
TOTAL SVOCs	
TOTAL SVOCs	31.72
METALS	
ALUMINUM	7770 J
ARSENIC	5.8
BARIUM	89.5
BERYLLIUM	0.44 J
CADMIUM	0.21 J
CALCIUM	9060
CHROMIUM	20.1
COBALT	6.2 J
COPPER	37.9
IRON	13300 J
LEAD	104
MAGNESIUM	4130
MANGANESE	283
MERCURY	1.1
NICKEL	26.5
POTASSIUM	953 J
SODIUM	213 J
VANADIUM	25.1
ZINC	92

21RS004	21RS004-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.11
BENZENE	0.0027
ETHYLBENZENE	0.0014 J
METHYLENE CHLORIDE	0.04
TOLUENE	0.0016 J
XYLENES (TOTAL)	0.0046 J
TOTAL VOCs	
TOTAL VOCs	0.1603
SVOCs	
1,4-DICHLOROBENZENE	0.011 J
2-METHYLNAPHTHALENE	0.039 J
4-METHYLPHENOL	0.011 J
ACENAPHTHENE	0.069 J
ACENAPHTHYLENE	0.14 J
ANTHRACENE	0.26 J
BENZO(A)ANTHRACENE	0.65
BENZO(A)PYRENE	0.64
BENZO(B)FLUORANTHENE	0.56
BENZO(G,H,I)PERYLENE	0.2 J
BENZO(K)FLUORANTHENE	0.76 J
BIS(2-ETHYLHEXYL)PHTHALATE	1.9
BUTYLBENZYLPHTHALATE	0.15 J
CARBAZOLE	0.11 J
CHRYSENE	0.74
DIBENZ(A,H)ANTHRACENE	0.09
DIBENZOFURAN	0.041 J
DI-N-BUTYLPHTHALATE	0.095 J
FLUORANTHENE	1.2
FLUORENE	0.078 J
INDENO(1,2,3-CD)PYRENE	0.22
NAPHTHALENE	0.065 J
PHENANTHRENE	0.87
PYRENE	1.3
TOTAL SVOCs	
TOTAL SVOCs	10.199
METALS	
ALUMINUM	7170
ARSENIC	8.8
BARIUM	101
BERYLLIUM	0.37 J
CADMIUM	0.28 J
CALCIUM	7280
CHROMIUM	64.4
COBALT	4.3 J
COPPER	38.1
IRON	11900
LEAD	125
MAGNESIUM	2970
MANGANESE	270 J
MERCURY	0.32 J
NICKEL	16.6
POTASSIUM	529 J
SILVER	0.25 J
VANADIUM	31.2
ZINC	105

21RS002	21RS002-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.061
BENZENE	0.021
CHLOROFORM	0.005 J
ETHYLBENZENE	0.038
STYRENE	0.004 J
TOLUENE	0.022
XYLENES (TOTAL)	0.038
TOTAL VOCs	
TOTAL VOCs	0.189
SVOCs	
2-METHYLNAPHTHALENE	23
ACENAPHTHENE	4.1
ACENAPHTHYLENE	13
ANTHRACENE	7.3
BENZO(A)ANTHRACENE	4.1
BENZO(A)PYRENE	3.4
BENZO(B)FLUORANTHENE	1.3
BENZO(G,H,I)PERYLENE	1.9
BENZO(K)FLUORANTHENE	1.9
BIS(2-ETHYLHEXYL)PHTHALATE	0.47 J
CARBAZOLE	0.25 J
CHRYSENE	4.6
DIBENZ(A,H)ANTHRACENE	0.57
DIBENZOFURAN	1.8
FLUORANTHENE	6
FLUORENE	8.6
INDENO(1,2,3-CD)PYRENE	1.4
NAPHTHALENE	14
PHENANTHRENE	26
PYRENE	16
TOTAL SVOCs	
TOTAL SVOCs	139.69
METALS	
ALUMINUM	4420
ARSENIC	4.2 J
BARIUM	50.9 J
BERYLLIUM	0.16 J
CALCIUM	6740
CHROMIUM	20.6
COBALT	3.7 J
COPPER	27.7
IRON	9100
LEAD	46.2
MAGNESIUM	1990
MANGANESE	177
MERCURY	0.31
NICKEL	11.2 J
POTASSIUM	588 J
SODIUM	419 J
VANADIUM	16.1 J
ZINC	61.3

21GH007	21GH007-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.07
BENZENE	0.072
CARBON DISULFIDE	0.001 J
ETHYLBENZENE	0.0019 J
TOLUENE	0.0031 J
XYLENES (TOTAL)	0.0017 J
TOTAL VOCs	
TOTAL VOCs	0.1497
SVOCs	
ACENAPHTHENE	0.024 J
ANTHRACENE	0.047 J
BENZO(A)ANTHRACENE	0.15
BENZO(A)PYRENE	0.12
BENZO(B)FLUORANTHENE	0.088
BENZO(G,H,I)PERYLENE	0.064 J
BENZO(K)FLUORANTHENE	0.14
CARBAZOLE	0.026 J
CHRYSENE	0.15 J
FLUORANTHENE	0.3 J
INDENO(1,2,3-CD)PYRENE	0.061
PHENANTHRENE	0.19 J
PYRENE	0.26 J
TOTAL SVOCs	
TOTAL SVOCs	1.62
METALS	
ALUMINUM	8930
ARSENIC	7.1
BARIUM	49.6 J
BERYLLIUM	0.51 J
CADMIUM	0.31 J
CALCIUM	2320 J
CHROMIUM	43
COBALT	5.1 J
COPPER	49.9 J
IRON	16500
LEAD	53.4 J
MAGNESIUM	1840
MANGANESE	323
MERCURY	0.25 J
NICKEL	13.3
POTASSIUM	388 J
VANADIUM	33.6
ZINC	156

21GH012	21GH012-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.049
TRICHLOROETHYLENE	0.0012 J
TOTAL VOCs	
TOTAL VOCs	0.0502
SVOCs	
4-CHLOROANILINE	0.054 J
4-METHYLPHENOL	0.032 J
ACENAPHTHENE	0.046 J
ACENAPHTHYLENE	0.019 J
ANTHRACENE	0.086 J
BENZO(A)ANTHRACENE	0.21
BENZO(A)PYRENE	0.24
BENZO(B)FLUORANTHENE	0.26
BENZO(G,H,I)PERYLENE	0.15 J
BENZO(K)FLUORANTHENE	0.24
CARBAZOLE	0.06 J
CHRYSENE	0.3 J
DIBENZ(A,H)ANTHRACENE	0.055
DIBENZOFURAN	0.032 J
FLUORANTHENE	0.61
FLUORENE	0.055 J
INDENO(1,2,3-CD)PYRENE	0.13
PHENANTHRENE	0.55
PYRENE	0.44
TOTAL SVOCs	
TOTAL SVOCs	3.569
METALS	
ALUMINUM	7510
ARSENIC	7.2
BARIUM	48.4 J
BERYLLIUM	0.29 J
CADMIUM	0.18 J
CALCIUM	2520 J
CHROMIUM	12.5 J
COBALT	3.5 J
COPPER	46.5
IRON	10300
LEAD	37
MAGNESIUM	1280 J
MANGANESE	212
MERCURY	0.2 J
NICKEL	8.7 J
POTASSIUM	403 J
SILVER	1.3 J
VANADIUM	17.3
ZINC	79

21TP005	21TP005-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.032 J
BENZENE	0.0045
TOLUENE	0.0028 J
TOTAL VOCs	
TOTAL VOCs	0.0393
SVOCs	
ACENAPHTHENE	0.0092 J
ACENAPHTHYLENE	0.011 J
ANTHRACENE	0.025 J
BENZO(A)ANTHRACENE	0.12
BENZO(A)PYRENE	0.094
BENZO(B)FLUORANTHENE	0.074
BENZO(G,H,I)PERYLENE	0.066 J
BENZO(K)FLUORANTHENE	0.098
BIS(2-ETHYLHEXYL)PHTHALATE	0.17 J
CARBAZOLE	0.016 J
CHRYSENE	0.13 J
DIBENZ(A,H)ANTHRACENE	0.0092 J
FLUORANTHENE	0.21 J
INDENO(1,2,3-CD)PYRENE	0.056
PHENANTHRENE	0.11 J
PYRENE	0.2 J
TOTAL SVOCs	
TOTAL SVOCs	1.3984
METALS	
ALUMINUM	8810
ARSENIC	8.7
BARIUM	59
BERYLLIUM	0.54
CALCIUM	1630
CHROMIUM	22.1
COBALT	4.2 J
COPPER	20.8
IRON	11800
LEAD	46.2
MAGNESIUM	1450
MANGANESE	306
MERCURY	0.46
NICKEL	12.7
POTASSIUM	223 J
VANADIUM	27.8
ZINC	48.5

21GH029	21GH029-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.036
TOTAL VOCs	
TOTAL VOCs	0.036
SVOCs	
2-METHYLNAPHTHALENE	0.016 J
4-METHYLPHENOL	0.012 J
ACENAPHTHENE	0.052 J
ACENAPHTHYLENE	0.044 J
ANTHRACENE	0.14 J
BENZO(A)ANTHRACENE	0.4
BENZO(A)PYRENE	0.39
BENZO(B)FLUORANTHENE	0.44
BENZO(G,H,I)PERYLENE	0.24 J
BENZO(K)FLUORANTHENE	0.43
CARBAZOLE	0.078 J
CHRYSENE	0.46
DIBENZ(A,H)ANTHRACENE	0.11
DIBENZOFURAN	0.031 J
DI-N-BUTYLPHTHALATE	0.11 J
FLUORANTHENE	0.96
FLUORENE	0.041 J
INDENO(1,2,3-CD)PYRENE	0.22
NAPHTHALENE	0.027 J
PHENANTHRENE	0.61
PYRENE	0.74
TOTAL SVOCs	
TOTAL SVOCs	5.551
METALS	
ALUMINUM	9260
ARSENIC	9.9
BARIUM	62.3
BERYLLIUM	0.49
CADMIUM	0.61 J
CALCIUM	5400 J
CHROMIUM	67.3 J
COBALT	4 J
COPPER	36.4
IRON	12200
LEAD	109
MAGNESIUM	2960
MANGANESE	216
MERCURY	0.48 J
NICKEL	16.8
POTASSIUM	381 J
SILVER	0.48 J
SODIUM	126 J
VANADIUM	44.6
ZINC	92.3

21FA002	21FA002-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.11
BENZENE	0.0014
ETHYLBENZENE	0.016
METHYLENE CHLORIDE	0.024
XYLENES (TOTAL)	0.15
TOTAL VOCs	
TOTAL VOCs	0.3014
SVOCs	
2-METHYLNAPHTHALENE	0.012 J
ACENAPHTHENE	0.015 J
ACENAPHTHYLENE	0.025 J
ANTHRACENE	0.045 J
BENZO(A)ANTHRACENE	0.15
BENZO(A)PYRENE	0.13
BENZO(B)FLUORANTHENE	0.11
BENZO(G,H,I)PERYLENE	0.1 J
BENZO(K)FLUORANTHENE	0.16 J
BIS(2-ETHYLHEXYL)PHTHALATE	0.61
BUTYLBENZYLPHTHALATE	0.097 J
CARBAZOLE	0.025 J
CHRYSENE	0.17 J
DIBENZOFURAN	0.0099 J
DIETHYL PHTHALATE	0.16 J
DI-N-BUTYLPHTHALATE	0.13 J
FLUORANTHENE	0.25 J
INDENO(1,2,3-CD)PYRENE	0.092
NAPHTHALENE	0.022 J
PHENANTHRENE	0.18 J
PYRENE	0.26 J
TOTAL SVOCs	
TOTAL SVOCs	2.7529
METALS	
ALUMINUM	10000
ARSENIC	11.7
BARIUM	87.3
BERYLLIUM	0.58
CADMIUM	0.45 J
CALCIUM	3650
CHROMIUM	98.2
COBALT	4.1 J
COPPER	47.1
IRON	14000
LEAD	155
MAGNESIUM	1920
MANGANESE	269 J
MERCURY	0.47 J
NICKEL	18.1
POTASSIUM	496 J
SILVER	0.62 J
VANADIUM	62.9
ZINC	88
INORGANIC PARAMETER	
CYANIDE	0.97

21TP007	21TP007-01 0 to 0.2 mg/kg
VOCs	
BENZENE	0.0021
TOLUENE	0.0026 J
TOTAL VOCs	
TOTAL VOCs	0.0047
SVOCs	
ACENAPHTHYLENE	0.016 J
ANTHRACENE	0.0099 J
BENZO(A)ANTHRACENE	0.054
BENZO(A)PYRENE	0.061
BENZO(B)FLUORANTHENE	0.05
BENZO(G,H,I)PERYLENE	0.043 J
BENZO(K)FLUORANTHENE	0.05
BIS(2-ETHYLHEXYL)PHTHALATE	0.088 J
CHRYSENE	0.075 J
FLUORANTHENE	0.097 J
INDENO(1,2,3-CD)PYRENE	0.039
PHENANTHRENE	0.043 J
PYRENE	0.11 J
TOTAL SVOCs	
TOTAL SVOCs	0.7359
METALS	
ALUMINUM	15200
ARSENIC	13.8
BARIUM	69.4
BERYLLIUM	0.64 J
CALCIUM	1490 J
CHROMIUM	21.4
COBALT	4.2 J
COPPER	16
IRON	18400
LEAD	34.5
MAGNESIUM	1580 J
MANGANESE	310
MERCURY	0.6
NICKEL	11.2 J
POTASSIUM	331 J
VANADIUM	27.4
ZINC	34.7

21GH014	21GH014-01 0 to 0.2 mg/kg
VOCs	
2-BUTANONE	0.0061
ACETONE	0.072
BENZENE	0.0057
ETHYLBENZENE	0.0009 J
METHYLENE CHLORIDE	0.021
TOLUENE	0.0015 J
XYLENES (TOTAL)	0.0017 J
TOTAL VOCs	
TOTAL VOCs	0.1089
SVOCs	
2,4-DIMETHYLPHENOL	0.35 J
2-METHYLNAPHTHALENE	0.66
2-METHYLPHENOL	0.28 J
4-METHYLPHENOL	0.53
ACENAPHTHENE	0.081 J
ACENAPHTHYLENE	0.11 J
ANTHRACENE	0.17 J
BENZO(A)ANTHRACENE	0.37
BENZO(A)PYRENE	0.37
BENZO(B)FLUORANTHENE	0.25
BENZO(G,H,I)PERYLENE	0.24 J
BENZO(K)FLUORANTHENE	0.4 J
BIS(2-ETHYLHEXYL)PHTHALATE	0.14 J
CARBAZOLE	0.12 J
CHRYSENE	0.39 J
DIBENZ(A,H)ANTHRACENE	0.072
DIBENZOFURAN	0.097 J
FLUORANTHENE	0.62
FLUORENE	0.044 J
INDENO(1,2,3-CD)PYRENE	0.22
NAPHTHALENE	2.7
PHENANTHRENE	1.7
PHENOL	0.077 J
PYRENE	0.72
TOTAL SVOCs	
TOTAL SVOCs	10.711
METALS	
ALUMINUM	7740
ARSENIC	5.2 J
BARIUM	96.3
BERYLLIUM	0.42 J
CADMIUM	0.12 J
CALCIUM	3510
CHROMIUM	19.5
COBALT	5.3 J
COPPER	37.5
IRON	13400
LEAD	66.3
MAGNESIUM	2140
MANGANESE	328 J
MERCURY	1.3 J
NICKEL	13.5
POTASSIUM	761 J
VANADIUM	26.1
ZINC	90.5

21GH016	21GH016-01 0 to 0.2 mg/kg
VOCs	
2-BUTANONE	0.0079
ACETONE	0.11
BENZENE	0.0008 J
ETHYLBENZENE	0.0027 J
XYLENES (TOTAL)	0.018
TOTAL VOCs	
TOTAL VOCs	0.1394
SVOCs	
2-METHYLNAPHTHALENE	0.091 J
4-NITROPHENOL	0.031 J
ACENAPHTHENE	0.26 J
ACENAPHTHYLENE	0.063 J
ANTHRACENE	0.44 J
BENZO(A)ANTHRACENE	0.94
BENZO(A)PYRENE	0.82
BENZO(B)FLUORANTHENE	0.67
BENZO(G,H,I)PERYLENE	0.49 J
BENZO(K)FLUORANTHENE	0.9 J
BIS(2-ETHYLHEXYL)PHTHALATE	1.6
CARBAZOLE	0.28 J
CHRYSENE	0.99
DIBENZ(A,H)ANTHRACENE	0.046 J
DIBENZOFURAN	0.18 J
DI-N-BUTYLPHTHALATE	0.15 J
FLUORANTHENE	1.9
FLUORENE	0.28 J
INDENO(1,2,3-CD)PYRENE	0.45
NAPHTHALENE	0.21 J
PHENANTHRENE	1.9
PYRENE	1.8
TOTAL SVOCs	
TOTAL SVOCs	14.491

21GH023	21GH023-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.082
BENZENE	0.0008 J
METHYLENE CHLORIDE	0.022
TOLUENE	0.0016 J
TOTAL VOCs	
TOTAL VOCs	0.1064
SVOCs	
2-METHYLNAPHTHALENE	0.016 J
ACENAPHTHENE	0.048 J
ACENAPHTHYLENE	0.024 J
ANTHRACENE	0.12 J
BENZO(A)ANTHRACENE	0.34
BENZO(A)PYRENE	0.31
BENZO(B)FLUORANTHENE	0.25
BENZO(G,H,I)PERYLENE	0.24 J
BENZO(K)FLUORANTHENE	0.32
BIS(2-ETHYLHEXYL)PHTHALATE	0.84
CARBAZOLE	0.081 J
CHRYSENE	0.44 J
DIBENZOFURAN	0.024 J
DI-N-BUTYLPHTHALATE	0.18 J
FLUORANTHENE	0.86
FLUORENE	0.047 J
NAPHTHALENE	0.024 J
PHENANTHRENE	0.54
PYRENE	0.73
TOTAL SVOCs	
TOTAL SVOCs	5.434
METALS	
ALUMINUM	12200
ARSENIC	30.2
BARIUM	85
BERYLLIUM	0.62
CADMIUM	0.81 J
CALCIUM	6930 J
CHROMIUM	74.3 J
COBALT	4.6 J
COPPER	48.9
IRON	15800
LEAD	138
MAGNESIUM	3810 J
MANGANESE	333
MERCURY	0.6 J
NICKEL	20.2
POTASSIUM	574 J
SELENIUM	1.3 J
SILVER	0.52 J
VANADIUM	70.4
ZINC	91

21GH015	21GH015-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.05 J
TOTAL VOCs	
TOTAL VOCs	0.05
SVOCs	
ACENAPHTHENE	0.034 J
ACENAPHTHYLENE	0.015 J
ANTHRACENE	0.077 J
BENZO(A)ANTHRACENE	0.28
BENZO(A)PYRENE	0.26
BENZO(B)FLUORANTHENE	0.22
BENZO(G,H,I)PERYLENE	0.17 J
BENZO(K)FLUORANTHENE	0.26
CARBAZOLE	0.056 J
CHRYSENE	0.33 J
DIBENZ(A,H)ANTHRACENE	0.051 J
DIBENZOFURAN	0.015 J
DI-N-BUTYLPHTHALATE	0.15 J
FLUORANTHENE	0.67
FLUORENE	0.027 J
INDENO(1,2,3-CD)PYRENE	0.15
NAPHTHALENE	0.023 J
PHENANTHRENE	0.39 J
PYRENE	0.61
TOTAL SVOCs	
TOTAL SVOCs	3.788
METALS	
ALUMINUM	13900
ARSENIC	25.3
BARIUM	101
BERYLLIUM	0.69
CADMIUM	0.64 J
CALCIUM	4840
CHROMIUM	79.8
COBALT	5.3 J
COPPER	47.3
IRON	18100
LEAD	165
MAGNESIUM	2200
MANGANESE	390
MERCURY	0.85
NICKEL	22.5
POTASSIUM	683 J
SILVER	0.74 J
VANADIUM	70.6
ZINC	114

21GH009	21GH009-01 0 to 0.2 mg/kg
VOCs	
2-BUTANONE	0.0089
ACETONE	0.11
BENZENE	0.0005 J
ETHYLBENZENE	0.0013 J
TOLUENE	0.002 J
XYLENES (TOTAL)	0.0079
TOTAL VOCs	
TOTAL VOCs	0.1306
SVOCs	
2-METHYLNAPHTHALENE	0.029 J
4-METHYLPHENOL	0.029 J
ACENAPHTHENE	0.071 J
ACENAPHTHYLENE	0.031 J
ANTHRACENE	0.18 J
BENZO(A)ANTHRACENE	0.48
BENZO(A)PYRENE	0.43
BENZO(B)FLUORANTHENE	0.36
BENZO(G,H,I)PERYLENE	0.2 J
BENZO(K)FLUORANTHENE	0.53 J
BIS(2-ETHYLHEXYL)PHTHALATE	1
CARBAZOLE	0.12 J
CHRYSENE	0.54
DIBENZ(A,H)ANTHRACENE	0.077
DIBENZOFURAN	0.041 J
DI-N-BUTYLPHTHALATE	0.15 J
FLUORANTHENE	0.98
FLUORENE	0.081 J
INDENO(1,2,3-CD)PYRENE	0.2
NAPHTHALENE	0.042 J
PENTACHLOROPHENOL	0.011 J
PHENANTHRENE	0.75
PYRENE	0.86
TOTAL SVOCs	
TOTAL SVOCs	7.192

21GH017	21GH017-01 0 to 0.2 mg/kg
VOCs	
BENZENE	0.0007 J
XYLENES (TOTAL)	0.0016 J
TOTAL VOCs	
TOTAL VOCs	0.0023
SVOCs	
2-METHYLNAPHTHALENE	0.099 J
ACENAPHTHENE	0.5
ACENAPHTHYLENE	0.11 J
ANTHRACENE	1
BENZO(A)ANTHRACENE	1.6
BENZO(A)PYRENE	1.3
BENZO(B)FLUORANTHENE	1.1
BENZO(G,H,I)PERYLENE	0.59
BENZO(K)FLUORANTHENE	1.3
CARBAZOLE	0.36 J
CHRYSENE	1.7
DIBENZ(A,H)ANTHRACENE	0.21
DIBENZOFURAN	0.32 J
FLUORANTHENE	4
FLUORENE	0.44
INDENO(1,2,3-CD)PYRENE	0.6
NAPHTHALENE	0.1 J
PHENANTHRENE	4
PYRENE	3.6
TOTAL SVOCs	
TOTAL SVOCs	22.929
METALS	
ALUMINUM	9370
ARSENIC	9.3
BARIUM	77
BERYLLIUM	0.52
CADMIUM	0.53 J
CALCIUM	1490 J
CHROMIUM	20.9
COBALT	4.6 J
COPPER	32.5
IRON	14600
LEAD	78.2
MAGNESIUM	1510
MANGANESE	363
MERCURY	0.47
NICKEL	13.1
POTASSIUM	353 J
SILVER	0.31 J
VANADIUM	31.7
ZINC	78.3

21VH002	21VH002-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.036 J
BENZENE	0.001 J
ETHYLBENZENE	0.0006 J
XYLENES (TOTAL)	0.0027 J
TOTAL VOCs	
TOTAL VOCs	0.0403
SVOCs	
ACENAPHTHYLENE	0.054 J
ANTHRACENE	0.04 J
BENZO(A)ANTHRACENE	0.2
BENZO(A)PYRENE	0.21
BENZO(B)FLUORANTHENE	0.19
BENZO(G,H,I)PERYLENE	0.13 J
BENZO(K)FLUORANTHENE	0.24
CARBAZOLE	0.02 J
CHRYSENE	0.26 J
FLUORANTHENE	0.45
INDENO(1,2,3-CD)PYRENE	0.1
NAPHTHALENE	0.011 J
PHENANTHRENE	0.18 J
PYRENE	0.41
TOTAL SVOCs	
TOTAL SVOCs	2.495
METALS	
ALUMINUM	11400
ARSENIC	10.1
BARIUM	68.6
BERYLLIUM	0.57
CADMIUM	0.76 J
CALCIUM	3510 J
CHROMIUM	37.5
COBALT	5.3 J
COPPER	29
IRON	17200
LEAD	77
MAGNESIUM	2250
MANGANESE	423
MERCURY	0.47
NICKEL	15.3
POTASSIUM	400 J
SILVER	0.3 J
VANADIUM	42.6
ZINC	76

21GH021	21GH021-01 0 to 0.2 mg/kg
VOCs	
BENZENE	0.026
ETHYLBENZENE	0.0009 J
TOLUENE	0.011 J
XYLENES (TOTAL)	0.0021 J
TOTAL VOCs	
TOTAL VOCs	0.04
SVOCs	
2-METHYLNAPHTHALENE	0.017 J
ACENAPHTHENE	0.052 J
ACENAPHTHYLENE	0.073 J
ANTHRACENE	0.15 J
BENZO(A)ANTHRACENE	0.49
BENZO(A)PYRENE	0.51
BENZO(B)FLUORANTHENE	0.38
BENZO(G,H,I)PERYLENE	0.29 J
BENZO(K)FLUORANTHENE	0.54
CARBAZOLE	0.067 J
CHRYSENE	0.58
DIBENZ(A,H)ANTHRACENE	0.079
DIBENZOFURAN	0.023 J
DI-N-BUTYLPHTHALATE	0.099 J
FLUORANTHENE	1
FLUORENE	0.051 J
INDENO(1,2,3-CD)PYRENE	0.24
NAPHTHALENE	0.032 J
PHENANTHRENE	0.57
PYRENE	0.98
TOTAL SVOCs	
TOTAL SVOCs	6.223
METALS	
ALUMINUM	8980
ARSENIC	9
BARIUM	77.5
BERYLLIUM	0.39 J
CADMIUM	0.52 J
CALCIUM	3650 J
CHROMIUM	33.7
COBALT	5.3 J
COPPER	33.7
IRON	15700
LEAD	107
MAGNESIUM	2510
MANGANESE	315
MERCURY	0.44
NICKEL	19.8
POTASSIUM	507 J
SILVER	0.22 J
VANADIUM	43.4
ZINC	84.2

21GH020	21GH020-01 0 to 0.2 mg/kg
VOCs	
BENZENE	0.001 J
TOLUENE	0.0024 J
TOTAL VOCs	
TOTAL VOCs	0.0034
SVOCs	
2-METHYLNAPHTHALENE	0.064 J
ACENAPHTHENE	0.083 J
ACENAPHTHYLENE	0.059 J
ANTHRACENE	0.081 J
BENZO(A)ANTHRACENE	0.41
BENZO(A)PYRENE	0.45
BENZO(B)FLUORANTHENE	0.42
BENZO(G,H,I)PERYLENE	0.29 J
BENZO(K)FLUORANTHENE	0.54
CARBAZOLE	0.099 J
CHRYSENE	0.7
DIBENZ(A,H)ANTHRACENE	0.059
DIBENZOFURAN	0.066 J
DI-N-BUTYLPHTHALATE	0.2 J
FLUORANTHENE	1.4
FLUORENE	0.11 J
INDENO(1,2,3-CD)PYRENE	0.28
NAPHTHALENE	0.044 J
PHENANTHRENE	1.3
PYRENE	1.2
TOTAL SVOCs	
TOTAL SVOCs	7.855
METALS	
ALUMINUM	17100
ARSENIC	41
BARIUM	119
BERYLLIUM	0.84
CADMIUM	0.49 J
CALCIUM	4000
CHROMIUM	105
COBALT	5.2 J
COPPER	51.2
IRON	22300
LEAD	179
MAGNESIUM	2270
MANGANESE	510
MERCURY	0.93
NICKEL	21.6
POTASSIUM	645 J
SILVER	0.59 J
VANADIUM	83.6
ZINC	97

21GH018	21GH018-01 0 to 0.2 mg/kg
VOCs	
2-BUTANONE	0.0082
ACETONE	0.035
BENZENE	0.0078
CARBON DISULFIDE	0.0012 J
ETHYLBENZENE	0.0016 J
TOLUENE	0.0013 J
XYLENES (TOTAL)	0.01
TOTAL VOCs	
TOTAL VOCs	0.0651
SVOCs	
1,4-DICHLOROBENZENE	0.01 J
2,4-DIMETHYLPHENOL	0.0086 J
2-METHYLNAPHTHALENE	0.055 J
4-METHYLPHENOL	0.13 J
ACENAPHTHENE	0.047 J
ACENAPHTHYLENE	0.25 J
ANTHRACENE	0.27 J
BENZO(A)ANTHRACENE	0.96
BENZO(A)PYRENE	0.78
BENZO(B)FLUORANTHENE	0.61
BENZO(G,H,I)PERYLENE	0.5
BENZO(K)FLUORANTHENE	0.86
CARBAZOLE	0.18 J
CHRYSENE	1
DIBENZ(A,H)ANTHRACENE	0.19
DIBENZOFURAN	0.092 J
DI-N-BUTYLPHTHALATE	0.15 J
FLUORANTHENE	1.7
FLUORENE	0.1 J
INDENO(1,2,3-CD)PYRENE	0.44
NAPHTHALENE	0.087 J
PHENANTHRENE	1.5
PYRENE	1.6
TOTAL SVOCs	
TOTAL SVOCs	11.5196
METALS	
ALUMINUM	8190 J
ARSENIC	11.1
BARIUM	73.2
BERYLLIUM	0.41 J
CADMIUM	0.41 J
CALCIUM	3040
CHROMIUM	49.1
COBALT	4.9 J
COPPER	37.4
IRON	14100 J
LEAD	102
MAGNESIUM	1810
MANGANESE	288
MERCURY	0.47
NICKEL	14.4
POTASSIUM	485 J
SILVER	0.39 J
SODIUM	123 J
VANADIUM	39.3
ZINC	74.8

21GH019	21GH019-01 0 to 0.2 mg/kg
VOCs	
TOLUENE	0.0023 J
XYLENES (TOTAL)	0.0023 J
TOTAL VOCs	
TOTAL VOCs	0.0046
SVOCs	
1,4-DICHLOROBENZENE	0.013 J
2-METHYLNAPHTHALENE	0.02 J
ACENAPHTHENE	0.03 J
ACENAPHTHYLENE	0.031 J
ANTHRACENE	0.066 J
BENZO(A)ANTHRACENE	0.27
BENZO(A)PYRENE	0.25
BENZO(B)FLUORANTHENE	0.25
BENZO(G,H,I)PERYLENE	0.14 J
BENZO(K)FLUORANTHENE	0.3
CARBAZOLE	0.049 J
CHRYSENE	0.35 J
DIBENZOFURAN	0.016 J
DI-N-BUTYLPHTHALATE	0.26 J
FLUORANTHENE	0.6
FLUORENE	0.024 J
INDENO(1,2,3-CD)PYRENE	0.14
NAPHTHALENE	0.03 J
PHENANTHRENE	0.34 J
PYRENE	0.55
TOTAL SVOCs	
TOTAL SVOCs	3.729
METALS	
ALUMINUM	10900
ARSENIC	15.9
BARIUM	100
BERYLLIUM	0.57
CADMIUM	0.42 J
CALCIUM	6690
CHROMIUM	135
COBALT	4.5 J
COPPER	56.4
IRON	15400
LEAD	145
MAGNESIUM	3520
MANGANESE	238
MERCURY	2.2
NICKEL	19.6
POTASSIUM	547 J
SELENIUM	1.1 J
SILVER	0.67 J
VANADIUM	72.8
ZINC	96.6

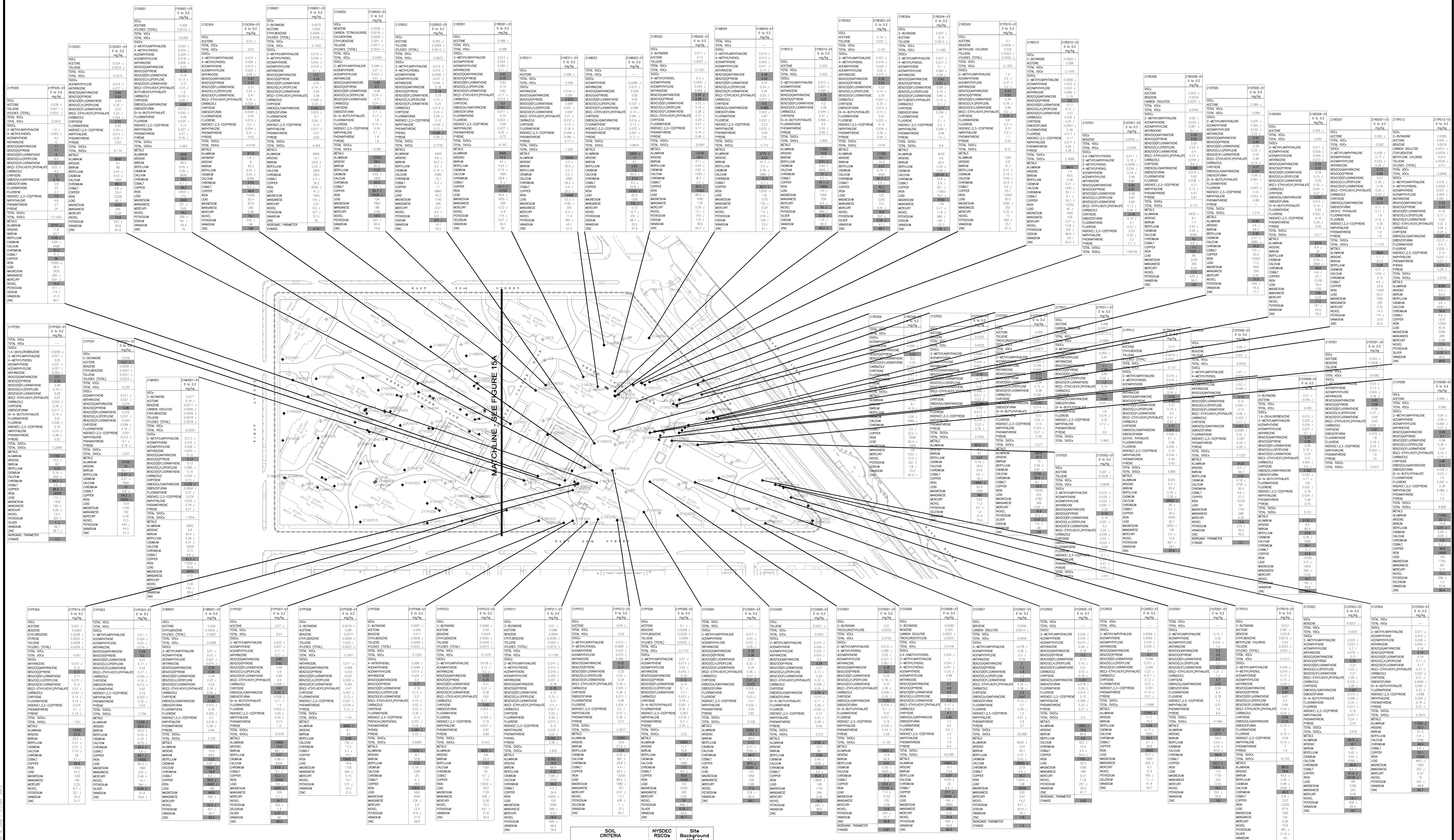
21GH013	21GH013-01 0 to 0.2 mg/kg
VOCs	
CARBON DISULFIDE	0.001 J
TOTAL VOCs	
TOTAL VOCs	0.001
SVOCs	
1,4-DICHLOROBENZENE	0.016 J
2-METHYLNAPHTHALENE	0.022 J
4-METHYLPHENOL	0.012 J
ACENAPHTHENE	0.038 J
ACENAPHTHYLENE	0.036 J
ANTHRACENE	0.086 J
BENZO(A)ANTHRACENE	0.27
BENZO(A)PYRENE	0.29
BENZO(B)FLUORANTHENE	0.26
BENZO(G,H,I)PERYLENE	0.13 J
BENZO(K)FLUORANTHENE	0.33
BIS(2-ETHYLHEXYL)PHTHALATE	0.66
CARBAZOLE	0.056 J
CHRYSENE	0.32 J
DIBENZOFURAN	0.026 J
DI-N-BUTYLPHTHALATE	0.22 J
FLUORANTHENE	0.6
FLUORENE	0.033 J
INDENO(1,2,3-CD)PYRENE	0.14
NAPHTHALENE	0.032 J
PHENANTHRENE	0.39 J
PYRENE	0.59
TOTAL SVOCs	
TOTAL SVOCs	4.557
METALS	
ALUMINUM	12200
ARSENIC	47.2
BARIUM	66.8 J
BERYLLIUM	0.48 J
CADMIUM	0.65 J
CALCIUM	2940
CHROMIUM	67
COBALT	3.6 J
COPPER	109
IRON	15400
LEAD	128
MAGNESIUM	1550 J
MANGANESE	256
MERCURY	0.42
NICKEL	16.5
POTASSIUM	512 J
VANADIUM	67
ZINC	75.8

21GH011	21GH011-01 0 to 0.2 mg/kg
VOCs	
ACETONE	0.081
TOLUENE	0.0013 J
TOTAL VOCs	
TOTAL VOCs	0.0823
SVOCs	
4-CHLOROANILINE	0.016 J
4-METHYLPHENOL	0.018 J
ACENAPHTHENE	0.024 J
ACENAPHTHYLENE	0.022 J
ANTHRACENE	0.074 J
BENZO(A)ANTHRACENE	0.23
BENZO(A)PYRENE	0.22
BENZO(B)FLUORANTHENE	0.21
BENZO(G,H,I)PERYLENE	0.14 J
BENZO(K)FLUORANTHENE	0.23
CARBAZOLE	0.03 J
CHRYSENE	0.25 J
DIBENZOFURAN	0.011 J
FLUORANTHENE	0.41
INDENO(1,2,3-CD)PYRENE	0.13
PHENANTHRENE	0.23 J
PYRENE	0.38 J
TOTAL SVOCs	
TOTAL SVOCs	2.625
METALS	
ALUMINUM	7130
ARSENIC	5.5
BARIUM	36.2 J
BERYLLIUM	0.3 J
CALCIUM	2850 J
CHROMIUM	10.2
COBALT	3 J
COPPER	27.6 J
IRON	9580
LEAD	28.8 J
MAGNESIUM	1510
MANGANESE	187
MERCURY	0.12 J
NICKEL	7.1 J
POTASSIUM	348 J
SILVER	0.5 J
VANADIUM	15.7
ZINC	51.7

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729	CONCENTRATIONS OF COMPOUNDS DETECTED IN SCS SURFACE SOILS NOVEMBER 2004 (WEST SIDE) OPERABLE UNIT 1 (OU1)
DATE: 11/17/08 DRWN: MAW/BIL	FIGURE 5-1A

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\HA_SURF_SOILS_A.dwg Layout: ANSI_E1 User: VershonB Plotted: Nov 18, 2008 - 11:25am Xref's:



SOIL CRITERIA	NYSDEC RSCOs	Site Background Values
BTEX (mg/Kg)		
Benzene	0.06	0.00202
Ethylbenzene	5.5	0.00014
Toluene	1.5	0.0028
Xylene (Total)	1.2	0.00047
VOC (mg/Kg)		
1,2-Dichlorobenzene	7.9	NA
1,4-Dichlorobenzene	8.5	0.0265
2-Butanone (Methyl Ethyl Ketone)	0.3	0.00202
Acetone	0.2	0.043
Carbon Disulfide	2.7	0.00156
Carbon Tetrachloride	0.6	NA
Chloroform	0.3	NA
Methylene Chloride	0.1	0.00104
Styrene	NA	NA
Trichloroethylene	0.7	0.00021
Total VOC	10	NA
PAH (mg/kg)		
Acenaphthene	50	0.117
Acenaphthylene	41	0.259
Anthracene	50	0.488
Benzo(a)anthracene	0.224	2.599
Benzo(a)pyrene	0.061	1.046
Benzo(b)fluoranthene	1.1	0.728
Benzo(ghi)perylene	50	0.565
Benzo(k)fluoranthene	1.1	0.996
Chrysene	0.4	1.267
Dibenz(a,h)anthracene	0.014	0.162
Fluoranthene	50	3.416
Fluorene	50	0.267
Indeno(1,2,3-cd)pyrene	3.2	0.509
Naphthalene	13	0.476
Phenanthrene	50	3.949
Pyrene	50	4.525
SVOC (mg/Kg)		
2,4-Dimethylphenol	NA	0.021
2-Methylnaphthalene	36.4	0.106
2-Methylphenol	0.1	0.021
4-Chloroaniline	0.22	NA
4-Methylphenol	0.9	0.08
4-Nitrophenol	0.1	NA
bis(2-Ethylhexyl) phthalate	50	0.823
Carbazole	NA	0.131
Dibenzofuran	6.2	0.197
Diethyl phthalate	7.1	0.01
Di-n-butyl phthalate	8.1	0.064
Pentachlorophenol	1	NA
Phenol	0.03	0.042
Total SVOC	500	NA
Metals (mg/Kg)		
Aluminum	SB	7960
Arsenic	7.5 or SB	13.63
Barium	300 or SB	124.7
Beryllium	0.16 or SB	0.463
Cadmium	1 or SB	0.2
Calcium	SB	11563
Chromium	10 or SB	36.69
Cobalt	30 or SB	5.698
Copper	25 or SB	35.84
Iron	2000 or SB	14369
Lead	SB	237.7
Magnesium	SB	3129
Manganese	SB	358.5
Mercury	0.1	1.305
Nickel	13 or SB	15.3
Potassium	SB	1197
Silver	SB	0.229
Sodium	SB	214.8
Vanadium	150 or SB	30.25
Zinc	20 or SB	81.77
Cyanide (mg/Kg)		
Cyanide, Total	NA	0.705

LEGEND:

- - - - - LIMIT OF OU1

21MWS10 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED MONITORING WELLS

21GH022 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED SOIL BORINGS

21TP007 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PITS

EXPLORATION DESIGNATION

SAMPLE DESIGNATION
DUP = INDICATES DUPLICATE SAMPLE
FP = INDICATES FINGERPRINT ANALYSIS ALSO CONDUCTED

14GH002	14GH002-00DUP 0 - 0.2 Ft mg/kg	14GH002-00FP 0 - 0.2 Ft mg/kg
VOCs		
ETHYLBENZENE	--	0.0008 J
XYLENES (TOTAL)	0.017	NT
TOTAL VOCs		
TOTAL VOCs	0.1345	--
SVOCs		
BENZO(A)PYRENE	4.5	6.2
TOTAL SVOCs		
TOTAL SVOCs	4.5	6.2

SAMPLE DEPTH
UNITS
VOLATILE ORGANIC COMPOUNDS
ANALYTICAL RESULT OF LISTED CONSTITUENT
J = INDICATES ESTIMATED VALUE,
NT = INDICATES NOT TESTED,
-- = INDICATES NOT ABOVE REPORTING DETECTION LIMIT (RDL) AS PER DATA VALIDATION
TOTAL VOCs INCLUDES TARGETED COMPOUNDS ONLY
SEMIVOLATILE ORGANIC COMPOUNDS
SHADED AREA INDICATES EXCEEDENCE OF CRITERIA (SEE NOTE 2)
TOTAL SVOCs INCLUDES TARGETED COMPOUNDS ONLY

1"=100'

NOTES:

1. THIS FIGURE WAS DERIVED FROM FIGURE 15B OF THE SITE CHARACTERIZATION STUDY SCS REPORT (H&A 2004).
2. SOIL ANALYTICAL RESULTS FOR VOCS AND SVOCS WERE COMPARED TO NYSDEC RESIDENTIAL SOIL CLEANUP OBJECTIVES (RSCO) FROM TECHNICAL AND GUIDANCE MEMORANDUM (TAGM) #4046. METALS AND CYANIDE SOIL RESULTS WERE COMPARED TO THE HIGHER OF THE CALCULATED SITE-SPECIFIC BACKGROUND VALUES (SSBV) OR RSCO. SHADED VALUES INDICATE AN EXCEEDENCE OF CRITERIA.
3. VOC: VOLATILE ORGANIC COMPOUNDS. SVOCS: SEMIVOLATILE ORGANIC COMPOUNDS. METALS: TARGET ANALYTE LIST METALS. MG/KG: MILLIGRAMS PER KILOGRAM, OR PARTS PER MILLION (PPM).
4. TABLES II, VII AND XII IN SITE CHARACTERIZATION REPORT SUMMARIZE THE TESTING PARAMETERS AND RESULTS. FULL LABORATORY TESTING RESULTS ARE PROVIDED IN REPORT APPENDIX E.
SCS SURFACE SOIL ANALYTICAL RESULTS ARE ALSO PROVIDED IN THE RI REPORT.

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS

01869-170-729

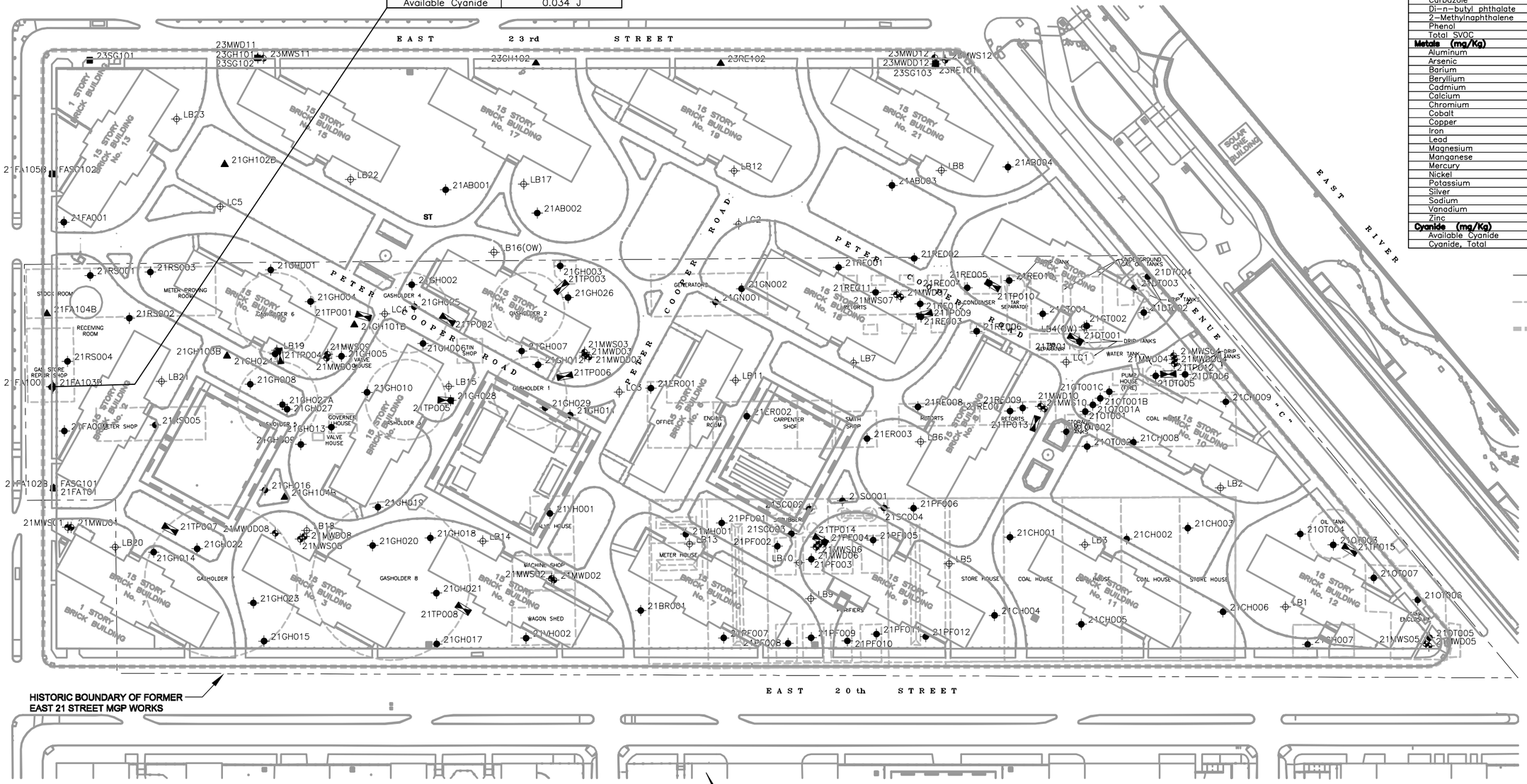
DATE: 11/17/08 DRWN: MAW/BIL

CONCENTRATIONS OF COMPOUNDS DETECTED IN SCS SURFACE SOILS NOVEMBER 2004 (EAST SIDE) OPERABLE UNIT 1 (OU1)

FIGURE 5-1B

21FA100	DEPTH (0.0 to 0.5)
Metals (mg/Kg)	
Aluminum	2110
Arsenic	2.160
Barium	15.4 J
Beryllium	0.256 J
Calcium	1350
Chromium	6.640
Cobalt	1.790 J
Copper	17.7
Iron	5100
Lead	62.3
Magnesium	740
Manganese	95.2
Mercury	0.137
Nickel	11.7
Potassium	455 J
Silver	0.938 J
Sodium	204 J-
Vanadium	18.6
Zinc	42.6
Cyanide (mg/Kg)	
Available Cyanide	0.034 J

SOIL CRITERIA	NYSDEC RSCOs	Site Background Values
BTEX (mg/Kg)		
Methylene Chloride	0.1	0.00104
Total VOC	10	NA
PAH (mg/Kg)		
Acenaphthene	50	0.117
Acenaphthylene	41	0.259
Anthracene	50	0.488
Benzo(a)anthracene	0.224	2.599
Benzo(a)pyrene	0.061	1.046
Benzo(b)fluoranthene	1.1	0.728
Benzo(ghi)perylene	50	0.565
Benzo(k)fluoranthene	1.1	0.996
Chrysene	0.4	1.267
Dibenz(a,h)anthracene	0.014	0.162
Fluoranthene	50	3.416
Fluorene	50	0.267
Indeno(1,2,3-cd)pyrene	3.2	0.509
Naphthalene	13	0.476
Phenanthrene	50	3.949
Pyrene	50	4.525
SVOC (mg/Kg)		
bis(2-Ethylhexyl) phthalate	50	0.823
Carbazole	NA	0.131
Di-n-butyl phthalate	8.1	0.064
2-Methylnaphthalene	500	NA
Phenol	0.03	0.042
Total SVOC	500	NA
Metals (mg/Kg)		
Aluminum	SB	7960
Arsenic	7.5 or SB	13.63
Barium	300 or SB	124.7
Beryllium	0.16 or SB	0.463
Cadmium	1 or SB	0.2
Calcium	SB	11563
Chromium	10 or SB	36.69
Cobalt	30 or SB	5.698
Copper	25 or SB	35.84
Iron	2000 or SB	14369
Lead	SB	237.7
Magnesium	SB	3129
Manganese	SB	358.5
Mercury	0.1	1.305
Nickel	13 or SB	15.3
Potassium	SB	1197
Silver	SB	0.229
Sodium	SB	214.8
Vanadium	150 or SB	30.25
Zinc	20 or SB	81.77
Cyanide (mg/Kg)		
Available Cyanide	NA	NA
Cyanide, Total	NA	0.705



NOTES:
1. ANALYTICAL RESULTS WERE COMPARED TO THE NYSDEC RSCOs. SHADED VALUES INDICATE AN EXCEEDANCE OF THE RSCOs.
2. TABLE 5-2 PROVIDES A SUMMARY OF ANALYTES DETECTED AND THEIR CONCENTRATIONS IN THE RI SURFACE SOIL SAMPLES.

60 0 120
1"=120'

ENSR | AECOM

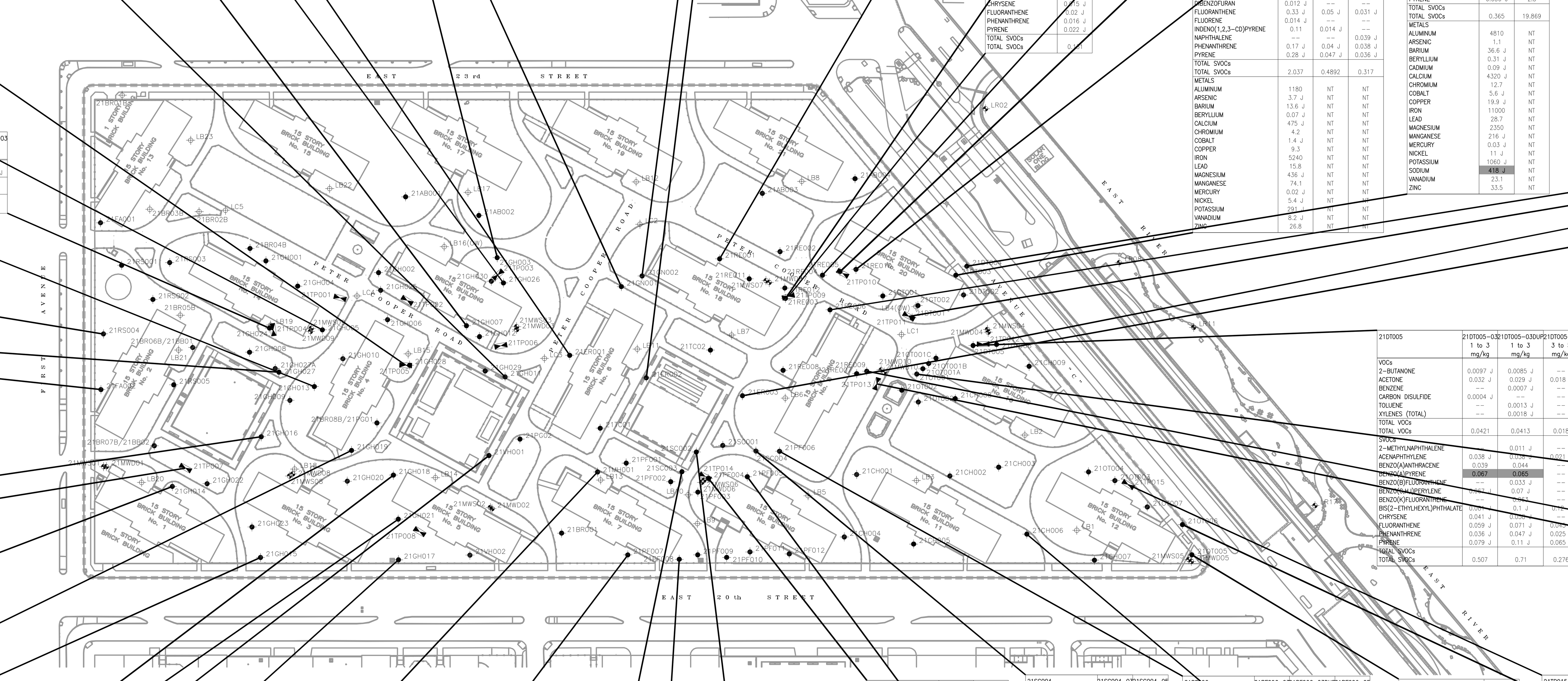
CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21st STREET WORKS
01869-170-729

DATE: 11/17/08 | DRWN: BcV/W-MA

CONCENTRATIONS OF COMPOUNDS DETECTED IN RI SURFACE SOIL SAMPLES (0.0 FT TO 0.2 FT DEPTH) 2006 OPERABLE UNIT 1 (OU1)

FIGURE 5-2

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\SURFSOIL_DB.dwg Layout: B-120 User: VershonB Plotted: Nov 17, 2008 - 5:36pm Xref's:



LEGEND:

LIMIT OF OU1

21MWS10 — DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED MONITORING WELLS

21GH022 — DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED SOIL BORINGS

21TP007 — DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PITS

EXPLORATION DESIGNATION

SAMPLE DESIGNATION
DUP = INDICATES DUPLICATE SAMPLE
FP = INDICATES FINGERPRINT ANALYSIS ALSO CONDUCTED

14GH002	14GH002-00DUP 0 - 0.2 Ft mg/kg	14GH002-00FP 0 - 0.2 Ft mg/kg
VOCs		
ETHYLBENZENE	--	0.0008 J
XYLENES (TOTAL)	0.017	NT
TOTAL VOCs TOTAL VOCs	0.1345	--
SVOCs		
BENZO(A)PYRENE		
TOTAL SVOCs TOTAL SVOCs	4.5	6.2

SAMPLE DEPTH
UNITS
VOLATILE ORGANIC COMPOUNDS
ANALYTICAL RESULT OF LISTED CONSTITUENT
J = INDICATES ESTIMATED VALUE,
NT = INDICATES NOT TESTED,
-- = INDICATES NOT ABOVE REPORTING DETECTION LIMIT (RDL) AS PER DATA VALIDATION
TOTAL VOCs INCLUDES TARGETED COMPOUNDS ONLY
SEMIVOLATILE ORGANIC COMPOUNDS
SHADED AREA INDICATES EXCEEDENCE OF CRITERIA (SEE NOTE 2)
TOTAL SVOCs INCLUDES TARGETED COMPOUNDS ONLY

NOTES:

1. THIS FIGURE WAS DERIVED FROM FIGURE 16 OF THE SITE CHARACTERIZATION STUDY SCS REPORT (H&A 2004)

2. SOIL ANALYTICAL RESULTS FOR VOCS AND SVOCS WERE COMPARED TO NYSDEC RESIDENTIAL SOIL CLEANUP OBJECTIVES (RSCO) FROM TECHNICAL AND GUIDANCE MEMORANDUM (TAGM) #4046. METALS AND CYANIDE SOIL RESULTS WERE COMPARED TO THE HIGHER OF THE CALCULATED SITE-SPECIFIC BACKGROUND VALUES (SSBV) OR RSCO. SHADED VALUES INDICATE AN EXCEEDENCE OF CRITERIA.

3. VOC: VOLATILE ORGANIC COMPOUNDS. SVOCS: SEMIVOLATILE ORGANIC COMPOUNDS. METALS: TARGET ANALYTE LIST METALS. MG/KG: MILLIGRAMS PER KILOGRAM, OR PARTS PER MILLION (PPM).

4. TABLES II, IX AND XII IN SITE CHARACTERIZATION REPORT SUMMARIZE THE TESTING PARAMETERS AND RESULTS. FULL LABORATORY TESTING RESULTS ARE PROVIDED IN REPORT APPENDIX E. SCS UPPER FILL ANALYTICAL RESULTS ARE ALSO PROVIDED IN THE RI REPORT.

50 0 100
1"=100'

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS

01869-170-729

DATE: 11/17/08 | DRWN: MAW\BIL

CONCENTRATIONS OF COMPOUNDS DETECTED IN SCS UPPER FILL SOIL (0.2 FT. TO 5 FT. DEPTH) - NOVEMBER 2004 OPERABLE UNIT 1 (OU1)

FIGURE 5-3

SOIL CRITERIA	NYSDEC RSCOs	Site Background Values
BTEX (mg/Kg)		
Benzene	0.06	0.00202
Ethylbenzene	5.5	0.00014
Toluene	1.5	0.0028
Xylene (Total)	1.2	0.00047
VOC (mg/Kg)		
2-Butanone (Methyl Ethyl Ketone)	0.3	0.00202
Acetone	0.2	0.043
Isopropylbenzene	NA	NA
Styrene	NA	NA
Total VOC	10	NA
PAH (mg/kg)		
Acenaphthene	50	0.117
Acenaphthylene	41	0.259
Anthracene	50	0.488
Benzo(a)anthracene	0.224	2.599
Benzo(a)pyrene	0.061	1.046
Benzo(b)fluoranthene	1.1	0.728
Benzo(ghi)perylene	50	0.565
Benzo(k)fluoranthene	1.1	0.996
Chrysene	0.4	1.267
Dibenz(a,h)anthracene	0.014	0.162
Fluoranthene	50	3.416
Fluorene	50	0.267
Indeno(1,2,3-cd)pyrene	3.2	0.509
Naphthalene	13	0.476
Phenanthrene	50	3.949
Pyrene	50	4.525
SVOC (mg/Kg)		
2-Methylnaphthalene	36.4	0.106
4-Nitrophenol	0.1	NA
bis(2-Ethylhexyl) phthalate	50	0.823
Carbazole	NA	0.131
Dibenzofuran	6.2	0.197
Total SVOC	500	NA
Metals (mg/Kg)		
Aluminum	SB	7960
Antimony	NA	NA
Arsenic	7.5 or SB	13.63
Barium	300 or SB	124.7
Beryllium	0.16 or SB	0.463
Cadmium	1 or SB	0.2
Calcium	SB	11563
Chromium	10 or SB	36.69
Cobalt	30 or SB	5.698
Copper	25 of SB	35.84
Iron	2000 or SB	14369
Lead	SB	237.7
Magnesium	SB	3129
Manganese	SB	358.5
Mercury	0.1	1.305
Nickel	13 or SB	15.3
Potassium	SB	1197
Selenium	2 or SB	NA
Silver	SB	0.229
Sodium	SB	214.8
Vanadium	150 or SB	30.25
Zinc	20 or SB	81.77
Cyanide (mg/Kg)		
Available Cyanide	NA	NA
Cyanide, Total	NA	0.705

80 0 160
1"=160'

23MWD12	DEPTH 3
VOC (mg/kg)	
Acetone	0.083 J
Isopropylbenzene	0.0043 J
Total VOC	0.0873
SVOC (mg/kg)	
Acenaphthene	0.82
Acenaphthylene	0.28 J
Anthracene	1.4
Benzo(a)anthracene	
Benzo(a)pyrene	
Benzo(b)fluoranthene	0.85
Benzo(ghi)perylene	0.092 J
Benzo(k)fluoranthene	0.3 J
Chrysene	
Dibenz(a,h)anthracene	
Fluoranthene	2.8 D
Fluorene	1.1
Indeno(1,2,3-cd)pyrene	0.28 J
Naphthalene	0.49
Phenanthrene	4.2 D
Pyrene	4.3 D
2-Methylnaphthalene	0.12 J
4-Nitrophenol	
Carbazole	0.25 J
Dibenzofuran	0.59
Total SVOC	21.835
Metals (mg/Kg)	
Aluminum	5760
Arsenic	2.16
Barium	47.1
Beryllium	0.397 J
Calcium	3310
Chromium	10.5
Cobalt	4.500 J
Copper	26.2
Iron	10100
Lead	45.6
Magnesium	2690
Manganese	223
Mercury	
Nickel	9.9
Potassium	967
Silver	
Vanadium	19.1
Zinc	48.2
Cyanide (mg/Kg)	
Available Cyanide	1.4

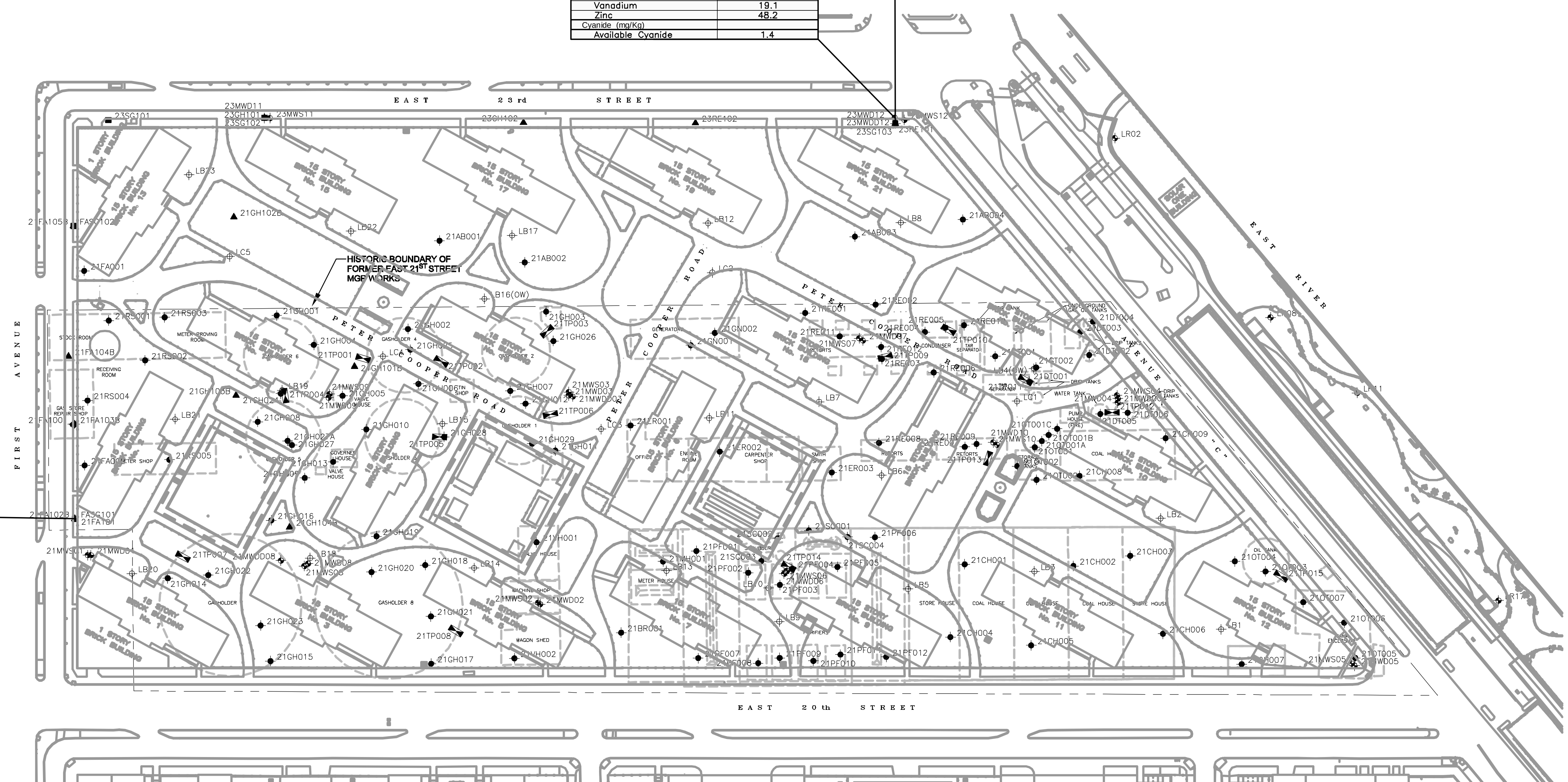
23RE101	DEPTH - 0.2 to 5
SVOC (mg/kg)	
Benzo(a)anthracene	0.088 J
Benzo(a)pyrene	
Benzo(b)fluoranthene	0.08 J
Chrysene	0.084 J
Fluoranthene	0.14 J
Indeno(1,2,3-cd)pyrene	0.053 J
Phenanthrene	0.065 J
Pyrene	0.15 J
Total SVOC	0.747
Metals (mg/Kg)	
Aluminum	5280
Antimony	16.6
Arsenic	1.5
Barium	39.1
Beryllium	0.423 J
Calcium	2460
Chromium	12.2
Cobalt	5.68
Copper	25.8
Iron	13700
Lead	7.98
Magnesium	2590
Manganese	320
Mercury	0.008 J
Nickel	11
Potassium	1050
Silver	
Sodium	
Vanadium	25.4
Zinc	31

LEGEND

EXISTING STRUCTURES
HISTORICAL STRUCTURES
LIMIT OF OU1
MONITORING WELL
SOIL BORING
SURFACE SOIL
SOIL GAS

NOTES:

1. ANALYTICAL RESULTS WERE COMPARED TO THE NYSDEC RSCOs. SHADED VALUES INDICATE AN EXCEEDENCE OF THE RCSOs.
2. TABLE 5-4 PROVIDES A SUMMARY OF ANALYTICS DETECTED AND THEIR CONCENTRATIONS IN RI UPPER FILL AND LOWER FILL/NATURAL SOIL SAMPLES.



21FA101	DEPTH - 0.5 to 4.5
VOC (mg/kg)	
Acetone	0.09 J
Total VOC	0.09
SVOC (mg/kg)	
bis(2-Ethylhexyl) phthalate	0.075 J
Total SVOC	
Metals (mg/Kg)	
Aluminum	7260
Antimony	7.91
Arsenic	3.34
Barium	35.3
Beryllium	0.461 J
Calcium	1430
Chromium	17.2
Cobalt	5.97
Copper	
Iron	11400
Lead	14.9
Magnesium	2360
Manganese	271
Mercury	0.048
Nickel	14.1
Potassium	1190
Selenium	0.492 J
Silver	
Sodium	166 J-
Vanadium	26.8
Zinc	44.8

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS

01869-170-729

DATE: 11/17/08 DRWN: BcV/W-MA

CONCENTRATIONS OF COMPOUNDS DETECTED IN RI UPPER FILL SOIL SAMPLES (0.2 FT. TO 5 FT. DEPTH) - 2006 OPERABLE UNIT 1 (OU1)

FIGURE 5-4

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

DATE: 11/17/08 | DRWN: BcV/W-MA

TOTAL VOCS IN SUBSURFACE SOILS OPERABLE UNIT 1 (OU1)

FIGURE 5-5

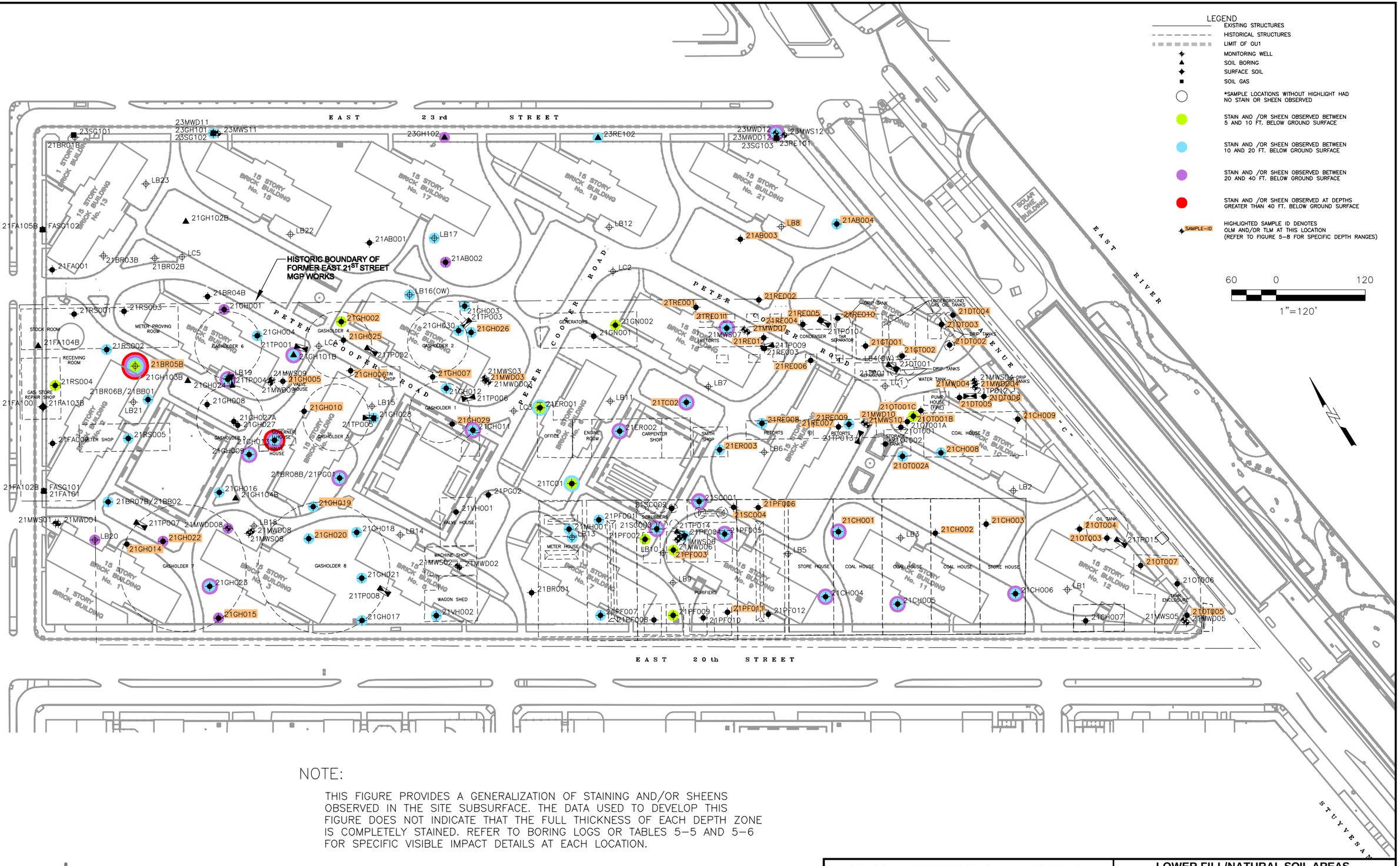
ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

DATE: 11/17/08 | DRWN: BcV/W-MA

TOTAL SVOCs IN SUBSURFACE SOILS OPERABLE UNIT 1 (OU1)

FIGURE 5-6



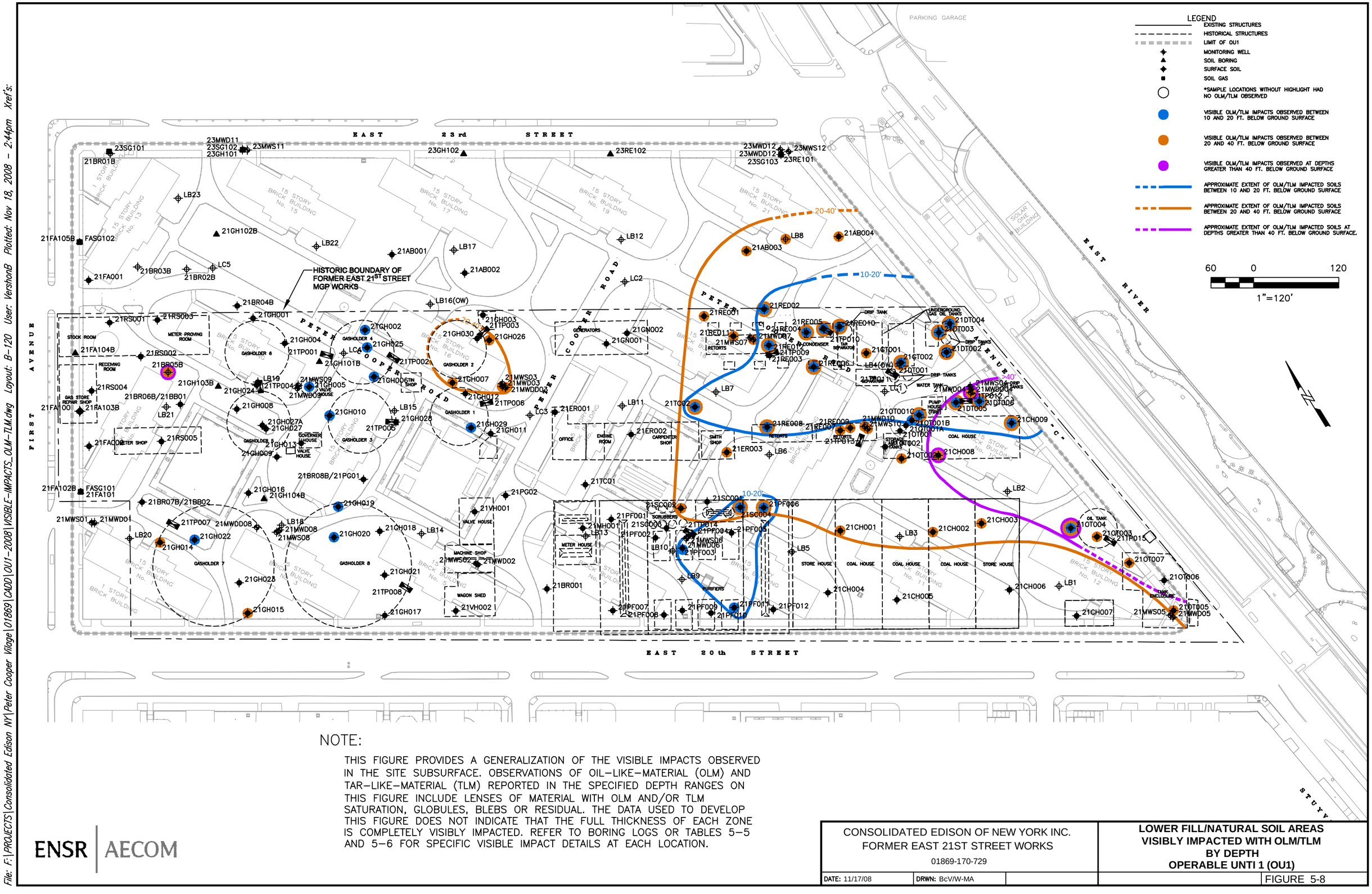
NOTE:

THIS FIGURE PROVIDES A GENERALIZATION OF STAINING AND/OR SHEENS OBSERVED IN THE SITE SUBSURFACE. THE DATA USED TO DEVELOP THIS FIGURE DOES NOT INDICATE THAT THE FULL THICKNESS OF EACH DEPTH ZONE IS COMPLETELY STAINED. REFER TO BORING LOGS OR TABLES 5-5 AND 5-6 FOR SPECIFIC VISIBLE IMPACT DETAILS AT EACH LOCATION.

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729		**LOWER FILL/NATURAL SOIL AREAS VISIBLY IMPACTED WITH STAINING OR SHEEN BY DEPTH OPERABLE UNIT 1 (OU1)**
DATE: 11/17/08	DRWN: BcVlW-MA	FIGURE 5-7

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\VISIBLE-IMPACTS_SHEEN-STAIN.dwg Layout: B-120 User: VershonB Plotted: Nov 18, 2008 - 2:40pm Xref's:



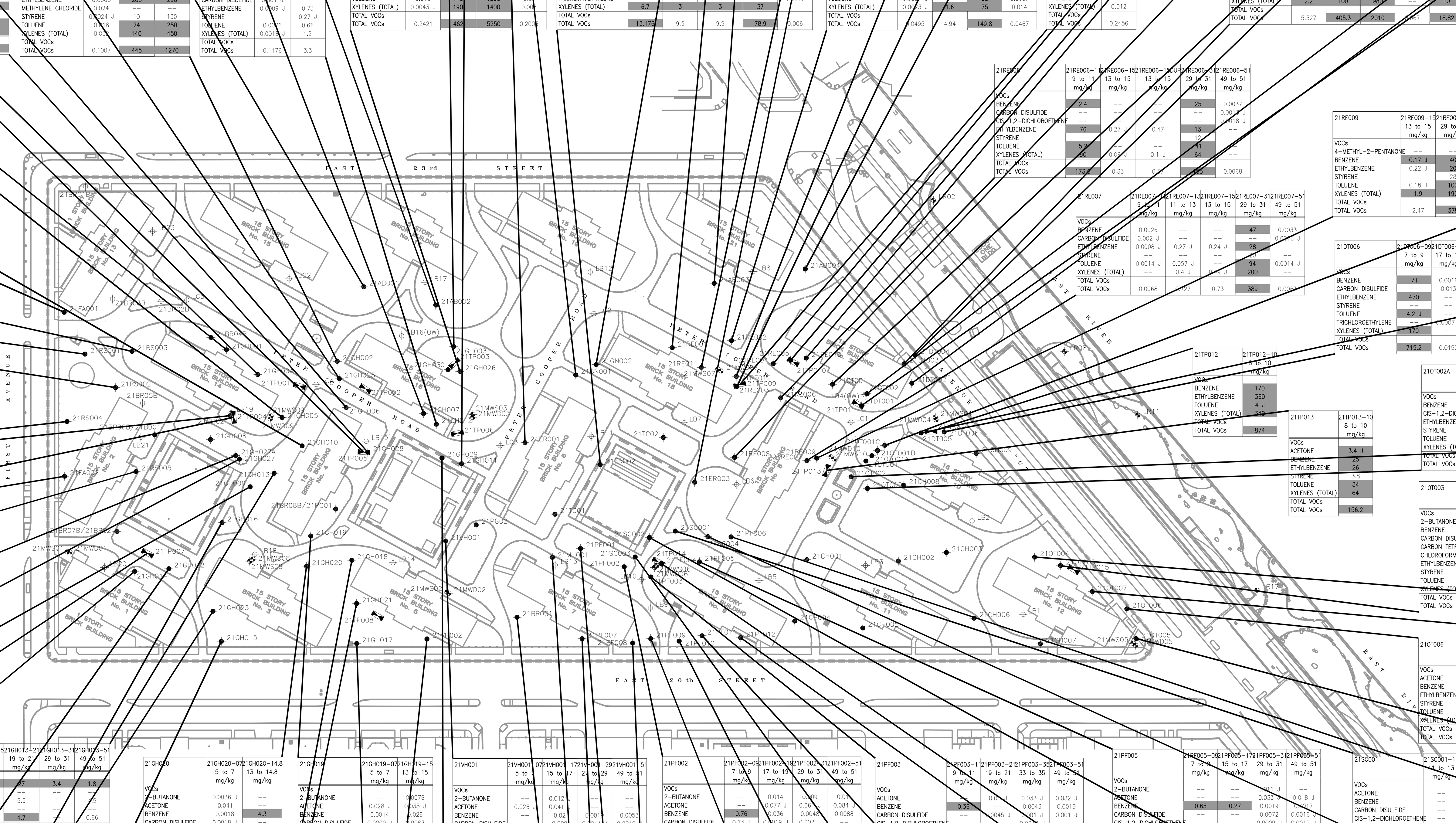
NOTE:

THIS FIGURE PROVIDES A GENERALIZATION OF THE VISIBLE IMPACTS OBSERVED IN THE SITE SUBSURFACE. OBSERVATIONS OF OIL-LIKE-MATERIAL (OLM) AND TAR-LIKE-MATERIAL (TLM) REPORTED IN THE SPECIFIED DEPTH RANGES ON THIS FIGURE INCLUDE LENSES OF MATERIAL WITH OLM AND/OR TLM SATURATION, GLOBULES, BLEBS OR RESIDUAL. THE DATA USED TO DEVELOP THIS FIGURE DOES NOT INDICATE THAT THE FULL THICKNESS OF EACH ZONE IS COMPLETELY VISIBLY IMPACTED. REFER TO BORING LOGS OR TABLES 5-5 AND 5-6 FOR SPECIFIC VISIBLE IMPACT DETAILS AT EACH LOCATION.

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729			**LOWER FILL/NATURAL SOIL AREAS VISIBLY IMPACTED WITH OLM/TLM BY DEPTH OPERABLE UNTI 1 (OU1)**
DATE: 11/17/08	DRWN: BcV/W-MA		FIGURE 5-8

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\VISIBLE-IMPACTS_OLM-TLM.dwg Layout: B-120 User: VershonB Plotted: Nov 18, 2008 - 2:44pm Xref's:



21GN001	21GN001-17	21GN001-21	21GN001-33	21GN001-51
	15 to 17	19 to 21	31 to 33	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	0.1 J	0.11 J	0.12 J
BENZENE	3.5	0.071	0.022	--
CARBON DISULFIDE	--	0.0039 J	0.001 J	0.0007 J
ETHYLBENZENE	2.2	0.025	0.0047 J	--
STYRENE	0.18 J	--	--	--
TOLUENE	0.82	0.0047 J	0.0053 J	--
XYLENES (TOTAL)	4.2	0.055	0.011	--
TOTAL VOCs				
TOTAL VOCs	10.9	0.2596	0.154	0.1207

21AB001	21AB001-09	21AB001-23	21AB001-29	21AB001-51
	7 to 9	21 to 23	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.017 J	--	0.035 J	0.028 J
BENZENE	--	2.1	0.082	0.0032
CARBON DISULFIDE	--	--	0.014	--
ETHYLBENZENE	--	--	0.052	--
METHYLENE CHLORIDE	0.019	--	--	--
TOLUENE	--	--	0.0013 J	--
XYLENES (TOTAL)	--	--	0.0054 J	--
TOTAL VOCs				
TOTAL VOCs	0.036	2.1	0.1897	0.0312

21AB002	21AB002-07	21AB002-19	21AB002-35	21AB002-51
	5 to 7	17 to 19	33 to 35	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.02 J	0.17 J	--	0.011 J
BENZENE	--	0.073	220	0.012
CARBON DISULFIDE	0.0007 J	0.0066 J	--	--
ETHYLBENZENE	--	0.092	220	0.0018 J
STYRENE	--	--	40	--
TOLUENE	0.0009 J	0.0083	260	0.0028 J
XYLENES (TOTAL)	--	0.11	250	--
TOTAL VOCs				
TOTAL VOCs	0.0216	0.4599	990	0.0276

21GH003	21GH003-09	21GH003-19	21GH003-29	21GH003-51
	7 to 9	17 to 19	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	0.011	--	--	0.0077
ACETONE	0.079 J	--	--	0.067 J
BENZENE	0.0027	3.8	4.5	0.011
CARBON DISULFIDE	0.0017 J	1.3	--	0.0008 J
CARBON TETRACHLORIDE	0.0016 J	--	--	0.0015 J
CHLOROFORM	0.0007 J	--	--	0.0005 J
CIS-1,2-DICHLOROETHENE	--	--	--	0.0007 J
ETHYLBENZENE	0.0009 J	18	0.32 J	0.0013 J
TOLUENE	0.0024 J	1.4	2	0.0039 J
TRICHLOROETHYLENE	--	--	--	0.0008 J
XYLENES (TOTAL)	0.0033 J	20	0.81	0.0034 J
TOTAL VOCs				
TOTAL VOCs	0.1033	44.5	7.63	0.0988

21GN002	21GN002-08	21GN002-15	21GN002-31	21GN002-51
	7 to 8	13 to 15	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	0.01 J	0.0063 J	0.0064 J	0.0058 J
ACETONE	0.15	0.12	0.13	0.12
BENZENE	0.0016	0.014	0.0096	--
CARBON DISULFIDE	0.0017 J	--	0.0014 J	--
ETHYLBENZENE	0.0087	0.03	--	--
STYRENE	--	0.0018 J	--	--
TOLUENE	0.0034 J	0.011	0.0013 J	--
XYLENES (TOTAL)	0.096	0.032	--	--
TOTAL VOCs				
TOTAL VOCs	0.2714	0.2151	0.1487	0.1258

21ER003	21ER003-13	21ER003-21	21ER003-33	21ER003-51
	11 to 13	19 to 21	31 to 33	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	--	--	0.031
BENZENE	0.1 J	--	0.2	0.0028
CARBON DISULFIDE	--	--	--	0.0015 J
CIS-1,2-DICHLOROETHENE	--	--	--	0.0023 J
ETHYLBENZENE	2.3	0.99	14	0.0018 J
TOLUENE	0.21 J	0.075 J	0.66	0.0031 J
TRICHLOROETHYLENE	--	--	--	0.0012 J
XYLENES (TOTAL)	5	1.4	27	0.0054 J
TOTAL VOCs				
TOTAL VOCs	7.61	2.465	41.86	0.0491

21RE003	21RE003-14	21RE003-14DUP	21RE003-18	21RE003-28	21RE003-50
	12 to 14	12 to 14	16 to 18	26 to 28	48 to 50
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
4-METHYL-2-PENTANONE	--	9.1	--	--	--
BENZENE	--	--	0.19	0.24	0.0075
CARBON DISULFIDE	--	--	--	--	0.001 J
CIS-1,2-DICHLOROETHENE	--	--	--	--	0.004 J
ETHYLBENZENE	41	13	0.25 J	0.5	0.0011 J
TOLUENE	--	--	--	0.29 J	0.0022 J
XYLENES (TOTAL)	53	15	0.34 J	1.1	0.003 J
TOTAL VOCs					
TOTAL VOCs	94	37.1	0.78	2.13	0.0188

21RE010	21RE010-07	21RE010-15	21RE010-29	21RE010-29DUP	21RE010-51
	5 to 7	13 to 15	27 to 29	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
ACETONE	0.026 J	--	--	--	0.035 J
BENZENE	0.0016	7.2	180	230	0.0046
ETHYLBENZENE	--	140	560	590	--
STYRENE	--	--	71	85	--
TOLUENE	--	--	430	520	0.002 J
XYLENES (TOTAL)	--	12 J	820	990	--
TOTAL VOCs					
TOTAL VOCs	0.0276	159.2	2061	2415	0.0416

21RE005	21RE005-11	21RE005-23	21RE005-29	21RE005-51
	10 to 11	21 to 23	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
BENZENE	2 J	210	400	0.0094
CIS-1,2-DICHLOROETHENE	--	--	--	0.0044 J
ETHYLBENZENE	120	420	900	0.0015 J
STYRENE	--	260	88	0.0003 J
TOLUENE	2.5 J	480	710	0.0024 J
XYLENES (TOTAL)	120	750	1400	0.0032 J
TOTAL VOCs				
TOTAL VOCs	244.5	2120	3498	0.0212

21GT001	21GT001-09	21GT001-19	21GT001-27	21GT001-51
	7 to 9	17 to 19	25 to 27	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.021 J	--	--	--
BENZENE	0.0023	15	96	0.017
CIS-1,2-DICHLOROETHENE	--	--	--	0.0008 J
ETHYLBENZENE	--	15	310	0.017
STYRENE	--	--	--	0.002 J
TOLUENE	--	0.62 J	230	0.019
TRICHLOROETHYLENE	--	--	--	0.001 J
XYLENES (TOTAL)	--	0.55 J	450	0.03
TOTAL VOCs				
TOTAL VOCs	0.0233	31.17	1086	0.0868

21GH004	21GH004-09	21GH004-09DUP	21GH004-19
	7 to 9	7 to 9	17 to 19
	mg/kg	mg/kg	mg/kg
VOCs			
ACETONE	0.015	--	--
BENZENE	0.0043 J	0.001 J	1.6
CARBON DISULFIDE	0.001 J	--	--
ETHYLBENZENE	0.0064	0.0005 J	34
STYRENE	0.0045 J	--	--
TOLUENE	0.0064	0.0008 J	1.7 J
XYLENES (TOTAL)	0.021	0.0023 J	54
TOTAL VOCs			
TOTAL VOCs	0.0586	0.0046	91.3

21GH006	21GH006-07	21GH006-19
	5 to 7	17 to 19
	mg/kg	mg/kg
VOCs		
2-BUTANONE	0.011	--
ACETONE	0.056 J	--
BENZENE	0.007	120
CARBON DISULFIDE	0.002 J	--
ETHYLBENZENE	0.0005 J	140
STYRENE	--	87
TOLUENE	0.002 J	220
XYLENES (TOTAL)	0.0016 J	280
TOTAL VOCs		
TOTAL VOCs	0.0801	847

21GH007	21GH007-07	21GH007-19	21GH007-33	21GH007-39	21GH007-41	21GH007-43	21GH007-51	21GH007-51DUP
	5 to 7	17 to 19	31 to 33	37 to 39	39 to 41	41 to 43	49 to 51	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs								
2-BUTANONE	--	0.015	--	--	--	--	--	--
ACETONE	0.046	0.11	--	--	--	--	0.11 J	0.087 J
BENZENE	0.0059	0.011	26	34	2.3	--	0.037	0.015
CARBON DISULFIDE	--	0.0053 J	--	--	--	--	0.0012 J	0.0006 J
ETHYLBENZENE	--	0.002 J	52	14	1	0.044 J	0.036	0.0069
STYRENE	--	0.0012 J	9.5	24	0.35	0.11 J	0.034	0.0053 J
TOLUENE	0.0027 J	0.0076	47	35	1.7	0.07 J	0.044	0.013
XYLENES (TOTAL)	--	0.0059	64	32	1.8	0.14 J	0.072	0.012
TOTAL VOCs								
TOTAL VOCs	0.0546	0.158	198.5	139	7.75	0.364	0.3342	0.1398

21GH001	21GH001-09	21GH001-25	21GH001-33	21GH001-51
	7 to 9	23 to 25	31 to 33	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.014 J	--	0.007	--
BENZENE	0.017 J	29	0.22 J	0.082
CARBON DISULFIDE	0.0014 J	--	0.0064	--
ETHYLBENZENE	0.0018 J	4.1	0.0042 J	0.0026 J
STYRENE	--	8	0.0014 J	--
TOLUENE	0.0058 J	28	0.011	0.0081
XYLENES (TOTAL)	0.0028 J	32	0.018	0.0053 J
TOTAL VOCs				
TOTAL VOCs	0.0428	101.1	0.268	0.098

21TP005	21TP005-10
	8 to 10
	mg/kg
VOCs	
ACETONE	0.069 J
BENZENE	0.015
CARBON DISULFIDE	0.016 J
ETHYLBENZENE	0.0013 J
TOLUENE	0.0049 J
XYLENES (TOTAL)	0.0029 J
TOTAL VOCs	
TOTAL VOCs	0.1091

21GH025	21GH025-11	21GH025-15	21GH025-17
	9 to 11	13 to 15	15 to 17
	mg/kg	mg/kg	mg/kg
VOCs			
BENZENE	0.99	330	420
ETHYLBENZENE	0.65	270	250
STYRENE	--	460	460
TOLUENE	0.086 J	650	720
XYLENES (TOTAL)	0.31 J	820	790
TOTAL VOCs			
TOTAL VOCs	2.036	2530	2640

21GH011	21GH011-11	21GH011-17	21GH011-29	21GH011-51
	9 to 11	15 to 17	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	0.0077	--	--	--
ACETONE	0.059	--	--	0.048
BENZENE	0.0071	9.9	4.7	0.014
CARBON DISULFIDE	0.0019 J	--	--	0.0011 J
CIS-1,2-DICHLOROETHENE	--	--	--	0.0022 J
ETHYLBENZENE	0.0036 J	1.4	100	0.02
STYRENE	--	0.04 J	--	--
TOLUENE	--	0.096 J	19	0.012
XYLENES (TOTAL)	0.0078	2	110	0.026
TOTAL VOCs				
TOTAL VOCs	0.0871	13.436	233.7	0.1233

21RE001	21RE001-09	21RE001-19	21RE001-29	21RE001-51
	7 to 9	17 to 19	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	--	--	--	0.005
BENZENE	0.0044	0.21	78	0.011
CARBON DISULFIDE	--	--	--	0.0008 J
ETHYLBENZENE	0.0015 J	1.2	17	0.0017 J
STYRENE	--	--	36	--
TOLUENE	0.0047 J	0.22 J	140	0.0062
TRICHLOROETHYLENE	--	--	--	0.0035
XYLENES (TOTAL)	0.0029 J	0.32 J	180	0.0031 J
TOTAL VOCs				
TOTAL VOCs	0.0135	1.95	451	0.0351

21ER001	21ER001-11	21ER001-15	21ER001-33	21ER001-51
	9 to 11	13 to 15	31 to 33	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	0.011	--	0.0099	0.0085
4-METHYL-2-PENTANONE	--	--	0.0021 J	--
ACETONE	0.096 J	--	0.089 J	0.088 J
BENZENE	0.051	0.35	0.0068	0.014
CARBON DISULFIDE	0.0019 J	--	--	0.0009 J
CIS-1,2-DICHLOROETHENE	--	--	0.0026 J	--
ETHYLBENZENE	0.2	4.3	0.0013 J	0.0013 J
STYRENE	0.013	0.44 J	--	--
TETRACHLOROETHENE	--	--	0.0006 J	--
TOLUENE	0.13	2	0.0034 J	0.0019 J
TRICHLOROETHYLENE	--	--	0.0008 J	--
XYLENES (TOTAL)	0.39	8.7	0.0036 J	0.0027 J
TOTAL VOCs				
TOTAL VOCs	0.8929	15.79	0.1201	0.1173

21AB003	21AB003-07	21AB003-23	21AB003-39	21AB003-51
	5 to 7	21 to 23	37 to 39	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
BENZENE	--	16	0.032	0.088
CARBON DISULFIDE	--	0.21 J	--	--
CIS-1,2-DICHLOROETHENE	--	--	0.0016 J	--
ETHYLBENZENE	--	20	0.039	0.19
STYRENE	--	--	0.0027 J	0.0072
TOLUENE	--	5.4	0.028	0.12
XYLENES (TOTAL)	--	26	0.086	0.37
TOTAL VOCs				
TOTAL VOCs	--	67.61	0.1893	0.7752

21RE012	21RE012-07	21RE012-21	21RE012-31	21RE012-31DUP	21RE012-51
	5 to 7	19 to 21	29 to 31	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
BENZENE	0.003	1.9	47	140	0.015
CARBON DISULFIDE	--	--	--	--	0.0008 J
CIS-1,2-DICHLOROETHENE	--	--	--	--	0.0014 J
ETHYLBENZENE	0.0007 J	2.8	21	92	0.0018 J
STYRENE	--	--	28	32	0.0021 J
TOLUENE	0.0017 J	0.2 J	99	230	0.007
XYLENES (TOTAL)	0.0026 J	2.9	150	370	0.0086
TOTAL VOCs					
TOTAL VOCs	0.008	7.8	345	864	0.0367

21RE004	21RE004-11	21RE004-21	21RE004-33	21RE004-41
	9 to 11	19 to 21	31 to 33	39 to 41
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
BENZENE	0.89	1	0.83	0.071 J
ETHYLBENZENE	15	9.7	0.14 J	0.38 J
STYRENE	--	--	--	0.05 J
TOLUENE	0.76 J	0.52 J	0.13 J	0.22 J
XYLENES (TOTAL)	15	10	0.35 J	0.73
TOTAL VOCs				
TOTAL VOCs	31.64	21.22	1.45	1.451

21DT004	21DT004-07	21DT004-15	21DT004-23	21DT004-37	21DT004-51
	5 to 7	13 to 15	21 to 23	35 to 37	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
ACETONE	--	--	--	--	0.02 J
BENZENE	6.9	14	150	6.7	0.0042
ETHYLBENZENE	220	130	210	100	0.0018 J
STYRENE	--	--	39	--	--
TOLUENE	28	3.3 J	190	1.6 J	0.0008 J
XYLENES (TOTAL)	500	320	550	130	0.0038 J
TOTAL VOCs					
TOTAL VOCs	754.9	467.3	1139	238.3	0.0306

21DT002	21DT002-09	21DT002-19	21DT002-37	21DT002-51
	7 to 9	17 to 19	35 to 37	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
BENZENE	0.001 J	190	0.76	0.16
CIS-1,2-DICHLOROETHENE	--	--	--	0.0009 J
ETHYLBENZENE	--	810	3.2	0.0074
TOLUENE	--	340	0.092 J	0.0019 J
XYLENES (TOTAL)	--	1300	3.1	0.011
TOTAL VOCs				
TOTAL VOCs	0.001	2640	7.152	0.1812

21RE011	21RE011-07	21RE011-21	21RE011-29	21RE011-51
	5 to 7	19 to 21	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
BENZENE	--	0.41	0.88	--
CARBON DISULFIDE	0.001 J	--	--	--
ETHYLBENZENE	--	13	1.5	--
STYRENE	--	--	1.3	--
TOLUENE	--	0.34 J	3.3	--
XYLENES (TOTAL)	--	14	11	--
TOTAL VOCs				
TOTAL VOCs	0.001	27.75	17.98	--

21AB004	21AB004-07	21AB004-23	21AB004-27	21AB004-41	21AB004-51
	5 to 7	21 to 23	25 to 27	39 to 41	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
ACETONE	0.02 J	--	--	--	0.02 J
BENZENE	--	61	130	0.4	0.0025
ETHYLBENZENE	--	140	62	0.62	0.0019 J
STYRENE	--	8 J	71	--	--
TOLUENE	--	160	250	0.76	0.0032 J
TRICHLOROETHYLENE	0.0009 J	--	--	--	--
XYLENES (TOTAL)	--	270	370	1.4	0.0027 J
TOTAL VOCs					
TOTAL VOCs	0.0209	639	883	3.18	0.0311

21RE008	21RE008-13	21RE008-19	21RE008-19DUP	21RE008-31	21RE008-51
	11 to 13	17 to 19	17 to 19	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
ACETONE	--	--	--	--	0.049
BENZENE	0.61	1.3	1	3.4	0.0044
CIS-1,2-DICHLOROETHENE	--	--	--	--	0.0008 J
ETHYLBENZENE	0.49	14	8.4	2.2	--
STYRENE	--	--	--	0.24 J	--
TOLUENE	0.33 J	0.62	0.38 J	3.7	--
XYLENES (TOTAL)	0.49 J	17	10	10	--
TOTAL VOCs					
TOTAL VOCs	1.92	32.92	19.78	19.54	0.0542

21GT002	21GT002-07	21GT002-17	21GT002-27	21GT002-43	21GT002-51
	5 to 7	15 to 17	25 to 27	41 to 43	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
BENZENE	0.016	0.4	96	0.16	--
ETHYLBENZENE	--	11	460	3.4	0.081
STYRENE	--	--	14	--	--
TOLUENE	0.01	--	120	0.062 J	0.0021 J
XYLENES (TOTAL)	--	1.6	650	3.5	0.088
TOTAL VOCs					
TOTAL VOCs	0.026	13	1340	7.122	0.1711

21GH026	21GH026-11	21GH026-25	21GH026-29	21GH026-51
	9 to 11	23 to 25	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	0.018	--	--	0.01
ACETONE	0.15	--	--	0.11
BENZENE	0.048	21	1100	0.063
CARBON DISULFIDE	0.0049 J	--	--	0.0012 J
ETHYLBENZENE	0.0019 J	110	570	0.0061
STYRENE	--	31	680	0.0022 J
TOLUENE	0.015	110	1500	0.01
XYLENES (TOTAL)	0.0043 J	190	1400	0.008
TOTAL VOCs				
TOTAL VOCs	0.2421	462	5250	0.2005

21ER002	21ER002-12	21ER002-20	21ER002-20DUP	21ER002-26	21ER002-51
	10 to 12	18 to 20	18 to 20	24 to 26	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
BENZENE	0.076 J	2.2	2.5	1.9	0.0016
CARBON DISULFIDE	--	--	--	--	0.0008 J
CIS-1,2-DICHLOROETHENE	--	--	--	--	0.0022 J
ETHYLBENZENE	6.4	4.3	4.4	30	--
STYRENE	--	--	--	3.2	--
TOLUENE	--	--	--	6.8	--
TRICHLOROETHYLENE	--	--	--	--	0.0015
XYLENES (TOTAL)	6.7	3	3	37	--
TOTAL VOCs					
TOTAL VOCs	13.176	9.5	9.9	78.9	0.006

21RE002	21RE002-11	21RE002-13	21RE002-29	21RE002-51
	9 to 11	11 to 13	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.038 J	--	--	--
BENZENE	0.0035	0.34	12	0.013
CARBON DISULFIDE	0.001 J	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	0.001 J
ETHYLBENZENE	0.0026	3	15	0.012
STYRENE	--	--	9.8	--
TOLUENE	0.0021 J	--	38	0.0067
XYLENES (TOTAL)	0.0083 J	1.6	75	0.014
TOTAL VOCs				
TOTAL VOCs	0.0495	4.94	149.8	0.0467

21TP009	21TP009-09
	7 to 9
	mg/kg
VOCs	
2-BUTANONE	0.027 J
ACETONE	0.091 J
BENZENE	0.082
CARBON DISULFIDE	0.014
ETHYLBENZENE	0.0076
STYRENE	0.0013 J
TOLUENE	0.016
XYLENES (TOTAL)	0.012
TOTAL VOCs	
TOTAL VOCs	0.2456

21DT003	21DT003-09	21DT003-15	21DT003-21	21DT003-33	21DT003-37	21DT003-51	21DT003-51DUP
	7 to 9	13 to 15	19 to 21	31 to 33	35 to 37	49 to 51	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs							
ACETONE	--	--	--	--	--	0.047	0.064
BENZENE	0.75	23	120	0.067 J	0.62	0.0031	0.0028
ETHYLBENZENE	2.1	280	670	--	8.1	--	--
STYRENE	0.077 J	--	10 J	--	--	--	--
TOLUENE	0.4 J	2.3 J	230	--	0.1 J	0.0017 J	0.0016 J
TRICHLOROETHYLENE	--	--	--	--	--	0.0015	0.0016
XYLENES (TOTAL)	2.2	100	980	--	10	--	--
TOTAL VOCs							
TOTAL VOCs	5.527	405.3	2010	0.067	18.82	0.0533	0.07

21DT001	21DT001-14	21DT001-18	21DT001-28	21DT001-28DUP	21DT001-42	21DT001-44	21DT001-50	21TP011-09
	12 to 14	16 to 18	26 to 28	26 to 28	40 to 42	42 to 44	48 to 50	6.5 to 8.5
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs								
BENZENE	2.6	2.6	76	64	0.44	1.5	--	1.1
ETHYLBENZENE	30	10	44	42	4.1	27	0.094 J	25
STYRENE	--	--	82	78	0.23 J	0.59 J	--	--
TOLUENE	--	0.12 J	240	220	0.44 J	1.7 J	--	0.36 J
XYLENES (TOTAL)	4.3	1.8	440	420	5.1	33	--	11
TOTAL VOCs								
TOTAL VOCs	36.9	14.52	882	824	10.31	63.79	0.094	37.46

21GH028	21GH028-18	21GH028-19
	16 to 18	18 to 19
	mg/kg	mg/kg
VOCs		
BENZENE	5.1	23
CARBON DISULFIDE	--	0.35 J
ETHYLBENZENE	2.9	24
STYRENE	--	26
TOLUENE	0.35 J	30
XYLENES (TOTAL)	1.7	60
TOTAL VOCs		
TOTAL VOCs	10.05	163.35

21GH002	21GH002-07	21GH002-15	21GH002-17
	5 to 7	13 to 15	15 to 17
	mg/kg	mg/kg	mg/kg
VOCs			
BENZENE	0.017	71	150
CARBON DISULFIDE	0.0007 J	--	--
ETHYLBENZENE	0.0066	200	290
METHYLENE CHLORIDE	0.024	--	--
STYRENE	0.0024 J	10	130
TOLUENE	0.018	24	250
XYLENES (TOTAL)	0.032	140	450
TOTAL VOCs			
TOTAL VOCs	0.1007	445	1270

21GH012	21GH012-11	21GH012-18
	9 to 11	17 to 17.4
	mg/kg	mg/kg
VOCs		
2-BUTANONE	0.0093	--
ACETONE	0.068	--
BENZENE	0.029	0.44
CARBON DISULFIDE	0.001 J	--
ETHYLBENZENE	0.0009 J	0.73
STYRENE	--	0.27 J
TOLUENE	0.0076	0.66
XYLENES (TOTAL)	0.0018 J	1.2
TOTAL VOCs		
TOTAL VOCs	0.1176	3.3

21GH005	21GH005-15	21GH005-17	21GH005-31	21GH005-51
	13 to 15	15 to 17	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	0.019	--	--
BENZENE	44	0.054 J	3	0.44
CARBON DISULFIDE	--	0.001 J	--	--
ETHYLBENZENE	19	0.003 J	0.17 J	--
STYRENE	--	0.0008 J	--	--
TOLUENE	12	0.0041 J	--	--
XYLENES (TOTAL)	17	0.006	--	--
TOTAL VOCs				
TOTAL VOCs	92	0.0879	3.17	0.44

21FA001	21FA001-07
	5 to 7
	mg/kg
VOCs	
ACETONE	0.028 J
BENZENE	0.002
CARBON DISULFIDE	0.0043 J
TETRACHLOROETHENE	0.0021
TOLUENE	0.0014 J
TOTAL VOCs	
TOTAL VOCs	0.0378

21GH010	21GH010-17	21GH010-19	21GH010-20
	15 to 17	17 to 19	18 to 20
	mg/kg	mg/kg	mg/kg
VOCs			
BENZENE	4	9.1	9.6
ETHYLBENZENE	3.2	16	13
STYRENE	--	--	1.4
TOLUENE	0.39 J	0.45 J	6.6
XYLENES (TOTAL)	1.6	11	15
TOTAL VOCs			
TOTAL VOCs	9.19	36.55	45.6

21RS003	21RS003-08	21RS003-17	21RS003-20
	7 to 8	15 to 17	19 to 20
	mg/kg	mg/kg	mg/kg
VOCs			
ACETONE	0.029 J	0.013 J	0.043 J
BENZENE	0.0064	--	0.059 J
CARBON DISULFIDE	0.024 J	--	0.011 J
ETHYLBENZENE	0.0017 J	--	0.0025 J
METHYLENE CHLORIDE	--	--	0.026
TOLUENE	0.0021 J	--	0.0023 J
XYLENES (TOTAL)	0.0028 J	--	0.0041 J
TOTAL VOCs			
TOTAL VOCs	0.066	0.013	0.1479

21RS002	21RS002-11	21RS002-17
	9 to 11	15 to 17
	mg/kg	mg/kg
VOCs		
ACETONE	0.012	0.02
BENZENE	--	0.0061
CARBON DISULFIDE	0.001 J	0.0092
ETHYLBENZENE	--	0.0049 J
STYRENE	--	0.0016 J
TOLUENE	--	0.0038 J
XYLENES (TOTAL)	--	0.025
TOTAL VOCs		
TOTAL VOCs	0.013	0.0706

21RS001	21RS001-07
	5 to 7
	mg/kg
VOCs	
ACETONE	0.04 J
BENZENE	0.0028
CARBON DISULFIDE	0.0033 J
TETRACHLOROETHENE	0.0019
TOLUENE	0.0025 J
TOTAL VOCs	
TOTAL VOCs	0.0501

21RE006	21RE006-11	21RE006-15	21RE006-15DUP	21RE006-31	21RE006-51
	9 to 11	13 to 15	13 to 15	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
BENZENE	2.4	--	--	25	0.0037
CARBON DISULFIDE	--	--	--	--	0.0013 J
CIS-1,2-DICHLOROETHENE	--	--	--	--	0.0018 J
ETHYLBENZENE	76	0.27 J	0.47	13	--
STYRENE	--	--	--	12	--
TOLUENE	5.2	--	--	41	--
XYLENES (TOTAL)	90	0.06 J	0.1 J	64	--
TOTAL VOCs					
TOTAL VOCs	173.6	0.33	0.57	155	0.0068

21RE009	21RE009-15	21RE009-31	21RE009-31DUP	21RE009-33	21RE009-51
	13 to 15	29 to 31	29 to 31	31 to 33	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
4-METHYL-2-PENTANONE	--	--	--	0.14 J	--
BENZENE	0.17 J	40	66	1.7	0.0066
ETHYLBENZENE	0.22 J	20	19	2.3	--
STYRENE	--	28	38	--	--
TOLUENE	0.18 J	100	150	1.1	0.0021 J
XYLENES (TOTAL)	1.9	190	240	4.4	--
TOTAL VOCs					
TOTAL VOCs	2.47	378	513	9.64	0.0087

21OT001C	21OT001C-09	21OT001C-15	21OT001C-31	21OT001C-51
	7 to 9	13 to 15	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	--	--	0.046
BENZENE	--	15	1.2	0.041
CIS-1,2-DICHLOROETHENE	--	--	--	0.0009 J
ETHYLBENZENE	0.071 J	44	2.8	0.01
STYRENE	--	--	1.6	--
TOLUENE	--	0.86 J	5.4	0.0029 J
XYLENES (TOTAL)	--	37	13	0.014
TOTAL VOCs				
TOTAL VOCs	0.071	96.86	24	0.1148

21RE007	21RE007-11	21RE007-13	21RE007-15	21RE007-31	21RE007-51
	9 to 11	11 to 13	13 to 15	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
BENZENE	0.0026	--	--	47	0.0033
CARBON DISULFIDE	0.002 J	--	--	--	0.0016 J
ETHYLBENZENE	0.0008 J	0.27 J	0.24 J	28	--
STYRENE	--	--	--	20	--
TOLUENE	0.0014 J	0.057 J	--	94	0.0014 J
XYLENES (TOTAL)	--	0.4 J	0.49 J	200	--
TOTAL VOCs					
TOTAL VOCs	0.0068	0.727	0.73	389	0.0063

21DT005	21DT005-11	21DT005-19	21DT005-29	21DT005-51
	9 to 11	17 to 19	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
BENZENE	0.29	0.0073	13	0.036
CIS-1,2-DICHLOROETHENE	--	--	--	0.0006 J
ETHYLBENZENE	0.55	0.0038 J	20	--
STYRENE	--	--	33	--
TOLUENE	0.14 J	--	59	0.012
XYLENES (TOTAL)	0.3 J	0.0022 J	180	--
TOTAL VOCs				
TOTAL VOCs	1.28	0.0133	305	0.0486

21DT006	21DT006-09	21DT006-19	21DT006-29	21DT006-39	21DT006-51
	7 to 9	17 to 19	27 to 29	37 to 39	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
BENZENE	71	0.0016	11	1.9 J	--
CARBON DISULFIDE	--	0.013	--	--	--
ETHYLBENZENE	470	--	55	160	--
STYRENE	--	--	5.7	--	--
TOLUENE	4.2 J	--	43	--	--
TRICHLOROETHYLENE	--	0.0007 J	--	--	--
XYLENES (TOTAL)	170	--	130	140	--
TOTAL VOCs					
TOTAL VOCs	715.2	0.0153	244.7	301.9	--

21TP012	21TP012-10
	8 to 10
	mg/kg
VOCs	
BENZENE	170
ETHYLBENZENE	360
TOLUENE	4 J
XYLENES (TOTAL)	340
TOTAL VOCs	
TOTAL VOCs	874

21TP013	21TP013-10
	8 to 10
	mg/kg
VOCs	
ACETONE	3.4 J
BENZENE	25
ETHYLBENZENE	26
STYRENE	3.8
TOLUENE	34
XYLENES (TOTAL)	64
TOTAL VOCs	
TOTAL VOCs	156.2

21OT002A	21OT002A-07	21OT002A-15	21OT002A-33	21OT002A-47	21OT002A-51
	5 to 7	13 to 15	31 to 33	45 to 47	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
BENZENE	0.0006 J	0.4	25	0.49 J	0.0024
CIS-1,2-DICHLOROETHENE	--	--	--	--	0.0009 J
ETHYLBENZENE	0.0014 J	14	480	21	0.018
STYRENE	--	--	13 J	--	--
TOLUENE	--	0.081 J	94	--	0.0038 J
XYLENES (TOTAL)	--	1.6	460	5.7 J	0.016
TOTAL VOCs					
TOTAL VOCs	0.002	16.081	1072	27.19	0.0411

21OT002	21OT002-07
	5 to 6.5
	mg/kg
VOCs	
BENZENE	0.002
ETHYLBENZENE	0.002 J
TOLUENE	0.0016 J
XYLENES (TOTAL)	0.0019 J
TOTAL VOCs	
TOTAL VOCs	0.0075

21RS004	21RS004-07	21RS004-08
	5 to 7	7 to 8
	mg/kg	mg/kg
VOCs		
ACETONE	0.032 J	0.056 J
BENZENE	0.024	0.053
CARBON DISULFIDE	0.0007 J	0.018
ETHYLBENZENE	--	0.049
STYRENE	0.0005 J	0.21
TOLUENE	0.0037 J	0.11
XYLENES (TOTAL)	0.0012 J	0.33
TOTAL VOCs		
TOTAL VOCs	0.0621	0.826

21TP004	21TP004-07
	5 to 7
	mg/kg
VOCs	
BENZENE	0.005
CARBON DISULFIDE	0.0009 J
ETHYLBENZENE	0.0007 J
TOLUENE	0.0019 J
XYLENES (TOTAL)	0.0017 J
TOTAL VOCs	
TOTAL VOCs	0.0102

21GH024	21GH024-17	21GH024-21	21GH024-29	21GH024-35	21GH024-51
	15 to 17	19 to 21	27 to 29	33 to 35	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
ACETONE	0.092 J	--	--	--	--
BENZENE	0.038	6.7	22	25	7.1
CARBON DISULFIDE	0.0091	--	--	--	--
ETHYLBENZENE	0.0014 J	2.8	24	54	2
STYRENE	--	--	47	5.2 J	--
TOLUENE	0.0077	1.1	61	85	0.16 J
XYLENES (TOTAL)	0.0032 J	7.4	160	160	0.66
TOTAL VOCs					
TOTAL VOCs	0.1514	18	314	329.2	9.92

21FA002	21FA002-09
	7 to 9
	mg/kg
VOCs	
ETHYLBENZENE	14 J
TOLUENE	20 J
XYLENES (TOTAL)	68
TOTAL VOCs	
TOTAL VOCs	102

21OT003	21OT003-11	21OT003-19	21OT003-29	21OT003-29DUP	21OT003-51
	9 to 11	17 to 19	27.5 to 29	27.5 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
2-BUTANONE	--	0.0049 J	--	--	--
BENZENE	1.9	--	3	1.1	0.0015
CARBON DISULFIDE	--	0.0011 J	--	--	--
CARBON TETRACHLORIDE	--	0.002 J	--	--	--
CHLOROFORM	--	0.0039 J	--	--	--
ETHYLBENZENE	1.7	--	19	12	0.0027 J
STYRENE	--	--	14	4	0.0009 J
TOLUENE	0.2 J	--	27	12	0.0039 J
XYLENES (TOTAL)	0.8 J	--	130	65	0.015
TOTAL VOCs					
TOTAL VOCs	4.6	0.0119	193	94.1	0.024

21OT004	21OT004-13	21OT004-17	21OT004-31	21OT004-31DUP	21OT004-45	21OT004-51
	11 to 13	15 to 17	29 to 31	29 to 31	43 to 45	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs						
ACETONE	0.036	--	--	--	--	0.029
BENZENE	--	0.079 J	0.75	0.63	--	0.0008 J
CARBON DISULFIDE	0.0009 J	--	--	--	--	--
ETHYLBENZENE	--	0.11 J	14	40	0.039 J	--
TETRACHLOROETHENE	--	--	--	--	--	0.0023
TOLUENE	--	--	4.7	3.8	--	--
TRICHLOROETHYLENE	--	--	--	--	--	0.0019
XYLENES (TOTAL)	--	--	39	41	--	--
TOTAL VOCs						
TOTAL VOCs	0.0369	0.189	58.45	85.43	0.039	0.034

21RS005	21RS005-11	21RS005-15	21RS005-27	21RS005-31	21RS005-39
	9 to 11	13 to 15	25 to 27	29 to 31	37 to 39
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
2-BUTANONE	--	--	--	0.012 J	--
ACETONE	0.048 J	--	--	0.068 J	--
BENZENE	0.012	0.39 J	8.4	0.052	0.0098
CARBON DISULFIDE	--	--	--	0.024	0.0017 J
ETHYLBENZENE	0.0007 J	0.56 J	0.18 J	0.001 J	--
TOLUENE	0.0094	0.79 J	0.69 J	0.0035 J	--
XYLENES (TOTAL)	0.003 J	1.5 J	0.77 J	--	--
TOTAL VOCs					
TOTAL VOCs	0.0731	3.24	10.04	0.1605	0.0115

21GH027A	21GH027A-119	21GH027A-31	21GH027A-91
	117 to 119	29 to 31	89 to 91
	mg/kg	mg/kg	mg/kg
VOCs			
ACETONE	0.033 J	--	--
BENZENE	0.0007 J	33	0.0056
CARBON DISULFIDE	0.0006 J	--	--
ETHYLBENZENE	--	5.7	--
METHYLENE CHLORIDE	--	--	0.018
STYRENE	--	0.6 J	--
TOLUENE	0.001 J	34	0.002 J
XYLENES (TOTAL)	--	32	--
TOTAL VOCs			
TOTAL VOCs	0.0353	105.3	0.0256

21GH027	21GH027-07	21GH027-25
	5 to 7	23 to 25
	mg/kg	mg/kg
VOCs		
BENZENE	--	1.2
ETHYLBENZENE	--	6.7
STYRENE	--	0.24 J
TOLUENE	--	3.7
XYLENES (TOTAL)	--	9.9
TOTAL VOCs		
TOTAL VOCs	--	21.74

21TP007	21TP007-07	21TP007-10
	5 to 7	8 to 10
	mg/kg	mg/kg
VOCs		
BENZENE	0.0059	0.0071
CARBON DISULFIDE	0.0013 J	0.0034 J
ETHYLBENZENE	--	0.0016 J
TOLUENE	0.0024 J	0.0042 J
XYLENES (TOTAL)	--	0.0024 J
TOTAL VOCs		
TOTAL VOCs	0.0096	0.0187

21GH013	21GH013-09	21GH013-15	21GH013-21	21GH013-31	21GH013-51
	7 to 9	13 to 15	19 to 21	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
BENZENE	0.082	5	27	3.4	1.8
CARBON DISULFIDE	0.0041 J	--	--	--	--
ETHYLBENZENE	0.0054	1.2	5.5	1	2.5
TOLUENE	0.018	--	--	--	--
XYLENES (TOTAL)	0.0097	0.69	4.7	--	0.66
TOTAL VOCs					
TOTAL VOCs	0.1192	6.89	37.2	4.4	6.96

21GH020	21GH020-07	21GH020-14.8
	5 to 7	13 to 14.8
	mg/kg	mg/kg
VOCs		
2-BUTANONE	0.0036 J	--
ACETONE	0.041	--
BENZENE	0.0018	4.3
CARBON DISULFIDE	0.0018 J	--
CHLOROFORM	0.0011 J	--
ETHYLBENZENE	0.0008 J	54
TETRACHLOROETHENE	0.0016	--
TOLUENE	--	22
XYLENES (TOTAL)	0.0023 J	96
TOTAL VOCs		
TOTAL VOCs	0.054	176.3

21GH019	21GH019-07	21GH019-15
	5 to 7	13 to 15
	mg/kg	mg/kg
VOCs		
2-BUTANONE	--	0.0076
ACETONE	0.028 J	0.035 J
BENZENE	0.0014	0.029
CARBON DISULFIDE	0.0009 J	0.0063
ETHYLBENZENE	0.0012 J	0.0022 J
STYRENE	--	0.001 J
TETRACHLOROETHENE	0.0009 J	--
XYLENES (TOTAL)	0.003 J	0.014
TOTAL VOCs		
TOTAL VOCs	0.0354	0.0951

21VH001	21VH001-07	21VH001-17	21VH001-29	21VH001-51
	5 to 7	15 to 17	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	--	0.012 J	--	--
ACETONE	0.026 J	0.041 J	--	--
BENZENE	--	0.02	0.0019	0.0053
CARBON DISULFIDE	--	0.008	0.0014 J	0.0019 J
ETHYLBENZENE	--	0.0014 J	--	--
TOLUENE	--	0.0014 J	--	--
XYLENES (TOTAL)	--	0.0028 J	--	--
TOTAL VOCs				
TOTAL VOCs	0.026	0.0866	0.0033	0.0072

21PF002	21PF002-09	21PF002-19	21PF002-31	21PF002-51
	7 to 9	17 to 19	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	--	0.014	0.009	0.011
ACETONE	--	0.077 J	0.061 J	0.084 J
BENZENE	0.76	0.036	0.0048	0.0088
CARBON DISULFIDE	0.13 J	0.0019 J	0.002 J	--
ETHYLBENZENE	0.34 J	0.0094	--	--
STYRENE	0.7	--	--	--
TOLUENE	0.99	0.0036 J	--	--
TRICHLOROETHYLENE	--	--	0.0007 J	--
XYLENES (TOTAL)	1.9	0.016	0.0013 J	--
TOTAL VOCs				
TOTAL VOCs	4.83	0.1579	0.0788	0.1038

21PF003	21PF003-11	21PF003-21	21PF003-35	21PF003-51
	9 to 11	19 to 21	33 to 35	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	0.03 J	0.033 J	0.032 J
BENZENE	0.36	--	0.0043	0.0019
CARBON DISULFIDE	--	0.0045 J	0.001 J	0.001 J
CIS-1,2-DICHLOROETHENE	--	--	0.0012 J	--
ETHYLBENZENE	4.2	--	--	--
TOLUENE	0.17 J	--	0.0009 J	--
TRICHLOROETHYLENE	--	--	0.0018	--
XYLENES (TOTAL)	1.5	--	--	--
TOTAL VOCs				
TOTAL VOCs	6.23	0.0345	0.0422	0.0349

21PF005	21PF005-09	21PF005-17	21PF005-31	21PF005-51
	7 to 9	15 to 17	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	--	--	0.011 J	--
ACETONE	--	--	0.033 J	0.018 J
BENZENE	0.65	0.27	0.0019	0.0017
CARBON DISULFIDE	--	--	0.0072	0.0016 J
CIS-1,2-DICHLOROETHENE	--	--	0.0009 J	0.0019 J
ETHYLBENZENE	1.8	0.71	0.0034 J	--
STYRENE	--	--	0.0008 J	--
TOLUENE	0.38 J	0.2 J	0.0012 J	--
TRICHLOROETHYLENE	--	--	0.0021	0.0019
XYLENES (TOTAL)	2	0.9	0.0031 J	--
TOTAL VOCs				
TOTAL VOCs	4.83	2.08	0.0646	0.0251

21SC001	21SC001-13	21SC001-17	21SC001-25	21SC001-51
	11 to 13	15 to 17	23 to 25	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	--	--	0.028 J
BENZENE	--	0.75	24	0.033
CARBON DISULFIDE	--	--	--	0.001 J
CIS-1,2-DICHLOROETHENE	--	--	--	0.0093
ETHYLBENZENE	0.23 J	12	68	0.0007 J
STYRENE	--	--	150	--
TOLUENE	--	1.2	40	0.0094
XYLENES (TOTAL)	0.26 J	12	120	0.0016 J
TOTAL VOCs				
TOTAL VOCs	0.49	25.95	402	0.083

21OT006	21OT006-15	21OT006-27	21OT006-51
	13 to 15	25 to 27	49 to 51
	mg/kg	mg/kg	mg/kg
VOCs			
ACETONE	0.035 J	--	0.059 J
BENZENE	--	0.29	--
ETHYLBENZENE	--	7.8	--
STYRENE	--	0.41 J	--
TOLUENE	--	2.5	0.0014 J
XYLENES (TOTAL)	--	22	--
TOTAL VOCs			
TOTAL VOCs	0.035	33	0.0604

21OT007	21OT007-09	21OT007-15	21OT007-27	21OT007-51
	7 to 9	13 to 15	25 to 27	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.034	--	0.026	0.033 J
BENZENE	--	--	0.027	--
CARBON DISULFIDE	--	0.0009 J	0.0011 J	0.0006 J
ETHYLBENZENE	--	--	0.064	--
TOLUENE	--	--	0.023	--
XYLENES (TOTAL)	--	--	0.15	--
TOTAL VOCs				
TOTAL VOCs	0.034	0.0009	0.2911	0.0336

21OT005	21OT005-07	21OT005-15	21OT005-15DUP	21OT005-25	21OT005-51
	5 to 7	13 to 15	13 to 15	23 to 25	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
BENZENE	--	0.001 J	0.003	0.046 J	--
CARBON DISULFIDE	--	0.0014 J	0.0011 J	--	--
ETHYLBENZENE	0.0013 J	0.0012 J	0.0067	0.71	--
STYRENE	--	--	--	0.12 J	--
TOLUENE	0.0006 J	--	0.0011 J	0.3 J	--
XYLENES (TOTAL)	0.0018 J	0.0021 J	0.012	3	--
TOTAL VOCs					
TOTAL VOCs	0.0037	0.0057	0.0239	4.176	--

21GH009	21GH009-07	21GH009-21	21GH009-37	21GH009-49
	5 to 7	19 to 21	35 to 37	47 to 49
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.12 J	--	--	--
BENZENE	0.0036	2.9	0.46	0.04
ETHYLBENZENE	0.0028 J	3.1	0.19 J	0.0096
STYRENE	0.0011 J	0.11 J	--	--
TOLUENE	0.0048 J	0.32 J	--	0.0058 J
XYLENES (TOTAL)	0.012	3.1	0.14 J	0.0019 J
TOTAL VOCs				
TOTAL VOCs	0.1443	9.53	0.79	0.0573

21GH014	21GH014-09	21GH014-19	21GH014-29	21GH014-40
	7 to 9	17 to 19	27 to 29	39 to 40.3
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	--	0.0057 J	--	--
ACETONE	0.1	0.11	0.16	--
BENZENE	0.009	--	0.012	81
CARBON DISULFIDE	0.0049 J	--	0.003 J	--
ETHYLBENZENE	--	--	0.014	88
STYRENE	--	--	0.0013 J	66
TOLUENE	0.0026 J	--	0.0027 J	230
XYLENES (TOTAL)	--	--	0.018	340
TOTAL VOCs				
TOTAL VOCs	0.1165	0.1157	0.211	805

21GH022	21GH022-09	21GH022-15	21GH022-19
	7 to 9	13 to 15	17 to 19
	mg/kg	mg/kg	mg/kg
VOCs			
BENZENE	0.59	51 J	18
CARBON DISULFIDE	--	--	0.55 J
ETHYLBENZENE	0.71	420 J	69
STYRENE	0.21 J	80 J	12
TOLUENE	0.52 J	260 J	44
XYLENES (TOTAL)	0.8	780 J	120
TOTAL VOCs			
TOTAL VOCs	2.83	1591	263.55

21GH018	21GH018-07	21GH018-14
	5 to 7	13 to 13.4
	mg/kg	mg/kg
VOCs		
ACETONE	0.017 J	--
BENZENE	0.014	230
CARBON DISULFIDE	0.0055	--
ETHYLBENZENE	--	620
STYRENE	--	50
TOLUENE	0.0051 J	530
XYLENES (TOTAL)	--	1200
TOTAL VOCs		
TOTAL VOCs	0.0419	2630

21GH029	21GH029-17
	15 to 17
	mg/kg
VOCs	
BENZENE	3.1
ETHYLBENZENE	39
STYRENE	1.1 J
TOLUENE	6.6
XYLENES (TOTAL)	44
TOTAL VOCs	
TOTAL VOCs	93.8

21BR001	21BR001-129
	127 to 129
	mg/kg
VOCs	
ACETONE	0.014 J
TOTAL VOCs	
TOTAL VOCs	0.014

21PF008	21PF008-13	21PF008-23	21PF008-31	21PF008-51
	11 to 13	21 to 23	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	0.0058 J	--	--	--
ACETONE	0.056	--	--	--
BENZENE	0.0014	--	--	--
CARBON DISULFIDE	0.0014 J	0.0016 J	--	--
TOLUENE	0.0012 J	--	--	--
TOTAL VOCs				
TOTAL VOCs	0.0658	0.0016	--	--

21SC003	21SC003-11	21SC003-15	21SC003-35	21SC003-51
	9 to 11	13 to 15	33 to 35	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	--	0.056 J	0.055 J
BENZENE	0.0056	--	0.0056	0.0032
CARBON DISULFIDE	--	--	0.0007 J	0.0009 J
CIS-1,2-DICHLOROETHENE	--	--	0.0008 J	0.0022 J
ETHYLBENZENE	0.055	0.4 J	0.0096	0.0048 J
STYRENE	--	--	0.0019 J	0.0008 J
TOLUENE	0.0011 J	--	0.0024 J	--
TRICHLOROETHYLENE	--	--	0.0011 J	--
XYLENES (TOTAL)	0.078	0.38 J	0.019	0.0094
TOTAL VOCs				
TOTAL VOCs	0.1397	0.78	0.0971	0.0763

21PF004	21PF004-11	21PF004-15	21PF004-31	21PF004-51	21TP014-07
	9 to 11	13 to 15	29 to 31	49 to 51	5 to 7
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
2-BUTANONE	0.013 J	--	--	--	--
ACETONE	0.04 J	0.03 J	0.022 J	0.028 J	--
BENZENE	0.0066	0.0081	0.0009 J	0.0007 J	0.0014 J
CARBON DISULFIDE	0.015	0.01	0.0014 J	0.0012 J	0.0008 J
CIS-1,2-DICHLOROETHENE	--	--	0.0016 J	0.0013 J	--
ETHYLBENZENE	0.0041 J	0.0015 J	--	--	--
TOLUENE	0.0025 J	0.0024 J	--	--	0.0023 J
TRICHLOROETHYLENE	--	--	0.0021	--	--
XYLENES (TOTAL)	0.0029 J	0.0021 J	--	--	--
TOTAL VOCs					
TOTAL VOCs	0.0841	0.0541	0.028	0.0312	0.0045

21PF006	21PF006-09	21PF006-11	21PF006-13	21PF006-14	21PF006-35	21PF006-51
	7 to 9	10 to 11	12 to 13	13 to 13.5	33 to 35	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs						
ACETONE	0.032	--	--	--	--	0.042 J
BENZENE	0.016	--	32	17	0.14	0.012
CARBON DISULFIDE	0.0008 J	--	--	--	--	0.0007 J
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	0.0038 J
ETHYLBENZENE	0.0018 J	0.15 J	240	110	2.8	0.055
TOLUENE	0.0051 J	--	--	--	0.16 J	0.0036 J
XYLENES (TOTAL)	0.0023 J	0.13 J	120	51	2.5	0.044
TOTAL VOCs						
TOTAL VOCs	0.058	0.28	392	178	5.6	0.1611

21GH023	21GH023-07	21GH023-26	21GH023-36	21GH023-50
	5 to 7	24 to 26	34 to 36	48 to 50
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	0.0022 J	--	--	0.0045 J
ACETONE	0.022	--	0.032	0.032
BENZENE	--	13	0.039	--
CARBON DISULFIDE	--	0.22 J	0.001 J	0.0011 J
CHLOROBENZENE	0.0095	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	0.0008 J
ETHYLBENZENE	--	1.4	0.01	--
STYRENE	--	--	0.0008 J	--
TOLUENE	--	0.24 J	0.0055 J	--
TRICHLOROETHYLENE	--	--	--	0.0019
XYLENES (TOTAL)	--	1.2	0.0086	--
TOTAL VOCs				
TOTAL VOCs	0.0337	16.06	0.0969	0.0403

21GH016	21GH016-09	21GH016-15	21GH016-37	21GH016-51
	7 to 9	13 to 15	35 to 37	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.03 J	0.038 J	0.031 J	--
BENZENE	0.13	0.027	0.044	0.23
CARBON DISULFIDE	--	0.0026 J	0.0082 J	--
ETHYLBENZENE	0.0009 J	0.0012 J	0.033	0.32 J
TOLUENE	0.0099	0.001 J	0.0008 J	--
XYLENES (TOTAL)	0.0026 J	--	0.014	0.11 J
TOTAL VOCs				
TOTAL VOCs	0.1734	0.0698	0.131	0.66

21GH017	21GH017-07	21GH017-15
	5 to 7	13 to 15
	mg/kg	mg/kg
VOCs		
2-BUTANONE	0.0086 J	--
ACETONE	0.11	--
BENZENE	0.0007 J	20
ETHYLBENZENE	0.0014 J	99
TOLUENE	--	14
XYLENES (TOTAL)	0.01	170
TOTAL VOCs		
TOTAL VOCs	0.1307	303

21VH002	21VH002-09	21VH002-13	21VH002-31	21VH002-51
	7 to 9	11 to 13	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.023 J	--	0.04 J	--
BENZENE	--	0.47	0.0068	0.012
CARBON DISULFIDE	0.0016 J	--	0.0032 J	0.0012 J
CIS-1,2-DICHLOROETHENE	--	--	0.0016 J	--
ETHYLBENZENE	--	0.88	0.011	0.0014 J
STYRENE	--	--	0.0022 J	--
TOLUENE	--	0.15 J	0.014	0.0031 J
XYLENES (TOTAL)	--	0.31 J	0.041	--
TOTAL VOCs				
TOTAL VOCs	0.0246	1.81	0.1198	0.0177

21PF001	21PF001-11	21PF001-13	21PF001-31	21PF001-51
	9 to 11	11 to 13	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	--	0.057	0.047
BENZENE	--	--	0.0021	0.0008 J
CARBON DISULFIDE	--	--	--	0.0009 J
CIS-1,2-DICHLOROETHENE	--	--	0.0007 J	--
ETHYLBENZENE	--	2.2	--	--
TOLUENE	--	--	0.0012 J	0.0012 J
TRICHLOROETHYLENE	--	--	0.0011 J	--
XYLENES (TOTAL)	--	0.22 J	--	--
TOTAL VOCs				
TOTAL VOCs	--	2.42	0.0621	0.0499

21PF010	21PF010-09	21PF010-15	21PF010-29	21PF010-29DUP	21PF010-49
	7 to 9	13 to 15	27 to 29	27 to 29	47 to 49
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
2-BUTANONE	--	--	0.017	0.011	--
ACETONE	--	--	0.087 J	0.07 J	0.06 J
BENZENE	0.77	0.0068	0.0022	0.0042	0.0008 J
CARBON DISULFIDE	--	--	0.0053 J	0.041	--
CIS-1,2-DICHLOROETHENE	--	--	0.0007 J	--	0.0009 J
ETHYLBENZENE	16	0.0051 J	0.004 J	0.0013 J	--
STYRENE	8.8	0.0026 J	--	--	--
TETRACHLOROETHENE	--	--	--	--	0.002
TOLUENE	9.9	0.018	0.0049 J	0.0032 J	--
TRICHLOROETHYLENE	--	--	--	--	0.0026
XYLENES (TOTAL)	60	0.017	0.009	0.004 J	--
TOTAL VOCs					
TOTAL VOCs	95.47	0.0495	0.1301	0.1347	0.0663

21SC002	21SC002-15	21SC002-25	21SC002-31	21SC002-51
	13 to 15	23 to 25	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	--	--	0.031 J
BENZENE	0.32	0.15	0.0056	0.0035
CARBON DISULFIDE	--	--	0.0014 J	--
CIS-1,2-DICHLOROETHENE	--	--	--	0.002 J
ETHYLBENZENE	1.7	2.9	0.0037 J	0.0014 J
STYRENE	0.17 J	--	--	--
TOLUENE	0.46 J	0.51 J	0.0035 J	0.0015 J
XYLENES (TOTAL)	1.7	3.4	0.0049 J	0.0018 J
TOTAL VOCs				
TOTAL VOCs	4.35	6.96	0.0191	0.0412

21SC004	21SC004-07	21SC004-17	21SC004-29	21SC004-51
	5 to 7	15 to 17	27 to 29	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	--	--	--	0.031 J
BENZENE	2.5	1.2	0.77	0.0051
CIS-1,2-DICHLOROETHENE	--	--	--	0.0033 J
ETHYLBENZENE	1.1	29	7.6	0.0063
STYRENE	--	--	20	0.0063 J
TOLUENE	0.33 J	9.9	7.7	0.0048 J
TRICHLOROETHYLENE	--	--	--	0.001 J
XYLENES (TOTAL)	0.76	40	20	0.012
TOTAL VOCs				
TOTAL VOCs	4.69	80.1	56.07	0.0698

21GH015	21GH015-15	21GH015-21	21GH015-31	21GH015-35
	13 to 15	19 to 21	29 to 31	33 to 35
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.036	--	--	--
BENZENE	0.0054	97	0.47	87
CARBON DISULFIDE	--	--	0.13 J	--
CARBON TETRACHLORIDE	--	--	0.084 J	--
ETHYLBENZENE	0.0014 J	390	12	130
STYRENE	--	170	--	160
TOLUENE	0.0093	280	0.54 J	240
XYLENES (TOTAL)	0.0037 J	620	10	340
TOTAL VOCs				
TOTAL VOCs	0.0558	1557	23.224	957

21PF007	21PF007-07	21PF007-15	21PF007-33	21PF007-51
	5 to 7	13 to 15	31 to 33	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
ACETONE	0.038	0.061	0.042	0.034
BENZENE	0.016	--	--	0.0007 J
CARBON DISULFIDE	0.0016 J	0.016	0.0013 J	0.0013 J
CIS-1,2-DICHLOROETHENE	--	--	--	0.0012 J
TOLUENE	0.0024 J	--	--	--
TRICHLOROETHYLENE	--	--	--	0.002
TOTAL VOCs				
TOTAL VOCs	0.058	0.077	0.0433	0.0392

21PF011	21PF011-09	21PF011-13	21PF011-33	21PF011-51	21PF011-51DUP
	7 to 9	11 to 13	31 to 33	49 to 51	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
ACETONE	--	--	0.047 J	0.045 J	0.051 J
BENZENE	--	--	0.0008 J	0.0007 J	0.0003 J
CARBON DISULFIDE	--	--	0.0098	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	0.0007 J	0.0004 J
ETHYLBENZENE	1.9	1.2	0.0012 J	0.0011 J	0.0005 J
TETRACHLOROETHENE	--	--	--	0.0014	0.0008 J
TRICHLOROETHYLENE	--	--	--	0.0026	0.0014
XYLENES (TOTAL)	3.2	1.2	0.0022 J	0.0025 J	0.0016 J
TOTAL VOCs					
TOTAL VOCs	5.1	2.4	0.061	0.054	0.056

21PF012	21PF012-09	21PF012-09DUP	21PF012-17	21PF012-31	21PF012-51
	7 to 9	7 to 9	15 to 17	29 to 31	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs					
2-BUTANONE	--	--	0.026	--	--
ACETONE	--	--	0.14	0.04	0.044
BENZENE	0.99	2.3	0.012	--	--
CARBON DISULFIDE	--	--	0.0088	0.003 J	0.0008 J
ETHYLBENZENE	1.5	3.2	0.01	--	--
STYRENE	0.063 J	0.095 J	--	--	--
TETRACHLOROETHENE	--	--	--	--	0.0014
TOLUENE	0.43 J	0.85	0.0031 J	--	--
TRICHLOROETHYLENE	--	--	--	--	0.0024
XYLENES (TOTAL)	0.78	1.5	0.026	--	--
TOTAL VOCs					
TOTAL VOCs	3.763	7.945	0.2259	0.043	0.0486

21GH021	21GH021-09	21GH021-15
	7 to 9	13 to 15
	mg/kg	mg/kg
VOCs		
ACETONE	0.061 J	--
BENZENE	0.0083	7.7
CARBON DISULFIDE	0.0019 J	--
ETHYLBENZENE	0.0019 J	5.2
STYRENE	0.0009 J	0.12 J
TOLUENE	0.0078	0.58 J
XYLENES (TOTAL)	0.0046 J	2.5
TOTAL VOCs		
TOTAL VOCs	0.0864	16.1

21PF009	21PF009-09	21PF009-15	21PF009-33	21PF009-51
	7 to 9	13 to 15	31 to 33	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	0.006	--	0.0089 J	--
ACETONE	0.026	0.027	0.041 J	0.03 J
BENZENE	--	--	--	0.0008 J
CARBON DISULFIDE	0.0019 J	--	--	0.0015 J
ETHYLBENZENE	--	--	0.0006 J	--
XYLENES (TOTAL)	--	--	0.0016 J	--
TOTAL VOCs				
TOTAL VOCs	0.0339	0.027	0.0521	0.0323

21MH001	21MH001-07	21MH001-17	21MH001-33	21MH001-51
	5 to 7	15 to 17	31 to 33	49 to 51
	mg/kg	mg/kg	mg/kg	mg/kg
VOCs				
2-BUTANONE	--	0.0095	--	--
ACETONE	0.11 J	0.1 J	0.047	0.045
BENZENE	0.0026	0.0014	--	0.0035
CARBON DISULFIDE	0.0007 J	0.0015 J	--	0.0007 J
CIS-1,2-DICHLOROETHENE	--	--	0.0014 J	0.0014 J
ETHYLBENZENE	0.0024 J	0.0011 J	--	--
STYRENE	0.0029 J	--	--	--
TOLUENE	0.0054 J	0.003 J	0.0011 J	0.0012 J
XYLENES (TOTAL)	0.0089	0.0035 J	--	--
TOTAL VOCs				
TOTAL VOCs	0.1329	0.12	0.0495	0.0518

LEGEND:

LIMIT OF OU1

21MWS10 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED MONITORING WELLS

21GH022 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED SOIL BORINGS

21TP007 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PITS

EXPLORATION DESIGNATION

SAMPLE DESIGNATION
DUP = INDICATES DUPLICATE SAMPLE
FP = INDICATES FINGERPRINT ANALYSIS ALSO CONDUCTED

14GH002	14GH002-00DUP	14GH002-00FP	
	0 - 0.2 Ft	0 - 0.2 Ft	SAMPLE DEPTH
	mg/kg	mg/kg	UNITS
VOCs			VOLATILE ORGANIC COMPOUNDS
ETHYLBENZENE	--	0.0008 J	ANALYTICAL RESULT OF LISTED CONSTITUENT
XYLENES (TOTAL)	0.017	NT	
TOTAL VOCs			
TOTAL VOCs	0.1345	--	TOTAL VOCs INCLUDES TARGETED COMPOUNDS ONLY
SVOCs			SEMIVOLATILE ORGANIC COMPOUNDS
BENZO(A)PYRENE			SHADED AREA INDICATES EXCEEDENCE OF CRITERIA (SEE NOTE 2)
TOTAL SVOCs			
TOTAL SVOCs	4.5	6.2	TOTAL SVOCs INCLUDES TARGETED COMPOUNDS ONLY

J = INDICATES ESTIMATED VALUE,
NT = INDICATES NOT TESTED,
-- = INDICATES NOT ABOVE REPORTING DETECTION LIMIT (RDL) AS PER DATA VALIDATION

SOIL CRITERIA	NYSDEC RSCOs
BTEX (mg/Kg)	
Benzene	0.06
Ethylbenzene	5.5
Toluene	1.5
Xylene (Total)	1.2
VOC (mg/Kg)	
1,2-Dichlorobenzene	7.9
1,4-Dichlorobenzene	8.5
1,2,4-Trichlorobenzene	3.4
2-Butanone (Methyl Ethyl Ketone)	0.3
4-Methyl-2-pentanone	1
Acetone	0.2
cis-1,2-dichloroethene	NA
Carbon Disulfide	2.7
Carbon Tetrachloride	0.6
Chlorobenzene	1.7
Chloroform	0.3
Isopropylbenzene	NA
Methylene Chloride	0.1
Styrene	NA
Tetrachloroethene	1.4
Trichloroethene	0.7
Total VOC	10

50 0 100
1"=100'

ENSR | AECOM

NOTES:
1. THIS FIGURE WAS DERIVED FROM FIGURE 17 OF THE SITE CHARACTERIZATION STUDY SCS REPORT (H&A 2004).
2. SOIL ANALYTICAL RESULTS FOR VOCS WERE COMPARED TO NYSDEC RESIDENTIAL SOIL CLEANUP OBJECTIVES (RSCO) FROM TECHNICAL AND GUIDANCE MEMORANDUM (TAGM) #4046. SHADED VALUES INDICATE AN EXCEEDENCE OF CRITERIA.
3. VOC: VOLATILE ORGANIC COMPOUNDS. MG/KG: MILLIGRAMS PER KILOGRAM, OR PARTS PER MILLION (PPM).
4. TABLES II, XA, XB AND XII IN SITE CHARACTERIZATION REPORT SUMMARIZE THE TESTING PARAMETERS AND RESULTS. FULL LABORATORY TESTING RESULTS ARE PROVIDED IN REPORT APPENDIX E. SCS LOWER FILL/NATURAL SOIL ANALYTICAL RESULTS ARE ALSO PROVIDED IN THE RI REPORT.

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

DATE: 11/17/08 DRWN: MAW/BIL

SCS VOC CONCENTRATIONS IN LOWER FILL/NATURAL SOIL (>5 FT. DEPTH) NOVEMBER 2004 OPERABLE UNIT 1 (OU1)

FIGURE 5-9

LEGEND:

LIMIT OF OU1

21MWS10 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED MONITORING WELLS

21GH022 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED SOIL BORINGS

21TP007 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PITS

EXPLORATION DESIGNATION

SAMPLE DESIGNATION
DUP = INDICATES DUPLICATE SAMPLE
FP = INDICATES FINGERPRINT ANALYSIS ALSO CONDUCTED

14GH002	14GH002-00DUP 0 - 0.2 Ft mg/kg	14GH002-00FP 0 - 0.2 Ft mg/kg
VOCs		
ETHYLBENZENE	--	0.0008 J
XYLENES (TOTAL)	0.017	NT
TOTAL VOCs		
TOTAL VOCs	0.1345	--
SVOCs		
BENZO(A)PYRENE		
TOTAL SVOCs		
TOTAL SVOCs	4.5	6.2

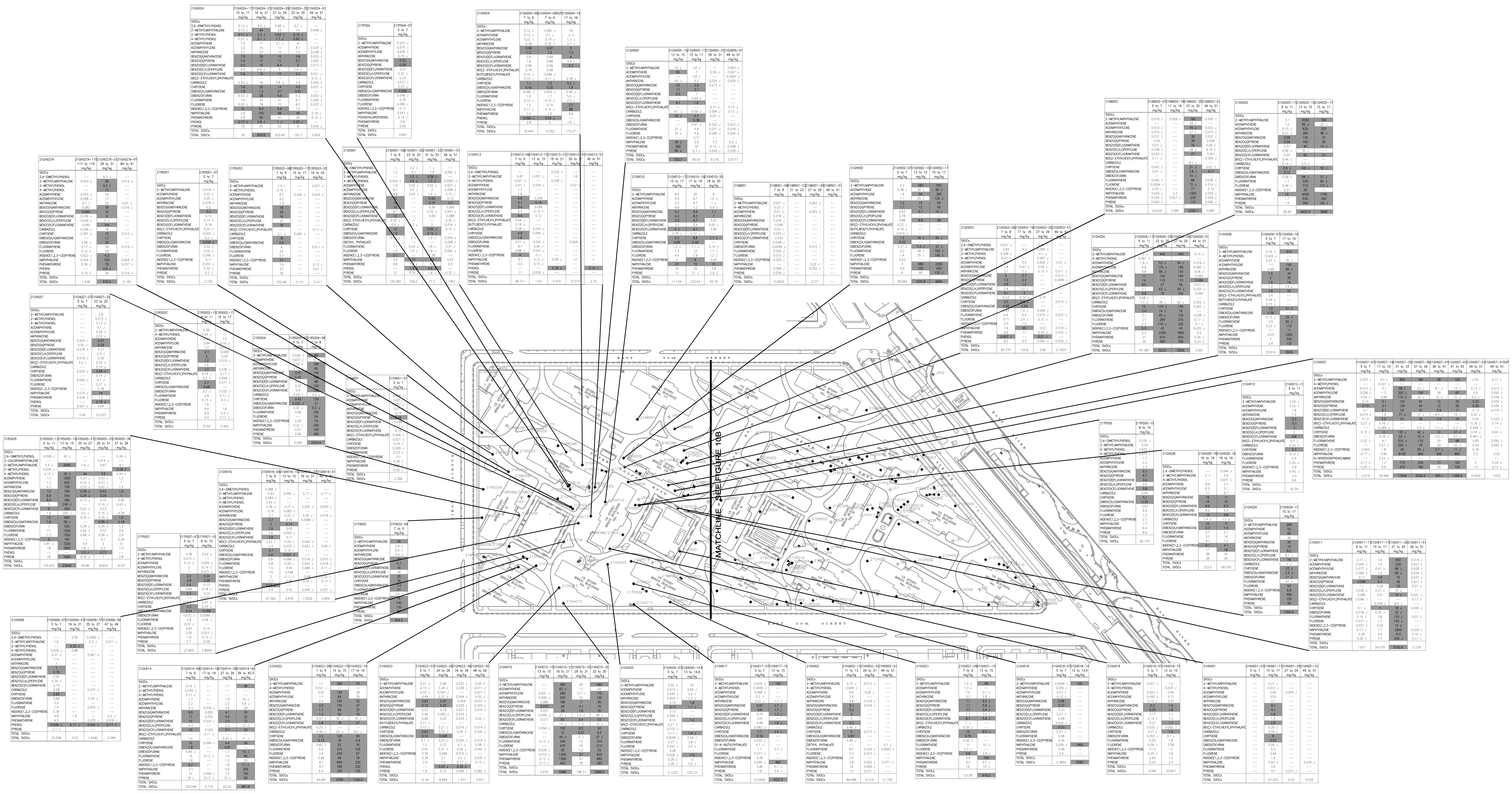
SAMPLE DEPTH
UNITS
VOLATILE ORGANIC COMPOUNDS
ANALYTICAL RESULT OF LISTED CONSTITUENT
J = INDICATES ESTIMATED VALUE,
NT = INDICATES NOT TESTED,
-- = INDICATES NOT ABOVE REPORTING DETECTION LIMIT (RDL) AS PER DATA VALIDATION
TOTAL VOCs INCLUDES TARGETED COMPOUNDS ONLY
SEMIVOLATILE ORGANIC COMPOUNDS
SHADED AREA INDICATES EXCEEDENCE OF CRITERIA (SEE NOTE 2)
TOTAL SVOCs INCLUDES TARGETED COMPOUNDS ONLY

SOIL CRITERIA	NYSDEC RSCOs
PAH (mg/kg)	
Acenaphthene	50
Acenaphthylene	41
Anthracene	50
Benzo(a)anthracene	0.224
Benzo(a)pyrene	0.061
Benzo(b)fluoranthene	1.1
Benzo(ghi)perylene	50
Benzo(k)fluoranthene	1.1
Chrysene	0.4
Dibenz(a,h)anthracene	0.014
Fluoranthene	50
Fluorene	50
Indeno(1,2,3-cd)pyrene	3.2
Naphthalene	13
Phenanthrene	50
Pyrene	50
SVOC (mg/Kg)	
2-Chloronaphthalene	NA
2,4-Dimethylphenol	NA
2-Methylnaphthalene	36.4
2-Methylphenol	0.1
4-Chloroaniline	0.22
4-Methylphenol	0.9
4-Nitrophenol	0.1
bis(2-Ethylhexyl) phthalate	50
Butyl benzyl phthalate	50
Carbazole	NA
Dibenzofuran	6.2
Diethyl phthalate	7.1
Di-n-octyl phthalate	50
Di-n-butyl phthalate	8.1
Isophorone	4.4
N-nitrosodiphenylamine	50
Pentachlorophenol	1
Phenol	0.03
Total SVOC	500

NOTES:

1. THIS FIGURE WAS DERIVED FROM FIGURE 18A OF THE SITE CHARACTERIZATION STUDY SCS REPORT (H&A 2004).
2. SOIL ANALYTICAL RESULTS FOR SVOCS WERE COMPARED TO NYSDEC RESIDENTIAL SOIL CLEANUP OBJECTIVES (RSCO) FROM TECHNICAL AND GUIDANCE MEMORANDUM (TAGM) #4046. SHADED VALUES INDICATE AN EXCEEDENCE OF CRITERIA.
3. SVOCS: SEMIVOLATILE ORGANIC COMPOUNDS. MG/KG: MILLIGRAMS PER KILOGRAM, OR PARTS PER MILLION (PPM).
4. TABLES II, XA, XB AND XII IN SITE CHARACTERIZATION REPORT SUMMARIZE THE TESTING PARAMETERS AND RESULTS. FULL LABORATORY TESTING RESULTS ARE PROVIDED IN REPORT APPENDIX E.
SCS LOWER FILL/NATURAL SOIL ANALYTICAL RESULTS ARE ALSO PROVIDED IN THE RI REPORT.

50 0 100
1"=100'



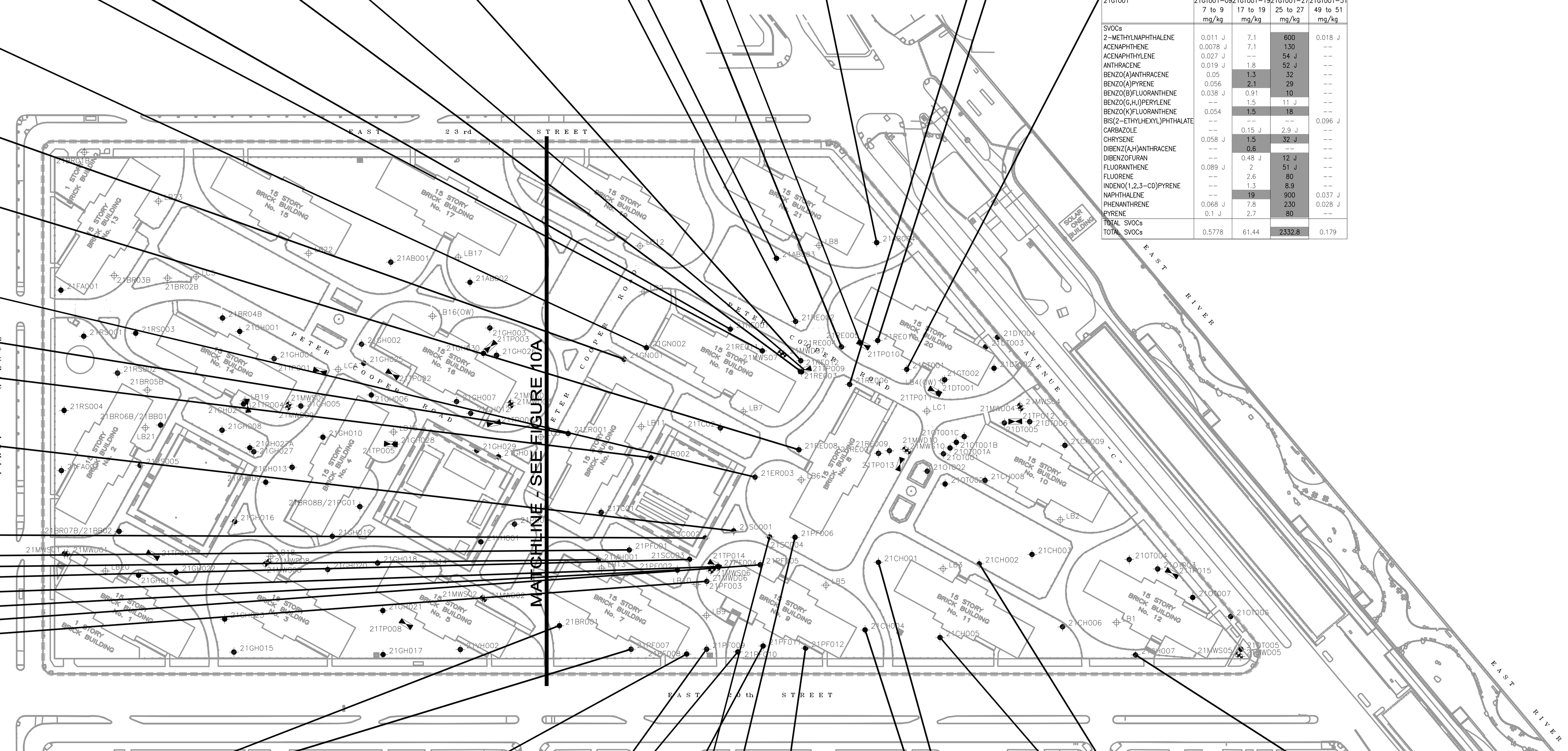
ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

DATE: 11/17/08 DRWN: MAW\BIL

SCS SVOC CONCENTRATIONS IN LOWER FILL/NATURAL SOIL (>5 FT. DEPTH) - WEST NOVEMBER 2004 OPERABLE UNIT 1 (OU1)

FIGURE 5-10A



21RE011	21RE011-07 5 to 7 mg/kg	21RE011-21 19 to 21 mg/kg	21RE011-29 27 to 29 mg/kg	21RE011-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	5.8 J	--
2-METHYLNAPHTHALENE	0.02 J	200	390	0.11 J
ACENAPHTHENE	0.03 J	43	40 J	0.025 J
ACENAPHTHYLENE	0.09 J	28	92 J	0.067 J
ANTHRACENE	0.078 J	33	85 J	0.1 J
BENZO(A)ANTHRACENE	0.11	24	100	0.12
BENZO(A)PYRENE	0.094	13	70	0.08
BENZO(B)FLUORANTHENE	0.056	5.8	39	0.038 J
BENZO(G,H,I)PERYLENE	0.044 J	4 J	25 J	0.031 J
BENZO(K)FLUORANTHENE	0.075	8	68	0.068
BIS(2-ETHYLHEXYL)PHTHALATE	0.81	--	--	--
BUTYLBENZYLPHTHALATE	0.19 J	--	--	--
CARBAZOLE	0.016 J	0.93 J	57 J	0.065 J
CHRYSENE	0.11 J	26	93 J	0.096 J
DIBENZ(A,H)ANTHRACENE	--	--	12	--
DIBENZOFURAN	0.021 J	--	110	0.082 J
FLUORANTHENE	0.24 J	32	220	0.27 J
FLUORENE	0.082 J	38	170	0.15 J
INDENO(1,2,3-CD)PYRENE	0.034 J	3.4	25	0.028 J
NAPHTHALENE	0.055 J	290	1600	0.33 J
PHENANTHRENE	0.42	130	460	0.56
PYRENE	0.32 J	58	230	0.24 J
TOTAL SVOCs				
TOTAL SVOCs	2.895	937.13	3891.8	2.46

21RE003	21RE003-14 12 to 14 mg/kg	21RE003-14DUP 12 to 14 mg/kg	21RE003-18 16 to 18 mg/kg	21RE003-28 26 to 28 mg/kg	21RE003-50 48 to 50 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	--	--	6.4 J	--
2-METHYLNAPHTHALENE	370	540	84	320	0.023 J
2-METHYLPHENOL	--	--	--	1.6 J	--
4-METHYLPHENOL	--	--	--	3.5 J	--
ACENAPHTHENE	98	130	23	41 J	--
ACENAPHTHYLENE	47	49	8.2	47	--
ANTHRACENE	67	81	13	110	--
BENZO(A)ANTHRACENE	60	78	12	98	0.009 J
BENZO(A)PYRENE	40	54	7.9	62	--
BENZO(B)FLUORANTHENE	17	24	3.5	36	--
BENZO(G,H,I)PERYLENE	16 J	21 J	3.1 J	20 J	--
BENZO(K)FLUORANTHENE	26	38	5.3	56	--
CARBAZOLE	2.7 J	5 J	0.81 J	58	--
CHRYSENE	60	77	12	88	--
DIBENZ(A,H)ANTHRACENE	5.9	5.1	--	10	--
DIBENZOFURAN	11 J	16 J	2.3 J	97	--
FLUORANTHENE	130	160	26	200	0.018 J
FLUORENE	160	190	32	160	--
INDENO(1,2,3-CD)PYRENE	12	15	2.3	19	--
NAPHTHALENE	490	710	110	750	0.059 J
PHENANTHRENE	490	590	100	470	0.042 J
PYRENE	220	260	43	190	0.023 J
TOTAL SVOCs					
TOTAL SVOCs	2322.6	3043.1	488.41	2843.5	0.174

21RE012	21RE012-07 5 to 7 mg/kg	21RE012-21 19 to 21 mg/kg	21RE012-31 29 to 31 mg/kg	21RE012-31DUP 29 to 31 mg/kg	21RE012-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	0.62 J	4.7 J	46 J	--
2-METHYLNAPHTHALENE	0.018 J	22	54	820	0.017 J
2-METHYLPHENOL	--	0.48 J	--	--	--
4-METHYLPHENOL	--	0.86 J	1.8 J	13 J	--
ACENAPHTHENE	0.023 J	22	5.6 J	93 J	--
ACENAPHTHYLENE	0.03 J	14	14 J	210	0.032 J
ANTHRACENE	0.05 J	27	18 J	220	0.046 J
BENZO(A)ANTHRACENE	0.13	26	18	280	0.068
BENZO(A)PYRENE	0.13	24	14	240	0.046
BENZO(B)FLUORANTHENE	0.12	13	7.6	140	0.021 J
BENZO(G,H,I)PERYLENE	0.093 J	11	5.8 J	100 J	0.016 J
BENZO(K)FLUORANTHENE	0.13	18	13	220	0.042
BIS(2-ETHYLHEXYL)PHTHALATE	0.2 J	--	--	--	--
CARBAZOLE	0.026 J	6.6 J	13 J	130 J	0.016 J
CHRYSENE	0.16 J	25	17 J	230	0.074 J
DIBENZ(A,H)ANTHRACENE	0.028 J	3.7	2	42	--
DIBENZOFURAN	0.018 J	12	19 J	300	0.017 J
FLUORANTHENE	0.24 J	55	39	570	0.15 J
FLUORENE	0.027 J	33	27	410	0.042 J
INDENO(1,2,3-CD)PYRENE	0.081	9.8	5.4	95	0.014 J
NAPHTHALENE	0.027 J	82	170	2900	0.041 J
PHENANTHRENE	0.23 J	180	100	1500	0.26 J
PYRENE	0.29 J	71	38	570	0.15 J
TOTAL SVOCs					
TOTAL SVOCs	2.051	657.06	586.9	9129	1.052

21RE002	21RE002-11 9 to 11 mg/kg	21RE002-13 11 to 13 mg/kg	21RE002-29 27 to 29 mg/kg	21RE002-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	11 J	--
2-METHYLNAPHTHALENE	77	--	110	0.064 J
2-METHYLPHENOL	--	--	0.58 J	--
4-METHYLPHENOL	--	--	3.3 J	--
ACENAPHTHENE	36	79	14 J	--
ACENAPHTHYLENE	15	31	41	0.03 J
ANTHRACENE	33	82	45	0.02 J
BENZO(A)ANTHRACENE	23	130	27	0.014 J
BENZO(A)PYRENE	20	130	24	--
BENZO(B)FLUORANTHENE	8.3	74	11	--
BENZO(G,H,I)PERYLENE	10	54	10 J	--
BENZO(K)FLUORANTHENE	15	120	21	--
CARBAZOLE	1.3 J	1.3 J	28	--
CHRYSENE	28	130	30	0.02 J
DIBENZ(A,H)ANTHRACENE	2.9	23	1.7 J	--
DIBENZOFURAN	6.2 J	20 J	38	--
FLUORANTHENE	44	170	69	0.026 J
FLUORENE	36	49	62	--
INDENO(1,2,3-CD)PYRENE	7.8	53	8.2	--
NAPHTHALENE	92	4.2 J	390	0.092 J
PHENANTHRENE	150	280	170	0.082 J
PYRENE	59	170	66	0.044 J
TOTAL SVOCs				
TOTAL SVOCs	664.5	1600.5	1180.78	0.392

21AB003	21AB003-07 5 to 7 mg/kg	21AB003-23 21 to 23 mg/kg	21AB003-39 37 to 39 mg/kg	21AB003-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	0.03 J	0.03 J
2-METHYLNAPHTHALENE	0.0082 J	1600	1.2	2.8
4-METHYLPHENOL	--	--	0.018 J	0.014 J
ACENAPHTHENE	--	500	0.81	1.3
ACENAPHTHYLENE	--	140 J	0.31 J	0.44
ANTHRACENE	0.012 J	360	0.73	1.1
BENZO(A)ANTHRACENE	0.044	290	0.52	0.86
BENZO(A)PYRENE	0.042	230	0.32	0.68
BENZO(B)FLUORANTHENE	0.024 J	110	0.22	0.42
BENZO(G,H,I)PERYLENE	0.03 J	100 J	0.13 J	0.3 J
BENZO(K)FLUORANTHENE	0.051	200	0.29	0.56
BIS(2-ETHYLHEXYL)PHTHALATE	0.21 J	--	--	0.12 J
CARBAZOLE	--	120 J	0.25 J	0.34 J
CHRYSENE	0.051 J	270	0.46	0.8
DIBENZ(A,H)ANTHRACENE	--	28	0.057	0.11
DIBENZOFURAN	--	280	0.58	0.87
FLUORANTHENE	0.078 J	590	1.5	2
FLUORENE	--	500	1.1	1.5
INDENO(1,2,3-CD)PYRENE	0.026 J	89	0.1	0.28
NAPHTHALENE	0.022 J	4100	1.7	4.4
PHENANTHRENE	0.064 J	1400	3.8	4.6
PYRENE	0.082 J	640	1.5	2.2
TOTAL SVOCs				
TOTAL SVOCs	0.7442	11547	15.625	25.724

21AB004	21AB004-07 5 to 7 mg/kg	21AB004-23 21 to 23 mg/kg	21AB004-27 25 to 27 mg/kg	21AB004-41 39 to 41 mg/kg	21AB004-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	45 J	46 J	0.34 J	0.0086 J
2-METHYLNAPHTHALENE	0.022 J	1500	430	4.1	0.24 J
2-METHYLPHENOL	--	--	6 J	0.071 J	--
4-METHYLPHENOL	0.012 J	37 J	67 J	0.35 J	--
ACENAPHTHENE	0.075 J	220 J	39 J	0.76	0.059 J
ACENAPHTHYLENE	0.01 J	440	170	1.9	0.1 J
ANTHRACENE	0.16 J	460	140	2.2	0.16 J
BENZO(A)ANTHRACENE	0.45	310	110	1.5	0.13
BENZO(A)PYRENE	0.46	250	84	1.2	0.13
BENZO(B)FLUORANTHENE	0.37	150	48	0.71	0.076
BENZO(G,H,I)PERYLENE	0.31 J	120 J	37 J	0.54	0.13 J
BENZO(K)FLUORANTHENE	0.47	210	72	1	0.12
BIS(2-ETHYLHEXYL)PHTHALATE	0.15 J	--	--	0.091 J	--
CARBAZOLE	0.079 J	170 J	58 J	0.84	0.057 J
CHRYSENE	0.5	290	100 J	1.3	0.13 J
DIBENZ(A,H)ANTHRACENE	0.093	49	16	0.23	0.078
DIBENZOFURAN	0.029 J	320	120	1.4	0.089 J
FLUORANTHENE	0.93	620	210	3.2	0.24 J
FLUORENE	0.062 J	570	210	2.2	0.19 J
INDENO(1,2,3-CD)PYRENE	0.28	110	34	0.49	0.11
NAPHTHALENE	0.046 J	4500	1300	7.6	0.45
PHENANTHRENE	0.65	1500	550	7.2	0.56
PYRENE	0.85	590	190	3	0.25 J
TOTAL SVOCs					
TOTAL SVOCs	6.008	12461	4037	42.222	3.3076

21RE010	21RE010-07 5 to 7 mg/kg	21RE010-15 13 to 15 mg/kg	21RE010-29 27 to 29 mg/kg	21RE010-29DUP 27 to 29 mg/kg	21RE010-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	--	8.6 J	--	--
2-METHYLNAPHTHALENE	0.086 J	160	1100	950	0.13 J
ACENAPHTHENE	0.04 J	50	100 J	88 J	0.07 J
ACENAPHTHYLENE	0.2 J	7 J	270	220	0.18 J
ANTHRACENE	0.15 J	16	250	210 J	0.21 J
BENZO(A)ANTHRACENE	0.29	7.8	200	170	0.18
BENZO(A)PYRENE	0.37	7.3	170	140	0.12
BENZO(B)FLUORANTHENE	0.22	2.1	86	60	0.061
BENZO(G,H,I)PERYLENE	0.28 J	3.1 J	81 J	64 J	--
BENZO(K)FLUORANTHENE	0.36	4.8	170	130	0.12
BIS(2-ETHYLHEXYL)PHTHALATE	0.16 J	--	--	--	--
CARBAZOLE	0.032 J	0.46 J	120 J	93 J	0.13 J
CHRYSENE	0.37 J	8.8 J	190 J	190 J	0.18 J
DIBENZ(A,H)ANTHRACENE	0.046	--	14 J	19 J	--
DIBENZOFURAN	0.035 J	3.6 J	260	230	0.16 J
FLUORANTHENE	0.49	15	420	360	0.38 J
FLUORENE	0.055 J	22	420	350	0.32 J
INDENO(1,2,3-CD)PYRENE	0.22	2.3	62	52	0.053
NAPHTHALENE	0.14 J	140	3000	2300	0.14 J
PHENANTHRENE	0.46	69	1100	940	0.94
PYRENE	0.57	24	390	340	0.4 J
TOTAL SVOCs					
TOTAL SVOCs	4.574	543.26	8411.6	6906	3.774

21RE008	21RE008-13 11 to 13 mg/kg	21RE008-19 17 to 19 mg/kg	21RE008-19DUP 17 to 19 mg/kg	21RE008-31 29 to 31 mg/kg	21RE008-51 49 to 51 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	0.22 J	6.7	2.5	64	--
2-METHYLPHENOL	--	--	0.012 J	--	--
ACENAPHTHENE	0.52	2.3	0.99	13	--
ACENAPHTHYLENE	0.15 J	0.31 J	0.2 J	8.3 J	--
ANTHRACENE	0.42	1.1	0.53	26	--
BENZO(A)ANTHRACENE	1	1.8	0.42	22	--
BENZO(A)PYRENE	1.4	2.3	0.35	20	--
BENZO(B)FLUORANTHENE	0.6	1	0.14	12	--
BENZO(G,H,I)PERYLENE	0.69	1.3	0.16 J	7.3 J	--
BENZO(K)FLUORANTHENE	0.99	1.9	0.26	20	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	0.1 J
CARBAZOLE	0.12 J	0.18 J	0.045 J	20	--
CHRYSENE	1.2	2.4	0.63	24	--
DIBENZ(A,H)ANTHRACENE	0.24	0.44	0.071	2.9	--
DIBENZOFURAN	0.057 J	0.15 J	--	34	--
FLUORANTHENE	0.94	1.8	0.56	54	0.02 J
FLUORENE	0.2 J	1.1	0.45	41	--
INDENO(1,2,3-CD)PYRENE	0.53	1	0.16	7	--
NAPHTHALENE	2	10	5.7	240	0.05 J
PHENANTHRENE	0.96	7.8	4.2	140	0.04 J
PYRENE	1.4	2.6	1	42	0.02 J
TOTAL SVOCs					
TOTAL SVOCs	13.637	46.18	18.378	797.5	0.23

21GN001	21GN001-17 15 to 17 mg/kg	21GN001-21 19 to 21 mg/kg	21GN001-33 31 to 33 mg/kg	21GN001-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	0.5 J	0.28 J	0.27 J	0.021 J
ACENAPHTHENE	--	0.028 J	0.062 J	--
ACENAPHTHYLENE	--	0.026 J	0.095 J	--
ANTHRACENE	--	0.029 J	0.079 J	--
BENZO(A)ANTHRACENE	--	0.048	0.13	--
BENZO(A)PYRENE	--	0.038 J	0.092	--
BENZO(B)FLUORANTHENE	--	0.019 J	0.048	--
BENZO(G,H,I)PERYLENE	--	--	0.047 J	--
BENZO(K)FLUORANTHENE	--	0.036 J	0.094	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.14 J	0.11 J	0.12 J
CARBAZOLE	0.1 J	0.01 J	0.024 J	--
CHRYSENE	--	0.048 J	0.13 J	--
DIBENZOFURAN	--	0.037 J	0.056 J	--
FLUORANTHENE	--	0.12 J	0.3 J	0.013 J
FLUORENE	--	0.09 J	0.19 J	--
INDENO(1,2,3-CD)PYRENE	--	--	0.034 J	--
NAPHTHALENE	27	3.8	1.5	0.096 J
PHENANTHRENE	0.13 J	0.3 J	0.76	0.051 J
PYRENE	0.053 J	0.14 J	0.35 J	0.02 J
TOTAL SVOCs				
TOTAL SVOCs	27.783	5.189	4.371	0.321

21GN002	21GN002-08 7 to 8 mg/kg	21GN002-15 13 to 15 mg/kg	21GN002-31 29 to 31 mg/kg	21GN002-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	1.4	0.014 J	--	--
4-METHYLPHENOL	0.018 J	--	--	--
ACENAPHTHENE	0.99	0.049 J	--	--
ACENAPHTHYLENE	2.4	0.061 J	--	--
ANTHRACENE	2.3	0.044 J	--	--
BENZO(A)ANTHRACENE	5.8	0.06	--	--
BENZO(A)PYRENE	6.5	0.045	--	--
BENZO(B)FLUORANTHENE	4.4	0.024 J	--	--
BENZO(G,H,I)PERYLENE	2.6	--	--	--
BENZO(K)FLUORANTHENE	5.6	0.035 J	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.16 J	0.14 J	--
CARBAZOLE	0.4 J	0.026 J	--	--
CHRYSENE	6.1	0.063 J	--	--
DIBENZ(A,H)ANTHRACENE	0.74	--	--	--
DIBENZOFURAN	0.92	0.017 J	--	--
FLUORANTHENE	7.9	0.12 J	0.016 J	--
FLUORENE	1.1	--	--	--
INDENO(1,2,3-CD)PYRENE	2.5	--	--	--
NAPHTHALENE	2.9	0.13 J	0.02 J	--
PHENANTHRENE	5.7	0.25 J	0.039 J	0.022 J
PYRENE	11 J	0.16 J	0.027 J	0.011 J
TOTAL SVOCs				
TOTAL SVOCs	71.268	1.258	0.242	0.033

21RE001	21RE001-09 7 to 9 mg/kg	21RE001-19 17 to 19 mg/kg	21RE001-29 27 to 29 mg/kg	21RE001-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	72 J	--
2-METHYLNAPHTHALENE	0.017 J	3.4	1000	0.057 J
4-METHYLPHENOL	--	--	31 J	--
ACENAPHTHENE	0.029 J	0.86	140 J	0.022 J
ACENAPHTHYLENE	0.099 J	0.78 J	210 J	0.037 J
ANTHRACENE	0.075 J	0.27	380	0.081 J
BENZO(A)ANTHRACENE	0.16	0.27	370	0.093
BENZO(A)PYRENE	0.16	0.18	300	0.064
BENZO(B)FLUORANTHENE	0.084	0.078	160	0.044
BENZO(G,H,I)PERYLENE	0.094 J	0.071 J	120 J	0.033 J
BENZO(K)FLUORANTHENE	0.15	0.16	290	0.055
BIS(2-ETHYLHEXYL)PHTHALATE	0.15 J	0.079 J	--	--
CARBAZOLE	0.015 J	0.097 J	170 J	0.044 J
CHRYSENE	0.18 J	0.31 J	310	0.084 J
DIBENZ(A,H)ANTHRACENE	0.026 J	0.028 J	48	0.014 J
DIBENZOFURAN	0.018 J	0.079 J	390	0.046 J
FLUORANTHENE	0.44	0.47	660	0.17 J
FLUORENE	0.076 J	0.66	520	0.08 J
INDENO(1,2,3-CD)PYRENE	0.075	0.06	120	0.03 J
NAPHTHALENE	0.03 J	6	3200	0.13 J
PHENANTHRENE	0.46	1.6	1800	0.37 J
PYRENE	0.49	0.72	690	0.2 J
TOTAL SVOCs				
TOTAL SVOCs	2.828	15.572	10981	1.654

21TP009	21TP009-09 7 to 9 mg/kg
SVOCs	
2-METHYLNAPHTHALENE	0.6 J
4-METHYLPHENOL	0.092 J
ACENAPHTHENE	3
ACENAPHTHYLENE	2.8
ANTHRACENE	2.1
BENZO(A)ANTHRACENE	11
BENZO(A)PYRENE	16
BENZO(B)FLUORANTHENE	14
BENZO(G,H,I)PERYLENE	4.9
BENZO(K)FLUORANTHENE	10
CARBAZOLE	0.44 J
CHRYSENE	11
DIBENZ(A,H)ANTHRACENE	2.3
DIBENZOFURAN	0.83
FLUORANTHENE	14
FLUORENE	2.1
INDENO(1,2,3-CD)PYRENE	5.6
NAPHTHALENE	2.2
PHENANTHRENE	3.9
PYRENE	17
TOTAL SVOCs	
TOTAL SVOCs	123.862

21RE004	21RE004-11 9 to 11 mg/kg	21RE004-21 19 to 21 mg/kg	21RE004-33 31 to 33 mg/kg	21RE004-41 39 to 41 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	0.2 J	0.19 J
2-METHYLNAPHTHALENE	300	85	0.4	6.3
4-METHYLPHENOL	--	--	--	0.078 J
ACENAPHTHENE	180	16	0.1 J	0.77
ACENAPHTHYLENE	37 J	12	0.23 J	2.4
ANTHRACENE	60	14	0.24 J	2.1
BENZO(A)ANTHRACENE	56	11	0.19	1.6
BENZO(A)PYRENE	38	10	0.15	1.3
BENZO(B)FLUORANTHENE	16	4.1	0.077	0.64
BENZO(G,H,I)PERYLENE	13 J	4.7 J	--	0.59 J
BENZO(K)FLUORANTHENE	37	6.8	0.12	1.1
CARBAZOLE	3.2 J	--	0.14 J	0.98
CHRYSENE	54	11	0.18 J	1.6
DIBENZ(A,H)ANTHRACENE	3.3 J	--	--	0.2
DIBENZOFURAN	16 J	3.4 J	0.15 J	1.6
FLUORANTHENE	94	18	0.39 J	3.7
FLUORENE	120	22	0.33 J	3.1
INDENO(1,2,3-CD)PYRENE	11	3.9	0.047	0.55
NAPHTHALENE	690	180	0.33 J	9.8
PHENANTHRENE	330	77	1.1	9.3
PYRENE	150	34	0.39 J	3.5
TOTAL SVOCs				
TOTAL SVOCs	2218.5	492.9	4.764	51.398

21RE005	21RE005-11 10 to 11 mg/kg	21RE005-23 21 to 23 mg/kg	21RE005-29 27 to 29 mg/kg	21RE005-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	860	1200	2000	0.025 J
ACENAPHTHENE	340	67 J	120 J	--
ACENAPHTHYLENE	42 J	300	500	0.025 J
ANTHRACENE	110 J	110 J	200	0.025 J
BENZO(A)ANTHRACENE	59	70	130	0.029 J
BENZO(A)PYRENE	47	55	110	0.022 J
BENZO(B)FLUORANTHENE	18	23	40	0.0093 J
BENZO(G,H,I)PERYLENE	19 J	20 J	38 J	--
BENZO(K)FLUORANTHENE	34	37	79	0.021 J
CARBAZOLE	5.1 J	5.8 J	16 J	--
CHRYSENE	58 J	68 J	130 J	0.031 J
DIBENZ(A,H)ANTHRACENE	6.1 J	6.6 J	13 J	--
DIBENZOFURAN	24 J	38 J	73 J	--
FLUORANTHENE	88 J	110 J	200	0.052 J
FLUORENE	130	160 J	300	0.018 J
INDENO(1,2,3-CD)PYRENE	16	18 J	33	--
NAPHTHALENE	2600	2200	3800	0.048 J
PHENANTHRENE	390	480	880	0.11 J
PYRENE	150	180 J	330	0.063 J
TOTAL SVOCs				
TOTAL SVOCs	4998.2	5148.4	8992	0.4783

21RE006	21RE006-11 9 to 11 mg/kg	21RE006-15 13 to 15 mg/kg	21RE006-15DUP 13 to 15 mg/kg	21RE006-31 29 to 31 mg/kg	21RE006-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	--	--	1.4 J	--
2-METHYLNAPHTHALENE	41	11 J	9.1 J	40 J	0.1 J
ACENAPHTHENE	11 J	35	72 J	4.3 J	0.031 J
ACENAPHTHYLENE	43	19 J	37 J	12 J	0.072 J
ANTHRACENE	22	23	58 J	10 J	0.09 J
BENZO(A)ANTHRACENE	17	16	30 J	11 J	0.11
BENZO(A)PYRENE	17	13	20 J	10 J	0.099
BENZO(B)FLUORANTHENE	6.4	5.3	7.3 J	6.4 J	0.054
BENZO(G,H,I)PERYLENE	8.6 J	5.2 J	5.4 J	3.2 J	--
BENZO(K)FLUORANTHENE	11	8.7	20 J	10 J	0.077
CARBAZOLE	0.43 J	0.57 J	1.2 J	6.5 J	0.05 J
CHRYSENE	19 J	16 J	32 J	9.8 J	0.1 J
DIBENZ(A,H)ANTHRACENE	--	--	1.8 J	--	--
DIBENZOFURAN	4.3 J	5.3 J	10 J	13 J	0.077 J
FLUORANTHENE	29	28	62 J	24 J	0.22 J
FLUORENE	41	47	90 J	21 J	0.14 J
INDENO(1,2,3-CD)PYRENE	7.1	--	4.9 J	3.2 J	--
NAPHTHALENE	370	34	40 J	120 J	0.1 J
PHENANTHRENE	140	160	250 J	68 J	0.54
PYRENE	44	46	100 J	22 J	0.22 J
TOTAL SVOCs					
TOTAL SVOCs	831.83	473.07	850.7	395.8	2.08

21GT001	21GT001-09 7 to 9 mg/kg	21GT001-19 17 to 19 mg/kg	21GT001-27 25 to 27 mg/kg	21GT001-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	0.011 J	7.1	600	0.018 J
ACENAPHTHENE	0.0078 J	7.1	130	--
ACENAPHTHYLENE	0.027 J	--	54 J	--
ANTHRACENE	0.019 J	1.8	52 J	--
BENZO(A)ANTHRACENE	0.05	1.3	32	--
BENZO(A)PYRENE	0.056	2.1	29	--
BENZO(B)FLUORANTHENE	0.038 J	0.91	10	--
BENZO(G,H,I)PERYLENE	--	1.5	11 J	--
BENZO(K)FLUORANTHENE	0.054	1.5	18	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	0.096 J
CARBAZOLE	--	0.15 J	2.9 J	--
CHRYSENE	0.058 J	1.5	32 J	--
DIBENZ(A,H)ANTHRACENE	--	0.6	--	--
DIBENZOFURAN	--	0.48 J	12 J	--
FLUORANTHENE	0.089 J	2	51 J	--
FLUORENE	--	2.6	80	--
INDENO(1,2,3-CD)PYRENE	--	1.3	8.9	--
NAPHTHALENE	--	19	900	0.037 J
PHENANTHRENE	0.068 J	7.8	230	0.028 J
PYRENE	0.1 J	2.7	80	--
TOTAL SVOCs				
TOTAL SVOCs	0.5778	61.44	2332.8	0.179

21ER001	21ER001-11 9 to 11 mg/kg	21ER001-15 13 to 15 mg/kg	21ER001-33 31 to 33 mg/kg	21ER001-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	0.014 J	--	--
2-METHYLNAPHTHALENE	3.5	0.52	--	0.07 J
2-METHYLPHENOL	--	0.012 J	--	--
4-METHYLPHENOL	--	0.011 J	--	--
ACENAPHTHENE	12	0.62	0.011 J	0.04 J
ACENAPHTHYLENE	2.8	0.1 J	--	0.021 J
ANTHRACENE	2 J	0.11 J	--	0.029 J
BENZO(A)ANTHRACENE	6.7	0.15	0.01 J	0.021 J
BENZO(A)PYRENE	6.8	0.12	--	0.023 J
BENZO(B)FLUORANTHENE	4	0.068	--	0.01 J
BENZO(G,H,I)PERYLENE	4.3	0.064 J	--	--
BENZO(K)FLUORANTHENE	6.2	0.1	--	0.012 J
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.11 J	--	--
CARBAZOLE	0.19 J	--	--	0.013 J
CHRYSENE	6.7	0.14 J	0.0094 J	0.027 J
DIBENZ(A,H)ANTHRACENE	0.54	0.018 J	--	--
DIBENZOFURAN	0.25 J	0.012 J	--	0.022 J
FLUORANTHENE	6.4	0.2 J	0.016 J	0.058 J
FLUORENE	0.76 J	0.2 J	--	0.039 J
INDENO(1,2,3-CD)PYRENE	3.8	0.052	--	--
NAPHTHALENE	22	3.1	0.017 J	0.28 J
PHENANTHRENE	2.6	0.39 J	--	0.14 J
PYRENE	9.3	0.31 J	0.014 J	0.062 J
TOTAL SVOCs				
TOTAL SVOCs	100.84	6.421	0.0774	0.867

21ER003	21ER003-13 11 to 13 mg/kg	21ER003-21 19 to 21 mg/kg	21ER003-33 31 to 33 mg/kg	21ER003-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	30	130	83	4.2
2-METHYLPHENOL	--	--	--	0.032 J
4-METHYLPHENOL	--	--	--	0.046 J
ACENAPHTHENE	10	46	29	1.7
ACENAPHTHYLENE	2.2 J	10 J	20	0.43 J
ANTHRACENE	9	24	32	2.3
BENZO(A)ANTHRACENE	8.4	22	26	1.3
BENZO(A)PYRENE	6.5	19	22	1.1
BENZO(B)FLUORANTHENE	4	13	14	0.75
BENZO(G,H,I)PERYLENE	2.7 J	8.6 J	9.2 J	0.48 J
BENZO(K)FLUORANTHENE	5.8	16	19	0.98
CARBAZOLE	4.7 J	4.6 J	14 J	2.3
CHRYSENE	8.9	22	25	1.3
DIBENZ(A,H)ANTHRACENE	--	--	3.6	--
DIBENZOFURAN	7.2 J	32	34	1.3
FLUORANTHENE	21	54	65	3.7
FLUORENE	10	35	42	2.1
INDENO(1,2,3-CD)PYRENE	2.6	8.5	9.1	0.48
NAPHTHALENE	110	340	290	19
PHENANTHRENE	33	110	120	6.1
PYRENE	17	42	52	2.9
TOTAL SVOCs				
TOTAL SVOCs	293	936.7	908.9	52.498

21SC001	21SC001-13 11 to 13 mg/kg	21SC001-17 15 to 17 mg/kg	21SC001-25 23 to 25 mg/kg	21SC001-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	0.06 J	--	--
2-METHYLNAPHTHALENE	2.6	9.7	910	0.013 J
2-METHYLPHENOL	--	0.048 J	--	--
4-METHYLPHENOL	--	0.062 J	--	--
ACENAPHTHENE	1.2	1.8 J	130 J	0.0085 J
ACENAPHTHYLENE	0.22 J	2.4	1100	0.018 J
ANTHRACENE	0.68	1.1 J	210	--
BENZO(A)ANTHRACENE	0.48	0.52	160	--
BENZO(A)PYRENE	0.43	0.4	180	--
BENZO(B)FLUORANTHENE	0.22	0.14 J	54	--
BENZO(G,H,I)PERYLENE	0.26 J	0.14 J	120 J	--
BENZO(K)FLUORANTHENE	0.37	0.3	120	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.13 J	--	--	--
CARBAZOLE	0.049 J	--	--	--
CHRYSENE	0.51	0.52 J	160 J	--
DIBENZ(A,H)ANTHRACENE	0.078	--	--	--
DIBENZOFURAN	0.072 J	0.29 J	--	--
DIETHYL PHTHALATE	0.37 J	--	--	--
FLUORANTHENE	0.95	0.87 J	520	0.02 J
FLUORENE	0.61	1.4 J	460	--
INDENO(1,2,3-CD)PYRENE	0.22	0.12 J	66	--
NAPHTHALENE	8	24	3700	0.06 J
PHENANTHRENE	2.2	4	1300	0.052 J
PYRENE	1.2	1.2 J	690	0.025 J
TOTAL SVOCs				
TOTAL SVOCs	20.849	49.07	9880	0.1965

21ER002	21ER002-12 10 to 12 mg/kg	21ER002-20 18 to 20 mg/kg	21ER002-20DUP 18 to 20 mg/kg	21ER002-26 24 to 26 mg/kg	21ER002-51 49 to 51 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	69	0.45 J	0.24 J	63	--
ACENAPHTHENE	23	0.14 J	0.097 J	3 J	--
ACENAPHTHYLENE	3.8 J	0.03 J	0.033 J	13	--
ANTHRACENE	9.2	0.056 J	0.053 J	6 J	--
BENZO(A)ANTHRACENE	5.3	0.045 J	0.047 J	5.1	--
BENZO(A)PYRENE	4.5	0.03 J	0.034 J	4	--
BENZO(B)FLUORANTHENE	1.5	0.014 J	0.019 J	1.4	--
BENZO(G,H,I)PERYLENE	2.1 J	0.015 J	0.018 J	1.6 J	--
BENZO(K)FLUORANTHENE	3.2	0.02 J	0.028 J	3 J	--
CARBAZOLE	0.88 J	--	--	0.3 J	--
CHRYSENE	5.6 J	0.044 J	0.043 J	6 J	--
DIBENZ(A,H)ANTHRACENE	--	--	--	0.52 J	--
DIBENZOFURAN	1.9 J	0.016 J	0.013 J	1.2 J	--
FLUORANTHENE	8.6	0.065 J	0.068 J	7 J	--
FLUORENE	10	0.064 J	0.065 J	7.9 J	--
INDENO(1,2,3-CD)PYRENE	1.7	0.011 J	0.013 J	1.3	--
NAPHTHALENE	120	3.4	2.1	120	--
PHENANTHRENE	32	0.22 J	0.24 J	31	--
PYRENE	16	0.1 J	0.12 J	12	--
TOTAL SVOCs					
TOTAL SVOCs	318.28	4.72	3.231	287.32	--

21PF001	21PF001-11 9 to 11 mg/kg	21PF001-13 11 to 13 mg/kg	21PF001-31 29 to 31 mg/kg	21PF001-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	0.26 J	0.58	--	--
4-METHYLPHENOL	0.044 J	--	--	--
ACENAPHTHENE	0.88	1.1	--	--
ACENAPHTHYLENE	3.3	2.2	--	--
ANTHRACENE	1.7	2.2	--	--
BENZO(A)ANTHRACENE	1.6	1.3	--	--
BENZO(A)PYRENE	2.5	1.1	--	--
BENZO(B)FLUORANTHENE	1.3	0.46	--	--
BENZO(G,H,I)PERYLENE	2.6	0.71	--	--
BENZO(K)FLUORANTHENE	1.5	0.71	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	0.088 J
BUTYLBENZYLPHTHALATE	0.088 J	--	--	--
CARBAZOLE	0.096 J	0.02 J	--	--
CHRYSENE	1.6	1.1	--	--
DIBENZ(A,H)ANTHRACENE	0.52	0.047	--	--
DIBENZOFURAN	0.18 J	--	--	--
FLUORANTHENE	2.1	1.9	--	--
FLUORENE	0.16 J	2	--	--
INDENO(1,2,3-CD)PYRENE	1.7	0.44	--	--
NAPHTHALENE	0.86	5.4	--	--
PHENANTHRENE	1.7	6.2	--	--
PYRENE	3.5 J	3.4 J	--	--
TOTAL SVOCs				
TOTAL SVOCs	28.188	30.867	--	0.088

21SC002	21SC002-15 13 to 15 mg/kg	21SC002-25 23 to 25 mg/kg	21SC002-31 29 to 31 mg/kg	21SC002-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	5.1	160	0.016 J	0.032 J
ACENAPHTHENE	2.8	5.6 J	--	0.19 J
ACENAPHTHYLENE	1.7 J	41	0.018 J	0.13 J
ANTHRACENE	1.8 J	14 J	0.015 J	0.26 J
BENZO(A)ANTHRACENE	1.3	8.9	0.012 J	0.24
BENZO(A)PYRENE	1.4	6.4	0.01 J	0.2
BENZO(B)FLUORANTHENE	0.62	2.6	--	0.1
BENZO(G,H,I)PERYLENE	0.84 J	2.3 J	--	0.11 J
BENZO(K)FLUORANTHENE	1.1	3.8	--	0.19
CARBAZOLE	0.058 J	--	--	0.014 J
CHRYSENE	1.4 J	9.4 J	0.014 J	0.24 J
DIBENZ(A,H)ANTHRACENE	0.24	0.79 J	--	0.016 J
DIBENZOFURAN	0.23 J	3 J	--	0.063 J
FLUORANTHENE	2.1 J	12 J	0.018 J	0.48
FLUORENE	1.2 J	17 J	--	0.25 J
INDENO(1,2,3-CD)PYRENE	0.69	1.8 J	--	0.089
NAPHTHALENE	28	360	0.029 J	0.054 J
PHENANTHRENE	7.9	51	0.056 J	1
PYRENE	4.1	21 J	0.032 J	0.55
TOTAL SVOCs				
TOTAL SVOCs	62.578	720.59	0.218	4.208

21SC003	21SC003-11 9 to 11 mg/kg	21SC003-15 13 to 15 mg/kg	21SC003-35 33 to 35 mg/kg	21SC003-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	9.7	18	2	0.043 J
ACENAPHTHENE	4.1	3.7 J	0.15 J	--
ACENAPHTHYLENE	4.9	3.3 J	0.73	--
ANTHRACENE	2.6	2.7 J	0.39 J	--
BENZO(A)ANTHRACENE	4.1	1.7	0.24	--
BENZO(A)PYRENE	5.9	1.3	0.19	--
BENZO(B)FLUORANTHENE	3	0.51	0.067	--
BENZO(G,H,I)PERYLENE	4.3	0.61 J	0.082 J	--
BENZO(K)FLUORANTHENE	4.2	0.84	0.12	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.5 J	--	0.21 J	0.24 J
CARBAZOLE	0.14 J	--	--	--
CHRYSENE	4.7	1.7 J	0.27 J	--
DIBENZ(A,H)ANTHRACENE	1.2	--	--	--
DIBENZOFURAN	0.24 J	0.3 J	0.058 J	--
FLUORANTHENE	3.9	2.8 J	0.39 J	0.014 J
FLUORENE	2.1	3.1 J	0.46	--
INDENO(1,2,3-CD)PYRENE	3	0.43	0.053	--
NAPHTHALENE	30	50	3.3	0.13 J
PHENANTHRENE	7	9.6	1.4	0.039 J
PYRENE	7.1	4.8	0.7	0.023 J
TOTAL SVOCs				
TOTAL SVOCs	102.68	105.39	10.81	0.489

21MH001	21MH001-07 5 to 7 mg/kg	21MH001-17 15 to 17 mg/kg	21MH001-33 31 to 33 mg/kg	21MH001-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	0.26 J	0.085 J	0.012 J	--
ACENAPHTHENE	0.03 J	0.17 J	--	--
ACENAPHTHYLENE	0.16 J	0.028 J	--	--
ANTHRACENE	0.059 J	0.29 J	--	--
BENZO(A)ANTHRACENE	0.09	0.29	--	--
BENZO(A)PYRENE	0.076	0.17	--	--
BENZO(B)FLUORANTHENE	0.038	0.12	--	--
BENZO(G,H,I)PERYLENE	0.052 J	0.098 J	--	--
BENZO(K)FLUORANTHENE	0.07	0.22	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.24 J	0.21 J	--	0.093 J
CARBAZOLE	--	0.12 J	--	--
CHRYSENE	0.096 J	0.28 J	--	--
DIBENZOFURAN	0.015 J	0.13 J	--	--
FLUORANTHENE	0.22 J	0.62	0.012 J	--
FLUORENE	0.11 J	0.19 J	--	--
INDENO(1,2,3-CD)PYRENE	0.036 J	0.097	--	--
NAPHTHALENE	1.2	0.17 J	0.051 J	--
PHENANTHRENE	0.46	0.92	0.041 J	--
PYRENE	0.3 J	0.55	0.014 J	--
TOTAL SVOCs				
TOTAL SVOCs	3.512	4.758	0.13	0.093

21PF004	21PF004-11 9 to 11 mg/kg	21PF004-15 13 to 15 mg/kg	21PF004-31 29 to 31 mg/kg	21PF004-51 49 to 51 mg/kg	21TP014-07 5 to 7 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	1.8 J	0.055 J	--	--	--
4-METHYLPHENOL	0.1 J	--	--	--	--
ACENAPHTHENE	7.2	0.66	--	--	0.085 J
ACENAPHTHYLENE	3.4	0.45	--	--	6.6
ANTHRACENE	10	0.21 J	--	--	1.1
BENZO(A)ANTHRACENE	19	0.63	--	--	0.42
BENZO(A)PYRENE	17	0.88	--	--	1.9
BENZO(B)FLUORANTHENE	13	0.37	--	--	0.96
BENZO(G,H,I)PERYLENE	10	0.68	--	--	5.9
BENZO(K)FLUORANTHENE	15	0.68	--	--	0.81
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.092 J	0.18 J	--	--
CARBAZOLE	2.9	0.017 J	--	--	0.02 J
CHRYSENE	16	0.67	--	--	0.51
DIBENZ(A,H)ANTHRACENE	4.7	0.16	--	--	--
DIBENZOFURAN	2.2	0.023 J	--	--	--
FLUORANTHENE	34	0.97	--	--	0.43 J
FLUORENE	5.3	0.12 J	--	--	0.3 J
INDENO(1,2,3-CD)PYRENE	9.1	0.48	--	--	2.8
NAPHTHALENE	3.6	0.26 J	--	--	0.19 J
PHENANTHRENE	29	0.38 J	--	--	0.33 J
PYRENE	32	1.6	0.013 J	--	0.64
TOTAL SVOCs					
TOTAL SVOCs	235.3	9.387	0.193	--	22.995

21PF002	21PF002-09 7 to 9 mg/kg	21PF002-19 17 to 19 mg/kg	21PF002-31 29 to 31 mg/kg	21PF002-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	0.01 J	--	--	--
2-METHYLNAPHTHALENE	1.5	--	--	--
4-METHYLPHENOL	0.016 J	--	--	--
ACENAPHTHENE	0.55	--	--	--
ACENAPHTHYLENE	4.2	--	--	--
ANTHRACENE	1.1	--	--	--
BENZO(A)ANTHRACENE	0.45	--	--	--
BENZO(A)PYRENE	0.93	--	--	--
BENZO(B)FLUORANTHENE	0.5	--	--	--
BENZO(G,H,I)PERYLENE	2.4	--	--	--
BENZO(K)FLUORANTHENE	0.37	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.31 J	0.18 J	0.16 J	0.15 J
CHRYSENE	0.54	--	--	--
DIBENZ(A,H)ANTHRACENE	0.29	--	--	--
FLUORANTHENE	0.78	--	--	--
FLUORENE	0.45	--	--	--
INDENO(1,2,3-CD)PYRENE	1.1	--	--	--
NAPHTHALENE	5.2	0.059 J	--	--
PHENANTHRENE	1.8	--	--	--
PYRENE	1.4	--	--	--
TOTAL SVOCs				
TOTAL SVOCs	23.896	0.239	0.16	0.15

21PF003	21PF003-11 9 to 11 mg/kg	21PF003-21 19 to 21 mg/kg	21PF003-35 33 to 35 mg/kg	21PF003-51 49 to 51 mg/kg
SVOCs				
ACENAPHTHENE	16	0.011 J	--	--
ACENAPHTHYLENE	14	0.018 J	--	--
ANTHRACENE	12	0.024 J	--	--
BENZO(A)ANTHRACENE	12	0.03 J	--	--
BENZO(A)PYRENE	11	0.026 J	--	--
BENZO(B)FLUORANTHENE	6	0.017 J	--	--
BENZO(G,H,I)PERYLENE	6.9	--	--	--
BENZO(K)FLUORANTHENE	8.8	0.022 J	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.78	0.19 J	--
CARBAZOLE	0.62 J	--	--	--
CHRYSENE	12	0.034 J	--	--
DIBENZ(A,H)ANTHRACENE	2	--	--	--
DIBENZOFURAN	2.2	--	--	--
FLUORANTHENE	17	0.08 J	--	--
FLUORENE	14	0.017 J	--	--
INDENO(1,2,3-CD)PYRENE	5.5	--	--	--
NAPHTHALENE	35	0.029 J	--	--
PHENANTHRENE	40	0.11 J	--	--
PYRENE	29	0.072 J	--	--
TOTAL SVOCs				
TOTAL SVOCs	244.02	1.27	0.19	--

21PF005	21PF005-09 7 to 9 mg/kg	21PF005-17 15 to 17 mg/kg	21PF005-31 29 to 31 mg/kg	21PF005-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	8.9	1.5	--	0.035 J
ACENAPHTHENE	10	1.2	38	0.2 J
ACENAPHTHYLENE	2.6	0.97	27	0.53
ANTHRACENE	4.8	1.1	25	0.33 J
BENZO(A)ANTHRACENE	4.2	1.5	33	0.47
BENZO(A)PYRENE	4.4	2	33	0.49
BENZO(B)FLUORANTHENE	2.4	1.1	17	0.23
BENZO(G,H,I)PERYLENE	3	1.3	18	0.24 J
BENZO(K)FLUORANTHENE	3.3	1.6	20	0.3
BIS(2-ETHYLHEXYL)PHTHALATE	0.44 J	0.2 J	--	0.089 J
CARBAZOLE	0.26 J	0.13 J	0.49 J	0.011 J
CHRYSENE	4.1	1.6	29	0.45
DIBENZ(A,H)ANTHRACENE	0.7	0.49	4	0.058
DIBENZOFURAN	0.64 J	0.23 J	9.9	0.089 J
FLUORANTHENE	7.3	2.5	85	1.3
FLUORENE	5.7	0.76	40	0.48
INDENO(1,2,3-CD)PYRENE	2	1.1	12	0.14
NAPHTHALENE	33	4.6	0.22 J	0.066 J
PHENANTHRENE	18	3.2	130	1.8
PYRENE	12	3	100	1.5
TOTAL SVOCs				
TOTAL SVOCs	127.74	30.08	621.61	8.808

21BR001	21BR001-129 127 to 129 mg/kg
SVOCs	
BIS(2-ETHYLHEXYL)PHTHALATE	0.11 J
PHENANTHRENE	0.0082 J
TOTAL SVOCs	
TOTAL SVOCs	0.1182

21PF007	21PF007-07 5 to 7 mg/kg	21PF007-15 13 to 15 mg/kg	21PF007-33 31 to 33 mg/kg	21PF007-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	0.011 J	--	--	--
2-METHYLNAPHTHALENE	0.38 J	0.0089 J	--	0.022 J
4-METHYLPHENOL	0.025 J	--	--	--
ACENAPHTHENE	0.83	--	--	--
ACENAPHTHYLENE	0.86	--	0.029 J	0.029 J
ANTHRACENE	2.6	0.034 J	0.019 J	0.022 J
BENZO(A)ANTHRACENE	4.9	0.07 J	0.039 J	0.031 J
BENZO(A)PYRENE	5.2	--	0.035 J	0.031 J
BENZO(B)FLUORANTHENE	4.3	--	0.017 J	0.011 J
BENZO(G,H,I)PERYLENE	2.7	--	0.021 J	0.018 J
BENZO(K)FLUORANTHENE	3.7	--	0.025 J	0.02 J
BIS(2-ETHYLHEXYL)PHTHALATE	0.8	0.13 J	0.19 J	0.12 J
BUTYLBENZYLPHTHALATE	0.21 J	--	--	--
CARBAZOLE	0.67	--	--	--
CHRYSENE	4.6	0.065 J	0.044 J	0.034 J
DIBENZOFURAN	0.49	0.0089 J	--	--
FLUORANTHENE	9.1	0.11 J	0.08 J	0.062 J
FLUORENE	0.97	--	--	0.027 J
INDENO(1,2,3-CD)PYRENE	2.5	--	0.014 J	0.01 J
NAPHTHALENE	0.51	--	--	0.036 J
PHENANTHRENE	7.6	0.15 J	0.13 J	0.14 J
PYRENE	7.9 J	0.14 J	0.13 J	0.1 J
TOTAL SVOCs				
TOTAL SVOCs	60.856	0.7168	0.773	0.713

21PF008	21PF008-13 11 to 13 mg/kg	21PF008-23 21 to 23 mg/kg	21PF008-31 29 to 31 mg/kg	21PF008-51 49 to 51 mg/kg
SVOCs				
ACENAPHTHENE	0.12 J	--	--	--
ACENAPHTHYLENE	0.12 J	--	--	--
ANTHRACENE	0.056 J	--	--	--
BENZO(A)ANTHRACENE	0.21 J	--	--	--
BENZO(A)PYRENE	0.26 J	--	--	--
BENZO(B)FLUORANTHENE	0.12 J	--	--	--
BENZO(G,H,I)PERYLENE	0.21 J	--	--	--
BENZO(K)FLUORANTHENE	0.16 J	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.1 J	--	--	--
CHRYSENE	0.23 J	--	--	--
FLUORANTHENE	0.4 J	--	--	--
INDENO(1,2,3-CD)PYRENE	0.14 J	--	--	--
PHENANTHRENE	0.053 J	--	--	--
PYRENE	0.7 J	--	--	--
TOTAL SVOCs				
TOTAL SVOCs	2.879	--	--	--

21SC004	21SC004-07 5 to 7 mg/kg	21SC004-17 15 to 17 mg/kg	21SC004-29 27 to 29 mg/kg	21SC004-51 49 to 51 mg/kg
SVOCs				
1,2,4-TRICHLOROBENZENE	0.022 J	--	--	--
2,4-DIMETHYLPHENOL	0.036 J	--	--	--
2-METHYLNAPHTHALENE	1.1	29	420	0.84
4-METHYLPHENOL	0.075 J	--	--	--
ACENAPHTHENE	0.66 J	4.6	57 J	0.18 J
ACENAPHTHYLENE	3.6	8.3	410	0.98
ANTHRACENE	2.3	3.6 J	130	0.5
BENZO(A)ANTHRACENE	4.3	2	100	0.39
BENZO(A)PYRENE	7.5	1.5	92	0.35
BENZO(B)FLUORANTHENE	5.7	0.57	39	0.14
BENZO(G,H,I)PERYLENE	4.1	0.68 J	51 J	0.21 J
BENZO(K)FLUORANTHENE	5.5	1.2	76	0.29
BIS(2-ETHYLHEXYL)PHTHALATE	0.26 J	--	--	0.15 J
CARBAZOLE	0.36 J	0.1 J	35 J	0.12 J
CHRYSENE	5	2.2 J	100 J	0.39 J
DIBENZ(A,H)ANTHRACENE	1.5	0.23 J	12	0.042 J
DIBENZOFURAN	0.41 J	0.88 J	75 J	0.16 J
FLUORANTHENE	4.8	3.5 J	290	1.1
FLUORENE	0.67 J	4.4	210	0.72
INDENO(1,2,3-CD)PYRENE	3.8	0.54	37	0.14
NAPHTHALENE	2.8	68	1900	1.9
PHENANTHRENE	4.9	13	640	2.4
PYRENE	8	5.1	290	1.2
TOTAL SVOCs				
TOTAL SVOCs	67.393	149.4	4964	12.202

21PF006	21PF006-09 7 to 9 mg/kg	21PF006-11 10 to 11 mg/kg	21PF006-13 12 to 13 mg/kg	21PF006-14 13 to 13.5 mg/kg	21PF006-35 33 to 35 mg/kg	21PF006-51 49 to 51 mg/kg
SVOCs						
2-METHYLNAPHTHALENE	0.86	6.2	400	68	5.1	2.3
4-METHYLPHENOL	0.019 J	0.16 J	--	--	--	--
ACENAPHTHENE	0.31 J	36	400	87	3.2	1.8
ACENAPHTHYLENE	7.8	8.6	52 J	11 J	1.7 J	0.64
ANTHRACENE	2.2	16	210	48	2.1 J	1.2
BENZO(A)ANTHRACENE	0.7	12	160	40	1.7	0.84
BENZO(A)PYRENE	1.8	8.2	130	30	1.2	0.7
BENZO(B)FLUORANTHENE	0.94	3.4	66	15	0.64	0.35
BENZO(G,H,I)PERYLENE	3	2.3 J	0.52 J	6 J	0.67 J	0.33 J
BENZO(K)FLUORANTHENE	0.59	4.6	100	23	1	0.64
BIS(2-ETHYLHEXYL)PHTHALATE	0.083 J	--	--	--	--	--
CARBAZOLE	--	0.74 J	48 J	8.9 J	0.68 J	0.35 J
CHRYSENE	0.67	14	150 J	39	1.5 J	0.81
DIBENZ(A,H)ANTHRACENE	0.38	1.4	8.2 J	5.9	--	--
DIBENZOFURAN	--	2.4 J	64 J	13 J	1.4 J	0.71
FLUORANTHENE	0.55	16	300	70	3.9	1.7
FLUORENE	0.59	11	210	42	2.8	1.3
INDENO(1,2,3-CD)PYRENE	1.6	2.1	51	12	0.46 J	0.27
NAPHTHALENE	2.5	28	2900	510	24	9.4
PHENANTHRENE	0.93	58	620	140	8.9	5.2
PYRENE	1.6	42	440	100	4.2	2.1
TOTAL SVOCs						
TOTAL SVOCs	27.122	273.1	6309.72	1278.8	65.15	30.64

21CH005	21CH005-07 5 to 7 mg/kg	21CH005-19 17 to 19 mg/kg	21CH005-27 25 to 27 mg/kg	21CH005-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	1.2 J	--
2-METHYLNAPHTHALENE	0.052 J	--	420	--
4-METHYLPHENOL	0.0088 J	--	--	--
ACENAPHTHENE	0.13 J	0.028 J	41 J	--
ACENAPHTHYLENE	0.099 J	--	150	--
ANTHRACENE	0.38 J	0.016 J	160	--
BENZO(A)ANTHRACENE	0.71	0.016 J	110	--
BENZO(A)PYRENE	0.64	0.012 J	83	--
BENZO(B)FLUORANTHENE	0.44	--	58	--
BENZO(G,H,I)PERYLENE	0.38 J	--	32 J	--
BENZO(K)FLUORANTHENE	0.65	--	83	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.35 J	--	--	--
CARBAZOLE	0.12 J	--	57	--
CHRYSENE	0.77	0.022 J	110	--
DIBENZ(A,H)ANTHRACENE	0.16	--	14	--
DIBENZOFURAN	0.1 J	--	120	--
FLUORANTHENE	1.6	0.029 J	250	--
FLUORENE	0.16 J	--	240	--
INDENO(1,2,3-CD)PYRENE	0.32	--	28	--
NAPHTHALENE	0.095 J	--	1100	--
PHENANTHRENE	1.5	0.061 J	500	--
PYRENE	1.5	0.048 J	240	0.025 J
TOTAL SVOCs				
TOTAL SVOCs	10.1648	0.232	3797.2	0.025

21CH007	21CH007-15 13 to 15 mg/kg	21CH007-23 21 to 23 mg/kg	21CH007-51 49 to 51 mg/kg
SVOCs			
2-METHYLNAPHTHALENE	0.064 J	1.7	--
4-METHYLPHENOL	--	0.054 J	--
ACENAPHTHENE	0.057 J	2.8	--
ACENAPHTHYLENE	0.083 J	0.67 J	--
ANTHRACENE	0.052 J	1.7	--
BENZO(A)ANTHRACENE	0.16	1.7	--
BENZO(A)PYRENE	0.21 J	1.4	--
BENZO(B)FLUORANTHENE	0.092	0.91	--
BENZO(G,H,I)PERYLENE	0.15 J	0.56 J	--
BENZO(K)FLUORANTHENE	0.22	1.4	--
CARBAZOLE	--	1.3	--
CHRYSENE	0.16 J	1.6	--
DIBENZ(A,H)ANTHRACENE	0.074	0.28	--
DIBENZOFURAN	0.011 J	1.6	--
FLUORANTHENE	0.21 J	2.6	--
FLUORENE	0.037 J	3	--
INDENO(1,2,3-CD)PYRENE	0.12	0.58	--
NAPHTHALENE	0.58	6.4	--
PHENANTHRENE	0.2 J	7.4	--
PYRENE	0.27 J	2.5	--
TOTAL SVOCs			
TOTAL SVOCs	2.75	40.154	--

21PF009	21PF009-09 7 to 9 mg/kg	21PF009-15 13 to 15 mg/kg	21PF009-33 31 to 33 mg/kg	21PF009-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	0.036 J	--	--	--
ACENAPHTHENE	0.1 J	0.02 J	--	--
ACENAPHTHYLENE	0.074 J	--	--	--
ANTHRACENE	0.24 J	--	--	--
BENZO(A)ANTHRACENE	0.0093 J	--	--	--
BENZO(A)PYRENE	0.0088 J	--	--	--
BENZO(K)FLUORANTHENE	0.01 J	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.08 J	0.23 J	--	0.13 J
CHRYSENE	0.012 J	--	--	--
FLUORANTHENE	0.068 J	--	--	--
FLUORENE	0.083 J	--	--	--
NAPHTHALENE	0.15 J	--	--	--
PHENANTHRENE	0.14 J	0.025 J	--	--
PYRENE	0.16 J	0.017 J	--	--
TOTAL SVOCs				
TOTAL SVOCs	1.1711	0.292	--	0.13

21PF012	21PF012-09 7 to 9 mg/kg	21PF012-09DUP 7 to 9 mg/kg	21PF012-17 15 to 17 mg/kg	21PF012-31 29 to 31 mg/kg	21PF012-51 49 to 51 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	1.6 J	0.79 J	0.096 J	0.012 J	--
4-METHYLPHENOL	--	0.085 J	--	--	--
ACENAPHTHENE	8.6	7.8	2.2	0.058 J	--
ACENAPHTHYLENE	7.3	5.9	0.19 J	0.041 J	--
ANTHRACENE	10	9.3	0.12 J	0.054 J	--
BENZO(A)ANTHRACENE	12	12	0.019 J	0.31	--
BENZO(A)PYRENE	13	13	0.014 J	0.7	--
BENZO(B)FLUORANTHENE	7.8	8.4	0.011 J	0.35	--
BENZO(G,H,I)PERYLENE	7.8	7.9	--	0.36 J	--
BENZO(K)FLUORANTHENE	10	10	0.012 J	0.59	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	0.12 J	0.086 J	0.095 J
CARBAZOLE	0.85 J	0.93 J	0.018 J	0.017 J	--
CHRYSENE	12	12	0.027 J	0.3 J	--
DIBENZ(A,H)ANTHRACENE	0.79 J	0.84	--	0.21	--
DIBENZOFURAN	1.4 J	1.3 J	0.012 J	0.0079 J	--
FLUORANTHENE	18	19	0.062 J	0.22 J	--
FLUORENE	9	8	0.48 J	0.032 J	--
INDENO(1,2,3-CD)PYRENE	6.4	6.4	--	0.38	--
ISOPHORONE	--	0.2 J	--	--	--
NAPHTHALENE	6.9	4.1	1.2	0.043 J	--
PHENANTHRENE	20	13	0.95	0.14 J	0.013 J
PYRENE	27	26	0.09 J	0.26 J	--
TOTAL SVOCs					
TOTAL SVOCs	180.44	166.945	5.621	4.1709	0.108

21CH004	21CH004-07 5 to 7 mg/kg	21CH004-13 11 to 13 mg/kg	21CH004-23 21 to 23 mg/kg	21CH004-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	1.6 J	--
2-METHYLNAPHTHALENE	0.028 J	0.52 J	120	--
2-METHYLPHENOL	--	--	0.47 J	--
4-METHYLPHENOL	--	--	0.41 J	--
ACENAPHTHENE	0.3 J	22	15	--
ACENAPHTHYLENE	0.15 J	9.6	46	--
ANTHRACENE	0.2 J	10	56	--
BENZO(A)ANTHRACENE	0.25	20	42	0.0091 J
BENZO(A)PYRENE	0.24	18	31	--
BENZO(B)FLUORANTHENE	0.13	6.6	18	--
BENZO(G,H,I)PERYLENE	0.14 J	10	11 J	--
BENZO(K)FLUORANTHENE	0.19	10	26	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.27 J	--	--	--
CARBAZOLE	0.032 J	--	19	--
CHRYSENE	0.24 J	18	38	0.01 J
DIBENZ(A,H)ANTHRACENE	--	1.7	4.4	--
DIBENZOFURAN	0.03 J	--	37	--
FLUORANTHENE	0.57	31	78	0.025 J
FLUORENE	0.24 J	0.95 J	69	--
INDENO(1,2,3-CD)PYRENE	0.11	6.6	11	--
NAPHTHALENE	0.068 J	1.8 J	210	--
PHENANTHRENE	1.1	3 J	160	0.025 J
PYRENE	0.68	58	74	0.026 J
TOTAL SVOCs				
TOTAL SVOCs	4.968	227.77	1067.88	0.0951

21CH001	21CH001-07 5 to 7 mg/kg	21CH001-11 9 to 11 mg/kg	21CH001-27 25 to 27 mg/kg	21CH001-27DUP 25 to 27 mg/kg	21CH001-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	--	7.8 J	3.4 J	--
2-METHYLNAPHTHALENE	0.01 J	0.27 J	390	140	--
4-METHYLPHENOL	--	0.035 J	2.9 J	1.4 J	--
4-NITROPHENOL	--	--	8.3 J	--	--
ACENAPHTHENE	0.014 J	10	34 J	11 J	--
ACENAPHTHYLENE	0.039 J	1.5	120	40	--
ANTHRACENE	0.04 J	4	120	40	0.012 J
BENZO(A)ANTHRACENE	0.079	3.1	82	25	0.011 J
BENZO(A)PYRENE	0.082	3.7	70	20	--
BENZO(B)FLUORANTHENE	0.051	1.7	39	9.4	--
BENZO(G,H,I)PERYLENE	0.062 J	2.7	28 J	7.3 J	--
BENZO(K)FLUORANTHENE	0.071	2.8	62	18	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.12 J	--	--	--	--
CARBAZOLE	0.015 J	0.092 J	41 J	19 J	--
CHRYSENE	0.097 J	3.2	74	22 J	0.0099 J
DIBENZ(A,H)ANTHRACENE	--	--	11	2.8	--
DIBENZOFURAN	0.014 J	--	92	31	--
FLUORANTHENE	0.17 J	5.8	150	51	0.025 J
FLUORENE	0.033 J	2.8	160	54	0.009 J
INDENO(1,2,3-CD)PYRENE	0.047	2.1	24	6.5	--
NAPHTHALENE	0.023 J	1.1	1000	350	0.0084 J
PHENANTHRENE	0.17 J	9.3	400	130	0.045 J
PYRENE	0.2 J	11	180	54	0.026 J
TOTAL SVOCs					
TOTAL SVOCs	1.337	65.197	3096	1035.8	0.1463

21CH002	21CH002-09 7 to 9 mg/kg	21CH002-27 25 to 27 mg/kg	21CH002-29 27 to 29 mg/kg	21CH002-51 49 to 51 mg/kg	21CH002-51DUP 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	--	1.1 J	--	--
2-METHYLNAPHTHALENE	0.13 J	--	370	--	--
4-METHYLPHENOL	--	0.33 J	1.2 J	--	--
ACENAPHTHENE	0.023 J	0.0098 J	33 J	0.023 J	0.018 J
ACENAPHTHYLENE	0.3 J	--	140	0.019 J	0.016 J
ANTHRACENE	0.1 J	0.014 J	160	0.032 J	0.024 J
BENZO(A)ANTHRACENE	0.053	0.024 J	94	0.026 J	0.021 J
BENZO(A)PYRENE	0.066	0.035 J	64	--	--
BENZO(B)FLUORANTHENE	0.042	0.016 J	26	--	--
BENZO(G,H,I)PERYLENE	0.27 J	--	26 J	--	--
BENZO(K)FLUORANTHENE	--	0.028 J	69	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.14 J	--	--	--
CARBAZOLE	--	--	69	--	--
CHRYSENE	0.059 J	0.03 J	100	0.031 J	0.02 J
DIBENZOFURAN	--	--	100	--	--
FLUORANTHENE	0.068 J	0.038 J	200	0.07 J	0.05 J
FLUORENE	0.042 J	--	160	0.021 J	0.018 J
INDENO(1,2,3-CD)PYRENE	0.12	--	21	--	--
NAPHTHALENE	0.31 J	0.04 J	1000	--	--
PHENANTHRENE	0.17 J	0.055 J	610	0.14 J	0.1 J
PYRENE	0.14 J	0.048 J	210	0.1 J	0.072 J
TOTAL SVOCs					
TOTAL SVOCs	1.893	0.8078	3454.3	0.462	0.339

21PF010	21PF010-09 7 to 9 mg/kg	21PF010-15 13 to 15 mg/kg	21PF010-29 27 to 29 mg/kg	21PF010-29DUP 27 to 29 mg/kg	21PF010-49 47 to 49 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	44	0.011 J	--	0.013 J	--
ACENAPHTHENE	2.6 J	0.021 J	--	--	--
ACENAPHTHYLENE	11	--	--	--	--
ANTHRACENE	7.6 J	0.015 J	--	--	--
BENZO(A)ANTHRACENE	4	0.01 J	--	--	--
BENZO(A)PYRENE	3	--	--	--	--
BENZO(B)FLUORANTHENE	1.1	--	--	--	--
BENZO(G,H,I)PERYLENE	1.5 J	--	--	--	--
BENZO(K)FLUORANTHENE	1.4	--	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.21 J	0.14 J	0.13 J	0.14 J
CHRYSENE	3.5 J	0.011 J	--	--	--
FLUORANTHENE	6.5 J	0.018 J	--	0.011 J	--
FLUORENE	6.5 J	--	--	--	--
INDENO(1,2,3-CD)PYRENE	0.8 J	--	--	--	--
NAPHTHALENE	120	--	--	0.023 J	--
PHENANTHRENE	23	0.05 J	--	0.03 J	0.021 J
PYRENE	13	0.031 J	--	0.019 J	0.012 J
TOTAL SVOCs					
TOTAL SVOCs	249.5	0.377	0.14	0.226	0.173

21PF011	21PF011-09 7 to 9 mg/kg	21PF011-13 11 to 13 mg/kg	21PF011-33 31 to 33 mg/kg	21PF011-51 49 to 51 mg/kg	21PF011-51DUP 49 to 51 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	17	53	--	--	--
ACENAPHTHENE	10	13	--	--	--
ACENAPHTHYLENE	30	19	--	--	--
ANTHRACENE	23	17	--	--	--
BENZO(A)ANTHRACENE	12	9.8	--	--	--
BENZO(A)PYRENE	11	8.2	--	--	--
BENZO(B)FLUORANTHENE	4.2	2.7	--	--	--
BENZO(G,H,I)PERYLENE	8.1	5.1 J	--	--	--
BENZO(K)FLUORANTHENE	6.6	4.4	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	0.18 J	0.18 J
CARBAZOLE	0.38 J	--	--	--	--
CHRYSENE	12	10	--	--	--
DIBENZ(A,H)ANTHRACENE	--	1	--	--	--
FLUORANTHENE	20	15	--	--	--
FLUORENE	18	15	--	--	--
INDENO(1,2,3-CD)PYRENE	5.2	2.8	--	--	--
NAPHTHALENE	48	120	--	--	--
PHENANTHRENE	80	58	0.016 J	--	--
PYRENE	40	34	0.011 J	--	--
TOTAL SVOCs					
TOTAL SVOCs	345.48	388	0.027	0.18	0.18

LEGEND:

LIMIT OF OU1

21MWS10 MONITORING WELLS

21GH022 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED SOIL BORINGS

21TP007 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PITS

EXPLORATION DESIGNATION
SAMPLE DESIGNATION
DUP = INDICATES DUPLICATE SAMPLE
FP = INDICATES FINGERPRINT ANALYSIS ALSO CONDUCTED

14GH002	14GH002-00DUP 0 - 0.2 Ft mg/kg	14GH002-00FP 0 - 0.2 Ft mg/kg
VOCs		
ETHYLBENZENE	--	0.0008 J
XYLENES (TOTAL)	0.017	NT
TOTAL VOCs		
TOTAL VOCs	0.1345	--
SVOCs		
BENZO(A)PYRENE		
TOTAL SVOCs		
TOTAL SVOCs	4.5	6.2

SAMPLE DEPTH
UNITS
VOLATILE ORGANIC COMPOUNDS
ANALYTICAL RESULT OF LISTED CONSTITUENT
J = INDICATES ESTIMATED VALUE,
NT = INDICATES NOT TESTED,
-- = INDICATES NOT ABOVE REPORTING DETECTION LIMIT (RDL) AS PER DATA VALIDATION
TOTAL VOCs INCLUDES TARGETED COMPOUNDS ONLY
SEMIVOLATILE ORGANIC COMPOUNDS
SHADED AREA INDICATES EXCEEDENCE OF CRITERIA (SEE NOTE 2)
TOTAL SVOCs INCLUDES TARGETED COMPOUNDS ONLY

SOIL CRITERIA	NYSDEC RSCOs
PAH (mg/Kg)	
Acenaphthene	50
Acenaphthylene	41
Anthracene	50
Benzo(a)anthracene	0.224
Benzo(a)pyrene	0.061
Benzo(b)fluoranthene	1.1
Benzo(ghi)perylene	50
Benzo(k)fluoranthene	1.1
Chrysene	0.4
Dibenz(a,h)anthracene	0.014
Fluoranthene	50
Fluorene	50
Indeno(1,2,3-cd)pyrene	3.2
Naphthalene	13
Phenanthrene	50
Pyrene	50
SVOC (mg/Kg)	
2-Chloronaphthalene	NA
2,4-Dimethylphenol	NA
2-Methylnaphthalene	36.4
2-Methylphenol	0.1
4-Chloroaniline	0.22
4-Methylphenol	0.9
4-Nitrophenol	0.1
bis(2-Ethylhexyl) phthalate	50
Butyl benzyl phthalate	50
Carbazole	NA
Dibenzofuran	6.2
Diethyl phthalate	7.1
Di-n-octyl phthalate	50
Di-n-butyl phthalate	8.1
Isophorone	4.4
N-nitrosodiphenylamine	50
Pentachlorophenol	1
Phenol	0.03
Total SVOC	500

NOTES:

1. THIS FIGURE WAS DERIVED FROM FIGURE 18B OF THE SITE CHARACTERIZATION STUDY SCS REPORT (H&A 2004).

2. SOIL ANALYTICAL RESULTS FOR SVOCS WERE COMPARED TO NYSDEC RESIDENTIAL SOIL CLEANUP OBJECTIVES (RSCO) FROM TECHNICAL AND GUIDANCE MEMORANDUM (TAGM) #4046. SHADED VALUES INDICATE AN EXCEEDENCE OF CRITERIA.

3. SVOCS: SEMIVOLATILE ORGANIC COMPOUNDS. MG/KG: MILLIGRAMS PER KILOGRAM, OR PARTS PER MILLION (PPM).

4. TABLES II, XA, XB AND XII IN SITE CHARACTERIZATION REPORT SUMMARIZE THE TESTING PARAMETERS AND RESULTS. FULL LABORATORY TESTING RESULTS ARE PROVIDED IN REPORT APPENDIX E. SCS LOWER FILL/NATURAL SOIL ANALYTICAL RESULTS ARE ALSO PROVIDED IN THE RI REPORT.

50 0 100
1"=100'

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

DATE: 11/17/08 DRWN: MAW\BIL

SCS SVOC CONCENTRATIONS IN LOWER FILL/NATURAL SOIL (>5 FT. DEPTH) - EAST (1 OF 2) NOVEMBER 2004 OPERABLE UNIT 1 (OU1)

FIGURE 5-10B

LEGEND:

LIMIT OF OU1

21MWS10 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED MONITORING WELLS

21GH022 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED SOIL BORINGS

21TP007 DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PITS

EXPLORATION DESIGNATION

SAMPLE DESIGNATION
DUP = INDICATES DUPLICATE SAMPLE
FP = INDICATES FINGERPRINT ANALYSIS ALSO CONDUCTED

14GH002	14GH002-00DUP 0 - 0.2 Ft mg/kg	14GH002-00FP 0 - 0.2 Ft mg/kg
VOCs		
ETHYLBENZENE	--	0.0008 J
XYLENES (TOTAL)	0.017	NT
TOTAL VOCs		
TOTAL VOCs	0.1345	--
SVOCs		
BENZO(A)PYRENE		
TOTAL SVOCs		
TOTAL SVOCs	4.5	6.2

SAMPLE DEPTH
UNITS
VOLATILE ORGANIC COMPOUNDS
ANALYTICAL RESULT OF LISTED CONSTITUENT
J = INDICATES ESTIMATED VALUE,
NT = INDICATES NOT TESTED,
-- = INDICATES NOT ABOVE REPORTING DETECTION LIMIT (RDL) AS PER DATA VALIDATION
TOTAL VOCs INCLUDES TARGETED COMPOUNDS ONLY
SEMIVOLATILE ORGANIC COMPOUNDS
SHADED AREA INDICATES EXCEEDENCE OF CRITERIA (SEE NOTE 2)
TOTAL SVOCs INCLUDES TARGETED COMPOUNDS ONLY

SOIL CRITERIA	NYSDEC RSCOs
PAH (mg/kg)	
Acenaphthene	50
Acenaphthylene	41
Anthracene	50
Benzo(a)anthracene	0.224
Benzo(a)pyrene	0.061
Benzo(b)fluoranthene	1.1
Benzo(ghi)perylene	50
Benzo(k)fluoranthene	1.1
Chrysene	0.4
Dibenz(a,h)anthracene	0.014
Fluoranthene	50
Fluorene	50
Indeno(1,2,3-cd)pyrene	3.2
Naphthalene	13
Phenanthrene	50
Pyrene	50
SVOC (mg/Kg)	
2-Chloronaphthalene	NA
"2,4-Dimethylphenol"	NA
2-Methylnaphthalene	36.4
2-Methylphenol	0.1
4-Chloroaniline	0.22
4-Methylphenol	0.9
4-Nitrophenol	0.1
bis(2-Ethylhexyl) phthalate	50
Butyl benzyl phthalate	50
Carbazole	NA
Dibenzofuran	6.2
Diethyl phthalate	7.1
Di-n-octyl phthalate	50
Di-n-butyl phthalate	8.1
Isophorone	4.4
N-nitrosodiphenylamine	50
Pentachlorophenol	1
Phenol	0.03
Total SVOC	500

21GT002	21GT002-07 5 to 7 mg/kg	21GT002-17 15 to 17 mg/kg	21GT002-27 25 to 27 mg/kg	21GT002-43 41 to 43 mg/kg	21GT002-51 49 to 51 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	0.011 J	91	1100	69	0.022 J
ACENAPHTHENE	0.032 J	25	330	62	0.26 J
ACENAPHTHYLENE	0.028 J	6.6 J	110 J	13	0.12 J
ANTHRACENE	0.064 J	14	200 J	33	0.22 J
BENZO(A)ANTHRACENE	0.14	11	150	22	0.17
BENZO(A)PYRENE	0.14	9.6	140	19	0.13
BENZO(B)FLUORANTHENE	0.079	4.1	74	8.9	0.056
BENZO(G,H,I)PERYLENE	0.1 J	4 J	93 J	9.3 J	0.057 J
BENZO(K)FLUORANTHENE	0.093	6.4	110	13	0.1
BIS(2-ETHYLHEXYL)PHTHALATE	0.13 J	--	--	--	--
CARBAZOLE	0.028 J	0.75 J	38 J	1.8 J	0.028 J
CHRYSENE	0.15 J	12	150 J	20	0.15 J
DIBENZ(A,H)ANTHRACENE	0.023 J	1.2	45	2.5	--
DIBENZOFURAN	0.013 J	2.5 J	110 J	5.5 J	0.022 J
FLUORANTHENE	0.31 J	18	290	47	0.37 J
FLUORENE	0.023 J	19	300	40	0.24 J
INDENO(1,2,3-CD)PYRENE	0.078	3.3	77	7	0.041
NAPHTHALENE	0.023 J	180	2200	160	0.045 J
PHENANTHRENE	0.3 J	70	850	130	0.97
PYRENE	0.31 J	30	300	64	0.48
TOTAL SVOCs					
TOTAL SVOCs	2.075	508.45	6667	727	3.481

21DT004	21DT004-07 5 to 7 mg/kg	21DT004-15 13 to 15 mg/kg	21DT004-23 21 to 23 mg/kg	21DT004-37 35 to 37 mg/kg	21DT004-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	1.2 J	--	56 J	--	0.012 J
2-METHYLNAPHTHALENE	200	120	1400	440	0.16 J
4-METHYLPHENOL	1.1 J	--	22 J	--	0.0089 J
ACENAPHTHENE	110	60	260 J	270	0.11 J
ACENAPHTHYLENE	42	16 J	630 J	48	0.081 J
ANTHRACENE	140	43	580 J	150	0.18 J
BENZO(A)ANTHRACENE	91	33	460	82	0.13
BENZO(A)PYRENE	74	36	340	65	0.11
BENZO(B)FLUORANTHENE	41	20	240	25	0.057
BENZO(G,H,I)PERYLENE	40	25 J	170 J	30 J	0.047 J
BENZO(K)FLUORANTHENE	71	23	280	47	0.087
CARBAZOLE	64	11 J	230 J	15 J	0.051 J
CHRYSENE	84	36 J	410 J	87	0.12 J
DIBENZ(A,H)ANTHRACENE	13	9.5	38 J	8.6	0.016 J
DIBENZOFURAN	95	20 J	670 J	33 J	0.078 J
FLUORANTHENE	240	67	1200	190	0.3 J
FLUORENE	120	46	880 J	220	0.15 J
INDENO(1,2,3-CD)PYRENE	35	18	160	23	0.041 J
NAPHTHALENE	600	520	7000	700	0.22 J
PHENANTHRENE	420	150	2300	490	0.69
PYRENE	220	91	1100	250	0.29 J
TOTAL SVOCs					
TOTAL SVOCs	2702.3	1344.5	18426	3173.6	2.9389

21DT003	21DT003-09 7 to 9 mg/kg	21DT003-15 13 to 15 mg/kg	21DT003-21 19 to 21 mg/kg	21DT003-33 31 to 33 mg/kg	21DT003-37 35 to 37 mg/kg	21DT003-51 49 to 51 mg/kg	21DT003-51DUP 49 to 51 mg/kg
SVOCs							
2,4-DIMETHYLPHENOL	--	--	--	0.018 J	--	--	--
2-METHYLNAPHTHALENE	9.7	280	1600	0.47	10	0.039 J	0.066 J
4-METHYLPHENOL	--	--	--	0.023 J	--	--	--
ACENAPHTHENE	13	170	660	0.31 J	8.8	0.015 J	0.014 J
ACENAPHTHYLENE	7.8	28	190 J	0.29 J	2.3	0.02 J	0.02 J
ANTHRACENE	12	95	480	0.6	6.6	0.045 J	0.037 J
BENZO(A)ANTHRACENE	7.3	51	360	0.48	3.9	0.035 J	0.03 J
BENZO(A)PYRENE	7.3	45	280	0.39	3.2	0.028 J	0.02 J
BENZO(B)FLUORANTHENE	3.5	19	130	0.2	1.4	0.014 J	0.013 J
BENZO(G,H,I)PERYLENE	3.7 J	21 J	110 J	0.16 J	1.3 J	--	--
BENZO(K)FLUORANTHENE	5.9	36	270	0.39	2.5	0.031 J	0.02 J
CARBAZOLE	0.82 J	21 J	150 J	0.3 J	0.92 J	--	--
CHRYSENE	7.7	54	310 J	0.44	3.9	0.041 J	0.033 J
DIBENZ(A,H)ANTHRACENE	1.3	5.4	63	0.07	0.42	--	--
DIBENZOFURAN	2.6 J	29	350 J	0.29 J	1.8 J	0.022 J	0.016 J
FLUORANTHENE	16	90	710	1	7.9	0.074 J	0.056 J
FLUORENE	15	84	610	0.59	6.2	0.044 J	--
INDENO(1,2,3-CD)PYRENE	3.1	18	110	0.15	1.1	--	--
NAPHTHALENE	32	440	3900	0.71	9.9	0.074 J	0.17 J
PHENANTHRENE	43	280	1700	2	23	0.16 J	0.11 J
PYRENE	21	110	680	0.97	9.8	0.073 J	0.048 J
TOTAL SVOCs							
TOTAL SVOCs	212.72	1876.4	12663	9.841	104.94	0.715	0.647

21DT001	21DT001-14 12 to 14 mg/kg	21DT001-18 16 to 18 mg/kg	21DT001-28 26 to 28 mg/kg	21DT001-28DUP 26 to 28 mg/kg	21DT001-42 40 to 42 mg/kg	21DT001-44 42 to 44 mg/kg	21DT001-50 48 to 50 mg/kg	21TP011-09 6.5 to 8.5 mg/kg
SVOCs								
2,4-DIMETHYLPHENOL	--	--	42 J	35 J	--	--	--	--
2-METHYLNAPHTHALENE	80 J	65	600	490	190	78	0.06 J	87
2-METHYLPHENOL	--	--	8 J	--	--	--	--	--
4-METHYLPHENOL	--	--	30 J	20 J	--	--	--	--
ACENAPHTHENE	37 J	22	57 J	49 J	410	53	0.27 J	30
ACENAPHTHYLENE	7.7 J	7.8 J	140	110	73 J	47	0.22 J	4.8 J
ANTHRACENE	19 J	14	170	150	190	36	0.42 J	14
BENZO(A)ANTHRACENE	13 J	21	150	130	140	30	0.34	6.6
BENZO(A)PYRENE	10 J	22	100	90	140	29	0.26	5
BENZO(B)FLUORANTHENE	5.6 J	11	51	47	42	10	0.14	2.4
BENZO(G,H,I)PERYLENE	4.8 J	15	50 J	44 J	62 J	15	0.12 J	0.98 J
BENZO(K)FLUORANTHENE	6.3 J	21	110	91	110	20	0.18	4.7
CARBAZOLE	0.8 J	2.9 J	92 J	81 J	7.6 J	1.2 J	0.079 J	0.29 J
CHRYSENE	15 J	23	150	120	140	29	0.32 J	6.9 J
DIBENZ(A,H)ANTHRACENE	1.8 J	5.1	19	9.9 J	13	4.1	0.039 J	--
DIBENZOFURAN	4 J	6.2 J	180	150	27 J	5 J	0.1 J	2.5 J
FLUORANTHENE	25 J	29	300	300	320	74	0.78	12
FLUORENE	30 J	21	280	240	270	52	0.52	16
INDENO(1,2,3-CD)PYRENE	3.4 J	12	39	32	43	10	0.094	1.2
NAPHTHALENE	13 J	150	1900	1700	500	170	0.11 J	140
PHENANTHRENE	86 J	84	810	760	810	170	1.9	49
PYRENE	42 J	36	300	270	450	96	1	24
TOTAL SVOCs								
TOTAL SVOCs	404.4	568	5578	4918.9	3937.6	929.3	6.952	407.37

21DT005	21DT005-11 9 to 11 mg/kg	21DT005-19 17 to 19 mg/kg	21DT005-29 27 to 29 mg/kg	21DT005-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	5 J	--
2-METHYLNAPHTHALENE	1.4 J	0.093 J	210	--
2-METHYLPHENOL	--	--	1.2 J	--
4-METHYLPHENOL	--	0.02 J	3 J	--
ACENAPHTHENE	7.1 J	0.12 J	21 J	0.012 J
ACENAPHTHYLENE	1.4 J	0.036 J	56	--
ANTHRACENE	4.4 J	0.13 J	67	0.012 J
BENZO(A)ANTHRACENE	2.8 J	0.88	49	0.014 J
BENZO(A)PYRENE	2.6 J	1.4	37	0.012 J
BENZO(B)FLUORANTHENE	1.2 J	0.78	20	--
BENZO(G,H,I)PERYLENE	1.9 J	0.97	16 J	--
BENZO(K)FLUORANTHENE	2 J	1.2	31	0.0088 J
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.11 J	--	--
CARBAZOLE	0.23 J	0.063 J	32 J	--
CHRYSENE	3.1 J	0.96	43 J	0.014 J
DIBENZ(A,H)ANTHRACENE	0.66 J	0.32	--	--
DIBENZOFURAN	1.2 J	0.043 J	56	--
FLUORANTHENE	4.9 J	0.57	100	0.024 J
FLUORENE	4.1 J	0.072 J	86	0.011 J
INDENO(1,2,3-CD)PYRENE	1.6 J	0.82	14	--
NAPHTHALENE	1.5 J	0.32 J	590	0.014 J
PHENANTHRENE	16 J	0.4 J	250	0.048 J
PYRENE	5.7 J	0.78	95	0.024 J
TOTAL SVOCs				
TOTAL SVOCs	63.79	10.087	1782.2	0.1938

21RE007	21RE007-11 9 to 11 mg/kg	21RE007-13 11 to 13 mg/kg	21RE007-15 13 to 15 mg/kg	21RE007-31 29 to 31 mg/kg	21RE007-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	--	--	44 J	--
2-METHYLNAPHTHALENE	0.34 J	12	19	780	0.024 J
4-METHYLPHENOL	0.02 J	--	--	--	--
ACENAPHTHENE	0.37 J	27	22	92 J	0.02 J
ACENAPHTHYLENE	1.2	10	6.4 J	120 J	--
ANTHRACENE	0.85	27	[illegible]	320	0.062 J
BENZO(A)ANTHRACENE	2.7	47	19	240	0.087
BENZO(A)PYRENE	3.5	45	20	220	--
BENZO(B)FLUORANTHENE	2.3	28	8.9	120	--
BENZO(G,H,I)PERYLENE	1.4	29	14	100 J	--
BENZO(K)FLUORANTHENE	3.2	40	14	200	--
BIS(2-ETHYLHEXYL)PHTHALATE	0.12 J	--	--	--	--
CARBAZOLE	0.12 J	2.6 J	3.6 J	180 J	0.027 J
CHRYSENE	3.4	53	21	260	0.087 J
DIBENZ(A,H)ANTHRACENE	0.45	6.8	3.7	--	--
DIBENZOFURAN	0.12 J	22	8.3 J	280	0.023 J
FLUORANTHENE	4.7	140	53	520	0.19 J
FLUORENE	0.21 J	37	28	400	0.051 J
INDENO(1,2,3-CD)PYRENE	1.3	22	9.5	98	--
NAPHTHALENE	0.92	10	28	2900	0.055 J
PHENANTHRENE	1.9	180	140	1700	0.24 J
PYRENE	5.8 J	140 J	59 J	470 J	0.16 J
TOTAL SVOCs					
TOTAL SVOCs	34.92	880.4	491.4	8644	1.026

21TP012	21TP012-10 8 to 10 mg/kg
SVOCs	
2-METHYLNAPHTHALENE	440
ACENAPHTHENE	180
ACENAPHTHYLENE	44 J
ANTHRACENE	160
BENZO(A)ANTHRACENE	100
BENZO(A)PYRENE	74
BENZO(B)FLUORANTHENE	44
BENZO(G,H,I)PERYLENE	44
BENZO(K)FLUORANTHENE	71
CARBAZOLE	140
CHRYSENE	100
DIBENZOFURAN	62 J
FLUORANTHENE	200
FLUORENE	130
INDENO(1,2,3-CD)PYRENE	34
NAPHTHALENE	1200
N-NITROSODIPHENYLAMINE	7.9 J
PHENANTHRENE	450
PYRENE	220
TOTAL SVOCs	
TOTAL SVOCs	3700.9

21DT002	21DT002-09 7 to 9 mg/kg	21DT002-19 17 to 19 mg/kg	21DT002-37 35 to 37 mg/kg	21DT002-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	0.26 J	4300	2.2 J	0.048 J
4-METHYLPHENOL	0.0096 J	--	--	--
ACENAPHTHENE	2.2 J	1500	7.8 J	0.21 J
ACENAPHTHYLENE	0.8 J	330 J	2 J	0.14 J
ANTHRACENE	1.6 J	730 J	4.7 J	0.27 J
BENZO(A)ANTHRACENE	1.3 J	460	3.5 J	0.22
BENZO(A)PYRENE	1.2 J	470	3 J	0.19
BENZO(B)FLUORANTHENE	0.6 J	200	1.2 J	0.098
BENZO(G,H,I)PERYLENE	0.55 J	--	1.2 J	0.1 J
BENZO(K)FLUORANTHENE	0.97 J	380	2.4 J	0.15
BIS(2-ETHYLHEXYL)PHTHALATE	0.086 J	--	--	--
CARBAZOLE	0.051 J	160 J	0.46 J	0.11 J
CHRYSENE	1.4 J	480 J	3.6 J	0.22 J
DIBENZOFURAN	0.21 J	390 J	1.1 J	0.12 J
FLUORANTHENE	2 J	1000 J	6.9 J	0.42
FLUORENE	1 J	950 J	6.2 J	0.29 J
INDENO(1,2,3-CD)PYRENE	0.45 J	--	0.98 J	0.091
NAPHTHALENE	1.1 J	10000	3.6 J	0.15 J
PHENANTHRENE	2.8 J	2700	19 J	1.1
PYRENE	3 J	980 J	9.4 J	0.42 J
TOTAL SVOCs				
TOTAL SVOCs	21.5866	25030	79.24	4.347

21DT006	21DT006-09 7 to 9 mg/kg	21DT006-19 17 to 19 mg/kg	21DT006-29 27 to 29 mg/kg	21DT006-39 37 to 39 mg/kg	21DT006-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	--	1 J	--	--
2-METHYLNAPHTHALENE	110	10 J	110	400	--
ACENAPHTHENE	46	6.3 J	16 J	280	0.17 J
ACENAPHTHYLENE	12	1.6 J	61	56 J	0.07 J
ANTHRACENE	30	5.3 J	34	120	0.15 J
BENZO(A)ANTHRACENE	16	6.9 J	27	83	0.12
BENZO(A)PYRENE	20	7.4 J	27	94	0.091
BENZO(B)FLUORANTHENE	8	4 J	12	32	0.038 J
BENZO(G,H,I)PERYLENE	11	4 J	14 J	54 J	0.048 J
BENZO(K)FLUORANTHENE	14	7.3 J	19	55	0.06
CARBAZOLE	4.4 J	1 J	7.5 J	3.3 J	0.023 J
CHRYSENE	21	7.5 J	24	80 J	0.12 J
DIBENZ(A,H)ANTHRACENE	4.3	1.3 J	4.1	--	--
DIBENZOFURAN	7.6 J	1.1 J	19 J	13 J	0.013 J
FLUORANTHENE	32	9 J	58	180	0.25 J
FLUORENE	27	4.7 J	50	160	0.13 J
INDENO(1,2,3-CD)PYRENE	9.4	3.7 J	11	37	0.034 J
NAPHTHALENE	190	8.2 J	360	1300	0.021 J
PHENANTHRENE	110	16 J	180	600	0.65
PYRENE	39 J	9.9 J	69 J	260 J	0.3 J
TOTAL SVOCs					
TOTAL SVOCs	711.7	115.2	1103.6	3807.3	2.288

21RE009	21RE009-15 13 to 15 mg/kg	21RE009-31 29 to 31 mg/kg	21RE009-31DUP 29 to 31 mg/kg	21RE009-33 31 to 33 mg/kg	21RE009-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	13 J	14 J	3.7 J	--
2-METHYLNAPHTHALENE	31	300	220	200	--
2-METHYLPHENOL	--	--	1.1 J	--	--
4-NITROPHENOL	--	--	5 J	4.6 J	--
ACENAPHTHENE	20	38 J	26 J	13	0.011 J
ACENAPHTHYLENE	8.2 J	62 J	42 J	30 J	--
ANTHRACENE	20	34 J	66	42	0.01 J
BENZO(A)ANTHRACENE	34	96	62	49	0.012 J
BENZO(A)PYRENE	34	81	51	39	0.0097 J
BENZO(B)FLUORANTHENE	22	43	28	22	--
BENZO(G,H,I)PERYLENE	22	36 J	24 J	18 J	--
BENZO(K)FLUORANTHENE	27	76	44	35	0.0089 J
CARBAZOLE	3.9 J	64 J	48	24 J	--
CHRYSENE	34	92 J	60	43	0.012 J
DIBENZ(A,H)ANTHRACENE	7.9	--	9.1	7.3	--
DIBENZOFURAN	25	120	77	53	0.0098 J
FLUORANTHENE	80	220	130	110	0.026 J
FLUORENE	36	160	100	77	0.016 J
INDENO(1,2,3-CD)PYRENE	18	33	20	16	--
NAPHTHALENE	5.1 J	1200	770	500	0.0097 J
PHENANTHRENE	160	470	340	250	0.054 J
PYRENE	67	180	120	92	0.025 J
TOTAL SVOCs					
TOTAL SVOCs	655.1	3398	2257.2	1658.6	0.2041

21TP013	21TP013-10 8 to 10 mg/kg
SVOCs	
2-METHYLNAPHTHALENE	2.3 J
ACENAPHTHENE	15
ACENAPHTHYLENE	12
ANTHRACENE	27
BENZO(A)ANTHRACENE	56
BENZO(A)PYRENE	62
BENZO(B)FLUORANTHENE	51
BENZO(G,H,I)PERYLENE	38
BENZO(K)FLUORANTHENE	32
CARBAZOLE	9.4
CHRYSENE	50
DIBENZ(A,H)ANTHRACENE	5.1
DIBENZOFURAN	9.7
FLUORANTHENE	62
FLUORENE	18
INDENO(1,2,3-CD)PYRENE	36
NAPHTHALENE	9
N-NITROSODIPHENYLAMINE	5.7
PHENANTHRENE	50
PYRENE	77
TOTAL SVOCs	
TOTAL SVOCs	627.2

21OT002	21OT002-07 5 to 6.5 mg/kg
SVOCs	
2-METHYLNAPHTHALENE	0.13 J
4-METHYLPHENOL	0.015 J
ACENAPHTHENE	0.14 J
ACENAPHTHYLENE	2.8
ANTHRACENE	1.3
BENZO(A)ANTHRACENE	2.6
BENZO(A)PYRENE	3.6
BENZO(B)FLUORANTHENE	2.1
BENZO(G,H,I)PERYLENE	1.7
BENZO(K)FLUORANTHENE	2.7
BIS(2-ETHYLHEXYL)PHTHALATE	0.16 J
CARBAZOLE	0.12 J
CHRYSENE	4.1
DIBENZ(A,H)ANTHRACENE	0.52
DIBENZOFURAN	0.14 J
FLUORANTHENE	2.4
INDENO(1,2,3-CD)PYRENE	1.3
NAPHTHALENE	0.29 J
PHENANTHRENE	1.4
PYRENE	4.6 J
TOTAL SVOCs	
TOTAL SVOCs	32.115

21OT001C	21OT001C-09 7 to 9 mg/kg	21OT001C-15 13 to 15 mg/kg	21OT001C-31 29 to 31 mg/kg	21OT001C-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	1.2 J	--
2-METHYLNAPHTHALENE	0.071 J	150	58	0.014 J
ACENAPHTHENE	0.26 J	50	7.1 J	0.039 J
ACENAPHTHYLENE	0.25 J	8 J	23	0.016 J
ANTHRACENE	0.3 J	27 J	19	0.03 J
BENZO(A)ANTHRACENE	0.24	25	16	0.029 J
BENZO(A)PYRENE	0.28	31	15	0.024 J
BENZO(B)FLUORANTHENE	0.11	18	7.7	0.0097 J
BENZO(G,H,I)PERYLENE	0.31 J	22 J	7 J	--
BENZO(K)FLUORANTHENE	0.31 J	28 J	15 J	0.024 J
CARBAZOLE	0.05 J	8.3 J	9.1	0.011 J
CHRYSENE	0.31 J	27 J	15	0.026 J
DIBENZ(A,H)ANTHRACENE	--	--	2.6	--
DIBENZOFURAN	0.13 J	20 J	19	--
FLUORANTHENE	0.36 J	42 J	36	0.073 J
FLUORENE	0.29 J	33 J	25	0.033 J
INDENO(1,2,3-CD)PYRENE	0.19	20	6.3	--
NAPHTHALENE	--	520	120	0.043 J
PHENANTHRENE	0.56	100	110	0.12 J
PYRENE	0.56	44 J	34	0.081 J
TOTAL SVOCs				
TOTAL SVOCs	4.581	1173.3	546	0.5727

21CH009	21CH009-11 9 to 11 mg/kg	21CH009-19 17 to 19 mg/kg	21CH009-23 21 to 23 mg/kg	21CH009-27 25 to 27 mg/kg	21CH009-51 49 to 51 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	12	0.55 J	250	140	--
ACENAPHTHENE	9.4	15	170	47	0.064 J
ACENAPHTHYLENE	1 J	1.1 J	15 J	27	--
ANTHRACENE	4.3	6.7	60	50	0.035 J
BENZO(A)ANTHRACENE	2.1	3.6	36	38	0.027 J
BENZO(A)PYRENE	2.1	3.5	35	36	--
BENZO(B)FLUORANTHENE	0.93	1.3	14	22	--
BENZO(G,H,I)PERYLENE	1.4 J	1.8 J	18 J	11 J	--
BENZO(K)FLUORANTHENE	1.4	2.3	22	34	--
CARBAZOLE	0.39 J	--	1.3 J	17 J	--
CHRYSENE	2.3 J	3.6	37 J	34	0.032 J
DIBENZ(A,H)ANTHRACENE	--	0.47	6.1	--	--
DIBENZOFURAN	0.98 J	0.56 J	7.6 J	45	--
FLUORANTHENE	4.5	7.1	64	82	0.056 J
FLUORENE	4.4	6	70	71	--
INDENO(1,2,3-CD)PYRENE	1	1.3	14	11	--
NAPHTHALENE	56	0.26 J	440	370	--
PHENANTHRENE	15	29	250	250	0.14 J
PYRENE	5.9	11	98	72	0.082 J
TOTAL SVOCs					
TOTAL SVOCs	125.1	95.14	1608	1357	0.436

21OT002A	21OT002A-07 5 to 7 mg/kg	21OT002A-15 13 to 15 mg/kg	21OT002A-33 31 to 33 mg/kg	21OT002A-47 45 to 47 mg/kg	21OT002A-51 49 to 51 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	0.094 J	100	900	17 J	0.026 J
4-METHYLPHENOL	0.018 J	--	--	--	--
ACENAPHTHENE	0.12 J	0.44 J	310	540	0.48
ACENAPHTHYLENE	0.46	--	250 J	100 J	0.12 J
ANTHRACENE	0.3 J	21	460	120	0.25 J
BENZO(A)ANTHRACENE	0.71	12	210	120	0.18
BENZO(A)PYRENE	1	8.7	170	150	0.2
BENZO(B)FLUORANTHENE	0.55	7.8	86	49	0.078
BENZO(G,H,I)PERYLENE	0.72	7.5 J	72 J	87 J	0.094 J
BENZO(K)FLUORANTHENE	1 J	10	160	96	0.14
BIS(2-ETHYLHEXYL)PHTHALATE	0.096 J	--	--	--	--
CARBAZOLE	0.03 J	2.4 J	140 J	5 J	0.038 J
CHRYSENE	0.88	14	250 J	120	0.21 J
DIBENZ(A,H)ANTHRACENE	0.24	--	41	13	--
DIBENZOFURAN	0.046 J	8.7 J	240 J	18 J	0.048 J
FLUORANTHENE	0.86	32	580	490	0.57
FLUORENE	0.043 J	26	440	340	0.33 J
INDENO(1,2,3-CD)PYRENE	0.6	6.2	66	53	0.066
NAPHTHALENE	0.32 J	170	2600	12 J	0.045 J
PHENANTHRENE	0.42	88	1400	1000	1.4
PYRENE	1.4	45	510	570	0.79
TOTAL SVOCs					
TOTAL SVOCs	9.907	559.74	8885	3830	5.065

21CH008	21CH008-07 5 to 7 mg/kg	21CH008-17 15 to 17 mg/kg	21CH008-29 27 to 29 mg/kg	21CH008-45 43 to 45 mg/kg	21CH008-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	--	9.9 J	--	--
2-METHYLNAPHTHALENE	0.047 J	0.96	410	6.1 J	0.076 J
4-METHYLPHENOL	--	--	3.5 J	--	--
ACENAPHTHENE	0.081 J	9	36 J	160	2
ACENAPHTHYLENE	0.14 J	0.71 J	130	47	0.44
ANTHRACENE	0.18 J	3.7	120	35 J	0.31 J
BENZO(A)ANTHRACENE	0.39	2.4	89	38	0.29
BENZO(A)PYRENE	0.46	3.6	78	51	0.4
BENZO(B)FLUORANTHENE	0.26	1.5	37	17	0.13
BENZO(G,H,I)PERYLENE	0.39	2.2	34 J	36 J	0.26 J
BENZO(K)FLUORANTHENE	0.38	2.5	67	31	0.25
BIS(2-ETHYLHEXYL)PHTHALATE	0.26 J	--	--	--	--
CARBAZOLE	0.067 J	0.17 J	53 J	--	0.019 J
CHRYSENE	0.46	2.5	86 J	36 J	0.3 J
DIBENZ(A,H)ANTHRACENE	--	0.8	--	--	--
DIBENZOFURAN	0.044 J	0.59 J	110 J	3 J	0.022 J
FLUORANTHENE	0.76	5.1	180	110	0.79
FLUORENE	0.094 J	3.5	180	70	0.51
INDENO(1,2,3-CD)PYRENE	0.31	1.8	32	21	0.17
NAPHTHALENE	0.098 J	5.2	1200	--	0.2 J
PHENANTHRENE	0.73	13	450	300	2.3
PYRENE	0.72 J	6.5 J	170 J	170 J	1.2 J
TOTAL SVOCs					
TOTAL SVOCs	5.871	65.73	3475.4	1131.1	9.667

21OT003	21OT003-11 9 to 11 mg/kg	21OT003-19 17 to 19 mg/kg	21OT003-29 27.5 to 29 mg/kg	21OT003-29DUP 27.5 to 29 mg/kg	21OT003-51 49 to 51 mg/kg
SVOCs					
2-METHYLNAPHTHALENE	0.16 J	0.051 J	52	82	0.021 J
4-METHYLPHENOL	0.01 J	0.5	--	--	--
ACENAPHTHENE	0.19 J	--	18	14	0.028 J
ACENAPHTHYLENE	0.67	--	22	41	0.064 J
ANTHRACENE	0.53	0.058 J	34	45	0.2 J
BENZO(A)ANTHRACENE	1.1	0.064	19	32	0.13
BENZO(A)PYRENE	1.4	0.058	14	23	0.089
BENZO(B)FLUORANTHENE	0.9	0.058	7.4	13	0.051
BENZO(G,H,I)PERYLENE	0.82	--	5.8 J	9.4 J	0.031 J
BENZO(K)FLUORANTHENE	1.2	0.067	16	22	0.086
BIS(2-ETHYLHEXYL)PHTHALATE	0.12 J	--	--	--	--
CARBAZOLE	0.054 J	--	11	14	0.045 J
CHRYSENE	1.3	0.092 J	20	28	0.14 J
DIBENZ(A,H)ANTHRACENE	--	--	--	4.1	--
DIBENZOFURAN	0.09 J	0.023 J	25	36	0.07 J
FLUORANTHENE	1.6	0.14 J	51	64	0.29 J
FLUORENE	0.066 J	0.048 J	41	55	0.18 J
INDENO(1,2,3-CD)PYRENE	0.73	0.035 J	5.6	8.9	0.029 J
NAPHTHALENE	0.47	0.098 J	51	98	0.055 J
PHENANTHRENE	0.72	0.17 J	100	160	0.65
PYRENE	2	0.14 J	40	63	0.29 J
TOTAL SVOCs					
TOTAL SVOCs	14.13	1.602	532.8	812.4	2.449

21OT005	21OT005-07 5 to 7 mg/kg	21OT005-15 13 to 15 mg/kg	21OT005-15DUP 13 to 15 mg/kg	21OT005-25 23 to 25 mg/kg	21OT005-51 49 to 51 mg/kg
SVOCs					
2,4-DIMETHYLPHENOL	--	--	0.01 J	--	--
2-METHYLNAPHTHALENE	0.11 J	0.092 J	0.16 J	42	0.021 J
4-METHYLPHENOL	0.011 J	0.58	0.3 J	--	--
ACENAPHTHENE	0.38	0.083 J	0.14 J	17 J	0.098 J
ACENAPHTHYLENE	0.2 J	0.085 J	0.12 J	19	0.08 J
ANTHRACENE	0.78	0.097 J	0.14 J	28	0.21 J
BENZO(A)ANTHRACENE	1.2	0.11	0.18 J	19	0.21
BENZO(A)PYRENE	1.1	0.12	0.18	15	0.13
BENZO(B)FLUORANTHENE	0.87	0.064	0.081	7.3	0.076
BENZO(G,H,I)PERYLENE	0.67	0.079 J	0.15 J	5.4 J	0.049 J
BENZO(K)FLUORANTHENE	1.1	0.1 J	0.17 J	14	0.12
BIS(2-ETHYLHEXYL)PHTHALATE	0.25 J	0.12 J	0.14 J	--	0.16 J
CARBAZOLE	0.17 J	0.018 J	0.018 J	11	0.039 J
CHRYSENE	1.4	0.13 J	0.22 J	18	0.21 J
DIBENZOFURAN	0.14 J	0.028 J	0.037 J	22	0.038 J
FLUORANTHENE	2.9	0.27 J	0.38 J	39	0.4
FLUORENE	0.4	0.099 J	0.12 J	37	0.1 J
INDENO(1,2,3-CD)PYRENE	0.62	0.057	0.11	4.8	0.046
NAPHTHALENE	0.21 J	0.26 J	0.48	64	0.063 J
PHENANTHRENE	2.9	0.47	0.63	110	0.48
PYRENE	2.7	0.38 J	0.61 J	42 J	0.46
TOTAL SVOCs					
TOTAL SVOCs	18.111	3.242	4.376	514.5	2.99

21OT006	21OT006-15 13 to 15 mg/kg	21OT006-27 25 to 27 mg/kg	21OT006-51 49 to 51 mg/kg
SVOCs			
2-METHYLNAPHTHALENE	0.027 J	100	0.017 J
4-METHYLPHENOL	0.093 J	--	--
ACENAPHTHENE	0.014 J	63	0.022 J
ACENAPHTHYLENE	0.015 J	17 J	0.043 J
ANTHRACENE	0.011 J	57	0.062 J
BENZO(A)ANTHRACENE	0.021 J	48	0.072
BENZO(A)PYRENE	0.027 J	36	0.053
BENZO(B)FLUORANTHENE	0.018 J	20	0.032 J
BENZO(G,H,I)PERYLENE	0.026 J	17 J	0.034 J
BENZO(K)FLUORANTHENE	0.025 J	31	0.051
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	0.09 J
CARBAZOLE	--	16 J	0.015 J
CHRYSENE	0.024 J	42	0.076 J
DIBENZ(A,H)ANTHRACENE	0.0097 J	7.4	0.012 J
DIBENZOFURAN	0.011 J	49	0.026 J
FLUORANTHENE	0.029 J	100	0.13 J
FLUORENE	0.016 J	81	0.062 J
INDENO(1,2,3-CD)PYRENE	0.019 J	16	0.026 J
NAPHTHALENE	0.042 J	290	0.03 J
PHENANTHRENE	0.038 J	310	0.28 J
PYRENE	0.031 J	88	0.16 J
TOTAL SVOCs			
TOTAL SVOCs	0.4957	1388.4	1.293

21OT007	21OT007-09 7 to 9 mg/kg	21OT007-15 13 to 15 mg/kg	21OT007-27 25 to 27 mg/kg	21OT007-51 49 to 51 mg/kg
SVOCs				
2-METHYLNAPHTHALENE	0.13 J	0.032 J	260	--
4-METHYLPHENOL	0.037 J	0.021 J	--	--
ACENAPHTHENE	0.24 J	0.048 J	44	--
ACENAPHTHYLENE	0.25 J	--	180	--
ANTHRACENE	0.24 J	0.049 J	180	--
BENZO(A)ANTHRACENE	0.8	0.12	120	--
BENZO(A)PYRENE	1	0.16	92	--
BENZO(B)FLUORANTHENE	0.49	0.091	48	--
BENZO(G,H,I)PERYLENE	0.49	0.098 J	30 J	--
BENZO(K)FLUORANTHENE	1.1	0.16	86	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	0.12 J
BUTYLBENZYLPHTHALATE	0.095 J	--	--	--
CARBAZOLE	0.063 J	0.013 J	46	--
CHRYSENE	0.86	0.14 J	110	--
DIBENZ(A,H)ANTHRACENE	--	--	14	--
DIBENZOFURAN	0.041 J	0.012 J	130	--
FLUORANTHENE	1.1	0.17 J	230	--
FLUORENE	--	0.028 J	220	--
INDENO(1,2,3-CD)PYRENE	0.48	0.095	29	--
NAPHTHALENE	0.38 J	0.11 J	710	--
N-NITROSODIPHENYLAMINE	0.034 J	--	--	--
PHENANTHRENE	0.51	0.15 J	600	0.014 J
PYRENE	1.4	0.21 J	220	0.015 J
TOTAL SVOCs				
TOTAL SVOCs	9.74	1.707	3349	0.149

21CH006	21CH006-09 7 to 9 mg/kg	21CH006-17 15 to 17 mg/kg	21CH006-27 25 to 27 mg/kg	21CH006-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	1.2 J	--
2-METHYLNAPHTHALENE	0.38 J	0.31 J	170	--
4-METHYLPHENOL	--	1.5	--	--
ACENAPHTHENE	10	1.3	18 J	--
ACENAPHTHYLENE	2.9	0.37 J	77	--
ANTHRACENE	5.5	0.82	66	--
BENZO(A)ANTHRACENE	3.1	0.72	47	--
BENZO(A)PYRENE	2.6	0.74	33	--
BENZO(B)FLUORANTHENE	1.2	0.42	18	--
BENZO(G,H,I)PERYLENE	1.5 J	0.43	12 J	--
BENZO(K)FLUORANTHENE	1.8	0.56	30	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.23 J	--	--
CARBAZOLE	0.11 J	0.13 J	23	--
CHRYSENE	2.6	0.68	43	--
DIBENZ(A,H)ANTHRACENE	0.24	0.11	3.9	--
DIBENZOFURAN	0.51 J	0.19 J	52	--
FLUORANTHENE	6.2	1.5	95	--
FLUORENE	4.9	0.76	89	--
INDENO(1,2,3-CD)PYRENE	0.93	0.34	12	--
NAPHTHALENE	1 J	0.96	320	--
PHENANTHRENE	17	2.9	210	--
PYRENE	9.2	1.7	84	--
TOTAL SVOCs				
TOTAL SVOCs	71.67	16.67	1404.1	--

21CH003	21CH003-09 7 to 9 mg/kg	21CH003-23 21 to 23 mg/kg	21CH003-29 27 to 29 mg/kg	21CH003-51 49 to 51 mg/kg
SVOCs				
2,4-DIMETHYLPHENOL	--	--	7 J	--
2-METHYLNAPHTHALENE	0.69	0.15 J	1000	0.13 J
2-METHYLPHENOL	0.011 J	--	--	--
4-METHYLPHENOL	0.035 J	0.11 J	5.5 J	--
ACENAPHTHENE	0.65	0.35 J	180	0.14 J
ACENAPHTHYLENE	1.5	0.088 J	390	0.19 J
ANTHRACENE	0.96	0.28 J	430	0.29 J
BENZO(A)ANTHRACENE	3.2	0.3	290	0.2
BENZO(A)PYRENE	5.9	0.35	210	0.14
BENZO(B)FLUORANTHENE	4.5	0.24	120	0.064
BENZO(G,H,I)PERYLENE	4.7	0.24 J	83 J	0.05 J
BENZO(K)FLUORANTHENE	4.5	0.27	200	0.13
BIS(2-ETHYLHEXYL)PHTHALATE	--	0.09 J	--	--
CARBAZOLE	0.36 J	0.038 J	140	0.062 J
CHRYSENE	3.3	0.31 J	300	0.18 J
DIBENZ(A,H)ANTHRACENE	2.4	0.1	42	0.02 J
DIBENZOFURAN	0.18 J	0.038 J	320	0.11 J
FLUORANTHENE	3	0.49	600	0.43
FLUORENE	0.61	0.14 J	570	0.26 J
INDENO(1,2,3-CD)PYRENE	4.6	0.21	80	0.048
NAPHTHALENE	1.9	0.74	2100	0.37 J
PHENANTHRENE	2.6	0.54	1300	0.95
PYRENE	4.6	0.64	580	0.43
TOTAL SVOCs				
TOTAL SVOCs	50.196	5.714	8947.5	4.194

21OT004	21OT004-13 11 to 13 mg/kg	21OT004-17 15 to 17 mg/kg	21OT004-31 29 to 31 mg/kg	21OT004-31DUP 29 to 31 mg/kg	21OT004-45 43 to 45 mg/kg	21OT004-51 49 to 51 mg/kg
SVOCs						
2,4-DIMETHYLPHENOL	0.091 J	0.076 J	--	--	--	--
2-METHYLNAPHTHALENE	0.085 J	0.26 J	28 J	490	0.74 J	0.065 J
2-METHYLPHENOL	0.43 J	0.18 J	--	--	--	--
4-METHYLPHENOL	0.66	0.48 J	--	--	--	--
ACENAPHTHENE	0.28 J	5.9	24 J	120	4.3	0.21 J
ACENAPHTHYLENE	0.12 J	1.2	55 J	320	4.1	0.23 J
ANTHRACENE	0.18 J	4.1	21 J	160	2.9	0.12 J
BENZO(A)ANTHRACENE	0.22	11	16 J	120	2.2	0.1
BENZO(A)PYRENE	0.22	15	20 J	110	2.2	0.1
BENZO(B)FLUORANTHENE	0.15	17	7.8 J	46	0.84	0.039 J
BENZO(G,H,I)PERYLENE	0.12 J	8.9	12 J	57 J	1.2 J	0.054 J
BENZO(K)FLUORANTHENE	0.16 J	--	15 J	93 J	1.4 J	0.06 J
CARBAZOLE	0.045 J	1.1	3.2 J	32 J	0.21 J	--
CHRYSENE	0.24 J	12	17 J	120	2.2	0.11 J
DIBENZ(A,H)ANTHRACENE	0.052	4.6	2.1 J	20	0.28	--
DIBENZOFURAN	0.077 J	0.48 J	10 J	86	0.66 J	0.015 J
FLUORANTHENE	0.43 J	10	46 J	300	5.4	0.29 J
FLUORENE	0.15 J	1.2	35 J	250	4.9	0.24 J
INDENO(1,2,3-CD)PYRENE	0.094	8.3	7.7 J	41	0.75	0.032 J
NAPHTHALENE	0.12 J	0.52 J	13 J	1000	0.22 J	0.2 J
N-NITROSODIPHENYLAMINE	0.032 J	--	--	--	--	--
PHENANTHRENE	0.61	5.8	130 J	710	15	0.87
PHENOL	0.19 J	0.56 J	--	--	--	--
PYRENE	0.6	13	62 J	380	8.4	0.49
TOTAL SVOCs						
TOTAL SVOCs	5.356	121.656	524.8	4455	57.9	3.225

NOTES:

1. THIS FIGURE WAS DERIVED FROM FIGURE 18B OF THE SITE CHARACTERIZATION STUDY SCS REPORT (H&A 2004).

2. SOIL ANALYTICAL RESULTS FOR SVOCS WERE COMPARED TO NYSDEC RESIDENTIAL SOIL CLEANUP OBJECTIVES (RSCO) FROM TECHNICAL AND GUIDANCE MEMORANDUM (TAGM) #4046. SHADED VALUES INDICATE AN EXCEEDENCE OF CRITERIA.

3. SVOCS: SEMIVOLATILE ORGANIC COMPOUNDS. MG/KG: MILLIGRAMS PER KILOGRAM, OR PARTS PER MILLION (PPM).

4. TABLES II, XA, XB AND XII IN SITE CHARACTERIZATION REPORT SUMMARIZE THE TESTING PARAMETERS AND RESULTS. FULL LABORATORY TESTING RESULTS ARE PROVIDED IN REPORT APPENDIX E.
SCS LOWER FILL/NATURAL SOIL ANALYTICAL RESULTS ARE ALSO PROVIDED IN THE RI REPORT.

50 0 100
1"=100'

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

DATE: 11/17/08 DRWN: MAW\BIL

SCS SVOC CONCENTRATIONS IN LOWER FILL/NATURAL SOIL (>5 FT. DEPTH) - EAST (2 OF 2) NOVEMBER 2004 OPERABLE UNIT 1 (OU1)

FIGURE 5-10C

21GH101B				
Analytes	Depth (19–21)	Depth (21–25)	Depth (41–45	Depth (106–108)
VOC (mg/Kg)				
Benzene	6 D	12 D	0.0054 J	0.0022 U
Ethylbenzene	2.8 D	0.13	0.0021 U	0.002 U
m,p–Xylene	1.1	0.055 J	0.0052 U	0.0049 U
o–Xylene	0.99	0.049	0.0023 U	0.0022 U
Toluene	0.075	0.09	0.0024 U	0.0023 U
Total VOC	11.122	12.495	0.0054	0
SVOC (mg/Kg)				
Acenaphthene	0.21 J	0.089 U	0.071 U	0.068 U
Acenaphthylene	0.084 U	0.081 U	0.064 U	0.062 U
Anthracene	0.22 J	0.088 J	0.06 U	0.057 U
Benzo(a)anthracene	0.2 J	0.07 U	0.056 U	0.053 U
Benzo(a)pyrene	0.2 J	0.08 U	0.064 U	0.061 U
Benzo(b)fluoranthene	0.18 J	0.055 U	0.044 U	0.042 U
Benzo(ghi)perylene	0.14 J	0.082 U	0.066 U	0.063 U
Benzo(k)fluoranthene	0.11 U	0.11 U	0.087 U	0.084 U
Chrysene	0.16 J	0.09 U	0.071 U	0.068 U
Dibenz(a,h)anthracene	0.065 U	0.063 U	0.05 U	0.048 U
Fluoranthene	0.44 J	0.11 J	0.059 U	0.056 U
Fluorene	0.16 J	0.084 U	0.067 U	0.064 U
Indeno(1,2,3–cd)pyrene	0.39 J	0.063 U	0.05 U	0.048 U
Naphthalene	0.61	0.085 U	0.068 U	0.065 U
Phenanthrene	0.96	0.67	0.063 U	0.06 U
Pyrene	0.58	0.15 J	0.07 U	0.067 U
Total SVOC	4.56	1.018	0	0
Inorganics (mg/Kg)				
"Cyanide, Total"	0.778 U	1.600	0.603 U	0.572 U

23GH101		
Analytes	Depth (21–23)	Depth (35–37)
VOC (mg/Kg)		
Benzene	0.0081 J	0.0024 U
Ethylbenzene	0.0076 J	0.0021 U
m,p–Xylene	0.013 J	0.0051 U
o–Xylene	0.0055 J	0.0023 U
Toluene	0.013 J	0.0024 U
Total VOC	0.0882	0
SVOC (mg/Kg)		
Acenaphthene	0.089 U	0.07 U
Acenaphthylene	0.081 U	0.064 U
Anthracene	0.075 U	0.059 U
Benzo(a)anthracene	0.07 U	0.055 U
Benzo(a)pyrene	0.08 U	0.063 U
Benzo(b)fluoranthene	0.055 U	0.043 U
Benzo(ghi)perylene	0.083 U	0.065 U
Benzo(k)fluoranthene	0.11 U	0.087 U
Chrysene	0.09 U	0.071 U
Dibenz(a,h)anthracene	0.063 U	0.049 U
Fluoranthene	0.074 U	0.058 U
Fluorene	0.084 U	0.066 U
Indeno(1,2,3–cd)pyrene	0.063 U	0.05 U
Naphthalene	0.085 U	0.067 U
Phenanthrene	0.08 U	0.063 U
Pyrene	0.088 U	0.07 U
Total SVOC	0	0
Inorganics (mg/Kg)		
"Cyanide, Total"	0.763 U	0.597 U

23GH102			
Analytes	Depth (31–33)	Depth (33–35)	Depth (37–39)
VOC (mg/Kg)			
Benzene	0.5 J	0.0094 J	0.0025 U
Ethylbenzene	0.084 J	0.0024 U	0.0022 U
m,p–Xylene	0.14 U	0.0059 U	0.0054 U
o–Xylene	0.054 U	0.0026 U	0.0024 U
Toluene	0.057 U	0.0028 U	0.0025 U
Total VOC	0.584	0.0094	0
SVOC (mg/Kg)			
Acenaphthene	0.069 U	0.082 U	0.071 U
Acenaphthylene	0.063 U	0.074 U	0.065 U
Anthracene	0.058 U	0.069 U	0.06 U
Benzo(a)anthracene	0.054 U	0.064 U	0.056 U
Benzo(a)pyrene	0.062 U	0.073 U	0.064 U
Benzo(b)fluoranthene	0.043 U	0.05 U	0.044 U
Benzo(ghi)perylene	0.064 U	0.076 U	0.066 U
Benzo(k)fluoranthene	0.085 U	0.1 U	0.088 U
Chrysene	0.07 U	0.082 U	0.071 U
Dibenz(a,h)anthracene	0.049 U	0.057 U	0.05 U
Fluoranthene	0.058 U	0.068 U	0.059 U
Fluorene	0.065 U	0.077 U	0.067 U
Indeno(1,2,3–cd)pyrene	0.049 U	0.058 U	0.05 U
Naphthalene	0.24 J	0.078 U	0.068 U
Phenanthrene	0.062 U	0.073 U	0.063 U
Pyrene	0.068 U	0.081 U	0.07 U
Total SVOC	0.24	0	0
Inorganics (mg/Kg)			
"Cyanide, Total"	0.586 U	0.698 U	0.605 U

21GH030	
Analytes	Depth (17.3-20.0)
VOC (mg/Kg)	
Benzene	0.0043 U
Ethyl Benzene	0.0047 U
m,p-Xylene	0.11 U
o-Xylene	0.0045 U
Toluene	0.0052 U
Total VOC	0
SVOC (mg/Kg)	
Acenaphthene	**1.3**
Acenaphthylene	**0.43**
Anthracene	**0.86**
Benzo(a)anthracene	**1.1**
Benzo(a)pyrene	**1.4**
Benzo(b)fluoranthene	**1.5**
Benzo(ghi)perylene	**1**
Benzo(k)fluoranthene	**0.41**
Chrysene	**0.97**
Dibenz(a,h)anthracene	**0.26 J**
Fluoranthene	**1.9**
Fluorene	**0.63**
Indeno(1,2,3-cd)pyrene	**0.88**
Naphthalene	**0.42**
Phenanthrene	**1.8**
Pyrene	**2.2**
Total SVOC	**17.32**
Inorganics mg/Kg)	
Cyanide Total	NA

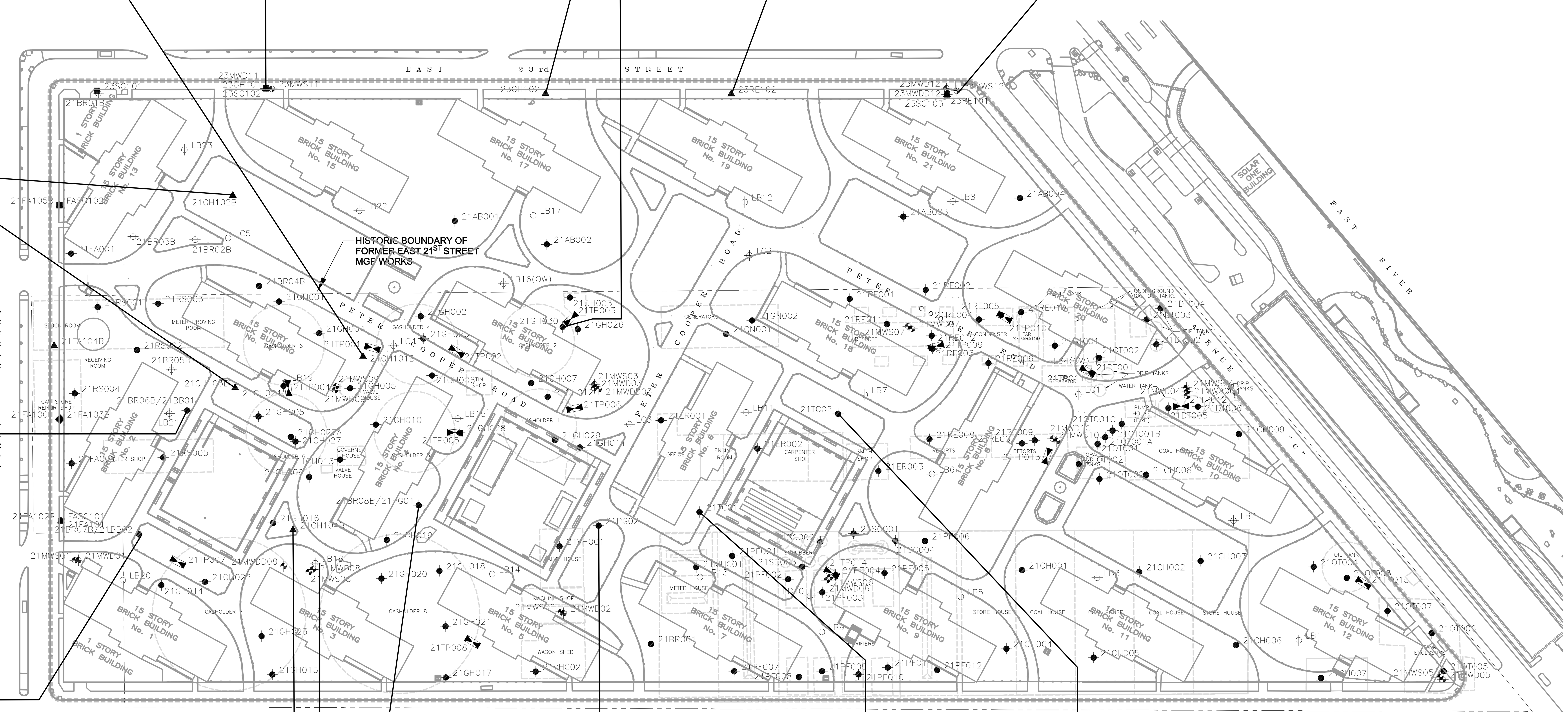
23RE102		
Analytes	Depth (22.5–23)	Depth (24.7–25)
VOC (mg/Kg)		
Benzene	27 J	0.0024 U
Ethylbenzene	160 J	0.011 J
m,p–Xylene	380 J	0.018 J
o–Xylene	120 J	0.96
Toluene	170 J	0.16
Total VOC	916.2	1.149
SVOC (mg/Kg)		
Acenaphthene	94 JD	4.2 J
Acenaphthylene	140 JD	4.3 J
Anthracene	170 J	7.1 J
Benzo(a)anthracene	160 JD	6.4
Benzo(a)pyrene	120 J	4.4
Benzo(b)fluoranthene	150 J	4.6
Benzo(ghi)perylene	24 J	0.87 J
Benzo(k)fluoranthene	67 J	1.6
Chrysene	140 J	4.7
Dibenz(a,h)anthracene	12 J	0.15 J
Fluoranthene	350 J	14 J
Fluorene	200 J	10
Indeno(1,2,3–cd)pyrene	22 J	0.95 J
Naphthalene	1300 J	59 J
Phenanthrene	610 J	23 J
Pyrene	300 J	11 J
Total SVOC	4588.2	187.27
Inorganics (mg/Kg)		
"Cyanide, Total"	0.620 U	0.605 U

23RE101	
Analytes	Depth (21–29)
VOC (mg/Kg)	
Benzene	13 J
Ethylbenzene	84
m,p–Xylene	150
o–Xylene	63
Toluene	40
Total VOC	368
SVOC (mg/Kg)	
Acenaphthene	15
Acenaphthylene	15
Anthracene	90 JD
Benzo(a)anthracene	16
Benzo(a)pyrene	11
Benzo(b)fluoranthene	14 J
Benzo(ghi)perylene	1.4 J
Benzo(k)fluoranthene	6.6 J
Chrysene	14
Dibenz(a,h)anthracene	0.32 UJ
Fluoranthene	160 D
Fluorene	120 J
Indeno(1,2,3–cd)pyrene	0.73 J
Naphthalene	780 D
Phenanthrene	320 D
Pyrene	200 D
Total SVOC	2170.33
Inorganics (mg/Kg)	
"Cyanide, Total"	0.854

21GH102B		
Analytes	Depth (31–35)	Depth (45–47)
VOC (mg/Kg)		
Benzene	0.0025 U	0.02 J
Ethylbenzene	0.0022 U	0.0043 J
m,p–Xylene	0.0054 U	0.0052 U
o–Xylene	0.0024 U	0.0023 U
Toluene	0.0025 U	0.0025 U
Total VOC	0.013	0.0243
SVOC (mg/Kg)		
Acenaphthene	0.073 U	0.074 U
Acenaphthylene	0.067 U	0.067 U
Anthracene	0.062 U	0.062 U
Benzo(a)anthracene	0.058 U	0.058 U
Benzo(a)pyrene	0.066 U	0.066 U
Benzo(b)fluoranthene	0.045 U	0.045 U
Benzo(ghi)perylene	0.068 U	0.068 U
Benzo(k)fluoranthene	0.091 U	0.091 U
Chrysene	0.074 U	0.074 U
Dibenz(a,h)anthracene	0.052 U	0.052 U
Fluoranthene	0.061 U	0.061 U
Fluorene	0.069 U	0.07 U
Indeno(1,2,3–cd)pyrene	0.052 U	0.052 U
Naphthalene	0.07 U	0.071 U
Phenanthrene	0.066 U	0.066 U
Pyrene	0.073 U	0.073 U
Total SVOC	0	0
Inorganics (mg/Kg)		
"Cyanide, Total"	0.628 U	0.627 U

21GH103B				
Analytes	Depth (14–16)	Depth (56–58)	Depth (79–83)	Depth (82.5–83.5)
VOC (mg/Kg)				
Benzene	29 J	0.0024 UJ	0.0022 U	0.034 U
Ethylbenzene	24	0.0021 U	0.0019 U	0.065 J
m,p–Xylene	7.5 J	0.0052 U	0.0048 U	0.14 U
o–Xylene	3.9 J	0.0023 U	0.0021 U	0.052 U
Toluene	7.8	0.0024 U	0.0022 U	0.15 J
Total VOC	74.7	0	0	0.215
SVOC (mg/Kg)				
Acenaphthene	2.4 JD	0.072 U	0.065 U	0.066 U
Acenaphthylene	0.52	0.065 U	0.059 U	0.06 U
Anthracene	3.4 JD	0.061 U	0.055 U	0.056 U
Benzo(a)anthracene	3.3 JD	0.056 U	0.051 U	0.052 U
Benzo(a)pyrene	2.1 JD	0.064 U	0.059 U	0.059 U
Benzo(b)fluoranthene	2.2 JD	0.044 U	0.04 U	0.041 U
Benzo(ghi)perylene	0.44 J	0.066 U	0.061 U	0.061 U
Benzo(k)fluoranthene	1.2 J	0.088 U	0.081 U	0.082 U
Chrysene	4.2 D	0.072 U	0.066 U	0.067 U
Dibenz(a,h)anthracene	0.1 J	0.05 U	0.046 U	0.047 U
Fluoranthene	5 D	0.06 U	0.1 J	0.055 U
Fluorene	2.2	0.068 U	0.062 U	0.063 U
Indeno(1,2,3–cd)pyrene	0.17 J	0.051 U	0.046 U	0.047 U
Naphthalene	15 D	0.29 J	0.076 J	0.063 U
Phenanthrene	18 D	0.072 J	0.2 J	0.059 U
Pyrene	9.5 D	0.071 U	0.13 J	0.066 U
Total SVOC	73.76	0.362	0.591	0
Inorganics (mg/Kg)				
"Cyanide, Total"	0.561 U	0.613 U	0.558 U	0.561 U

21BR06B/21BB01			
Analytes	Depth (12-14)	Depth (16-18)	Depth (56-58)
VOC (mg/Kg)			
Benzene	**39 J**	**0.15**	**0.024 J**
Ethyl Benzene	**61J**	0.0045 U	**0.180**
m,p-Xylene	**28 J**	0.010 U	**0.100**
o-Xylene	**61 J**	0.0042 U	**0.039**
Toluene	**15 J**	0.0049 U	**0.058**
Total VOC	204	0.150	0.439
SVOC (mg/Kg)			
Acenaphthene	**200**	**1**	**0.080 J**
Acenaphthylene	**39 J**	**0.450**	**0.064 J**
Anthracene	**140**	**0.780**	**0.053 J**
Benzo(a)anthracene	**86**	**0.5**	0.0097 U
Benzo(a)pyrene	**39 J**	**0.300 J**	0.012 U
Benzo(b)fluoranthene	**45**	**0.320 J**	0.029 U
Benzo(ghi)perylene	**14 J**	**0.140 J**	0.029 U
Benzo(k)fluoranthene	**11 J**	**0.095 J**	0.018 U
Chrysene	**95**	**0.53**	**0.043 J**
Dibenz(a,h)anthracene	**10 J**	**0.045 J**	0.030 U
Fluoranthene	**140**	**0.910**	0.400 U
Fluorene	**100**	**0.670**	**0.059 J**
Indeno(1,2,3-cd)pyrene	**18 J**	**0.120 J**	0.010 U
Naphthalene	**690**	**3.8**	**1.200**
Phenanthrene	**1300**	**5**	0.400 U
Pyrene	**180**	**1.2**	0.400 U
Total SVOC	3237	17.209	2.869
Inorganics mg/Kg)			
Cyanide Total	NA	NA	NA



21BR07B/21BB02		
Analytes	Depth (18-20)	Depth (46-49.4)
VOC (mg/Kg)		
Benzene	0.0043 U	0.0042 U
Ethyl Benzene	0.0048 U	0.0046 U
m,p-Xylene	0.011 U	0.011 U
o-Xylene	0.0046 U	0.0044 U
Toluene	0.0053 U	0.0051 U
Total VOC	0	0
SVOC (mg/Kg)		
Acenaphthene	0.0086 U	0.0084 U
Acenaphthylene	0.0058 U	0.0057 U
Anthracene	0.013 U	0.013 U
Benzo(a)anthracene	0.0096 U	0.0093 U
Benzo(a)pyrene	0.012 U	0.011 U
Benzo(b)fluoranthene	0.029 U	0.028 U
Benzo(ghi)perylene	0.029 U	0.028 U
Benzo(k)fluoranthene	0.018 U	0.018 U
Chrysene	0.0074 U	0.0072 U
Dibenz(a,h)anthracene	0.029 U	0.029 U
Fluoranthene	0.0096 U	0.0094 U
Fluorene	0.011 U	0.010 U
Indeno(1,2,3-cd)pyrene	0.010 U	0.0098 U
Naphthalene	0.0096 U	0.0094 U
Phenanthrene	0.012 U	0.012 U
Pyrene	0.0087 U	0.0085 U
Total SVOC	0	0
Inorganics mg/Kg)		
Cyanide Total	NA	NA

21GH104B			
Analytes	Depth (45–47)	Depth (51–53)	Depth (125–127)
VOC (mg/Kg)			
Benzene	0.34	0.021 J	0.0022 U
Ethylbenzene	0.19	0.03	0.002 U
m,p–Xylene	0.079	0.0092 J	0.0048 U
o–Xylene	0.027 J	0.0023 U	0.0021 U
Toluene	0.0034 J	0.0025 U	0.0022 U
Total VOC	0.6824	0.0602	0.022
SVOC (mg/Kg)			
Acenaphthene	0.074 U	0.072 U	0.065 U
Acenaphthylene	0.068 U	0.066 U	0.06 U
Anthracene	0.063 U	0.061 U	0.055 U
Benzo(a)anthracene	0.058 U	0.057 U	0.051 U
Benzo(a)pyrene	0.067 U	0.065 U	0.059 U
Benzo(b)fluoranthene	0.046 U	0.045 U	0.04 U
Benzo(ghi)perylene	0.069 U	0.067 U	0.061 U
Benzo(k)fluoranthene	0.092 U	0.09 U	0.081 U
Chrysene	0.075 U	0.073 U	0.066 U
Dibenz(a,h)anthracene	0.052 U	0.051 U	0.046 U
Fluoranthene	0.062 U	0.06 U	0.055 U
Fluorene	0.07 U	0.069 U	0.062 U
Indeno(1,2,3–cd)pyrene	0.053 U	0.052 U	0.047 U
Naphthalene	0.27 J	0.21 J	0.063 U
Phenanthrene	0.066 U	0.065 U	0.058 U
Pyrene	0.074 U	0.072 U	0.065 U
Total SVOC	0.27	0.21	0.11
Inorganics (mg/Kg)			
"Cyanide, Total"	0.631 U	0.617 U	0.554 U

21MWDD08		
Analytes	Depth (37–39)	Depth (47–49)
VOC (mg/Kg)		
Benzene	100	0.01 J
Ethylbenzene	65 JD	0.0022 U
m,p–Xylene	180	0.0053 U
o–Xylene	67	0.0023 U
Toluene	130	0.0033 J
Total VOC	556.6	0.0913
SVOC (mg/Kg)		
Acenaphthene	16	0.11 J
Acenaphthylene	8.9	0.066 U
Anthracene	14 D	0.079 J
Benzo(a)anthracene	17 D	0.092 J
Benzo(a)pyrene	15 JD	0.065 U
Benzo(b)fluoranthene	18 JD	0.045 U
Benzo(ghi)perylene	3.5 J	0.067 U
Benzo(k)fluoranthene	9.9	0.25 J
Chrysene	10	0.073 U
Dibenz(a,h)anthracene	0.37 J	0.22 J
Fluoranthene	43 D	0.23 J
Fluorene	16	0.11 J
Indeno(1,2,3–cd)pyrene	0.56 J	0.052 U
Naphthalene	250 D	1.3
Phenanthrene	81 JD	0.45
Pyrene	64 JD	0.28 J
Total SVOC	628.81	3.401
Inorganics (mg/Kg)		
"Cyanide, Total"	0.611 U	0.616 U

21BR08B/21PG01			
Analytes	Depth (25-26)	Depth (30-32)	Depth (42-44)
VOC (mg/Kg)			
Benzene	**0.430 J**	**0.410 J**	0.0043 U
Ethyl Benzene	**0.230**	**0.400**	0.0048 U
m,p-Xylene	**0.076**	**0.110**	0.011 U
o-Xylene	**0.094**	**0.077**	0.0046 U
Toluene	**0.020 J**	**0.046**	0.0053 U
Total VOC	0.883	1.084	0
SVOC (mg/Kg)			
Acenaphthene	0.011 U	**0.097 J**	0.0087 U
Acenaphthylene	0.0072 U	0.0068 U	0.0059 U
Anthracene	0.017 U	0.016 U	0.014 U
Benzo(a)anthracene	0.012 U	0.011 U	0.0097 U
Benzo(a)pyrene	0.015 U	0.014 U	0.012 U
Benzo(b)fluoranthene	0.035 U	0.033 U	0.029 U
Benzo(ghi)perylene	0.036 U	0.034 U	0.029 U
Benzo(k)fluoranthene	0.023 U	0.021 U	0.018 U
Chrysene	0.0092 U	0.0086 U	0.0075 U
Dibenz(a,h)anthracene	0.036 U	0.034 U	0.030 U
Fluoranthene	0.012 U	0.011 U	0.0097 U
Fluorene	0.013 U	0.013 U	0.011 U
Indeno(1,2,3-cd)pyrene	0.012 U	0.012 U	0.010 U
Naphthalene	**0.180 J**	**0.100 J**	0.0097 U
Phenanthrene	0.015 U	0.014 U	0.013 U
Pyrene	0.011 U	0.010 U	0.0088 U
Total SVOC	0.180	0.197	0
Inorganics mg/Kg)			
Cyanide Total	NA	NA	NA

21PG02			
Analytes	Depth (16.0-17.3)	Depth (17.3-20.0)	Depth (36.0-40.0)
VOC (mg/Kg)			
Benzene	0.0041 U	0.0052 U	0.0043 U
Ethyl Benzene	0.0046 U	**0.084**	0.0048 U
m,p-Xylene	0.011 U	**0.056 J**	0.011 U
o-Xylene	0.0044 U	**0.025 J**	0.0046 U
Toluene	0.0051 U	0.0063 U	0.0053 U
Total VOC	0	0.165	0
SVOC (mg/Kg)			
Acenaphthene	0.0082 U	0.011 U	0.0087 U
Acenaphthylene	0.0056 U	0.0071 U	0.0059 U
Anthracene	0.013 U	0.016 U	0.014 U
Benzo(a)anthracene	0.0091 U	0.012 U	0.0097 U
Benzo(a)pyrene	0.011 U	0.014 U	0.012 U
Benzo(b)fluoranthene	0.027 U	0.035 U	0.029 U
Benzo(ghi)perylene	0.027 U	0.035 U	0.029 U
Benzo(k)fluoranthene	0.017 U	0.022 U	0.018 U
Chrysene	0.0071 U	0.0090 U	0.0075 U
Dibenz(a,h)anthracene	0.028 U	0.036 U	0.030 U
Fluoranthene	0.0092 U	0.012 U	0.0097 U
Fluorene	0.010 U	0.013 U	0.011 U
Indeno(1,2,3-cd)pyrene	0.0096 U	0.012 U	0.010 U
Naphthalene	0.0092 U	**0.061 J**	0.0097 U
Phenanthrene	0.012 U	0.015 U	0.013 U
Pyrene	0.0083 U	0.011 U	0.0088 U
Total SVOC	0	0.061	0
Inorganics mg/Kg)			
Cyanide Total	NA	NA	NA

21TC01			
Analytes	Depth (8-12)	Depth (21-24)	Depth (38-40)
VOC (mg/Kg)			
Benzene	0.0043 U	0.0046 U	0.0043 U
Ethyl Benzene	0.0048 U	0.0052 U	0.0048 U
m,p-Xylene	0.011 U	0.012 U	0.011 U
o-Xylene	0.0045 U	0.0049 U	0.0046 U
Toluene	0.0052 U	0.0057 U	0.0053 U
Total VOC	0	0	0
SVOC (mg/Kg)			
Acenaphthene	**0.330 J**	0.0090 U	0.0086 U
Acenaphthylene	**0.220 J**	0.0061 U	0.0058 U
Anthracene	**0.250 J**	0.014 U	0.013 U
Benzo(a)anthracene	**0.900 J**	0.010 U	0.0096 U
Benzo(a)pyrene	**0.990 J**	0.012 U	0.012 U
Benzo(b)fluoranthene	**0.970**	0.030 U	0.029 U
Benzo(ghi)perylene	**0.580**	0.030 U	0.029 U
Benzo(k)fluoranthene	**0.400**	0.019 U	0.018 U
Chrysene	**0.87**	0.0078 U	0.0074 U
Dibenz(a,h)anthracene	**0.140 J**	0.031 U	0.029 U
Fluoranthene	**1.300 J**	0.010 U	0.0097 U
Fluorene	**0.240 J**	0.011 U	0.011 U
Indeno(1,2,3-cd)pyrene	**0.510**	0.011 U	0.010 U
Naphthalene	**0.580**	0.010 U	0.0096 U
Phenanthrene	**0.750 J**	0.013 U	0.012 U
Pyrene	**1.500 J**	0.0091 U	0.0087 U
Total SVOC	10.872	0	0
Inorganics mg/Kg)			
Cyanide Total	NA	NA	NA

21TC02		
Analytes	Depth (20-24)	Depth (42-44)
VOC (mg/Kg)		
Benzene	**3**	0.0042 U
Ethyl Benzene	**14**	0.0047 U
m,p-Xylene	**18**	0.011 U
o-Xylene	**8.5**	0.0044 U
Toluene	**0.130**	0.0051 U
Total VOC	43.63	0
SVOC (mg/Kg)		
Acenaphthene	**230**	0.0085 U
Acenaphthylene	**120**	0.0057 U
Anthracene	**210**	0.013 U
Benzo(a)anthracene	**200**	0.0095 U
Benzo(a)pyrene	**140**	0.012 U
Benzo(b)fluoranthene	**130**	0.028 U
Benzo(ghi)perylene	**52**	0.028 U
Benzo(k)fluoranthene	**41**	0.018 U
Chrysene	**190**	0.0073 U
Dibenz(a,h)anthracene	**13 J**	0.029 U
Fluoranthene	**420**	0.0095 U
Fluorene	**450**	0.011 U
Indeno(1,2,3-cd)pyrene	**48**	0.0099 U
Naphthalene	**2500**	0.0095 U
Phenanthrene	**1400**	0.012 U
Pyrene	**590**	0.0086 U
Total SVOC	8329	0
Inorganics mg/Kg)		
Cyanide Total	NA	NA

LEGEND

- EXISTING STRUCTURES
- HISTORICAL STRUCTURES
- LIMIT OF OU1
- MONITORING WELL
- RI SOIL BORING
- RI SURFACE SOIL
- RI SOIL GAS

NOTES:

1. ANALYTICAL RESULTS WERE COMPARED TO THE NYSDEC RSCOs. SHADED VALUES INDICATE AN EXCEEDENCE OF THE RSCOs.
2. TOTAL VOC CONCENTRATIONS REPRESENT THE SUM OF THE CONCENTRATIONS OF ALL DETECTED VOCS, INCLUDING BUT NOT LIMITED TO BTEX.
3. TOTAL SVOC CONCENTRATIONS REPRESENT THE SUM OF THE CONCENTRATIONS OF ALL DETECTED SVOCS, INCLUDING BUT NOT LIMITED TO PAHS.
4. TABLE 5–4 PROVIDES A SUMMARY OF ANALYTES DETECTED AND THEIR CONCENTRATIONS IN RI UPPER FILL AND LOWER FILL/NATURAL SOIL SAMPLES.

SOIL CRITERIA	NYSDEC RSCOs
BTEX (mg/Kg)	
Benzene	0.06
Ethylbenzene	5.5
Toluene	1.5
m,p–xylene	NA
o–xylene	NA
Xylene (Total)	1.2
PAH (mg/Kg)	
Acenaphthene	50
Acenaphthylene	41
Anthracene	50
Benzo(a)anthracene	0.224
Benzo(a)pyrene	0.061
Benzo(b)fluoranthene	1.1
Benzo(ghi)perylene	50
Benzo(k)fluoranthene	1.1
Chrysene	0.4
Dibenz(a,h)anthracene	0.014
Fluoranthene	50
Fluorene	50
Indeno(1,2,3–cd)pyrene	3.2
Naphthalene	13
Phenanthrene	50
Pyrene	50
Total SVOC	500
Cyanide (mg/Kg)	
Cyanide, Total	NA

GRAPHIC SCALE IN FEET (0, 40, 80)

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FORMER EAST 21ST STREET WORKS
01869-170-729

DATE: 11/17/08 | DRWN: BcV/W-MA

RI VOC, SVOC, METAL AND CYANIDE CONCENTRATIONS IN LOWER FILL/NATURAL SOIL OPERABLE UNIT 1 (OU1)

FIGURE 5-11

LEGEND:

- - - - - - - -	DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED
21MWS10	DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED MONITORING WELLS
21GH022	DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED SOIL BORINGS
21TP007	DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PITS

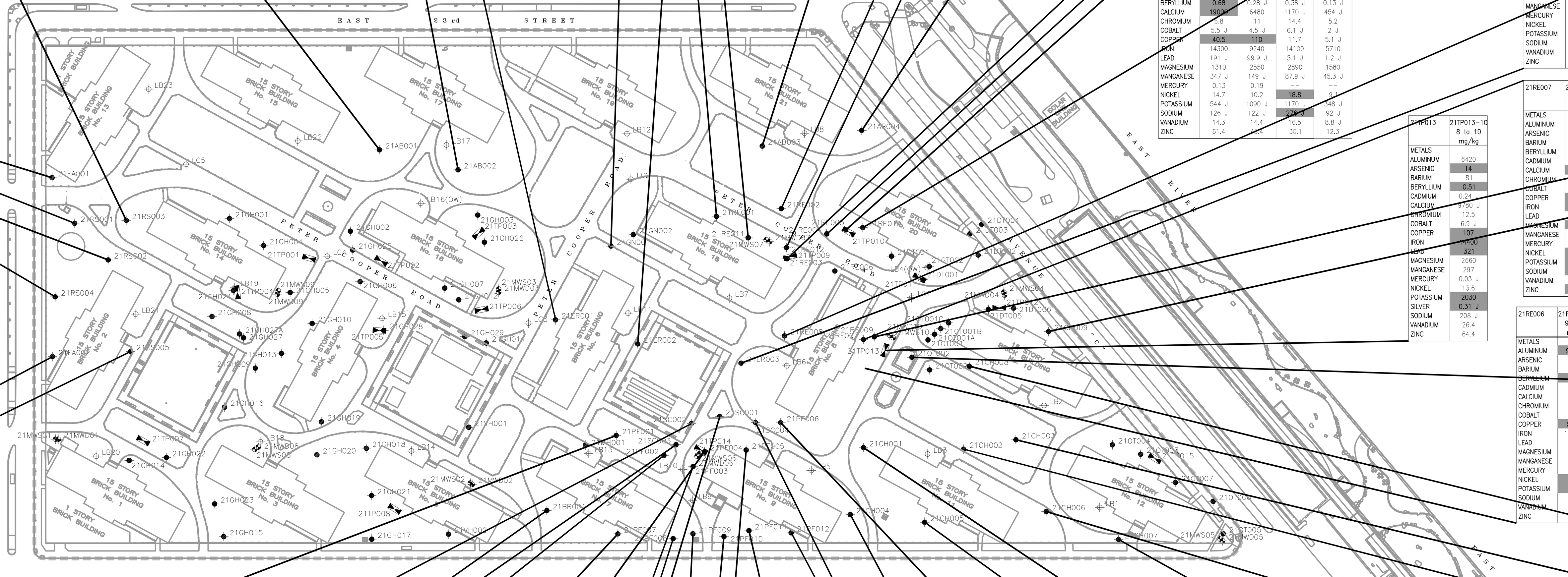
EXPLORATION DESIGNATION
SAMPLE DESIGNATION
DUP = INDICATES DUPLICATE SAMPLE
FP = INDICATES FINGERPRINT ANALYSIS ALSO CONDUCTED

14GH002	14GH002-00DUP 0 - 0.2 Ft mg/kg	14GH002-00FP 0 - 0.2 Ft mg/kg
VOCs		
ETHYLBENZENE	--	0.0008 J
XYLENES (TOTAL)	0.017	NT
TOTAL VOCs		
TOTAL VOCs	0.1345	--
SVOCs		
BENZO(A)PYRENE		
TOTAL SVOCs		
TOTAL SVOCs	4.5	6.2

SAMPLE DEPTH
UNITS
VOLATILE ORGANIC COMPOUNDS
ANALYTICAL RESULT OF LISTED CONSTITUENT
J = INDICATES ESTIMATED VALUE,
NT = INDICATES NOT TESTED,
-- = INDICATES NOT ABOVE REPORTING DETECTION LIMIT (RDL) AS PER DATA VALIDATION
TOTAL VOCs INCLUDES TARGETED COMPOUNDS ONLY
SEMIVOLATILE ORGANIC COMPOUNDS
SHADED AREA INDICATES EXCEEDENCE OF CRITERIA (SEE NOTE 2)
TOTAL SVOCs INCLUDES TARGETED COMPOUNDS ONLY

SOIL CRITERIA	NYSDEC RSCOs
Metals (mg/Kg)	
Aluminum	7960 (sb)
Antimony	NA
Arsenic	13.63 (sb)
Barium	300 (d)
Beryllium	0.463 (sb)
Cadmium	1 (d)
Calcium	11563 (sb)
Chromium	36.69 (sb)
Cobalt	30 (d)
Copper	35.84 (sb)
Iron	14369 (sb)
Lead	237.7 (sb)
Magnesium	3129 (sb)
Manganese	358.5 (sb)
Mercury	0.1 (d)
Nickel	15.3 (sb)
Potassium	1197 (sb)
Selenium	2 (d)
Silver	0.229 (sb)
Sodium	214.8 (sb)
Vanadium	150 (d)
Zinc	81.77 (d)
Cyanide (mg/Kg)	
Available Cyanide	NA
"Cyanide, Total"	NA

(sb) indicates site background value
(d) indicates default RSCO value



21ER001	21ER001-11 9 to 11 mg/kg	21ER001-15 13 to 15 mg/kg	21ER001-33 31 to 33 mg/kg	21ER001-51 49 to 51 mg/kg
METALS				
ALUMINUM	5780	6740	5250	4260
ANTIMONY	1.4 J	--	--	--
ARSENIC	2.6	1.4	1.6 J	--
BARIUM	145	47.7	30.6 J	40 J
BERYLLIUM	0.31 J	0.45 J	0.38 J	0.29 J
CALCIUM	8520	1710	1010 J	9140
CHROMIUM	12	15.7	15.3	11.2
COBALT	4.7 J	7.9 J	4 J	4.9 J
COPPER	31.3	14.8	10.3 J	10.2 J
IRON	11200 J	15400 J	12500 J	9980 J
LEAD	229	9.8	3.6	3.2
MAGNESIUM	2210	2820	2110	5080
MANGANESE	227 J	173 J	70.8	255
MERCURY	0.75	0.05	--	--
NICKEL	13.8	18.6	14.1	17.6
POTASSIUM	987 J	1520	1060 J	1120 J
SODIUM	120 J	157 J	165 J	191 J
VANADIUM	18.1	21.2	14.3	11.8 J
ZINC	113	32.1	24.8	25.6

21GN001	21GN001-17 15 to 17 mg/kg	21GN001-21 19 to 21 mg/kg	21GN001-33 31 to 33 mg/kg	21GN001-51 49 to 51 mg/kg
METALS				
ALUMINUM	11400	8090	5570	4880
ARSENIC	7.3	3.3 J	1.9 J	--
BARIUM	26.6 J	11.4 J	14.3 J	36.9 J
BERYLLIUM	0.64	0.41 J	0.3 J	0.32 J
CALCIUM	2150	747 J	1000 J	12000
CHROMIUM	22.9 J	11.2 J	10.7 J	11.2 J
COBALT	9.1 J	6 J	4.4 J	5.4 J
COPPER	11 J	9.4 J	12.1 J	10.9 J
IRON	25200	14500	13200	11100
LEAD	9.8 J	5 J	4.9 J	3.8 J
MAGNESIUM	5440 J	2820 J	2760 J	5820 J
MANGANESE	408	187	91.9	333
NICKEL	22.1	13.6	13.1	18.9
POTASSIUM	2110	801 J	1010 J	1440
SODIUM	994 J	533 J	250 J	454 J
VANADIUM	29.6	12.2 J	14.1	13.5
ZINC	59.4	30.2	30.9	27.2

21RE011	21RE011-07 5 to 7 mg/kg	21RE011-21 19 to 21 mg/kg	21RE011-29 27 to 29 mg/kg	21RE011-51 49 to 51 mg/kg
METALS				
ALUMINUM	7140 J	8880 J	5210 J	4460 J
ARSENIC	1.4	2.9	1.5	--
BARIUM	42 J	78.1	37.3 J	51.4
BERYLLIUM	0.4 J	0.49	0.3 J	0.3 J
CALCIUM	1140	9510	2630	11300
CHROMIUM	15.2	17.9	11.1	11.4
COBALT	6 J	6.3 J	4.3 J	5.6 J
COPPER	49.4	22	13.7	12
IRON	14500	15100	9080	10400
LEAD	11 J	72 J	21.6 J	3.8 J
MAGNESIUM	2300	3920	2000	5360
MANGANESE	333 J	335 J	153 J	424 J
MERCURY	0.04	0.18	0.06	--
NICKEL	12.8	16.7	12.8	19.5
POTASSIUM	626 J	1760 J	973 J	987 J
SODIUM	--	107 J	294 J	446 J
VANADIUM	27.4	27.5	14.5	12.9
ZINC	48.6	35.8	24	25.4

21AB003	21AB003-07 5 to 7 mg/kg	21AB003-23 21 to 23 mg/kg	21AB003-39 37 to 39 mg/kg	21AB003-51 49 to 51 mg/kg
METALS				
ALUMINUM	8090	4410	3450	5190
ARSENIC	4.5 J	8.1	0.86 J	1.4 J
BARIUM	45.3 J	97.2	18.5 J	56.6
BERYLLIUM	0.35 J	0.37 J	0.22 J	0.36 J
CALCIUM	1320	15700	4040	12100
CHROMIUM	17.2	8.7	9.9	[illegible]
COBALT	4.2 J	5.2 J	4.3 J	[illegible]
COPPER	19.1	105	8.8	11.6
IRON	12800	19500	9470	12800
LEAD	76.5	174	3	5.5
MAGNESIUM	1870	1570	4030	6200
MANGANESE	227	203	237	390
MERCURY	0.21	1.2	--	--
NICKEL	10.5	11.5	17.2	21.2
POTASSIUM	570 J	790 J	959 J	1470
SELENIUM	--	1.1 J	--	--
SILVER	--	0.37 J	--	--
SODIUM	--	732 J	133 J	142 J
VANADIUM	19.1	15.5	12.2 J	15.4
ZINC	42.7	122	21.8	27.6
INORGANIC PARAMETER				
CYANIDE	--	0.95	--	--

21RE012	21RE012-07 5 to 7 mg/kg	21RE012-21 19 to 21 mg/kg	21RE012-31 29 to 31 mg/kg	21RE012-31DUP 29 to 31 mg/kg	21RE012-51 49 to 51 mg/kg
METALS					
ALUMINUM	10100 J	4210 J	7060 J	6260 J	2860 J
ARSENIC	13.5	--	2.8	3	--
BARIUM	57.1	34.8 J	15 J	18.9 J	36.7 J
BERYLLIUM	0.49	0.31 J	0.41 J	0.31 J	0.2 J
CALCIUM	4120 J	3640 J	992 J	705 J	8780 J
CHROMIUM	50.4	10.2	13.7	10.7	7.9
COBALT	5.4 J	4.1 J	5.5 J	6.3 J	4.4 J
COPPER	38.8 J	16.3 J	10.2 J	13.1 J	10 J
IRON	15300 J	12400 J	15900 J	15400 J	7000 J
LEAD	65	32.9	5.9	11.1	2.9
MAGNESIUM	3480	2170	3340	2790	4200
MANGANESE	294	303	182	158	257
MERCURY	0.19	0.03 J	--	--	--
NICKEL	14.1	10.6	15.6	15.6	16.2
POTASSIUM	558 J	669 J	826 J	641 J	615 J
SODIUM	--	--	258 J	252 J	110 J
VANADIUM	36.9	14.8	16.5	12.1	9 J
ZINC	66.3	23.2	41.5	40	16.7

21AB004	21AB004-07 5 to 7 mg/kg	21AB004-23 21 to 23 mg/kg	21AB004-27 25 to 27 mg/kg	21AB004-41 39 to 41 mg/kg	21AB004-51 49 to 51 mg/kg
METALS					
ALUMINUM	6860	6150	13400	2200 J	5620 J
ARSENIC	14.4	12.9	10.6	--	0.92 J
BARIUM	47.3 J	292 J	72.1 J	12.2 J	37.6 J
BERYLLIUM	0.44 J	0.67 J	0.8 J	0.17 J	0.4 J
CADMIUM	0.17 J	--	--	--	--
CALCIUM	2490 J	13200 J	7250 J	621 J	13000 UJ
CHROMIUM	30.8	9.5	25.3	6.3	12.5
COBALT	5.2 J	4.4 J	10.5 J	2.4 J	7.1 J
COPPER	44.6	32.8	44	5.8	12.7
IRON	13700 J	12900 J	27600 J	5980 J	13300 J
LEAD	74.4 J	352 J	174 J	2.1	5.5
MAGNESIUM	2010	1580	5930	1310	6460
MANGANESE	253 J	192 J	925 J	47.6 J	404 J
MERCURY	0.11	0.36	0.64	--	--
NICKEL	12.4	11.2 J	24.7	8.5 J	21.5
POTASSIUM	628 J	928 J	2400 J	367 J	1290 J
SODIUM	136 J	1670 J	2030 J	184 J	241 J
VANADIUM	31.9	21.9	32.3	6.3 J	14.8
ZINC	52.9	134	100	12.6	30.6

21RS003	21RS003-08 7 to 8 mg/kg	21RS003-17 15 to 17 mg/kg	21RS003-20 19 to 20 mg/kg
METALS			
ALUMINUM	6780	8000	11800
ARSENIC	31.2	--	2.2 J
BARIUM	113	55.7	52.4 J
BERYLLIUM	0.51	0.41 J	0.88
CALCIUM	13500	1040 J	3120
CHROMIUM	16.2	13.9	21.2
COBALT	8.7 J	5.6 J	8.3 J
COPPER	40.7	16	15.9
IRON	31400	12800	21900
LEAD	1200	8.4	5.2
MAGNESIUM	2540	2040	3440
MANGANESE	291	384	267
MERCURY	0.71	--	--
NICKEL	19.3	11	17.4
POTASSIUM	1150 J	961 J	2360
SILVER	0.22 J	--	--
SODIUM	369 J	102 J	258 J
VANADIUM	19.3	19.4	31.8
ZINC	102	26.5	46.1

21AB001	21AB001-09 7 to 9 mg/kg	21AB001-23 21 to 23 mg/kg	21AB001-29 27 to 29 mg/kg	21AB001-51 49 to 51 mg/kg
METALS				
ALUMINUM	2830 J	13100 J	8580 J	3980 J
ANTIMONY	0.99 J	--	--	--
ARSENIC	4.6 J	9.7 J	0.83 J	--
BARIUM	87.6	25.8 J	29.4 J	49.1
BERYLLIUM	0.31 J	0.77 J	0.48 J	0.29 J
CADMIUM	0.13 J	--	--	--
CALCIUM	32500	2180	468 J	11000
CHROMIUM	7	27.9	12.4	9.6
COBALT	28.7 J	9.7 J	6.4 J	4.7 J
COPPER	39.8	14.7	16.4	9.6
IRON	24800 J	32600 J	17200 J	9160 J
LEAD	126 J	12.5 J	8.1 J	3.4 J
MAGNESIUM	826 J	6370	3500	5250
MANGANESE	469	441	133	290
MERCURY	0.56 J	0.03 J	--	--
NICKEL	39.9 J	24.5 J	17.8 J	16.6 J
POTASSIUM	336 J	2580 J	803 J	1200 J
SELENIUM	1.7	--	--	--
SODIUM	141 J	1390 J	152 J	152 J
VANADIUM	17.9	33.2	15.3	12.4
ZINC	164	69.1	51.4	21.6

21AB002	21AB002-07 5 to 7 mg/kg	21AB002-19 17 to 19 mg/kg	21AB002-35 33 to 35 mg/kg	21AB002-51 49 to 51 mg/kg
METALS				
ALUMINUM	6530	12700	5350 J	4400 J
ARSENIC	2.9	6	1.4	--
BARIUM	41.4 J	46 J	41.3 J	40.5 J
BERYLLIUM	0.41 J	0.74 J	0.34 J	0.31 J
CALCIUM	1300 J	11300 J	885 J	10800 UJ
CHROMIUM	16.9	24	10.8	11.3
COBALT	5.3 J	9.6 J	5.2 J	5.3 J
COPPER	20.5	15.2	11.3	11.2
IRON	12600 J	27100 J	13200 J	9720 J
LEAD	24.9 J	16.6 J	4.7	3.7
MAGNESIUM	2150	5300	2540	5470
MANGANESE	237 J	451 J	101 J	351 J
MERCURY	0.05	0.06	--	--
NICKEL	11.3	22.5	13.6	18
POTASSIUM	763 J	2030 J	599 J	1190 J
SODIUM	212 J	497 J	200 J	295 J
VANADIUM	23.4	32.1	11.2 J	12.8 J
ZINC	51.6	64	33.7	24.7

21ER002	21ER002-12 10 to 12 mg/kg	21ER002-20 18 to 20 mg/kg	21ER002-20DUP 18 to 20 mg/kg	21ER002-26 24 to 26 mg/kg	21ER002-51 49 to 51 mg/kg
METALS					
ALUMINUM	7660	8550	10500	8980	2530 J
ARSENIC	1.5	7.8	9.8	2.2	--
BARIUM	87.8	21.3 J	21 J	10.8 J	39.2 J
BERYLLIUM	0.25 J	0.44 J	0.58 J	0.38 J	0.15 J
CALCIUM	14900 J	1560 J	1980 J	266 J	4230 J
CHROMIUM	16.5	17.5	22	12.1	7.3
COBALT	6.6 J	6.8 J	8.1 J	5.1 J	3.7 J
COPPER	19.7 J	12.1 J	9.6 J	15.4 J	6.4 J
IRON	14200	20300	27800	15900	7390 J
LEAD	18.9	8.5	9.8	7.4	2.9
MAGNESIUM	7470	4220	5440	3700	3350
MANGANESE	400 J	295 J	430 J	128 J	134 J
MERCURY	0.08	0.03 J	0.03 J	--	--
NICKEL	13 J	14.2 J	17.9 J	13.4 J	12.2 J
POTASSIUM	2840 J	1620 J	1730 J	822 J	551 J
SODIUM	186 J	353 J	501 J	320 J	171 J
VANADIUM	20.6	22.3	27.1	17.8	9.9 J
ZINC	43.7	47.2	57.5	51.9	16

21RE001	21RE001-09 7 to 9 mg/kg	21RE001-19 17 to 19 mg/kg	21RE001-29 27 to 29 mg/kg	21RE001-51 49 to 51 mg/kg
METALS				
ALUMINUM	6850 J	5940 J	11100 J	4150 J
ARSENIC	2.9	0.99 J	8.2	--
BARIUM	40.7 J	61.1	45.2 J	54.2
BERYLLIUM	0.41 J	0.33 J	0.65	0.28 J
CALCIUM	1150 J	3590 J	4100 J	10800 J
CHROMIUM	14.4	11.9	21.8	10.6
COBALT	6.1 J	5 J	8.3 J	4.6 J
COPPER	72.2 J	30.4 J	24.7 J	8.8
IRON	12000 J	10800 J	25600 J	9890 J
LEAD	18	48.5	93.2	3.8 J
MAGNESIUM	2290	2320	5300	5750
MANGANESE	303	201	485	[illegible]38
MERCURY	0.1	0.08	0.52	--
NICKEL	12.1	13.5	21.4	17.3
POTASSIUM	648 J	922 J	1800 J	992 J
SODIUM	--	--	1260 J	221 J
VANADIUM	21	15.1	29.6	12.1
ZINC	47.9	41.5	67	22

21RE002	21RE002-11 9 to 11 mg/kg	21RE002-13 11 to 13 mg/kg	21RE002-29 27 to 29 mg/kg	21RE002-51 49 to 51 mg/kg
METALS				
ALUMINUM	8820 J	5070 J	11000 J	5630 J
ARSENIC	10.1	9.7	15.1	0.9 J
BARIUM	54.6	45.5 J	45.5 J	100
BERYLLIUM	0.5	0.66	0.69	0.42 J
CADMIUM	0.29 J	0.5 J	--	--
CALCIUM	4430 J	2240 J	4120 J	11900 J
CHROMIUM	21.9	12.4	20.7	[illegible]
COBALT	5.4 J	6.7 J	9.2 J	7.4 J
COPPER	40.9	41.3	32.1	11.1
IRON	15600 J	21600 J	26900 J	13200 J
LEAD	42.4	71.8	175	5.4
MAGNESIUM	2440	1050 J	4940	6270
MANGANESE	[illegible]	259	838	451
MERCURY	0.21	0.18	0.6	--
NICKEL	12.5	52.8	20	22.1
POTASSIUM	689 J	501 J	2040	1490
SELENIUM	--	2.4	--	--
SODIUM	187 J	258 J	1360 J	162 J
VANADIUM	32.9	17.[illegible]	29.4	16.7
ZINC	66.3	144	76.9	32

21RE005	21RE005-11 10 to 11 mg/kg	21RE005-23 21 to 23 mg/kg	21RE005-29 27 to 29 mg/kg	21RE005-51 49 to 51 mg/kg
METALS				
ALUMINUM	8180 J	5350 J	4040 J	2760 J
ARSENIC	8.8	2.8	2.1	--
BARIUM	83.9	40.7 J	31.3 J	36.4 J
BERYLLIUM	1.3	0.34 J	0.26 J	0.18 J
CALCIUM	7720 J	6050 J	5570 J	8990 J
CHROMIUM	13.9	15.1	9.3	7.5
COBALT	16.4	6 J	4 J	3.4 J
COPPER	62.9 J	21.2 J	15.3 J	7.1 J
IRON	33100 J	12800 J	8820 J	7320 J
LEAD	52.7	34.7	27.[illegible]	2.5
MAGNESIUM	2140	3230	1980	4140
MANGANESE	278	434	234	253
MERCURY	0.17	0.04 J	0.08	--
NICKEL	57.6	18.2	10.8	15.1
POTASSIUM	593 J	1150 J	690 J	541 J
SELENIUM	4.8	--	--	--
SODIUM	296 J	117 J	111 J	--
VANADIUM	24.5	16.6	11.7	9.2 J
ZINC	115	60.7	43.5	15.3

21RE010	21RE010-07 5 to 7 mg/kg	21RE010-15 13 to 15 mg/kg	21RE010-29 27 to 29 mg/kg	21RE010-29DUP 27 to 29 mg/kg	21RE010-51 49 to 51 mg/kg
METALS					
ALUMINUM	5940 J	5090 J	5380 J	4990 J	3490 J
ARSENIC	2.1	2.1	1.9	1.5	--
BARIUM	58.8	82.1	52.3	55.5	53.9
BERYLLIUM	0.36 J	0.39 J	0.31 J	0.3 J	0.26 J
CALCIUM	2730 J	28900 J	5800 J	9360 J	8010 J
CHROMIUM	13.7	11.4	10.3	9.5	8.4
COBALT	5.8 J	5 J	5.2 J	3.8 J	4.9 J
COPPER	29.8	34.2	17.6	19	8.1
IRON	12400 J	11800 J	11300 J	10200 J	9710 J
LEAD	64.3	67.6	75.8	105	3.7
MAGNESIUM	1860	3510	2480	2260	4500
MANGANESE	296	363	214	208	296
MERCURY	0.2	0.18	0.2	7.4	--
NICKEL	10.5	10.9	10.1	9.3 J	15.3
POTASSIUM	802 J	882 J	1220	1020 J	859 J
SODIUM	105 J	166 J	803 J	709 J	147 J
VANADIUM	20.5	20.2	15.9	14.2	12.2
ZINC	123	41.3	34.4	32	21.2

21RE003	21RE003-14 12 to 14 mg/kg	21RE003-14DUP 12 to 14 mg/kg	21RE003-18 16 to 18 mg/kg	21RE003-28 26 to 28 mg/kg	21RE003-50 48 to 50 mg/kg
METALS					
ALUMINUM	6150 J	6690 J	6620 J	5420 J	2370 J
ARSENIC	2	2.2	1.4	1.9	--
BARIUM	52.3	79.8	62.3	32.6 J	27 J
BERYLLIUM	0.38 J	0.5	0.41 J	0.38 J	0.18 J
CALCIUM	14900	4370	3650	[illegible]	6500
CHROMIUM	12.8	13.2	15.6	13.4	6.7
COBALT	5.6 J	6.5 J	5.9 J	5.9 J	3.1 J
COPPER	17	25.4	28.6	17.6	5.4 J
IRON	12400	14100	[illegible]	16400	5810
LEAD	37 J	47.6 J	33.8 J	34.1 J	2.1 J
MAGNESIUM	2520	2800	2600	2280	3530
MANGANESE	239 J	226	250 J	276 J	185 J
MERCURY	0.07	[illegible]	0.12	0.15	--
NICKEL	14	18	13.2	12.5	15.2
POTASSIUM	1000 J	923 J	1100 J	781 J	483 J
SODIUM	--	--	--	115 J	--
VANADIUM	18.[illegible]	21.1	19.9	34.6	7.2 J
ZINC	29.3	38.6	37.9	33.9	13.7

21RE004	21RE004-11 9 to 11 mg/kg	21RE004-21 19 to 21 mg/kg	21RE004-33 31 to 33 mg/kg	21RE004-41 39 to 41 mg/kg
METALS				
ALUMINUM	4420 J	4780 J	[illegible]	1970 J
ARSENIC	4	1.4	1.6	--
BARIUM	47.1 J	[illegible]	28 J	29.6 J
BERYLLIUM	0.68	0.28 J	0.38 J	0.13 J
CALCIUM	19000	6480	1170 J	454 J
CHROMIUM	6.8	11	14.4	5.2
COBALT	5.5 J	4.5 J	6.1 J	2 J
COPPER	40.5	110	11.7	5.1 J
IRON	14300	9240	14100	5710
LEAD	191 J	99.9 J	5.1 J	1.2 J
MAGNESIUM	1310	2550	2890	1580
MANGANESE	347 J	149 J	87.9 J	45.3 J
MERCURY	0.13	0.19	--	--
NICKEL	14.7	10.2	18.8	[illegible]
POTASSIUM	544 J	1090 J	1170 J	348 J
SODIUM	126 J	122 J	276 J	92 J
VANADIUM	14.3	14.4	16.5	8.8 J
ZINC	61.4	[illegible]	30.1	12.3

21TP013	21TP013-10 8 to 10 mg/kg
METALS	
ALUMINUM	6420
ARSENIC	14
BARIUM	81
BERYLLIUM	0.51
CADMIUM	0.24 J
CALCIUM	9780 J
CHROMIUM	12.5
COBALT	6.9 J
COPPER	107
IRON	14400
LEAD	321
MAGNESIUM	2660
MANGANESE	297
MERCURY	0.03 J
NICKEL	13.6
POTASSIUM	2030
SILVER	0.31 J
SODIUM	208 J
VANADIUM	26.4
ZINC	64.4

21RE008	21RE008-13 11 to 13 mg/kg	21RE008-19 17 to 19 mg/kg	21RE008-19DUP 17 to 19 mg/kg	21RE008-31 29 to 31 mg/kg	21RE008-51 49 to 51 mg/kg
METALS					
ALUMINUM	6660 J	7840 J	8560 J	7930 J	3060
ARSENIC	2.8	2.8	2	3.9	--
BARIUM	66.1	86.1	55.6	39.1 J	39.9 J
BERYLLIUM	0.53	0.75	0.55	0.44 J	--
CALCIUM	43200 J	5070 J	3200 J	8540 J	7690
CHROMIUM	12.5	17.8	18.7	14	7.9
COBALT	5.8 J	7.5 J	6.7 J	6.9 J	4.1 J
COPPER	23.5	24.5	19.1	16.8	--
IRON	12800 J	18000 J	17700 J	18800 J	7910
LEAD	16.9	19.5	13.6	35.2	2.7
MAGNESIUM	7080	3100	3640	4650	4020
MANGANESE	1040	264	176	309	269 J
MERCURY	--	0.03 J	--	0.2	--
NICKEL	10.6	16.6	15.5	15	15.7
POTASSIUM	1350	1490	1800	1220 J	--
SODIUM	530 J	200 J	154 J	571 J	98 J
VANADIUM	23.7	23.9	24.5	21.5	10.2 J
ZINC	28.1	42	42.2	50.4	17

21ER003	21ER003-13 11 to 13 mg/kg	21ER003-21 19 to 21 mg/kg	21ER003-33 31 to 33 mg/kg	21ER003-51 49 to 51 mg/kg
METALS				
ALUMINUM	6790	3240	5900	2360
ARSENIC	1.4 J	--	1.4 J	--
BARIUM	34.8 J	18.7 J	28.3 J	153
BERYLLIUM	0.34 J	0.17 J	0.28 J	0.17 J
CADMIUM	0.24 J	0.33 J	0.36 J	0.12 J
CALCIUM	3280 J	729 J	761 J	3040 J
CHROMIUM	11.6	6.5	10.6	6.7
COBALT	4.3 J	2.5 J	4.5 J	4 J
COPPER	14.6	9.5	11.5	7.5
IRON	10300	6800	15300	6660
LEAD	[illegible]	7	6.8	1.9
MAGNESIUM	3080	1100 J	2600	3440
MANGANESE	235	88.2	115	103
MERCURY	0.02 J	--	--	--
NICKEL	9.5	5.8 J	13.3	14.9
POTASSIUM	713 J	480 J	558 J	501 J
SODIUM	148 J	--	121 J	107 J
VANADIUM	17.3	12	12	9 J
ZINC	26	17	38.4	16.2

21RE009	21RE009-15 13 to 15 mg/kg	21RE009-31 29 to 31 mg/kg	21RE009-31DUP 29 to 31 mg/kg	21RE009-33 31 to 33 mg/kg	21RE009-51 49 to 51 mg/kg
METALS					
ALUMINUM	3800 J	4000 J	10900 J	5730 J	5550 J
ARSENIC	3.1 J	5.2 J	7	3 J	1.6 J
BARIUM	32.3 J	22.3 J	41.3 J	30.2 J	47.7 J
BERYLLIUM	0.27 J	0.23 J	0.64	0.33 J	0.39 J
CALCIUM	9160	2650	5450	5200	10800
CHROMIUM	10.6	7.2	20.5	11.1	14.4
COBALT	3.6 J	3 J	8.3 J	5.2 J	7 J
COPPER	26.5	10.3	21.3	13.7	10.7
IRON	10600 J	9180 J	22300 J	12500 J	13600 J
LEAD	160	25.4	64.5	24.4	4.6
MAGNESIUM	2640	1650	4840	2840	6390
MANGANESE	212	224	671	235	285
MERCURY	0.24	0.08	0.32	0.06	--
NICKEL	9.7	7.5 J	19.4	12.8	23.9
POTASSIUM	822 J	1050 J	2180	1180 J	1790 J
SELENIUM	--	--	1.4	--	--
SODIUM	164 J	241200	989 J	254 J	122 J
VANADIUM	19.7	10 J	26.4	14.9	17.5
ZINC	27.6	22.1	59.9	33.3	28.4

21RE007	21RE007-11 9 to 11 mg/kg	21RE007-13 11 to 13 mg/kg	21RE007-15 13 to 15 mg/kg	21RE007-31 29 to 31 mg/kg	21RE007-51 49 to 51 mg/kg
METALS					
ALUMINUM	6890	4480	8810	7370	2760
ARSENIC	6.7	2.7 J	3	6.9	--
BARIUM	178	62.2	66.6	31.1 J	48.1 J
BERYLLIUM	0.44 J	0.32 J	0.44 J	0.38 J	0.17 J
CADMIUM	0.76 J	--	0.29 J	0.5 J	--
CALCIUM	15900	8510	5160	2510	7480
CHROMIUM	18.2	18.1	20.5	16.7	8.2
COBALT	8.2 J	4.9 J	10.7 J	5.8 J	3.4 J
COPPER	57.4	21.1	[illegible]	14	7
IRON	17500	11200	19100	16100	8350
LEAD	256	61.2	40.2	50.8	2.9
MAGNESIUM	7310	3460	5760	3470	4010
MANGANESE	237	239	590	344	203
MERCURY	0.37	0.28	0.13	0.17	--
NICKEL	19.3	14.1	19.3	13.3	13.8
POTASSIUM	1750	1140	2930	1350	598 J
SODIUM	231 J	134 J	187 J	666 J	155 J
VANADIUM	24.1	16.4	29.5	19.1	13
ZINC	252	54.6	51.2	40.8	15.7

21RE006	21RE006-11 9 to 11 mg/kg	21RE006-15 13 to 15 mg/kg	21RE006-15DUP 13 to 15 mg/kg	21RE006-31 29 to 31 mg/kg	21RE006-51 49 to 51 mg/kg
METALS					
ALUMINUM	9120 J	9000 J	6530 J	5090 J	2690 J
ARSENIC	7.4	6.4	7.5	3.5 J	--
BARIUM	93.1	80.1	53.5	21 J	38.8 J
BERYLLIUM	0.7	0.94	0.51	0.29 J	0.22 J
CADMIUM	--	0.49 J	--	--	--
CALCIUM	9720	3900	2650	2290	7470
CHROMIUM	15.9	14.5	13.1	10.5	7.9
COBALT	3.5 J	6.9 J	4 J	4.8 J	3.6 J
COPPER	52.5 J	39.9 J	36.8 J	7.4 J	11.4 J
IRON	12900 J	14500 J	12500 J	12600 J	6610 J
LEAD	53.1	46.7	37.9	10.1	2
MAGNESIUM	1910	2230	1660	2440	3710
MANGANESE	75.2	97.8	150	153	223
MERCURY	0.13	0.17	0.12	0.04	--
NICKEL	17.2	27.2	12.4	11.7	13.7
POTASSIUM	1600	1690	1100 J	870 J	682 J
SODIUM	--	--	--	381 J	--
VANADIUM	12.9	20.7	16.8	12.4	8.9 J
ZINC	33.6	90.9	100	28.2	15.9

21OT002	21OT002-07 5 to 6.5 mg/kg
METALS	
ALUMINUM	8050
ARSENIC	6.5
BARIUM	106
BERYLLIUM	0.43 J
CADMIUM	0.56 J
CALCIUM	3190
CHROMIUM	27.6
COBALT	5.9 J
COPPER	27.8
IRON	13400
LEAD	61.3
MAGNESIUM	2260
MANGANESE	313
MERCURY	0.14
NICKEL	17.3
POTASSIUM	805 J
SODIUM	260 J
VANADIUM	36.2
ZINC	74.7

21CH009	21CH009-11 9 to 11 mg/kg	21CH009-19 17 to 19 mg/kg	21CH009-23 21 to 23 mg/kg	21CH009-27 25 to 27 mg/kg	21CH009-51 49 to 51 mg/kg
METALS					
ALUMINUM	7260 J	3770 J	5130 J	4470 J	2440 J
ARSENIC	10.3	--	1.7 J	3.6 J	--
BARIUM	89.7	27 J	42.9 J	18.2 J	33.4 J
BERYLLIUM	0.5	0.34 J	0.32 J	0.27 J	0.22 J
CALCIUM	7210	2150	8120	2560	4400
CHROMIUM	13.8	9.5	10.6	9.7	6.8
COBALT	6.7 J	3.5 J	4.4 J	4.5 J	3.8 J
COPPER	31.2 J	9.5 J	14.7 J	6.9 J	5.4 J
IRON	14400 J	7470 J	9230 J	12100 J	8170 J
LEAD	554	26.9	46	15.8	2.1
MAGNESIUM	2470	1840	2750	2820	3620
MANGANESE	223	121	187	187	170
MERCURY	0.33	--	0.02 J	0.06	--
NICKEL	15.1	8.2 J	12.3	9.7	14.5
POTASSIUM	1400	1230	1140 J	908 J	610 J
SILVER	--	--	0.18 J	--	--
SODIUM	85.4 J	--	309 J	405 J	--
THALLIUM	1.1 J	--	--	--	--
VANADIUM	12.7	10.1 J	16.7	13.9	9 J
ZINC	47.1	19.6	29.5	27.1	16.2

21CH003	21CH003-09 7 to 9 mg/kg	21CH003-23 21 to 23 mg/kg	21CH003-29 27 to 29 mg/kg	21CH003-51 49 to 51 mg/kg
METALS				
ALUMINUM	7730	3070	13800	5530
ARSENIC	41.1	3.2 J	12.5	1.5 J
BARIUM	74.8	45.2 J	77.8	38.4 J
BERYLLIUM	0.33 J	0.2 J	0.81	0.39 J
CADMIUM	--	--	0.21 J	--
CALCIUM	3500	11500	40200	12700
CHROMIUM	20.6	4.1	25.6	13.2
COBALT	6.2 J	2.4 J	9.9 J	6.4 J
COPPER	92.8	21.9	36.1	12.9
IRON	17800	6510	29500	12800
LEAD	73	311	138	6.9
MAGNESIUM	2410	818 J	6400	6540
MANGANESE	91.2	101	1180	410
MERCURY	0.27	0.11	0.52	--
NICKEL	16.1	4.5 J	23.7	21.9
POTASSIUM	1420	282 J	2560	1480
SODIUM	97 J	282 J	1680	142 J
VANADIUM	21.4	7.4 J	35.3	16.5
ZINC	37.9	22.2	84.4	28.3

21CH008	21CH008-07 5 to 7 mg/kg	21CH008-17 15 to 17 mg/kg	21CH008-29 27 to 29 mg/kg	21CH008-45 43 to 45 mg/kg	21CH008-51 49 to 51 mg/kg
METALS					
ALUMINUM	6890	3060	11300	2180	3960
ARSENIC	4.6	1.6	9	--	0.92 J
BARIUM	71.8	23.3 J	71.7	27.1 J	41.1 J
BERYLLIUM	0.33 J	0.16 J	0.63	0.13 J	0.24 J
CADMIUM	0.24 J	--	0.42 J	--	0.15 J
CALCIUM	7610	5460	37900	3380	7900
CHROMIUM	25.3	6.4	20.7	5.6	10.2
COBALT	5.3 J	3.1 J	8.6 J	2.7 J	4.9 J
COPPER	28	12	34.1	6.2	10
IRON	11700	7920	24800	7900	9610
LEAD	96.7	57.6	98.7	1.8	3.2
MAGNESIUM	2250	1400	5530	3040	5040
MANGANESE	362	142	765	86.6	245
MERCURY	0.73	0.05	0.58	--	--
NICKEL	20	6.4 J	20	9.5 J	17.7
POTASSIUM	758 J	391 J	1960	393 J	956 J
SODIUM	146 J	266 J	1370 J	160 J	200 J
VANADIUM	22	10.5 J	29.8	7.1 J	14
ZINC	43.4	15.5	70.9	11.5	21.8
INORGANIC PARAMETER					
CYANIDE	--	--	0.87	--	--

21CH006	21CH006-09 7 to 9 mg/kg	21CH006-17 15 to 17 mg/kg	21CH006-27 25 to 27 mg/kg	21CH006-51 49 to 51 mg/kg
METALS				
ALUMINUM	915	7160	8780	4480
ARSENIC	0.85 J	8	7.6	0.83 J
BARIUM	28.6 J	225	84.2	83.6
BERYLLIUM	0.12 J	0.56	0.53	0.36 J
CALCIUM	51800	13700	6080	7400
CHROMIUM	1.8 J	17	19.7	12.6
COBALT	2 J	8.2 J	7.1 J	5.1 J
COPPER	7.8	34.8	70.1	13
IRON	68200	13200	22100	11600
LEAD	60	1080	283	3.9
MAGNESIUM	1060 J	2870	3660	5110
MANGANESE	1130	180	558	298
MERCURY	0.22	4.7	0.19	--
NICKEL	4.4 J	20.2	17.6	18.8
POTASSIUM	87 J	2180	1720	1350
SELENIUM	--	1.1 J	--	--
SILVER	--	0.37 J	--	--
SODIUM	--	275 J	512 J	166 J
VANADIUM	4.1 J	25.4	24.1	16.6
ZINC	16.7	204	92.4	22.7

21CH002	21CH002-09 7 to 9 mg/kg	21CH002-27 25 to 27 mg/kg	21CH002-29 27 to 29 mg/kg	21CH002-51 49 to 51 mg/kg	21CH002-51DUP 49 to 51 mg/kg
METALS					
ALUMINUM	6840 J	5240 J	15100 J	4970 J	3470 J
ARSENIC	41.1 J	15.6 J	10.7 J	--	--
BARIUM	62.5	331	59.3 J	50.1	44.4 J
BERYLLIUM	0.29 J	0.65	0.9	0.37 J	0.26 J
CALCIUM	3400	12300	4350	5570	1220 J
CHROMIUM	16.6	11.5	28.5	11.8	8.6
COBALT	2.8 J	5.1 J	11.2 J	6.3 J	4.5 J
COPPER	31.6	41.7	38.4	10.1	8.5
IRON	24200 J	12500 J	30600 J	12700 J	9670 J
LEAD	91.8	671	130	5.7	3.3
MAGNESIUM	1730	1250 J	6970	5660	2700
MANGANESE	61.2	198	916	156	61.7
MERCURY	0.2 J	0.89 J	0.65 J	--	--
NICKEL	8.7 J	11	26.2	19.4	16.2
POTASSIUM	638 J	767 J	2590 J	1310 J	839 J
SODIUM	96.7 J	755 J	944 J	174 J	149 J
VANADIUM	19.9	26.1	37.3	15	12.3 J
ZINC	27.9 J	132 J	97.2 J	28.7 J	20.9 J
INORGANIC PARAMETER					
CYANIDE	1.2	0.86	--	--	--

21CH001	21CH001-07 5 to 7 mg/kg	21CH001-11 9 to 11 mg/kg	21CH001-27 25 to 27 mg/kg	21CH001-27DUP 25 to 27 mg/kg	21CH001-51 49 to 51 mg/kg
METALS					
ALUMINUM	6480 J	8240 J	15300 J	13800 J	3350 J
ARSENIC	3.3 J	4.2 J	11.9	11.2	--
BARIUM	46.8	45.8 J	68.8	69.2	69.6
BERYLLIUM	0.41 J	0.4 J	0.85	0.87	0.46 J
CALCIUM	2360	2000	5020	8250	1080 J
CHROMIUM	28.8	13.2	28.8	26.5	10.1
COBALT	6 J	5.2 J	11.9 J	10.5 J	4.1 J
COPPER	25.6	15.6	43.7	35	9.4
IRON	15000 J	15400 J	30700 J	35700 J	8890 J
LEAD	25.9	28.1	184	151	3.1
MAGNESIUM	2350	1920	6520	5920	2180
MANGANESE	315	227	767	1680	59.7
MERCURY	0.04	0.13	0.86	0.78	--
NICKEL	13.6	13.1	28.1	25.7	20.4
POTASSIUM	828 J	497 J	3000	2530	1000 J
SELENIUM	--	--	1.7	1.7	--
SILVER	--	--	0.29 J	--	--
SODIUM	77.6 J	88 J	1070 J	986 J	99.1 J
VANADIUM	31.7	30.3	38.3	37.2	12.7
ZINC	55.8	33.4	92.2	88.3	24.2

21CH007	21CH007-15 13 to 15 mg/kg	21CH007-23 21 to 23 mg/kg	21CH007-51 49 to 51 mg/kg
METALS			
ALUMINUM	5510	8820	3200
ARSENIC	6.7	7.3	--
BARIUM	185	132	85.4
BERYLLIUM	0.43 J	0.57	0.18 J
CALCIUM	26100	14500	7060
CHROMIUM	11	18	10.6
COBALT	10.2 J	7.8 J	4.1 J
COPPER	25.4	37.4	7.3
IRON	18300	25100	8870
LEAD	444	139	2.9
MAGNESIUM	4460	3200	4230
MANGANESE	574	389	194
MERCURY	0.13	0.89	--
NICKEL	12.7	16.8	14.8
VANADIUM	19.5	26.2	12.5
ZINC	87.6	73.3	18.2
INORGANIC PARAMETER			
CYANIDE	0.75	--	1.9

21CH005	21CH005-07 5 to 7 mg/kg	21CH005-19 17 to 19 mg/kg	21CH005-27 25 to 27 mg/kg	21CH005-51 49 to 51 mg/kg
METALS				
ALUMINUM	7570	10600	15900	2040
ARSENIC	4.3 J	2.3 J	12.[illegible]	--
BARIUM	59	47.7	74.5	15.9 J
BERYLLIUM	0.48	0.41 J	0.88	0.13 J
CADMIUM	0.22 J	--	--	--
CALCIUM	2770	2290	5320	--
CHROMIUM	32	15.2	29.8	5.9
COBALT	5.2 J	6.1 J	11.7 J	2.6 J
COPPER	27	14.7	40.9	4.8 J
IRON	14200	16900	33400	5580
LEAD	64.4	15.5	137	2
MAGNESIUM	2230	2710	6500	1500
MANGANESE	269	248	883	38.7
MERCURY	0.35	0.25	0.79	--
NICKEL	13.2	12.5	27.9	9.5
POTASSIUM	[illegible] J	579 J	2680	444 J
SILVER	--	--	0.3 J	--
SODIUM	189 J	--	751 J	--
VANADIUM	31.4	20.4	40	7.7 J
ZINC	102	33.1	108	18

21PF012	21PF012-09 7 to 9 mg/kg	21PF012-09DUP 7 to 9 mg/kg	21PF012-17 15 to 17 mg/kg	21PF012-31 29 to 31 mg/kg	21PF012-51 49 to 51 mg/kg
METALS					
ALUMINUM	5960 J	6000 J	13700 J	4470 J	3800 J
ARSENIC	9.6 J	9.6 J	7.8 J	1.1 J	--
BARIUM	249	140	46.3 J	22.1 J	32 J
BERYLLIUM	0.4 J	0.41 J	0.72	0.24 J	0.25 J
CADMIUM	0.47 J	0.56	0.16 J	--	--
CALCIUM	30300 J	37400 J	3450 J	509 J	8160 J
CHROMIUM	11.9	13.1 J	25 J	8.9 J	9.8 J
COBALT	7.5	7.4 J	11.2 J	3.1 J	4.4 J
COPPER	61.6 J	61.5 J	64.4 J	9 J	9.8 J
IRON	16400	21700	29200	8980	9300
LEAD	567 J	848 J	26.6 J	7.4 J	3.8 J
MAGNESIUM	3990	5030	5220	1740	4600
MANGANESE	267 J	414 J	667 J	82.1 J	216 J
MERCURY	0.52 J	0.55 J	0.14	--	--
NICKEL	16.9	17	23.3	9.1	15.8
POTASSIUM	890 J	[illegible] J	2130 J	564 J	882 J
SODIUM	235 J	239 J	558 J	173 J	217 J
VANADIUM	30.7	19.3	33.6	11.2 J	12.1 J
ZINC	301 J	224 J	67.7 J	22.7 J	19.5 J

21SC001	21SC001-13 11 to 13 mg/kg	21SC001-17 15 to 17 mg/kg	21SC001-25 23 to 25 mg/kg	21SC001-51 49 to 51 mg/kg
METALS				
ALUMINUM	7370	4900	7540	4260
ARSENIC	1.2 J	1.2 J	3.7 J	--
BARIUM	56.9	18.8 J	12 J	62.1
BERYLLIUM	0.53	0.24 J	0.35 J	0.29 J
CALCIUM	3250 J	1020 J	665 J	10600 J
CHROMIUM	15.4	9.7	10.7	10.4
COBALT	3.5 J	4.4 J	4.8 J	5.8 J
COPPER	14.9	11.9	13.1	9.8
IRON	9230	10800	14700	9990
LEAD	7.4	9.6	7.5	3.8
MAGNESIUM	2970	2120	3110	5310
MANGANESE	85.4	150	108	354
MERCURY	--	0.02 J	--	--
NICKEL	9.5	9 J	13.1	18.8
POTASSIUM	803	834 J	595 J	900 J
SODIUM	98.6 J	122 J	134 J	165 J
VANADIUM	22.1	13.4	14.7	11.5 J
ZINC	28.3	23.5	36.2	24

21PF002	21PF002-09 7 to 9 mg/kg	21PF002-19 17 to 19 mg/kg	21PF002-31 29 to 31 mg/kg	21PF002-51 49 to 51 mg/kg
METALS				
ALUMINUM	4300 J	12200 J	3830 J	6290 J
ARSENIC	--	7.6	0.8 J	0.95
BARIUM	168	26 J	21.3 J	88
BERYLLIUM	0.35 J	0.61	0.21 J	0.37 J
CALCIUM	56600	2660	745 J	13400
CHROMIUM	5.8 J	23.1 J	7.7 J	14.1 J
COBALT	5.4 J	8.9 J	3.2 J	6.3 J
COPPER	55.6	9.6	7.2	12.8
IRON	9140	26900	10500	14500
LEAD	62.5	9.2	2.1	4.9
MAGNESIUM	2160	5810	1610	6850
MANGANESE	182 J	414 J	58.5 J	359 J
MERCURY	0.04 J	--	--	--
NICKEL	9.8 J	20.4	9.7	20.3
POTASSIUM	415 J	2290 J	636 J	1860 J
SODIUM	225 J	289 J	--	316 J
VANADIUM	12.9	30.2	11.6	17.8
ZINC	18.5	60	19.4	32.5
INORGANIC PARAMETER				
CYANIDE	1.2	--	--	--

21BR001	21BR001-129 127 to 129 mg/kg
METALS	
ALUMINUM	3520
BARIUM	43.1 J
BERYLLIUM	0.3 J
CALCIUM	10900
CHROMIUM	8.4
COBALT	4.4 J
COPPER	20.9
IRON	9120
LEAD	4.6
MAGNESIUM	5810
MANGANESE	283
NICKEL	9.1
POTASSIUM	1150
SODIUM	269 J
VANADIUM	18.6
ZINC	33.8

21SC002	21SC002-15 13 to 15 mg/kg	21SC002-25 23 to 25 mg/kg	21SC002-31 29 to 31 mg/kg	21SC002-51 49 to 51 mg/kg
METALS				
ALUMINUM	7140 J	7710 J	7090 J	2570 J
ARSENIC	3.5	4.6	1.3 J	--
BARIUM	54.2	10.8 J	34.1 J	34.3 J
BERYLLIUM	0.4 J	0.36 J	0.34 J	0.2 J
CALCIUM	45500 J	787 J	950 J	6840 J
CHROMIUM	15.5	10.8	11.5	6
COBALT	6.6 J	4.8 J	5.5 J	3.3 J
COPPER	23.4 J	15 J	13.8 J	6
IRON	15400 J	17100 J	17000 J	6260 J
LEAD	47	7.3	6.5	2.1
MAGNESIUM	4200	3280	3340	3460
MANGANESE	195	116	107	217
MERCURY	0.09	--	--	--
NICKEL	15.7	14.8	15.9	11.7
POTASSIUM	759 J	502 J	772 J	619 J
SODIUM	[illegible] J	124 J	--	96.5 J
VANADIUM	19.9	13.7	12.9 J	8.3 J
ZINC	43.7	45.2	44.6	15.2

21PF001	21PF001-11 9 to 11 mg/kg	21PF001-13 11 to 13 mg/kg	21PF001-31 29 to 31 mg/kg	21PF001-51 49 to 51 mg/kg
METALS				
ALUMINUM	6550	9410	7050	3710
ARSENIC	3.1	2.6	--	--
BARIUM	54.8	69.8	28.6 J	51.6
BERYLLIUM	0.34 J	0.59	0.4 J	0.25 J
CALCIUM	25700 J	2690 J	882 J	8860 J
CHROMIUM	10.6 J	18.6 J	12.6 J	8.9 J
COBALT	3.9 J	7.4 J	5.1 J	4.6 J
COPPER	13.5 J	20.3 J	13.4 J	9.9 J
IRON	10100	21500	15800	8080
LEAD	52.7 J	11.8 J	6.4 J	2.6 J
MAGNESIUM	6010	3540	3060	4380
MANGANESE	372	409	104	273
MERCURY	0.11 J	--	--	--
NICKEL	12.7 J	14.6 J	15.2 J	16.8 J
POTASSIUM	686 J	2070	915 J	1020 J
SODIUM	518 J	179 J	166 J	228 J
VANADIUM	14.1	27.2	13 J	11.3 J
ZINC	36.9 J	42 J	40.1 J	23.3 J

21RS005	21RS005-11 9 to 11 mg/kg	21RS005-15 13 to 15 mg/kg	21RS005-27 25 to 27 mg/kg	21RS005-31 29 to 31 mg/kg	21RS005-39 37 to 39 mg/kg
METALS					
ALUMINUM	10400 J	1760 J	10900 J	11300 J	2490
ANTIMONY	--	--	--	2.6 J	--
ARSENIC	4.3	1 J	4.7	6.6	--
BARIUM	178	205	22.1 J	53.7 J	12.4 J
BERYLLIUM	0.83	0.25 J	0.54 J	0.34 J	0.12 J
CADMIUM	0.42 J	--	--	--	--
CALCIUM	49400	8730	3780	1660 J	865 J
CHROMIUM	17	4	19.9	30.1	11
COBALT	6.4 J	2.9 J	6.4 J	5.4 J	2.1 J
COPPER	16.9	19.4	12.5	11.6	6.8
IRON	17400 J	7460 J	18100 J	20600 J	6610
LEAD	112	68.1	8.4	4.2	2.4
MAGNESIUM	17800	732 J	4590	3470	950 J
MANGANESE	936	98.6	99.3	176	92.8
MERCURY	0.24	--	--	--	--
NICKEL	17.3	7.6 J	16.5 J	19.6	6.6 J
POTASSIUM	1900	203 J	1790 J	1420 J	550 J
SODIUM	484 J	161 J	2850	1400 J	82.1 J
VANADIUM	20.4	6.9 J	32.2	30.3	9.4 J
ZINC	99.5	10.2	43	37.5	11.2

21FA002	21FA002-09 7 to 9 mg/kg
METALS	
ALUMINUM	7900 J
ARSENIC	3.7
BARIUM	80
BERYLLIUM	0.3 J
CALCIUM	54200
CHROMIUM	13.8
COBALT	3.4 J
COPPER	18.8
IRON	11200 J
LEAD	32.2
MAGNESIUM	26200
MANGANESE	1110
NICKEL	9.7
POTASSIUM	446 J
SODIUM	312 J
VANADIUM	13.9
ZINC	22.8

21RS001	21RS001-07 5 to 7 mg/kg
METALS	
ALUMINUM	7100
ARSENIC	3 J
BARIUM	45.8
BERYLLIUM	0.41 J
CALCIUM	1750
CHROMIUM	21.7
COBALT	5.8 J
COPPER	42.8
IRON	13300
LEAD	28.5
MAGNESIUM	2450
MANGANESE	330
MERCURY	0.21
NICKEL	12
POTASSIUM	972 J
SODIUM	86.6 J
VANADIUM	28.5
ZINC	45.8

21FA001	21FA001-07 5 to 7 mg/kg
METALS	
ALUMINUM	9920 J
ARSENIC	7.4
BARIUM	112
BERYLLIUM	0.48
CADMIUM	0.22 J
CALCIUM	13100
CHROMIUM	21.7
COBALT	9.8 J
COPPER	41.4
IRON	17700 J
LEAD	80.1
MAGNESIUM	4580
MANGANESE	390 J
MERCURY	0.44 J
NICKEL	19.8
POTASSIUM	2590
SODIUM	151 J
VANADIUM	27
ZINC	92.6

21RS002	21RS002-11 9 to 11 mg/kg	21RS002-17 15 to 17 mg/kg
METALS		
ALUMINUM	7470	8410
ARSENIC	3 J	2.3 J
BARIUM	65.4	71.4
BERYLLIUM	0.79	0.33 J
CALCIUM	2420	1500
CHROMIUM	27.4	19
COBALT	7.1 J	7.3 J
COPPER	43.7	11.4
IRON	22600	26500
LEAD	33.9	8.6
MAGNESIUM	1900	3830
MANGANESE	207	1250
MERCURY	0.31	--
NICKEL	17.2	15.7
POTASSIUM	1020 J	3820
SODIUM	--	184 J
VANADIUM	43.1	27.6
ZINC	67.3	44.4

21RS004	21RS004-07 5 to 7 mg/kg	21RS004-08 7 to 8 mg/kg
METALS		
ALUMINUM	3060 J	6170 J
ARSENIC	1.2	7.6
BARIUM	41 J	93.7
BERYLLIUM	0.16 J	0.51
CADMIUM	--	0.33 J
CALCIUM	767 J	35200
CHROMIUM	6.8	10.1
COBALT	3.6 J	8.6 J
COPPER	11	40.5
IRON	6650 J	13300 J
LEAD	28.8	25.9
MAGNESIUM	1540	3110
MANGANESE	214	421
MERCURY	0.06	0.13
NICKEL	14.7	21.2
POTASSIUM	416 J	652 J
SODIUM	111 J	391 J
VANADIUM	8.5 J	17.4
ZINC	36.5	46.7

21SC003	21SC003-11 9 to 11 mg/kg	21SC003-15 13 to 15 mg/kg	21SC003-35 33 to 35 mg/kg	21SC003-51 49 to 51 mg/kg
METALS				
ALUMINUM	9180 J	5940 J	5930 J	5500 J
ARSENIC	2.7 J	1.1 J	1.4 J	--
BARIUM	67.7	41.7 J	32.5 J	52.4
BERYLLIUM	0.68	0.33 J	0.38 J	0.33 J
CALCIUM	4600	53300	1270	15000
CHROMIUM	24.6 J	13.3 J	13.5 J	12 J
COBALT	6.8 J	5.4 J	4.5 J	6.5 J
COPPER	21	16.4	10.7	11.8
IRON	20800	12700	15000	13500
LEAD	9.5	9.2	4.9	4.3
MAGNESIUM	3310	2290	2640	6590
MANGANESE	215 J	219 J	89.8 J	387 J
MERCURY	0.09	--	--	--
NICKEL	18.1	10.7	16.3	19.4
POTASSIUM	2250 J	1130 J	1480 J	1500 J
SODIUM	113 J	--	113 J	165 J
VANADIUM	32.4	20.2	16.8	16.4
ZINC	39	30.3	29.3	31

21PF007	21PF007-07 5 to 7 mg/kg	21PF007-15 13 to 15 mg/kg	21PF007-33 31 to 33 mg/kg	21PF007-51 49 to 51 mg/kg
METALS				
ALUMINUM	9080	6890	4630 J	4510 J
ARSENIC	8.8	1.8	0.82 J	0.88 J
BARIUM	104	44.4 J	19.7 J	42.3 J
BERYLLIUM	0.46 J	0.39 J	0.2 J	0.29 J
CADMIUM	0.36 J	--	--	--
CALCIUM	7620 J	1020 J	631 J	11300 J
CHROMIUM	41 J	13.5 J	10.7 J	11 J
COBALT	4.6 J	4.5 J	2.7 J	5.1 J
COPPER	32.5 J	16.8 J	7.7 J	12.4 J
IRON	12400	14800	8170	10800
LEAD	169 J	12.9 J	3.8 J	4.6 J
MAGNESIUM	2440	2200	1780	5530
MANGANESE	254	134	58.8 J	262 J
MERCURY	0.75 J	--	--	--
NICKEL	14.5 J	11.2 J	9.2 J	15.8
POTASSIUM	578 J	1020 J	547 J	1200 J
SODIUM	210 J	203 J	151 J	262 J
VANADIUM	32.6	20.1	13.1	13.1
ZINC	116 J	31.9 J	19.2 J	26.5 J

21PF008	21PF008-13 11 to 13 mg/kg	21PF008-23 21 to 23 mg/kg	21PF008-31 29 to 31 mg/kg	21PF008-51 49 to 51 mg/kg
METALS				
ALUMINUM	7200	7520 J	4410 J	3270 J
ARSENIC	0.88 J	0.95 J	1.4 J	1.1 J
BARIUM	47.5	29.5 J	37.6 J	30 J
BERYLLIUM	0.34 J	0.28 J	0.34 J	0.24 J
CALCIUM	1190 J	236 J	1020 J	9090 J
CHROMIUM	11.8 J	12.6 J	[illegible]	7.8 J
COBALT	5.5 J	3.2 J	3.7 J	4 J
COPPER	18.9 J	9.1 J	12 J	8.6 J
IRON	13000	10800	12800	7920
LEAD	19.4 J	5.5 J	3.9 J	2.6 J
MAGNESIUM	2260	2600	1860	4460
MANGANESE	130	69.4 J	59.7 J	233 J
MERCURY	0.05 J	--	--	--
NICKEL	10.4 J	10.5	13.5	14.6
POTASSIUM	1160	810	798 J	855 J
SODIUM	156 J	205 J	182 J	317 J
VANADIUM	21.3	14.6	14.7	9.6 J
ZINC	31.2 J	25.3 J	22.6 J	17.3 J

21PF010	21PF010-09 7 to 9 mg/kg	21PF010-15 13 to 15 mg/kg	21PF010-29 27 to 29 mg/kg	21PF010-29DUP 27 to 29 mg/kg	21PF010-49 47 to 49 mg/kg
METALS					
ALUMINUM	8720 J	7710 J	5610 J	6810 J	4270 J
ARSENIC	1.3 J	1.4 J	3.8 J	2.9 J	--
BARIUM	59.2	70.5	38.7 J	35.7 J	52.7
BERYLLIUM	0.72	0.3 J	0.21 J	0.15 J	0.21 J
CALCIUM	1660	937 J	500 J	449 J	5830
CHROMIUM	18.8 J	16.8 J	8.7 J	9.4 J	9.2 J
COBALT	20	5.2 J	3.1 J	3 J	3.7 J
COPPER	29.8	21.6	8.4	7.3	8
IRON	14100	13800	12300	[illegible]	9800
LEAD	14.4	7.8	4.1	4.8	2.8
MAGNESIUM	3510	2870	2170	2600	3870
MANGANESE	155 J	85.5 J	71.6 J	[illegible]	172 J
MERCURY	0.03 J	0.02 J	0.02 J	--	--
NICKEL	42.2	12.5	11.3	9.2	13
POTASSIUM	2370 J	2800 J	681 J	751 J	893 J
VANADIUM	29.2	25.9	13.3	13.1	12.1 J
ZINC	92.2	32.8	25.3	27.8	22.3

21SC004	21SC004-07 5 to 7 mg/kg	21SC004-17 15 to 17 mg/kg	21SC004-29 27 to 29 mg/kg	21SC004-51 49 to 51 mg/kg
METALS				
ALUMINUM	5030	5800	7170	3780
ARSENIC	[illegible]	1 J	1.7 J	--
BARIUM	65	30.1 J	21.6 J	43.4 J
BERYLLIUM	0.4 J	0.31 J	0.33 J	0.26 J
CALCIUM	6980 J	1560 J	1010 J	9190 J
CHROMIUM	17.4	12.5	13.5	9
COBALT	6.6 J	11.9 J	5.7 J	5 J
COPPER	34.5	16.9	15.6	8.7
IRON	16600	[illegible]	16800	8810
LEAD	159	[illegible]	8.4	3.3
MAGNESIUM	3260	[illegible]	3440	4800
MANGANESE	297	109	142	277
MERCURY	1.6	0.12	--	--
NICKEL	15.4	17.3	15.6	18
POTASSIUM	796 J	1200 J	755 J	876 J
SODIUM	207 J	141 J	148 J	--
VANADIUM	24.5	15.9	[illegible]	11.1 J
ZINC	76.2	31.8	[illegible]	24.3
INORGANIC PARAMETER				
CYANIDE	2.1	--	--	--

21PF006	21PF006-09 7 to 9 mg/kg	21PF006-11 10 to 11 mg/kg	21PF006-13 12 to 13 mg/kg	21PF006-14 13 to 13.5 mg/kg	21PF006-35 33 to 35 mg/kg	21PF006-51 49 to 51 mg/kg
METALS						
ALUMINUM	4650 J	6650 J	11500 J	9340 J	6650 J	3450 J
ARSENIC	4.9 J	5.9 J	11.6 J	6.6 J	1 J	--
BARIUM	66.2	60.6	133	103	34.1 J	35.4 J
BERYLLIUM	0.25 J	0.43 J	1.4	0.72	0.43 J	0.21 J
CADMIUM	0.12 J	0.2 J	1.4 J	1.7	--	--
CALCIUM	110000 J	84200 J	6800 J	7930 J	1320	7240
CHROMIUM	8.4 J	18.5 J	26.1 J	23.5 J	15.6	9.7
COBALT	10 J	4.5 J	15.1 J	12.4 J	5.3 J	5 J
COPPER	10.9 J	15.8 J	84.1 J	45.8 J	13.3	12.5
IRON	13700	15500	45300	27900	16000 J	8770 J
LEAD	46.2 J	35.8 J	311 J	100 J	6	2.7
MAGNESIUM	3740	4660	3860	4040	3070	3940
MANGANESE	815 J	334 J	311 J	247 J	118 J	267 J
MERCURY	0.07 J	0.13 J	2.2 J	1 J	0.04 J	--
NICKEL	20.2	11.9	26.5	22.4	19.3	17.8
POTASSIUM	793 J	623 J	2470 J	3430 J	1460	877 J
SILVER	--	--	0.96 J	0.55 J	--	--
SODIUM	519 J	200 J	533 J	341 J	204 J	176 J
VANADIUM	13.5	20.5	35.5	27.3	18.7	12.3
ZINC	21.5 J	42.3 J	511 J	514 J	31.9	20.2
INORGANIC PARAMETER						
CYANIDE	2.1	--	387	1.8	--	--

21PF004	21PF004-11 9 to 11 mg/kg	21PF004-15 13 to 15 mg/kg	21PF004-31 29 to 31 mg/kg	21PF004-51 49 to 51 mg/kg	21TP014-07 5 to 7 mg/kg
METALS					
ALUMINUM	6390 J	7310 J	5870 J	4310 J	11900
ARSENIC	7.1	2 J	1.6 J	--	6.7 J
BARIUM	72.6	45.9 J	59.6	43.3 J	92
BERYLLIUM	0.48 J	0.36 J	0.38 J	0.27 J	1.3
CADMIUM	--	--	--	--	0.79 J
CALCIUM	8440	831 J	1050 J	10800	62200 J
CHROMIUM	17.9	12.6	12.5	9.7	12.6
COBALT	7.5 J	4.7 J	4 J	4.7 J	61.1
COPPER	65.8	15.9	9.2	11.5	48.9 J
IRON	17500 J	13200 J	13200 J	10100 J	31300
LEAD	183	10.8	4.3	4.1	33
MAGNESIUM	2330	1870	2410	5360	11600
MANGANESE	332	83.2	80.9	283	2330
MERCURY	0.45	0.02 J	--	--	0.08
NICKEL	18.9	10.1	14.7	16.5	109 J
POTASSIUM	832 J	576 J	1390	1260	848 J
SODIUM	190 J	--	102 J	263 J	320 J
THALLIUM	--	--	--	--	1.4 J
VANADIUM	24	16.6	15.9	12.9	20.4
ZINC	111	28.5	23	23.7	165 J
INORGANIC PARAMETER					
CYANIDE	1.4	--	--	--	2.6

21PF003	21PF003-11 9 to 11 mg/kg	21PF003-21 19 to 21 mg/kg	21PF003-35 33 to 35 mg/kg	21PF003-51 49 to 51 mg/kg
METALS				
ALUMINUM	6980	8470	4570	5360
ARSENIC	5.5 J	1.8 J	0.86 J	--
BARIUM	75.6	15.1 J	34.5 J	55.4
BERYLLIUM	0.63	0.42 J	0.3 J	0.34 J
CALCIUM	19800 J	1960 J	1020 J	11700 J
CHROMIUM	14.3	13.1	11.6	13.4
COBALT	9 J	5.9 J	3.6 J	6.2 J
COPPER	50.7	11.2	9	9.8
IRON	23900	13300	11500	12300
LEAD	176	6.1	3.1	4.6
MAGNESIUM	3680	3150	2120	6290
MANGANESE	440	154	62.8	311
MERCURY	0.32	--	--	--
NICKEL	18.9	16.5	14.9	21
POTASSIUM	953 J	789 J	876 J	1350 J
SODIUM	195 J	264 J	131 J	356 J
VANADIUM	19.5	15.6	13.8	14.8
ZINC	103	35.8	23	30.8
INORGANIC PARAMETER				
CYANIDE	1.6	--	--	--

21PF009	21PF009-09 7 to 9 mg/kg	21PF009-15 13 to 15 mg/kg	21PF009-33 31 to 33 mg/kg	21PF009-51 49 to 51 mg/kg
METALS				
ALUMINUM	12500 J	6880 J	5250 J	3480 J
ARSENIC	12.1 J	3.4 J	--	--
BARIUM	185	35.8 J	51.5	35.3 J
BERYLLIUM	0.31 J	0.4 J	0.35 J	0.18 J
CADMIUM	0.15 J	0.11 J	--	--
CALCIUM	2400 J	737 J	1050 J	4160
CHROMIUM	42.8 J	12.3 J	13.3	9.5
COBALT	9.9 J	13.9	4.4 J	3.3 J
COPPER	26.5 J	17.4 J	9.1	6.7
IRON	33100	9670	12600 J	8460 J
LEAD	12.2 J	10.6 J	4.3	3.1
MAGNESIUM	7550	2050	2320	2920
MANGANESE	193 J	92.3 J	75.1 J	136 J
NICKEL	39.3	23.5	16.5	12.1
POTASSIUM	6450 J	918 J	1250	617 J
SODIUM	273 J	229 J	175 J	165 J
VANADIUM	47.4	19.2	14.9	10 J
ZINC	48.1 J	40.6 J	24.6	19.2

21PF005	21PF005-09 7 to 9 mg/kg	21PF005-17 15 to 17 mg/kg	21PF005-31 29 to 31 mg/kg	21PF005-51 49 to 51 mg/kg
METALS				
ALUMINUM	6270 J	6640 J	4320 J	3280 J
ARSENIC	3.3 J	1.6 J	7.7	--
BARIUM	57.6	41.2 J	21 J	25.4 J
BERYLLIUM	0.4 J	0.4 J	0.3 J	0.2 J
CALCIUM	25600	6210	1000 J	6550
CHROMIUM	12.1	16.5	12.6	6.9
COBALT	5.4 J	6.6 J	4.4 J	4.1 J
COPPER	21.7	15.2	10.4	9.8
IRON	29000 J	12700 J	12200 J	7860 J
LEAD	73.5	23.8	3.3	2.5
MAGNESIUM	2730	2060	2230	3610
MANGANESE	312	169	79.1	201
MERCURY	0.29	0.02 J	--	--
NICKEL	10.7	10.9	32.6	13.1
POTASSIUM	785 J	888 J	645 J	728 J
SODIUM	167 J	--	--	104 J
VANADIUM	17	20.8	12.8	9.3 J
ZINC	61.4	34.8	26	17.8

21PF011	21PF011-09 7 to 9 mg/kg	21PF011-13 11 to 13 mg/kg	21PF011-33 31 to 33 mg/kg	21PF011-51 49 to 51 mg/kg	21PF011-51DUP 49 to 51 mg/kg
METALS					
ALUMINUM	3720 J	6990 J	3110 J	4770 J	5400 J
ARSENIC	4.5	4.3	1.6	--	--
BARIUM	30.3 J	58.4	32.5 J	60.1	44 J
BERYLLIUM	0.1 J	0.26 J	0.13 J	0.28 J	0.31 J
CADMIUM	--	--	--	--	0.11 J
CALCIUM	1810	3000	385 J	11500	15600
CHROMIUM	8.7	17.9	9.3	11.7	13.1
COBALT	2.2 J	5 J	1.7 J	5.6 J	6.1 J
COPPER	9.5	17.7	2.4 J	11.5	15.1
IRON	9600 J	15200 J	5870 J	10800 J	12200 J
LEAD	8.6	9.6	2.5	4	5.1
MAGNESIUM	1420	2820	1300	5680	6590
MANGANESE	47.3 J	104 J	33.1 J	294 J	437 J
MERCURY	0.09 J	0.05 J	--	--	0.04 J
NICKEL	7.9 J	13.1	7 J	17.7	20
POTASSIUM	723 J	1630	731 J	1320	1400
SODIUM	121 J	139 J	436 J	275 J	273 J
VANADIUM	10.9 J	19.6	9.3 J	14.9	16.2
ZINC	16	29.9	14.2	25.5	31.4
INORGANIC PARAMETER					
CYANIDE	--	--	--	0.99	--

21CH004	21CH004-07 5 to 7 mg/kg	21CH004-13 11 to 13 mg/kg	21CH004-23 21 to 23 mg/kg	21CH004-51 49 to 51 mg/kg
METALS				
ALUMINUM	6760	6350	13100	4630 J
ARSENIC	3.8 J	8.5	9.5	--
BARIUM	51.6	264	62.5 J	66.5
BERYLLIUM	0.45	0.6	0.79	0.36 J
CALCIUM	1840	11300	4260	10400
CHROMIUM	28.9	13.4	24.5	11
COBALT	5.4 J	7.5 J	9.6 J	5.8 J
COPPER	21.6	31.8	38.5	11.2
IRON	18800	26900	28200	11100 J
LEAD	21.8	1620	142	4.1
MAGNESIUM	2410	1710	5620	5850
MANGANESE	363	512	831	270
MERCURY	0.15	0.55	0.61	--
NICKEL	12.9	14.2	23.4	19.5
POTASSIUM	922 J	1080 J	2600	1140 J
SODIUM	95.2 J	306 J	2080	128 J
VANADIUM	28.8	24	32.5	14.1
ZINC	37.6	221	114	28 J

50 0 100
1"=100'

NOTES:

1. THIS FIGURE WAS DERIVED FROM FIGURE 19 OF THE SITE CHARACTERIZATION STUDY SCS REPORT (H&A 2004).
2. SOIL ANALYTICAL RESULTS FOR METALS AND CYANIDE WERE COMPARED TO THE HIGHER OF THE CALCULATED SITE-SPECIFIC BACKGROUND VALUES (SSBV) OR NYSDEC RESIDENTIAL SOIL CLEANUP OBJECTIVES (RSCO) FROM TECHNICAL AND GUIDANCE MEMORANDUM (TAGM) #4046. SHADED VALUES INDICATE AN EXCEEDENCE OF CRITERIA.
3. METALS: TARGET ANALYTE LIST METALS. MG/KG: MILLIGRAMS PER KILOGRAM, OR PARTS PER MILLION (PPM).
4. TABLES II, XA, XB AND XII IN SITE CHARACTERIZATION REPORT SUMMARIZE THE TESTING PARAMETERS AND RESULTS. FULL LABORATORY TESTING RESULTS ARE PROVIDED IN REPORT APPENDIX E. SCS LOWER FILL/NATURAL SOIL ANALYTICAL RESULTS ARE ALSO PROVIDED IN THE RI REPORT.

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

SCS METAL AND CYANIDE CONCENTRATIONS IN LOWER FILL/NATURAL SOIL (>5 FT. DEPTH) NOVEMBER 2004 OPERABLE UNIT 1 (OU1)

DATE: 11/17/08 DRWN: MAW/BIL

FIGURE 5-12

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\HA_METAL_CYANIDE.dwg Layout: ANSI_E1 User: VershonB Plotted: Nov 18, 2008 - 12:17pm Xref's:

23MWD11 Analytes	20-Apr-06	25-May-06	8-Sep-08
BTEX (ug/L)			
Benzene	1.00 U	0.39 U	9.9
Ethylbenzene	1.00 U	0.45 U	0.05 U
Toluene	1.00 U	0.36 U	0.16 U
Total Xylene (calculated)	0	0	0
PAH (ug/l)			
Acenaphthene	NS	1.4 U	0.330 U
Acenaphthylene	NS	1.3 U	0.360 U
Anthracene	NS	1.4 U	1.4 U
Benzo(a)anthracene	NS	1.1 U	1.3 U
Benzo(a)pyrene	NS	1.2 U	0.220 U
Benzo(b)fluoranthene	NS	0.760 U	0.440 U
Benzo(ghi)perylene	NS	1.1 U	0.400 U
Benzo(k)fluoranthene	NS	1.9 U	0.310 U
Chrysene	NS	1.7 U	0.270 U
Dibenz(a,h)anthracene	NS	0.870 U	0.550 U
Fluoranthene	NS	1.2 U	0.200 U
Fluorene	NS	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	NS	0.840 U	0.670 U
Naphthalene	NS	1.4 U	0.290 U
Phenanthrene	NS	1.4 U	1.4 U
Pyrene	NS	1.5 U	1.4 U
2-Methylnaphthalene	NS	1.3 J	0.380 U
Phenol	NS	1.3 U	0.560 R
Inorganics (ug/L)			
Cyanide, Total	NS	10 U	NS

23MWS11 Analytes	20-Apr-06	25-May-06	Dup 25-May-06	8-Sep-08
BTEX (ug/L)				
Benzene	1.00 U	0.39 UJ	0.39 U	0.35 U
Ethylbenzene	1.00 U	0.45 UJ	0.45 U	0.05 U
Toluene	1.00 U	0.36 UJ	0.36 U	0.16 U
Total Xylene (calculated)	0	0	0	0
PAH (ug/l)				
Acenaphthene	NS	1.4 U	1.4 U	0.330 U
Acenaphthylene	NS	1.3 U	1.3 U	0.360 U
Anthracene	NS	1.4 U	1.4 U	1.4 U
Benzo(a)anthracene	NS	1.1 U	1.1 U	1.3 U
Benzo(a)pyrene	NS	1.2 U	1.2 U	0.220 U
Benzo(b)fluoranthene	NS	0.760 U	0.760 U	0.440 U
Benzo(ghi)perylene	NS	1.1 U	1.1 U	0.400 U
Benzo(k)fluoranthene	NS	1.9 U	1.9 U	0.310 U
Chrysene	NS	1.7 U	1.7 U	0.270 U
Dibenz(a,h)anthracene	NS	0.870 U	0.870 U	0.550 U
Fluoranthene	NS	1.2 U	1.2 U	0.200 U
Fluorene	NS	1.4 U	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	NS	0.840 U	0.840 UJ	0.670 U
Naphthalene	NS	1.4 U	1.4 U	0.290 U
Phenanthrene	NS	1.4 U	1.4 U	1.4 U
Pyrene	NS	1.5 U	1.5 U	1.4 U
2-Methylnaphthalene	NS	1.1 U	1.1 U	0.380 U
Phenol	NS	1.3 U	1.3 R	0.560 R
Inorganics (ug/L)				
Cyanide, Total	NS	10 U	10 U	NS

21MWS03 Analytes	22-Apr-04	23-May-06	Dup 23-May-06	2-Sep-08
BTEX (ug/L)				
Benzene	3.5	2.9 J	5.6	4.5
Ethylbenzene	8.5	0.45 UJ	0.45 U	0.03 U
Toluene	1	0.36 UJ	0.36 U	0.09 U
Total Xylene (calculated)	5.2	0	0	0
PAH (ug/l)				
Acenaphthene	49	16	18	33 J
Acenaphthylene	0.070 U	1.3 U	1.3 U	1.8 U
Anthracene	3.2	1.4 U	1.4 U	7.3 U
Benzo(a)anthracene	0.2 U	1.1 U	1.1 U	6.7 U
Benzo(a)pyrene	0.080 U	1.2 U	1.2 U	1.1 U
Benzo(b)fluoranthene	0.2 U	0.760 U	0.760 U	2.2 U
Benzo(ghi)perylene	0.060 U	1.1 U	1.1 U	2.0 U
Benzo(k)fluoranthene	0.2 U	1.9 U	1.9 U	1.5 U
Chrysene	0.070 U	1.7 U	1.7 U	1.3 U
Dibenz(a,h)anthracene	0.040 U	0.880 U	0.870 U	2.8 U
Fluoranthene	2.5 J	1.6 J	1.5 J	1.0 U
Fluorene	8.8	1.4 U	1.4 U	1.4 U
Indeno(1,2,3-cd)pyrene	0.080 U	0.840 UJ	0.840 U	3.4 U
Naphthalene	5.2	2.9 J	4.9 J	1.4 U
Phenanthrene	11 J	1.4 U	1.4 U	7.0 U
Pyrene	4.2	2.3 J	2.3 J	7.3 U
2-Methylnaphthalene	14	1.6 J	1.8 J	1.9 U
Phenol	0.5 U	1.3 R	1.3 R	2.8 R
Inorganics (ug/L)				
Cyanide, Total	46	48	51	NS

21MWD03 Analytes	23-May-06
BTEX (ug/L)	
Benzene	46000 D
Ethylbenzene	3900 D
Toluene	22000 D
Total Xylene (calculated)	3900
PAH (ug/l)	
Acenaphthene	31
Acenaphthylene	110
Anthracene	5.6 J
Benzo(a)anthracene	1.1 U
Benzo(a)pyrene	1.2 U
Benzo(b)fluoranthene	0.760 U
Benzo(ghi)perylene	1.1 U
Benzo(k)fluoranthene	1.9 U
Chrysene	1.7 U
Dibenz(a,h)anthracene	0.880 U
Fluoranthene	4.6 J
Fluorene	32
Indeno(1,2,3-cd)pyrene	0.840 UJ
Naphthalene	6000 D
Phenanthrene	37
Pyrene	6.8 J
2-Methylnaphthalene	530 D
Phenol	1.3 R
Inorganics (ug/L)	
Cyanide, Total	33

21MWDD03 Analytes	12-Apr-06	23-May-06	2-Sep-08
BTEX (ug/L)			
Benzene	3900 D	4100 D	17000
Ethylbenzene	1.00 U	24	8.6 J
Toluene	45	29	0.16 UJ
Total Xylene (calculated)	46	25.8	0
PAH (ug/l)			
Acenaphthene	NS	4.5 J	1.6 U
Acenaphthylene	NS	13	1.8 U
Anthracene	NS	2.4 J	7.3 U
Benzo(a)anthracene	NS	1.1 U	6.7 U
Benzo(a)pyrene	NS	1.2 U	1.1 U
Benzo(b)fluoranthene	NS	0.760 U	2.2 U
Benzo(ghi)perylene	NS	1.1 U	2.0 U
Benzo(k)fluoranthene	NS	1.9 U	1.5 U
Chrysene	NS	1.7 U	1.3 U
Dibenz(a,h)anthracene	NS	0.870 U	2.8 U
Fluoranthene	NS	3.0 J	1.0 U
Fluorene	NS	10 J	1.4 U
Indeno(1,2,3-cd)pyrene	NS	0.840 UJ	3.4 U
Naphthalene	NS	140 D	5.4 J
Phenanthrene	NS	22	7.0 U
Pyrene	NS	4.2 J	7.3 U
2-Methylnaphthalene	NS	31	1.9 U
Phenol	NS	3.7 J	2.8 R
Inorganics (ug/L)			
Cyanide, Total	NS	30	NS

23MWDD12 Analytes	12-Apr-06	22-May-06	8-Sep-08
BTEX (ug/L)			
Benzene	1100 D	240 D	150
Ethylbenzene	390 D	57 JD	63 J
Toluene	1500 D	280 D	91 J
Total Xylene (calculated)	1560	281	135
PAH (ug/l)			
Acenaphthene	NS	34	37 J
Acenaphthylene	NS	79	61
Anthracene	NS	12	9.2 J
Benzo(a)anthracene	NS	1.1 U	6.6 U
Benzo(a)pyrene	NS	1.2 U	1.1 U
Benzo(b)fluoranthene	NS	0.760 U	2.2 U
Benzo(ghi)perylene	NS	1.1 U	2.0 U
Benzo(k)fluoranthene	NS	1.9 U	1.5 U
Chrysene	NS	1.7 U	1.3 U
Dibenz(a,h)anthracene	NS	0.880 U	2.8 U
Fluoranthene	NS	5.6 J	5.5 J
Fluorene	NS	45	51 J
Indeno(1,2,3-cd)pyrene	NS	0.840 UJ	3.4 U
Naphthalene	NS	1600 D	660
Phenanthrene	NS	43	55
Pyrene	NS	5.1 J	7.2 U
2-Methylnaphthalene	NS	220 D	6.2 J
Phenol	NS	1.3 R	2.8 R
Inorganics (ug/L)			
Cyanide, Total	NS	10 U	NS

23MWD12 Analytes	22-May-06
BTEX (ug/L)	
Benzene	8000 D
Ethylbenzene	300 JD
Toluene	4300 D
Total Xylene (calculated)	2100
PAH (ug/l)	
Acenaphthene	46 J
Acenaphthylene	180 D
Anthracene	86 J
Benzo(a)anthracene	15 J
Benzo(a)pyrene	10 J
Benzo(b)fluoranthene	11 J
Benzo(ghi)perylene	3.2 J
Benzo(k)fluoranthene	5.1 J
Chrysene	13 J
Dibenz(a,h)anthracene	0.880 R
Fluoranthene	73 J
Fluorene	89 J
Indeno(1,2,3-cd)pyrene	1.3 J
Naphthalene	3500 D
Phenanthrene	120 D
Pyrene	48 J
2-Methylnaphthalene	410 D
Phenol	52 J
Inorganics (ug/L)	
Cyanide, Total	29

23MWS12 Analytes	22-May-06	8-Sep-08
BTEX (ug/L)		
Benzene	120 D	3000
Ethylbenzene	68	420
Toluene	140 D	1800
Total Xylene (calculated)	250	1060
PAH (ug/l)		
Acenaphthene	15	14 J
Acenaphthylene	28	1.8 U
Anthracene	9.2 J	7.2 U
Benzo(a)anthracene	2.3 J	6.6 U
Benzo(a)pyrene	1.3 J	1.1 U
Benzo(b)fluoranthene	1.5 J	2.2 U
Benzo(ghi)perylene	1.1 U	2.0 U
Benzo(k)fluoranthene	1.9 U	1.5 U
Chrysene	2.5 J	1.3 U
Dibenz(a,h)anthracene	0.870 U	2.8 U
Fluoranthene	10	1.0 U
Fluorene	25	12 J
Indeno(1,2,3-cd)pyrene	0.840 UJ	3.4 U
Naphthalene	430 D	330
Phenanthrene	30	12 J
Pyrene	7.5 J	7.2 U
2-Methylnaphthalene	53 D	26 J
Phenol	1.3 R	6.1 J
Inorganics (ug/L)		
Cyanide, Total	10 U	NS

21MWS07 Analytes	21-Apr-04	18-May-06	11-Sep-08
BTEX (ug/L)			
Benzene	8.5	10	0.35 U
Ethylbenzene	0.4 U	0.45 U	0.05 U
Toluene	0.2 U	0.36 U	0.16 U
Total Xylene (calculated)	0.4	0	0
PAH (ug/l)			
Acenaphthene	18	21	8.8 J
Acenaphthylene	0.076 U	1.3 U	0.360 U
Anthracene	0.8	1.4 U	1.4 U
Benzo(a)anthracene	0.2 U	1.1 U	1.3 U
Benzo(a)pyrene	0.087 U	1.2 U	0.220 U
Benzo(b)fluoranthene	0.2 U	0.760 U	0.440 U
Benzo(ghi)perylene	0.065 U	1.1 U	0.400 U
Benzo(k)fluoranthene	0.2 U	1.9 U	0.310 U
Chrysene	0.076 U	1.7 U	0.270 U
Dibenz(a,h)anthracene	0.043 U	0.880 U	0.550 U
Fluoranthene	0.9	1.2 U	0.200 U
Fluorene	4	3.4 J	1.1 J
Indeno(1,2,3-cd)pyrene	0.087 U	0.840 U	0.670 U
Naphthalene	5.6	1.4 U	0.290 U
Phenanthrene	2.4	1.4 U	1.4 U
Pyrene	0.8	1.5 U	1.4 U
2-Methylnaphthalene	0.7	2.3 J	0.380 U
Phenol	0.6 U	1.3 U	0.560 R
Inorganics (ug/L)			
Cyanide, Total	45	25	NS

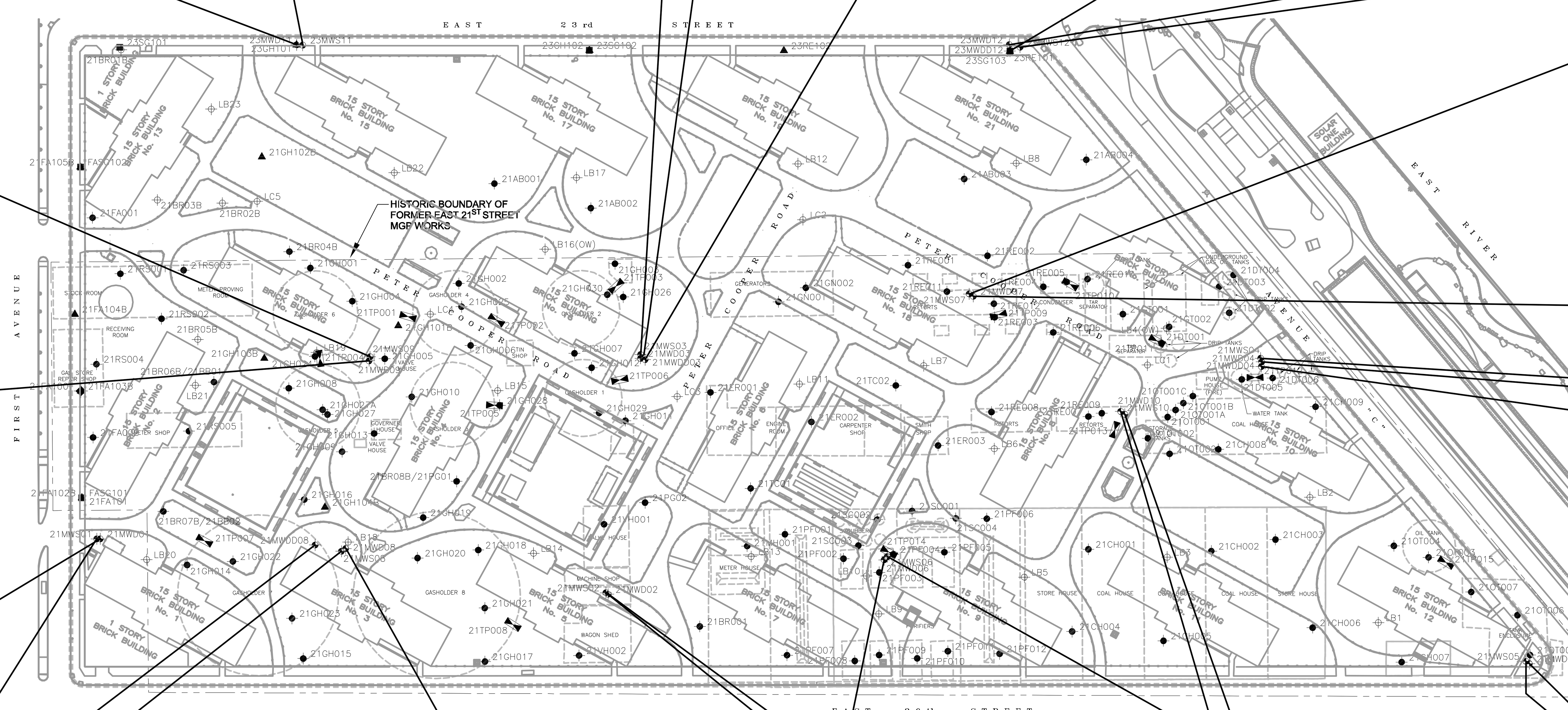
21MWD07 Analytes	21-Apr-04	23-May-06
BTEX (ug/L)		
Benzene	6600	2300 D
Ethylbenzene	990	180 JD
Toluene	590	120 JD
Total Xylene (calculated)	1700	410
PAH (ug/l)		
Acenaphthene	64	77
Acenaphthylene	45	8.0 J
Anthracene	8.0 U	12
Benzo(a)anthracene	15 U	1.1 U
Benzo(a)pyrene	8.0 U	1.2 U
Benzo(b)fluoranthene	16 U	0.760 U
Benzo(ghi)perylene	6.0 U	1.1 U
Benzo(k)fluoranthene	16 U	1.9 U
Chrysene	7.0 U	1.7 U
Dibenz(a,h)anthracene	4.0 U	0.880 U
Fluoranthene	5.0 U	6.9 J
Fluorene	87	58
Indeno(1,2,3-cd)pyrene	8.0 U	0.840 UJ
Naphthalene	13000	2200 D
Phenanthrene	98	65
Pyrene	7.0 U	8.3 J
2-Methylnaphthalene	740	380 D
Phenol	52 U	1.3 R
Inorganics (ug/L)		
Cyanide, Total	46	24

21MWS09 Analytes	20-Apr-04	17-May-06	29-Aug-08
BTEX (ug/L)			
Benzene	910	15 J	140
Ethylbenzene	44	2.7 J	2.3 J
Toluene	5.2	0.36 U	0.16 U
Total Xylene (calculated)	35	0	0
PAH (ug/l)			
Acenaphthene	55	2.2 J	13 J
Acenaphthylene	12	1.3 U	1.8 U
Anthracene	4.9	1.4 U	7.2 U
Benzo(a)anthracene	0.3 U	1.1 U	6.6 U
Benzo(a)pyrene	0.2 U	1.2 U	1.1 U
Benzo(b)fluoranthene	0.3 U	0.760 U	2.2 U
Benzo(ghi)perylene	0.1 U	1.1 U	2.0 U
Benzo(k)fluoranthene	0.3 U	1.9 U	1.5 U
Chrysene	0.1 U	1.7 U	1.3 U
Dibenz(a,h)anthracene	0.082 U	0.880 U	2.8 U
Fluoranthene	3.5	1.2 U	1.0 U
Fluorene	19	1.4 U	1.4 U
Indeno(1,2,3-cd)pyrene	0.2 U	0.840 U	3.4 U
Naphthalene	340	7.5 J	11 J
Phenanthrene	25	1.4 U	6.9 U
Pyrene	3.4	1.5 U	7.2 U
2-Methylnaphthalene	49	1.1 U	1.9 U
Phenol	1.1 U	1.3 U	2.8 R
Inorganics (ug/L)			
Cyanide, Total	150	24	NS

21MWD09 Analytes	20-Apr-04	17-May-06	28-Aug-08
BTEX (ug/L)			
Benzene	35000	25000 D	35000 J
Ethylbenzene	4800	1200 J	4100
Toluene	3300	700 J	1200
Total Xylene (calculated)	4500	1410	2260
PAH (ug/l)			
Acenaphthene	100	79	69
Acenaphthylene	1.4 U	2.3 J	1.8 U
Anthracene	5.2	5.6 J	7.2 U
Benzo(a)anthracene	3.0 U	1.1 U	6.6 U
Benzo(a)pyrene	1.6 U	1.2 U	1.1 U
Benzo(b)fluoranthene	3.2 U	0.760 U	2.2 U
Benzo(ghi)perylene	1.2 U	1.1 U	2.0 U
Benzo(k)fluoranthene	3.2 U	1.9 U	1.5 U
Chrysene	1.4 U	1.7 U	1.3 U
Dibenz(a,h)anthracene	0.8 U	0.880 U	2.8 U
Fluoranthene	3.9	4.6 J	1.0 U
Fluorene	29	40	27 J
Indeno(1,2,3-cd)pyrene	1.6 U	0.840 U	3.4 U
Naphthalene	4200	2800 D	2800
Phenanthrene	30	44	23 J
Pyrene	4.9	3.9 J	7.2 U
2-Methylnaphthalene	280	240 D	200
Phenol	38	120 JD	250
Inorganics (ug/L)			
Cyanide, Total	120	28	NS

21MWD01 Analytes	20-Apr-04	23-May-06	28-Aug-08
BTEX (ug/L)			
Benzene	1.5	0.39 U	0.35 U
Ethylbenzene	0.4 U	0.45 U	0.05 U
Toluene	0.2 U	0.36 U	0.16 U
Total Xylene (calculated)	0.2 U	0	0
PAH (ug/l)			
Acenaphthene	3.7	1.4 U	0.330 U
Acenaphthylene	1.2	1.3 U	0.360 U
Anthracene	0.080 U	1.4 U	1.4 U
Benzo(a)anthracene	0.2 U	1.1 U	1.3 U
Benzo(a)pyrene	0.080 U	1.2 U	0.220 U
Benzo(b)fluoranthene	0.2 U	0.760 U	0.440 U
Benzo(ghi)perylene	0.060 U	1.1 U	0.400 U
Benzo(k)fluoranthene	0.2 U	1.9 U	0.310 U
Chrysene	0.070 U	1.7 U	0.270 U
Dibenz(a,h)anthracene	0.040 U	0.880 U	0.550 U
Fluoranthene	0.050 U	1.2 U	0.200 U
Fluorene	0.1 J	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	0.080 U	0.840 U	0.670 U
Naphthalene	0.040 U	1.4 U	0.290 U
Phenanthrene	0.4	1.4 U	1.4 U
Pyrene	0.1	1.5 U	1.4 U
2-Methylnaphthalene	0.5 U	1.1 U	0.380 U
Phenol	0.5 U	1.3 R	0.560 R
Inorganics (ug/L)			
Cyanide, Total	10 U	10 U	NS

21MWS01 Analytes	20-Apr-04	23-May-06	28-Aug-08
BTEX (ug/L)			
Benzene	0.3 U	1.8 J	0.35 U
Ethylbenzene	0.6	0.45 U	0.05 U
Toluene	0.2 U	0.36 U	0.16 U
Total Xylene (calculated)	4.1	0	0
PAH (ug/l)			
Acenaphthene	1.4	1.4 U	0.330 U
Acenaphthylene	0.070 U	1.3 U	0.360 U
Anthracene	0.1	1.4 U	1.4 U
Benzo(a)anthracene	0.2 U	1.1 U	1.3 U
Benzo(a)pyrene	0.080 U	1.2 U	0.220 U
Benzo(b)fluoranthene	0.2 U	0.770 U	0.440 U
Benzo(ghi)perylene	0.060 U	1.1 U	0.400 U
Benzo(k)fluoranthene	0.2 U	1.9 U	0.310 U
Chrysene	0.070 U	1.7 U	0.270 U
Dibenz(a,h)anthracene	0.040 U	0.890 U	0.550 U
Fluoranthene	0.050 U	1.2 U	0.200 U
Fluorene	0.7	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	0.080 U	0.850 U	0.670 U
Naphthalene	1.8	1.4 U	0.290 U
Phenanthrene	0.6	1.5 U	1.4 U
Pyrene	0.070 U	1.5 U	1.4 U
2-Methylnaphthalene	2.5	1.1 U	0.380 U
Phenol	0.5 U	1.3 R	0.560 R
Inorganics (ug/L)			
Cyanide, Total	27	124	NS



21MWDD04 Analytes	25-May-06
BTEX (ug/L)	
Benzene	5500 JD
Ethylbenzene	1600 JD
Toluene	94 J
Total Xylene (calculated)	1630
PAH (ug/l)	
Acenaphthene	110 D
Acenaphthylene	4.1 J
Anthracene	7.9 J
Benzo(a)anthracene	1.1 U
Benzo(a)pyrene	1.2 U
Benzo(b)fluoranthene	0.760 U
Benzo(ghi)perylene	1.1 U
Benzo(k)fluoranthene	1.9 U
Chrysene	1.7 U
Dibenz(a,h)anthracene	0.870 U
Fluoranthene	4.7 J
Fluorene	39
Indeno(1,2,3-cd)pyrene	0.840 U
Naphthalene	4300 D
Phenanthrene	48
Pyrene	6.5 J
2-Methylnaphthalene	380 D
Phenol	18
Inorganics (ug/L)	
Cyanide, Total	10 U

21MWD04 Analytes	25-May-06
BTEX (ug/L)	
Benzene	360 D
Ethylbenzene	92 D
Toluene	150 D
Total Xylene (calculated)	257
PAH (ug/l)	
Acenaphthene	210 D
Acenaphthylene	26
Anthracene	17
Benzo(a)anthracene	1.1 U
Benzo(a)pyrene	1.2 U
Benzo(b)fluoranthene	0.760 U
Benzo(ghi)perylene	1.1 U
Benzo(k)fluoranthene	1.9 U
Chrysene	1.7 U
Dibenz(a,h)anthracene	0.870 U
Fluoranthene	9.5 J
Fluorene	69
Indeno(1,2,3-cd)pyrene	0.840 U
Naphthalene	2200 D
Phenanthrene	110 D
Pyrene	13
2-Methylnaphthalene	340 D
Phenol	3.0 J
Inorganics (ug/L)	
Cyanide, Total	16

21MWS04 Analytes	22-Apr-04	25-May-06	2-Sep-08
BTEX (ug/L)			
Benzene	540	330 D	11000
Ethylbenzene	380	110	1100
Toluene	8.7	3.2 J	21 J
Total Xylene (calculated)	120	51	133
PAH (ug/l)			
Acenaphthene	76	49	46 J
Acenaphthylene	0.7 U	1.3 U	1.8 U
Anthracene	9.7	7.1 J	7.3 U
Benzo(a)anthracene	1.6 U	1.1 U	6.7 U
Benzo(a)pyrene	0.8 U	1.2 U	1.1 U
Benzo(b)fluoranthene	1.7 U	0.760 U	2.2 U
Benzo(ghi)perylene	0.6 U	1.1 U	2.0 U
Benzo(k)fluoranthene	1.7 U	1.9 U	1.5 U
Chrysene	0.7 U	1.7 U	1.3 U
Dibenz(a,h)anthracene	0.4 U	0.870 U	2.8 U
Fluoranthene	6.2 J	3.9 J	1.0 U
Fluorene	27	22	18 J
Indeno(1,2,3-cd)pyrene	0.8 U	0.840 U	3.4 U
Naphthalene	1700	610 D	1200
Phenanthrene	37 J	29	21 J
Pyrene	9.2	5.2 J	7.3 U
2-Methylnaphthalene	230	120 D	60
Phenol	21	9.5 J	8.1 J
Inorganics (ug/L)			
Cyanide, Total	10 U	13	NS

21MWS08 Analytes	20-Apr-04	24-May-06	28-Aug-08
BTEX (ug/L)			
Benzene	580	720 D	720
Ethylbenzene	110	86	53
Toluene	5.1	3.0 J	3.1 J
Total Xylene (calculated)	64	59	52
PAH (ug/l)			
Acenaphthene	69	13	35 J
Acenaphthylene	0.4 U	1.3 U	1.8 U
Anthracene	11	1.4 U	7.2 U
Benzo(a)anthracene	0.8 U	1.1 U	6.6 U
Benzo(a)pyrene	0.9	1.2 U	1.1 U
Benzo(b)fluoranthene	0.8 J	0.760 U	2.2 U
Benzo(ghi)perylene	2.6	1.1 U	2.0 U
Benzo(k)fluoranthene	0.8 U	1.9 UJ	1.5 U
Chrysene	0.4 U	1.7 U	1.3 U
Dibenz(a,h)anthracene	2.3	0.870 U	2.8 U
Fluoranthene	9.7	5.4 J	9.3 J
Fluorene	38	1.4 U	28 J
Indeno(1,2,3-cd)pyrene	1.9	0.840 U	3.4 U
Naphthalene	520	1.4 U	1.4 U
Phenanthrene	63	1.4 U	19 J
Pyrene	9.7	6.1 J	7.4 J
2-Methylnaphthalene	20	1.1 U	1.9 U
Phenol	2.6 U	1.4 J	2.8 R
Inorganics (ug/L)			
Cyanide, Total	180	117	NS

21MWS02 Analytes	19-Apr-04	16-May-06	29-Aug-08
BTEX (ug/L)			
Benzene	0.7	0.39 U	0.35 U
Ethylbenzene	0.4 U	0.45 U	0.05 U
Toluene	0.2 U	0.36 U	0.16 U
Total Xylene (calculated)	0.2 U	0	0
PAH (ug/l)			
Acenaphthene	7.7	2.6 J	4.3 J
Acenaphthylene	0.070 U	1.3 U	0.360 U
Anthracene	0.5	1.4 U	1.4 U
Benzo(a)anthracene	0.2 U	1.1 U	1.3 U
Benzo(a)pyrene	0.080 U	1.2 U	0.220 U
Benzo(b)fluoranthene	0.2 U	0.760 U	0.440 U
Benzo(ghi)perylene	0.060 U	1.1 U	0.400 U
Benzo(k)fluoranthene	0.2 U	1.9 U	0.310 U
Chrysene	0.070 U	1.7 U	0.270 U
Dibenz(a,h)anthracene	0.040 U	0.880 U	0.550 U
Fluoranthene	1.5	1.2 U	0.200 U
Fluorene	0.1 UJ	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	0.080 U	0.840 U	0.670 U
Naphthalene	1.1	1.4 U	0.290 U
Phenanthrene	1.3	1.4 U	1.4 U
Pyrene	2	1.5 U	1.4 U
2-Methylnaphthalene	0.5 U	1.1 U	0.380 U
Phenol	0.5 U	1.3 U	0.560 R
Inorganics (ug/L)			
Cyanide, Total	28	16	NS

21MWS06 Analytes	21-Apr-04	17-May-06	29-Aug-08
BTEX (ug/L)			
Benzene	0.6	0.39 U	9.1
Ethylbenzene	0.4 U	2.6 J	0.05 U
Toluene	0.2 U	0.36 U	0.16 U
Total Xylene (calculated)	0.2 U	0	0
PAH (ug/l)			
Acenaphthene	7.8	1.4 U	1.5 J
Acenaphthylene	0.071 U	1.3 U	0.360 U
Anthracene	0.2	1.4 U	1.4 U
Benzo(a)anthracene	0.2 U	1.1 U	1.3 U
Benzo(a)pyrene	0.082 U	1.2 U	0.220 U
Benzo(b)fluoranthene	0.2 U	0.760 U	0.440 U
Benzo(ghi)perylene	0.061 U	1.1 U	0.400 U
Benzo(k)fluoranthene	0.2 U	1.9 U	0.310 U
Chrysene	0.071 U	1.7 U	0.270 U
Dibenz(a,h)anthracene	0.041 U	0.880 U	0.550 U
Fluoranthene	0.8	1.2 U	0.200 U
Fluorene	0.1 U	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	0.082 U	0.840 U	0.670 U
Naphthalene	1	1.4 U	0.290 U
Phenanthrene	0.1 U	1.4 U	1.4 U
Pyrene	1	1.5 U	1.4 U
2-Methylnaphthalene	0.5 U	1.1 U	0.380 U
Phenol	0.5 U	1.3 U	0.560 R
Inorganics (ug/L)			
Cyanide, Total	42	20	NS

21MWS10 Analytes	22-Apr-04	18-May-06	2-Sep-08
BTEX (ug/L)			
Benzene	73	13	13
Ethylbenzene	55	9.1 J	0.05 U
Toluene	2.6	0.36 U	0.16 U
Total Xylene (calculated)	24	2.6	0
PAH (ug/l)			
Acenaphthene	34	24	17 J
Acenaphthylene	0.073 U	1.3 U	1.8 U
Anthracene	7.9	6.0 J	7.3 U
Benzo(a)anthracene	5.3	2.9 J	6.7 U
Benzo(a)pyrene	4.2	1.9 J	1.1 U
Benzo(b)fluoranthene	2.1	1.6 J	2.2 U
Benzo(ghi)perylene	2.1	1.1 U	2.0 U
Benzo(k)fluoranthene	3.8	1.9 U	1.5 U
Chrysene	5.4	2.7 J	1.3 U
Dibenz(a,h)anthracene	0.042 U	0.880 U	2.8 U
Fluoranthene	19 J	13	7.5 J
Fluorene	60	37	30 J
Indeno(1,2,3-cd)pyrene	1.7	0.840 U	3.4 U
Naphthalene	140	9.0 J	1.4 U
Phenanthrene	110 J	62	16 J
Pyrene	21	14	7.3 U
2-Methylnaphthalene	140	1.4 J	1.9 U
Phenol	0.5 U	1.3 U	2.8 R
Inorganics (ug/L)			
Cyanide, Total	10 U	10 U	NS

21MWD05 Analytes	21-Apr-04	17-May-06	4-Sep-08
BTEX (ug/L)			
Benzene	0.5	3.3 J	0.35 U
Ethylbenzene	0.4 U	0.45 U	0.05 U
Toluene	0.2 U	0.36 U	0.16 U
Total Xylene (calculated)	1.1	0	0
PAH (ug/l)			
Acenaphthene	2.3	1.4 U	0.330 U
Acenaphthylene	3	1.3 U	0.360 U
Anthracene	5	1.4 U	1.4 U
Benzo(a)anthracene	0.7	1.1 U	1.3 U
Benzo(a)pyrene	0.3	1.2 U	0.220 U
Benzo(b)fluoranthene	0.1 J	0.760 U	0.440 U
Benzo(ghi)perylene	0.062 U	1.1 U	0.400 U
Benzo(k)fluoranthene	0.2	1.9 U	0.310 U
Chrysene	0.9	1.7 U	0.270 U
Dibenz(a,h)anthracene	0.041 U	0.880 U	0.550 U
Fluoranthene	6.5	1.2 U	0.200 U
Fluorene	6	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	0.082 U	0.840 U	0.670 U
Naphthalene	15	1.4 U	0.290 U
Phenanthrene	16	1.4 U	1.4 U
Pyrene	6.4	1.5 U	1.4 U
2-Methylnaphthalene	6.3	1.1 U	0.380 U
Phenol	0.5 U	1.3 U	0.560 UJ
Inorganics (ug/L)			
Cyanide, Total	10 U	10 U	NS

21MWDD08 Analytes	24-May-06	2-Sep-08
BTEX (ug/L)		
Benzene	2200 D	5700
Ethylbenzene	50	8.6 J
Toluene	100	2.9 J
Total Xylene (calculated)	109	12.6
PAH (ug/l)		
Acenaphthene	61	69
Acenaphthylene	6.2 J	1.8 U
Anthracene	5.7 J	7.2 U
Benzo(a)anthracene	1.1 U	6.6 U
Benzo(a)pyrene	1.2 U	1.1 U
Benzo(b)fluoranthene	0.760 U	2.2 U
Benzo(ghi)perylene	1.1 U	2.0 U
Benzo(k)fluoranthene	1.9 UJ	1.5 U
Chrysene	1.7 U	1.3 U
Dibenz(a,h)anthracene	0.880 U	2.8 U
Fluoranthene	5.6 J	1.0 U
Fluorene	42	7.7 J
Indeno(1,2,3-cd)pyrene	0.840 U	3.4 U
Naphthalene	1.4 U	43 J
Phenanthrene	37	9.3 J
Pyrene	4.8 J	7.2 U
2-Methylnaphthalene	1.1 U	5.7 J
Phenol	7.0 J	5.6 J
Inorganics (ug/L)		
Cyanide, Total	64	NS

21MWD08 Analytes	20-Apr-04	24-May-06	28-Aug-08
BTEX (ug/L)			
Benzene	7800	1000 D	1500
Ethylbenzene	1000	130	93
Toluene	15 U	4.2 J	3.3 J
Total Xylene (calculated)	740	63	42.2
PAH (ug/l)			
Acenaphthene	120	15	15 J
Acenaphthylene	1.4 U	1.3 U	1.8 U
Anthracene	8.2	1.4 U	7.2 U
Benzo(a)anthracene	3.0 U	1.1 U	6.6 U
Benzo(a)pyrene	1.6 U	1.2 U	1.1 U
Benzo(b)fluoranthene	3.2 U	0.760 U	2.2 U
Benzo(ghi)perylene	1.2 U	1.1 U	2.0 U
Benzo(k)fluoranthene	3.2 U	1.9 UJ	1.5 U
Chrysene	1.4 U	1.7 U	1.3 U
Dibenz(a,h)anthracene	0.8 U	0.870 U	2.8 U
Fluoranthene	4.2	1.5 J	1.0 U
Fluorene	19	1.4 U	1.4 U
Indeno(1,2,3-cd)pyrene	1.6 U	0.840 U	3.4 U
Naphthalene	2400	1.4 U	1.4 U
Phenanthrene	42	1.4 U	11 J
Pyrene	8.1	2.4 J	7.2 U
2-Methylnaphthalene	260	1.1 U	1.9 U
Phenol	16	1.3 R	26 J
Inorganics (ug/L)			
Cyanide, Total	350	102	NS

21MWD02 Analytes	19-Apr-04	16-May-06	29-Aug-08
BTEX (ug/L)			
Benzene	24	2.4 J	7.4
Ethylbenzene	0.4 U	0.45 U	0.05 U
Toluene	0.2 U	0.36 U	0.16 U
Total Xylene (calculated)	0.4	0	0
PAH (ug/l)			
Acenaphthene	51	45	84
Acenaphthylene	0.071 U	1.3 U	1.8 U
Anthracene	0.081 U	1.4 U	7.2 U
Benzo(a)anthracene	0.2 U	1.1 U	6.6 U
Benzo(a)pyrene	0.081 U	1.2 U	1.1 U
Benzo(b)fluoranthene	0.2 U	0.760 U	2.2 U
Benzo(ghi)perylene	0.061 U	1.1 U	2.0 U
Benzo(k)fluoranthene	0.2 U	1.9 U	1.5 U
Chrysene	0.071 U	1.7 U	1.3 U
Dibenz(a,h)anthracene	0.040 U	0.880 U	2.8 U
Fluoranthene	0.7	1.2 U	1.0 U
Fluorene	9.7 J	7.4 J	11 J
Indeno(1,2,3-cd)pyrene	0.081 U	0.840 U	3.4 U
Naphthalene	1.5	1.4 U	1.4 U
Phenanthrene	0.1 U	1.4 U	6.9 U
Pyrene	0.4	1.5 U	7.2 U
2-Methylnaphthalene	0.5 U	1.1 U	1.9 U
Phenol	0.5 U	1.3 U	2.8 R
Inorganics (ug/L)			
Cyanide, Total	120	50	NS

21MWD06 Analytes	21-Apr-04	17-May-06	29-Aug-08
BTEX (ug/L)			
Benzene	1.3	0.39 U	0.35 U
Ethylbenzene	0.4 U	2.6 J	0.05 U
Toluene	0.4	0.36 U	0.16 U
Total Xylene (calculated)	0.2 U	0	0
PAH (ug/l)			
Acenaphthene	0.3	1.4 U	0.330 U
Acenaphthylene	0.074 U	1.3 U	0.360 U
Anthracene	0.084 U	1.4 U	1.4 U
Benzo(a)anthracene	0.2 U	1.1 U	1.3 U
Benzo(a)pyrene	0.084 U	1.2 U	0.220 U
Benzo(b)fluoranthene	0.2 U	0.760 U	0.440 U
Benzo(ghi)perylene	0.063 U	1.1 U	0.400 U
Benzo(k)fluoranthene	0.2 U	1.9 U	0.310 U
Chrysene	0.074 U	1.7 U	0.270 U
Dibenz(a,h)anthracene	0.042 U	0.880 U	0.550 U
Fluoranthene	0.4	1.2 U	0.200 U
Fluorene	0.3	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	0.084 U	0.840 U	0.670 U
Naphthalene	1.1	1.4 U	0.290 U
Phenanthrene	1.2	1.4 U	1.4 U
Pyrene	0.6	1.5 U	1.4 U
2-Methylnaphthalene	0.5 U	1.1 U	0.380 U
Phenol	0.6 U	1.3 U	0.560 R
Inorganics (ug/L)			
Cyanide, Total	10 U	10 U	NS

21MWD10 Analytes	22-Apr-04	22-Apr-04	19-May-06
BTEX (ug/L)			
Benzene	420	390	350 D
Ethylbenzene	93	97	23 J
Toluene	49	49	11 J
Total Xylene (calculated)	160	160	56
PAH (ug/l)			
Acenaphthene	92	81	61
Acenaphthylene	1.4 U	0.7 U	2.9 J
Anthracene	11	0.8 U	9.2 J
Benzo(a)anthracene	3.0 U	1.5 U	1.1 U
Benzo(a)pyrene	1.6 U	0.8 U	1.2 U
Benzo(b)fluoranthene	3.2 U	1.6 U	0.760 U
Benzo(ghi)perylene	1.2 U	0.6 U	1.1 U
Benzo(k)fluoranthene	3.2 U	1.6 U	1.9 U
Chrysene	1.4 U	0.7 U	1.7 U
Dibenz(a,h)anthracene	0.8 U	0.4 U	0.880 U
Fluoranthene	12 J	10 J	9.8 J
Fluorene	110	99	110 D
Indeno(1,2,3-cd)pyrene	1.6 U	0.8 U	0.840 U
Naphthalene	2300	2300	390 D
Phenanthrene	110 J	100 J	96 JD
Pyrene	12	11	6.6 J
2-Methylnaphthalene	230	210	97 JD
Phenol	10 U	5.2 U	4.3 J
Inorganics (ug/L)			
Cyanide, Total	29	33	29

21MWS05 Analytes	21-Apr-04	17-May-06	4-Sep-08
BTEX (ug/L)			
Benzene	0.4	0.39 U	0.35 U
Ethylbenzene	0.4 U	0.45 U	0.05 U
Toluene	0.2 U	0.36 U	0.16 U
Total Xylene (calculated)	0.2 U	0	0
PAH (ug/l)			
Acenaphthene	0.1	1.4 U	0.330 U
Acenaphthylene	0.071 U	1.3 U	0.360 U
Anthracene	0.081 U	1.4 U	1.4 U
Benzo(a)anthracene	0.2 U	1.1 U	1.3 U
Benzo(a)pyrene	0.081 U	1.2 U	0.220 U
Benzo(b)fluoranthene	0.2 U	0.760 U	0.440 U
Benzo(ghi)perylene	0.061 U	1.1 U	0.400 U
Benzo(k)fluoranthene	0.2 U	1.9 U	0.310 U
Chrysene	0.071 U	1.7 U	0.270 U
Dibenz(a,h)anthracene	0.040 U	0.880 U	0.550 U
Fluoranthene	0.050 U	1.2 U	0.200 U
Fluorene	0.1 U	1.4 U	0.290 U
Indeno(1,2,3-cd)pyrene	0.081 U	0.840 U	0.670 U
Naphthalene	0.2	1.4 U	0.290 U
Phenanthrene	0.2	1.4 U	1.4 U
Pyrene	0.071 U	1.5 U	1.4 U
2-Methylnaphthalene	0.5 U	1.1 U	0.380 U
Phenol	0.5 U	1.3 U	0.560 UJ
Inorganics (ug/L)			
Cyanide, Total	85	10 U	NS

LEGEND

- EXISTING STRUCTURES
- HISTORICAL STRUCTURES
- LIMIT OF OU1
- SCS INVESTIGATION LOCATIONS (HALEY & ALDRICH, INC. 2004)
  - MONITORING WELL
  - SOIL BORING
  - TEST PIT
- GEOTECHNICAL STUDY LOCATIONS (LANGAN 2001)
  - SOIL BORING
- STUYVESANT COVE PARK WELLS (2005)
  - MONITORING WELL
- RI INVESTIGATION LOCATIONS (RETEC 2006)
  - MONITORING WELL
  - SOIL BORING
  - SURFACE SOIL
  - SOIL GAS
- RI INVESTIGATION LOCATIONS (ENSR 2008)
  - SOIL BORING
  - MONITORING WELL

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CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

DATE: 12/02/08 DRWN: BcV/W-MA

RI VOC, SVOC, METAL AND CYANIDE CONCENTRATIONS IN GROUNDWATER (2004, 2006, 2008) OPERABLE UNIT 1 (OU1)

FIGURE 5-13

NOTE:
1. ALL BENZENE CONCENTRATIONS ARE IN ug/L.
2. ND – NON DETECT
3. SCREENED INTERVAL (10 FEET) IN SHALLOW WELLS IS 5–15 FEET BELOW GROUND SURFACE.
4. LNAPL DETECTED IN LR08 INTERPRETED TO NOT BE MGP RELATED.

VOCs, SVOCs AND TOTAL CYANIDE ARE ALL < NYSDEC AWQSGVs

AT LEAST ONE VOCs, SVOCs OR TOTAL CYANIDE COMPOUND > NYSDEC AWQSGVs

N — SOME INDICATION OF NAPL (GLOBULES, TRACE AMOUNTS, OR MEASURABLE THICKNESS) DETECTED IN WELL AT LEAST ONCE BETWEEN 2004, 2006 AND 2008.

10 — BENZENE CONCENTRATION CONTOUR (DASHED WHERE INFERRED)

LIMIT OF OU1

N

75 0 150
1"=150'

23N101 ND
AC101 ND
23MWS11 ND
23MWS12 160
LR02 ND
LR08 ND N
LR11 ND
LR17 ND N
21MWS01 1.8
21MWS02 ND
21MWS04 330
21MWS05 ND
21MWS06 ND
21MWS08 720
21MWS09 15
21MWS10 13 N
21MWS03 5.6
20MWS16 ND
20MWS17 ND

HISTORIC BOUNDARY OF FORMER EAST 21ST STREET MGP WORKS

TYPICAL GW FLOW

EAST 22nd STREET
EAST 20th STREET
PETER COOPER ROAD
FIRST AVENUE
EAST RIVER
STUYVESANT

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729			**GROUNDWATER QUALITY IN THE SHALLOW AQUIFER ZONE 2006**
DATE: 11/17/08	**DRWN:** BcV/W-MA		FIGURE 5-14A

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\Benzene-Isopleth.dwg Layout: S-WELLS (A) User: VershonB Plotted: Nov 17, 2008 - 5:52pm Xref's:

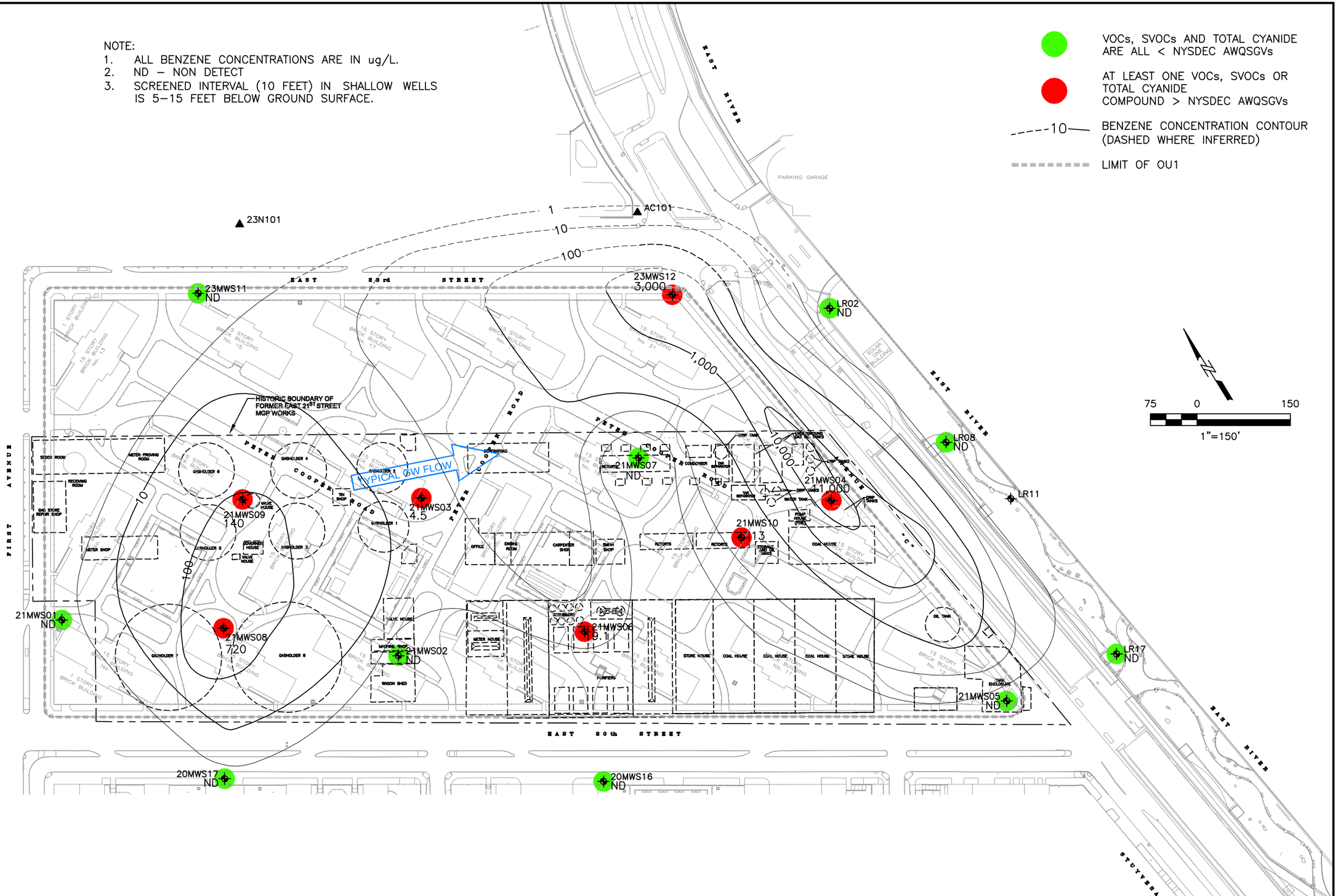
NOTE:
1. ALL BENZENE CONCENTRATIONS ARE IN ug/L.
2. ND – NON DETECT
3. SCREENED INTERVAL (10 FEET) IN SHALLOW WELLS IS 5–15 FEET BELOW GROUND SURFACE.

VOCs, SVOCs AND TOTAL CYANIDE ARE ALL < NYSDEC AWQSGVs

AT LEAST ONE VOCs, SVOCs OR TOTAL CYANIDE COMPOUND > NYSDEC AWQSGVs

10 BENZENE CONCENTRATION CONTOUR (DASHED WHERE INFERRED)

LIMIT OF OU1



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CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729			**GROUNDWATER QUALITY IN THE SHALLOW AQUIFER ZONE 2008**
DATE: 12/02/08	DRWN: BcV/W-MA		FIGURE 5-14B

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\Benzene-Isopleth.dwg Layout: S-WELLS (B) User: VershonB Plotted: Dec 02, 2008 - 11:00am Xref's:

NOTE:
1. ALL BENZENE CONCENTRATIONS ARE IN ug/L.
2. ND – NON DETECT
3. SCREENED INTERVAL (10 FEET) IN INTERMEDIATE WELLS IS 25–35 FEET BELOW GROUND SURFACE.

VOCs, SVOCs AND TOTAL CYANIDE ARE ALL < NYSDEC AWQSGVs

AT LEAST ONE VOCs, SVOCs OR TOTAL CYANIDE COMPOUND > NYSDEC AWQSGVs

CHLORINATED VOCs (NON–MGP) COMPOUND > NYSDEC AWQSGVs

N — SOME INDICATION OF NAPL (GLOBULES, TRACE AMOUNTS, OR MEASURABLE THICKNESS) DETECTED IN WELL AT LEAST ONCE BETWEEN 2004, 2006 AND 2008.

10 — BENZENE CONCENTRATION CONTOUR (DASHED WHERE INFERRED)

LIMIT OF OU1

75 0 150
1"=150'

EAST 21st STREET
EAST 20th STREET
FIRST AVENUE
PETER COOPER ROAD
EAST RIVER
STUYVESANT

HISTORIC BOUNDARY OF FORMER EAST 21ST STREET MGP WORKS

PHYSICAL GW FLOW

23N101 6.5
AC101 3900
23MWD11 ND
23MWD12 8000 N
EBMWD13 580
EBMWD14 330 N
EBMWD15 190 N
EBMWD18 73
21MWD01 ND
21MWD02 214
21MWD03 46000 N
21MWD04 360 N
21MWD05 33
21MWD06 ND
21MWD07 2300 N
21MWD08 1000
21MWD09 25000
21MWD10 350 N
20MWD16 ND
20MWD17 2.6

1.0
10
100
1,000
10,000

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CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

GROUNDWATER QUALITY IN THE INTERMEDIATE AQUIFER ZONE 2006

DATE: 11/17/08 | DRWN: BcV/W-MA | FIGURE 5-15A

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\Benzene-Isopleth.dwg Layout: I-WELLS (A) User: VershonB Plotted: Nov 17, 2008 - 5:54pm Xref's:

NOTE:
1. ALL BENZENE CONCENTRATIONS ARE IN ug/L.
2. ND – NON DETECT
3. SCREENED INTERVAL (10 FEET) IN INTERMEDIATE WELLS IS 25–35 FEET BELOW GROUND SURFACE.

VOCs, SVOCs AND TOTAL CYANIDE ARE ALL < NYSDEC AWQSGVs

AT LEAST ONE VOCs, SVOCs OR TOTAL CYANIDE COMPOUND > NYSDEC AWQSGVs

CHLORINATED VOCs (NON–MGP) COMPOUND > NYSDEC AWQSGVs

N SOME INDICATION OF NAPL (GLOBULES, TRACE AMOUNTS, OR MEASURABLE THICKNESS) DETECTED IN WELL AT LEAST ONCE BETWEEN 2004, 2006 AND 2008.

10 BENZENE CONCENTRATION CONTOUR (DASHED WHERE INFERRED)

LIMIT OF OU1

75 0 150
1"=150'

23N101
AC101
23MWD22 661
23MWD11 9.9
23MWD12 N
EBMWD13 340
EBMWD14 N
EBMWD15 290
EBMWD18 N
EBMWD24 ND
EBMWD25
21MWD01 ND
21MWD02 7.4
21MWD03 N
21MWD04 N
21MWD05
21MWD06
21MWD07 N
21MWD08 1,500
21MWD09 35,000
21MWD10 N
20MWD16
20MWD17 3.7 J
20MWD23 3.8 J
HISTORIC BOUNDARY OF FORMER EAST 21ST STREET MGP WORKS
TYPICAL GW FLOW
EAST 23rd STREET
EAST 20th STREET
FIRST AVENUE
PETER COOPER ROAD
EAST RIVER
STUYVESANT TOWN

ENSR | AECOM

CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729			**GROUNDWATER QUALITY IN THE INTERMEDIATE AQUIFER ZONE 2008**
DATE: 11/17/08	DRWN: BcV/W-MA		FIGURE 5-15B

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1–2008\Benzene–Isopleth.dwg Layout: I–WELLS (B) User: VershonB Plotted: Nov 17, 2008 – 5:55pm Xref's:

NOTE:
1. ALL BENZENE CONCENTRATIONS ARE IN ug/L.
2. ND – NON DETECT
3. * ADDITIONAL RESULTS FOR BENZENE AVAILABLE AT AC101 LOCATION IN DEEP ZONE. RESULT FOR 60–64' ZONE PRESENTED. AT 58–60', BENZENE WAS ND, AT 66–70', BENZENE WAS 3.1ug/L
4. SCREENED INTERVAL (10 FEET) IN DEEP WELLS VARIES BETWEEN 50–70 FEET BELOW GROUND SURFACE.

VOCs, SVOCs AND TOTAL CYANIDE ARE ALL < NYSDEC AWQSGVs

AT LEAST ONE VOCs, SVOCs OR TOTAL CYANIDE COMPOUND > NYSDEC AWQSGVs

CHLORINATED VOCs (NON–MGP) COMPOUND > NYSDEC AWQSGVs

N — SOME INDICATION OF NAPL (GLOBULES, TRACE AMOUNTS, OR MEASURABLE THICKNESS) DETECTED IN WELL AT LEAST ONCE BETWEEN 2004, 2006 AND 2008.

10 — BENZENE CONCENTRATION CONTOUR (DASHED WHERE INFERRED)

LIMIT OF OU1

23N101 3

23MWDD20 ND

AC101* 120

EBMWDD13 ND

23MWDD12 240 N

EBMWDD14 ND

21MWDD03 4100

21MWDD04 5500 N

EBMWDD15 120 N

21MWDD08 2200

EBMWDD18 5.2

HISTORIC BOUNDARY OF FORMER EAST 21ST STREET MGP WORKS

TYPICAL GW FLOW

EAST 23rd STREET

EAST 20th STREET

FIRST AVENUE

PETER COOPER ROAD

EAST RIVER

75 0 150

1"=150'

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CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

GROUNDWATER QUALITY IN THE DEEP AQUIFER ZONE 2006

DATE: 11/17/08 | DRWN: BcV/W-MA | FIGURE 5-16A

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\Benzene-Isopleth.dwg Layout: D-WELLS (A) User: VershonB Plotted: Nov 17, 2008 - 5:59pm Xref's:

NOTE:
1. ALL BENZENE CONCENTRATIONS ARE IN ug/L.
2. ND – NON DETECT
3. SCREENED INTERVAL (10 FEET) IN DEEP WELLS VARIES BETWEEN 50–70 FEET BELOW GROUND SURFACE.

VOCs, SVOCs AND TOTAL CYANIDE ARE ALL < NYSDEC AWQSGVs

AT LEAST ONE VOCs, SVOCs OR TOTAL CYANIDE COMPOUND > NYSDEC AWQSGVs

CHLORINATED VOCs (NON–MGP) COMPOUND > NYSDEC AWQSGVs

N SOME INDICATION OF NAPL (GLOBULES, TRACE AMOUNTS, OR MEASURABLE THICKNESS) DETECTED IN WELL AT LEAST ONCE BETWEEN 2004 AND 2006

10 BENZENE CONCENTRATION CONTOUR (DASHED WHERE INFERRED)

LIMIT OF OU1

75 0 150
1"=150'

23N101
23MWDD20 4.4 J
AC101*
23MWDD22
EBMWDD13 ND
23MWDD12 150
EBMWDD14 34
EBMWDD15 N
21MWDD03 17,000
21MWDD04 N
21MWDD08 5,700
EBMWDD18 5.8
20MWD23
EBMWDD24 4.9 J
EBMWDD25 4.9 J
HISTORIC BOUNDARY OF FORMER EAST 21ST STREET MGP WORKS
TYPICAL GW FLOW
EAST 23rd STREET
EAST 20th STREET
FIRST AVENUE
PETER COOPER ROAD
EAST RIVER
STUYVESANT
10
100
1,000
10,000

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CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

GROUNDWATER QUALITY IN THE DEEP AQUIFER ZONE 2008

DATE: 11/17/08 | DRWN: BcV/W-MA | FIGURE 5-16B

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Vilage\01869\CADD\OU1-2008\Benzene-Isopleth.dwg Layout: D-WELLS (B) User: VershonB Plotted: Nov 18, 2008 - 2:47pm Xref's:

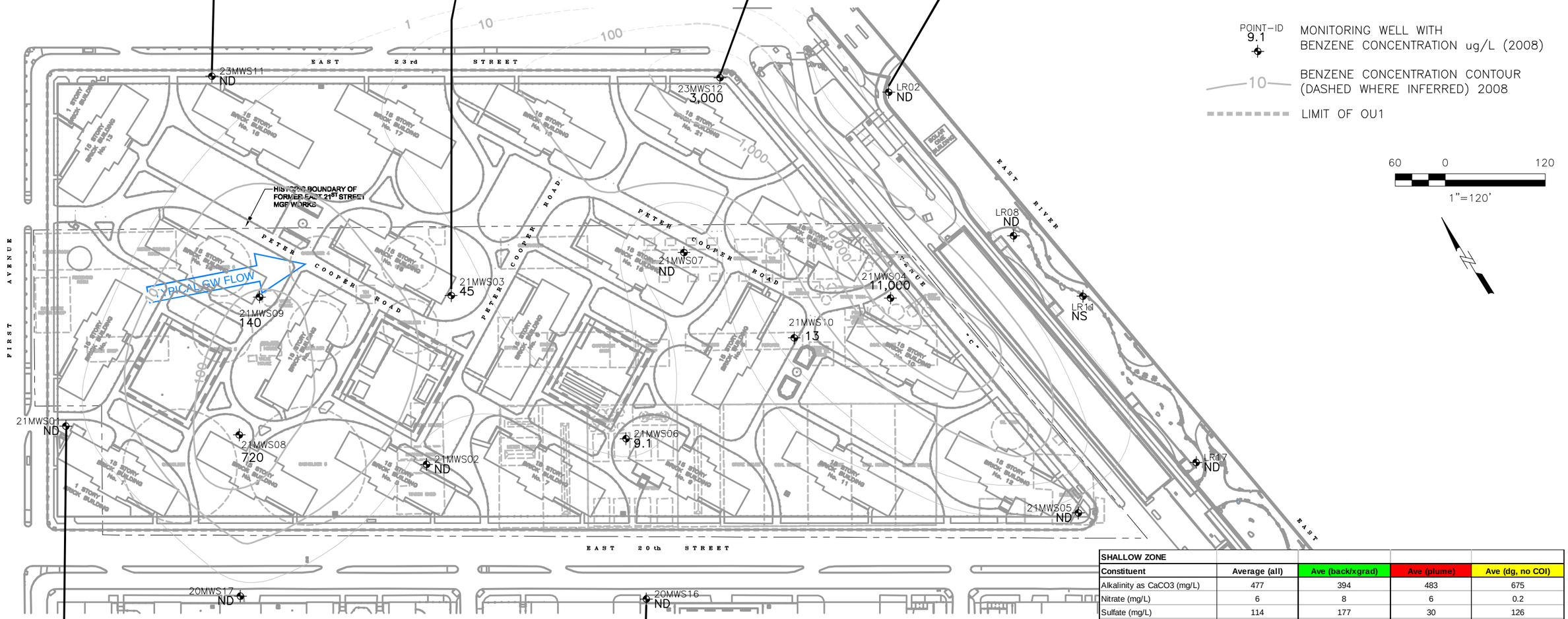
	23MWS11	
	23MWS11-052506	23MWS11-090808
	5/25/2006	9/8/2008
Constituent (mg/L)		
Alkalinity as CaCO3	330	330
Nitrate	3.8	0.17
Sulfate	77	16
Iron, dissolved	0.18	0.21
Manganese, dissolved	0.61	0.25
Carbon Dioxide	24	18
Methane (ug/L)	1900	430
Oxygen	1.5	3.9
Total COI (ug/L)	ND	ND

	21MWS03	
	21MWS03-052306	21MWS03-090208
	5/23/2006	9/2/2008
Constituent (mg/L)		
Alkalinity as CaCO3	350	340
Nitrate	24	0.05 U
Sulfate	50	8.2
Iron, dissolved	0.050 U	0.43
Manganese, dissolved	0.17	0.24
Carbon Dioxide	37	21
Methane (ug/L)	2300	2000
Oxygen	3.7	4.1
Total COI (ug/L)	24.7	4.5

	23MWS12	
	23MWS12-052206	23MWS12-090808
	5/22/2006	9/8/2008
Constituent (mg/L)		
Alkalinity as CaCO3	540	700
Nitrate	0.5 U	0.09
Sulfate	62	<1
Iron, dissolved	1.7	0.96
Manganese, dissolved	1.2	0.64
Carbon Dioxide	160	190
Methane (ug/L)	5300	8400
Oxygen	2.7	1.8
Total COI (ug/L)	1,176	6,665

	LR02	
	LR02-052206	LR02-090408
	5/22/2006	9/4/2006
Constituent (mg/L)		
Alkalinity as CaCO3	680	670
Nitrate	0.5 U	0.07
Sulfate	170	81
Iron, dissolved	0.050 U	0.18
Manganese, dissolved	0.83	0.76
Carbon Dioxide	28	29
Methane (ug/L)	97	74
Oxygen	4.4	6.7
Total COI (ug/L)	ND	ND

NOTE:
1. ALL BENZENE CONCENTRATIONS ARE IN ug/L.
2. ND – NON DETECT
3. NS – NOT SAMPLED WELL COULD NOT BE LOCATED.
4. SCREENED INTERVAL (10 FEET) IN SHALLOW WELLS IS 5–15 FEET BELOW GROUND SDURFACE.



	21MWS01	
	21MWS01-052306	21MWS01-082808
	5/23/2006	8/28/2008
Constituent (mg/L)		
Alkalinity as CaCO3	340	760
Nitrate	35	0.05 U
Sulfate	540	150
Iron, dissolved	0.064	1
Manganese, dissolved	0.2	0.33
Carbon Dioxide	64	82
Methane (ug/L)	920	2700
Oxygen	7.5	2
Total COI (ug/L)	1.8	ND

	20MW16S
	20MWS16-052406
	5/24/2006
Constituent (mg/L)	
Alkalinity as CaCO3	210
Nitrate	0.5 U
Sulfate	100
Iron, dissolved	0.050 U
Manganese, dissolved	0.82
Carbon Dioxide	68
Methane (ug/L)	900
Oxygen	8.4
Total COI (ug/L)	ND

SHALLOW ZONE				
Constituent	**Average (all)**	**Ave (back/xgrad)**	**Ave (plume)**	**Ave (dg, no COI)**
Alkalinity as CaCO3 (mg/L)	477	394	483	675
Nitrate (mg/L)	6	8	6	0.2
Sulfate (mg/L)	114	177	30	126
Iron, dissolved (mg/L)	0.6	0.3	0.8	0.1
Manganese, dissolved (mg/L)	0.6	0.4	0.6	0.8
Carbon Dioxide (mg/L)	66	51	102	29
Methane (ug/L)	2,275	1,370	4,500	86
Oxygen (mg/L)	4.2	4.7	3.1	5.6
Total COI (ug/L)	716	0.4	1,968	ND

= background (bg)/cross-gradient (xgrad) location.
= source area or dissolved plume location.
= downgradient (dg) location outside dissolved COI, but may have plume NA signature due to "shadow effect."
Total COI = Total VOCs + Total PAHs (when detected, cVOCs not included in totals since they are not MGP-related).
Half of the detection limit used for averaging non-detect values, with exception of total COI where non-detects were treated as zero.

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CONSOLIDATED EDISON OF NEW YORK INC.
FORMER EAST 21ST STREET WORKS
01869-170-729

DISTRIBUTION OF KEY NATURAL ATTENUATION PARAMETERS AND TOTAL ORGANICS IN SHALLOW AQUIFER ZONE

DATE: 12/02/08 | DRWN: BcV/W-MA | FIGURE 5-17

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\S-W-00.dwg Layout: S-08 User: VershonB Plotted: Dec 02, 2008 - 1:51pm Xref's:

	23MWD11	
	23MWD11-052506	23MWD11-090808
	5/22/2006	9/8/2008
Constituent (mg/L)		
Alkalinity as CaCO3	790	880
Sulfate	100	3.2
Iron, dissolved	0.096	0.15
Manganese, dissolved	0.69	0.42
Carbon Dioxide	84	86
Methane (ug/L)	7900	6700
Oxygen	8	2.8
Total COI (ug/L)	ND	9.9

	21MWD03	
	21MWD03-052306	
	5/23/2006	
Constituent (mg/L)		
Alkalinity as CaCO3	680	
Sulfate	1.6	
Iron, dissolved	1.5	
Manganese, dissolved	0.17	
Carbon Dioxide	74	
Methane (ug/L)	9000	
Oxygen	8.3	
Total COI (ug/L)	82,594	

	21MWD07	
	21MWD07-052306	
	5/23/2006	
Constituent (mg/L)		
Alkalinity as CaCO3	780	
Sulfate	8.4	
Iron, dissolved	0.066	
Manganese, dissolved	1.1	
Carbon Dioxide	100	
Methane (ug/L)	13000	
Oxygen	7.3	
Total COI (ug/L)	5,493	

	23MW12D	
	23MWD12-052206	
	5/22/2006	
Constituent (mg/L)		
Alkalinity as CaCO3	1100	
Sulfate	31	
Iron, dissolved	0.2	
Manganese, dissolved	0.78	
Carbon Dioxide	240	
Methane (ug/L)	10000	
Oxygen	1.1	
Total COI (ug/L)	19,934	

	EBMWD13	
	EBMWD13-052206	EBMWD13-090308
	5/22/2006	9/3/2008
Constituent (mg/L)		
Alkalinity as CaCO3	580	450
Sulfate	84	120
Iron, dissolved	1.1	3.4
Manganese, dissolved	0.5	0.4
Carbon Dioxide	140	110
Methane (ug/L)	9200	2400
Oxygen	0.94	1.3
Total COI (ug/L)	1,050	650

NOTE:
1. ALL BENZENE CONCENTRATIONS ARE IN ug/L.
2. SCREENED INTERVAL (10 FEET) IN INTERMEDIATE WELLS IS 25–35 FEET BELOW GROUND SURFACE.

POINT–ID
9.1 — MONITORING WELL WITH BENZENE CONCENTRATION ug/L (2008)

N — NAPL NOTED IN WELL 2008

10 — BENZENE CONCENTRATION CONTOUR (DASHED WHERE INFERRED) 2008

LIMIT OF OU1

60 0 120

1"=120'

	EBMWD15	
	EBMWD15-090308	
	9/3/2008	
Constituent (mg/L)		
Alkalinity as CaCO3	230	
Sulfate	1 U	
Iron, dissolved	0.91	
Manganese, dissolved	0.59	
Carbon Dioxide	86	
Methane (ug/L)	5100	
Oxygen	1.8	
Total COI (ug/L)	3,758	

	EBMWD18	
	EBMWD18-090408	
	9/4/2008	
Constituent (mg/L)		
Alkalinity as CaCO3	280	
Sulfate	63	
Iron, dissolved	0.72	
Manganese, dissolved	0.17	
Carbon Dioxide	10	
Methane (ug/L)	710	
Oxygen	3.2	
Total COI (ug/L)	560	

	EBMWD25	
	EBMWD25-092508	
	9/25/2008	
Constituent (mg/L)		
Alkalinity as CaCO3	250	
Sulfate	180	
Iron, dissolved	0.05 U	
Manganese, dissolved	1.8	
Carbon Dioxide	14	
Methane (ug/L)	16	
Oxygen	7.6	
Total COI (ug/L)	32.6	

	21MWD01	
	21MWD01-052306	21MWD01-82808
	5/23/2006	8/28/2008
Constituent (mg/L)		
Alkalinity as CaCO3	410	410
Sulfate	1.0 U	6.8
Iron, dissolved	3.5	3.5
Manganese, dissolved	0.87	0.74
Carbon Dioxide	150	130
Methane (ug/L)	3600	1800
Oxygen	2.1	3
Total COI (ug/L)	1.4	ND

INTERMEDIATE ZONE				
Constituent	**Average (all)**	**Ave (background/xgrad)**	**Ave (plume)**	**Ave (dg, ~ edge of COI)**
Alkalinity as CaCO3	505	492	586	260
Sulfate	66	53	44	180
Iron, dissolved	1.0	1.2	1.1	0.03
Manganese, dissolved	0.7	0.8	0.5	1.0
Carbon Dioxide	84	81	109	10
Methane (ug/L)	4,669	3,418	7,059	57
Oxygen	4	4	3	6
Total COI (ug/L)	7,607	2	16,291	30

	20MWD16	
	20MWD16-052406	20MWD16-090908
	5/24/2006	9/9/2008
Constituent (mg/L)		
Alkalinity as CaCO3	240	220
Sulfate	89	120
Iron, dissolved	0.050 U	0.14
Manganese, dissolved	0.85	0.93
Carbon Dioxide	20	16
Methane (ug/L)	390	120
Oxygen	3.7	4
Total COI (ug/L)	ND	ND

	EBMWD24
	EBMWD24-092508
	9/25/2008
Constituent (mg/L)	
Alkalinity as CaCO3	270
Sulfate	180
Iron, dissolved	0.05 U
Manganese, dissolved	0.18
Carbon Dioxide	6.3
Methane (ug/L)	97
Oxygen	4.1
Total COI (ug/L)	28

	= background/cross-gradient location.
	= source area or dissolved plume location.
	= downgradient location near edge of dissolved COI and likely within plume NA signature due to "shadow effect."
Total COI = Total VOCs + Total PAHs (when detected, cVOCs not included in totals since they are not MGP-related).	
Half of the detection limit used for averaging non-detect values, with exception of total COI where non-detects were treated as zero.	

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FORMER EAST 21ST STREET WORKS
01869-170-729

DISTRIBUTION OF KEY NATURAL ATTENUATION PARAMETERS AND TOTAL ORGANICS IN INTERMEDIATE AQUIFER ZONE

DATE: 11/17/08 | DRWN: BcV/W-MA | FIGURE 5-18

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\S-W-D0.dwg Layout: I-08 User: VershonB Plotted: Nov 18, 2008 - 3:11pm Xref's:

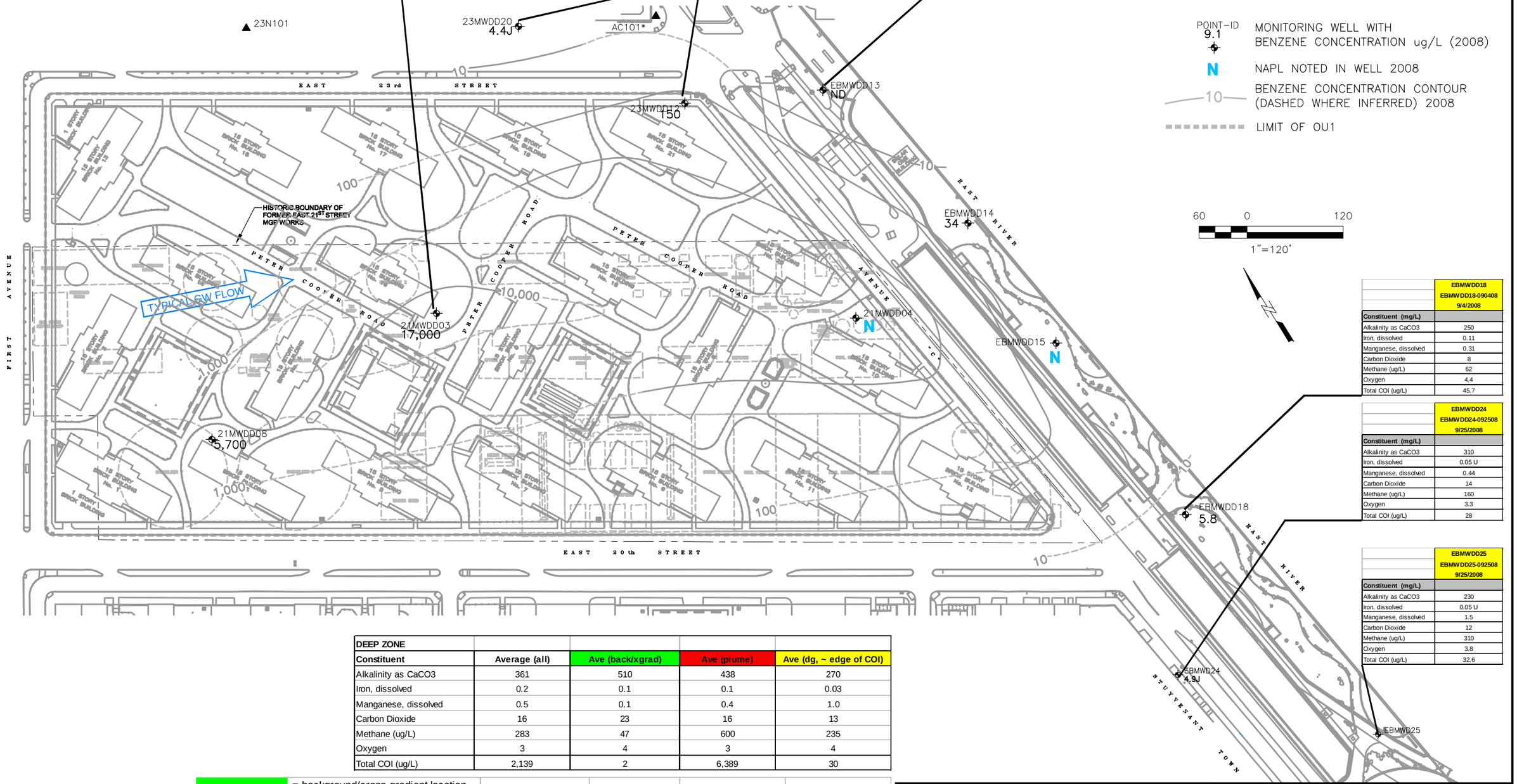
	21MWDD03	
	21MWDD03-052306	21MWDD03-090208
	5/23/2006	9/2/2008
Constituent (mg/L)		
Alkalinity as CaCO3	550	570
Iron, dissolved	0.1	0.15
Manganese, dissolved	0.26	0.048
Carbon Dioxide	12	9.5
Methane (ug/L)	950	510
Oxygen	2.2	4
Total COI (ug/L)	4,377	17,014

	23MWDD20	
	23MWDD20-052506	23MWDD20-090808
	5/25/2006	9/8/2008
Constituent (mg/L)		
Alkalinity as CaCO3	520	500
Iron, dissolved	0.079	0.12
Manganese, dissolved	0.13	0.13
Carbon Dioxide	25	20
Methane (ug/L)	68	26
Oxygen	2.9	4.1
Total COI (ug/L)	ND	4.4

	23MWDD12	
	23MWDD12-052206	23MWDD12-090808
	5/22/2006	9/8/2008
Constituent (mg/L)		
Alkalinity as CaCO3	330	300
Iron, dissolved	0.051	0.17
Manganese, dissolved	0.89	0.58
Carbon Dioxide	27	16
Methane (ug/L)	780	160
Oxygen	0.76	5.3
Total COI (ug/L)	2,804	1,361

	EBMWDD13	
	EBMWDD13-052206	EBMWDD13-090308
	5/22/2006	9/3/2008
Constituent (mg/L)		
Alkalinity as CaCO3	210	200
Iron, dissolved	0.54	0.45
Manganese, dissolved	0.74	0.087
Carbon Dioxide	22	11
Methane (ug/L)	55	34
Oxygen	2	5.4
Total COI (ug/L)	2.6	2.8

NOTE:
1. ALL BENZENE CONCENTRATIONS ARE IN ug/L.
2. SCREENED INTERVAL (10 FEET) IN DEEP WELLS IS 50–70 FEET BELOW GROUND SURFACE.



POINT–ID 9.1 — MONITORING WELL WITH BENZENE CONCENTRATION ug/L (2008)

N — NAPL NOTED IN WELL 2008

10 — BENZENE CONCENTRATION CONTOUR (DASHED WHERE INFERRED) 2008

LIMIT OF OU1

	EBMWDD18
	EBMWDD18-090408
	9/4/2008
Constituent (mg/L)	
Alkalinity as CaCO3	250
Iron, dissolved	0.11
Manganese, dissolved	0.31
Carbon Dioxide	8
Methane (ug/L)	62
Oxygen	4.4
Total COI (ug/L)	45.7

	EBMWDD24
	EBMWDD24-092508
	9/25/2008
Constituent (mg/L)	
Alkalinity as CaCO3	310
Iron, dissolved	0.05 U
Manganese, dissolved	0.44
Carbon Dioxide	14
Methane (ug/L)	160
Oxygen	3.3
Total COI (ug/L)	28

	EBMWDD25
	EBMWDD25-092508
	9/25/2008
Constituent (mg/L)	
Alkalinity as CaCO3	230
Iron, dissolved	0.05 U
Manganese, dissolved	1.5
Carbon Dioxide	12
Methane (ug/L)	310
Oxygen	3.8
Total COI (ug/L)	32.6

DEEP ZONE				
Constituent	**Average (all)**	**Ave (back/xgrad)**	**Ave (plume)**	**Ave (dg, ~ edge of COI)**
Alkalinity as CaCO3	361	510	438	270
Iron, dissolved	0.2	0.1	0.1	0.03
Manganese, dissolved	0.5	0.1	0.4	1.0
Carbon Dioxide	16	23	16	13
Methane (ug/L)	283	47	600	235
Oxygen	3	4	3	4
Total COI (ug/L)	2,139	2	6,389	30

= background/cross-gradient location.
= source area or dissolved plume location.
= downgradient location near edge of dissolved COI and likely within plume NA signature due to "shadow effect."

Total COI = Total VOCs + Total PAHs (when detected, cVOCs not included in totals since they are not MGP-related).
Half of the detection limit used for averaging non-detect values, with exception of total COI where non-detects were treated as zero.

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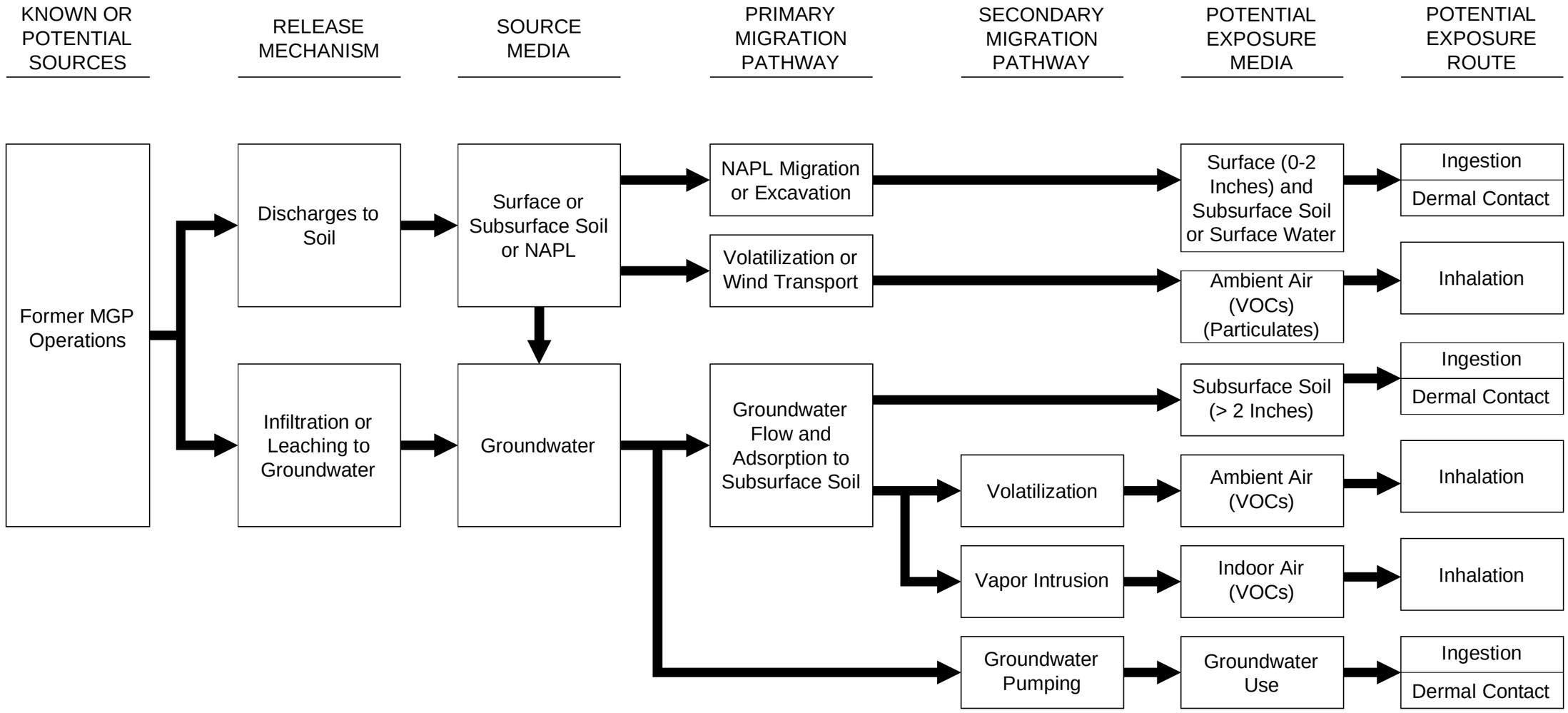
FORMER EAST 21ST STREET WORKS
01869-170-729

DISTRIBUTION OF KEY NATURAL ATTENUATION PARAMETERS AND TOTAL ORGANICS IN DEEP AQUIFER ZONE

DATE: 12/02/08 | DRWN: BcV/W-MA | FIGURE 5-19

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\S-M-DO.dwg Layout: D-08 User: VershonB Plotted: Dec 02, 2008 - 10:58am Xref's:



Note:
Table 6-1 provides summary information regarding the potential receptor groups identified for OU1.

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CONSOLIDATED EDISON OF NEW YORK INC. FORMER EAST 21ST STREET WORKS 01869-170-729			**CONCEPTUAL SITE MODEL OPERABLE UNIT 1 (OU1)**
DATE: 11/17/08	DRWN: BcV/W-MA		FIGURE 6-1

File: F:\PROJECTS\Consolidated Edison NY\Peter Cooper Village\01869\CADD\OU1-2008\CONCEPT-MODEL.dwg Layout: ANSI_B1-LJ User: VershonB Plotted: Nov 18, 2008 - 3:23pm Xref's:

Please find a copy of the full report here: https://www.coned.com/_external/assets/pcv-remedial-investigation-report-2008.pdf