REMEDIAL INVESTIGATION (RI) REPORT

THE BROOKLYN NAVY YARD PARCEL
BROOKLYN, NEW YORK
NYSDEC SITE ID NO. 224019A

September 2006

Prepared by:

HydroQual Environmental Engineers & Scientists, P.C.
1200 MacArthur Boulevard
Mahwah, New Jersey 07430

Under the Direction of:

New York City Department of Sanitation
Waste Management Engineering
44 Beaver Street, 9th Floor
New York, New York 10004

HydroQual

Environmental
Engineers & Scientists

TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

LIST OF FIGURES

LIST OF TABLES

Page

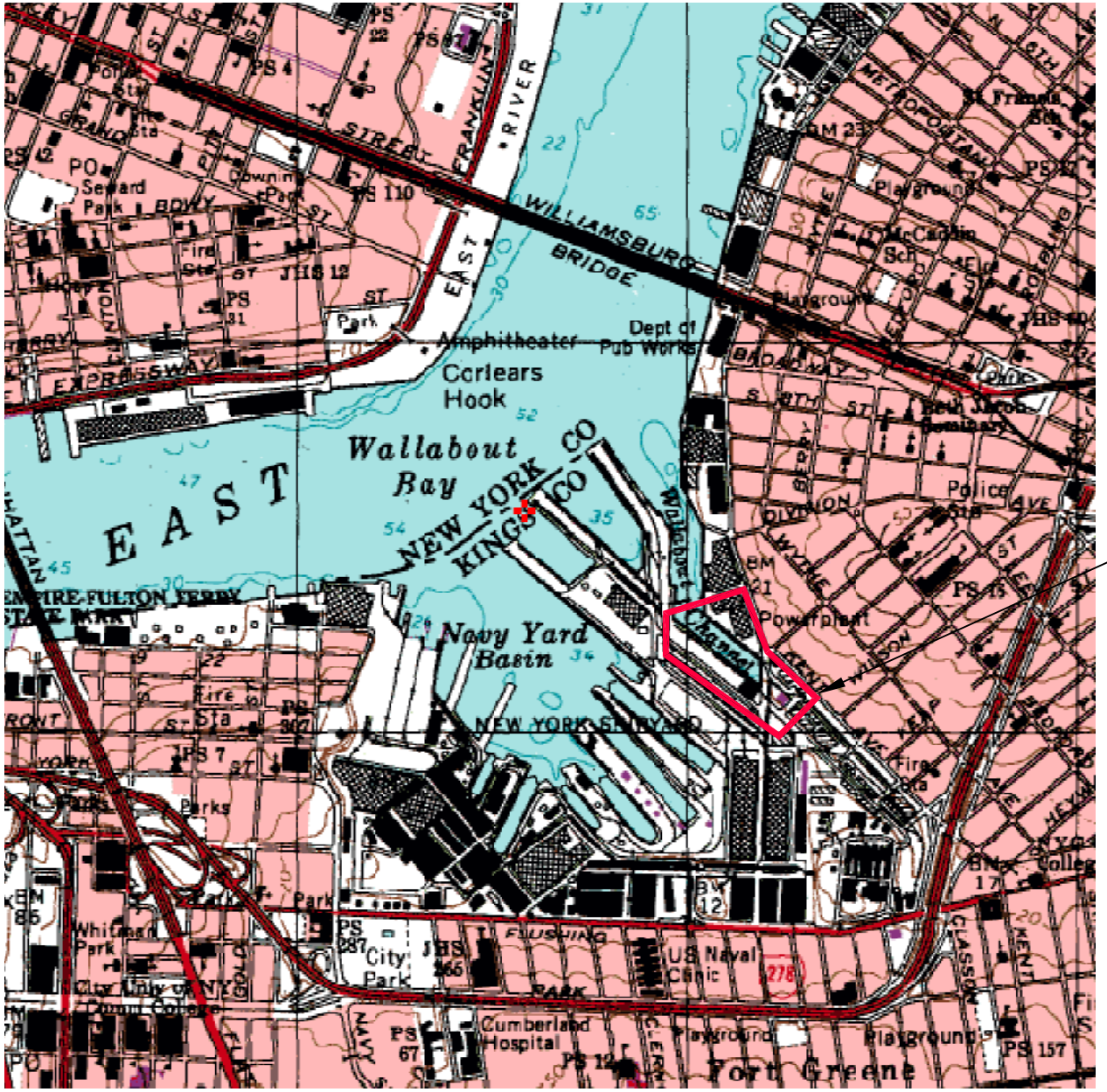
1.0 INTRODUCTION

This Remedial Investigation (RI) report describes investigation of soil, groundwater, soil vapor and sediments in the 9.5-acre parcel within the Brooklyn Navy Yard in Brooklyn, New York (Site). The site location is shown in Figure 1-1. In June 2002, HDR, on behalf of the Department of Sanitation, City of New York (DSNY), submitted a Draft Supplemental Interim Remedial Measures (SIRM) Work Plan to the New York State Department of Environmental Conservation (NYSDEC) for a 13-acre parcel of the Brooklyn Navy Yard. In a letter dated March 2, 2004, the NYSDEC provided comments on this Draft SIRM Work Plan, and in a meeting held on July 12, 2004 to clarify the NYSDEC's comments, the NYSDEC requested that a Data Usability Summary Report (DUSR) be prepared prior to addressing other comments provided by the NYSDEC in its March 2, 2004 letter. A DUSR was submitted to the NYSDEC in October 2004.

The NYSDEC provided comments on the DUSR in a letter dated November 4, 2004. In response to these comments, an addendum was submitted on December 1, 2004, along with a letter proposing an approach for moving the Site forward. Specifically, this letter expressed intent to submit a Supplemental Site Investigation (SSI) Work Plan, upon NYSDEC approval of the DUSR and supplemental site characterization approach, which would address areas previously identified for possible Interim Remedial Measures (IRMs), other areas with concentrations of constituents above relevant cleanup criteria, and specific questions of the NYSDEC. The NYSDEC approved the DUSR and SSI approach in a letter dated December 13, 2004. In August 2005, a SSI work plan was submitted describing actions planned to further characterize the Site and resolve outstanding questions relating to the extent and nature of contaminant presence and distribution above relevant cleanup criteria, as agreed upon by the NYSDEC and DSNY.

The sampling described in the SSI focused on the following areas and analyses:

- Additional delineation sampling in the vicinity of samples where lead has been found to be above 400 ppm. These included one location in the Railroad Siding Area (SSA sample SS-11), two locations in the vicinity of Former Building 419 (SSA samples MW-12 and MW-5), Former Drum Storage Area A (IRM sample DSASS-1 and SSA sample TP-101) and Former Drum Storage Area B (IRM samples DSBSS-1 and DSBSS-2 and SSA sample TP-102).



\\MEADOWLANDS\1091\BLYN_NAV_YD_TO_16\RI_REPORT\FIGURES_083006\FIG_1-1_SITE LOCATION MAP.DWG 09/21/2006 LAYOUT: 8.5X11

No.	Description	Date	Init.	Chkd.	Dept. Mgr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

SITE LOCATION MAP

APRIL 2006	Project No. 11684-001-147	Figure No. 1-1	Rev. 0
	File Name		

- Additional delineation sampling in the vicinity of samples where polychlorinated biphenyls (PCBs) have been found above 1 ppm in surface soils (0 –2 feet below ground surface) and 10 ppm in subsurface soils. This included Former Drum Storage Area B (IRM samples DSBSS-1 and DSBSS-2 and SSA sample TP-102) and the area within the Former Building 419 footprint (various samples obtained during IRM and SSA activities).

- Additional site characterization sampling, both random and targeted. This additional site characterization included analysis of samples for either (1) the Target Compound List (TCL) metals, semi-volatile organic compounds (SVOCs), and a library search of tentatively identified compounds (TICs); or (2) the Full TCL (Volatile Organic Compounds (VOCs), SVOCs, TICS, pesticides/PCBs, and inorganics, including cyanide as defined in Exhibit C of the NYSDEC's Analytical Services Protocol, 2000).

- In addition to this soil sampling, groundwater, sediment, and soil gas sampling was included in the SSI to further overall characterization of the 9.5-acre parcel, suitable for completion of a remedial investigation (RI).

This report presents the findings of the investigation work completed during the period December 4, 2005 through February 2, 2006 as part of the SSI and integrates the information with that previously collected, into a site-wide RI report.

2.0 SITE DESCRIPTION AND HISTORY

2.1 BACKGROUND

The Brooklyn Navy Yard is owned by the City of New York (City) and managed by the Brooklyn Navy Yard Development Corporation (BNYDC). The Site is a 13-acre parcel located within the larger 260-acre Brooklyn Navy Yard in the City of New York (City). The Site is the subject of an Order on Consent (Consent Order) [File Number D2-0001-9403] with the NYSDEC governing remedial activities. In addition, the Site was listed by the NYSDEC as an inactive hazardous waste site (Classification 2) in January 2002.

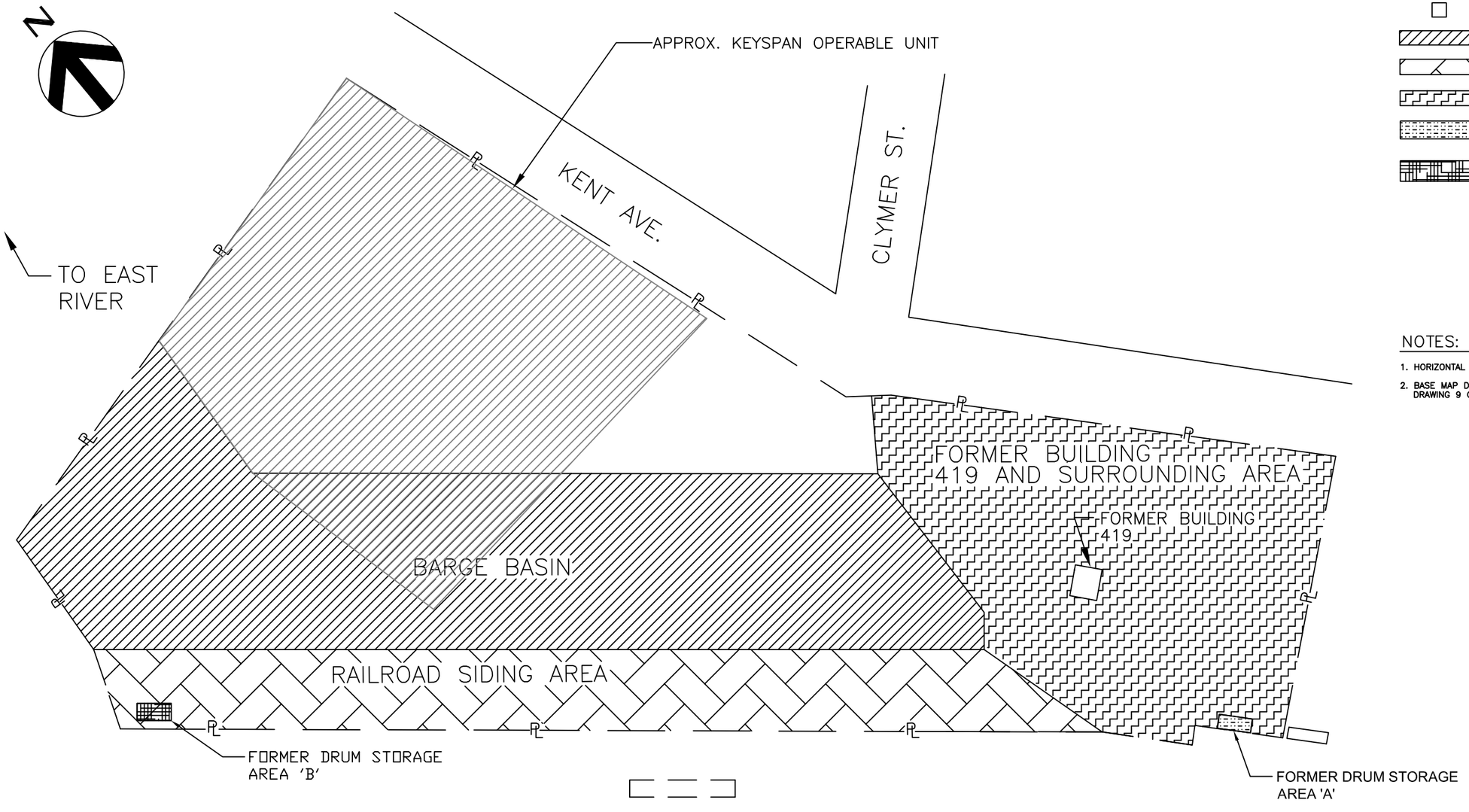
A coal gasification plant formerly occupied a portion of the Site (approximately 3.5 acres) and was operated by Brooklyn Union Gas, now owned by Keyspan. Negotiations among DSNY, Keyspan, the New York City Law Department and NYSDEC resulted in an agreement that Keyspan will be responsible for remediation of the 3.5-acre former coal gasification plant site and the associated plume of contaminants (i.e., groundwater) originating from the 3.5 acres. Figure 2-1 illustrates the delineation of the 3.5-acre Keyspan parcel and the remaining 9.5-acre DSNY parcel. The Site, as referred to in this report, is the 9.5-acre DSNY parcel.

2.2 SITE DESCRIPTION

The Site is located in the northeast corner of the former Brooklyn Navy Yard near the intersection of Clymer Street and Kent Avenue (as shown in Figure 2-1) and includes approximately four acres of the Wallabout Channel (Barge Basin) along the East River. Based upon historical information, the northern corner of the Site, within the Keyspan parcel, is an area that formerly housed a saw mill and boat shop (Saw Mill/Boat Shop Area) (see Figure 4-12 for additional detail), and contains remnants of old concrete foundations and floor slabs from these and older structures. Across the Barge Basin from the Saw Mill/Boat Shop Area, railroad tracks from a former railroad siding area (Railroad Siding Area) run in a northwest-to-southeast direction along the southwestern portion of the Site, and a building (Former Building 419) was previously located on the southern portion of the Site (see Figure 2-1).

Two locations on the Site were identified as Former Drum Storage Areas (see Figure 2-1). One of the former drum storage areas is located near Former Building 419 and was used to store a roll-off container reportedly filled with five-gallon drums that were labeled as containing various solvents and lubricating and cutting oils (Former Drum Storage Area A). The second location is at

SUMMARY OF SAMPLING



LEGEND:

- PROPERTY LINE
- STRUCTURE
- BARGE BASIN
- RAILROAD SIDING AREA
- FORMER BUILDING 419 AND SURROUNDING AREA
- FORMER DRUM STORAGE AREA A
- FORMER DRUM STORAGE AREA B

NOTES:

1. HORIZONTAL CONTROL: ASSUMED REFERENCE DATUM.
2. BASE MAP DIGITIZED FROM WEHRAN ENGINEERING DRAWING 9 OF 14, PROJECT NO. 08341.

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

SITE AREAS

APRIL 2006	Project No. 11664-001-147	Figure No. 2-1	Issue: 0
NTS	File Name:		

the northwestern end of the former Railroad Siding Area and was reportedly used to store approximately 12, 55-gallon drums that appeared to contain waste oils (Former Drum Storage Area B).

2.3 SITE HYDROGEOLOGY

The uppermost shallow aquifer underlying the Site includes the surficial fill unit and, in places, portions of silt and silty sand horizons. The uppermost "shallow" aquifer contains water under unconfined conditions. The "deep" aquifer exists within the sandy outwash deposits that underlie the Gardiners Clay. The Gardiners Clay is a continuous confining unit, which presents an effective barrier between the "shallow" and "deep" aquifers on Site, which are the regional glacial aquifer, and underlying regional water supply aquifers, such as the Jameco and Magothy Aquifers of pre-Wisconsin and Upper Cretaceous ages, respectively.

The general pattern of groundwater flow is from the northeast to the southwest, from Kent Avenue toward the Barge Basin. The estimated horizontal flow for the shallow aquifer is 6.25×10^{-6} centimeters per second (cm/sec) or 0.018 feet/day (6.5 feet/year). The estimated horizontal groundwater flow for the deep sand aquifer is 2.60×10^{-6} cm/sec or 7.4×10^{-3} feet/day (2.69 feet/year).

Historic water table elevations ranged from 5.95 feet above mean sea level (MSL) to 1.23 feet above MSL. The groundwater elevations for the deep aquifer ranged from 3.02 feet above MSL to 2.55 feet above MSL. The maximum measured hydraulic gradient for the deep aquifer is 0.001. The water in both the shallow and deep aquifer discharges into the Barge Basin.

2.4 SITE HISTORY

In 1637, a Dutchman from the adjoining settlement of Breuckelen (Brooklyn) purchased the land on which the Brooklyn Navy Yard is located. At the time of the purchase, the land consisted mostly of mud flats, swamps and creeks. In 1678, John Jackson purchased the property and established a shipyard on the property called the Broldest Industry. In 1801, the United States Navy purchased the land, which officially became the nation's largest government-owned shipyard. The shipyard, commonly referred to as the Brooklyn Navy Yard, contained 270 buildings, in which approximately 71,000 men and women worked during World War II. The Brooklyn Navy Yard was virtually abandoned by the federal government in the 1960s and was officially closed in 1965. The federal government then sold the Brooklyn Navy Yard to the City in 1968. The property has since been leased from the City by the BNYDC.

A comparison of historical maps for the Brooklyn Navy Yard shows that the Wallabout Channel shoreline, located within the Site, changed between 1801 and the 1950s as a result of various site improvement activities; much of the Brooklyn Navy Yard is underlain by fill material which was used to build up the swamp land to create the present day configuration.

2.5 PREVIOUS INVESTIGATIONS

Since 1988 a number of investigation and remediation activities were performed at the Site. Site activities are summarized below and described in more detail in the following sections.

- As part of an environmental site assessment performed by Wehran Engineering (Wehran) in 1988, site investigation activities included: (i) a soil gas survey; (ii) test pit excavations to characterize subsurface materials and obtain samples for chemical analysis; (iii) soil borings and installation and sampling of groundwater monitoring wells; and (iv) sampling and analysis of surficial soil in several areas to assess the potential presence of PCBs.

- Site investigation activities, performed in 1996 and 1997 by HDR under a NYSDEC-approved IRM Work Plan, consisting of: (i) removal and disposal of a PCB-containing transformer and scarification of a transformer pad; (ii) sampling and PCB analysis of surface and subsurface soils in and around Former Building 419 and the Railroad Siding Area; and (iii) characterization of surface and subsurface soils at two former drum storage areas (Former Drum Storage Area A and Former Drum Storage Area B).

- Site investigation activities, performed in 1997 by HDR under a NYSDEC-approved SSA Work Plan, consisting of: (i) sampling and PCB analysis of subsurface soils in Former Building 419; (ii) excavation and sampling of test pits, including one test pit in Former Drum Storage Area A and one test pit in Former Drum Storage Area B; (iii) installation and groundwater sampling of shallow and deep monitoring wells; and (iv) sampling and analysis of soil from auger borings and monitoring well borings.

- Sediment sampling performed by Parsons-Brinkerhoff (PB) in Association with Anchor Environmental, LLC (Anchor) and EEA, Inc. (EEA) on October 2 and 3, 2000 for the BNYDC.

- Soil sampling performed by Quay Consulting, LLC (Quay) on March 1, 2004 for the BNYDC for characterization of areas that will be occupied by proposed new roadways for future use of the property.

The results of the above activities were presented in the following reports:

- "Environmental Assessment Report," November 1988, prepared by Wehran Engineering for Wheelabrator Environmental Services Incorporated;

- "Work Plans for a Thirteen-Acre Parcel of The Brooklyn Navy Yard, Part I – Interim Remedial Measures Work Plan," July 1996, prepared by HDR for DSNY;

- "Work Plans for a Thirteen-Acre Parcel of The Brooklyn Navy Yard, Part II – Supplementary Site Assessment Work Plan," March 1997, prepared by HDR for DSNY;

- "Final Interim Remedial Measures Report, The Brooklyn Navy Yard," September 1997, prepared by HDR for DSNY;

- "Final Supplementary Site Assessment Report for a 13-Acre Parcel of The Brooklyn Navy Yard," June 1998, prepared by HDR for DSNY;

- January 26 1999 HDR letter to the NYSDEC providing supplemental information related to the SSA;

- "Meeting with Federal Agencies; Summary of Water Quality, Aquatic Ecology, and Sediment Sampling Results; Brooklyn Navy Yard Nearshore Confined Disposal Facility," January 2001, prepared by PB in Association with Anchor and EEA, for BNYDC;

- April 13, 2004 Quay letter to the NYSDEC providing soil sample data results for areas that will be occupied by proposed new roadways for future use of the property; and

- October 2004 Data Usability Summary Report the Brooklyn Navy Yard Parcel, prepared by HDR and December 1 2004 addendum.

2.5.1 Building 419 and Surrounding Area

In June 1986, there was an explosion and subsequent fire in the PCB transformer located in Building 419 on the Site. Building 419 was decontaminated, and the contaminated soils were removed from the immediate vicinity of the transformer. As illustrated in the photos provided in Appendix A, Building 419 is essentially an enclosure for transformers only. The "building" has no roof and the "floor" consists of individual concrete slabs, on which the transformers were

formerly located, separated by exposed earth. The IRM included soil sampling within Building 419 to confirm the 1986 cleanup effort. During the 1988 Environmental Assessment, Wehran obtained two composite surficial soil samples in the vicinity of Building 419. The surficial soil samples near Building 419 contained low concentrations of total PCBs ranging from 6.2 ppm to 10.2 ppm.

Based on this information, the IRM concentrated on characterizing the extent of PCBs within Building 419 and the surrounding area. Similarly, the SSA included additional subsurface soil samples to further characterize the extent of PCBs within Building 419, as well as for further characterization of the nature and extent of hazardous substances and petroleum hydrocarbons. A total of 61 samples from 32 locations (not including QA/QC samples) were obtained during the IRM and 18 soil samples from 11 locations (not including QA/QC samples) were obtained during the SSA from Building 419 and it's surrounding areas. In addition, five groundwater samples were also obtained from the surrounding area of Building 419 during the SSA.

Interim Remedial Measures

To determine the extent of PCB-contaminated soils, if any, within Building 419, HDR obtained ten soil samples from five locations within Building 419 between the walls and the transformer pad. It was determined that coring beneath the pad to obtain soil samples was not feasible due to the depth of the pad (23 to 25 feet). The samples were obtained from locations showing visible discoloration or staining from what appeared to be transformer fluid. From each location, a shallow sample 0-3" (419SS-1s-419SS-5s) and a deep soil sample 1-1.2' (419SS-1d-419SS-5d) was obtained.

During removal of the transformer, a small amount of fluid dripped onto the soil in an area between the transformer pad and the western wall of Building 419. In addition, fluid was known to have leaked in a known location outside of Building 419. To delineate the extent and depth of contamination of soil as a result of these leaks, eleven post-transformer decommissioning soil samples were obtained from seven locations. For three of these locations only shallow soil samples 0-3" (419SS-6s, 419SS-7s, 419SS-9s) were obtained. For each of the other four locations shallow 0-3" (419SS-10s through 419SS-13s) and deep 1-1.2' (419SS-10d through 419SS-13d) soil samples were obtained.

To further characterize soils, a soil-sampling grid based upon the results of the 1988 Environmental Assessment Report (Grid Sampling Area #1), consisting of 20 – 40-foot by 40-foot cells, was set up outside of Building 419. For each cell, shallow (G1SS-1s through G1SS-

20s) and deep (G1SS-1d through G1SS-20d) soil samples were collected at the same depth intervals as above.

Supplementary Site Assessment

On April 11, 1997, HDR obtained two supplementary deep soil samples (419SS-6d and 419SS-7d) at locations 419SS-6 and 419SS-7 in Building 419. These samples were collected at the same locations where surface soil PCB analyses of samples, 419-SS-6s and 419-SS-7s, associated with the IRM transformer decommissioning task, indicated elevated PCB concentrations.

Between April 3 and April 10, 1997, 14 test pits were excavated to groundwater (gw) depth using a backhoe. Four of these test pits (TP-103, TP-106, TP-107 and TP-108) were in the Building 419 Area. TP-103 was located at the nearest possible on-site location to former off-Site Drum Storage Area "C", which is located off-site east of Former Drum Storage Area A. With the exception of TP-107, all test pits were excavated through surface pavement composed of asphalt and/or concrete. Two soil samples were obtained from each test pit. The first was a surface sample (TP103-1s, TP106-1s, TP-107-1s and TP-108-1s) from the top 2 inches of soil, or in the top 2 inches of soil beneath pavement sub-base. The second was a deep grab sample (TP103-1d, TP106-1d, TP-107-1d and TP-108-1d) selected based on observed soil discoloration (staining), odor, and organic vapor analyzer (OVA) screening.

Between April 15 and May 27, 1997, soil borings (five of which were in the area of Building 419) were advanced for the purpose of obtaining soil samples for chemical analysis and for subsequent conversion to monitoring wells. Three of these borings (MW-4SR, MW-5SR and MW-12S) were shallow (less than 25 feet) and were advanced through the base of fill, whereas, two were deep borings (MW-4DR and MW-12D) advanced through the base of the semi-confined sand unit into the upper part of the Gardiners Clay (maximum depth 104.5 feet).

Two soil samples were obtained from each of the shallow auger borings, a shallow grab sample (MW4SR-SS1S, MW5SR-SS1S, and MW12S-SS1S) taken from the top 2 inches of soil, or in the top 2 inches of soil beneath pavement sub-base, and a deep grab sample (MW4SR-SS1D, MW5SR-SS1D and MW12S-SS1D) were selected based on observed soil discoloration (staining), odor, and organic vapor analyzer (OVA) screening. At least one soil sample was obtained from each of the deep auger borings (MW4DR-SS1 and MW12D-SS1) selected, based on observed soil discoloration (staining), odor, and organic vapor analyzer (OVA) screening. The two sets of shallow/deep companion borings were converted to wells approximately 5 to 10 feet apart. Groundwater samples were obtained from each of the five (5) monitoring wells using

a purge pump and disposable bailers, and were analyzed for the TCL and TAL parameters. Throughout the well purging and prior to sample collection, pH, specific conductivity, and temperature measurements were taken as indicators of water quality stabilization.

2.5.2 Drum Storage Area A

Former Drum Storage Area A was used to store a roll-off container with drums, and therefore, evidence of prior drum storage activities does not exist, and neither regulatory nor site personnel could specifically identify the location. The location of Former Drum Storage Area A is, therefore, based upon estimated locations provided in the 1988 Environmental Assessment. Former Drum Storage Area A was paved with asphalt and concrete. Both the IRM and SSA focused on characterization of the nature and extent of hazardous substances and petroleum hydrocarbon parameters. A total of six soil samples from three locations were obtained during the IRM and two soil samples from one location were obtained during the SSA from Former Drum Storage Area A.

Interim Remedial Measures

On October 30 and 31, 1996, during the IRM activities that were occurring on the Site, shallow 0-3" (DSASS-1s through DSASS-3s) and deep 1-1.2' (DSASS-1d through DSASS-3d) soil samples were obtained from the three locations in Former Drum Storage Area A.

Supplementary Site Assessment

As stated previously, between April 3 and April 10, 1997, test pits were excavated for the SSA to groundwater depth using a backhoe. One test pit (TP-101) was located in the on-Site Former Drum Storage Area A. Two soil samples were obtained from each test pit. A surface sample (TP101-1s) was obtained from the top 2 inches of soil, or in the top 2 inches of soil beneath pavement sub-base. A deep grab sample (TP101-1d) was obtained based on observed soil discoloration (staining), odor, and organic vapor analyzer (OVA) screening.

2.5.3 Drum Storage Area B

The location of Former Drum Storage Area B is based upon estimated locations provided in the 1988 Environmental Assessment. Former Drum Storage Area B was covered with coarse compacted gravel. Both the IRM and SSA focused on characterization of the nature and extent of hazardous substances and petroleum hydrocarbon parameters. Six soil samples from three

locations (not including QA/QC samples) were obtained during the IRM and two samples from one location during the SSA.

Interim Remedial Measures

On October 31, 1996, during the IRM activities that were occurring on the Site, shallow 0-3" (DSBSS-1s through DSBSS-3s) and deep 1-1.2' (DSBSS-1d through DSBSS-3d) soil samples were obtained from the three locations in Former Drum Storage Area B, in accordance with the IRM Work Plan.

Supplementary Site Assessment

As stated previously, between April 3 and April 10, 1997, test pits were excavated for the SSA to groundwater depth using a backhoe. One test pit (TP-102) was located in the on-Site Former Drum Storage Area B. Two soil samples were obtained. A surface sample (TP102-1s) was obtained from the top 2 inches of soil, or in the top 2 inches of soil beneath pavement sub-base. A deep grab sample (TP102-1d) was obtained based on observed soil discoloration (staining), odor, and OVA screening.

2.5.4 Railroad Siding Area

During the 1988 Environmental Assessment, Wehran obtained one composite surficial soil sample in the Railroad Siding Area. The surficial soil sample near the Railroad Siding Area contained low total PCB concentrations of up to 6.2 ppm.

Based on this information, the IRM concentrated on characterizing the extent of PCBs within the Railroad Siding Area. Similarly, the SSA included additional subsurface soil samples to further characterize the extent of PCBs, as well as the nature and extent of hazardous substances and petroleum hydrocarbons. A total of 28 soil samples at 11 locations were collected as part of the IRM and 15 soil samples from 8 locations as part of the SSA in the Railroad Siding Area.

Interim Remedial Measures

To further characterize soils in these areas, a soil sampling grid based upon the results of the 1988 Environmental Assessment Report (Grid Sampling Area #2), consisting of 14 – 40-foot by 40-foot cells, was set up in the Railroad Siding Area. Grid Sampling Area #2, consisting of 14 - 40-foot by 40-foot cells comprising each Grid Sampling Area. For each cell, shallow

(G2SS-1s through G1SS-14s) and deep (G2SS-1d through G1SS-14d) soil samples were collected at the same depth intervals described above.

Supplementary Site Assessment

On April 14 and 22, 1997, HDR obtained shallow (SS9-1s, SS10-1s, SS11-1s and SS12-1s) and deep soil samples (SS9-1d, SS10-1d, SS11-1d and SS12-1d) from four locations along the southern property line in the Railroad Siding Area. Two of the four sampling locations (SS-9 and SS-10) were paved with asphalt. In these locations, the shallow soil samples were obtained directly beneath the asphalt.

Between April 3 and April 10, 1997, test pits were excavated for the SSA to groundwater depth using a backhoe. Two test pits were located in the Railroad Siding Area (TP-104 and TP-105). The boring for monitoring well MW-6SR was used in lieu of a test pit near former off-Site Drum Storage Area "D" (see Figure 4-12) in the Railroad Siding Area. Two soil samples were obtained from each test pit, a surface sample (TP104-1s and TP105-1s) from the top 2 inches of soil, or in the top 2 inches of soil beneath pavement sub-base, and a deep grab sample (TP104-1d and TP105-1d) selected based on observed soil discoloration (staining), odor, and organic vapor analyzer (OVA) screening.

Between April 15 and May 27, 1997, soil borings were advanced for the purpose of obtaining soil samples for chemical analysis and for subsequent conversion to monitoring wells. Four of these borings for soil sampling and conversion to monitoring wells were located in the Railroad Siding Area. However, two of these monitoring wells (MW-11S and MW-11D will not be considered as part of the Site since these wells are considered to be affected by the contamination plume originating from the Keyspan Parcel. MW-6SR was a shallow boring (less than 25 feet) and was advanced through the base of fill, whereas MW-6DR was a deep boring advanced through the base of the semi-confined sand unit into the upper part of the Gardiners Clay (maximum depth 104.5 feet). At least two soil samples were obtained from the shallow auger boring. One of these samples was a shallow grab sample (MW6SR-SS1) taken within the top 2 inches of soil, either at ground surface or immediately below pavement sub-base. The second sample was a deep grab split-spoon sample (MW-6SR-SS1d) selected based on observed soil staining, odor, and OVA screening. The sets of shallow/deep companion borings were converted to wells approximately 5 to 10 feet apart. Groundwater samples were obtained from each of the 4 monitoring wells using a purge pump and disposable bailers, and were analyzed for the TCL and TAL parameters.

3.0 SUPPLEMENTAL FIELD INVESTIGATION

3.1 OVERVIEW

A significant amount of work related to the Site has been completed and a summary of the principal reports is presented in section 2.5 above. In general, the Site has been well characterized and the data indicate the following overall characteristics:

- Urban fill throughout the site that exhibits generally low levels of various constituents such as polycyclic aromatic hydrocarbons (PAHs) and metals.

- PCBs are present predominantly in Former Building 419 and Former Drum Storage Area B, above the cleanup criterion of 1 part per million (ppm) for surface soils and 10 ppm for subsurface soils.

- Lead is present in several locations (Former Drum Storage Areas A and B and SSA samples MW-5, MW-12, and SS-11) above the cleanup criterion of 400 ppm or above the hazardous waste classification criterion of 5 ppm per the Toxicity Characteristic Leaching Procedure (TCLP).

In addition to completing vertical and horizontal delineation of lead and PCBs, the SSI called for additional overall site characterization work, including soil vapor, soil, groundwater, and sediment sampling, to enhance the site understanding, confirm the presence or absence of additional areas of concern, and supplement the existing data with testing of tentatively identified compounds (TICs) from a library search. These activities are described further below.

Soil samples collected as part of the fieldwork described in the SSI are identified by the prefix SSI followed by an indicator of general location (i.e., 419 for the area of building 419) and a number identifying a specific sample location. This is followed by SS for surface soil or SB and a number (1, 2, 3) identifying different depth intervals and the actual depth interval in inches at which the sample was collected. In the case of duplicate samples, the above is followed by the suffix DUP. This results in a sample name generally of the appearance SSI-419-SB1 (12-14”). Prior soil samples were identified in a variety of ways, The prefix “TP” and a number was used to identify test pits, while the prefix “SS” and a number were use to identify surface soil samples. Also used were area locations (i.e., DSBSS-1 indicating Drum Storage Area B, surface sample 1) followed by a number with or without an S or D appended for deep and shallow samples.

3.2 SOIL SAMPLING LOCATIONS AND ANALYTES

Sampling locations completed in accordance with the approved SSI are described below, based upon the areas of the Site for which they are intended. Survey coordinates of the sampling locations are provided in Table 3-1.

Lead, Former Drum Storage Area A (See Figure 4-5)

Lead delineation was previously undertaken at Former Drum Storage Area A, and although concentrations of lead were not detected above the cleanup criterion (400 ppm in surface soils), two samples, one at IRM soil sample DSASS-2d and one in SSA test pit TP-101 contained concentrations of lead in TCLP testing above the TCLP criterion of 5 ppm (27.9 ppm in TP101-1s and 6.25 ppm in DSASS-2d). These two samples, which are co-located, are flanked by two other proximate soil sample locations that are below the criterion. To refine lead delineation in this area, three new soil samples were collected at locations to the north, east and west of TP-101 and analyzed for total lead concentration. Samples were collected in the intervals 0”-3”, 12”-14”, and 21”-24”.

Lead, PCBs, SVOCs and TICs, Former Drum Storage Area B (See Figures 4-6 through 4-8)

Lead and PCB delineation work was previously completed at Former Drum Storage Area B. The data indicate that both PCBs and lead are present in concentrations greater than their respective screening criteria (See Section 4.1) in surface and subsurface soils. PCBs observed in soils may be associated with the storage of drums of PCB contaminated oil at this location. Additionally, an Organic Vapor Analyzer (OVA) reading at a depth of four feet in SSA Sample TP-102, appeared to indicate higher concentrations of semi-volatile constituents. To provide further delineation in this area, a perimeter array of six samples was collected around Former Drum Storage Area B. Samples were collected in the 6”-9”, 12”-14”, 21”-24”, and 45”-48” depth intervals to provide lateral and vertical delineation to the depth of the OVA reading noted above. The 6-9” interval replaced the 0”-3” interval proposed in the SSI to account for recent paving completed over the former drum storage area. Analyses were performed for PCBs, TAL metals, SVOCs and TICs to address the various potential constituents of interest based on the prior data.

Table 3-1
Brooklyn Navy Yard Parcel
Supplemental Site Investigation
Sample Location Coordinates (UTM)

Sample Location	East	North
SSI-419-1	587254.7	4506331.0
SSI-419-10	587243.5	4506339.1
SSI-419-11	587240.6	4506337.0
SSI-419-12	587243.7	4506333.6
SSI-419-13	587235.3	4506324.6
SSI-419-14	587297.1	4506358.9
SSI-419-15	587322.6	4506303.9
SSI-419-16	587258.4	4506336.4
SSI-419-2	587257.1	4506329.3
SSI-419-3	587248.9	4506339.0
SSI-419-4	587252.1	4506340.9
SSI-419-5	587258.6	4506340.7
SSI-419-6	587262.8	4506336.4
SSI-419-7	587263.5	4506330.9
SSI-419-8	587259.6	4506327.1
SSI-419-9	587250.5	4506332.2
SSI-419-SV1	587246.2	4506336.9
SSI-419-SV2	587260.6	4506338.6
SSI-419-SV3	587259.1	4506326.1
SSI-DSA-1	587263.3	4506278.4
SSI-DSA-2	587258.5	4506275.6
SSI-DSA-3	587265.9	4506274.5
SSI-DSA-SV1	587259.9	4506277.1
SSI-DSA-SV2	587264.7	4506271.5
SSI-DSB-1	586985.0	4506496.3
SSI-DSB-2	586993.7	4506492.7
SSI-DSB-3	586998.3	4506484.2
SSI-DSB-4	586991.3	4506476.7
SSI-DSB-5	586983.9	4506482.1
SSI-DSB-6	586976.8	4506488.1
SSI-DSB-SV1	586985.2	4506488.2
SSI-DSB-SV2	586991.2	4506483.5
SSI-MW12-1	587238.0	4506365.1
SSI-MW12-2	587249.9	4506365.6
SSI-MW12-3	587251.8	4506354.2
SSI-MW12-4	587240.2	4506353.4
SSI-MW5-1	587270.1	4506289.8
SSI-MW5-2	587281.5	4506289.8
SSI-MW5-3	587283.5	4506278.8
SSI-MW5-4	587271.7	4506278.0
SSI-MW6-1	587114.8	4506381.8
SSI-MW6-2	587134.4	4506389.3
SSI-MW6-3	587130.9	4506368.6
SSI-MW6-SV1	587124.0	4506376.9
SSI-MW6-SV2	587131.2	4506384.2
SSI-SS11-1	587147.1	4506357.1
SSI-SS11-2	587163.6	4506354.2
SSI-SS11-3	587169.7	4506338.6
SSI-SS11-4	587156.5	4506345.3
SSI-SS11-5	587162.0	4506359.9
SSI-SS9-1	587023.6	4506455.6
SSI-SS9-2	587043.2	4506463.1
SSI-SS9-3	587039.8	4506442.2

PCBs, Full TCL, Former Building 419 (See Figures 4-9 through 4-11)

Previous characterization work around Former Building 419 has focused principally on PCBs and indicates the presence of PCBs above the relevant cleanup criteria (See Section 4.1). In general, there were no indications of other constituents of interest in the area, although data for constituents other than PCBs were limited. Therefore, the supplemental investigation in the area of Former Building 419 was designed to further delineate PCBs as well as provide additional overall site characterization data.

With two exceptions, the prior data indicate that PCBs above the cleanup level are confined to surface soils and are generally bounded by the building structure. The intent of additional sampling for PCBs around Former Building 419 is, therefore, to refine and substantiate the lateral and vertical delineation of PCB concentrations above criteria. To address shallow soils, a perimeter array of 10 samples was collected around the building footprint and sample location 419SS-9s in the 0”-3” interval. For subsurface soils, the lateral extent is already well defined by the existing sample data, and two sample locations were selected at greater depth to confirm the depth at which PCB concentrations fall below the cleanup level. Two depth intervals, 21”-24” and 33”-36”, were sampled to provide vertical delineation.

Additionally, 7 samples were collected for analysis of the Full TCL (VOCs, SVOCs, pesticides/PCBs, and inorganics including cyanide) for further general characterization of the area around and in Former Building 419. These sample locations were co-located with several of the PCB delineation samples around the building perimeter, and two samples were located within the building footprint. Sample depths were at 12”-14” and 45”-48” to provide both vertical and horizontal delineation data.

Lead, SSA Locations SS-11, MW-5 and MW-12 (See Figure 4-12)

Previous delineation work has indicated that concentrations of lead are above the cleanup criterion (See Section 4.1) in the vicinity of SSA sample locations SS-11, MW-5, and MW-12. While these concentrations may be associated with the urban fill present throughout the area, a perimeter-sampling array was completed at each of these locations to provide additional data. Sampling was conducted in three intervals, 0”-3”, 12”-14”, and 21”-24” and analyses were conducted for total lead concentration.

Additional Site Soils Characterization (See Figures 4-12 and 4-13)

In addition to focusing on the specific locations above, sampling was conducted to provide further site characterization, both random and targeted. A perimeter array of samples was collected in the railroad siding area, proximate to MW-6, SS-9 and SS-11 to provide additional SVOC data (including TICs). In addition, samples for TAL metals, SVOCs, and TICs were collected and analyzed at three locations in areas where existing data are more scattered. These areas included: (1) the area south of Former Building 419, (2) the area north of Former Building 419, and (3) to the northeast of TP-107. One sample location each in the areas around SS-9, MW-6, SS-11, MW-5, MW-12 and new location SSI-419-14 were analyzed for the full TCL list (VOCs, SVOCs, TICS, pesticides/PCBs, and inorganics including cyanide). At each location, samples were collected in five intervals: 0”-3”, 12”-14”, 21”-24”, 45”-48”, and 72”-75” for the TAL metals, SVOCs and TICs. Samples for the Full TCL (i.e. including VOCs) were collected at the 12”-14” and 45”-48” intervals.

3.3 SOIL VAPOR SURVEY

In order to assess the vapor intrusion pathway, a screening-level soil vapor assessment was performed as part of the overall site characterization (See Figure 4-14). Two soil vapor samples were collected in each of the Former Drum Storage Areas (four samples) and in the vicinity of monitoring well MW-6 (two samples) within the railroad siding. Three soil vapor samples were collected in the vicinity of Former Building 419. Soil vapor samples were collected at each point following the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York (Soil Vapor Guidance). Permanent soil gas probes were installed with a Geoprobe rig and soil gas samples were collected using a tracer gas to assess the integrity of the sample. Soil vapor samples were analyzed in accordance with the procedures and for the parameters specified in the United States Environmental Protection Agency (EPA) Method TO-15, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas)* (TO-15).

3.4 GROUNDWATER SAMPLING

A round of groundwater samples were collected in up-gradient and down-gradient monitoring wells to supplement the existing groundwater data. The SSI called for sampling of existing wells MW-3SR, MW-4SR and MW-4DR (up-gradient locations), MW-5SR, MW-6SR and MW-6DR, and MW-12S and MW-12D (down-gradient locations). However, wells MW-3SR, MW-5SR, MW-6SR MW-6DR, MW-12S and MW-12D could not be located due to modifications at the site. In a conference call with NYSDEC on December 21, 2005 and follow

up electronic mail communication with Jonathan Greco of the Department, substitute measures were agreed upon. Under this agreement, shallow wells MW-3SR, MW-5SR, MW-6SR and MW-12S were replaced by newly installed wells at equivalent depths and locations. Replacement wells or equivalent groundwater samples were not installed/collected for the locations represented by MW-6DR and MW-12D, as previous groundwater samples collected from these locations did not raise any concerns. Groundwater samples were analyzed for the full TCL (VOCs, SVOCs, TICs, pesticides/PCBs, and inorganics including cyanide).

3.5 SEDIMENT SAMPLING

In January of 2001, Parsons, Brinkerhoff Quade & Douglas, Inc. (PB) submitted a report to the Brooklyn Navy Yard Development Corporation for the *Brooklyn Navy Yard Nearshore Confined Disposal Facility*. This report included sampling and analytical data for five discrete sediment samples collected from the Barge Basin. Samples were collected along the centerline of the Barge Basin and along the northern boundary with Wallabout Channel. A reference sample was also collected near the South Street Seaport. The samples were analyzed for metals, SVOCs, pesticides, PCBs, and dioxins/furans. To supplement these existing data and focus on the potential for runoff from the Brooklyn Navy Yard parcel to affect sediments, three additional surface sediment samples were collected (See Figure 4-16) as follows:

- At the northern perimeter of the barge basin, due south of monitoring well MW-3,
- At the eastern perimeter of the barge basin, west of monitoring well MW-12, and
- At the southern perimeter of the barge basin, due north of monitoring well MW-6.

Each of the sediment samples was analyzed for the full TCL (VOCs, SVOCs, TICs, pesticides/PCBs, and inorganics including cyanide). As noted above, the objective of this sampling was to determine if potential site runoff may be affecting sediments. Therefore, the SSI sampling focused on the perimeter of the basin. These results will be compared to the previous sampling referenced above to see if the perimeter sampling results are higher than those from samples collected near the center of the Barge Basin. Higher results in the perimeter samples, as compared to the centerline samples, would suggest potential impacts associated with site runoff. Conversely, similar concentrations in the perimeter and centerline samples would suggest that site runoff is not affecting sediments.

4.0 RESULTS OF FIELD INVESTIGATION

4.1 CLEANUP LEVELS AND SCREENING CRITERIA

The site characterization data are evaluated in the context of the urban fill found at the site, the urban nature of the surrounding environment and water ways, background constituent concentrations and conditions, and by consideration of, as applicable, the following screening criteria:

- NYSDEC Recommended Soil Cleanup Objectives (RSCO) identified in NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046

- NYSDEC 6NYCRR PART 375, Environmental Remediation Program (Draft)

- NYSDEC 6NYCRR Part 703, Surface and Groundwater Quality Standards (NYSDEC Standards)

- NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 guidance values (NYSDEC Guidelines)

- NYSDEC Division of Fish, Wildlife and Marine Resources Sediment Criteria in the 1999 Technical Guidance for Screening Contaminated Sediments

TAGM soil concentrations have been used historically by NYSDEC as screening criteria and are generally conservative and intended for unrestricted use. While the TAGM criteria are typically used by NYSDEC under the State Superfund Program, a number of metals and semivolatile organics (SVOCs), particularly polycyclic aromatic hydrocarbons (PAHs), underlying this and surrounding parcels within the Brooklyn Navy Yard (data summary tables and maps for various investigations at the Brooklyn Navy Yard provided by Quay Consulting and attached as a PDF file in Appendix J), are above the TAGM values. This is likely due to the presence of historic urban fill throughout the area. NYSDEC does not provide guidance on contaminant levels typical for historic urban fill material. However research has been conducted on this subject in New Jersey and a historic fill database and summary table has been produced which is presented in Technical Requirements for Site Remediation N.J.A.C. 7:26E, Appendix D. This table reports average values observed for a number of constituents and is attached here as Appendix B. The average metal and PAH levels observed throughout the site are quite similar to average values reported in this database.

Given the presence of historic urban fill material, comparison to the TAGM criteria is not directly applicable. However, in accordance with discussion with NYSDEC, it was agreed that data associated with a representative subset of contaminants of concern (COCs) would be compared to the TAGM criteria and that these data would be plotted (mapped) so that the distribution of constituents above the TAGM criteria can be spatially evaluated. To meet this objective, concentrations of lead, arsenic, cadmium, copper, mercury and PAH's as benzo(a)pyrene equivalents have been mapped in Figures 4-1 through 4-4, which correspond to the areas of concern investigated at the site (i.e., Drum Storage Area A, Drum Storage Area B, Building 419 Area, and Site Characterization samples located throughout the site, respectively). The five metals referenced above are found most frequently above the TAGM Criteria and also correlate well with the distribution and concentration of other metals. Likewise, plotting of the benzo(a)pyrene equivalent, which consists of the toxicity weighted sum of benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)-anthracene, and indeno(1,2,3-cd)pyrene, accounts for the majority of detected PAHs. Finally, these maps also identify areas where total SVOCs are greater than 500 ppm and/or individual SVOCs are greater than 50 ppm. The data were also screened for total VOCs above 10 ppm, however, there were no samples containing greater than 10 ppm total VOCs. A summary of the representative site constituents detected at concentrations above TAGM criteria, for each of the above areas of investigation, are provided in Tables 4-1 through 4-4 and summary tables of the complete data set are provided in Appendix C.

The data summary and mapping completed as described above indicates that most of the samples collected throughout the Site contain concentrations of benzo(a)pyrene equivalent and at least one metal above TAGM criteria. Further, the distribution of constituents above appears to have no clear pattern, consistent with an origin associated with historic fill as opposed to localized releases associated with past operational activities.

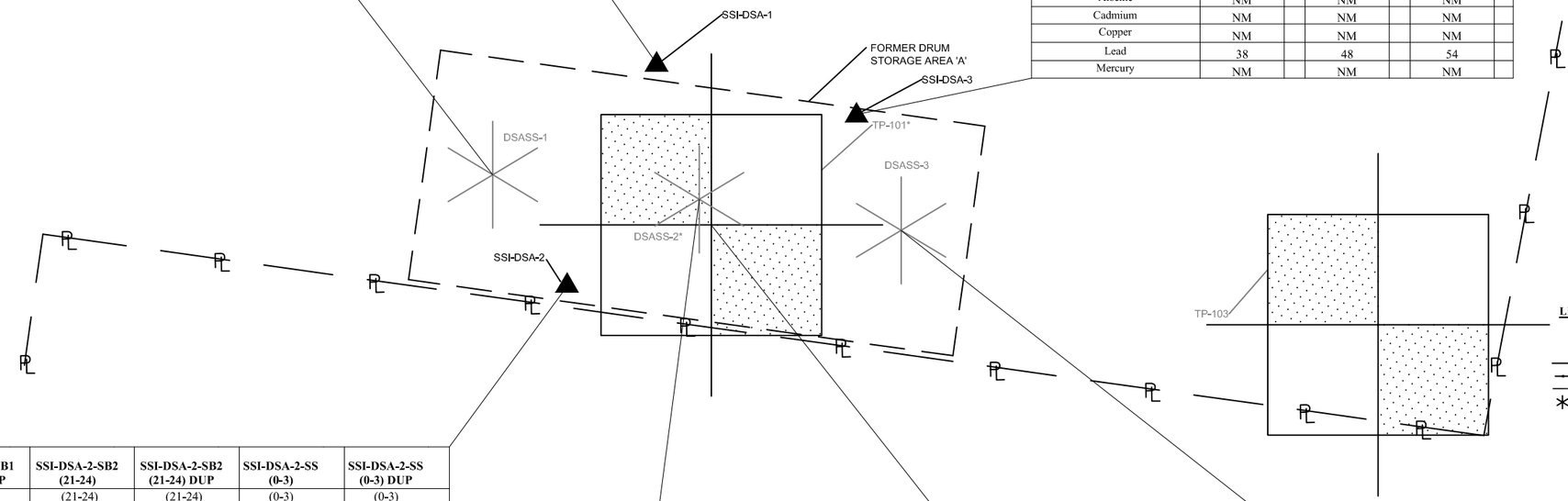
Given the ubiquity of concentrations above TAGM 4046 criteria, comparison of the collected data to NYSDEC 6 NYCRR Part 375 draft soil cleanup objectives has been selected as a means to "filter out" the concentrations likely associated with the historic urban fill material and identify areas that may have been impacted by historical operation. NYSDEC 6NYCRR PART 375 draft soil cleanup objectives are human health risk based and intended for use at sites where remediation and redevelopment may be complicated by contamination (brownfields). Although this site is not listed under the brownfield program, it is intended for redevelopment and has low-level contamination potentially related to urban fill, as well as area specific contamination related to past site use. Brownfield criteria intended for restricted commercial use were considered applicable to the intended development at this site. These Brownfield values

Parameter	TAGM 4046 Soil Screening Criteria	NYDEC PART 375 Restricted Use Commercial (draft)
Arsenic	7.5 or SB (3-12)	16
Cadmium	1 or SB (0.1-1)	9.3
Copper	25 or SB (1-50)	270
Lead	400	1000
Mercury	0.1	2.8
Benzo(a)pyrene eq.	61 or MDL (330)	1000

Parameter	SSI-DSA-1-SB1 (12-14)		SSI-DSA-1-SB2 (21-24)		SSI-DSA-1-SS (0-3)	
	(12-14)		(21-24)		(0-3)	
Arsenic	NM		NM		NM	
Cadmium	NM		NM		NM	
Copper	NM		NM		NM	
Lead	**1100**		**980**		90	
Mercury	NM		NM		NM	

Parameter	DSASS-1S	DSASS-1D
	0" - 3" (shallow)	NA
Arsenic	4.2	1.9B
Cadmium	0.20U	0.22U
Copper	***36.5***	***29.9***
Lead	80	56.4
Mercury	0.10U	**0.27**
Benzo(a)pyrene eq.	247 J	268 J

Parameter	SSI-DSA-3-SB1 (12-14)		SSI-DSA-3-SB2 (21-24)		SSI-DSA-3-SS (0-3)	
	(12-14)		(21-24)		(0-3)	
Arsenic	NM		NM		NM	
Cadmium	NM		NM		NM	
Copper	NM		NM		NM	
Lead	38		48		54	
Mercury	NM		NM		NM	



Parameter	SSI-DSA-2-SB1 (12-14)		SSI-DSA-2-SB1 (12-14) DUP		SSI-DSA-2-SB2 (21-24)		SSI-DSA-2-SB2 (21-24) DUP		SSI-DSA-2-SS (0-3)		SSI-DSA-2-SS (0-3) DUP	
	(12-14)		(12-14)		(21-24)		(21-24)		(0-3)		(0-3)	
Arsenic	NM		NM		NM		NM		NM		NM	
Cadmium	NM		NM		NM		NM		NM		NM	
Copper	NM		NM		NM		NM		NM		NM	
Lead	**420**		91		140		170		88		170	
Mercury	NM		NM		NM		NM		NM		NM	

Parameter	DSASS-2S	DSASS-2D
	0" - 3" (shallow)	NA
Arsenic	5.3	5.3
Cadmium	0.20U	0.22U
Copper	**74.6**	**56**
Lead	85.5	146
Mercury	0.10U	**0.11U**
Benzo(a)pyrene eq.	**597 U**	**165 J**

Parameter	TP101-1S3		TP101-1D3	
	1' - 1.2' (shallow)		6.3' - 7' (deep)	
Arsenic	1.5	B	**17.9**	
Cadmium	0.22	U	0.24	U
Copper	***38.1***		**135**	
Lead	106		312	
Mercury	0.1	U	**0.24**	
Benzo(a)pyrene eq.	261	U	**1213**	

Parameter	DSASS-3S	DSASS-3D
	0" - 3" (shallow)	NA
Arsenic	4.6	7.4
Cadmium	0.21U	0.21U
Copper	**71.1**	**105**
Lead	53.3	186
Mercury	0.10U	**0.69**
Benzo(a)pyrene eq.	**286 J**	**474 J**

LEGEND:

- = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- PL = PROPERTY LINE
- = FENCE
- = FOUNDATION LIMIT
- SS-12 = IRM SOIL SAMPLE
- = SSA TEST PIT

DSA = DRUM STORAGE AREA A
SS = SOIL SAMPLE OR SURFACE SOIL
IRM = INTERIM REMEDIAL MEASURES
SSA = SUPPLEMENTARY SITE ASSESSMENT
SSI = SUPPLEMENTARY SITE INVESTIGATION
SB = SOIL BORING
TP = TEST PIT
* = TCLP TEST ABOVE CRITERIA FOR LEAD

NOTES:

1. BOLD VALUES ARE ABOVE TAGM4046 GUIDLINES BOXED VALUES ARE ABOVE PART 375 COMMERCIAL CRITERA.
2. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET OF SOIL.
3. METAL CONCENTRATIONS SHOWN IN ppm (mg/kg).
4. COMPLETE DATA CAN BE FOUND IN APPENDIX C (DRUM STORAGE AREA A).
5. SVOC CONCENTRATIONS IN PPB (ug/kg) BENZO(A)PYRENE EQUIVELENT (eq.) IS THE TOXICITY WEIGHTED SUM OF BENZO(A)ANTHRANCENE, BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE, CHRYSENE, DIBENZO(A,H)ANTHRACENE, IDENO(1,2,3-CD)PYRENE AND BENZO(A)PYRENE.
6. MAPPED CONSTITUENTS ARE A REPRESENTATIVE SUBSET OF PARAMETERS CHARACTERISTIC OF THE HISTORIC URBAN FILL FOUND THROUGHOUT THE SITE. SEE TEXT SECTION 4.1 FOR DISCUSSION

SCALE: IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

FORMER DRUM STORAGE AREA 'A' REPRESENTATIVE METALS AND PAH RESULTS ABOVE TAGM 4046 CRITERIA

AUGUST 2006 | SCALE 1" = 10' | Project No. 11664-001-147 | File Name: | Figure No. 4-1 | Issue: 0

Parameter	TAGM 4046 Soil Screening Criteria	NYDEC PART 375 Restricted Use Commercial (ppm draft)
Arsenic	7.5 or SB (3-12)	16
Cadmium	1 or SB (0.1-1)	9.3
Copper	25 or SB (1-50)	270
Lead	400	1000
Mercury	0.1	2.8
Benzo(a)pyrene eq.	61 or MDL (330)	1000

Parameter	SSI-DSB-1-SS 6-9		SSI-DSB-1-SB1 12-14		SSI-DSB- 1-SB1-12-14-DUP		SSI-DSB-1-SB2 21-24		SSI-DSB- 1-SB2-21-24-DUP		SSI-DSB-1-SB3 45-48	
	6-9		12-14		12-14		21-24		21-24		45-48	
Arsenic	1.9	J	5		4.8		***8.4***		***9.2***		**14**	
Cadmium	0.13		0.24		0.32		0.62		0.69		**1.2**	
Copper	14		**88**		**110**		**340**		**940**		**140**	
Lead	20		82		120		190		**830**		170	
Mercury	0.1		0.1		**0.11**		0.1		**0.12**		**0.14**	
Benzo(a)pyrene eq.	5951	U	**530**		**1913**		**491**		**3087**		**3498**	

Parameter	SSI-DSB-2-SS 6-9		SSI-DSB-2-SB1 12-14		SSI-DSB-2-SB2 21-24		SSI-DSB-2-SB3 45-48	
	6-9		12-14		21-24		45-48	
Arsenic	4.1		11		***8.2***		6.2	
Cadmium	0.091		**1.2**		0.91		0.4	
Copper	**34**		**330**		**650**		**100**	
Lead	33		300		**560**		170	
Mercury	0.1		**0.28**		**0.4**		**0.5**	
Benzo(a)pyrene eq.	**598**		**786**		**1322**		**4319**	J

Parameter	DSBSS-3S	DSBSS-3D
	0"-3" (shallow)	NA
Arsenic	***9***	7.1
Cadmium	0.56B	0.22U
Copper	**94.4**	***47.3***
Lead	83	147
Mercury	0.10U	**0.31**
Benzo(a)pyrene eq.	730 U	**584 J**

Parameter	SSI-DSB-3-SS 6-9		SSI-DSB-3-SB1 12-14		SSI-DSB-3-SB2 21-24		SSI-DSB-3-SB3 45-48	
	6-9		12-14		21-24		45-48	
Arsenic	**44**	J	**29**		***9.2***		6.5	
Cadmium	0.19		0.65		0.92		0.35	
Copper	25		**790**		**890**		**61**	
Lead	16		**610**		**550**		300	
Mercury	0.1		**0.36**		**0.4**		**0.8**	
Benzo(a)pyrene eq.	384	U	**1423**		**1382**		**4436**	

Parameter	DSBSS-1S	DSBSS-1D
	0"-3" (shallow)	NA
Arsenic	***7.6***	6.1
Cadmium	**2.3**	0.23U
Copper	**1450**	**79.6**
Lead	**657**	190
Mercury	**0.22**	**0.68**
Benzo(a)pyrene eq.	**344 J**	**374 J**

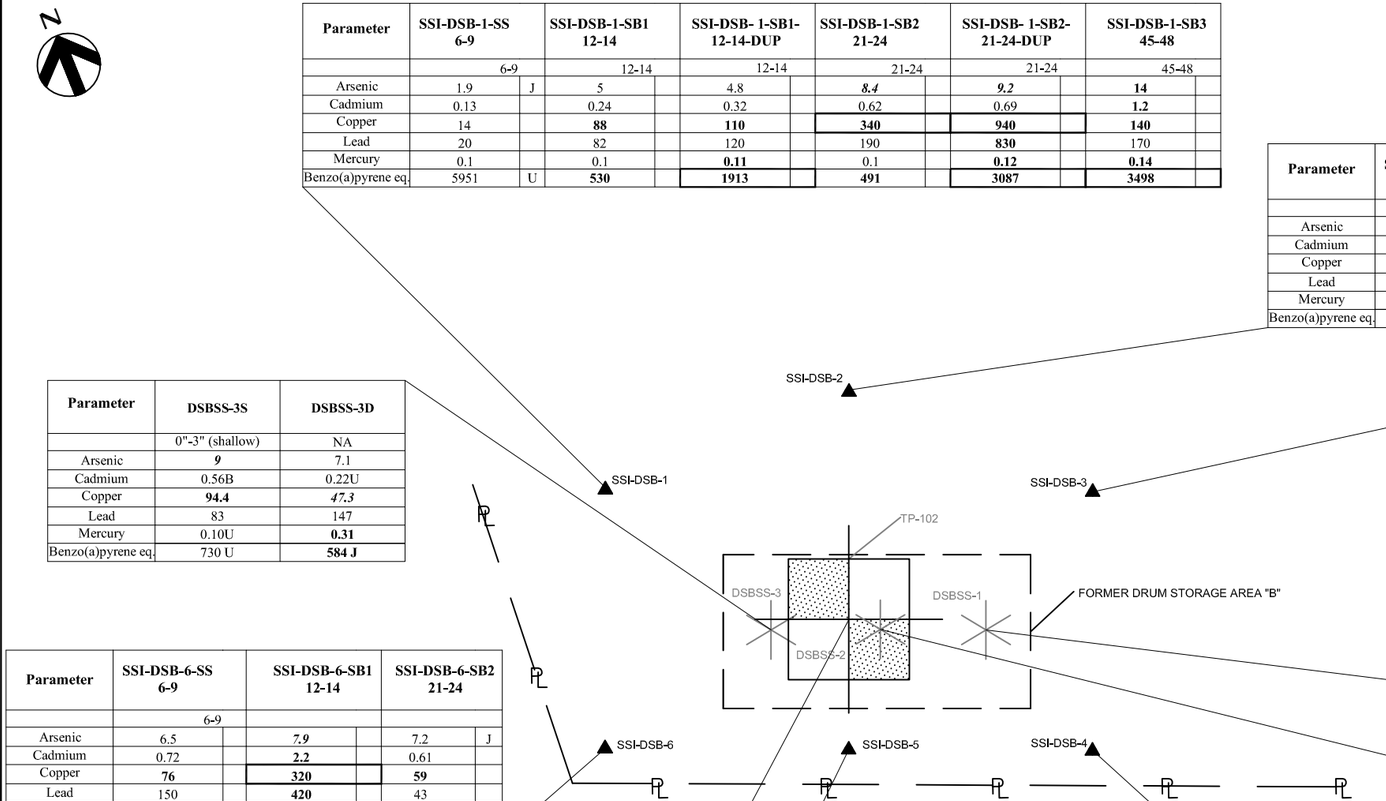
Parameter	SSI-DSB-6-SS 6-9		SSI-DSB-6-SB1 12-14		SSI-DSB-6-SB2 21-24	
	6-9					
Arsenic	6.5		***7.9***		7.2	J
Cadmium	0.72		**2.2**		0.61	
Copper	**76**		**320**		**59**	
Lead	150		**420**		43	
Mercury	**0.11**		**0.34**		**0.11**	
Benzo(a)pyrene eq.	**1780**	J	**1571**		**426**	J

Parameter	DSBSS-2S	DSBSS-2D
	0"-3" (shallow)	NA
Arsenic	***10.5***	***9.2***
Cadmium	**2.1**	0.22U
Copper	**806**	**114**
Lead	**1650**	213
Mercury	**0.32**	**0.28**
Benzo(a)pyrene eq.	**402 J**	**536**

Parameter	TP102-1S		TP102-2S (Duplicate)		TP102-2D	
	0" - 2" (shallow)				3.7' - 4.5' (deep)	
Arsenic	***9.3***		**12.8**		5.1	
Cadmium	**2.6**		**1.8**		0.22	U
Copper	**1090**		**901**		**64.8**	
Lead	**1440**		**1340**		210	
Mercury	**0.14**	U	**0.14**	U	**0.11** 12-14	U
Benzo(a)pyrene eq.	**501**	UJ	**518**	UJ	**209**	

Parameter	SSI-DSB-5-SS 6-9		SSI-DSB-5-SB1 12-14		SSI-DSB-5-SB2 21-24		SSI-DSB-5-SB3 45-48	
			12-14					
Arsenic	***8.4***		***8.1***		5.9		1.7	J
Cadmium	0.65		0.95		0.81		0.099	
Copper	**420**		**1100**		**63**		25	
Lead	**800**		**1500**		200		8.2	
Mercury	**0.43**		**5.4**		**3.1**		**0.11**	
Benzo(a)pyrene eq.	**404**		**8580**		252	J	266	

Parameter	SSI-DSB-4-SS 6-9		SSI-DSB-4-SB1 12-14		SSI-DSB-4-SB2 21-24		SSI-DSB-4-SB3 45-48	
	6-9		12-14		21-24		45-48	
Arsenic	***8.2***	J	5.7	J	5.5	J	0.38	J
Cadmium	0.16		0.37		0.48		**1.1**	
Copper	**28**		**64**		**150**		**64**	
Lead	110		**550**		**5300**		40	
Mercury	**0.11**		0.1		0.1		**0.11**	
Benzo(a)pyrene eq.	**1849**	J	**1402**	J	**503**	J	**691**	J



LEGEND:

- ▲ = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- PL = PROPERTY LINE
- = FENCE
- = FOUNDATION LIMIT
- SS-12 = IRM SOIL SAMPLE
- = SSA TEST PIT
- DSB = DRUM STORAGE AREA B
- IRM = INTERIM REMEDIAL MEASURES
- SSA = SUPPLEMENTARY SITE ASSESSMENT
- SSI = SUPPLEMENTARY SITE INVESTIGATION
- TP = TEST PIT

NOTES:

1. BOLD VALUES ARE ABOVE TAGM4046 GUIDLINES BOXED VALUES ARE ABOVE PART 375 COMMERCIAL CRITERA.
2. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET OF SOIL.
3. METAL CONCENTRATIONS SHOWN IN ppm (mg/kg).
4. COMPLETE DATA CAN BE FOUND IN APPENDIX C (DRUM STORAGE AREA A).
5. SVOC CONCENTRATIONS IN PPB (ug/kg) BENZO(A)PYRENE EQUIVELENT (eq.) IS THE TOXICITY WEIGHTED SUM OF BENZO(A)ANTHRANCENE, BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE, CHRYSENE, DIBENZO(A,H)ANTHRACENE, IDENO(1,2,3-CD)PYRENE AND BENZO(A)PYRENE.
6. MAPPED CONSTITUENTS ARE A REPRESENTATIVE SUBSET OF PARAMETERS CHARACTERISTIC OF THE HISTORIC URBAN FILL FOUND THROUGHOUT THE SITE. SEE TEXT SECTION 4.1 FOR DISCUSSION

SCALE IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HydroQual
HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

FORMER DRUM STORAGE AREA 'B' REPRESENTATIVE METALS AND PAH RESULTS ABOVE TAGM 4046 CRITERIA

AUGUST 2006	Project No. 11664-001-147	Figure No. 4-2	Issue: 0
SCALE 1" = 20'	File Name:		

N

Parameter	SSI-419-5-SB1 (12-14")		SSI-419-5-SB2 (45-48")	
	(12-14")		(45-48")	
Arsenic	2		14	
Cadmium	0.34		0.11	
Copper	**61**		***44***	
Lead	120		71	
Mercury	**0.73**		**0.16**	
Benzo(a)pyrene Eq.	**2488**		**1783**	

Parameter	SSI-419-16-SB1 (12-14)		SSI-419-16-SB2 (45-48)	
	(12-14)		(45-48)	
Arsenic	21		14	
Cadmium	**3.5**		0.24	
Copper	**420**		**87**	
Lead	**5200**		170	
Mercury	**1.8**		**0.28**	
Benzo(a)pyrene Eq.	**925**		**541**	J

Parameter	TAGM 4046 Soil Screening Criteria	NYDEC PART 375 Restricted Use Commercial (ppm draft)
Arsenic	7.5 or SB (3-12)	16
Cadmium	1 or SB (0.1-1)	9.3
Copper	25 or SB (1-50)	270
Lead	400	1000
Mercury	0.1	2.8
Benzo(a)pyrene Eq.	61 or MDL (330)	1000

Parameter	SSI-419-7-SB1 (12-14")		SSI-419-7-SB2 (45-48")	
	(12-14")		(45-48")	
Arsenic	20		43	
Cadmium	**4**		0.16	
Copper	**370**		***26***	
Lead	**1000**		220	
Mercury	**2.5**		**0.16**	
Benzo(a)pyrene Eq.	**11908**		**1161**	

Parameter	SSI-419-3-SB1 (12-14")		SSI-419-3-SB2 (45-48")	
	(12-14")		(45-48")	
Arsenic	5		4.3	
Cadmium	0.4		0.32	
Copper	**58**		**140**	
Lead	100		230	
Mercury	**0.23**		**0.52**	
Benzo(a)pyrene Eq.	**10655**		**10633**	

Parameter	SSI-419-1-SB1 (12-14)		SSI-419-SB3 (45-48")		SSI-419-SB4 (72-75")	
	(12-14)		(45-48")		(72-75")	
Arsenic	18		6.9		3.4	
Cadmium	**10**		0.1		0.06	
Copper	**420**		***35***		**64**	
Lead	**960**		82		46	
Mercury	**0.92**		**0.13**		**0.11**	
Benzo(a)pyrene Eq.	**1044**		**799**		**874**	

Parameter	SSI-419-11-SB1 (12-14)		SSI-419-11-SB2 (45-48)	
	(12-14)		(45-48)	
Arsenic	4.8		5.4	
Cadmium	0.22		0.31	
Copper	***45***		**89**	
Lead	61		120	
Mercury	**0.22**		**0.2**	
Benzo(a)pyrene Eq.	**4660**		**22899**	

Parameter	SSI-419-9-SB1 (12-14)		SSI-419-9-SB2 (45-48)	
	(12-14)		(45-48)	
Arsenic	3.3	J	7.9	
Cadmium	**1.1**		0.087	
Copper	8.8		25	
Lead	7.4		68	
Mercury	**0.11**	J	0.099	
Benzo(a)pyrene Eq.	**2126**	U	**2007**	J

SSI-419-5
SSI-419-6
SSI-419-16
SSI-419-4
SSI-419-7
419SS-2S
419SS-2D
419SS-3S
419SS-3D
419SS-1S
419SS-1D
(DOOR)
TRANSFORMER PAD
SSI-419-3
FORMER BUILDING 419
419SS 12S
419SS-12D
419SS-4S
419SS-4D
419SS-10S
419SS-10D
SSI-419-8
SSI-419-2
419SS-5S
419SS-5D
SSI-419-1
SSI-419-10
419SS-7S
419SS-7D
419SS-6S
419SS-6D
SSI-419-9
419SS-9S
419SS-13S
419SS-13D
419SS-11S
419SS-11D
SSI-419-11
SSI-419-12

LEGEND:

▲ = SSI SURFACE SOIL SAMPLE (0-3")
⊠ = SSI SURFACE AND SUBSURFACE

■ =SAMPLE NOT ANALYZED FOR METALS

NOTES:

1. BOLD VALUES ARE ABOVE TAGM4046 GUIDLINES BOXED VALUES ARE ABOVE PART 375 COMMERCIAL CRITERA.
2. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET OF SOIL.
3. METAL CONCENTRATIONS SHOWN IN ppm (mg/kg).
4. COMPLETE DATA CAN BE FOUND IN APPENDIX C TABLE BUILDING 419 AND SURROUNDING AREA .
5. SVOC CONCENTRATIONS IN PPB (ug/kg). BENZO(A)PYRENE EQUIVELENT (eq.) IS THE TOXICITY WEIGHTED SUM OF BENZO(A) ANTHRANCENE, BENZO(B)FLUORANTHENE BENZO (K)FLUORANTHENE, CHRYSENE, DIBENZO(A,H) ANTHRACENE, IDENO(1,2,3-CD)PYRENE AND BENZO (A)PYRENE.
6. MAPPED CONSTITUENTS ARE A REPRESENTATIVE SUBSET OF PARAMTERS CHARACTERISTIC OF THE HISTORIC URBAN URBAN FILL FOUND THROUGHOUT THE SITE. SEE TEXT SECTION 4.1 FOR DISCUSSION
7. SAMPLE LOCATIONS SSI-419-14 AND SSI-419-15 ARE PLOTTED ON FIGURE 4-4

SCALE IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL REMEDIAL INVESTIGATION REPORT

FORMER BUILDING 419 REPRESENTATIVE METAL AND PAH RESULTS ABOVE TAGM 4046 CRITERIA

AUGUST 2006 | SCALE 1"=10' | Project No. 11664-001-147 | File Name: | Figure No. 4-3 | Issue: 0

\\MEADOWLANDS\1091\BLVN_NAV_YD_TD_16\RI_REPORT\FIGURES_083006\FIG_4-3_RESULTS METALS.DWG 09/21/2006 LAYOUT: 11X17

Parameter	SSI-MW12-4-SS (0-3)	SSI-MW12-4-SB1 (12-14)	SSI-MW12-4-SB2 (21-24)
	(0-3)	(12-14)	(21-24)
Arsenic	NM	1.3 J	NM
Cadmium	NM	1	NM
Copper	NM	**77**	NM
Lead	6.6	7	39
Mercury	NM	0.1 J	NM

Parameter	SSI-MW12-4-SB1 (12-14)
	(12-14)
Benzo(a)pyrene Eq.	**3990** J

Parameter	SSI-MW12-1-SS (6-9)	SSI-MW12-1-SB1 (12-14)	SSI-MW12-1-SB1 (12-14)DUP	SSI-MW12-1-SB2 (21-24)	SSI-MW12-1-SB2 (21-24)DUP
	(6-9)	(12-14)	(12-14)	(21-24)	(21-24)
Arsenic	NM	NM	NM	NM	NM
Cadmium	NM	NM	NM	NM	NM
Copper	NM	NM	NM	NM	NM
Lead	33	25	10	22	240
Mercury	NM	NM	NM	NM	NM

Parameter	MW12S-SS1S	MW12S-SS1D	MW12S-SS2S (Duplicate)
	0" - 2" (shallow)	2" - 10' (deep)	0" - 2" (shallow)
Arsenic	**9.8**	7.7	***10.2***
Cadmium	**3.6**	0.79 B	**3.3**
Copper	**837**	**114**	**802**
Lead	**714**	197	**4440**
Mercury	**1.3**	**0.87**	**1.2**

Parameter	MW12S-SS1S	MW12S-SS1D	MW12S-SS2S (Duplicate)
	0" - 2" (shallow)	2" - 10' (deep)	0" - 2" (shallow)
Benzo(a)pyrene Eq.	**1159**	**280** UJ	**843** J

Parameter	MW12D-SS1
	15.5' - 18' (deep)
Arsenic	***8.4***
Cadmium	0.27 U
Copper	9.9
Lead	12.1
Mercury	**0.13** U

Parameter	MW12D-SS1
	15.5' - 18' (deep)
Benzo(a)pyrene Eq.	**508** U

Parameter	SSI-MW12-2-SS (0-3)	SSI-MW12-2-SB1 (12-14)	SSI-MW12-2-SB2 (21-24)
	(0-3)	(12-14)	(21-24)
Arsenic	NM	NM	NM
Cadmium	NM	NM	NM
Copper	NM	NM	NM
Lead	150	12	160
Mercury	NM	NM	NM

Parameter	SSI-419-14-SS (0-3")	SSI-419-14-SB1 (12-14")	SSI-419-14-SB2 (21-24")	SSI-419-14-SB3 (45-48")	SSI-419-14-SB4 (72-75")
	(0-3")	(12-14")	(21-24")	(45-48")	(72-75")
Arsenic	38	**56**	**26**	11 J	10 J
Cadmium	**2.7**	**3.4**	**7.7**	**1.7** J	**1.7** J
Copper	**210**	**340**	**600**	22	19
Lead	**640**	**970**	**1200**	31	21
Mercury	**0.74**	**1**	**0.85**	**0.12**	**0.12**

Parameter	SSI-419-14-SS (0-3")	SSI-419-14-SB1 (12-14")	SSI-419-14-SB2 (21-24")	SSI-419-14-SB3 (45-48")	SSI-419-14-SB4 (72-75")
	(0-3")	(12-14")	(21-24")	(45-48")	(72-75")
Benzo(a)pyrene Eq.	**2251**	**19617**	**13058**	**453** UJ	**456** U

Parameter	TP108-1S	TP108-1D
	1' - 1.2' (shallow)	1.3' - 1.5' (deep)
Arsenic	3.4	**13.2**
Cadmium	0.22 U	0.25 U
Copper	**61.2**	**89.1**
Lead	131	342
Mercury	**0.22**	**0.73**

Parameter	TP108-1S	TP108-1D
	1' - 1.2' (shallow)	1.3' - 1.5' (deep)
Benzo(a)pyrene Eq.	**973** J	**1004**

Parameter	TP104-1S	TP104-1D
	0" - 2" (shallow)	5' - 5.5' (deep)
Arsenic	2.6	**49.8**
Cadmium	0.21 U	0.39 B
Copper	**337**	**216**
Lead	72.8	115
Mercury	0.1 U	**0.41**

Parameter	TP104-1S	TP104-1D
	0" - 2" (shallow)	5' - 5.5' (deep)
Benzo(a)pyrene Eq.	**404** UJ	**365** UJ

Parameter	TP106-1S	TP106-1D
	1.3' - 1.5' (shallow)	5.4' - 6.4' (deep)
Arsenic	6.4	4.7
Cadmium	0.22 U	0.23 U
Copper	**71.9**	17
Lead	135	24.5
Mercury	**0.11** U	**0.12** U

Parameter	TP106-1S	TP106-1D
	1.3' - 1.5' (shallow)	5.4'-6.4' (deep)
Benzo(a)pyrene Eq.	**2491**	**451** U

Parameter	SSI-MW5-1-SS (0-3")	SSI-MW5-1-SB1 (12-14")	SSI-MW5-1-SB1 (12-14")DUP	SSI-MW5-1-SB2 (21-24")	SSI-MW5-1-SB2 (21-24")DUP
	(0-3")	(12-14")	(12-14")	(21-24")	(21-24")
Arsenic	NM	NM	NM	NM	NM
Cadmium	NM	NM	NM	NM	NM
Copper	NM	NM	NM	NM	NM
Lead	170	44	72	7.3	11
Mercury	NM	NM	NM	NM	NM

Parameter	MW4SR-SS1D	MW4SR-SS1S
	4' - 6' (deep)	1' - 1. 5' (shallow)
Arsenic	**12.8**	**9.8**
Cadmium	0.24 B	0.35 B
Copper	**70.7**	**155**
Lead	104	98
Mercury	**0.12** U	**0.32**

Parameter	MW4SR-SS1D	MW4SR-SS1S
	4' - 6' (deep)	1' - 1. 5' (shallow)
Benzo(a)pyrene Eq.	**347** J	**483** J

Parameter	MW4DR-SS1
	15' - 16' (deep)
Arsenic	0.34 U
Copper	24
Lead	18.3
Mercury	**0.79**

Parameter	MW4DR-SS1
	15' - 16' (deep)
Benzo(a)pyrene Eq.	**670** U

Parameter	SSI-419-15-SS (0-3")	SSI-419-15-SB1 (12-14")	SSI-419-15-SB2 (21-24")
	(0-3")	(12-14")	(21-24")
Arsenic	1.1 J	5.1	7.4
Cadmium	1	0.23	0.12
Copper	**81**	**340**	**110**
Lead	9.8	**510**	97
Mercury	0.1 J	**0.2**	**0.16**

Parameter	SSI-419-15-SS (0-3")	SSI-419-15-SB1 (12-14")	SSI-419-15-SB2 (21-24")
	(0-3")	(12-14")	(21-24")
Benzo(a)pyrene Eq.	**1365** J	**1163** J	**1762** J

Parameter	METALS: TAGM 4046 Soil Screening Criteria	NYDEC PART 375 Restricted Use Commercial (ppm draft)
Arsenic	7.5 or SB (3-12)	16
Cadmium	1 or SB (0.1-1)	9.3
Copper	25 or SB (1-50)	270
Lead	400	1000
Mercury	0.1	2.8

Parameter	PAHs: TAGM 4046 Soil Screening Criteria	NYDEC PART 375 Restricted Use Commercial (ppb draft)
Benzo(a)pyrene Equivalent	61 or MDL (330)	1000

SVOCs	
TAGM4046 Standards	ppb
SVOC Total	500000
SVOC Individual	50000

Parameter	TP107-1S	TP107-1D
	0" - 2" (shallow)	2.5' - 3' (deep)
Arsenic	7.2	**15.5**
Cadmium	**1.5**	0.24 U
Copper	**176**	**84.4**
Lead	236	220
Mercury	**0.25**	**4.7**

Parameter	TP107-1S	TP107-1D
	0" - 2" (shallow)	2.5' - 3' (deep)
Benzo(a)pyrene Eq.	**449** UJ	**1334**

Parameter	SSI-MW5-2-SS (0-3")	SSI-MW5-2-SB1 (12-14")	SSI-MW5-2-SB2 (21-24")	SSI-MW5-2-SB3 (45-48")
	(0-3")	(12-14")	(21-24")	(45-48")
Arsenic	NM	9.6	NM	6.4
Cadmium	NM	**2.3**	NM	0.39
Copper	NM	**240**	NM	**58**
Lead	360	170	79	350
Mercury	NM	**0.16**	NM	**0.32**

Parameter	SSI-MW5-2-SB1 (12-14")	SSI-MW5-2-SB3 (45-48")
	(12-14)	(21-24)
Benzo(a)pyrene Eq.	**5934**	**20206**

Parameter	MW5SR-SS1S	MW5SR-SS2S (Duplicate)	MW5SR-SS1D
	0" - 2" (shallow)	0" - 2" (shallow)	14' - 16' (deep)
Arsenic	**25.2**	**24.9**	9.1
Cadmium	**3.7**	**2.9**	0.22 U
Copper	**427**	**440**	**233**
Lead	**700**	**675**	**322**
Mercury	**1.4**	**1.4**	**1.1**

Parameter	MW5SR-SS1S	MW5SR-SS2S (Duplicate)	MW5SR-SS1D
	0" - 2" (shallow)		14' - 16' (deep)
Benzo(a)pyrene Eq.	**474** U	**485** U	**912**

Parameter	TP103-1S	TP103-1D
	1.3' - 1.5' (shallow)	7.5' (deep)
Arsenic	7.4	3.7
Cadmium	0.26 B	0.22 U
Copper	**79**	**51.7**
Lead	131	131
Mercury	**0.27**	**0.23**

Parameter	TP103-1S	TP103-1D
	1.3' - 1.5' (shallow)	7.5' (deep)
Benzo(a)pyrene Eq.	**209** J	187 U

Parameter	SSI-419-13-SS (0-3)	SSI-419-13 (12-14)	SSI-419-13 (21-24)	SSI-419-13 (45-48)	SSI-419-13 (72-75)
	(0-3)	(12-14)	(21-24)	(45-48)	(72-75)
Arsenic	4	4.9	***8.4***	3.8 J	4.3
Cadmium	0.16	0.25	0.32	0.056 J	**1.1**
Copper	***44***	***48***	**190**	21	19
Lead	49	78	200	38	12
Mercury	**0.35**	0.1	**0.12**	**0.13**	**0.12**

Parameter	SSI-419-13-SS (0-3)	SSI-419-13 (12-14)	SSI-419-13 (21-24)	SSI-419-13 (45-48)	SSI-419-13 (72-75)
	(0-3)	(12-14)	(21-24)	(45-48)	(72-75)
Benzo(a)pyrene Eq.	**4921**	**8932**	**1892**	**252**	**468** U

Parameter	SSI-SS11-1-SB1 (12-14)	SSI-SS11-1-SB2 (21-24)
	(12-14)	(21-24)
Arsenic	NM	NM
Cadmium	NM	NM
Copper	NM	NM
Lead	140	**970**
Mercury	NM	NM

Parameter	SSI-SS11-2-SS (0-3)	SSI-SS11-2-SB2 (21-24)
	(0-3)	(21-24)
Arsenic	NM	NM
Cadmium	NM	NM
Copper	NM	NM
Lead	82	49
Mercury	NM	NM

Parameter	SS12-1S	SS12-1D
	0" - 3" (shallow)	1' - 1.2' (deep)
Arsenic	4.3	4.4
Cadmium	0.21 U	0.21 U
Copper	**80.8**	**272**
Lead	367	295
Mercury	**0.2**	**0.11** U

Parameter	SS12-1S	SS12-1D
	0" - 3" (shallow)	1' - 1.2' (deep)
Benzo(a)pyrene Eq.	**823** J	**747** J

Parameter	TP105-1S	TP105-1D
	0" - 2" (shallow)	5.5' - 6' (deep)
Arsenic	5.3	3.7
Cadmium	0.21 U	0.23 U
Copper	**124**	12.4
Lead	247	11.7
Mercury	0.1 U	**0.12** U

Parameter	TP105-1S	TP105-1D
	0" - 2" (shallow)	5.5' - 6' (deep)
Benzo(a)pyrene Eq.	**596** J	**451** U

Parameter	SSI-SS11-4-SS (0-3)	SSI-SS11-4-SB1 (12-14)	SSI-SS11-4-SB1 (12-14)DUP	SSI-SS11-4-SB2 (21-24)
	(0-3)	(12-14)	(12-14)	(21-24)
Arsenic	NM	NM	NM	NM
Cadmium	NM	NM	NM	NM
Copper	NM	NM	NM	NM
Lead	32	66	36	94
Mercury	NM	NM	NM	NM

Parameter	SS11-1S	SS11-1D
	0" - 3" (shallow)	1' - 1.2' (deep)
Arsenic	5.6	***11.7***
Cadmium	**1.4**	**13.6**
Copper	**178**	**590**
Lead	191	**2070**
Mercury	**0.21**	**1.9**

Parameter	SS11-1S	SS11-1D
	0" - 3" (shallow)	1' - 1.2' (deep)
Benzo(a)pyrene Eq.	**291** J	**4318** J

Parameter	SSI-SS11-3-SS (0-3)	SSI-SS11-3-SB1 (12-14)	SSI-SS11-3-SB2 (21-24)	SSI-SS11-3-SB2 (21-24)DUP	SSI-SS11-3-SB3 (45-48)
	(0-3)	(12-14)	(21-24)	21-24	(45-48)
Arsenic	NM	**13**	NM	NM	2.9
Cadmium	NM	**2.9**	NM	NM	0.051
Copper	NM	**72**	NM	NM	23
Lead	82	150	61	100	**1200**
Mercury	NM	NM	NM	NM	**0.11**

Parameter	SSI-SS11-3-SB1 (12-14)	SSI-SS11-3-SB3 (45-48)
	(12-14)	(45-48)
Benzo(a)pyrene Eq.	**10470**	**253** J

Parameter	SSI-SS9-2-SS-6-9	SSI-SS9-2-SB1-12-14	SSI-SS9-2-SB2-21-24	SSI-SS9-2-SB3-45-48	SSI-SS9-2-SB4-72-75
	6-9	12-14	21-24	45-48	72-75
Arsenic	2.9 J	**8.2** J	2.5 J	**170**	3.3
Cadmium	0.12	0.21	0.14	0.44	0.11
Copper	**190**	19	9.7	**70**	**110**
Lead	27	41 J	46	210 J	130
Mercury	**0.11** J	**0.12** J	**0.11** J	**0.57**	**0.35**

	SSI-SS9-2-SB3 45-48
Anthracene	157000
Fluoranthene	162000
Pyrene	82500
Total SVOC	583560

Parameter	SSI-SS9-2-SS-6-9	SSI-SS9-2-SB1-12-14	SSI-SS9-2-SB2-21-24
	(6-9)	12-14	(21-24)
Benzo(a)pyrene Eq.	**1765**	**355** J	**410** J

Parameter	SS9-1S	SS9-1D
	0" - 3" (shallow)	1' - 1.2' (deep)
Arsenic	2.3	6.9
Cadmium	0.61 B	0.28 B
Copper	**272**	**71.6**
Lead	34.8	103
Mercury	**0.11** U	**0.11** U

Parameter	SS9-1S	SS9-1D
	0" - 3" (shallow)	1' - 1.2' (deep)
Benzo(a)pyrene Eq.	**404** UJ	**5105** J

Parameter	SSI-SS9-1-SS-6-9	SSI-SS9-1-SB1-12-14	SSI-SS9-1-SB2-21-24	SSI-SS9-1-SB3-45-48	SSI-SS9-1-SB4-72-75
	6-9	12-14	21-24	45-48	72-75
Arsenic	**22** J	5.8	3.4	3 J	7
Cadmium	0.65	0.53	0.16	**1.1**	0.37
Copper	**62**	**270**	**150**	14	**57**
Lead	55	**1400**	140	4.4	210
Mercury	0.1	**0.24**	**0.12**	**0.11** J	**0.46**

Parameter	SSI-SS9-1-SS-6-9	SSI-SS9-1-SB1-12-14	SSI-SS9-1-SB4-72-75
	(6-9)	(12-14)	(72-75)
Benzo(a)pyrene Eq.	**4079** U	**621**	**4696** J

Parameter	SSI-SS9-3-SS-6-9	SSI-SS9-3-SB1-12-14	SSI-SS9-3-SB2-21-24	SSI-SS9-3-SB3-45-48	SSI-SS9-3-SB4-72-75
	6-9	12-14	21-24	45-48	72-75
Arsenic	5.9 J	3.2 J	3.1 J	**47**	2.8 J
Cadmium	0.18	0.11	0.18	0.55	0.081
Copper	***33***	***30***	25	**200**	17
Lead	35	65 J	210 J	130	56 J
Mercury	**0.11** J	**0.11** J	**0.11** J	**0.27**	**0.11** J

Parameter	SSI-SS9-3-SS-6-9	SSI-SS9-3-SB1-12-14	SSI-SS9-3-SB2-21-24	SSI-SS9-3-SB3-45-48	SSI-SS9-3-SB4-72-75
	(6-9)	12-14	(21-24)	(45-48)	(72-75)
Benzo(a)pyrene Eq.	**1292** J	**424** J	**465** J	**1284**	**902**

Parameter	SS10-1S	SS10-1D
	0" - 3" (shallow)	1' - 1.2' (deep)
Arsenic	1.8 B	4.7
Cadmium	**1.3**	1 B
Copper	**222**	***30.2***
Lead	38.8	128
Mercury	0.1 U	**0.11** U

Parameter	SS10-1S	SS10-1D
	0" - 3" (shallow)	1' - 1.2' (deep)
Benzo(a)pyrene Eq.	**404** U	**563** J

Parameter	MW6SR-SS1S	MW6SR-SS1D
	0" - 2" (shallow)	8' - 10' (deep)
Arsenic	4.1	2.3 B
Cadmium	0.49 B	0.23 U
Copper	**138**	14.4
Lead	96.4	8.6
Mercury	**0.76**	**0.12** U

Parameter	MW6SR-SS1S	MW6SR-SS1D
	0" - 2" (shallow)	8' - 10' (deep)
Benzo(a)pyrene Eq.	**721** J	**451** U

Parameter	SSI-MW6-1-SS-0-3	SSI-MW6-1-SS-0-3-DUP	SSI-MW6-1-SB1-12-14	SSI-MW6-1-SB2-21-24	SSI-MW6-1-SB2-21-24-DUP	SSI-MW6-1-SB3-45-48	SSI-MW6-1-SB4-72-75
	0-3	0-3	12-14	21-24	21-24-DUP	45-48	72-75
Arsenic	3.5 J	1.1 J	**17**	**17** J	**24** J	***12***	2.1 J
Cadmium	0.19	0.061	0.28	0.16 J	0.26	**1.1**	**1.1** J
Copper	**150**	**41**	**45**	**41**	**59**	**1500**	**41**
Lead	37	12	31 J	12 J	61 J	**1100**	17
Mercury	**0.11**	**0.11** J	**0.31** J	0.13 J	0.13	**0.92**	0.11

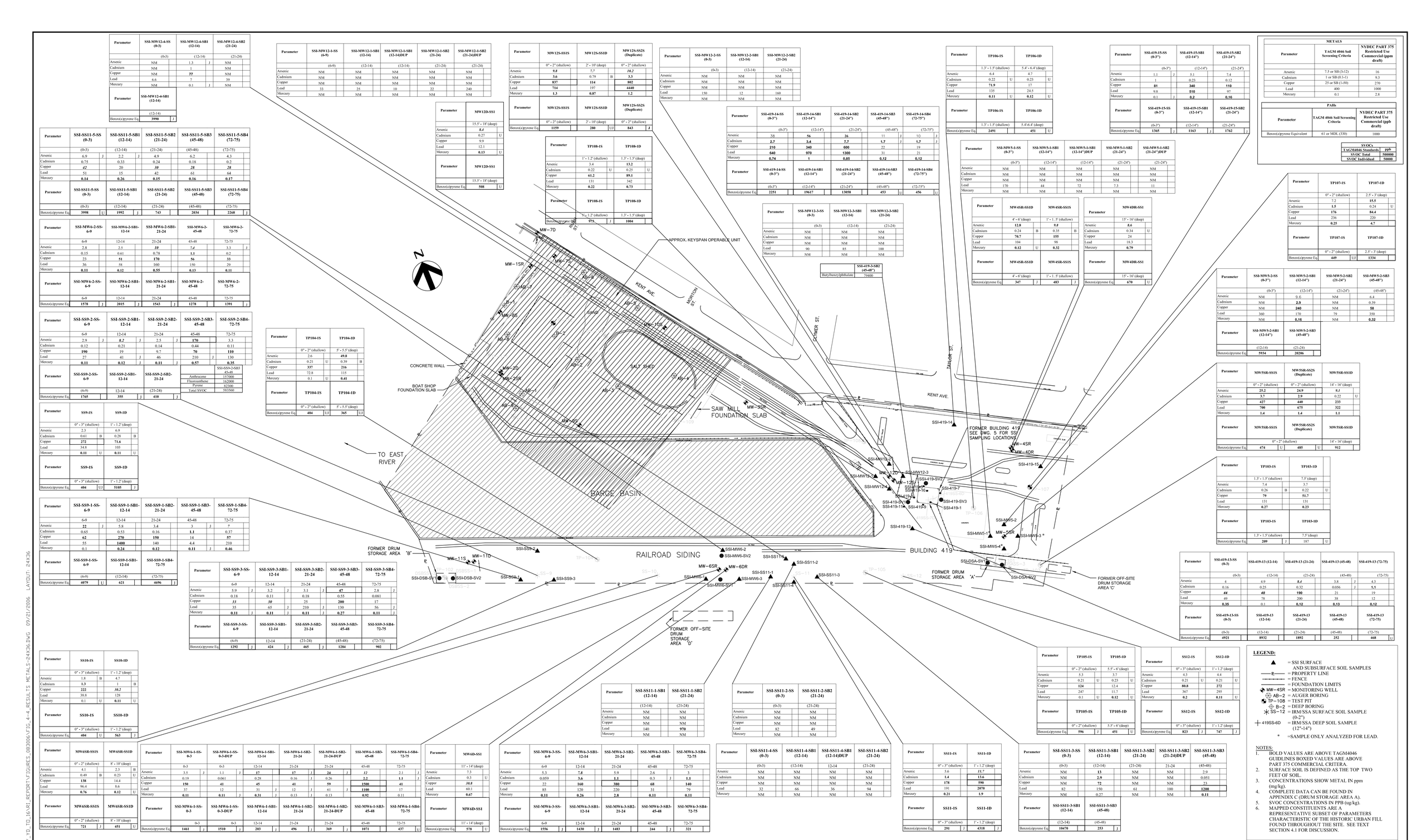
Parameter	SSI-MW6-1-SS-0-3	SSI-MW6-1-SS-0-3-DUP	SSI-MW6-1-SB1-12-14	SSI-MW6-1-SB2-21-24	SSI-MW6-1-SB2-21-24-DUP	SSI-MW6-1-SB3-45-48	SSI-MW6-1-SB4-72-75
	0-3	0-3	12-14	21-24	21-24	45-48	72-75
Benzo(a)pyrene Eq.	**1461** J	**1510** J	**203** J	**496** J	**369** J	**1071**	**437** U

Parameter	MW6D-SS1
	11' - 14' (deep)
Arsenic	7.3
Cadmium	0.3 U
Copper	***10.8***
Lead	60.1
Mercury	**0.67**

Parameter	MW6D-SS1
	11' - 14' (deep)
Benzo(a)pyrene Eq.	**578** U

Parameter	SSI-MW6-3-SS-6-9	SSI-MW6-3-SB1-12-14	SSI-MW6-3-SB2-21-24	SSI-MW6-3-SB3-45-48	SSI-MW6-3-SB4-72-75
	6-9	12-14	21-24	45-48	72-75
Arsenic	5.3	**7.8**	5.9	2.6	3
Cadmium	0.059	**3.6**	**1.1**	0.3 J	**1.1**
Copper	22	**160**	**380**	**68**	**140**
Lead	85	120	220	31	79
Mercury	**0.11**	**0.26**	**2.8**	**0.11**	**0.11**

Parameter	SSI-MW6-3-SS-6-9	SSI-MW6-3-SB1-12-14	SSI-MW6-3-SB2-21-24	SSI-MW6-3-SB3-45-48	SSI-MW6-3-SB4-72-75
	6-9	12-14	21-24	45-48	72-75
Benzo(a)pyrene Eq.	**1556** J	**1430** J	**1483** J	**244** J	**321**



REV. NO.	DESCRIPTION OF REVISION	APPROVAL	DATE
1			
2			
3			
4			
5			
6			
7			

SEAL:

Gary J. DiPippo, P.E. DATE:
NY P.E. LICENSE NO. 055964-1

DATE: 8/21/06
SCALE: AS SHOWN
CAD FILE NO.: XX
DESIGNED BY: XX
DRAWN BY: XX
CHECKED BY: XX

HydroQual

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL REMEDIAL INVESTIGATION REPORT

SITE CHARACTERIZATION REPRESENTATIVE METAL, POLYCYCLIC AROMATIC HYDROCARBON, AND SVOCs RESULTS ABOVE TAGM 4046 CRITERIA

PROJECT NO. NYCS.020.016.001

DRAWING NO. 4-4

LEGEND:

- ▲ = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- = PROPERTY LINE
- = FENCE
- = FOUNDATION LIMITS
- MW-4SR = MONITORING WELL
- AB-2 = AUGER BORING
- TP-108 = TEST PIT
- B-2 = DEEP BORING
- SS-12 = IRM/SSA SURFACE SOIL SAMPLE (0-2")
- 419SS-6D = IRM/SSA DEEP SOIL SAMPLE (12"-14")
- * =SAMPLE ONLY ANALYZED FOR LEAD.

NOTES:
1. BOLD VALUES ARE ABOVE TAGM4046 GUIDLINES BOXED VALUES ARE ABOVE PART 375 COMMERCIAL CRITERA.
2. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET OF SOIL.
3. CONCENTRATIONS SHOW METAL IN ppm (mg/kg).
4. COMPLETE DATA CAN BE FOUND IN APPENDIX C (DRUM STORAGE AREA A).
5. SVOC CONCENTRATIONS IN PPB (ug/kg).
6. MAPPED CONSTITUENTS ARE A REPRESENTATIVE SUBSET OF PARAMETERS CHARACTERISTIC OF THE HISTORIC URBAN FILL FOUND THROUGHOUT THE SITE. SEE TEXT SECTION 4.1 FOR DISCUSSION.

Parameter	SSI-419-3-SB2 (45-48")
Butylbenzylphthalate	79400

\\MEADOWLANDS\109\BLYN_NAV_YD_TO_16\RI_REPORT\FIGURES_083006\FIG_4-4_RESULTS METALS-24X36.DWG 09/21/2006 LAYOUT: 24X36

Table 4-1
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area A
Representative Soil Analytical Results Above TAGM 4046 Criteria

Parameter	Depth	Arsenic	Copper	Lead	Mercury	Benzo(a)pyrene Equivalent
Units		ppm	ppm	ppm	ppm	ppb
TAGM 4046 Soil Screening Criteria		7.5 or SB (3-12)	25 or SB (1-50)	400	0.1	61 or MDL (330)
NYDEC PART 375 Restricted Use Commercial (ppm draft)		16	270	1000	2.8	1000
DSASS-1S	0" - 3" (shallow)		***36.5***			**247 J**
DSASS-1D	NA		***29.9***		**0.27**	**268 J**
DSASS-2S	0" - 3" (shallow)		**74.6**			
DSASS-2D	NA		**56**		**0.11U**	**165 J**
DSASS-3S	0" - 3" (shallow)		**71.1**			**286 J**
DSASS-3D	NA		**105**		**0.69**	**474 J**
TP101-1S	1' - 1.2' (shallow)		***38.1***			
TP101-1D	6.3' - 7' (deep)	**17.9**	**135**		**0.24**	**1213**
SSI-DSA-1-SB1 (12-14)	(12-14)	NM	NM	**1100**	NM	NM
SSI-DSA-1-SB2 (21-24)	(21-24)	NM	NM	**980**	NM	NM
SSI-DSA-2-SB1 (12-14)	(12-14)	NM	NM	**420**	NM	NM

Benzo(a)pyrene Equivalent is weighted sum of: Benzo(a)pyrene (1), Benzo(a)anthracene (0.1), Benzo(b)fluoranthene (0.1), Benzo(k)fluoranthene (0.01), Chrysene (0.001), Dibenz(a,h)anthracene (1), and Indeno(1,2,3-cd)pyrene (0.1)
ppm - parts per million
ppb - parts per billion
U - The analyte was analyzed for but not detected
B - Indicates the analyte was found in the blank as well as the sample.
J - Indicates the analyze was found in the blank as well as the sample.
R - Failure to meet quality control criteria the value is rejected and considered unusable.
NM - Analysis not performed.

Table 4-2
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Representative Soil Analytical Results Above TAGM 4046 Criteria

Parameter	Depth	Arsenic	Cadmium	Copper	Lead	Mercury	Benzo(a)pyrene Equivalent
Units		ppm	ppm	ppm	ppm	ppm	ppb
TAGM 4046 Soil Screening Criteria		7.5 or SB (3-12)	1 or SB (0.1-1)	25 or SB (1-50)	400	0.1	61 or MDL (330)
NYDEC PART 375 Restricted Use Commercial (ppm draft)		16	9.3	270	1000	2.8	1000
DSBSS-1S	0"-3" (shallow)	*7.6*	2.3	1450	657	0.22	344 J
DSBSS-1D	NA			79.6		0.68	374 J
DSBSS-2S	0"-3" (shallow)	*10.5*	2.1	806	1650	0.32	402 J
DSBSS-2D	NA	*9.2*		114		0.28	536
DSBSS-4A (Duplicate)	0"-3" (shallow)	*10.7*	2.4	524	733	0.35	692
DSBSS-3S	0"-3" (shallow)	*9*		94.4			
DSBSS-3D	NA			*47.3*		0.31	584 J
TP102-1S	0" - 2" (shallow)	*9.3*	2.6	1090	1440	0.14U	501UJ
TP102-2S (Duplicate)	0" - 2" (shallow)	12.8	1.8	901	1340	0.14U	518UJ
TP102-2D	3.7' - 4.5' (deep)			64.8		0.11U	209
SSI-DSB-1-SB1 12-14	12-14			88			530
SSI-DSB- 1-SB1-12-14-DUP	12-14			110		0.11	1913
SSI-DSB-1-SB2 21-24	21-24	*8.4*		340			491
SSI-DSB- 1-SB2-21-24-DUP	21-24	*9.2*		940	830	0.12	3087
SSI-DSB-1-SB3 45-48	45-48	14	1.2	140		0.14	3498
SSI-DSB-2-SS 6-9	6-9			34			598
SSI-DSB-2-SB1 12-14	12-14	*11*	1.2	330		0.28	786
SSI-DSB-2-SB2 21-24	21-24	*8.2*		650	560	0.4	1322
SSI-DSB-2-SB3 45-48	45-48			100		0.5	4319J
SSI-DSB-3-SS 6-9	6-9	44J					
SSI-DSB-3-SB1 12-14	12-14	29		790	610	0.36	1423
SSI-DSB-3-SB2 21-24	21-24	*9.2*		890	550	0.4	1382
SSI-DSB-3-SB3 45-48	45-48			61		0.8	4436
SSI-DSB-4-SS 6-9	6-9	*8.2J*		28		0.11	1849J
SSI-DSB-4-SB1 12-14	12-14			64	550		1402J
SSI-DSB-4-SB2 21-24	21-24			150	5300		503J
SSI-DSB-4-SB3 45-48	45-48		1.1	64		0.11	691J
SSI-DSB-5-SS 6-9	6-9	*8.4*		420	800	0.43	404
SSI-DSB-5-SB1 12-14	12-14	*8.1*		1100	1500	5.4	8580
SSI-DSB-5-SB2 21-24	21-24			63		3.1	252J
SSI-DSB-5-SB3 45-48	45-48					0.11	266
SSI-DSB-6-SS 6-9	6-9			76		0.11	1780J
SSI-DSB-6-SB1 12-14	12-14	*7.9*	2.2	320	420	0.34	1571
SSI-DSB-6-SB2 21-24	21-24			59		0.11	426J
SSI-DSB-6-SB3 45-48	45-48			42		0.33	613J

Benzo(a)pyrene Equivalent is weighted sum of: Benzo(a)pyrene (1), Benzo(a)anthracene (0.1), Benzo(b)fluoranthene (0.1), Benzo(k)fluoranthene (0.01),
ppm - parts per million
ppb - parts per billion
U - The analyze was analyzed for but not detected
B - Indicates the analyte was found in the blank as well as the sample.
J - Indicates the analyze was found in the blank as well as the sample.
R - Failure to meet quality control criteria the value is rejected and considered unusable.
NM - Analysis not performed.

Table 4-3
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 Area
Representative Soil Analytical Results Above TAGM 4046 Criteria

Parameter	Depth	Arsenic	Cadmium	Copper	Lead	Mercury	Benzo(a)pyrene Equivalent
TAGM 4046 Soil Screening Criteria		7.5 or SB (3-12)	1 or SB (0.1-1)	25 or SB (1-50)	400	0.1	61 or MDL (330)
NYDEC PART 375 Restricted Use Commercial (ppm draft)		16	9.3	270	1000	2.8	1000
TP103-1S	1.3' - 1.5' (shallow)			79		0.27	209 J
TP103-1D	7.5' (deep)			51.7		0.23	
TP106-1S	1.3' - 1.5' (shallow)			71.9		0.11U	2491
TP106-1D	5.4' - 6.4' (deep)					0.12U	
TP107-1S	0" - 2" (shallow)		1.5	176		0.25	449UJ
TP107-1D	2.5' - 3' (deep)	15.5		84.4		4.7	1334
TP108-1S	1' - 1.2' (shallow)			61.2		0.22	973J
TP108-1D	1.3' - 1.5' (deep)	13.2		89.1		0.73	1004
MW4SR-SS1D	4' - 6' (deep)	12.8		70.7		0.12U	347J
MW4SR-SS1S	1' - 1. 5' (shallow)	*9.8*		155		0.32	483
MW4DR-SS1	15' - 16' (deep)	*8.6*				0.79	670
MW5SR-SS1S	0" - 2" (shallow)	25.2	3.7	427	700	1.4	474U
MW5SR-SS2S	0" - 2" (shallow)	24.9	2.9	440	675	1.4	485U
MW5SR-SS1D	14' - 16' (deep)	*9.1*		233	322	1.1	912
MW12S-SS1S	0" - 2" (shallow)	*9.8*	3.6	837	714	1.3	1159
MW12S-SS1D	2' - 10' (deep)	*7.7*		114		0.87	280UJ
MW12S-SS2S	0" - 2" (shallow)	*10.2*	3.3	802	4440	1.2	843J
MW12D-SS1	15.5' - 18' (deep)	*8.4*				0.13U	
SSI-419-11-SB1 (12-14)	(12-14)			*45*		0.22	4660
SSI-419-11-SB2 (45-48)	(45-48)			89		0.2	22899
SSI-419-13-SS (0-3)	(0-3)			*44*		0.35	4921
SSI-419-13 (12-14)	(12-14)			*48*			8932
SSI-419-13 (21-24)	(21-24)	*8.4*		190		0.12	1892
SSI-419-13 (45-48)	(45-48)					0.13	252J
SSI-419-13 (72-75)	(72-75)		1.1			0.12	
SSI-419-14-SS (0-3")	(0-3")	38	2.7	210	640	0.74	2251
SSI-419-14-SB1(12-14")	(12-14")	56	3.4	340	970	1	19617
SSI-419-14-SB2(21-24")	(21-24")	26	7.7	600	1300	0.85	13058
SSI-419-14-SB3(45-48")	(45-48")	*11J*	1.7J			0.12	453J
SSI-419-14-SB4(72-75")	(72-75")	*10J*	1.7J			0.12	456U
SSI-419-15-SS (0-3")	(0-3")			81			1365J
SSI-419-15-SB1(12-14")	(12-14")			340	510	0.2	1163J
SSI-419-15-SB2(21-24")	(21-24")			110		0.16	1762J
SSI-419-16-SB1 (12-14)	(12-14)		3.5	420	5200	1.8	925
SSI-419-16-SB2 (45-48)	(45-48)	14		87		0.28	541J
SSI-419-1-SB1 (12-14)	(12-14)	18	10	420	960	0.92	1044
SSI-419-SB3 (45-48")	(45-48")			*35*		0.13	799
SSI-419-SB4 (72-75")	(72-75")			64		0.11	874
SSI-419-3-SB1(12-14")	(12-14")			58		0.23	10655
SSI-419-3-SB2(45-48")	(45-48")			140		0.52	10633
SSI-419-5-SB1(12-14")	(12-14")			61		0.73	2488
SSI-419-5-SB2(45-48")	(45-48")	14		*44*		0.16	1783
SSI-419-7-SB1(12-14")	(12-14")	20	4	370	1000	2.5	11908
SSI-419-7-SB2(45-48")	(45-48")	43		*26*		0.16	1161
SSI-419-9-SB1 (12-14)	(12-14)		1.1			0.11J	
SSI-419-9-SB2 (45-48)	(45-48)	7.9					2007J
SSI-MW12-4-SB1(12-14)	(12-14)			77			3990
SSI-MW5-2-SB1(12-14")	(12-14")	9.6	2.9	240		0.16	5934
SSI-MW5-2-SB3(45-48")	(45-48")			58		0.32	20206
SSI-MW5-3-SB1(12-14")DUP	(12-14")	NM	NM	NM	560	NM	NM

Benzo(a)pyrene Equivalent is weighted sum of: Benzo(a)pyrene (1), Benzo(a)anthracene (0.1), Benzo(b)fluoranthene (0.1), Benzo(k)fluoranthene (0.01), Chrysene (0.001), Dibenz(a,h)anthracene (1), and Indeno(1,2,3-cd)pyrene (0.1)
ppm - parts per million
ppb - parts per billion
U - The analyze was analyzed for but not detected
B - Indicates the analyte was found in the blank as well as the sample.
J - Indicates the analyze was found in the blank as well as the sample.
R - Failure to meet quality control criteria the value is rejected and considered unusable.
NM - Analysis not performed.

Table 4-4
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Representative Soil Analytical Results Above TAGM 4046 Criteria

Parameter	Depth	Arsenic	Cadmium	Copper	Lead	Mercury	Benzo(a)pyrene Equivalent
TAGM 4046 Soil Screening Criteria		7.5 or SB (3-12)	1 or SB (0.1-1)	25 or SB (1-50)	400	0.1	61 or MDL (330)
NYDEC PART 375 Restricted Use Commercial (ppm draft)		16	9.3	270	1000	2.8	1000
TP104-1S	0" - 2" (shallow)			337			404UJ
TP104-1D	5' - 5.5' (deep)	49.8		216		0.41	365UJ
TP105-1S	0" - 2" (shallow)			124			596J
MW6SR-SS1S	0" - 2" (shallow)			138		0.76	721J
MW6D-SS1	11' - 14' (deep)			*30.8*		0.67	
SS9-1S	0" - 3" (shallow)			272			404UJ
SS9-1D	1' - 1.2' (deep)			71.6			5105J
SS10-1S	0" - 3" (shallow)		1.3	222			
SS10-1D	1' - 1.2' (deep)			*30.2*			563J
SS11-1S	0" - 3" (shallow)	5.6	1.4	178		0.21	291J
SS11-1D	1' - 1.2' (deep)	*11.7*	13.6	590	2070	1.9	4318J
SS12-1S	0" - 3" (shallow)			80.8		0.2	823J
SS12-1D	1' - 1.2' (deep)			272			747J
SSI-MW6-1-SS-0-3	0-3			150		0.11	1461J
SSI-MW6-1-SS-0-3-DUP	0-3			41		0.11J	1510J
SSI-MW6-1-SB1-12-14	12-14	17		45		0.31J	203J
SSI-MW6-1-SB2-21-24	21-24	17J		41		0.13J	496J
SSI-MW6-1-SB2-21-24-DUP	21-24	24J		59		0.13	369J
SSI-MW6-1-SB3-45-48	45-48	*12*	2.2	1500	1100	0.92	1071
SSI-MW6-1-SB4-72-75	72-75		1.1J	41		0.11	
SSI-MW6-2-SS-6-9	6-9					0.11	1578J
SSI-MW6-2-SB1-12-14	12-14			51		0.12	2015J
SSI-MW6-2-SB1-21-24	21-24	*10*		170		0.55	1543J
SSI-MW6-2-45-48	45-48	*7.4*	1.1	56		0.13	1278
SSI-MW6-2-72-75	72-75			33		0.11	1391
SSI-MW6-3-SS-6-9	6-9					0.11	1556J
SSI-MW6-3-SB1-12-14	12-14	*7.8*	3.6	160		0.26	1430J
SSI-MW6-3-SB2-21-24	21-24		1.1	380		2.8	1483
SSI-MW6-3-SB3-45-48	45-48			68		0.11	244J
SSI-MW6-3-SB4-72-75	72-75		1.1J	140		0.11	321J
SSI-SS11-1-SB2(21-24)	(21-24)	NM	NM	NM	970	NM	NM
SSI-SS11-3-SB1(12-14)	(12-14)	13	2.9	72		0.27	10470
SSI-SS11-3-SB3(45-48)	(45-48)				1200	0.11	253J
SSI-SS11-5-SS(0-3)	(0-3)			*42*		0.14	
SSI-SS11-5-SB1(12-14)	(12-14)					0.26	1992J
SSI-SS11-5-SB2(21-24)	(21-24)			*30*		0.15	743
SSI-SS11-5-SB3(45-48)	(45-48)			*28*		0.16	2034
SSI-SS11-5-SB4(72-75)	(72-75)			*28*		0.17	2268J
SSI-SS9-1-SS-6-9	6-9	22J		62			4079J
SSI-SS9-1-SB1-12-14	12-14			270	1400	0.24	621
SSI-SS9-1-SB2-21-24	21-24			150		0.12	653J
SSI-SS9-1-SB3-45-48	45-48		1.1			0.11J	491J
SSI-SS9-1-SB4-72-75	72-75	*7*		57		0.46	4696J
SSI-SS9-2-SS-6-9	6-9			190		0.11	1765J
SSI-SS9-2-SB1-12-14	12-14	*8.2J*				0.12J	355J
SSI-SS9-2-SB2-21-24	21-24					0.11J	410J
SSI-SS9-2-SB3-45-48	45-48	170		70		0.57	1284
SSI-SS9-2-SB4-72-75	72-75			110		0.35	902
SSI-SS9-3-SS-6-9	6-9			*33*		0.11J	1292J
SSI-SS9-3-SB1-12-14	12-14			*30*		0.11J	424J
SSI-SS9-3-SB2-21-24	21-24					0.11J	465J
SSI-SS9-3-SB3-45-48	45-48	47		200		0.27	1284
SSI-SS9-3-SB4-72-75	72-75					0.11J	902

Benzo(a)pyrene Equivalent is weighted sum of: Benzo(a)pyrene (1), Benzo(a)anthracene (0.1), Benzo(b)fluoranthene (0.1), Benzo(k)fluoranthene (0.01), Chrysene (0.001), Dibenz(a,h)anthracene (1), and Indeno(1,2,3-cd)pyrene (0.1)

ppm - parts per million

ppb - parts per billion

U - The analyze was analyzed for but not detected

B - Indicates the analyte was found in the blank as well as the sample.

J - Indicates the analyze was found in the blank as well as the sample.

R - Failure to meet quality control criteria the value is rejected and considered unusable.

NM - Analysis not performed.

were applied as a second level of screening representing levels necessary to protect human health when concentrations above TAGM values were observed in soils.

Consistent with the above, and for the purpose of the following discussions regarding the findings of the RI, the analytical results above TAGM criteria for lead and PCBs (based on previous discussions with NYSDEC) or commercial use Brownfield criteria for other constituents in soils, and above Part 703 standards for groundwater, are summarized in tables referenced throughout the text (Tables 4-5 through 4-10 and 4-12). Summary tables of the complete data set are provided in Appendix C with the full laboratory data packages provided in PDF format on disks within Appendix I. Mapping of results for lead above 400 ppm and PCBs above 1 ppm (0-2 foot depth) or 10 ppm (greater than 2 feet in depth), based upon previous discussions with NYSDEC, or the draft brownfield criteria, has also been completed to illustrate the spatial distribution of contaminants of concern at locations throughout the site.

4.2 SOIL SAMPLING

Lead, Former Drum Storage Area A

During IRM and SSA investigations no analytes were observed during soil analysis above either brownfield criteria or the TAGM criteria for lead in surface soils (400 ppm). However, elevated lead levels were observed from TCLP testing at DSASS-2d and TP101-1s (Appendix D). Additional sampling during the SSI observed no soil samples in the 0-1 foot interval above the 400 ppm criterion (see Appendix C for full analytical results). Lead levels in the intervals from 12-14" and 21-24" at SSI-DSA-1 to the north of TP-101 were above 400 ppm and slightly above and below, respectively, the 1000 ppm proposed brownfields criterion for commercial redevelopment (Figure 4-5, Table 4-5). Samples collected at SSI-DSA-2 and SSI-DSA-3 had lead levels below 400 ppm at all depths. The absence of elevated lead levels in near surface soils and the variability in concentration with location, suggests that the detected lead concentrations above 400 ppm are related to variability within the fill material as opposed to a source associated with Drum Storage Area A.

Lead, PCBs, SVOCs and TICs, Former Drum Storage Area B

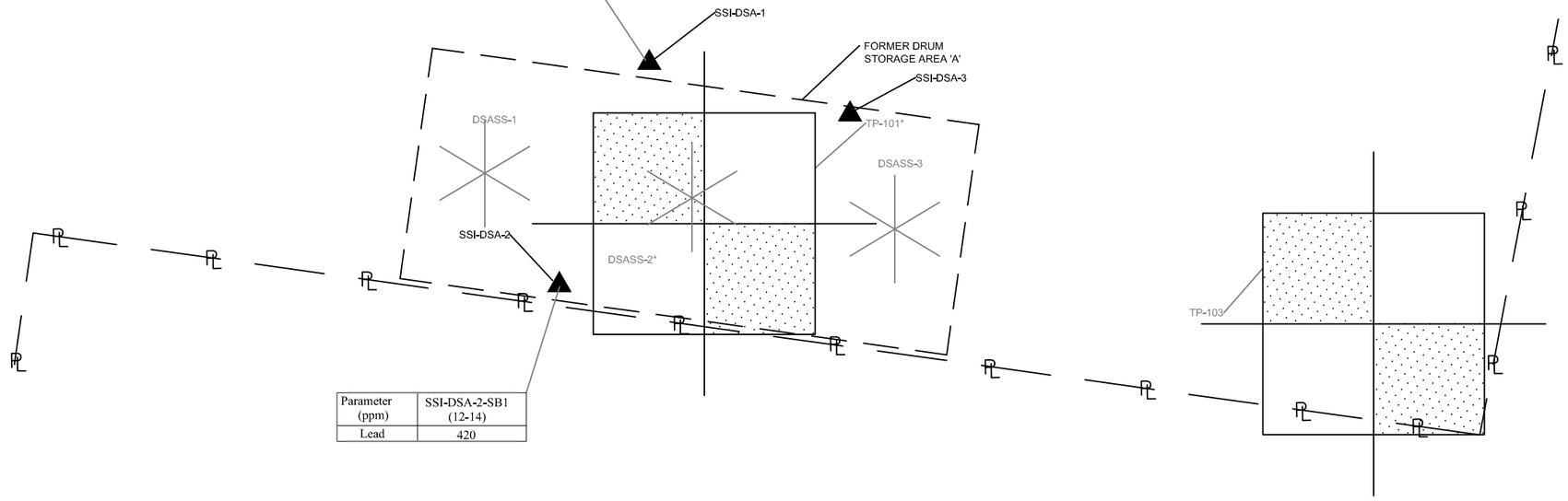
During the IRM and SSA surface soil lead levels above cleanup criteria were observed at locations DSBSS-1, DSBSS-2 and TP-102 (Table 4-6). During the SSI surface soil lead levels above 400 ppm were observed at SSI-DSB-2, SSI-DSB-3, SSI-DSB-4 and SSI-DSB-5 (Table 4-6 and Figure 4-6). Two soil samples at depths of 12" to 14" and 21" to 24" (SSI-DSB-5-SB1 and SSI-DSB-4-SB2 respectively) are also above the 1000 ppm Brownfield soil cleanup

N

Parameter	TAGM 4046 Criteria for Lead (ppm)	NYSDEC PART 375 Restricted Use Commercial (ppm draft)
Lead	400	1000

Parameter (ppm)	SSI-DSA-1-SB1 (12-14)	SSI-DSA-1-SB2 (21-24)
Lead	1100	980

Parameter (ppm)	SSI-DSA-2-SB1 (12-14)
Lead	420



LEGEND:

- ▲ = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- PL = PROPERTY LINE
- = FENCE
- = FOUNDATION LIMIT
- SS-12 = IRM SOIL SAMPLE
- = SSA TEST PIT

DSA = DRUM STORAGE AREA A
SS = SOIL SAMPLE OR SURFACE SOIL
IRM = INTERIM REMEDIAL MEASURES
SSA = SUPPLEMENTARY SITE ASSESSMENT
SSI = SUPPLEMENTARY SITE INVESTIGATION
SB =SOIL BORING
TP =TEST PIT
* =TCLP TEST ABOVE CRITERIA FOR LEAD

NOTES:
1. ALL LOCATIONS SHOWN WERE SAMPLED FOR LEAD.
2. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET OF SOIL.
3. CONCENTRATIONS SHOWING IN ppm (mg/kg).
4. CONCENTRATIONS SHOWN ARE ABOVE THE TAGM CRITERIA FOR LEAD OR THE NYSDEC PART 375 RESTRICTED USE COMMERCIAL CRITERIA FOR OTHER METALS.
5. COMPLETE DATA CAN BE FOUND IN APPENDIX C (DRUM STORAGE AREA A).

SCALE IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL REMEDIAL INVESTIGATION REPORT

FORMER DRUM STORAGE AREA 'A' LEAD RESULTS ABOVE TAGM CRITERIA

APRIL 2006	Project No. 11664-001-147	Figure No. 4-5	Issue: 0
SCALE 1" = 10'	File Name:		

Table 4-5
Brooklyn Navy Yard Parcel
Drum Storage Area A
Soil Analytical Results Above Criteria

Category	Parameter	NYSDEC Part 375 Restricted Use Commercial (mg/kg draft)	TP101-1D[2]	SSI-DSA-1-SB1 (12-14)	SSI-DSA-1-SB2 (21-24)	SSI-DSA-2-SB1 (12-14)
Sample Date			4/3/1997	12/12/2005	12/12/2005	12/12/2005
Sample Analyzed Date			4/9/97 - 4/26/97	12/20/2005	12/20/2005	(12-14)
Sample Depth (bgs)			6.3' - 7' (deep)	(12-14)	(21-24)	
Sampling Method			Backhoe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement
Sample Field Observations			Heavy Fill, Gray/Brown Sand, Gravel, Rocks, OVA = 500 ppm			
Metals (ppm)	Arsenic	16	**17.9**	NM	NM	NM
	Lead	1000 [1]		**1100**	**980**	**420**

[1] TAGM 4046 criteria of 400 ppm is applied for lead.

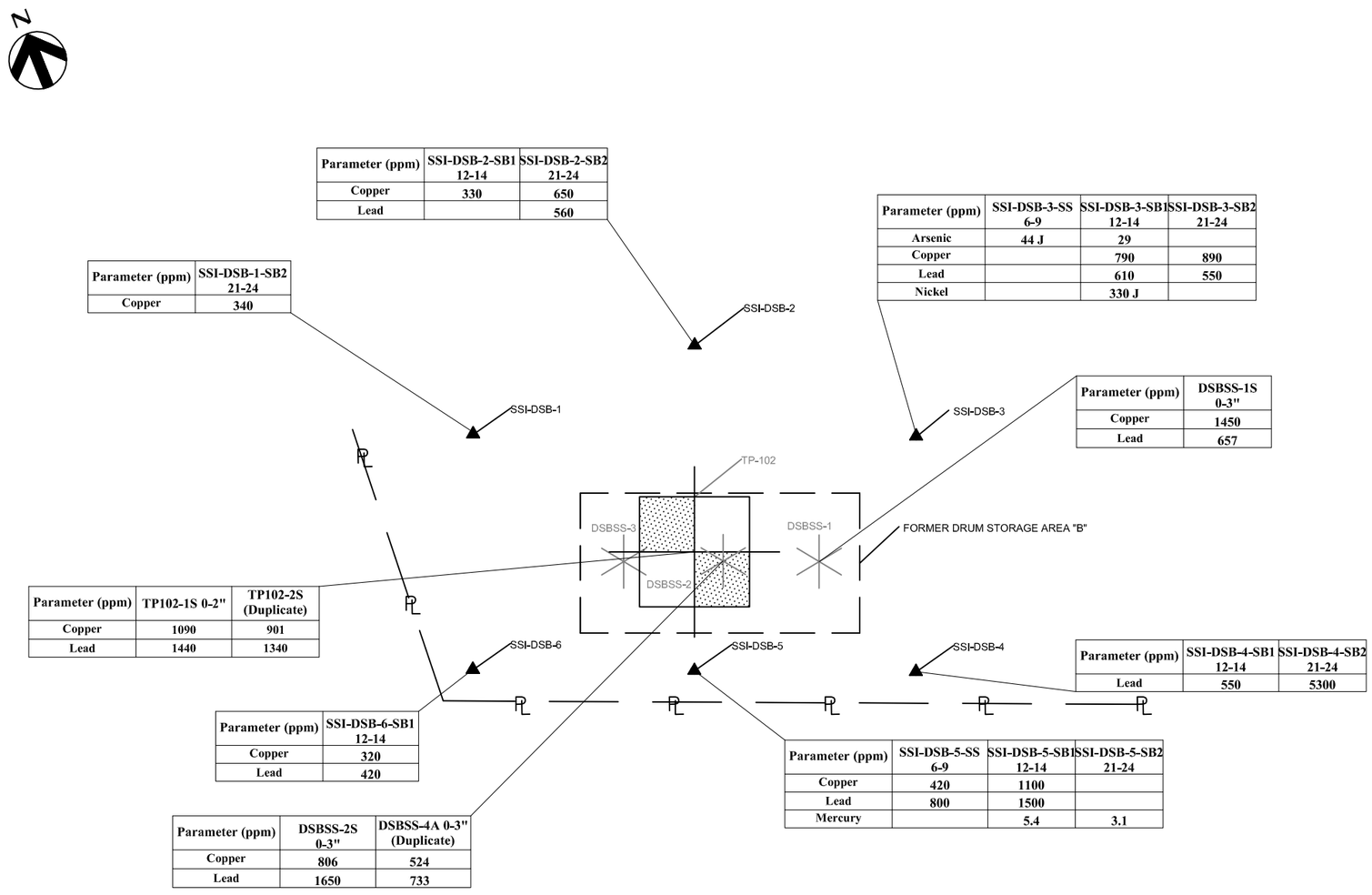
[2] A TCLP analysis was also performed on this sample

ppm - parts per million

bgs - below ground surface

NM - Analysis not performed.

Parameter	TAGM 4046 Criteria for Lead (ppm)	NYSDEC PART 375 Restricted Use Commercial (ppm draft)
Arsenic		16
Barium		400
Copper		270
Lead	400	1000
Mercury		2.8
Nickel		310



Parameter (ppm)	SSI-DSB-2-SB1 12-14	SSI-DSB-2-SB2 21-24
Copper	330	650
Lead		560

Parameter (ppm)	SSI-DSB-1-SB2 21-24
Copper	340

Parameter (ppm)	SSI-DSB-3-SS 6-9	SSI-DSB-3-SB1 12-14	SSI-DSB-3-SB2 21-24
Arsenic	44 J	29	
Copper		790	890
Lead		610	550
Nickel		330 J	

Parameter (ppm)	DSBSS-1S 0-3"
Copper	1450
Lead	657

Parameter (ppm)	TP102-1S 0-2"	TP102-2S (Duplicate)
Copper	1090	901
Lead	1440	1340

Parameter (ppm)	SSI-DSB-4-SB1 12-14	SSI-DSB-4-SB2 21-24
Lead	550	5300

Parameter (ppm)	SSI-DSB-6-SB1 12-14
Copper	320
Lead	420

Parameter (ppm)	SSI-DSB-5-SS 6-9	SSI-DSB-5-SB1 12-14	SSI-DSB-5-SB2 21-24
Copper	420	1100	
Lead	800	1500	
Mercury		5.4	3.1

Parameter (ppm)	DSBSS-2S 0-3"	DSBSS-4A 0-3" (Duplicate)
Copper	806	524
Lead	1650	733

LEGEND:

- ▲ = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- PL = PROPERTY LINE
- = FENCE
- = FOUNDATION LIMIT
- SS-12 = IRM SOIL SAMPLE
- = SSA TEST PIT
- DSB = DRUM STORAGE AREA B
- IRM = INTERIM REMEDIAL MEASURES
- SSA = SUPPLEMENTARY SITE ASSESSMENT
- SSI = SUPPLEMENTARY SITE INVESTIGATION
- TP = TEST PIT

NOTES:

1. ALL LOCATIONS SHOWN WERE SAMPLED FOR METALS.
2. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET OF SOIL.
3. CONCENTRATIONS SHOWN IN ppm (mg/kg).
4. CONCENTRATIONS SHOWN ARE ABOVE THE TAGM CRITERIA FOR LEAD OR THE NYSDEC PART 375 RESTRICTED USE COMMERCIAL CRITERIA FOR OTHER METALS.
5. COMPLETE DATA CAN BE FOUND IN APPENDIX C (DRUM STORAGE AREA B).

SCALE IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

FORMER DRUM STORAGE AREA B METALS RESULTS ABOVE CRITERIA

APRIL 2006	Project No. 11664-001-147	Figure No. 4-6	Issue 0
SCALE 1" = 20'	File Name:		

Table 4-6
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Soil Analytical Results Above Criteria

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (ug/kg draft)	SSI-DSB- 1-SB1-12-14-DUP	SSI-DSB- 1-SB2-21-24-DUP	SSI-DSB- 1-SB3-45-48-DS	SSI-DSB-1-SB3 45-48	SSI-DSB-2-SB3 45-48	SSI-DSB-3-SB3 45-48	SSI-DSB-5-SB1 12-14	SSI-DSB-6-SS 6-9
Sample Date			12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005
Sample Analyzed Date			12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/25/2005	12/25/2005	12/20/2005	12/20/2005
Sample Depth (bgs) (type)			12-14	21-24	45-48	45-48	45-48	45-48	12-14	6-9
Sampling Method			Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement
Sample Field Observations										
SVOCs (ppb)	Benzo(a)anthracene	5600							**8260**	
	Benzo(b)fluoranthene	6000							**7730**	
	Benzo(a)pyrene	1000	**1160**	**2070**	**1480**	**2210**	**2640** J	**2940**	**5780**	**1100** J
	Dibenzo(a,h)anthracene	560				**584**	775 J		**880** J	

Category	Parameter	TAGM 4046 Criteria	DSBSS-2S	TP102-1S[2,3]	TP102-2S (Duplicate)	SSI-DSB-2-SB1 12-14	SSI-DSB-2-SB2 21-24	SSI-DSB-5-SB1 12-14	SSI-DSB-5-SS 6-9	SSI-DSB-6-SS 6-9
Sample Date			10/30/1996	4/3/1997	4/3/1997	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005
Sample Analyzed Date			11/10/1996	4/16/1997	4/16/1997	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005
Sample Depth (bgs)			0"-3" (shallow)	0" - 2" (shallow)	0" - 2" (shallow)	12-14	21-24	12-14	6-9	6-9
Sampling Method			Drill Rig	Backhoe	Backhoe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Compacted Gravel	Sand	Sand	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement
Sample Field Observations			Predetermined Sample Depth; OVA reading not collected	OVA = 0 ppm	OVA = 0 ppm					
Pesticide Organics (ppb)	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	**2800 DJ**	**5500** D	**27000** D					
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)				**2560**	**2700**	**1260**	**2380**	**1560**

[1] TAGM 4046 criteria of 400 ppm is applied for lead.
[2] A TCLP analysis was also performed for this sample.
[3] The values reported for this sample are based on a reanalysis of the sample.

ppb - parts per billion
bgs - below ground surface
D - secondary dillution
J - Analyte detected below method detection limit and/or estimated concentration.

Table 4-6
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Soil Analytical Results Above Criteria

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (mg/kg draft)	DSBSS-1S	DSBSS-2S	DSBSS-4A (Duplicate)	TP102-1S[3,4]	TP102-2S (Duplicate)	SSI-DSB- 1-SB2-21-24-DUP	SSI-DSB- 1-SB3-45-48-DS	SSI-DSB-1-SB2 21-24	SSI-DSB-2-SB1 12-14
Sample Date			10/30/1996	10/30/1996	10/30/1996	4/3/1997	4/3/1997	12/5/2005	12/5/2005	12/5/2005	12/5/2005
Sample Analyzed Date			11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	4/9/97 - 4/26/97	4/9/97 - 4/26/97	12/20/2005	12/20/2005	12/19/2005	12/20/2005
Sample Depth (bgs)			0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	0" - 2" (shallow)	0" - 2" (shallow)	21-24	45-48	21-24	12-14
Sampling Method			Drill Rig	Drill Rig	Drill Rig	Backhoe	Backhoe	Drill Rig	Drill Rig	Drill Rig	Drill Rig
Surface Condition			Compacted Gravel	Compacted Gravel	Compacted Gravel	Sand	Sand	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement
Sample Field Observations			Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	OVA = 0 ppm	OVA = 0 ppm				
Metals (ppm)	Arsenic	16							**24**		
	Barium	400			*484*				*590*		
	Copper	270	**1450**	**806**	**524**	**1090**	**901**	**940**		**340**	**330**
	Lead	1000[1]	**657**	**1650**	**733**	**1440**	**1340**	**830**			
	Mercury	2.8									
	Nickel	310									

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (mg/kg draft)	SSI-DSB-2-SB2 21-24	SSI-DSB-3-SB1 12-14	SSI-DSB-3-SB2 21-24	SSI-DSB-3-SS 6-9	SSI-DSB-4-SB1 12-14	SSI-DSB-4-SB2 21-24	SSI-DSB-5-SB1 12-14	SSI-DSB-5-SB2 21-24	SSI-DSB-5-SS 6-9	SSI-DSB-6-SB1 12-14
Sample Date			12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005
Sample Analyzed Date			12/20/2005	12/25/2005	12/25/2005	12/25/2005	12/25/2005	12/20/2005	12/20/2005	12/25/2005	12/20/2005	12/25/2005
Sample Depth (bgs)			21-24	12-14	21-24	6-9	12-14	21-24	12-14	21-24	6-9	12-14
Sampling Method			Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig
Surface Condition			Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement
Sample Field Observations												
Metals (ppm)	Arsenic	16		**29**		**44 J**						
	Barium	400										
	Copper	270	**650**	**790**	**890**				**1100**		**420**	**320**
	Lead	1000[1]	**560**	**610**	**550**		**550**	**5300**	**1500**		**800**	**420**
	Mercury	2.8							**5.4**	**3.1**		
	Nickel	310		**330 J**								

objectives. These data indicate that the horizontal extent of surface soil lead levels above the cleanup criterion is small. However, lead levels above 400 ppm and the presence of other metals observed at concentrations above TAGM 4046 and Brownfield Commercial Cleanup levels, are wide spread at this and other locations throughout the site. These data continue to suggest that the elevated concentrations are associated with historic urban fill, as discussed previously.

Levels of PCBs above surface soil cleanup criteria (1000 ppb) had been detected at TP-102-1S and were also detected in the surface soils at SSI-DSB-2, SSI-DSB-5 and SSI-DSB-6 (Figure 4-7, Table 4-6). PCBs were also detected in deep soils, but in all cases below the 10000 ppb cleanup criterion. These observations delineate the horizontal and vertical extent of PCB concentrations above cleanup criteria, with the limit to the south consistent with the location of Railroad Avenue. This road was paved in the early 1960's and thus predates the use of this location as a drum storage area in the early 1980's. The presence of a road in this area, and the fact that it is, and was a paved surface, indicates that the road represents the southerly limit of PCB impacted soils.

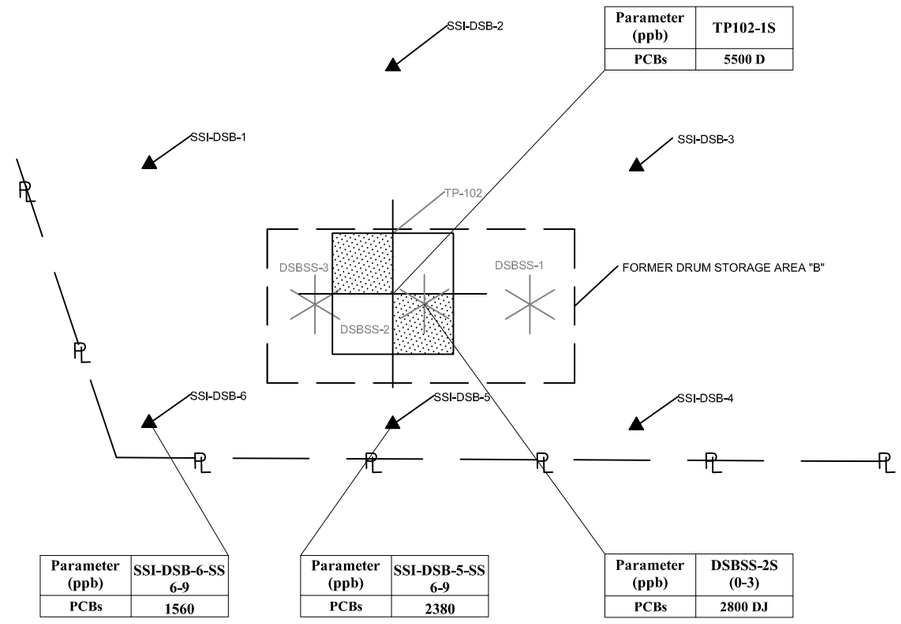
As shown by the data presented in Appendix C, no SVOCs were detected above Brownfield screening criteria, in the IRM and SSA sampling rounds. SSI sampling observed some polycyclic aromatic hydrocarbons (PAHs), above Brownfield soil cleanup objectives (Figure 4-8, Table 4-6). Levels of these SVOCs are similar to those levels observed in the Rail Road siding area as a whole and are believed to be associated with historic fill.

Elevated OVA readings were previously observed at 4 feet in depth at TP-102 during the SSA. Slightly higher concentrations of some SVOC were reported in the 45"-48" interval as compared to the overlying intervals. However, these levels were generally below Brownfield criteria and consistent with PAHs concentrations in urban fill. Hence there is no evidence to suggest that observed concentrations are related to use of this location for drum storage. The total estimated concentrations of TICs in all SSI-DSB samples was also similar or lower than those observed at the site overall. The collected data thus indicates that SVOC levels observed at DSA-B are typical for the site and consistent with historic urban fill.

PCBs, Full TCL, Former Building 419

IRM sampling observed PCB levels above cleanup criteria in surface soils within Former Building 419 and at two locations (419SS-9S and 419SS-13D) outside the building. SSA sampling observed two deep soil samples 419SS-6d and 419SS-7d also above cleanup criteria. With the exception of samples at SSI-419-1 and SSI-419-2, surface samples collected as part of the SSI were found to have PCB levels below the cleanup criteria (Appendix C) indicating that the surface extent of PCB contamination has been well delineated. For vertical delineation, two

Parameter	TAGM 4046 Soil Clean-up Criteria (ppb)
PCBs	1000(surface)/ 10,000 (subsurface)



Parameter (ppb)	TP102-1S
PCBs	5500 D

Parameter (ppb)	SSI-DSB-6-SS 6-9
PCBs	1560

Parameter (ppb)	SSI-DSB-5-SS 6-9
PCBs	2380

Parameter (ppb)	DSBSS-2S (0-3)
PCBs	2800 DJ

LEGEND:

- ▲ = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- PL = PROPERTY LINE
- = FENCE
- = FOUNDATION LIMIT
- SS-12 = IRM SOIL SAMPLE
- = SSA TEST PIT

DSB = DRUM STORAGE AREA B
PCBs = POLYCHLORINATED BIPHENYLS
IRM = INTERIM REMEDIAL MEASURES
SSA = SUPPLEMENTARY SITE ASSESSMENT
SSI = SUPPLEMENTARY SITE INVESTIGATION
SS = SOIL SAMPLE OR SURFACE SOIL
SB = SOIL BORING
TP = TEST PIT

NOTES:
1. ALL LOCATIONS SHOWN WERE SAMPLED FOR PCB's.
2. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET OF SOIL.
3. CONCENTRATION SHOWN IN ppb (ug/kg).
4. COMPLETE DATA CAN BE FOUND IN APPENDIX C (DRUM STORAGE AREA B).

SCALE IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

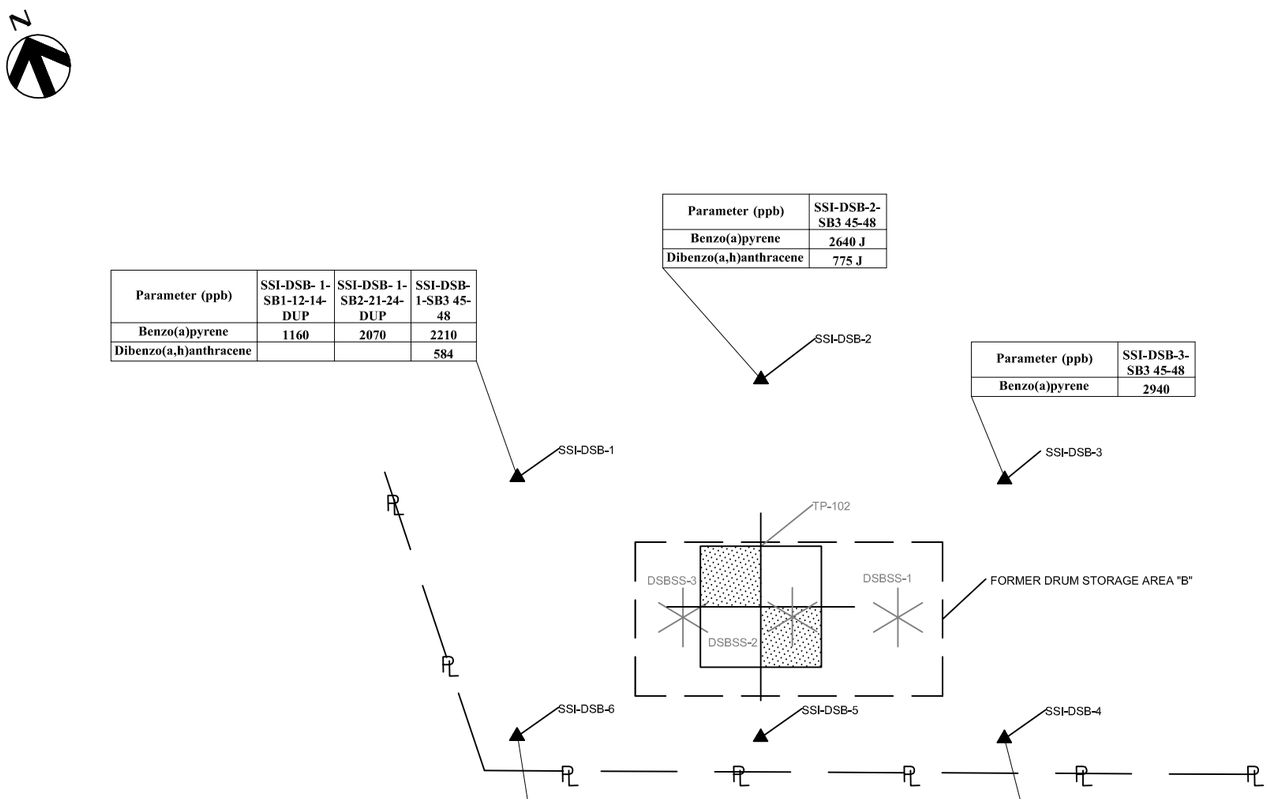
HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

FORMER DRUM STORAGE AREA B
PCB RESULTS ABOVE TAGM CRITERIA

APRIL 2006
SCALE 1" = 20'
Project No. 11664-001-147
File Name:
Figure No. 4-7
Issue: 0

Parameter	NYSDEC PART 375 Restricted Use Commercial (ppb draft)
Benzo(a)anthracene	5600
Benzo(b)fluoranthene	6000
Benzo(a)pyrene	1000
Dibenzo(a,h)anthracene	560



Parameter (ppb)	SSI-DSB- 1-SB1-12-14-DUP	SSI-DSB- 1-SB2-21-24-DUP	SSI-DSB-1-SB3 45-48
Benzo(a)pyrene	1160	2070	2210
Dibenzo(a,h)anthracene			584

Parameter (ppb)	SSI-DSB-2-SB3 45-48
Benzo(a)pyrene	2640 J
Dibenzo(a,h)anthracene	775 J

Parameter (ppb)	SSI-DSB-3-SB3 45-48
Benzo(a)pyrene	2940

Parameter (ppb)	SSI-DSB-6-SS 6-9
Benzo(a)pyrene	1100 J

Parameter (ppb)	SSI-DSB-5-SB1 12-14
Benzo(a)anthracene	8260
Benzo(b)fluoranthene	7730
Benzo(a)pyrene	5780
Dibenzo(a,h)anthracene	880 J

LEGEND:

- ▲ = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- PL = PROPERTY LINE
- = FENCE
- = FOUNDATION LIMIT
- SS-12 = IRM SOIL SAMPLE
- = SSA TEST PIT

DSB = DRUM STORAGE AREA B
PCBs = POLYCHLORINATED BIPHENYLS
IRM = INTERIM REMEDIAL MEASURES
SSA = SUPPLEMENTARY SITE ASSESSMENT
SSI = SUPPLEMENTARY SITE INVESTIGATION
SS = SOIL SAMPLE OR SURFACE SOIL
SB = SOIL BORING
TCL = TARGET COMPOUND LIST
SVOCs = SEMI-VOLATILE ORGANIC COMPOUNDS
TICs = TENTATIVELY IDENTIFIED COMPOUNDS
TP = TEST PIT

NOTES:
1. ALL LOCATIONS SHOWN WERE SAMPLED FOR SVOC's.
2. CONCENTRATIONS SHOWN IN ppb (ug/kg).
3. CONCENTRATIONS SHOWN ARE ABOVE THE NYSDEC PART 375 RESTRICTED USE COMMERCIAL CRITERIA.
4. COMPLETE DATA CAN BE FOUND IN APPENDIX C (DRUM STORAGE AREA B).

SCALE IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

FORMER DRUM STORAGE AREA B SVOC RESULTS ABOVE CRITERIA

APRIL 2006 | SCALE 1" = 20' | Project No. 11664-001-147 | File Name: | Figure No. 4-8 | Issue 0

locations within former building 419 (SSI-419-1 SSI-419-2) were sampled at the 21”-24” and 33”-36” interval near the locations (419SS-7D and 419SS-6D) at which PCBs were reported above the cleanup level at the 1 – 1.2’ depth interval (Figure 4-9, Table 4-7). PCB concentrations at both new locations were above the 1000 ppb cleanup level at the 21”-24” interval and below the 10000 ppb cleanup level at the 33”-36” interval. This indicates that the vertical extent of PCB contamination at the site of former building 419 has been confirmed and extends to depths of 12” to 24”.

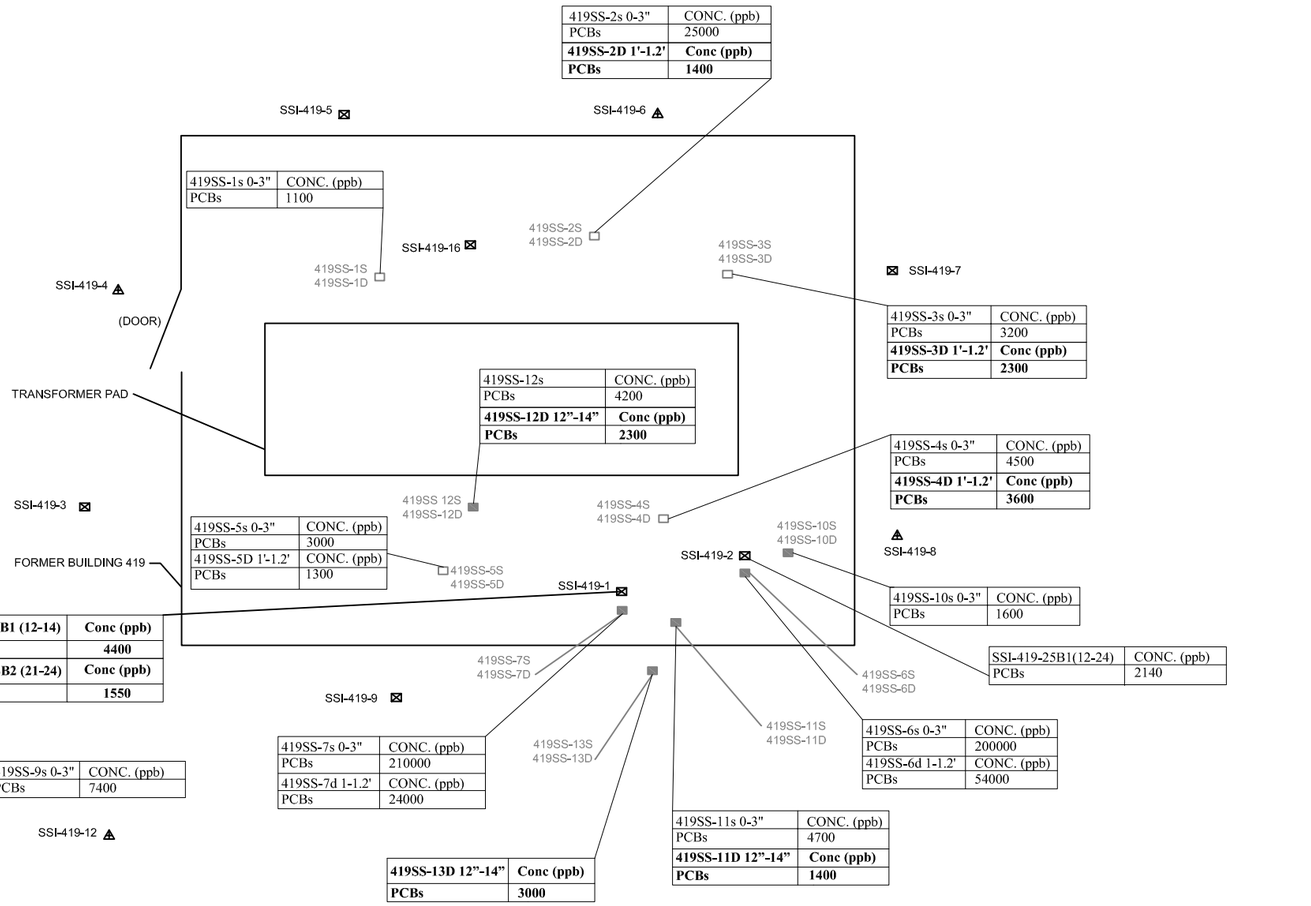
Samples from seven of the above locations were also analyzed for the full TCL in order to characterize the area in and around building 419. As is the case for the site in general, a number of SVOCs, primarily PAHs, were reported above the Brownfield screening criteria (Figure 4-10). Although concentrations were sometimes above Brownfield criteria, these values were still much less than maximum values observed from the NJDEP historic fill database. SVOC concentrations did not display an obvious spatial pattern vertically. The lack of a clear pattern in horizontal distribution, the presence of elevated SVOC levels only in deeper soil horizons, and the observed concentrations, are consistent with the assessment that elevated SVOC levels are associated with historic urban fill.

Metals were above Brownfield levels or 400 ppm for lead in soil at three locations (SSI-419-16, SSI-419-7 and SSI-419-1, Figure 4-11). Lead levels in these samples were above 400 ppm, and only one sample (SSI-419-16 (12-14”)) had lead levels above the 1000 ppm Brownfield cleanup criteria. With the exception of this one value, metal concentrations observed in and around Building 419 were typical for the site. No VOCs were observed at levels above either TAGM 4046 or Brownfield screening criteria. Two samples had concentrations of pesticides only slightly above TAGM 4046 screening criteria and well below Brownfield criteria.

Lead, SSA Locations SS-11, MW-5 and MW-12

Lead levels above 400 ppm have been observed in the vicinity of SSA sample locations SS-11, MW-5, and MW-12, possibly related to the presence of urban fill. At SS-11 lead above 400 ppm had been observed at a depth of 1 foot. Similar lead levels above 400 ppm were observed at SSI-SS11-3 at 45”-48” and at SS1-SS11-1 at 21’-24” to the east and west (Figure 4-12, Table 4-8) while no lead above 400 ppm was observed at two locations (SSI-SS11-2 and 4) (Appendix C). At MW-5, a soil sample from the 0-2 foot interval had lead concentrations above 400 ppm. Additional sampling at four surrounding locations observed one additional concentration above 400 ppm at SSI-MW5-3 in the 12”-14” interval (Table 4-7). At MW-12, elevated lead had also been observed in the 0-2 foot interval. However, no samples collected around the perimeter of this location exceeded 400 ppm (Appendix C). Surface soils do not

Parameter	TAGM 4046 Soil Clean-up Criteria (ppb)
PCBs	1000(surface)/ 10,000 (subsurface)



419SS-2s 0-3"	CONC. (ppb)
PCBs	25000
419SS-2D 1'-1.2'	**Conc (ppb)**
PCBs	**1400**

419SS-1s 0-3"	CONC. (ppb)
PCBs	1100

419SS-3s 0-3"	CONC. (ppb)
PCBs	3200
419SS-3D 1'-1.2'	**Conc (ppb)**
PCBs	**2300**

419SS-12s	CONC. (ppb)
PCBs	4200
419SS-12D 12"-14"	**Conc (ppb)**
PCBs	**2300**

419SS-4s 0-3"	CONC. (ppb)
PCBs	4500
419SS-4D 1'-1.2'	**Conc (ppb)**
PCBs	**3600**

419SS-5s 0-3"	CONC. (ppb)
PCBs	3000
419SS-5D 1'-1.2'	CONC. (ppb)
PCBs	1300

419SS-10s 0-3"	CONC. (ppb)
PCBs	1600

SSI-419-25B1(12-24)	CONC. (ppb)
PCBs	2140

SSI-419-1-SB1 (12-14)	Conc (ppb)
PCBs	**4400**
SSI-419-1-SB2 (21-24)	**Conc (ppb)**
PCBs	**1550**

419SS-7s 0-3"	CONC. (ppb)
PCBs	210000
419SS-7d 1-1.2'	CONC. (ppb)
PCBs	24000

419SS-6s 0-3"	CONC. (ppb)
PCBs	200000
419SS-6d 1-1.2'	CONC. (ppb)
PCBs	54000

419SS-9s 0-3"	CONC. (ppb)
PCBs	7400

419SS-11s 0-3"	CONC. (ppb)
PCBs	4700
419SS-11D 12"-14"	**Conc (ppb)**
PCBs	**1400**

419SS-13D 12"-14"	**Conc (ppb)**
PCBs	**3000**

LEGEND:

- □ = IRM/SSA PRE-TRANSFORMER DECOMISSIONING SOIL SAMPLE
- ■ = IRM/SSA POST-TRANSFORMER SOIL SAMPLE
- ⚠ = SSI SURFACE SOIL SAMPLE (0-3")
- ⊠ = SSI SURFACE AND SUBSURFACE

NOTES:

1. ALL SAMPLE LOCATIONS WERE ANALYZED FOR PCB's.
2. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET.
3. CONCENTRATIONS SHOWN IN ppb (ug/kg).
4. COMPLETE DATA CAN BE FOUND IN APPENDIX C TABLE BUILDING 419 AND SURROUNDING AREA.

SCALE IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

FORMER BUILDING 419
PCB RESULTS ABOVE TAGM CRITERIA

APRIL 2006	Project No. 11664-001-147	Figure No. 4-9	Issue: 0
SCALE 1"=10'	File Name:		

Table 4-7
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 Area
Soil Analytical Results Above Criteria

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (mg/kg draft)	TP108-1D[2,3]	MW5SR-SS1S[3]	MW5SR-SS2S[3] (Duplicate)	MW12S-SS1S[2,3]	MW12S-SS2S[2,3] (Duplicate)	SSI-419-14-SB1(12-14")	SSI-419-14-SB2(21-24")	SSI-419-14-SS(0-3")	SSI-419-15-SB1(12-14")	SSI-419-16-SB1 (12-14)	SSI-419-1-SB1 (12-14)
Sample Date			4/8/1997	4/15/1997	4/15/1997	4/25/1997	4/25/1997	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/12/2005	12/12/2005
Sample Depth (bgs)			1.3' - 1.5' (deep)	0" - 2" (shallow)	0" - 2" (shallow)	0" - 2" (shallow)	0" - 2" (shallow)	(12-14")	(21-24")	(0-3")	(12-14")	(12-14)	(12-14)
Surface Condition			Asphalt Pavement	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Grass	Grass
Sample Field Observations			Dark Gray-Black Gravely Sand, No Odor, OVA = 0 ppm	OVA = 1 ppm	OVA = 1 ppm	OVA = 0 ppm	OVA = 0 ppm						
Metals (ppm)	Arsenic	16		**25.2**	**24.9**			**56**	**26**	**38**		**21**	**18**
	Barium	400	**667**										
	Copper	270		**427**	**440**	**837**	**802**	**340**	**600**		**340**	**420**	**420**
	Lead	1000 [1]		**700**	**675**	**714**	**4440**	**970**	**1300**	**640**	**510**	**5200**	**960**

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (ug/kg draft)	TP106-1S[2,3]	TP107-1D[2]	SSI-419-11-SB1 (12 14)	SSI-419-11-SB2 (45-48)	SSI-419-13(12-14)	SSI-419-13(21-24)	SSI-419-13-SS (0-3)	SSI-419-14-SB1(12-14")	SSI-419-14-SB2(21-24")	SSI-419-14-SS(0-3")	SSI-419-3-SB1(12 14")
Sample Date			4/7/1997	4/7/1997	12/12/2005	12/12/2005	12/7/2005	12/7/2005	12/7/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005
Sample Depth (bgs)			1.3' - 1.5' (shallow)	2.5' - 3' (deep)	(12-14)	(45-48)	(12-14")	(21-24)	(0-3)	(12-14")	(21-24")	(0-3")	(12-14")
Surface Condition			Concrete Pad/Reinforced Rebar	Gravel	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement
Sample Field Observations			OVA = 0 ppm	Ash Layer, Black/Brown Coaly Cinder Bearing Material, OVA = 0 ppm									
SVOCs (ppb)	Benzo(a)anthracene	5600				**15000**	**8610**			**12800**	**9970**		**6610**
	Benzo(b)fluoranthene	6000				**25300**	**9670**			**17600**	**11900**		**10800**
	Benzo(a)pyrene	1000	**1700**	**1000**	**3230**	**15600**	**5680** J	**1290**	**3090**	**13500**	**8970**	**1370** J	**7310**
	Indeno(1,2,3-cd)pyrene	5600				**6800**				**7880**			
	Dibenzo(a,h)anthracene	560				**2510**	**1050** J		**646 J**	**2220** J	**1430** J		**1200** J

Category	Parameter	TAGM 4046 Criteria	419SS-1S	419SS-2S	419SS-2D	419SS-3S	419SS-3D	419SS-4S	419SS-4D	419SS-5S	419SS-5D	419SS-6S	419SS-7S
Sample Date			11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/15/1996	11/15/1996
Sample Depth (bgs)			0"-3" (shallow)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	0"-3" (shallow)
Sampling Method			Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Aluminum Spoon
Surface Condition			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
PCBs (ppb)	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	**1100**	**2500**	**1400**	**3200**	**2300**	**4500**	**3600**	**3000**	**1300**	**200000**	**210000**

Table 4-7
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 Area
Soil Analytical Results Above Criteria

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (mg/kg draft)	SSI-419-7-SB1(12 14")	SSI-419-7-SB2(45 48")	SSI-MW5-3-SB1(12-14")DUP
Sample Date			12/8/2005	12/8/2005	12/8/2005
Sample Depth (bgs)			(12-14")	(45-48")	(12-14")
Surface Condition			Sand/Gravel	Sand/Gravel	Asphalt Pavement
Sample Field Observations					
Metals (ppm)	Arsenic	16	**20**	**43**	NM
	Barium	400			NM
	Copper	270	**370**		NM
	Lead	1000 [1]	**1000**		**560**

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (ug/kg draft)	SSI-419-3-SB2(45 48")	SSI-419-5-SB1(12 14")	SSI-419-5-SB2(45 48")	SSI-419-7-SB1(12 14")	SSI-MW12-4-SB1(12-14)	SSI-MW5-2-SB1(12-14")	SSI-MW5-2-SB3(45-48")
Sample Date			12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/7/2005	12/8/2005	12/8/2005
Sample Depth (bgs)			(45-48")	(12-14")	(45-48")	(12-14")	(12-14)	(12-14")	(45-48")
Surface Condition			Asphalt Pavement	Grass	Grass	Sand/Gravel	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement
Sample Field Observations									
SVOCs (ppb)	Benzo(a)anthracene	5600				**9150**			**16100**
	Benzo(b)fluoranthene	6000				**12000**			**17600**
	Benzo(a)pyrene	1000	**1490** J	**1710**	**1200**	**8130**	**1020** J	**4030**	**14000**
	Indeno(1,2,3-cd)pyrene	5600							**6560**
	Dibenzo(a,h)anthracene	560				**1230** J		**634** J	**2110**

Category	Parameter	TAGM 4046 Criteria	419SS-9S	419SS-10S	419SS-11S	419SS-11D	419SS-12S	419SS-12D	419SS-13D	419SS-6D	419SS-7D	SSI-419-1-SB1 (12-14)	SSI-419-1-SB2 (21-24)	SSI-419-2-SB1 (21-24)
Sample Date			11/15/1996	1/24/1997	1/24/1997	1/24/1997	1/24/1997	1/24/1997	1/24/1997	4/11/1997	4/11/1997	12/12/2005	12/12/2005	12/12/2005
Sample Depth (bgs)			0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	12"-14" (deep)	0"-3" (shallow)	12"-14" (deep)	12"-14" (deep)	1.0' - 1.2' (deep)	1.0' - 1.2' (deep)	(12-14)	(21-24)	(21-24)
Sampling Method			Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Mattock/Aluminum Spoon	Mattock/ Aluminum Spoon	Mattock/ Aluminum Spoon	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Grass	Grass	Grass
PCBs (ppb)	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	**7400**	**1600**	**4700**	**1400**	**4200**	**2300**	**3000**	**54000**	**24000**	**4400**	**1550**	**2140**

[1] TAGM 4046 criteria of 400 ppm is applied for lead.
[2] A TCLP analysis was also performed for this sample.
[3] The values reported for this sample are based on a reanalysis of the sample.

ppm - parts per million
ppb - parts per billion
bgs - below ground surface
U - The analyte was analyzed for, but not detected.
J - Analyte detected below method detection limit and/or estimated concentration.
B - Indicates the analyte was found in the blank as well as the sample.
NM - Analysis not performed.

Parameter (ppb)	NYSDEC PART 375 Restricted Use Commercial (ppb draft)
Benzo(a)anthracene	5600
Benzo(b)fluoranthene	6000
Benzo(a)pyrene	1000
Indeno(1,2,3-cd)pyrene	5600
Dibenzo(a,h)anthracene	560

Parameter (ppb)	SSI-419-5-SB1(12-14")	SSI-419-5-SB2(45-48")
Benzo(a)pyrene	**1710**	**1200**

Parameter (ppb)	SSI-419-7-SB1(12-14")
Benzo(a)anthracene	**9150**
Benzo(b)fluoranthene	**12000**
Benzo(a)pyrene	**8130**
Dibenzo(a,h)anthracene	**1230 J**

Parameter (ppb)	SSI-419-3-SB1(12-14")	SSI-419-3-SB2(45-48")
Benzo(a)anthracene	**6610**	
Benzo(b)fluoranthene	**10800**	
Benzo(a)pyrene	**7310**	**1490 J**
Dibenzo(a,h)anthracene	**1200 J**	

Parameter (ppb)	SSI-419-11-SB1 (12-14")	SSI-419-11-SB2 (45-48")
Benzo(a)anthracene		**15000**
Benzo(b)fluoranthene		**25300**
Benzo(a)pyrene	**3230**	**15600**
Indeno(1,2,3-cd)pyrene		**6800**
Dibenzo(a,h)anthracene		**2510**

SSI-419-5
SSI-419-6
SSI-419-16
419SS-2S
419SS-2D
419SS-3S
419SS-3D
419SS-1S
419SS-1D
SSI-419-4
SSI-419-7
(DOOR)
TRANSFORMER PAD
SSI-419-3
419SS 12S
419SS-12D
419SS-4S
419SS-4D
419SS-10S
419SS-10D
SSI-419-8
SSI-419-2
FORMER BUILDING 419
419SS-5S
419SS-5D
SSI-419-1
SSI-419-10
419SS-7S
419SS-7D
419SS-6S
419SS-6D
SSI-419-9
419SS-9S
419SS-11S
419SS-11D
419SS-13S
419SS-13D
SSI-419-11
SSI-419-12

LEGEND:

= SAMPLE NOT ANALYZED FOR SVOC's

= SSI SURFACE SOIL SAMPLE (0-3")

= SSI SURFACE AND SUBSURFACE

NOTES:
1. CONCENTRATIONS SHOWN ABOVE NYSDEC PART 375 RESTRICTED USE COMMERCIAL CRITERIA.
2. CONCENTRATIONS SHOWN IN ppb (ug/kg).
3. COMPLETE DATA CAN BE FOUND IN APPENDIX C TABLE BUILDING 419 AND SURROUNDING AREA.
4. SAMPLE LOCATIONS SSI-419-14 AND SSI-419-15 ARE PLOTTED ON FIGURE 4-13

SCALE IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

FORMER BUILDING 419
SVOC RESULTS ABOVE CRITERIA

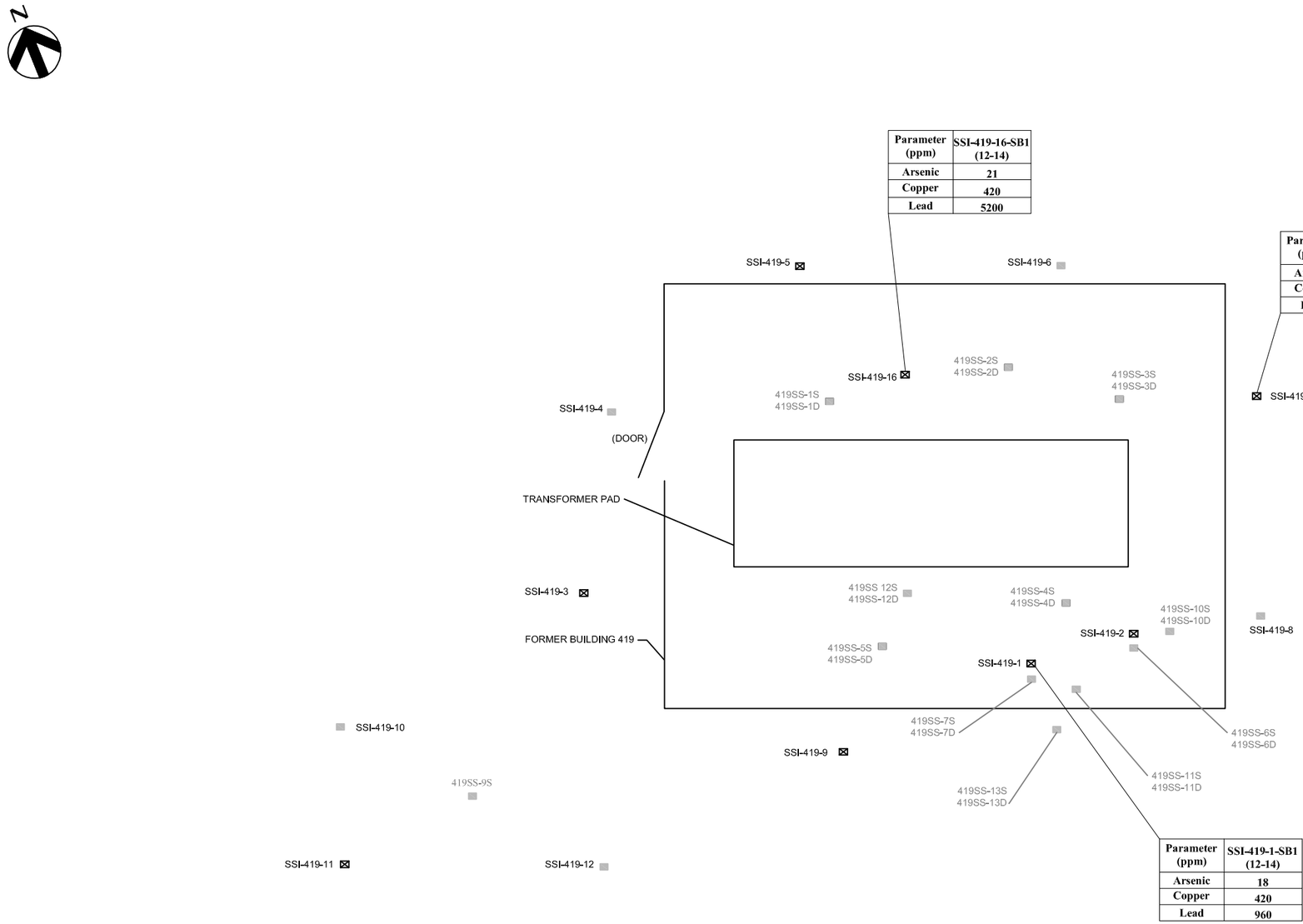
APRIL 2006 | SCALE 1"=10' | Project No. 11664-001-147 | File Name: | Figure No. 4-10 | Issue 0

Parameter	NYSDEC PART 375 Restricted Use Commercial (ppm draft)	TAGM 4046 Criteria for Lead (ppm)
Arsenic	16	
Copper	270	
Lead	1000	400

Parameter (ppm)	SSI-419-16-SB1 (12-14)
Arsenic	21
Copper	420
Lead	5200

Parameter (ppm)	SSI-419-7-SB1 (12-14")	SSI-419-7-SB2 (45-48")
Arsenic	20	43
Copper	370	
Lead	1000	

Parameter (ppm)	SSI-419-1-SB1 (12-14)
Arsenic	18
Copper	420
Lead	960



LEGEND:

- ⚠ = SSI SURFACE SOIL SAMPLE (0-3")
- ⊠ = SSI SURFACE AND SUBSURFACE
- ■ =SAMPLE NOT ANALYZED FOR METALS

NOTES:

1. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET OF SOIL.
2. CONCENTRATIONS SHOWN ARE ABOVE THE TAGM CRITERIA FOR LEAD OR THE NYSDEC PART 375 RESTRICTED USE COMMERCIAL CRITERIA FOR OTHER METALS.
3. CONCENTRATIONS SHOWN IN ppm (mg/kg).
4. COMPLETE DATA CAN BE FOUND IN APPENDIX C TABLE BUILDING 419 AND SURROUNDING AREA.
5. SAMPLE LOCATIONS SSI-419-14 AND SSI-419-15 ARE PLOTTED ON FIGURE 4-12

SCALE IN FEET

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION
REPORT

FORMER BUILDING 419
METAL RESULTS ABOVE CRITERIA

APRIL 2006
SCALE 1"=10'
Project No. 11664-001-147
File Name:
Figure No. 4-11
Issue: 0

Parameter	NYSDEC PART 375 Restricted Use Commercial (ppm draft)	TAGM 4046 Criteria for Lead (ppm)
Arsenic	16	
Barium	400	
Cadmium	9.3	
Copper	270	
Lead	1000	400

Parameter (ppm)	SSI-MW6-1-SB1-12-14	SSI-MW6-1-SB2-21-24	SSI-MW6-1-SB2-21-24-DUP	SSI-MW6-1-SB3-45-48
Arsenic	17	17 J	24 J	
Copper				1500
Lead				1100

Parameter (ppm)	TP108-1D 1.3-1.5'
Barium	667

Parameter (ppm)	MW12S-SS1S 0-2"	MW12S-SS2S (Duplicate)
Copper	837	802
Lead	714	4440

Parameter (ppm)	SSI-419-14-SS(0-3")	SSI-419-14-SB1(12-14")	SSI-419-14-SB2(21-24")
Arsenic	38	56	26
Copper		340	600
Lead	640	970	1300

Parameter (ppm)	SSI-419-15-SB1(12-14")
Copper	340
Lead	510

Parameter (ppm)	SSI-MW5-3-SB1 (12-14")DUP **
Lead	560

Parameter (ppm)	SSI-SS9-2-SB3-45-48
Arsenic	170

Parameter (ppm)	SS10-1S 0-3"
Cadmium	1.3

Parameter (ppm)	SSI-SS11-1-SB2(21-24)
Lead	970

Parameter (ppm)	SSI-SS11-3-SB3(45-48)
Lead	1200

Parameter (ppm)	SSI-SS9-1-SS-6-9	SSI-SS9-1-SB1-12-14
Arsenic	22 J	
Copper		270
Lead		1400

Parameter (ppm)	SS9-1S 0-3"
Copper	272

Parameter (ppm)	TP104-1S 0-2"	TP104-1D 5-5.5'
Arsenic		49.8
Copper	337	

Parameter (ppm)	SSI-MW6-3-SB2-21-24
Copper	380

Parameter (ppm)	SS11-1D 1-1.2'
Cadmium	13.6
Copper	590
Lead	2070

Parameter (ppm)	SS12-1D 1-1.2'
Copper	272

Parameter (ppm)	MW5SR-SS1S 0-2"	MW5SR-SS2S (Duplicate)
Arsenic	25.2	24.9
Copper	427	440
Lead	700	675

RUSH ST.
MORTON ST.
CLYMER ST.
TAYLOR ST.
KENT AVE.
APPROX. KEYSPAN OPERABLE UNIT
MW-7D
MW-1SR
MW-7S
MW-8S
MW-10S
MW-2D
MW-2SR
MW-4S
MW-3SR
SAW MILL FOUNDATION SLAB
CONCRETE WALL
BOAT SHOP FOUNDATION SLAB
SALT SHED
AB-1
AB-2
AB-3
AB-4
B-1
B-2
TO EAST RIVER
BARGE BASIN
RAILROAD SIDING
FORMER DRUM STORAGE AREA 'B' SEE DWG. 4 FOR SSI SOIL SAMPLING LOCATIONS
MW-11S
MW-11D
SSI-SS9-1
SSI-SS9-2
SSI-SS9-3
MW-6SR
MW-6DR
SSI-MW6-1
SSI-MW6-3
SSI-MW6-2
SSI-SS11-1
SSI-SS11-5
SSI-SS11-4
SSI-SS11-3
SSI-SS11-2
FORMER OFF-SITE DRUM STORAGE AREA 'D'
SSI-MW12-4
SSI-MW12-2
SSI-MW12-1
SSI-MW12-3
SSI-419-14
FORMER BUILDING 419 SEE DWG. 5 FOR SSI SAMPLING LOCATIONS
MW-12D
MW-12S
MW-4SR
MW-4DR
SSI-419-15
SSI-MW5-2 *
SSI-MW5-3 *
MW-5SR
SSI-419-13
BUILDING 419
FORMER DRUM STORAGE AREA 'A' SEE DWG. 3 FOR SSI SOIL SAMPLING LOCATIONS
FORMER OFF-SITE DRUM STORAGE AREA 'C'
SSI-MW5-1 *
SSI-MW5-4 *
TP-102
TP-104
TP-105
TP-106
TP-107
TP-108
TP-109
SS-10
SS-11
SS-12
419SS-6D
419SS-7D

LEGEND:

- ▲ = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- PL = PROPERTY LINE
- = FENCE
- = FOUNDATION LIMITS
- MW-4SR = MONITORING WELL
- AB-2 = AUGER BORING
- TP-108 = TEST PIT
- B-2 = DEEP BORING
- SS-12 = IRM/SSA SURFACE SOIL SAMPLE (0-2")
- 419SS-6D = IRM/SSA DEEP SOIL SAMPLE (12"-14")

NOTES:

1. *SAMPLE ONLY ANALYZED FOR LEAD.
2. **DUPLICATE BUT NOT SAMPLE ABOVE 500ppm.
3. SURFACE SOIL IS DEFINED AS THE TOP TWO FEET OF SOIL.
4. CONCENTRATIONS SHOWN ARE ABOVE THE TAGM CRITERIA FOR LEAD OR THE NYSDEC PART 375 RESTRICTED USE COMMERCIAL CRITERIA FOR OTHER METALS.
5. CONCENTRATIONS SHOWN IN ppm (mg/kg).
6. COMPLETE DATA CAN BE FOUND IN APPENDIX C TABLE RAILROAD SIDING/BUILDING 419 AND SURROUNDING AREA.

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL REMEDIAL INVESTIGATION REPORT

SITE CHARACTERIZATION METAL RESULTS ABOVE CRITERIA

APRIL 2006 | SCALE: 1"= 150' | Project No. 11664-001-147 | File Name: | Figure No. 4-12 | Issue: A

Table 4-8
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Soil Analytical Results Above Criteria

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (mg/kg draft)	TP104-1S	TP104-1D[2]	SS9-1S[2]	SS10-1S	SS11-1D[2]	SS12-1D[2]	SSI-MW6-1-SB1-12-14	SSI-MW6-1-SB2-21-24	SSI-MW6-1-SB2-21-24-DUP	SSI-MW6-1-SB3-45-48	SSI-MW6-3-SB2-21-24
Sample Date			4/4/1997	4/4/1997	4/22/1997	4/22/1997	4/14/1997	4/14/1997	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05
Sample Analyzed Date			4/9/97 - 4/26/97	4/9/97 - 4/26/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97	4/18/97 - 4/26/97	4/18/97 - 4/26/97					
Sample Depth (bgs) (type)			0" - 2" (shallow)	5' - 5.5' (deep)	0" - 3" (shallow)	0" - 3" (shallow)	1' - 1.2' (deep)	1' - 1.2' (deep)	12-14	21-24	21-24	45-48	21-24
Sampling Method			Backhoe	Backhoe	Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Mattock/Aluminum Spoon	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Sand/Gravel	Sand/Gravel	NA	NA	NA	NA	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations			OVA = 0 ppm	Light Gray Sand, Gravel, OVA = 5 - 20 ppm	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected					
Metals (ppm)	Arsenic	16		**49.8**					**17**	**17** J	**24** J		
	Barium	400											
	Cadmium	9.3				**1.3**	**13.6**						
	Copper	270	**337**		**272**		**590**	**272**				**1500**	**380**
	Lead	1000 [1]					**2070**					**1100**	

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (ug/kg draft)	SS9-1D	SS11-1D[2]	SSI-MW6-2-SB1-12-14	SSI-SS11-3-SB1(12-14)	SSI-SS11-5-SB1(12-14)	SSI-SS11-5-SB3(45-48)	SSI-SS9-1-SB4-72-75	SSI-SS9-2-SB3-45-48	SSI-SS9-2-SB4-72-75	SSI-SS9-2-SS-6-9	SSI-SS9-3-SB1-12-14
Sample Date			4/22/1997	4/14/1997	12/6/2005	12/7/2005	12/7/2005	12/7/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005
Sample Analyzed Date			4/25/1997	4/16/1997									
Sample Depth (bgs) (type)			1' - 1.2' (deep)	1' - 1.2' (deep)	12-14	(12-14)	(12-14)	(45-48)	72-75	45-48	72-75	6-9	12-14
Sampling Method			Mattock/Aluminum Spoon	Mattock/Aluminum Spoon	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			NA	NA	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations			Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected									
SVOCs (ppb)	Benzo(a)anthracene	5600				**9030**				**20600**	**1310**	**521** J	**443**
	Benzo(b)fluoranthene	6000				**11300**				**11200** J	**1570**		
	Benzo(a)pyrene	1000	**3700 J**	**3000** J	**1340** J	**6620**	**1110** J	**1470**	**2060** J	**6690** J	**1120**	**574** J	**235** J
	Dibenzo(a,h)anthracene	560				**1350** J					**158** J		**74** J

Table 4-8
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Soil Analytical Results Above Criteria

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (mg/kg draft)	TP104-1S	SSI-SS11-1-SB2(21-24)	SSI-SS11-3-SB3(45-48)	SSI-SS9-1-SB1-12-14	SSI-SS9-1-SS-6-9	SSI-SS9-2-SB3-45-48	SSI-SS9-3-SB3-45-48
Sample Date			4/4/1997	12/7/2005	12/7/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005
Sample Analyzed Date			4/9/97 - 4/26/97						
Sample Depth (bgs) (type)			0" - 2" (shallow)	(21-24)	45-48	12-14	6-9	45-48	45-48
Sampling Method			Backhoe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations			OVA = 0 ppm						
Metals (ppm)	Arsenic	16		NM			**22** J	**170**	**47**
	Barium	400		NM					
	Cadmium	9.3		NM					
	Copper	270	**337**	NM		**270**			
	Lead	1000 [1]		**970**	**1200**	**1400**			

Category	Parameter	NYDEC Part 375 Restricted Use Commercial (ug/kg draft)	SS9-1D	SSI-SS9-3-SB2-21-24	SSI-SS9-3-SB3-45-48	SSI-SS9-3-SB4-72-75	SSI-SS9-3-SS-6-9
Sample Date			4/22/1997	12/6/2005	12/6/2005	12/6/2005	12/6/2005
Sample Analyzed Date			4/25/1997				
Sample Depth (bgs) (type)			1' - 1.2' (deep)	21-24	45-48	72-75	6-9
Sampling Method			Mattock/Aluminum Spoon	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			NA	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations			Predetermined Sampling Depth; OVA reading not collected				
SVOCs (ppb)	Benzo(a)anthracene	5600		**453**	**1040**	**776**	**397** J
	Benzo(b)fluoranthene	6000			**1240**		
	Benzo(a)pyrene	1000	**3700 J**	**297** J	**861**	**594**	**212** J
	Dibenzo(a,h)anthracene	560		**55.9** J	**145** J	**104** J	

[1] TAGM 4046 criteria of 400 ppm is applied for lead.
[2] A TCLP analysis was also performed for this sample.
[3] The values reported for this sample are based on a reanalysis of the sample.

ppm - parts per million
ppb - parts per billion
bgs - below ground surface
U - The analyte was analyzed for, but not detected.
J - Analyte detected below method detection limit and/or estimated concentration.
B - Indicates the analyte was found in the blank as well as the sample.
R - The presence or absence of the analyte cannot be verified due
NM - Analysis not performed.

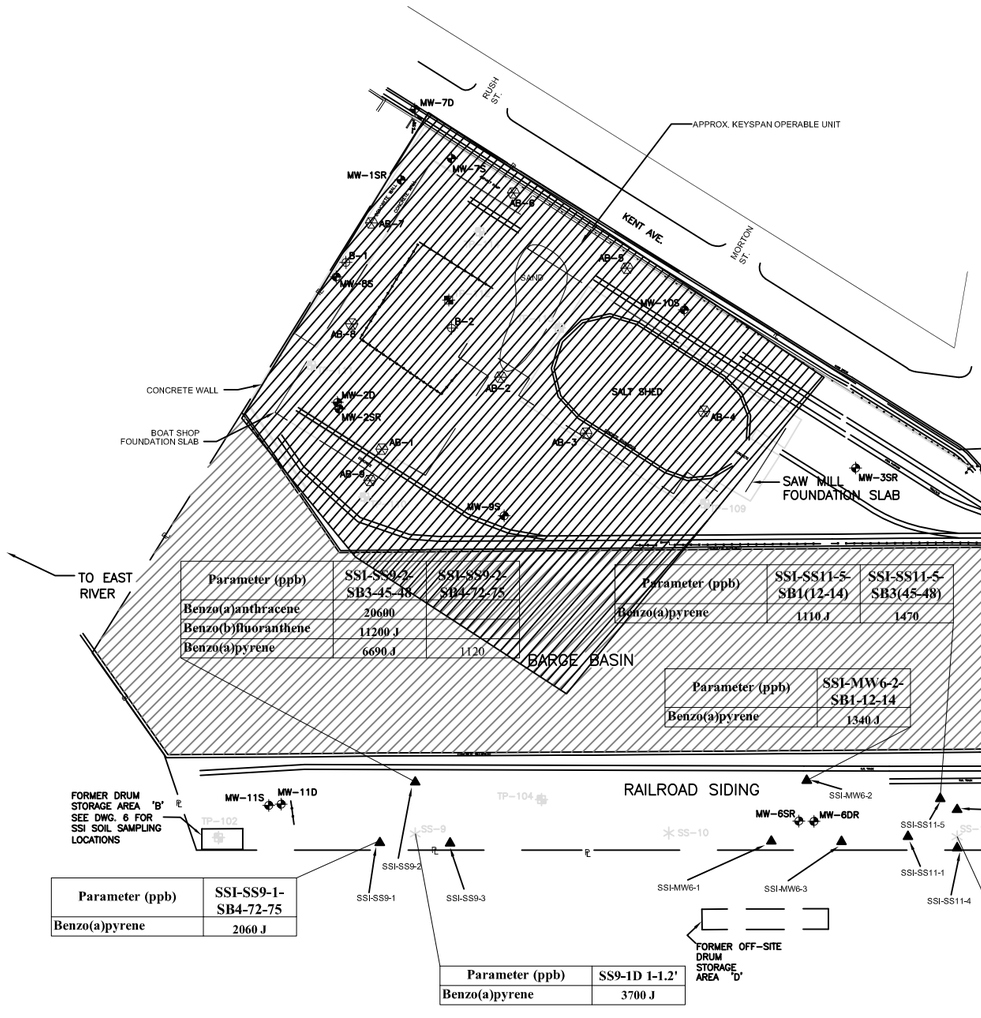
appear to exceed the site cleanup criteria at any of these locations. Lead concentrations above 400 ppm at greater depths are limited in size and do not have a clear spatial pattern horizontally or vertically. These observations are again consistent with the interpretation that these lead levels are associated with urban fill.

Additional Site Soils Characterization

In order to better characterize a number of areas where SVOCs were previously detected or data were limited, samples were collected in the railroad siding area, proximate to MW-6, SS-9 and SS-11, in the area north and south of former Building 419, and to the northeast of TP-107. These samples were collected at intervals of 0”-3”, 12”-14”, 21”-24”, 45”-48”, and 72”-75” and analyzed for the TCL metals, SVOCs and TICs (Appendix C). Additionally, at locations SSI-SS9-1, SSI-MW6-1 and SSI-419-14 samples were also collected at the 12”-14” and 45”-48” intervals and analyzed for the full TCL. SVOCs were detected above Brownfield criteria as typical for the site as a whole (Figure 4-13). At SSI-419-14, surface soil lead levels exceeded the 400 ppm criterion in one sample in the 0-3” interval. At the same location, lead levels were above the 1000 ppm Brownfield criteria in the 21-24” interval and in samples from SSI-MW6-1 45-48”, and SS1-SS9-1 12-14” (Figure 4-12). In addition, other metals, most frequently arsenic and copper, were observed at concentrations above Brownfield criteria as is common throughout the site. VOCs, pesticides or PCBs were not detected above TAGM 4046 criteria in these samples. Additionally, grid sampling for surface and subsurface PCBs had previously been performed in the area surrounding building 419 and the railroad siding. Only low PCB concentrations well below TAGM criteria were observed (Appendix E). Generally low levels of a number of TICs were observed during analysis (Appendix F). 4-hydroxy-4-methyl-2-pentanone was detected up to the 1000 ppm range at several locations: SSI-419-11-SB1 (12-14), SSI-419-13-SS (0-3), SSI-419-13 (12-14), SSI-419-5-SB1 (12-14") and SSI-SS9-1-SB3 (45-48). However, these values are qualified (A Qualifier) as a suspected aldol condensation product, indicating that it may be an artifact produced from the acetone used in sample preparation.

These data reinforce the general observation that levels of metals and SVOCs above Brownfield criteria are widely distributed at this site, and that there is no readily discernable pattern. This contrasts, for example, with the distribution of PCB concentrations, which are localized in the areas immediately adjacent to building 419 and a small portion of Drum Storage area B. PCB concentrations show a pattern consistent with past site activities, while PAHs, lead and other metals concentrations above guidance values appear randomly distributed and are believed to be associated with historic urban fill.

Parameter	NYSDEC PART 375 Restricted Use Commercial (ppb draft)
Benzo(a)anthracene	5600
Benzo(b)fluoranthene	6000
Benzo(a)pyrene	1000
Indeno(1,2,3-cd)pyrene	5600
Dibenzo(a,h)anthracene	560



Parameter (ppb)	SSI-SS11-3-SB1(12-14)
Benzo(a)anthracene	9030
Benzo(b)fluoranthene	11300
Benzo(a)pyrene	6620
Dibenzo(a,h)anthracene	1350 J

Parameter (ppb)	SSI-419-14-SS(0-3")	SSI-419-14-SB1(12-14")	SSI-419-14-SB2(21-24")
Benzo(a)anthracene		12800	9970
Benzo(b)fluoranthene		17600	11900
Benzo(a)pyrene	1370 J	13500	8970
Indeno(1,2,3-cd)pyrene		7880	
Dibenzo(a,h)anthracene		2220 J	1430 J

Parameter (ppb)	TP106-1S 1.3-1.5'
Benzo(a)pyrene	1700

Parameter (ppb)	SSI-SS9-2-SB3-45-48	SSI-SS9-2-SB4-72-75
Benzo(a)anthracene	20600	
Benzo(b)fluoranthene	11200 J	
Benzo(a)pyrene	6690 J	1120

Parameter (ppb)	SSI-SS11-5-SB1(12-14)	SSI-SS11-5-SB3(45-48)
Benzo(a)pyrene	1110 J	1470

Parameter (ppb)	SSI-MW6-2-SB1-12-14
Benzo(a)pyrene	1340 J

Parameter (ppb)	TP107-1D 2.3-3'
Benzo(a)pyrene	1000

Parameter (ppb)	SSI-SS9-1-SB4-72-75
Benzo(a)pyrene	2060 J

Parameter (ppb)	SS9-1D 1-1.2'
Benzo(a)pyrene	3700 J

Parameter (ppb)	SS11-1D 1-1.2'
Benzo(a)pyrene	3000 J

Parameter (ppb)	SSI-419-13 (12-14)	SSI-419-13 (21-24)	SSI-419-13-SS (0-3)
Benzo(a)anthracene	8610		
Benzo(b)fluoranthene	9670		
Benzo(a)pyrene	5680 J	1290	3090
Dibenzo(a,h)anthracene	1050 J		646 J

LEGEND:

- ▲ = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- PL = PROPERTY LINE
- = FENCE
- = FOUNDATION LIMITS
- MW-4SR = MONITORING WELL
- AB-2 = AUGER BORING
- TP-108 = TEST PIT
- B-2 = DEEP BORING
- SS-12 = IRM/SSA SURFACE SOIL SAMPLE (0-2")
- 419SS-6D = IRM/SSA DEEP SOIL SAMPLE (12"-14")

NOTES:

1. CONCENTRATIONS SHOWN ARE ABOVE NYSDEC PART 375 RESTRICTED USE COMMERCIAL CRITERIA.
2. CONCENTRATIONS SHOWN IN ppb (ug/kg).
3. COMPLETE DATA CAN BE FOUND IN APPENDIX C TABLE RAILROAD SIDING/BUILDING 419 AND SURROUDING AREA.

Issue No.	Description	Date	Drwn.	Chkd.	Resp. Engr.	Proj. Mgr.

HydroQual
HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL REMEDIAL INVESTIGATION REPORT

SITE CHARACTERIZATION SVOC RESULTS ABOVE CRITERIA

APRIL 2006	Project No. 11664-001-147	Figure No. 4-13	Issue A
SCALE: 1"= 150'	File Name:		

4.3 SOIL VAPOR SURVEY

To assess the vapor intrusion pathway, a screening-level soil vapor assessment was performed to complete the overall site characterization. Two soil vapor samples were collected in each of the Former Drum Storage Areas (SSI-DSA-SV1, SSI-SDA-SV2, SSI-DSB-SV1, and SSI-DSB-SV2), in the vicinity of monitoring well MW-6 within the railroad siding (SSI-MW6-SV1 and SSI-MW6-SV2) and three soil vapor samples were collected in the vicinity of Former Building 419 (SSI-419-SV1 through SSI-419-SV3).

The Draft NYS Soil Vapor Intrusion Guidance does not provide standards, criteria, or guidance values for evaluation of volatile organics in subsurface vapors. Rather, the guidance indicates that the results should be reviewed "as a whole" to identify trends and spatial variability and in comparison to the air guideline values for five compounds listed in Table 3-1 of the Soil Vapor Intrusion Guidance. The soil gas results are tabulated in Table 4-9 and indicate that methylene chloride is reported at 115 ug/m3 at location SSI-DSA-SV2, tetrachloroethene is reported at 144 and 105 ug/m3 at locations SSI-DSA-SV2 and SSI-419-SV1 respectively, and trichloroethylene is reported at 18 ug/m3 at location SSI-419-SV2. At these locations, these three compounds, methylene chloride, tetrachloroethene and trichloroethene, are found above the air guideline values of 60, 100 and 5 ug/m3, respectively. When evaluated collectively, the soil gas results typically report concentrations of acetone, benzene, ethylbenzene, toluene, xylene, MTBE and several other compounds at concentrations that are, with few exceptions, generally below USEPA shallow soil vapor screening criteria. These constituents were also reported at low levels (typically "J" qualified results) in some, but not all of the soil samples. Finally, trace levels (below groundwater standards) of benzene, ethylbenzene and toluene were also detected in some of the monitoring well samples. Detected concentrations in soil vapor, soil and groundwater, for the list of constituents detected in the soil vapor samples, are plotted in Figure 4-14.

The collective data suggest that the soil gas results are generally consistent across the site and do not provide evidence of the presence of a "plume" or defined area of elevated VOCs. The consistent nature of the BTEX compounds (benzene, toluene, ethylybenzene, and xylene) and their presence at trace levels within the soil appears to be consistent with the observed use of the majority of the area for construction equipment and vehicle storage. There are no buildings on the Site so that the evaluation of sub-slab and/or indoor air samples is not possible.

Table 4-9
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Soil Vapor Analytical Results

Compound	NYDOH indoor/ outdoor air guidelines ug/m^3	EPA Shallow Soil Vapor Target Value, 0.1 Attenuation Factor, 1x10^{-5} Risk ug/m^3	Lab Reporting Limit ug/m^3	SSI-MW6 SVI ug/m^3	SSI-MW6 SV2 ug/m^3	SSI-DSA-SVI ug/m^3	SSI-DSA-SV2 ug/m^3	SSI-419-SVI ug/m^3	SSI-419-SV2 ug/m^3	SSI-419-SV3 ug/m^3	SSI-419-SV3 dup ug/m^3	SSI-DSB-SV1 ug/m^3	SSI-DSB-SV2 ug/m^3
Acetone		3500	1	78	76	129	242	87	69	44	40	34	17
Benzene		31	2	18	16	23	22	14	15	8.5	9.2	7.6	5.5
Bromodichloromethane		14	3	<RL	<RL	**137**	10	<RL	<RL	<RL	<RL	<RL	<RL
Bromoethene			2	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Bromoform		220	5	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Bromomethane			2	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
1,3-Butadiene		0.9	1	<RL	**1.4**	**6.2**	**2.3**	<RL	**1.4**	**1.4**	**1.6**	<RL	<RL
tert-Butyl alcohol			2	<RL	2.8	<RL	12	4.9	20	5.8	6.5	<RL	<RL
Carbon disulfide		7000	2	<RL	<RL	46	1.7	3.8	<RL	<RL	<RL	2	<RL
Carbon tetrachloride		16	3	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Chlorobenzene		600	2	<RL	<RL	40	5.4	<RL	<RL	<RL	<RL	<RL	<RL
Chloroethane		100000	1	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Chloroform		11	2	<RL	<RL	<RL	2.6	<RL	**27**	<RL	<RL	<RL	<RL
Chloromethane			1	1.2	1.6	<RL	<RL	<RL	<RL	1.3	1.4	1.3	<RL
3-Chloropropene			2	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
2-Chlorotoluene			3	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Cyclohexane			2	13	8.1	109	395	4.5	14	7.7	4.3	10	2.3
Dibromochloromethane			4	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
1,2-Dibromoethane			4	<RL	<RL	5.3	<RL	<RL	<RL	<RL	<RL	<RL	<RL
1,2-Dichlorobenzene		2000	3	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
1,3-Dichlorobenzene		1100	3	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
1,4- Dichlorobenzene		8000	3	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Dichlorodifluoromethane		2000	2	4.9	5.1	5	4.7	4.7	8.2	5.1	4.9	6.3	6
1, 1- Dichloroethane		5000	2	<RL	<RL	2.4	<RL	<RL	<RL	<RL	<RL	<RL	<RL
1,2- Dichloroethane		9.4	2	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
1,l-Dichloroethylene		2000	2	<RL	<RL	2.5	<RL	2.8	<RL	<RL	<RL	<RL	<RL
cis-l,2-Dichloroethylene		350	2	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
trans-l ,2- Dichloroethylene		700	2	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
1,2- Dichloropropane		40	2	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
cis-l ,3 - Dichloropropene			2	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
trans-l,3-Dichloropropene			2	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Dichlorotetrafluoroethane			3	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Ethylbenzene		220	2	5.1	31	<RL	28	17	9.4	18	20	6.2	9.5
4-Ethyltoluene			2	4.2	19	8.4	37	13	11	14	16	3.3	4.5
Heptane			2	<RL	17	16	28	6.4	12	5.8	6.6	7.2	5
Hexachlorobutadiene		0.53	5	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Hexane		2000	2	5.6	20	90	64	8.1	24	8.9	9.7	13	7.6
Methyl ethyl ketone		10000	1	2.6	9.5	21	6.4	20	10	8.4	7.5	4.5	3
Methyl isobutyl ketone		800	2	<RL	<RL	<RL	3	2.7	2.5	<RL	<RL	<RL	<RL
Methylene chloride	60	520	2	4.3	2.7	2.9	**115**	2.5	28	3.1	3.7	5.5	2
Methyl-t-butyl ether		30000	2	<RL	19	24	32	21	10	8	8.6	3.9	2.9
Styrene		10000	2	2.2	3	4.1	4.4	2.6	3.2	<RL	<RL	<RL	<RL
1,1,2,2- Tetrachloroethane		4.2	3	**6.1**	<RL	<RL	<RL	**12**	<RL	<RL	<RL	<RL	<RL
Tetrachloroethylene	100	81	3	<RL	23	33	**144**	**105**	27	16	16	<RL	<RL
Toluene		4000	2	11	131	28	143	89	606	87	93	47	88
1,1,2- Trichloro-1,2,2-trifluoroethane		300000	4	5.4	<RL	<RL	5.7	<RL	<RL	<RL	<RL	<RL	<RL
1,2,4- Trichlorobenzene		2000	4	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
1,1,1- Trichloroethane		22000	3	<RL	<RL	<RL	<RL	3.8	<RL	<RL	<RL	<RL	<RL
1,1,2- Trichloroethane		15	3	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Trichloroethylene	5	2.2	3	<RL	<RL	<RL	**3.3**	<RL	**18**	<RL	<RL	<RL	<RL
Trichlorofluoromethane		7000	3	<RL	<RL	<RL	4	11	<RL	<RL	<RL	<RL	<RL
1,2,4- Trimethylbenzene		60	2	5.6	13	7.3	43	15	13	20	22	3.7	4.8
1,3,5- Trimethylbenzene		60	2	<RL	6	3.1	15	5.1	4.1	4.7	6.1	<RL	<RL
2,2,4- Trimethylpentane			2	<RL	4.4	75	25	3.3	5.1	3.4	3.7	3.2	<RL
Vinyl chloride		28	1	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
m or p-Xylene		70000	2	8.2	54	<RL	46	26	14	29	33	8	14
o-Xylene		70000	2	3.5	32	29	30	16	8.6	17	19	4.7	6.9

Notes: <RL less than lab reporting limit
Bold values are above NYDOH or EPA criteria

GROUNDWATER		
Parameter	NYSDEC 703/TOGS II Ground water Criteria	Estimated Detection Limit
Acetone	50 (G)	10
Benzene	1 (S)	10
Ethylbenzene	NL	10
Toluene	NL	10
Xylenes(total)	5 (S)	10

SOIL	
Parameter	TAGM 4046 Soil Screening Criteria
Methylene Chloride	100
Acetone	200
1,1-Dichloroethene	400
Benzene	60
Tetrachloroethene	1400
1,1,2,2-Tetrachloroethane	600
Toluene	1500
Ethylbenzene	5500
Xylenes(total)	1200

SOIL VAPOR		
Compound	NYDOH indoor/ outdoor air guidelines ug/m3	EPA Shallow Soil Vapor Target Value, 0.1 Attenuation Factor, 1x10-5 Risk ug/m3
Acetone		3500
Benzene		31
Bromodichloromethane		14
1,3-Butadiene		0.9
Carbon disulfide		7000
Chlorobenzene		600
Chloroethane		100000
Chloroform		11
Dichlorodifluoromethane		2000
1, 1- Dichloroethane		5000
1,I-Dichloroethylene		2000
Ethylbenzene		220
Hexane		2000
Methyl ethyl ketone		10000
Methyl isobutyl ketone		800
Methylene chloride	60	520
Methyl-t-butyl ether		30000
Styrene		10000
1,1,2,2- Tetrachloroethane		4.2
Tetrachloroethylene	100	81
Toluene		4000
1,1,2-Trichloro-1,2,2-trifluoroethane		300000
1,1,1- Trichloroethane		22000
Trichloroethylene	5	2.2
Trichlorofluoromethane		7000
1,2,4- Trimethylbenzene		60
1,3,5- Trimethylbenzene		60
m or p-Xylene		70000
o-Xylene		70000

Parameter	SSI-419-5-SB1 (12-14")		SSI-419-5-SB2 (45-48")	
	12/8/2005		12/8/2005	
	(12-14)		(45-48")	
Methylene Chloride	56.4	B	35.9	B
Acetone	66		42.2	
Tetrachloroethene	11.5		6.93	J
Toluene	35.5		19.5	

Parameter	SSI-419-16-SB1 (12-14)		SSI-419-16-SB2 (45-48)	
	12/12/2005		12/12/2005	
	(12-14)		(45-48)	
Methylene Chloride	18.7	B	16	B
Toluene			4.84	J

Parameter	MW12S-SS1S3,4		MW12S-SS2S3,4 (Duplicate)		MW12S-SS1D3		MW12D-SS13	
	4/25/1997						5/8/1997	
	0" - 2" (shallow)				2' - 10' (deep)		15.5' - 18' (deep)	
Methylene Chloride	9.3	J	4.3	J	14	J		
Acetone	11	UJ			19	R	26	J

Parameter	MW12S
	5/28/1997
Acetone	3.9 J

Parameter	TP108-1D	
	4/8/1997	
	1.3' - 1.5' (deep)	
Methylene Chloride	12	J
Acetone	17	J

Parameter	TP108-1S	
	4/8/1997	
	1' - 1.2' (shallow)	
Methylene Chloride	5.9	J
Acetone	13	

Compound	SSI-419-SV2 ug/m3
Acetone	69
Benzene	15
1,3-Butadiene	**1.4**
tert-Butyl alcohol	20
Chloroform	**27**
Cyclohexane	14
Dichlorodifluoromethane	8.2
Ethylbenzene	9.4
4-Ethyltoluene	11
Heptane	12
Hexane	24
Methyl ethyl ketone	10
Methyl isobutyl ketone	2.5
Methylene chloride	28
Methyl-t-butyl ether	10
Styrene	3.2
Tetrachloroethylene	27
Toluene	606
Trichloroethylene	**18**
1,2,4- Trimethylbenzene	13
1,3,5- Trimethylbenzene	4.1
2,2,4- Trimethylpentane	5.1
m or p-Xylene	14
o-Xylene	8.6

Parameter	SSI-419-1-SB1 (12-14)	
	12/12/2005	
	(12-14)	
Methylene Chloride	12.1	B
1,1,2,2-Tetrachloroethane	11.9	U
Toluene	2.89	J

Parameter	SSI-419-7-SB1 (12-14")		SSI-419-7-SB2 (45-48")	
	12/8/2005		12/8/2005	
	(12-14")		(45-48")	
Methylene Chloride	49.6	B	34	B
Acetone			19.8	
Tetrachloroethene	11.5	J	2.43	J
Toluene	27.6		2.99	J
Ethylbenzene	1.92	J		

Parameter	SSI-419-14-SB1 (12-14")		SSI-419-14-SB3 (45-48")	
	12/8/2005		12/8/2005	
	(12-14")		(45-48")	
Methylene Chloride	51.1	B	62.6	B
Acetone			81.5	
Tetrachloroethene	5.64	J	48.9	
Toluene	19.9		82.8	

Parameter	SSI-419-3-SB1 (12-14")		SSI-419-3-SB2 (45-48")	
	12/8/2005		12/8/2005	
	(12-14")		(45-48")	
Methylene Chloride	19	B	77.6	B
Acetone	34.8		57.5	
Tetrachloroethene	10.3	J	31.7	
1,1,2,2-Tetrachloroethane			11.1	U
Toluene	24.3		46.7	

Parameter	SSI-MW12-4-SB1 (12-14)	
	12/7/2005	
	(12-14)	
Methylene Chloride	26	B
Acetone	41	
Xylenes(total)	10	

Parameter	SSI-419-11-SB1 (12-14)		SSI-419-11-SB2 (45-48)	
	12/12/2005		12/12/2005	
	(12-14)		(45-48)	
Methylene Chloride	12	B	11.4	B
Toluene	9.84	J		

Compound	SSI-MW6-SV2 ug/m3
Acetone	76
Benzene	16
1,3-Butadiene	**1.4**
tert-Butyl alcohol	2.8
Chloromethane	1.6
Cyclohexane	8.1
Dichlorodifluoromethane	5.1
Ethylbenzene	31
4-Ethyltoluene	19
Heptane	17
Hexane	20
Methyl ethyl ketone	9.5
Methylene chloride	2.7
Methyl-t-butyl ether	19
Styrene	3
Tetrachloroethylene	23
Toluene	131
1,2,4- Trimethylbenzene	13
1,3,5- Trimethylbenzene	6
2,2,4- Trimethylpentane	4.4
m or p-Xylene	54
o-Xylene	32

Parameter	MW4SR-SS1D3		MW4SR-SS1S3	
	4/21/1997			
	4' - 6' (deep)		1' - 1. 5' (shallow)	
Methylene Chloride	5.9	J	8.1	J

Parameter	MW4SR	SSI-MW-4SR
	5/29/1997	12/19/2005
Ethylbenzene	4.7 J	
Toluene		2.15 J

Parameter	SSI-MW-4DR	SSI-MW-4DR DUP
	12/19/2005	12/19/2005
Toluene	1.2 J	1.75 J

Compound	SSI-419-SV3 dup ug/m3	Compound	SSI-419-SV3 ug/m3
Acetone	40	Acetone	44
Benzene	9.2	Benzene	8.5
1,3-Butadiene	**1.6**	**1,3-Butadiene**	**1.4**
tert-Butyl alcohol	6.5	tert-Butyl alcohol	5.8
Chloromethane	1.4	Chloromethane	1.3
Cyclohexane	4.3	Cyclohexane	7.7
Dichlorodifluoromethane	4.9	Dichlorodifluoromethane	5.1
Ethylbenzene	20	Ethylbenzene	18
4-Ethyltoluene	16	4-Ethyltoluene	14
Heptane	6.6	Heptane	5.8
Hexane	9.7	Hexane	8.9
Methyl ethyl ketone	7.5	Methyl ethyl ketone	8.4
Methylene chloride	3.7	Methylene chloride	3.1
Methyl-t-butyl ether	8.6	Methyl-t-butyl ether	8
Tetrachloroethylene	16	Tetrachloroethylene	16
Toluene	93	Toluene	87
1,2,4- Trimethylbenzene	22	1,2,4- Trimethylbenzene	20
1,3,5- Trimethylbenzene	6.1	1,3,5- Trimethylbenzene	4.7
2,2,4- Trimethylpentane	3.7	2,2,4- Trimethylpentane	3.4
m or p-Xylene	33	m or p-Xylene	29
o-Xylene	19	o-Xylene	17

Parameter	TP106-1D	
	4/7/1997	
	5.4' - 6.4' (deep)	
Methylene Chloride	7.6	JB

Parameter	SSI-MW5-2-SB1 (12-14")		SSI-MW5-2-SB3 (45-48")	
	12/8/2005		12/8/2005	
	(12-14")		(45-48")	
Methylene Chloride	9.19	JB	10.5	JB
Acetone	28.1		63.1	
Toluene	3.6	J	7.29	J

Parameter	MW5SR-SS1S3		MW5SR-SS2S3 (Duplicate)		MW5SR-SS1D3	
	4/15/1997					
	0" - 2" (shallow)				14' - 16' (deep)	
Methylene Chloride	6.6	J	15	B	6.6	J
Acetone	15	J	13	UJ	33	J
1,1-Dichloroethene					7.2	J
Benzene					3.5	J
Toluene					5	J

Parameter	DSASS-1S	DSASS-1D
	10/30/96 & 10/31/96	10/30/96 & 10/31/96
	0" - 3" (shallow)	NA
Methylene Chloride	7.8 J	8.4 J
Acetone		13

Parameter	DSASS-2S	DSASS-2D
	10/30/96 & 10/31/96	10/30/96 & 10/31/96
	0" - 3" (shallow)	NA
Methylene Chloride	13	9.5 J
Acetone	6.5 J	21

Parameter	TP103-1D3	
	4/3/1997	
	7.5' (deep)	
Methylene Chloride	11	J
Acetone	39	J

Compound	SSI-DSB-SV1 ug/m3
Acetone	34
Benzene	7.6
Carbon disulfide	2
Chloromethane	1.3
Cyclohexane	10
Dichlorodifluoromethane	6.3
Ethylbenzene	6.2
4-Ethyltoluene	3.3
Heptane	7.2
Hexane	13
Methyl ethyl ketone	4.5
Methylene chloride	5.5
Methyl-t-butyl ether	3.9
Toluene	47
1,2,4- Trimethylbenzene	3.7
2,2,4- Trimethylpentane	3.2
m or p-Xylene	8
o-Xylene	4.7

Parameter	TP102-2S (Duplicate)
	4/3/1997
	0" - 2" (shallow)
Methylene Chloride	7 J

Parameter	DSBSS-3D
	10/30/96
	NA
Methylene Chloride	16

Parameter	DSBSS-2S	DSBSS-2D
	10/30/96	
	0"-3" (shallow)	NA
Methylene Chloride	9 J	0.014

Parameter	DSBSS-1S	DSBSS-1D
	10/30/96	
	0"-3" (shallow)	NA
Methylene Chloride	8.9 J	16
Acetone		34

Compound	SSI-DSB-SV2 ug/m3
Acetone	17
Benzene	5.5
Cyclohexane	2.3
Dichlorodifluoromethane	6
Ethylbenzene	9.5
4-Ethyltoluene	4.5
Heptane	5
Hexane	7.6
Methyl ethyl ketone	3
Methylene chloride	2
Methyl-t-butyl ether	2.9
Toluene	88
1,2,4- Trimethylbenzene	4.8
m or p-Xylene	14
o-Xylene	6.9

Parameter	SSI-SS9-1-SB1 (12-14)		SSI-SS9-1-SB3 (45-48)	
	12/6/2005		12/6/2005	
	12-14		45-48	
Methylene Chloride	36	B	12	B
Acetone	32		29	
Benzene	1.6	J		
Toluene	14		5.8	J
Ethylbenzene	1.4	J		
Xylenes(total)	22			

Parameter	SS9-1D	
	4/22/1997	
	1' - 1.2' (deep)	
Methylene Chloride	5.9	J

Parameter	SS10-1S	
	4/22/1997	
	0" - 3" (shallow)	
Methylene Chloride	5.6	J
Acetone	4.9	J

Parameter	TP104-1S		TP104-1D3	
	4/4/1997			
	0" - 2" (shallow)		5' - 5.5' (deep)	
Methylene Chloride	9.5	J	10	J
Acetone	11	J	33	J

Parameter	SSI-MW6-1-SB1 (12-14)		SSI-MW6-1-SB3 (45-48)	
	12/6/2005		12/6/2005	
	12-14		45-48	
Methylene Chloride	45	B	35	B
Acetone			39	
Toluene	15		2.8	J

Parameter	MW6SR-SS1S3		MW6SR-SS1D		MW6D-SS1	
	4/23/1997				5/14/1997	
	0" - 2" (shallow)		8' - 10' (deep)		11' - 14' (deep)	
Methylene Chloride	6	J	5.5	J		
Acetone	9.5	J			190	J

Parameter	MW6SR	MW-6-SR
	5/28/1997	2/2/2006
Acetone	12	
Benzene		2.93 J
Ethylbenzene	4.4 J	3.79 J
Xylenes(total)	**21**	**41.36 J**

Compound	SSI-MW6-SVI ug/m3
Acetone	78
Benzene	18
Chloromethane	1.2
Cyclohexane	13
Dichlorodifluoromethane	4.9
Ethylbenzene	5.1
4-Ethyltoluene	4.2
Hexane	5.6
Methyl ethyl ketone	2.6
Methylene chloride	4.3
Styrene	2.2
1,1,2,2- Tetrachloroethane	**6.1**
Toluene	11
1,1,2-Trichloro-1,2,2-trifluoroethane	5.4
1,2,4- Trimethylbenzene	5.6
m or p-Xylene	8.2
o-Xylene	3.5

Parameter	SS11-1S3		SS11-1D3	
	4/14/1997			
	0" - 3" (shallow)		1' - 1.2' (deep)	
Methylene Chloride	6.1	J	6.9	J
Acetone			82	J

Parameter	SSI-SS11-3-SB1 (12-14)		SSI-SS11-3-SB3 (45-48)	
	12/7/2005 (12-14)		12/7/2005 (45-48)	
Methylene Chloride	27	B	29	B
Acetone			26	
Toluene	4.6	J	0.96	J

Parameter	TP105-1S3		TP105-1D	
	4/4/1997			
	0" - 2" (shallow)		5.5' - 6' (deep)	
Methylene Chloride	7.5	J		
Acetone			40	J

Compound	SSI-419-SVI ug/m3
Acetone	87
Benzene	14
tert-Butyl alcohol	4.9
Carbon disulfide	3.8
Cyclohexane	4.5
Dichlorodifluoromethane	4.7
1,I-Dichloroethylene	2.8
Ethylbenzene	17
4-Ethyltoluene	13
Heptane	6.4
Hexane	8.1
Methyl ethyl ketone	20
Methyl isobutyl ketone	2.7
Methylene chloride	2.5
Methyl-t-butyl ether	21
Styrene	2.6
1,1,2,2- Tetrachloroethane	**12**
Tetrachloroethylene	**105**
Toluene	89
1,1,1- Trichloroethane	3.8
Trichlorofluoromethane	11
1,2,4- Trimethylbenzene	15
1,3,5- Trimethylbenzene	5.1
2,2,4- Trimethylpentane	3.3
m or p-Xylene	26
o-Xylene	16

Parameter	SS12-1S3		SS12-1D3	
	4/14/1997			
	0" - 3" (shallow)		1' - 1.2' (deep)	
Methylene Chloride	9.8	J	5.3	JB
Acetone			9.4	J

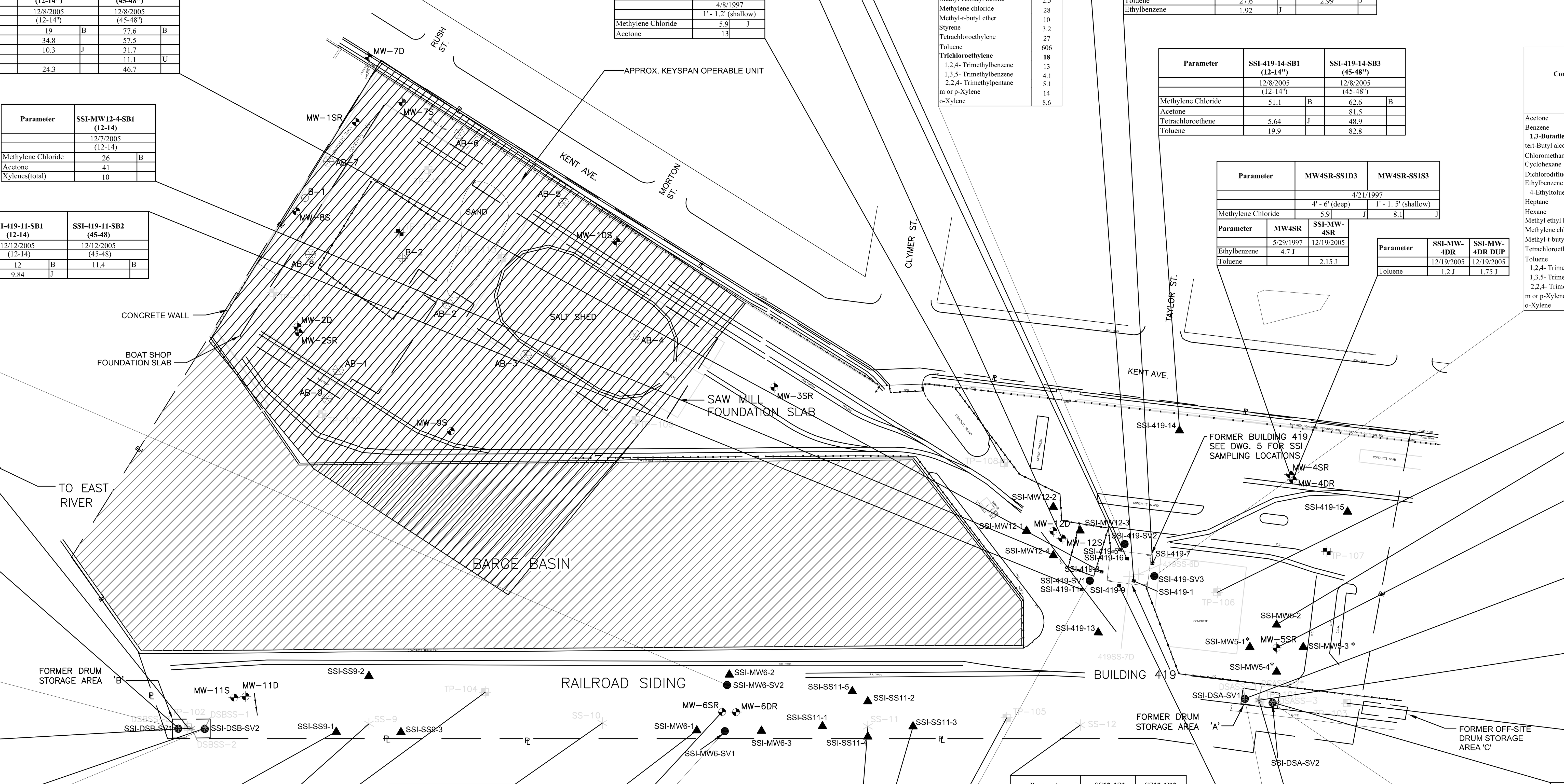
Parameter	SSI-419-9-SB1 (12-14)		SSI-419-9-SB2 (45-48)	
	12/12/2005		12/12/2005	
	(12-14)		(45-48)	
Methylene Chloride	10.5	JB	17.6	B
Benzene			2.39	J
Toluene	2.57	J	16.3	

Parameter	TP101-1S3	TP101-1D3
	4/3/1997	4/3/1997
	1' - 1.2'	6.3' - 7' (deep)
Methylene Chloride	12	12
Acetone	20	24

Compound	SSI-DSA-SVI ug/m3
Acetone	129
Benzene	23
Bromodichloromethane	**137**
1,3-Butadiene	**6.2**
Carbon disulfide	46
Chlorobenzene	40
Cyclohexane	109
1,2-Dibromoethane	5.3
Dichlorodifluoromethane	5
1, 1- Dichloroethane	2.4
1,I-Dichloroethylene	2.5
Ethylbenzene	
4-Ethyltoluene	8.4
Heptane	16
Hexane	90
Methyl ethyl ketone	21
Methylene chloride	2.9
Methyl-t-butyl ether	24
Styrene	4.1
Tetrachloroethylene	33
Toluene	28
1,2,4- Trimethylbenzene	7.3
1,3,5- Trimethylbenzene	3.1
2,2,4- Trimethylpentane	75
o-Xylene	29

Parameter	DSASS-3S
	10/30/96 & 10/31/96
	0" - 3" (shallow)
Methylene Chloride	0.011
Acetone	6.1 J

Compound	SSI-DSA-SV2 ug/m3
Acetone	242
Benzene	22
Bromodichloromethane	10
1,3-Butadiene	**2.3**
tert-Butyl alcohol	12
Carbon disulfide	1.7
Chlorobenzene	5.4
Chloroform	2.6
Cyclohexane	395
Dichlorodifluoromethane	4.7
Ethylbenzene	28
4-Ethyltoluene	37
Heptane	28
Hexane	64
Methyl ethyl ketone	6.4
Methyl isobutyl ketone	3
Methylene chloride	**115**
Methyl-t-butyl ether	32
Styrene	4.4
Tetrachloroethylene	**144**
Toluene	143
1,1,2-Trichloro-1,2,2-trifluoroethane	5.7
Trichloroethylene	**3.3**
Trichlorofluoromethane	4
1,2,4- Trimethylbenzene	43
1,3,5- Trimethylbenzene	15
2,2,4- Trimethylpentane	25
m or p-Xylene	46
o-Xylene	30



LEGEND:

- ▲ = SSI SURFACE AND SUBSURFACE SOIL SAMPLES
- ● = SOIL VAPOR SAMPLES
- —℞— = PROPERTY LINE
- —•—•— = FENCE
- —— = FOUNDATION LIMITS
- MW-4SR = MONITORING WELL
- AB-2 = AUGER BORING
- TP-108 = TEST PIT
- B-2 = DEEP BORING
- SS-12 = IRM/SSA SURFACE SOIL SAMPLE (0-2")
- 419SS-6D = IRM/SSA DEEP SOIL SAMPLE (12"-14")

NOTES:

* SAMPLE ONLY ANALYZED FOR LEAD.

BOLD VALUES ARE ABOVE RELEVANT CRITERIA.

SOIL AND WATER CONCENTRATIONS SHOWN IN ppb (ug/kg).

SOIL VAPOR CONCENTRATIONS ARE SHOWN IN ug/m^3

1000 0 1000 2000
SCALE IN FEET

REV. NO.	DESCRIPTION OF REVISION	APPROVAL	DATE
△			
△			
△			
△			
△			
△			

SEAL:

Gary J. DiPippo, P.E. DATE:
NY P.E. LICENSE NO. 055964-1

DATE: 8/21/06
SCALE: AS SHOWN
CAD FILE NO.: XX
DESIGNED BY: XX
DRAWN BY: XX
CHECKED BY: XX

HydroQual
HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MACARTHUR BOULEVARD
MAHWAH, NEW JERSEY 07430

BROOKLYN NAVY YARD PARCEL
REMEDIAL INVESTIGATION REPORT

DETECTED VOCs IN SOIL VAPOR, SOIL AND GROUNDWATER

PROJECT NO. NYCS.020.016.001

DRAWING NO. 4-14

4.4 GROUNDWATER SAMPLING

A round of groundwater samples were collected in up-gradient and down-gradient monitoring wells to supplement the existing groundwater data. Existing wells MW-4SR and MW-4DR, and replacement shallow wells MW-3SR, MW-5SR, MW-6SR and MW-12S were sampled and analyzed for the full TCL (VOCs, SVOCs, TICs, pesticides/PCBs, and inorganics including cyanide) (See Appendix C for summary tables of the analytical results and Appendix G for groundwater sampling field data sheets).

Analytical results for groundwater were similar to those observed during previous sampling events and those constituents exceeding groundwater quality criteria are summarized in Table 4-10. These results represent groundwater contained within the urban fill material and are consistent with the analytical results obtained from these fill deposits as described in the previous sections. As described further below, both the groundwater and urban fill contain metals and a limited number of SVOCs. No pesticides, or PCBs were observed above screening criteria in groundwater. With respect to VOCs, only Xylene was above NYSDEC Part 703 criteria (21-41 ppb) in one well (MW-6SR). Metals observed above their respective criteria included antimony, lead, iron, manganese, selenium and sodium. Levels of some metals previously observed during the SSA, may be related to high particulate matter. For example, recently collected groundwater samples in replacement well MW-5SR had considerably lower metals concentrations than previously observed in the original well at that location. In addition, previous results for MW-12S had been run as both filtered and unfiltered. Lead concentrations above criteria were observed in the unfiltered sample while low concentrations were observed in the filtered sample. The lower concentrations observed in the filtered sample are consistent with those observed in replacement well MW-12SR. A small number of SVOCs were also observed to have concentrations moderately above screening criteria. Only two TICs were observed, hexahydro 2H-Azepin-2-one and naphthalene, at moderate concentrations (18.7 and 28.7 ppb respectively). In general observed concentrations in groundwater were consistent with previous results and the conclusion that groundwater impacts are restricted to the Keyspan operable unit.

Water level elevations measured in the monitoring wells are summarized in Table 4-11 and mapped in Figure 4-15. As anticipated, these data illustrate flow to the adjacent barge basin.

4.5 SEDIMENT SAMPLING

To supplement existing sediment data in order to assess the potential for the Brooklyn Navy Yard parcel to affect sediments, three additional surface sediment samples were collected close to the edges of the barge basin adjacent to the site (Figure 4-16). Concentrations of all metals, including arsenic, copper, lead and mercury in new samples collected near the edges of

Table 4-10
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Groundwater Above Screening Criteria

Category	Parameter	Groundwater Screening Criteria[1]	Estimated Detection Limit	MW4SR	MW4DR	MW5SR	MW6SR	MW6DR	MW12S	MW12D	MW-12-SR	MW-3-SR	MW-5-SR	MW-6-SR	SSI-MW-4DR	SSI-MW-4DR DUP	SSI-MW-4SR
Well Installation Date				4/21/1997	5/8/1997	4/21/1997	4/21/1997	5/15/1997	4/25/1997	5/9/1997	1/18/2006	1/18/2006	1/17/2006	1/17/2006	5/8/1997	5/8/1997	4/21/1997
Screen Length				20'	20'	20'	15'	20'	10'	20'	10'	10'	20'	15'	20'	20'	20'
Total Depth				25'	101.5'	25'	18.5'	102'	15'	100'	15'	15'	25'	18.5'	101.5'	101.5'	25'
Sample Date				5/29/1997	5/29/1997	5/29/1997	5/28/1997	5/28/1997	5/28/1997	5/28/1997	2/2/2006	2/2/2006	2/2/2006	2/2/2006	12/19/2005	12/19/2005	12/19/2005
Sample Time				10:45 a.m.	10:20 a.m.	12:30 p.m.	3:40 p.m.	2:40 p.m.	12:15 p.m.	1:00 p.m.							
Sample Analyzed Date				6/6/1997	6/6/1997	6/6/1997	6/4/1997	6/4/1997	6/4/1997	6/4/1997	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	12/22/2005-12/29/2005	12/22/05-1/4/2006	12/22/2005-1/4/2006
Metals (ppm)	Antimony	0.003 (S)	0.06			**0.0149** J					**0.0067** J	**0.012** J		**0.01** J		**0.012** J	
	Arsenic	0.025 (S)	0.01			**0.165**											
	Cadmium	0.005 (S)	0.005			**0.0076** N											
	Chromium	0.05 (S)	0.01			**0.109** J											
	Copper	0.2 (S)	0.025			**0.467**											
	Iron	0.3 (S)	0.1	**16.4** J	**1.89** J	**48.2** J	**4.66** J	**9.43** J	**5.52** J	**5.38** J	**16**	**33**	**15**	**2.4**	**19**	**20**	**3.1**
	Lead	0.025 (S)	0.003			**0.689** J			**0.136**			**0.07**	**0.038**				
	Magnesium	35 (S)	5	**49.3** J	**421** J	**72.1** J	**46.6** J	**481** J		**409** J					**550**	**570**	**51**
	Manganese	0.3 (S)	0.015	**1.08** J	**3.36** J	**0.749** J	**1.4** J	**2.51** J	**1.27** J	**2.61** J	**3.4**	**0.76**	**0.58**		**4.9**	**5.2**	1
	Mercury	0.0007 (S)	0.0002			**0.0024**											
	Selenium	0.01 (S)	0.005												**0.026** J	**0.023** J	**0.012** J
	Sodium	20 (S)	5	**98.2**	**5370**	**875**	**638**	**4870**	**822**	**4450**	**470**	**4300**	**230**	**570**	**4700**	**4600**	**99**
SVOC (ppb)	Naphthalene	10 (G)	1	**23**									**28.9**				
	Acenaphthene	20 (S)	8										**28.2**				
	Diethylphthalate	50 (G)	NA											**71.1**			
	4-Chloroaniline	5	10	NM	NM	NM	NM	NM	NM	NM		**12.6**					
	bis(2-Ethylhexyl)phthalate	5	NA	NM	NM	NM	NM	NM	NM	NM	**5.24** JB	**6.45** JB		**6.25** JB	**5.7** JB	**49.9** JB	
	Phenol	1	10	NM	NM	NM	NM	NM	NM	NM			**1.95** J	**20.5**			
VOC (ppb)	Xylenes(total)	5 (S)	10				**21**							**41.36** J			

Notes:

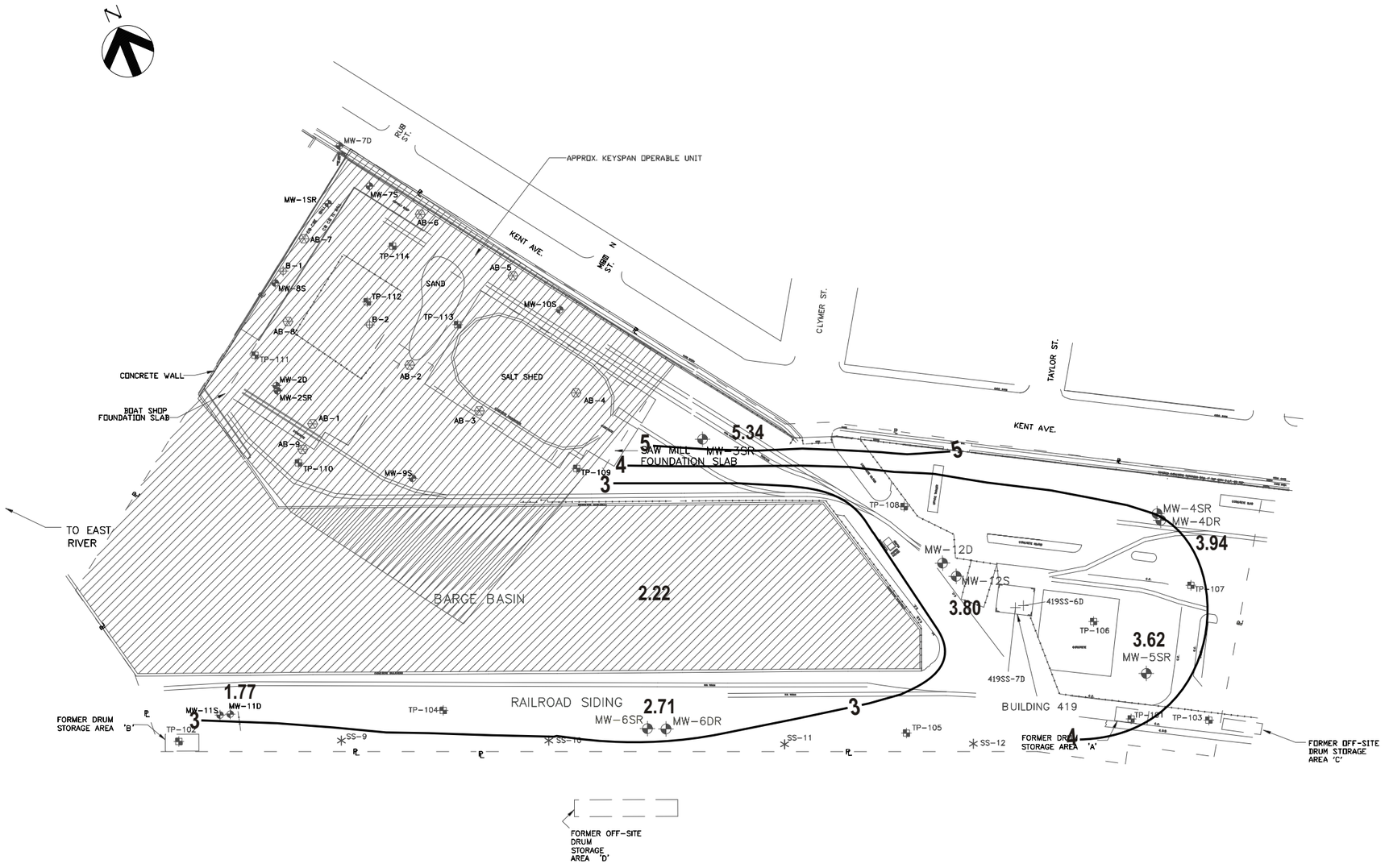
[1] Groundwater Screening Criteria are based on NYSDEC Part 703 groundwater standards or TOGS No. 1.1.1 groundwater guidance values.

ppb parts per billion, equivalent to micrograms per liter
ppm parts per million, equivalent to milligrams per liter
NM Not measured
B The analyte was was found in the blank
J Analyte detected below method detection limit and/or estimated concentration.
N Spiked sample recovery not within controle limits

Table 4-11
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Groundwater Elevations

Well	Arbitrary Reference Elevation (TOC, ft)	Depth to Water (ft)	Measurement Time	Groundwater Elevation (ft)
MW-12SR	11.42	7.62	11:10	3.8
MW-11S	9.11	7.34	11:39	1.77
MW-11DR	8.98	4.42	11:36	4.56
MW-6SR	8.84	6.13	11:57	2.71
MW-5SR	10.48	6.86	13:27	3.62
MW-4SR	11.89	7.95	13:51	3.94
MW-4DR	11.79	6.76	13:49	5.03
MW-3SR	12.1	6.76	11:21	5.34
Boat Basin	9.86	7.64	12:00	2.22

Note: Water levels were collected during a period of rising tides and were not corrected for tidal influence.



GROUNDWATER NOTES:

ELEVATIONS ARE IN FEET ABOVE ARBITRARY DATUM AND ARE NOT CORRECTED FOR TIDAL INFLUENCE.

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MacArthur Boulevard
Mahwah, New Jersey 07430

BROOKLYN NAVY YARD PARCEL REMEDIAL INVESTIGATION REPORT

GROUNDWATER ELEVATION AUGUST 2006

AUGUST 2006	Project No. 11664-001-147	Figure No. 4-15	Issue: A
SCALE 1" = 150'	File Name:		

N

WALLABOUT BASIN

WALLABOUT CHANNEL

PB-01

PB-02

PB-03

PB-04

PB-05

PB-06

PB-DISPOSALSURFACE1

PB-DISPOSALSURFACE2

PB-DISPOSALSURFACE3

PB-DISPOSALSURFACE4

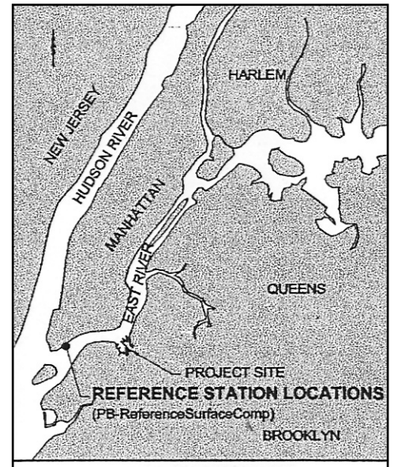
PB-DISPOSALSURFACE5

SSI-SEDMW3-I

SSI-SEDMW6-I

SSI-SEDMW12-I

SITE LOCATION



LOCATION PLAN
NEW YORK, NY

LEGEND:

PB-02 SAMPLE LOCATION 09/27/2000

SSI-SAMPLE LOCATION

SOURCE:
BROOKLYN NAVY YARD NEARSHORE CONFINED DISPOSAL FACILITY, PARSONS BRINCKERHOFF QUADE AND DOUGLAS, INC. 2001

HYDROQUAL ENVIRONMENTAL ENGINEERS AND SCIENTISTS, P.C.
1200 MacArthur Boulevard
Mahwah, New Jersey 07430

BROOKLYN NAVY YARD PARCEL REMEDIAL INVESTIGATION REPORT

SEDIMENT SAMPLING LOCATIONS

AUGUST 2006
SCALE 1" = 200'

Project No. 11664-001-147
File Name:
Figure No. 4-16
Issue: A

the barge basin were similar to or lower than those observed previously in samples collected near the center of the basin (Table 4-12). Recent sediment samples from the edges of the barge basin contained few detectable levels of pesticides, consistent with the absence of pesticides in the Site soils, and low levels observed in prior sediment samples from the center of the barge basin. Concentrations of SVOCs in the three recently collected samples near the edges of the barge basin were also generally similar to, or lower than, those previously observed in the center of the basin. These consistent observations of similar or lower concentrations for all parameters at the edges of the barge basin demonstrate that elevated levels of metals and SVOCs in the sediment, reflect the urban nature of these waterways as opposed to the transport of contaminated soils from the site via surface runoff.

Concentrations observed within the barge basin are not significantly different from those prevalent throughout the region. This is demonstrated by comparison to a background sample (PB REF COMP) previously collected near the mouth of the East River, in which both metal and SVOC concentrations in the barge basin sediments were generally comparable to the reference sample. In addition, samples collected from nearby Wallabout basin also displayed similar concentrations of metals and many SVOCs as observed in the boat basin (Table 4-12). Hence comparison, both between samples within the barge basin and between the barge basin and independent locations, indicate that observed concentrations reflect the urban nature of local waterways rather then direct impacts from the site.

Table 4-12
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Sediment Analytical Results

Category	Parameter	SSI-SEDMW-12-1	SSI-SEDMW-3-1	SSI-SEDMW-6-1	PB COMP F	PBDIS SURF-01	PB DIS SURF-02	PBDIS SURF-03	PBDIS SURF-04	PBDIS SURF-05	PB REF SURF COMP	PB COMP A	PB COMP B	PB COMP C	PB COMP D	PB DREDGE SURF COMP
Sample Date		12/20/2005	12/20/2005	12/20/2005	10/2/2000	10/3/2000	10/3/2000	10/3/2000	10/3/2000	10/3/2000	10/3/2000	10/2/2000	10/2/2000	10/2/2000	10/2/2000	10/3/2000
Metals (ppm)	Aluminum	6300 J	6100 J	6600 J	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Antimony	1.6 J	1.5 J	1.3 J	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Arsenic	2.9 J	2.3 J	4.1 J	10.3	6.33	4.54	6.15	6.06	6.31	8.73	10	10.7	10.4	12.4	8.93
	Barium	42 J	44 J	50 J	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Beryllium	0.087 J	0.1 J	0.51 J	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Cadmium	0.71	0.9	0.81	3.67	3.4	2.64	3.84	3.5	3.36	2.52	3	3.18	3.08	4.7	2.66
	Calcium	7600	24000	9800	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Chromium	32 J	39 J	34 J	83.8	42	30.7	47.2	45.9	45.2	47	74	68.8	66.5	125	51.4
	Cobalt	6.9	6.7	7.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Copper	84	94	85	128	193	94.3	171	142	116	79.2	109	104	116	178	86.5
	Iron	19000	17000	19000	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Lead	90	100	94	113	301	129	243	178	136	88.3	101	93.2	90.5	150	78.4
	Magnesium	7200	6400	6300	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Manganese	180	190	200	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Mercury	0.43 J	0.57 J	0.55	2.33	2.12	1.52	2.75	2.03	1.77	1.34	1	1.51	1.38	2.64	1.28
	Nickel	17 J	19 J	18 J	24.1	23.8	16.8	27.1	23.8	22.3	20.9	23	23.3	23.1	27.7	21.8
	Potassium	1800 J	2000 J	1800 J	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Selenium	3 J	2.8 J	3.2 J	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Silver	1.3	2.5	1.5	0.19 U	1.09	0.73	1	0.29	0.1	0.82	1	0.17 J	0.23	1.73	0.19
	Sodium	12000	14000	10000	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Thallium	12 J	13 J	11	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Vanadium	21	26	23	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Zinc	170	250	180	179	464	233	430	324	259	150	161	162	175	214	146
	Cyanide	1.2 U	1.5	1.1 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Category	Parameter	SSI-SEDMW-12-1	SSI-SEDMW-3-1	SSI-SEDMW-6-1	PB COMP F	PBDIS SURF-01	PB DIS SURF-02	PBDIS SURF-03	PBDIS SURF-04	PBDIS SURF-05	PB REF SURF COMP (Background)	PB COMP A (Wallabout basin)	PB COMP B (Wallabout basin)	PB COMP C (Wallabout basin)	PB COMP D (Wallabout basin)	PB DREDGE SURF COMP (Wallabout basin)
Sample Date		12/20/2005	12/20/2005	12/20/2005	10/2/2000	10/3/2000	10/3/2000	10/3/2000	10/3/2000	10/3/2000	10/3/2000	10/2/2000	10/2/2000	10/2/2000	10/2/2000	10/3/2000
Pesticide Organics (ppb)	alpha -BHC	4.06 U	4.49 U	3.61 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	beta-BHC	4.06 U	4.49 U	3.61 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	delta-BHC	4.06 U	4.49 U	3.61 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	gamma-BHC (Lindane)	4.06 U	4.49 U	3.61 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Heptachlor	4.06 U	4.49 U	3.61 U	0.65 U	0.89 U	0.9 U	0.92 U	0.96 U	0.8 U	0.45 U	0.62 U	0.65 U	0.67 U	0.60 U	0.73 U
	Aldrin	4.06 U	4.49 U	3.61 U	0.94	3.17	1.19 U	1.21 U	1.26 U	1.05 U	0.6 U	0.81 U	0.72 J	0.80 J	1.14	1.80
	Heptachlor epoxide	4.06 U	4.49 U	3.61 U	0.66 U	0.9 U	0.91 U	0.93 U	0.97 U	0.81 U	0.46 U	0.63 U	0.66 U	0.68 U	0.60 U	0.74
	Endosulfan I	4.06 U	4.49 U	3.61 U	0.61 U	0.83 U	0.84 U	0.86 U	0.89 U	0.75 U	0.42 U	0.58 U	0.61 U	0.63 U	0.56 U	0.68
	Dieldrin	8.13 U	8.99 U	7.23 U	0.59 U	0.81 U	0.82 U	0.84 U	0.87 U	0.73 U	0.41 U	0.57 U	0.59 U	0.61 U	0.54 U	0.67
	4,4' - DDE	8.13 U	8.99 U	7.23 U	9.3	8.74	0.68 U	0.70 U	0.72 U	0.61 U	0.34	18.40	10.50	10.30	18.30	10.00
	Endrin	8.13 U	8.99 U	7.23 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Endosulfan II	8.13 U	8.99 U	7.23 U	0.4 U	0.54 U	0.55 U	0.56 U	0.59 U	0.49 U	0.28 U	0.38 U	0.40 U	0.41 U	0.36 U	0.45
	4,4' - DDD	8.13 U	8.99 U	7.23 U	3.47	28.5	0.93 U	0.95 U	0.99 U	0.83 U	0.47 U	6.65	3.16	3.05	5.75	4.25
	Endosulfan sulfate	8.13 U	8.99 U	7.23 U	0.3 U	0.4 U	0.41 U	0.42 U	0.44 U	0.37 U	0.21 U	0.28 U	0.30 U	0.31 U	0.27 U	0.33
	4,4' - DDT	8.13 U	8.99 U	7.23 U	0.26 U	0.35 U	0.36 U	0.37 U	0.38 U	0.32 U	0.18 U	0.25 U	4.09	5.15	0.24 U	0.29
	Methoxychlor	40.6 U	44.9 U	36.1 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Endrin ketone	8.13 U	8.99 U	7.23 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Endrin aldehyde	8.13 U	8.99 U	7.23 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	alpha - Chlordane	4.06 U	4.49 U	3.61 U	0.6 U	0.82 U	0.83 U	0.85 U	0.88 U	0.74 U	0.42	1 U	0.6 U	0.62 U	NM	0.67
	gamma - Chlordane	5.2	4.49 U	3.61 U	0.45 U	0.61 U	0.62 U	0.64 U	0.66 U	0.55 U	0.31 U	0 U	0.45 U	0.46 U	NM	0.5
	Toxaphene	406 U	449 U	361 U												
	Aroclor -1016	81.3 U	89.9 U	72.3 U												
	Aroclor -1221	163 U	180 U	145 U												
	Aroclor -1232	81.3 U	89.9 U	72.3 U												
	Aroclor -1242	81.3 U	89.9 U	72.3 U												
	Aroclor -1248	81.3 U	89.9 U	72.3 U												
	Aroclor -1254	81.3 U	89.9 U	72.3 U												
	Aroclor - 1260	375 E	112	72.3 U												
	Total PCB Congeners	376 E	113	145 U	166	197	130	151	218	138	38.5	150	165	158	242	125

Table 4-12 (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Sediment Analytical Results

Category	Parameter	SSI-SEDMW-12-1	SSI-SEDMW-3-1	SSI-SEDMW-6-1	PB COMP F	PBDIS SURF-01	PB DIS SURF-02	PBDIS SURF-O3	PBDIS SURF-04	PBDIS SURF-05	PB REF SURF COMP	PB COMP A	PB COMP B	PB COMP C	PB COMP D	PB DREDGE SURF COMP
Sample Date		12/20/2005	12/20/2005	12/20/2005	10/2/2000	10/3/2000	10/3/2000	10/3/2000	10/3/2000	10/3/2000	10/3/2000	10/2/2000	10/2/2000	10/2/2000	10/2/2000	10/3/2000
Semi-Volatile Organics (ppb)	Phenol	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	bis(2-Chloroethyl)ether	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2-Chlorophenol	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	1,2-Dichlorobenzene	24.4 U	27 U	21.7 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	1,3-Dichlorobenzene	24.4 U	27 U	21.7 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	1,4-Dichlorobenzene	24.4 U	27 U	21.7 U	34 J	510	130	170	66 J	42 J	14.1 J	29 J	29 J	30 J	40	22
	2-Methylphenol	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2,2'-oxybis(1-Chloropropane)	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4-Methylphenol	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	N-Nitroso-di-n-propylamine	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Hexachloroethane	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Nitrobenzene	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Isophorone	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2-Nitrophenol	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2,4-Dimethylphenol	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	bis(2-Chloroethoxy)methane	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2,4-Dichlorophenol	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	1,2,4-Trichlorobenzene	24.4 U	27 U	21.7 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Naphthalene	811 U	99.9 J	2170 U	120	280	160	170	80	67	76	130	110	110	130	89
	4-Chloroaniline	1300	1010	2290	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Hexachlorobutadiene	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4-Chloro-3-methylphenol	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2-Methylnaphthalene	811 U	900 U	2170 U	140	250	220	270	110	72	69	140	120	120	150	89
	Hexachlorocyclopentadiene	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2,4,6-Trichlorophenol	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2,4,5-Trichlorophenol	2030 U	2250 U	5440 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2-Chloronaphthalene	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2-Nitroaniline	2030 U	2250 U	5440 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Dimethylphthalate	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Acenaphthylene	147 J	264 J	252 J	280 J	69	130	120	170	79	680	410	290 J	240	510	190
	2,6-Dinitrotoluene	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	3-Nitroaniline	2030 U	2250 U	5440 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Acenaphthene	811 U	900 U	2170 U	92	100	81	87	120	37 J	67	280 J	95	75	130	65
	2,4-Dinitrophenol	2030 U	2250 U	5440 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4-Nitrophenol	2030 U	2250 U	5440 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Dibenzofuran	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2,4-Dinitrotoluene	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Diethylphthalate	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4-Chlorophenyl-phenylether	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Fluorene	106 J	900 U	2170 U	91	150	130	150	190	34 J	73	150	92	82	110	66
	4-Nitroaniline	2030 U	2250 U	5440 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4,6-Dinitro-2-methylphenol	2030 U	2250 U	5440 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	N-Nitrosodiphenylamine	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4-Bromophenyl-phenylether	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Hexachlorobenzene	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Pentachlorophenol	2030 U	2250 U	5440 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Phenanthrene	295 J	368 J	598 J	650	2990	2030	2970	1310	220	1660	990	630	590	1070	590
	Anthracene	158 J	266 J	235 J	190	230	160	140	190	75	680	390	200	190	210	180
	Carbazole	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Di-n-butylphthalate	434 JB	603 JB	592 JB	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Fluoroanthene	1090	1590	1720 J	960	3000	2450	3330	2370	320	2480	1400	1020	1000	1420	1060
	Pyrene	533 J	1190	1100 J	1100	2310	410	340	2230	300	2720	1620	1160	1130	1750	1180
	Butylbenzylphthalate	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	3,3'-Dichlorobenzidine	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Benzo(a)anthracene	382 J	633 J	705 J	700	290	1220	1280	1040	560	1870	1030	720	720	980	710
	Chrysene	426 J	621 J	798 J	480	210	980	1060	770	380	1120	670	470	490	630	260
	bis(2-Ethylhexyl)phthalate	6160 B	7250 B	9250 B	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Di-n-octylphthalate	811 U	900 U	2170 U	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Benzo(b)fluoranthene	637 J	848 J	1130 J	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Benzo(k)fluoranthene	212 J	275 J	426 J	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Benzo(a)pyrene	389 J	587 J	752 J	520	91	820	830	690	380 J	170	820	220	210	710	190
	Indeno(1,2,3-cd)pyrene	233 J	264 J	444 J	280 J	63	570	590	460 J	240 J	58	170	96	93	420	68
	Dibenzo(a,h)anthracene	92.4 J	900 U	2170 U	130 J	37 J	250 J	280 J	180 J	100 J	32	98	53	49	180 J	37
	Benzo(g,h,i)perylene	271 J	261 J	489 J	340	69	620	640	500	260 J	57	200	100	100	520	69

5.0 DATA VALIDATION

In accordance with the approved SSI Work Plan, analytical data generated as part of the SSI has been validated in accordance with NYSDEC and USEPA guidelines. A summary of the data validation efforts is provided below. Tabulation of the data qualifiers recommended as a result of the data validation is presented in Appendix H followed by the complete data validation reports. With limited exceptions, the data was found to be usable for the intended purpose.

5.1 ORGANIC DATA VALIDATION

Five sample delivery groups (SDG) were reviewed for volatile organics. Twenty percent of each SDG were subjected to complete validation while the remaining samples were subjected to partial validation.

For volatile organics, the following quality control measures were evaluated during partial validation according to New York Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) and the United States Environmental Protection Agency (USEPA) Contract Laboratory Program National Functional Guidelines for Organic Data Review:

- Holding times
- Blanks
- Surrogate Recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

In addition to the quality control measures evaluated for partial validation of the data, the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal Standards performance
- Target compound list compound identification
- Compound quantitation and reported detection limits

HOLDING TIMES

All samples were analyzed within the required holding times.

BLANKS

Method blanks were run as required. Methylene chloride was detected in several of the method blanks at concentrations below the required detection limit. No qualifiers were applied based on the blanks.

Methylene chloride was detected in three of the four field submitted blanks, at concentrations below the required detection limit. Toluene was detected below the required detection limit in one of the field blanks. No qualifiers were applied based on the blanks.

No volatile organics were detected in the trip blanks.

SURROGATE RECOVERY

The recovery of the three system monitoring compounds were within acceptable limits for all blanks.

Surrogate recoveries were outside of the acceptable limits for eleven (11) of the samples. The samples were rerun as required. Samples were qualified as required and are tabulated in Appendix H.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE

Matrix spike and matrix spike duplicate recoveries were within required limits. All relative percent differences were within required limits.

FIELD DUPLICATES

One field duplicate was collected for volatile organics analysis. The relative percent differences were within acceptable limits.

INSTRUMENT PERFORMANCE

Instrument performance checks were performed at the required frequency and ion abundance criteria were met.

CALIBRATION

Initial Calibration

The relative response factor for 1,1,2,2-tetrachloroethane was outside of the acceptable limits for two of the initial soil calibration runs. The relative response factor for 1,3-dichlorobenzene was outside acceptable limits for one soil initial calibration. The bromomethane percent relative standard deviation was outside of the acceptable limits for one initial calibration. All other response factors and relative percent standard deviations were within acceptable limits. No qualifiers were applied.

Continuing Calibration

The relative response factor for 1,1,2,2-tetrachloroethane and 1,3-dichlorobenzene were outside the acceptable limits for one of the continuing soil calibration runs. All other response factors and percent differences were within acceptable limits. No qualifiers were applied.

INTERNAL STANDARD PERFORMANCE

All internal standard retention times were within acceptable limits. Internal standards areas were outside the required limits for ten (10) of the samples. The samples were rerun and qualifiers applied as required and are tabulated in Appendix H.

TARGET COMPOUND IDENTIFICATION

All detected compounds for the complete validation samples were correctly identified.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All concentrations were calculated correctly for the complete validation samples. Detection limits for the complete validation samples were correct and adjusted as required.

OVERALL ASSESSMENT OF THE DATA

Based on a review of the data, the volatile organic data was considered to be good.

No data were rejected as a result of the data evaluation. Based on the internal standards and surrogate recoveries a number of qualifiers were required. The required qualifiers are summarized in the summary section below.

SEMIVOLATILE ORGANICS

Six sample delivery groups (SDG) were reviewed for semivolatile organics. Twenty percent of each SDG were subjected to complete validation while the remaining samples were subjected to partial validation.

For semivolatile organics the following quality control measures were evaluated during partial validation according to New York Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) and the United States Environmental Protection Agency (USEPA) Contract Laboratory Program National Functional Guidelines for Organic Data Review:

- Holding times
- Blanks
- Surrogate Recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

In addition to the quality control measures evaluated for partial validation of the data, the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal Standards performance
- Target compound list compound identification
- Compound quantitation and reported detection limits

HOLDING TIMES

All samples were initially analyzed within the required holding times. Five (5) samples were reextracted due to either low surrogate recoveries or matrix interference. This reextraction was outside of the required holding time. No qualifiers were applied.

BLANKS

Method blanks were run as required. Bis-2-ethylhexylphthalate was detected in the method blanks. No qualifiers were applied.

Bis-2-ethylhexylphthalate was detected in four (4) of the field blanks collected. In addition 2,4-dinitrotoluene, 4-nitrotoluene, acetophenone, caprolactam, di-n-butylphthalate and diethyphthalate were detected in one field blank. No qualifiers were applied based on the blanks.

SURROGATE RECOVERY

Surrogate recoveries were outside of the acceptable limits for 17 of the samples. The samples were rerun as required. Samples were qualified as required and are tabulated in Appendix H.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Ten matrix spike/matrix spike duplicates were outside of the acceptable range for the method blanks. Eight matrix spike/matrix spike duplicates were outside the acceptable range. Thirty relative percent differences were outside of the acceptable limit. No qualifiers were applied based on the matrix spike/matrix spike duplicates.

FIELD DUPLICATES

One aqueous field duplicate was collected. The relative percent difference for the detected compounds exceeded the 40% limits. No qualifiers were applied.

Three soil field duplicates were collected. Five compounds were detected in one sample but not in the duplicate for one of the samples. In the same set of duplicates, one compound exceeded the 50% limit. No qualifiers were applied. In another set of duplicates, eight compounds were detected in one sample but not in the other. Five compounds were detected in both samples, however the relative percent difference exceeded the 50% limit. No qualifiers were applied. All other relative percent differences were within acceptable limits.

INSTRUMENT PERFORMANCE

The instrument performance check was performed at the required frequency and the ion abundance criteria were met.

CALIBRATION

Initial Calibration

Initial calibrations were performed. The response factors and percent relative standard deviations were all within acceptable limits.

Continuing Calibration

Continuing calibrations were run as required. The relative response factors were within acceptable ranges for all parameters. The percent differences were exceeded for two compounds (pentachlorophenol and 2,2-oxybis(1-chloropropane)) for one continuing calibration. The pentachlorophenol percent differences were exceeded for two continuing calibrations. The 2,2-oxybis(1-chloropropane) percent differences were exceeded for another continuing calibration. No qualifiers were applied based on the continuing calibrations.

INTERNAL STANDARD PERFORMANCE

Internal standard retention times were all within the required limits.

The internal standard areas were outside the required limits for 56 of the samples. All of the samples were rerun and in some cases the internal standards were within the required limits for the rerun samples. The qualifiers applied and whether the initial sample or the rerun sample should be used are tabulated in Appendix H.

TARGET COMPOUND IDENTIFICATION

Six of the complete validation samples had compounds identified that had delta retention times outside of the required limits. Those compounds were rejected and qualified with R. They are identified in the Tables provided in Appendix H.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All concentrations were calculated correctly for the complete validation samples.

OVERALL ASSESSMENT OF DATA

Based on a review of the data, the overall quality of the semivolatile data was considered to be good. Based on the internal standards a number of qualifiers were required. Based on delta retention times, some data were rejected.

5.2 INORGANIC DATA VALIDATION

Six sample delivery groups (SDG) were received for inorganics metals. The analyses requested were Target Analyte List (TAL) metals and/or cyanide. Twenty percent of each complete SDG were subjected to complete validation while the remaining samples were subjected to partial validation.

For inorganics the following quality control measures were evaluated according to New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) and the United States Environmental Protection Agency (USEPA) Contract Laboratory Program National Functional Guidelines for Inorganic Data Review:

- Holding times
- Blanks
- Laboratory control samples
- Spike sample analysis
- Duplicates
- Field duplicate
- Overall assessment of data

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Calibration
- Interference check samples
- ICP Serial Dilution
- Sample results verification

HOLDING TIMES

All samples were analyzed within the required holding times.

BLANKS

Calibration and method blanks were run as required. No parameters were detected in any of the calibration or method blanks.

Barium, cadmium, calcium, nickel and copper were detected in one of the field blanks at concentrations less than the detection limit. No qualifiers were applied.

LABORATORY CONTROL SAMPLES

Laboratory control samples were run as required. All percent recoveries were within acceptable limits.

SPIKE SAMPLE ANALYSIS

Matrix spike and matrix spike duplicates (MS/MSD) were run as required. Post digestion spikes were run as required. Recoveries were outside of the limits for at least one metal in each of the MS/MSDs run. Qualifiers were applied based on the recoveries. The qualified data are tabulated in Appendix H.

DUPLICATES

Laboratory duplicates were run as required. Relative percent differences were outside of acceptable limits in some of the duplicate samples run. Calcium was outside of the acceptable limit in one duplicate, lead and calcium in another, copper and iron in another, lead in another, zinc in another, and calcium, lead, nickel, and vanadium in another. Qualifiers were applied based on the duplicates and are tabulated in Appendix H.

FIELD DUPLICATES

Ten field duplicates were collected for inorganics analyses. Two soil field duplicates had lead relative percent differences that exceeded the 50% limit. One soil field duplicate had aluminum, barium, berrylium, calcium, copper, iron, lead, magnesium, manganese, nickel, vanadium, and zinc relative percent differences that exceeded the 50% limit. Another soil field duplicate had aluminum, calcium, iron, lead, magnesium, vanadium, and zinc relative percent differences greater than the 50% limit.

No qualifiers were applied based on the field duplicates.

CALIBRATION

Instrument calibrations were performed as required. The initial calibration verification and continuing calibration verification samples were run at the correct concentrations and at the correct frequency and location in the analytical sequence. The percent recoveries were all within the acceptable limits.

INTERFERENCE CHECK SAMPLES

The interference check sample was run at the correct location in the analytical sequence. The percent recoveries were within acceptable limits.

ICP SERIAL DILUTION

ICP serial dilutions were performed as required. Percent differences exceeded the required limits for several parameters. Qualifiers were applied as required and the data qualified are tabulated in Appendix H.

SAMPLE RESULT VERIFICATION

The results from the complete validation samples are correct as reported.

OVERALL ASSESSMENT OF DATA

Based on the review of the metals data, the overall quality of the data was considered to be good. Based on the ICP serial dilution, duplicates and the matrix spike recoveries qualifiers were required. No data were rejected.

6.0 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

The data collected as part of the RI indicates that constituents are present above applicable human health standards in soil, groundwater, and soil vapor. The objective of this Section is to assess whether the exposure pathway for these potential source areas is complete or is incomplete and can be eliminated from further consideration. The five elements of an exposure pathway, which must be present for the pathway to be complete, include: 1) a contaminant source; 2) contaminant release and transport mechanisms; 3) a point of exposure; 4) a route of exposure; and 5) a receptor population. These elements are evaluated below relative to potential exposure pathways that may be present at the Brooklyn Navy Yard parcel.

Concentrations of metals, PCBs and SVOCs, principally PAHs, have been identified in site soils at concentrations above applicable criteria. At some locations, these constituents are found in near surface soils that are exposed to the surrounding environment (i.e., the soils are not covered by pavement, buildings, etc.). These soils represent an exposure point where human contact could occur through either direct contact (dermal absorption or ingestion) or through inhalation of dust. Potential receptors include site workers or individuals passing through or immediately adjacent to the site. The exposure pathway for soils is thus complete.

Concentrations of metals and a limited number of SVOCs have been identified in groundwater above applicable criteria, and in one instance, xylene was also reported above groundwater criteria. Groundwater is found within the historic urban fill materials underlying the Site and the detected constituents are consistent with the makeup of the surrounding fill. Groundwater in the area is brackish and due to the site's location along the coast is not used, nor anticipated to be used in the future. The site and surrounding areas are served by public water. There are no seeps or other surface expressions of the groundwater such that inadvertent contact with the groundwater is not feasible. Therefore, site groundwater does not pose a potential hazard and the exposure pathway is not complete.

Several VOCs have been reported in soil vapor that are above applicable screening criteria. While there are currently no buildings on the site, there is the potential that if buildings were constructed in the future, soil gas migration into the buildings may pose a potential hazard to occupants of these buildings. Therefore, while a current exposure pathway does not exist, there is a potential exposure pathway in the future.

In summary, a complete exposure pathway is present for soils with respect to metals, PCBs, and SVOCs, principally PAHs. Similarly, a potential exposure pathway exists relative to

VOCs in soil vapor. Finally, the exposure pathway for groundwater is incomplete, such that no further evaluation relative to groundwater is needed.

7.0 CONCLUSIONS

Data obtained from previous investigations completed in 1988, 1996, 1997, 2000, and 2004 and additional characterization completed during the period December 2005 through February 2006 as proposed in the SSI, have resulted in a well developed understanding of contaminant distribution within the Brooklyn Navy Yard site. The key observations and conclusions are summarized as follows:

- PCBs are present at concentrations above cleanup criteria within and immediately adjacent to former building 419 and at Drum Storage Area B. The horizontal and vertical extent of PCBs above criteria has been fully defined at building 419. At Drum storage area B the extent of PCB concentrations above cleanup criteria is delineated within the site to the north and extends to the property line where a paved roadway, which predates the use of the location for drum storage, provides a boundary.

- Lead concentrations above TAGM cleanup criteria are observed at a number of locations across the site. Elevated lead concentrations do not appear to have any obvious spatial distribution. Similarly variable distributions are observed of concentrations of other metals such as arsenic and copper above Brownfield criteria. Hence elevated levels of these metals are most likely related to the historic urban fill used to raise the site above mean sea level as opposed to subsequent site activities.

- SVOCs, specifically several PAHs above Brownfield criteria, were also observed throughout the site. These values do not display clear patterns in distribution horizontally or with depth. Concentrations were consistent with those observed in urban fill. The distribution and concentrations observed supports the interpretation that the source of these SVOCs is not site activity but the historic fill used to create the site.

- Detectable concentrations of BTEX compounds, as well as several other VOCs, were observed in soil gas vapor samples. The reported BTEX compounds are consistent with the generally low VOC concentrations observed in soil and groundwater at the site, and the observed use of a majority of the site for vehicle and construction material storage.

- Sediment sampling in the barge basin adjacent to the site yielded concentrations of SVOCs and metals consistent with or lower than those observed in samples previously collected from the center of the barge basin and typical of what would be expected in urban waterways. These data do not show a correlation with the site.

- Groundwater at the site was observed to have levels of a small number of metals, SVOCs and one VOC moderately elevated above NYSDEC criteria, consistent with the urban fill material and the nature of the Site. Overall, groundwater quality was consistent with previous results, and supports the conclusion that groundwater impacts are restricted to the Keyspan operable unit.

Based on the observations and conclusions noted above, along with the qualitative human health exposure assessment, the following preliminary remedial action objectives have been developed for further consideration in a focused feasibility study:

- Direct contact control for soils to eliminate the complete pathway for metals, PCBs, and SVOCs found above criteria.
- Control of the potential for future exposure to soil vapor, because of the potential for a complete exposure pathway in the future.

A focused feasibility study would provide an evaluation of alternatives to address these preliminary remedial action objectives (e.g., removal, cover, use/deed restrictions).

APPENDIX A

BUILDING 419 PHOTOGRAPHS

Environmental
Engineers & Scientists

Exterior of Building #419 **Facing the North West side of Building**

Exterior of Building #419 **Looking at the South West side of Building**

Interior of Building #419 **Facing the North East wall**

Interior of Building #419 **Facing the South East corner of building**

Interior of Building #419 **Facing the South East side of building**

Interior of Building #419 **Facing the North West side of building**

Interior of Building #419 Floor on South West side of building

Interior of Building #419 North East side of building

Interior of Building #419 Facing the North East corner of building- No Roof

APPENDIX B

NJDEP HISTORIC FILL DATABASE SUMMARY TABLES

Environmental
Engineers & Scientists

Historic Fill Database Summary Table

	Minimum (ppm)[1]	Maximum (ppm)[1]	Avg (ppm)[1]	Number of Samples	Number > URU CDCSCC[2]	% > URU CDCSCC[2]	Number > RU CDCSCC[2]	% > RU CDCSCC
B(a)A[3]	0.03	160.0	1.37	441	126	29	33	7
B(a)P[3]	0.02	120.0	1.89	431	146	34	146	34
B(b)F[3]	0.02	110.0	1.91	426	118	28	39	9
B(k)F[3]	0.02	93.0	1.79	412	101	25	26	6
I(1)P[3]	0.02	67.0	1.41	397	70	18	18	5
D(a)A[3]	0.01	25.0	1.24	286	78	27	78	27
Arsenic	0.05	1098	13.2	369	35	9	35	9
Be[3]	0.01	79.7	1.23	213	21	10	21	10
Cadmium	0.02	510	11.1	236	147	62	5	2
Lead	0.28	10700	574	538	259	48	119	22
Zinc	2.45	10900	575	197	80	4	8	4

[1] ppm = parts per million

[2] URU = Unrestricted Use, RU = Restricted Use, CDCSCC = Current Direct Contact Soil Cleanup Criteria

[3] B(a)A = Benzo(a)anthracene, B(a)P = Benzo(a)pyrene, B(b)F = Benzo(b)fluorene, B(k)F = benzo(k)fluoranthene, I(1)P = Indeno(1,2,3-cd)pyrene, D(a)A = Dibenzo(a,h)anthracene, Be = Beryllium

APPENDIX C

FULL ANALYTICAL RESULTS
SUMMARY TABLES
SOIL/GROUNDWATER

Environmental
Engineers & Scientists

Appendix
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area A
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	DSASS-1S	DSASS-1D	DSASS-2S	DSASS-2D	DSASS-3S	DSASS-3D	TP101-1S	TP101-1D	
Sample Date				10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	4/3/1997	4/3/1997	
Sample Analyzed Date				11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	4/9/97 - 4/26/97	4/9/97 - 4/26/97	
Sample Depth (bgs) (type)				0" - 3" (shallow)	NA	0" - 3" (shallow)	NA	0" - 3" (shallow)	NA	1' - 1.2' (shallow)	6.3' - 7' (deep)	
Sampling Method				Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Backhoe	Backhoe	
Surface Condition				Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt Pavement	Asphalt Pavement	
Sample Field Observations				Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	Predetermined Sample Depth; OVA reading not collected	Sample based on staining and/or odor. OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Sample based on staining and/or odor. OVA reading not collected	OVA = 0 ppm	Heavy Fill, Gray/Brown Sand, Gravel, Rocks, OVA = 500 ppm	
Metals (ppm)	Aluminum	SB (33,000)		6400	7180	4790	7850	6570	8450	9280	8220	
	Antimony	SB (NL)		1.0U	1.1U	1.0U	1.1U	1.0U	1.1U	0.66 U	2.3	B
	Arsenic	7.5 or SB (3-12)	16	4.2	1.9B	5.3	5.3	4.6	7.4	1.5 B	**17.9**	
	Barium	300 or SB (15-600)	400	50	54.1	45.8	92.4	46.6	119	70.8	180	
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***0.29B***	***0.36B***	***0.23B***	***0.41B***	***0.37B***	***0.46B***	***0.33*** B	***0.43***	B
	Cadmium	1 or SB (0.1-1)	9.3	0.20U	0.22U	0.20U	0.22U	0.21U	0.21U	0.22 U	0.24	U
	Calcium	SB (130 - 35,000)		**40000**	4500	**93600**	22600	**47400**	5710	3240	7800	
	Chromium	10 or SB (1.3 - 40)	400-800	***13.7***	***19.9***	***11.8***	***20.5***	***13.4***	***31.6***	***18.7***	***29.4***	
	Cobalt	30 or SB (2.5 - 60)		5.4B	8.0B	5.7B	7.2B	7.1B	7.3B	8.1 B	9.5	B
	Copper	25 or SB (1-50)	270	***36.5***	***29.9***	**74.6**	**56**	**71.1**	**105**	***38.1***	**135**	
	Iron	2,000 or SB (2,000 -550,000)		***12200***	***17700***	***13900***	***16500***	***16400***	***19200***	***15700***	***2600***	
Allowable Holding Time:	Lead	400	1000	80	56.4	85.5	146	53.3	186	106	312	
6 months	Magnesium	SB (100-5000)		**22100**	2650	**46200**	**11500**	**24500**	2820	3460	2820	
28 days for Hg	Manganese	SB (50-5000)	15000	211	282	206	216	236	321	238	427	
12 days for CN	Mercury	0.1	2.8	0.10U	**0.27**	0.10U	**0.11U**	0.10U	**0.69**	0.1 U	**0.24**	
	Nickel	13 or SB (0.5-25)	310	11.1E,J	***23.9E,J***	8.4E,J	***15.4E,J***	***15.4E,J***	***18.3E,J***	***14.6*** J	***19.6***	J
	Potassium	SB (8,500-43,000)		1030E,J	1220E,J	1050E,J	1310E,J	1160E,J	1110E,J	1090 B	790	B
	Selenium	2 or SB (0.1-3.9)	1500	0.81U	0.89U	0.80U	0.86U	0.82U	1.5	0.88 ***J***	**4.6**	J
	Silver	SB (NL)	1500	0.41U	0.44U	0.40U	0.43U	0.41U	0.42U	0.22 U	0.35	B
	Sodium	SB (6,000-8,000)		316B	275B	452B	365B	396B	342B	315 B	334	B
	Thallium	SB (NL)		1.8U	2.0B	1.8U	1.9U	1.8U	1.9U	1.1 U	1.2	U
	Vanadium	150 or SB (1-300)		20.5	23.6	21.2	24.1	25.2	30.4	26.7	28.5	
	Zinc	20 or SB (9-50)	89,000	**82.1**	**65.9**	**227**	**143**	**134**	**232**	**94.8**	**519**	
	Cyanide	NL	27	0.34U	0.36U	0.33U	0.39U	0.34U	0.37U	0.38 U	0.41	U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area A
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-DSA-1-SB1 (12-14)	SSI-DSA-1-SB2 (21-24)	SSI-DSA-1-SB2 (21-24) MS	SSI-DSA-1-SB2 (21-24) MSD	SSI-DSA-1-SS (0-3)	SSI-DSA-2-SB1 (12-14)	SSI-DSA-2-SB1 (12-14) DUP	SSI-DSA-2-SB2 (21-24)
Sample Date				12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005
Sample Analyzed Date				12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005
Sample Depth (bgs) (type)				(12-14)	(21-24)	(21-24)	(21-24)	(0-3)	(12-14)	(12-14)	(21-24)
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement
Sample Field Observations											
Metals (ppm) Allowable Holding Time: 6 months 28 days for Hg 12 days for CN	Aluminum	SB (33,000)		NM	NM	NM	NM	NM	NM	NM	NM
	Antimony	SB (NL)		NM	NM	NM	NM	NM	NM	NM	NM
	Arsenic	7.5 or SB (3-12)	16	NM	NM	NM	NM	NM	NM	NM	NM
	Barium	300 or SB (15-600)	400	NM	NM	NM	NM	NM	NM	NM	NM
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	NM	NM	NM	NM	NM	NM	NM	NM
	Cadmium	1 or SB (0.1-1)	9.3	NM	NM	NM	NM	NM	NM	NM	NM
	Calcium	SB (130 - 35,000)		NM	NM	NM	NM	NM	NM	NM	NM
	Chromium	10 or SB (1.3 - 40)	400-800	NM	NM	NM	NM	NM	NM	NM	NM
	Cobalt	30 or SB (2.5 - 60)		NM	NM	NM	NM	NM	NM	NM	NM
	Copper	25 or SB (1-50)	270	NM	NM	NM	NM	NM	NM	NM	NM
	Iron	2,000 or SB (2,000 -550,000)		NM	NM	NM	NM	NM	NM	NM	NM
	Lead	400	1000	**1100**	**980**	**540**	**1300**	90	**420**	91	140
	Magnesium	SB (100-5000)		NM	NM	NM	NM	NM	NM	NM	NM
	Manganese	SB (50-5000)	15000	NM	NM	NM	NM	NM	NM	NM	NM
	Mercury	0.1	2.8	NM	NM	NM	NM	NM	NM	NM	NM
	Nickel	13 or SB (0.5-25)	310	NM	NM	NM	NM	NM	NM	NM	NM
	Potassium	SB (8,500-43,000)		NM	NM	NM	NM	NM	NM	NM	NM
	Selenium	2 or SB (0.1-3.9)	1500	NM	NM	NM	NM	NM	NM	NM	NM
	Silver	SB (NL)	1500	NM	NM	NM	NM	NM	NM	NM	NM
	Sodium	SB (6,000-8,000)		NM	NM	NM	NM	NM	NM	NM	NM
	Thallium	SB (NL)		NM	NM	NM	NM	NM	NM	NM	NM
	Vanadium	150 or SB (1-300)		NM	NM	NM	NM	NM	NM	NM	NM
	Zinc	20 or SB (9-50)	89,000	NM	NM	NM	NM	NM	NM	NM	NM
	Cyanide	NL	27	NM	NM	NM	NM	NM	NM	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area A
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-DSA-2-SB2 (21-24) DUP	SSI-DSA-2-SS (0-3)	SSI-DSA-2-SS (0-3) DUP	SSI-DSA-3-SB1 (12-14)	SSI-DSA-3-SB2 (21-24)	SSI-DSA-3-SS (0-3)
Sample Date				12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005
Sample Analyzed Date				12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005
Sample Depth (bgs) (type)				(21-24)	(0-3)	(0-3)	(12-14)	(21-24)	(0-3)
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement	Asphalt Pavement
Sample Field Observations									
Metals (ppm) Allowable Holding Time: 6 months 28 days for Hg 12 days for CN	Aluminum	SB (33,000)		NM	NM	NM	NM	NM	NM
	Antimony	SB (NL)		NM	NM	NM	NM	NM	NM
	Arsenic	7.5 or SB (3-12)	16	NM	NM	NM	NM	NM	NM
	Barium	300 or SB (15-600)	400	NM	NM	NM	NM	NM	NM
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	NM	NM	NM	NM	NM	NM
	Cadmium	1 or SB (0.1-1)	9.3	NM	NM	NM	NM	NM	NM
	Calcium	SB (130 - 35,000)		NM	NM	NM	NM	NM	NM
	Chromium	10 or SB (1.3 - 40)	400-800	NM	NM	NM	NM	NM	NM
	Cobalt	30 or SB (2.5 - 60)		NM	NM	NM	NM	NM	NM
	Copper	25 or SB (1-50)	270	NM	NM	NM	NM	NM	NM
	Iron	2,000 or SB (2,000 -550,000)		NM	NM	NM	NM	NM	NM
	Lead	400	1000	170	88	170	38	48	54
	Magnesium	SB (100-5000)		NM	NM	NM	NM	NM	NM
	Manganese	SB (50-5000)	15000	NM	NM	NM	NM	NM	NM
	Mercury	0.1	2.8	NM	NM	NM	NM	NM	NM
	Nickel	13 or SB (0.5-25)	310	NM	NM	NM	NM	NM	NM
	Potassium	SB (8,500-43,000)		NM	NM	NM	NM	NM	NM
	Selenium	2 or SB (0.1-3.9)	1500	NM	NM	NM	NM	NM	NM
	Silver	SB (NL)	1500	NM	NM	NM	NM	NM	NM
	Sodium	SB (6,000-8,000)		NM	NM	NM	NM	NM	NM
	Thallium	SB (NL)		NM	NM	NM	NM	NM	NM
	Vanadium	150 or SB (1-300)		NM	NM	NM	NM	NM	NM
	Zinc	20 or SB (9-50)	89,000	NM	NM	NM	NM	NM	NM
	Cyanide	NL	27	NM	NM	NM	NM	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area A
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	DSASS-1S	DSASS-1D	DSASS-2S	DSASS-2D	DSASS-3S	DSASS-3D	TP101-1S	TP101-1D
Sample Date			10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	4/3/1997	4/3/1997
Sample Analyzed Date			11/10/1996	11/10/1996	11/10/1996	11/10/1996	11/10/96 & 11/11/1996	11/11/1996	4/15/1997	4/15/1997
Sample Depth (bgs) (type)			0" - 3" (shallow)	NA	0" - 3" (shallow)	NA	0" - 3" (shallow)	NA	1' - 1.2' (shallow)	6.3' - 7' (deep)
Sampling Method			Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Backhoe	Backhoe
Surface Condition			Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt Pavement	Asphalt Pavement
Sample Field Observations			Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	Predetermined Sample Depth; OVA reading not collected	Sample based on staining and/or odor. OVA reading not collected	Predetermined Sample Depth: OVA reading not collected	Sample based on staining and/or odor. OVA reading not collected	OVA = 0 ppm	Heavy Fill, Gray/Brown Sand, Gravel, Rocks, OVA = 500 ppm
Pesticide Organics (ppb)	alpha -BHC	110	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	beta-BHC	200	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	delta-BHC	300	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	gamma-BHC (Lindane)	6	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	Heptachlor	100	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	Aldrin	41	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	Heptachlor epoxide	20	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	Endosulfan I	900	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	Dieldrin	44	3.5 U	3.7 U	3.4 U	3.7 U	3.5 U	3.7 U	3.7 U	2 U
	4,4' - DDE	2100	3.5 U	3.7 U	3.4 U	3.7 U	3.5 U	3.7 U	3.7 U	4.1 U
	Endrin	100	3.5 U	3.7 U	3.4 U	3.7 U	3.5 U	3.7 U	3.7 U	4.1 U
	Endosulfan II	900	3.5 U	3.7 U	3.4 U	3.7 U	3.5 U	3.7 U	3.7 U	4.1 U
	4,4' - DDD	2900	3.5 U	3.7 U	3.4 U	3.7 U	3.5 U	3.7 U	3.7 U	4.1 U
	Endosulfan sulfate	1000	3.5 U	3.7 U	3.4 U	3.7 U	3.5 U	3.7 U	3.7 U	4.1 U
	4,4' - DDT	2100	3.5 U	3.7 U	3.4 U	3.7 U	3.5 U	3.7 U	3.7 U	4.1 U
	Methoxychlor	NL	3.5 J	1.9 U	17 U	18 U	17 U	19 U	18 U	20 U
	Endrin ketone	NL	3.5 U	3.7 U	34 U	3.7 U	3.5 U	3.7 U	3.7 U	4.1 U
	Endrin aldehyde		3.5 U	3.7 U	34 U	3.7 U	3.5 U	3.7 U	NM	NM
Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha - Chlordane	NL	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	gamma - Chlordane	540	1.8 U	1.9 U	1.7 U	1.8 U	1.7 U	1.9 U	1.8 U	2 U
	Toxaphene	NL	180 U	190 U	170 U	180 U	170 U	190 U	180 U	200 U
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	35 U	37 U	34 U	37 U	35 U	37 U	37 U	41 U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	71 U	75 U	69 U	73 U	69 U	74 U	73 U	81 U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	35 U	37 U	34 U	37 U	350 U	37 U	37 U	41 U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	35 U	37 U	34 U	37 U	350 U	37 U	37 U	41 U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	35 U	37 U	34 U	37 U	350 U	37 U	37 U	41 U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	35 U	37 U	34 U	37 U	350 U	37 U	37 U	41 U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	35 U	37 U	34 U	37 U	350 U	37 U	37 U	41 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area A
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use comerical/industrial (ug/kg draft)	DSASS-1S	DSASS-1D	DSASS-2S	DSASS-2D	DSASS-3S	DSASS-3D	TP101-1S	TP101-1D
Sample Date				10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	4/3/1997	4/3/1997
Sample Analyzed Date				11/7/1996 & 11/8/96	11/7/1996 & 11/8/96	11/8/1996 & 11/9/96	11/8/1996 & 11/9/96	11/9/1996	11/9/1996	6/12/1997	6/13/1997
Sample Depth (bgs) (type)				0" - 3" (shallow)	NA	0" - 3" (shallow)	NA	0" - 3" (shallow)	NA	1' - 1.2' (shallow)	6.3' - 7' (deep)
Sampling Method				Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Backhoe	Backhoe
Surface Condition				Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt Pavement	Asphalt Pavement
Sample Field Observations				Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	Predetermined Sample Depth; OVA reading not collected	Sample based on staining and/or odor. OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Sample based on staining and/or odor. OVA reading not collected	OVA = 0 ppm	Heavy Fill, Gray/Brown Sand, Gravel, Rocks, OVA = 500 ppm
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	**350 U**	**370 U**	**340 U**	**360 U**	**350 U**	**370 U**	**360 UJ**	**400 UJ**
	bis(2-Chloroethyl)ether	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	2-Chlorophenol	800		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	1,2-Dichlorobenzene	7900	500000	350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	1,3-Dichlorobenzene	1600	280000	350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	1,4-Dichlorobenzene	8500	130000	350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	2-Methylphenol	100 or MDL (330)	500000	**350 U**	**370 U**	**340 U**	**360 U**	**350 U**	**370 U**	**360 UJ**	**400 UJ**
	2,2'-oxybis(1-Chloropropane)	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	4-Methylphenol	900	500000	350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	N-Nitroso-di-n-propylamine	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Hexachloroethane	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Nitrobenzene	200 or MDL (330)		**350 U**	**370 U**	**340 U**	**360 U**	**350 U**	**370 U**	**360 UJ**	**400 UJ**
	Isophorone	4400		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	2-Nitrophenol	330 or MDl (330)		**350 U**	**370 U**	**340 U**	**360 U**	**350 U**	**370 U**	**360 UJ**	**400 UJ**
	2,4-Dimethylphenol	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	bis(2-Chloroethoxy)methane	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	2,4-Dichlorophenol	400		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	1,2,4-Trichlorobenzene	3400		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Naphthalene	13000	500000	350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	**87 UJ**
	4-Chloroaniline	220 or MDL (330)		**350 U**	**370 U**	**340 U**	**360 U**	**350 U**	**370 U**	**360 UJ**	**400 UJ**
	Hexachlorobutadiene	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	4-Chloro-3-methylphenol	240 or MDL (330)		**350 U**	**370 U**	**340 U**	**360 U**	**350 U**	**370 U**	**360 UJ**	**400 UJ**
	2-Methylnaphthalene	36400		350 U	370 U	340 U	360 U	360 U	370 U	360 UJ	400 UJ
	Hexachlorocyclopentadiene	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	2,4,6-Trichlorophenol	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	2,4,5-Trichlorophenol	100		**850 U**	**900 U**	**820 U**	**880 U**	**840 U**	**890 U**	**880 UJ**	**970 UJ**
	2-Chloronaphthalene	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	2-Nitroaniline	430 or MDL (800)		**850 U**	**900 U**	**820 U**	**880 U**	**840 U**	**890 U**	**880 UJ**	**970 UJ**
	Dimethylphthalate	2000		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Acenaphthylene	41000	500000	350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	47 UJ
	2,6-Dinitrotoluene	1000		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	3-Nitroaniline	500 or MDL (800)		**850 U**	**900 U**	**820 U**	**880 U**	**840 U**	**890 U**	**880 UJ**	**970 UJ**
	Acenaphthene	50000	500000	350 U	370 U	340 U	68 J	350 U	370 U	360 UJ	260 UJ
	2,4-Dinitrophenol	200 or MDL (800)		**850 U**	**900 U**	**820 U**	**880 U**	**840 U**	**890 U**	**880 UJ**	**970 UJ**
	4-Nitrophenol	100 or MDL (330)		**850 U**	**900 U**	**820 U**	**880 U**	**840 U**	**890 U**	**880 UJ**	**970 UJ**
	Dibenzofuran	6200		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	110 UJ
	2,4-Dinitrotoluene	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Diethylphthalate	7100		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	4-Chlorophenyl-phenylether	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Fluorene	50000	500000	350 U	370 U	340 U	98 J	350 U	370 U	360 UJ	220 UJ
	4-Nitroaniline	NL		850 U	900 U	820 U	880 U	840 U	890 U	880 UJ	970 UJ
	4,6-Dinitro-2-methylphenol	NL		850 U	900 U	820 U	880 U	840 U	890 U	880 UJ	970 UJ
	N-Nitrosodiphenylamine	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	4-Bromophenyl-phenylether	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Hexachlorobenzene	410		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Pentachlorophenol	1000 or MDL (800)	6700	850 U	900 U	820 U	880 U	840 U	890 U	880 UJ	970 UJ
	Phenanthrene	50000	500000	79 J	66 J	340 U	93	350 U	250 J	66 UJ	2000
	Anthracene	50000	500000	350 U	370 U	340 U	270 J	350 U	72 J	360 UJ	440
	Carbazole	NL		350 U	370 U	340 U	63 J	350 U	370 U	360 UJ	R
	Di-n-butylphthalate	8100		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Fluoroanthene	50000	500000	89 J	100 J	340 U	840	62 J	360 J	150 UJ	1900
	Pyrene	50000	500000	100 J	90 J	45 J	920	170 J	620	200 UJ	2100
	Butylbenzylphthalate	50000		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	3,3'-Dichlorobenzidine	NL		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Benzo(a)anthracene	224 or MDL (330)	5600	43 J	46 J	**340 U**	**470**	54 J	210 J	98 UJ	**1100**
	Chrysene	400	56000	48 J	52 J	340 U	**490**	70 J	250 J	120 UJ	**1100**
	bis(2-Ethylhexyl)phthalate	50000		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Di-n-octylphthalate	50000		350 U	370 U	340 U	360 U	350 U	370 U	360 UJ	400 UJ
	Benzo(b)fluoranthene	1100	6000	37 J	41 J	340 U	350 J	82 J	230 J	170 UJ	**1500**
	Benzo(k)fluoranthene	1100	56000	53 J	40 J	340 U	350 J	130 J	300 J	360 UJ	400 UJ
	Benzo(a)pyrene	61 or MDL (330)	1000	46 J	56 J	**340 U**	38	79 J	240 J	96 UJ	**850**
	Indeno(1,2,3-cd)pyrene	3200	5600	350 U	370 U	340 U	160 J	350 U	72 J	360 UJ	300 UJ
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	**350 U**	**370 U**	**340 U**	70 J	**350 U**	**370 U**	**360 UJ**	170 UJ
	Benzo(g,h,i)perylene	50000	500000	350 U	370 U	340 U	170 J	350 U	73 J	360 UJ	330 UJ

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area A
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	DSASS-1S	DSASS-1D	DSASS-2S	DSASS-2D	DSASS-3S	DSASS-3D	TP101-1S	TP101-1D
Sample Date			10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	10/30/96 & 10/31/96	4/3/1997	4/3/1997
Sample Analyzed Date			10/31/1996 & 11/04/96	10/31/1996 & 11/04/96	11/1/1996 & 11/01/96	10/31/1996 & 11/04/96	11/01/96 & 11/4/1996	11/01/96 & 11/4/1996	4/9/1997	4/9/1997
Sample Depth (bgs) (type)			0" - 3" (shallow)	NA	0" - 3" (shallow)	NA	0" - 3" (shallow)	NA	1' - 1.2' (shallow)	6.3' - 7' (deep)
Sampling Method			Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Backhoe	Backhoe
Surface Condition			Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt	Asphalt Pavement	Asphalt Pavement
Sample Field Observations			Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	Predetermined Sample Depth; OVA reading not collected	Sample based on staining and/or odor. OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Sample based on staining and/or odor. OVA reading not collected	OVA = 0 ppm	Heavy Fill, Gray/Brown Sand, Gravel, Rocks, OVA = 500 ppm
Volatile Organics (ppb) Allowable Holding Time: 10 days	Chloromethane	NL	11 U	11 U	10 U	11 U	10 U	11 U	11 U	12 U
	Bromomethane	NL	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Vinyl Chloride	200	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Chloroethane	1900	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Methylene Chloride	100	7.8 J	8.4 J	13	9.5 J	0.011	11 UJ	12	12
	Acetone	200	11 U	13	6.5 J	21	6.1 J	11 UJ	20	24
	Carbon Disulfide	2700	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	1,1-Dichloroethene	400	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	1,1-Dichloroethane	200	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	1,2-Dichlorethene (total)	300	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Chloroform	300	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	1,2-Dichloroethane	100	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	2-Butanone	300	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	1,1,1-Trichloroethane	800	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Carbon Tetrachloride	600	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Bromodichloromethane	NL	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	1,2-Dichloropropane	NL	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	cis-1,3-Dichloropropene	NL	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Trichloroethene	700	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Dibromochloromethane	NL	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	1,1,2-Trichloroethane	NL	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Benzene	60	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	trans-1,3-Dichloropropene	N/A	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	Bromoform	N/A	11 U	11 U	10 U	11 U	10 U	11 UJ	11 U	12 U
	4-Methyl-2-Pentanone	1000	11 U	11 U	10 UJ	11 U	10 U	11 UJ	11 U	12 U
	2-Hexanone	NL	11 U	11 U	10 UJ	11 U	10 U	11 UJ	11 U	12 U
	Tetrachloroethene	1400	11 U	11 U	10 UJ	11 U	10 U	11 UJ	11 U	12 U
	1,1,2,2-Tetrachloroethane	600	11 U	11 U	10 UJ	11 U	10 U	11 UJ	11 U	12 U
	Toluene	1500	11 U	11 U	10 UJ	11 U	10 U	11 UJ	11 U	12 U
	Chlorobenzene	1700	11 U	11 U	10 UJ	11 U	10 U	11 UJ	11 U	12 U
	Ethylbenzene	5500	11 U	11 U	10 UJ	11 U	10 U	11 UJ	11 U	12 U
	Styrene	NL	11 U	11 U	10 UJ	11 U	10 U	11 UJ	11 U	12 U
	Xylenes(total)	1200	11 U	11 U	10 UJ	11 U	10 U	11 UJ	11 U	12 U

ppm - parts per million
ppb - parts per billion
bgs - below ground surface
Concentrations in bold are over the Criteria and regional soil background.
Concentrations in bold and italics are over the Criteria but not the regional soil background.
U - The analyte was analyzed for, but not detected.
J - Analyte detected below method detection limit and/or estimated concentration.
B - Indicates the analyte was found in the blank as well as the sample.
R - The presence or absence of the analyte cannot be verified due to failure to meet quality control criteria. Therefore the value is rejected and considered unusable.
NM - Analysis not performed.
NL - Analyte not listed in NYSDEC TAGM #4046

Environmental

Engineers & Scientists

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	DSBSS-1S	DSBSS-1D	DSBSS-2S	DSBSS-4A (Duplicate)	DSBSS-4B (MS)	DSBSS-4C (MSD)	DSBSS-2D	DSBSS-3S	DSBSS-3D	TP102-1S	TP102-2S (Duplicate)	TP102-2D
Sample Date				10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	4/3/1997	4/3/1997	4/3/1997
Sample Analyzed Date				11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	11/2/96 - 11/11/96	4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/9/97 - 4/26/97
Sample Depth (bgs)				0"-3" (shallow)	NA	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	NA	0"-3" (shallow)	NA	0" - 2" (shallow)	0" - 2" (shallow)	3.7' - 4.5' (deep)
Sampling Method				Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Backhoe	Backhoe	Backhoe
Surface Condition				Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Sand	Sand	Sand
Sample Field Observations				Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	OVA = 0 ppm	OVA = 0 ppm	OVA = 70 - 80 ppm
Metals (ppm)	Aluminum	SB (33,000)		4630	7400	6340	5720	5230	5600	7370	2320	6090	6630	5500	8930
	Antimony	SB (NL)		6.9B	1.3B	10.1B	8.0B	11.6B	7.8B	2.2B	1.3B	1.2B	20.2	13.5 B	0.65 U
	Arsenic	7.5 or SB (3-12)	16	***7.6***	6.1	***10.5***	***10.7***	**14.8**	***8.9***	***9.2***	***9***	7.1	***9.3***	**12.8**	5.1
	Barium	300 or SB (15-600)	400	201	95.7	202	***484***	147	167	125	52.6	57.1	242	***304***	91.3
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	**1.8**	***0.46B***	**5.3**	**2.7**	**3.6**	**3.2**	***0.61B***	***0.68B***	***0.48B***	**5.5**	**3.6**	***0.45*** B
	Cadmium	1 or SB (0.1-1)	9.3	**2.3**	0.23U	**2.1**	**2.4**	**1.6**	2	0.22U	0.56B	0.22U	**2.6**	**1.8**	0.22 U
	Calcium	SB (130 - 35,000)		**42300**	6580	27600	19800	34200	29700	14100	**211000**	**36000**	**49900**	**48600**	8480
	Chromium	10 or SB (1.3 - 40)	400-800	**71.9**	***18.6***	**107**	**69.8**	**122**	**75.4**	***35.4***	***16.3***	***18.6***	**133**	**121**	***19.5***
	Cobalt	30 or SB (2.5 - 60)		16.9	7.4B	24.1	19.1	21.3	26.3	8.7B	6.5B	7.9B	***32.2***	23.8	9.3 B
	Copper	25 or SB (1-50)	270	**1450**	**79.6**	**806**	**524**	**1300**	**521**	**114**	**94.4**	***47.3***	**1090**	**901**	**64.8**
	Iron	2,000 or SB (2,000 -550,000)		***27300***	***17300***	***47200***	***44200***	***66600***	***32500***	***29900***	***8740***	***26100***	***37400***	***57800***	***18200***
Allowable Holding Time:	Lead	400	1000	**657**	190	**1650**	**733**	**1260**	**783**	213	83	147	**1440**	**1340**	210
6 months	Magnesium	SB (100-5000)		**17600**	2630	**11200**	**7110**	**15200**	**12000**	4360	**44900**	**8050**	**24100**	**25000**	3390
28 days for Hg	Manganese	SB (50-5000)	15000	258	323	403	359	475	318	318	171	369	398	474	357
12 days for CN	Mercury	0.1	2.8	**0.22**	**0.68**	**0.32**	**0.35**	**0.35**	**0.36**	**0.28**	0.10U	**0.31**	**0.14** U	**0.14** U	**0.11** U
	Nickel	13 or SB (0.5-25)	310	**104E,J**	***16.2E,J***	**126E,J**	**115E,J**	**93.0E,J**	**97.9E,J**	**34.5E,J**	**36.3E,J**	***19.2E,J***	**162** J	**136** J	***18.9*** J
	Potassium	SB (8,500-43,000)		666B,E,J	829B,E,J	661B,E,J	645B,E,J	543B,E,J	607B,E,J	895B,E,J	814B,E,J	963B,E,J	726 B	633 B	1060 B
	Selenium	2 or SB (0.1-3.9)	1500	2	1.3	***2.6***	1.6	***2.2***	1.7	0.98B	0.81U	0.88U	***2.4*** J	***3*** J	0.86 J
	Silver	SB (NL)	1500	1.3B	0.45U	1.0B	0.89B	1.0B	0.94B	0.44U	0.41U	0.44U	0.76 B	0.84 B	0.22 U
	Sodium	SB (6,000-8,000)		419B	279B	557B	409B	396B	464B	344B	360B	266B	589 B	520 B	578 B
	Thallium	SB (NL)		2.1U	2.0U	2.0U	2.1U	2.1U	2.1U	2.0U	1.8U	2.0U	2.1 B	1.4 U	1.1 U
	Vanadium	150 or SB (1-300)		30.5	22.4	54.8	51.9	47	42.8	24.4	35.4	28.7	34.6	34.1	26.8
	Zinc	20 or SB (9-50)	89,000	**2190**	**290**	**3140**	**2420**	**2730**	**2940**	**337**	**300**	**133**	**2980**	**2760**	**175**
	Cyanide	NL	27	0.39U	0.40U	0.38U	0.41U	0.40U	0.40U	0.37U	0.33U	0.37U	0.46 U	0.48 U	0.46 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-DSB- 1-SB1-12-14-DUP	SSI-DSB- 1-SB2-21-24-DUP	SSI-DSB- 1-SB3-45-48-DS	SSI-DSB- 1-SB3-45-48-MS	SSI-DSB-1-SB1 12-14	SSI-DSB-1-SB2 21-24	SSI-DSB-1-SB3 45-48	SSI-DSB-1-SS 6-9	SSI-DSB-2-SB1 12-14	SSI-DSB-2-SB2 21-24	SSI-DSB-2-SB3 45-48
Sample Date				12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005
Sample Analyzed Date				12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/19/2005	12/19/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/25/2005
Sample Depth (bgs)				12-14	21-24	45-48	45-48	12-14	21-24	45-48	6-9	12-14	21-24	45-48
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault
Sample Field Observations														
Metals (ppm) Allowable Holding Time: 6 months 28 days for Hg 12 days for CN	Aluminum	SB (33,000)		4300 J	6200 J	8500	4000	4900 J	3200 J	5300 J	2200 U	4700 J	3300	4700 J
	Antimony	SB (NL)		2.5	11	17	18	1.4	2.1	2	12 J	7.4	63	2.4
	Arsenic	7.5 or SB (3-12)	16	4.8	***9.2***	**24**	**21**	5	***8.4***	**14**	1.9 J	11	***8.2***	6.2
	Barium	300 or SB (15-600)	400	54	120	***590***	***530***	59 J	46	48 J	16 U	74	84	77 J
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***1.5*** J	**16** J	**13**	**12**	***0.59*** J	**4** J	***0.39***	***1*** J	**2.2**	***6.6*** J	0.16 J
	Cadmium	1 or SB (0.1-1)	9.3	0.32	0.69	**14**	**12**	0.24	0.62	**1.2**	0.13	**1.2**	0.91	0.4
	Calcium	SB (130 - 35,000)		19000	**37000**	9100	5300	27000	15000	11000	9400	46000	**130000**	8400
	Chromium	10 or SB (1.3 - 40)	400-800	***22*** J	**72**	**98**	**75**	**19** J	**24**	**25** J	6.4 J	**76**	**58**	**16** J
	Cobalt	30 or SB (2.5 - 60)		9.1	**45**	**140**	**130**	8.3	14	7.6	3.1	16	29	7
	Copper	25 or SB (1-50)	270	**110**	**940**	**230**	**290**	**88**	**340**	**140**	14	**330**	**650**	**100**
	Iron	2,000 or SB (2,000 -550,000)		***13000***	***41000***	***31000***	***18000***	***13000***	***15000***	***16000***	***6700***	***24000***	***26000***	***16000***
	Lead	400	1000	120	**830**	170	280	82	190	170	20	300	**560**	170
	Magnesium	SB (100-5000)		**10000**	**15000**	3300	3000	**5200**	5000	4200	2100	**11000**	**62000**	4300
	Manganese	SB (50-5000)	15000	190 U	450 U	490	320	150 U	200 U	240	110 U	230	300	210
	Mercury	0.1	2.8	**0.11**	**0.12**	**0.63**	**0.59**	0.1	0.1	**0.14**	0.1	**0.28**	**0.4**	**0.5**
	Nickel	13 or SB (0.5-25)	310	**39**	**130** J	**160** J	**170** J	**26**	**41** J	**29** J	8.5 J	**110** J	**87** J	***16*** J
	Potassium	SB (8,500-43,000)		1500 J	800 J	800	520	1900 J	510 J	830 J	700 J	820 J	520 J	730 J
	Selenium	2 or SB (0.1-3.9)	1500	1.2 J	1.8 J	**14**	**13**	0.94 J	1.3 J	1.7 J	0.46 J	1.4 J	1.1 J	1.6 J
	Silver	SB (NL)	1500	1.1 J	0.76	13	12	0.97	0.28 J	0.79	0.23 J	0.96	1.2	0.52
	Sodium	SB (6,000-8,000)		430 J	920 J	1200	960	430 J	380 J	1200 J	220 U	850 J	1700 J	820 J
	Thallium	SB (NL)		1.8	1.5	14	13	2	0.89	1.6	5.1 J	1.6	1	1.4
	Vanadium	150 or SB (1-300)		18	27	140	130	19	15	24	9.6	40	39	21
	Zinc	20 or SB (9-50)	89,000	**460**	**7400**	**830**	**2000**	**270**	**1400**	**1300**	**61**	**1500**	**3700**	**190**
	Cyanide	NL	27	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-DSB-2-SS 6-9	SSI-DSB-3-SB1 12-14	SSI-DSB-3-SB2 21-24	SSI-DSB-3-SB3 45-48	SSI-DSB-3-SS 6-9	SSI-DSB-4-SB1 12-14	SSI-DSB-4-SB2 21-24	SSI-DSB-4-SB3 45-48	SSI-DSB-4-SS 6-9	SSI-DSB-5-SB1 12-14	SSI-DSB-5-SB2 21-24
Sample Date				12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005
Sample Analyzed Date				12/20/2005	12/25/2005	12/25/2005	12/25/2005	12/25/2005	12/25/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/25/2005
Sample Depth (bgs)				6-9	12-14	21-24	45-48	6-9	12-14	21-24	45-48	6-9	12-14	21-24
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault
Sample Field Observations														
Metals (ppm)	Aluminum	SB (33,000)		7200 J	8600 J	6600 J	5400 J	8200 U	2000 J	2500 J	4900 J	3400 J	5400	7700 J
	Antimony	SB (NL)		1	7.1	7.4	0.87	12	2	2.7	0.57 J	0.51	15	2
	Arsenic	7.5 or SB (3-12)	16	4.1	**29**	***9.2***	6.5	**44** J	5.7 J	5.5 J	0.38 J	***8.2*** J	***8.1***	5.9
	Barium	300 or SB (15-600)	400	90 U	130	130	99 J	14 J	28 J	38	22 J	20 U	170	50 J
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***1*** J	**11** J	**20** J	***0.19*** J	0.086 J	***0.24*** J	***1.2*** J	***0.55*** U	***1*** J	**11** J	***0.17*** J
	Cadmium	1 or SB (0.1-1)	9.3	0.091	0.65	0.92	0.35	0.19	0.37	0.48	1.1	0.16	0.95	0.81
	Calcium	SB (130 - 35,000)		35000	8700	16000	16000	4600	40000	**77000**	**50000**	16000	17000	35000
	Chromium	10 or SB (1.3 - 40)	400-800	**18** J	**130**	**130**	**14** J	**16** J	**89** J	**28** J	**26** J	**11** J	**150**	**17** J
	Cobalt	30 or SB (2.5 - 60)		7.5	57	42	7	9.8	3.8	8.8	4.8	4.9	48	6.3
	Copper	25 or SB (1-50)	270	**34**	**790**	**890**	**61**	25	**64**	**150**	**64**	**28**	**1100**	**63**
	Iron	2,000 or SB (2,000 -550,000)		***14000***	***38000***	***33000***	***16000***	***21000***	***8200***	***14000***	***7500***	***16000***	***36000***	***16000***
Allowable Holding Time:	Lead	400	1000	33	**610**	**550**	300	16	**550**	**5300**	40	110	**1500**	200
6 months	Magnesium	SB (100-5000)		**5400**	4200	**5800**	**6000**	4200	**22000**	**27000**	2600	3000	3600	**12000**
28 days for Hg	Manganese	SB (50-5000)	15000	160 U	480	420	270	360 U	120 U	170 U	110 U	170 U	370	230
12 days for CN	Mercury	0.1	2.8	0.1	**0.36**	**0.4**	**0.8**	0.1	0.1	0.1	**0.11**	**0.11**	**5.4**	**3.1**
	Nickel	13 or SB (0.5-25)	310	***16***	**330** J	**290** J	***19*** J	***23*** J	***14*** J	**41** J	**51** J	13 J	**140** J	***21*** J
	Potassium	SB (8,500-43,000)		3300 J	510 J	430 J	870 J	540 J	270 J	350 J	210 J	540 J	550 J	910 J
	Selenium	2 or SB (0.1-3.9)	1500	0.7 J	***2.4*** J	***3*** J	1.5 J	1.3 U	0.4 J	0.53 J	0.43 J	0.97 U	1.8 J	1.2 J
	Silver	SB (NL)	1500	1.8	0.65	0.94	0.41	2	0.43 J	0.8 J	0.71 J	2.1 J	0.52	0.95
	Sodium	SB (6,000-8,000)		430 J	770 J	710 J	770 J	440 J	220 U	340 U	170 U	300 J	680 J	780 J
	Thallium	SB (NL)		3.3	1.4	1.3	0.94	0.65	4.8	5	5.5 J	0.67	1.7	1.8
	Vanadium	150 or SB (1-300)		21	28	26	33	13	12	16	6.7	11	34	20
	Zinc	20 or SB (9-50)	89,000	**80**	**2500**	**2100**	**180**	**67**	**190**	**490**	**290**	**91**	**6600**	**260**
	Cyanide	NL	27	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-DSB-5-SB3 45-48		SSI-DSB-5-SS 6-9		SSI-DSB-6-SB1 12-14		SSI-DSB-6-SB2 21-24		SSI-DSB-6-SB3 45-48		SSI-DSB-6-SS 6-9	
Sample Date				12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005	
Sample Analyzed Date				12/25/2005		12/20/2005		12/25/2005		12/20/2005		12/20/2005		12/20/2005	
Sample Depth (bgs)				45-48		6-9		12-14		21-24		45-48		6-9	
Sampling Method				Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe	
Surface Condition				Asphault		Asphault		Asphault		Asphault		Asphault		Asphault	
Sample Field Observations															
Metals (ppm)	Aluminum	SB (33,000)		7800	J	4300	J	2700	J	1300	J	5700		3500	
	Antimony	SB (NL)		1	J	5.2		6.6		1.4		18		1.6	
	Arsenic	7.5 or SB (3-12)	16	1.7	J	***8.4***		***7.9***		7.2	J	5.4		6.5	
	Barium	300 or SB (15-600)	400	37	J	75		69		14	U	100	J	45	
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***0.21***	J	**4.2**	J	**2.6**		***0.96***	J	0.16	J	***0.4***	
	Cadmium	1 or SB (0.1-1)	9.3	0.099		0.65		2.2		0.61		0.26		0.72	
	Calcium	SB (130 - 35,000)		8600		15000		**100000**		**120000**		10000		23000	
	Chromium	10 or SB (1.3 - 40)	400-800	**18**	J	**56**		**67**		9.6	J	**22**	J	**26**	
	Cobalt	30 or SB (2.5 - 60)		7.3		22		21		4.4		6.5		6.9	
	Copper	25 or SB (1-50)	270	25		**420**		**320**		**59**		**42**		**76**	
	Iron	2,000 or SB (2,000 -550,000)		***13000***		***23000***		***26000***		***8100***		***14000***		***20000***	
Allowable Holding Time:	Lead	400	1000	8.2		**800**		**420**		43		86		150	
6 months	Magnesium	SB (100-5000)		**5500**		4000		**52000**		**66000**		**5200**		**15000**	
28 days for Hg	Manganese	SB (50-5000)	15000	170	U	240		360		170		290		240	
12 days for CN	Mercury	0.1	2.8	**0.11**		**0.43**		**0.34**		**0.11**		**0.33**		**0.11**	
	Nickel	13 or SB (0.5-25)	310	13		**57**	J	**100**	J	***14***	J	***15***		**28**	
	Potassium	SB (8,500-43,000)		1000	J	750	J	590	J	610	J	1100	J	1100	
	Selenium	2 or SB (0.1-3.9)	1500	1.2	J	1.5	J	1.1	J	0.71	J	1.3	J	1.7	
	Silver	SB (NL)	1500	0.97		0.58		1.2	J	1.2		0.89		0.82	
	Sodium	SB (6,000-8,000)		1100	J	430	J	410	J	590	J	1300	J	230	
	Thallium	SB (NL)		2		1.1		1.5		0.69		1.8		1.8	
	Vanadium	150 or SB (1-300)		28		20		20		10		20		15	
	Zinc	20 or SB (9-50)	89,000	***34***		**2200**		**1100**		**150**		**91**		**290**	
	Cyanide	NL	27	NM		NM		NM		NM		NM		NM	

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	DSBSS-1S	DSBSS-1D	DSBSS-2S	DSBSS-4A (Duplicate)	DSBSS-4B (MS)	DSBSS-4C (MSD)	DSBSS-2D	DSBSS-3S	DSBSS-3D	TP102-1S	TP102-2S (Duplicate)	TP102-2D
Sample Date			10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	4/3/1997	4/3/1997	4/3/1997
Sample Analyzed Date			11/10/1996	11/10/1996	11/10/1996	11/11/1996	11/11/1996	11/11/1996	11/10/1996	11/10/1996	11/11/1996	4/16/1997	4/16/1997	4/16/1997
Sample Depth (bgs)			0"-3" (shallow)	NA	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	NA	0"-3" (shallow)	NA	0" - 2" (shallow)	0" - 2" (shallow)	3.7' - 4.5' (deep)
Sampling Method			Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Backhoe	Backhoe	Backhoe
Surface Condition			Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Sand	Sand	Sand
Sample Field Observations			Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	OVA = 0 ppm	OVA = 0 ppm	OVA = 70 - 80 ppm
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	20 U	2 U	**190 U**	2 U	2 U	2 U	1.9 U	1.7 U	1.9 U	2.3 U	2.3 U	1.9 U
	beta-BHC	200	20 U	2 U	190 U	2 U	2 U	2 U	1.9 U	1.7 U	1.9 U	2.3 U	2.3 U	1.9 U
	delta-BHC	300	20 U	2 U	190 U	2 U	2 U	2 U	1.9 U	1.7 U	1.9 U	2.3 U	2.3 U	1.9 U
	gamma-BHC (Lindane)	6	**20 U**	2 U	**190 U**	2 U	2 U	2 U	1.9 U	1.7 U	1.9 U	2.3 U	2.3 U	1.9 U
	Heptachlor	100	20 U	2 U	**190 U**	2 U	2 U	2 U	1.9 U	1.7 U	1.9 U	2.3 U	2.3 U	1.9 U
	Aldrin	41	20 U	2 U	**190 U**	2 U	2 U	2 U	1.9 U	0.71 J	1.9 U	2.3 U	2.3 U	1.9 U
	Heptachlor epoxide	20	20 U	2 U	**190 U**	2 U	2 U	2 U	1.9 U	1.7 U	1.9 U	2.3 U	2.3 U	1.9 U
	Endosulfan I	900	20 U	2 U	190 U	2 U	2 U	2 U	1.9 U	1.7 U	1.9 U	2.3 U	2.3 U	1.9 U
	Dieldrin	44	40 U	4 U	**380 U**	4 U	4 U	4 U	3.9 U	1.7 U	3.7 U	4.5 U	4.6 U	3.7 U
	4,4' - DDE	2100	40 U	4 U	380 U	4 U	4 U	4 U	3.9 U	3.4 U	3.7 U	4.5 U	4.6 U	3.7 U
	Endrin	100	40 U	4 U	**380 U**	4 U	4 U	4 U	3.9 U	3.4 U	3.7 U	4.5 U	4.6 U	3.7 U
	Endosulfan II	900	40 U	4 U	380 U	4 U	4 U	4 U	3.9 U	3.4 U	3.7 U	4.5 U	4.6 U	3.7 U
	4,4' - DDD	2900	40 U	4 U	380 U	4 U	4 U	4 U	3.9 U	3.4 U	3.7 U	4.5 U	4.6 U	3.7 U
	Endosulfan sulfate	1000	40 U	4 U	380 U	R	R	R	3.9 U	3.4 U	3.7 U	4.5 U	4.6 U	3.7 U
	4,4' - DDT	2100	40 U	4 U	380 U	4 U	4 U	4 U	3.9 U	3.4 U	3.7 U	4.5 U	4.6 U	3.7 U
	Methoxychlor	NL	200 U	1.5 J	1900 U	20 U	20 U	20 U	17 U	17 U	19 U	23 U	23 U	19 U
	Endrin ketone	NL	40 U	4 U	380 U	4 U	4 U	4 U	3.9 U	3.4 U	3.7 U	4.5 U	4.6 U	3.7 U
	alpha - Chlordane	NL	20 U	2 U	1900 U	0.2 U	0.2 U	0.2 U	1.9 U	1.7 U	1.9 U	2.3 U	2.3 U	1.9 U
	gamma - Chlordane	540	20 U	2 U	**1900 U**	0.2 U	0.2 U	0.2 U	1.9 U	1.7 U	1.9 U	2.3 U	2.3 U	1.9 U
	Toxaphene	NL	2000 U	200 U	1900 U	200 U	200 U	200 U	190 U	170 U	190 U	230 U	230 U	190 U
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	400 U	40 U	**3800 U**	40 U	40 U	40 U	39 U	34 U	37 U	45 U	46 U	37 U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	790 U	79 U	**7700 U**	80 U	79 U	80 U	78 U	69 U	74 U	90 U	93 U	75 U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	400 U	40 U	**3800 U**	40 U	40 U	**40 U**	39 U	34 U	37 U	45 U	46 U	37 U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	400 U	40 U	**3800 U**	40 U	40 U	40 U	39 U	34 U	37 U	45 U	46 U	37 U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	3400 U	40 U	**2800 DJ**	40 U	40 U	40 U	240	34 U	37 U	**5500** D	**27000** D	37 U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	400 U	40 U	**3800 U**	40 U	40 U	40 U	390 U	34 U	37 U	45 U	46 U	37 U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	400 U	40 U	**3800 U**				390 U	34 U	37 U	45 U	46 U	37 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	SSI-DSB- 1-SB1-12-14-DUP		SSI-DSB- 1-SB2-21-24-DUP		SSI-DSB- 1-SB3-45-48-DS		SSI-DSB- 1-SB3-45-48-MS		SSI-DSB-1-SB1 12-14		SSI-DSB-1-SB2 21-24		SSI-DSB-1-SB3 45-48		SSI-DSB-1-SS 6-9		SSI-DSB-2-SB1 12-14		SSI-DSB-2-SB2 21-24		SSI-DSB-2-SB3 45-48	
Sample Date			12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005	
Sample Analyzed Date			12/20/2005		12/20/2005		12/20/2005		12/20/2005		12/19/2005		12/19/2005		12/20/2005		12/20/2005		12/20/2005		12/20/2005		12/25/2005	
Sample Depth (bgs)			12-14		21-24		45-48		45-48		12-14		21-24		45-48		6-9		12-14		21-24		45-48	
Sampling Method			Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe	
Surface Condition			Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault	
Sample Field Observations																								
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	beta-BHC	200	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	delta-BHC	300	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	gamma-BHC (Lindane)	6	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Heptachlor	100	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Aldrin	41	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Heptachlor epoxide	20	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Endosulfan I	900	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Dieldrin	44	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	4,4' - DDE	2100	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Endrin	100	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Endosulfan II	900	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	4,4' - DDD	2900	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Endosulfan sulfate	1000	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	4,4' - DDT	2100	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Methoxychlor	NL	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Endrin ketone	NL	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	alpha - Chlordane	NL	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	gamma - Chlordane	540	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Toxaphene	NL	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	36.5	U	120	U	42.2	U	117	U	35	U	34.6	U	39.6	U	34.2	U	108	U	126	U	36.6	U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	73	U	241	U	84.4	U	234	U	69.9	U	69.1	U	79.1	U	68.5	U	217	U	253	U	73.2	U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	36.5	U	120	U	42.2	U	117	U	35	U	34.6	U	39.6	U	34.2	U	108	U	126	U	36.6	U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	36.5	U	120	U	42.2	U	117	U	35	U	34.6	U	39.6	U	34.2	U	108	U	126	U	36.6	U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	36.5	U	120	U	42.2	U	117	U	35	U	141		39.6	U	34.2	U	108	U	126	U	36.6	U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	36.5	U	120	U	42.2	U	117	U	35	U	34.6	U	39.6	U	34.2	U	108	U	126	U	36.6	U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	40.8		812		406		1090		68.8		131		882		167		2560		2700		132	

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	SSI-DSB-2-SS 6-9	SSI-DSB-3-SB1 12-14	SSI-DSB-3-SB2 21-24	SSI-DSB-3-SB3 45-48	SSI-DSB-3-SS 6-9	SSI-DSB-4-SB1 12-14	SSI-DSB-4-SB2 21-24	SSI-DSB-4-SB3 45-48	SSI-DSB-4-SS 6-9	SSI-DSB-5-SB1 12-14	SSI-DSB-5-SB2 21-24
Sample Date			12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005	12/5/2005
Sample Analyzed Date			12/20/2005	12/25/2005	12/25/2005	12/25/2005	12/25/2005	12/25/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/25/2005
Sample Depth (bgs)			6-9	12-14	21-24	45-48	6-9	12-14	21-24	45-48	6-9	12-14	21-24
Sampling Method			Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault
Sample Field Observations													
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	beta-BHC	200	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	delta-BHC	300	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	gamma-BHC (Lindane)	6	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Heptachlor	100	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Aldrin	41	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Heptachlor epoxide	20	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Endosulfan I	900	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Dieldrin	44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4,4' - DDE	2100	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Endrin	100	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Endosulfan II	900	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4,4' - DDD	2900	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Endosulfan sulfate	1000	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	4,4' - DDT	2100	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Methoxychlor	NL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Endrin ketone	NL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	alpha - Chlordane	NL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	gamma - Chlordane	540	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Toxaphene	NL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	35.3 U	35.3 U	38.7 U	37.8 U	34.4 U	35.1 U	35 U	37.8 U	35.7 U	36.5 U	36.9 U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	70.6 U	70.6 U	77.4 U	75.7 U	68.7 U	70.1 U	70 U	75.6 U	71.4 U	73.1 U	73.9 U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	35.3 U	35.3 U	38.7 U	37.8 U	34.4 U	35.1 U	35 U	37.8 U	35.7 U	36.5 U	36.9 U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	35.3 U	35.3 U	38.7 U	37.8 U	34.4 U	35.1 U	35 U	37.8 U	35.7 U	36.5 U	36.9 U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	35.3 U	35.3 U	38.7 U	37.8 U	34.4 U	35.1 U	35 U	37.8 U	35.7 U	36.5 U	36.9 U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	35.3 U	35.3 U	38.7 U	37.8 U	34.4 U	35.1 U	35 U	37.8 U	35.7 U	36.5 U	36.9 U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	35.3 U	126	864	37.8 U	34.4 U	271	182	390	35.7 U	**1260**	36.9 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	SSI-DSB-5-SB3 45-48		SSI-DSB-5-SS 6-9		SSI-DSB-6-SB1 12-14		SSI-DSB-6-SB2 21-24		SSI-DSB-6-SB3 45-48		SSI-DSB-6-SS 6-9	
Sample Date			12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005	
Sample Analyzed Date			12/25/2005		12/20/2005		12/25/2005		12/20/2005		12/20/2005		12/20/2005	
Sample Depth (bgs)			45-48		6-9		12-14		21-24		45-48		6-9	
Sampling Method			Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe	
Surface Condition			Asphault		Asphault		Asphault		Asphault		Asphault		Asphault	
Sample Field Observations														
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	NM		NM		NM		NM		NM		NM	
	beta-BHC	200	NM		NM		NM		NM		NM		NM	
	delta-BHC	300	NM		NM		NM		NM		NM		NM	
	gamma-BHC (Lindane)	6	NM		NM		NM		NM		NM		NM	
	Heptachlor	100	NM		NM		NM		NM		NM		NM	
	Aldrin	41	NM		NM		NM		NM		NM		NM	
	Heptachlor epoxide	20	NM		NM		NM		NM		NM		NM	
	Endosulfan I	900	NM		NM		NM		NM		NM		NM	
	Dieldrin	44	NM		NM		NM		NM		NM		NM	
	4,4' - DDE	2100	NM		NM		NM		NM		NM		NM	
	Endrin	100	NM		NM		NM		NM		NM		NM	
	Endosulfan II	900	NM		NM		NM		NM		NM		NM	
	4,4' - DDD	2900	NM		NM		NM		NM		NM		NM	
	Endosulfan sulfate	1000	NM		NM		NM		NM		NM		NM	
	4,4' - DDT	2100	NM		NM		NM		NM		NM		NM	
	Methoxychlor	NL	NM		NM		NM		NM		NM		NM	
	Endrin ketone	NL	NM		NM		NM		NM		NM		NM	
	alpha - Chlordane	NL	NM		NM		NM		NM		NM		NM	
	gamma - Chlordane	540	NM		NM		NM		NM		NM		NM	
	Toxaphene	NL	NM		NM		NM		NM		NM		NM	
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	37	U	177	U	35.7	U	34.2	U	37.4	U	73.9	U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	73.9	U	353	U	71.4	U	68.5	U	74.8	U	148	U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	37	U	177	U	35.7	U	34.2	U	37.4	U	73.9	U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	37	U	177	U	35.7	U	34.2	U	37.4	U	73.9	U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	37	U	177	U	35.7	U	34.2	U	37.4	U	73.9	U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	37	U	177	U	35.7	U	34.2	U	37.4	U	73.9	U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	37	U	**2380**		817		34.2	U	37.4	U	**1560**	

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	DSBSS-1S	DSBSS-1D	DSBSS-2S	DSBSS-4A (Duplicate)	DSBSS-4B (MS)	DSBSS-4C (MSD)	DSBSS-2D	DSBSS-3S	DSBSS-3D	TP102-1S	TP102-2S (Duplicate)	TP102-2D
Sample Date				10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	4/3/1997	4/3/1997	4/3/1997
Sample Analyzed Date				11/8/1996	11/8/1996	11/9/1996	11/9/1996	11/9/1996	11/9/1996	11/9/1996	11/9/1996	11/9/1996	4/10/1997	4/12/1997	4/11/1997
Sample Depth (bgs)				0"-3" (shallow)	NA	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	NA	0"-3" (shallow)	NA	0" - 2" (shallow)	0" - 2" (shallow)	3.7' - 4.5' (deep)
Sampling Method				Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Backhoe	Backhoe	Backhoe
Surface Condition				Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Sand	Sand	Sand
Sample Field Observations				Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	OVA = 0 ppm	OVA = 0 ppm	OVA = 70 - 80 ppm
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	**390 U**	**390 U**	**380 U**	**400 U**	**390 U**	**400 U**	**390 U**	**340 U**	370 U	**450** UJ	**460** UJ	**370** U
	bis(2-Chloroethyl)ether	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	2-Chlorophenol	800		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	1,2-Dichlorobenzene	7900	500000	390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	1,3-Dichlorobenzene	1600	280000	390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	1,4-Dichlorobenzene	8500	130000	390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	2-Methylphenol	100 or MDL (330)	500000	**390 U**	**390 U**	**380 U**	**400 U**	**390 U**	**400 U**	**390 U**	**340 U**	**370 U**	**450** UJ	**460** UJ	**370** U
	2,2'-oxybis(1-Chloropropane)	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	4-Methylphenol	900	500000	390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	N-Nitroso-di-n-propylamine	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	Hexachloroethane	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	Nitrobenzene	200 or MDL (330)		**390 U**	**390 U**	**380 U**	**400 U**	**390 U**	**400 U**	**390 U**	**340 U**	**370 U**	**450** UJ	**460** UJ	**370** U
	Isophorone	4400		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	2-Nitrophenol	330 or MDL (330)		**390 U**	**390 U**	**380 U**	**400 U**	**390 U**	**400 U**	**390 U**	**340 U**	**370 U**	**450** UJ	**460** UJ	**370** U
	2,4-Dimethylphenol	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	bis(2-Chloroethoxy)methane	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	2,4-Dichlorophenol	400		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	**450** UJ	**460** UJ	370 U
	1,2,4-Trichlorobenzene	3400		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	Naphthalene	13000	500000	390 U	320 U	380 U	400 U	390 U	400 U	1100	340 U	370 U	450 UJ	55 UJ	8700 E
	4-Chloroaniline	220 or MDL (330)		**390 U**	**390 U**	**380 U**	**400 U**	**390 U**	**400 U**	**390 U**	**340 U**	**370 U**	**450** UJ	**460** UJ	**370** U
	Hexachlorobutadiene	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	4-Chloro-3-methylphenol	240 or MDL (330)		**390 U**	**390 U**	**380 U**	**400 U**	**390 U**	**400 U**	**390 U**	**340 U**	**370 U**	**450** UJ	**460** UJ	**370** U
	2-Methylnaphthalene	36400		390 U	390 U	380 U	400 U	390 U	400 U	1200	340 U	370 U	450 UJ	47 UJ	2300
	Hexachlorocyclopentadiene	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	2,4,6-Trichlorophenol	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	2,4,5-Trichlorophenol	100		**950 U**	**950 U**	**920 U**	**960 U**	**950 U**	**970 U**	**930 U**	**820 U**	**890 U**	**1100** UJ	**1100** UJ	**890** U
	2-Chloronaphthalene	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	2-Nitroaniline	430 or MDL (800)		**950 U**	**950 U**	**920 U**	**960 U**	**950 U**	**970 U**	**930 U**	**820 U**	**890 U**	**1100** UJ	**1100** UJ	**890** U
	Dimethylphthalate	2000		390 U	390 U	220 J	65 J	390 U	400 U	390 U	340 U	370 U	450 UJ	75 UJ	370 U
	Acenaphthylene	41000	500000	390 U	390 U	380 U	400 U	390 U	400 U	71 J	340 U	370 U	450 UJ	460 UJ	170 J
	2,6-Dinitrotoluene	1000		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	3-Nitroaniline	500 or MDL (800)		**950 U**	**950 U**	**920 U**	**960 U**	**950 U**	**970 U**	**930 U**	**820 U**	**890 U**	**1100** UJ	**1100** UJ	**890** U
	Acenaphthene	50000	500000	390 U	390 U	380 U	400 U	390 U	400 U	1500	340 U	71 J	450 UJ	460 UJ	R
	2,4-Dinitrophenol	200 or MDL (800)		**950 U**	**950 U**	**920 U**	**960 U**	**950 U**	**970 U**	**930 U**	**820 U**	**890 U**	**1100** UJ	**1100** UJ	**890** U
	4-Nitrophenol	100 or MDL (800)		**950 U**	**950 U**	**920 U**	**960 U**	**950 U**	**970 U**	**930 U**	**820 U**	**890 U**	**1100** UJ	**1100** UJ	**890** U
	Dibenzofuran	6200		390 U	100 J	380 U	400 U	390 U	400 U	1100	340 U	46 J	450 UJ	460 UJ	R
	2,4-Dinitrotoluene	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	Diethylphthalate	7100		390 U	50 J	160 J	44 J	390 U	400 U	390 U	55 J	370 U	450 UJ	460 UJ	370 U
	4-Chlorophenyl-phenylether	N/A		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	Fluorene	50000	500000	390 U	160 J	380 U	400 U	390 U	400 U	1500	340 U	79 J	450 UJ	460 UJ	R
	4-Nitroaniline	NL		950 U	950 U	920 U	960 U	950 U	970 U	930 U	820 U	890 U	1100 UJ	1100 UJ	890 U
	4,6-Dinitro-2-methylphenol	NL		950 U	950 U	920 U	960 U	950 U	970 U	930 U	820 U	890 U	1100 UJ	1100 UJ	890 U
	N-Nitrosodiphenylamine	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	140 J
	4-Bromophenyl-phenylether	NL		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	Hexachlorobenzene	410		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	**450** UJ	**460** UJ	370 U
	Pentachlorophenol	1000 or MDL (800)	6700	950 U	950 U	920 U	960 U	950 U	970 U	390 U	820 U	890 U	**1100** UJ	**1100** UJ	890 U
	Phenanthrene	50000	500000	100 U	310 J	68 J	350 J	79 J	50 J	3400 E	340 U	570	450 UJ	260 UJ	4500 E
	Anthracene	50000	500000	390 U	65 J	380 U	88 J	390 U	400 U	1700	340 U	210 J	450 UJ	53 UJ	R
	Carbazole	NL		390 U	74 J	380 U	400 U	390 U	400 U	1600	340 U	58 J	450 UJ	460 UJ	3400 E
	Di-n-butylphthalate	8100		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	Fluoroanthene	50000	500000	140 J	200 J	76 J	260 J	100 J	61 J	2000	340 U	460	45 UJ	460 UJ	3400 E
	Pyrene	50000	500000	180 J	170 J	190 J	870	250 J	140 J	1800	120 J	870	71 UJ	R	3500 E
	Butylbenzylphthalate	50000		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 UJ	450 UJ	460 UJ	370 U
	3,3'-Dichlorobenzidine	N/A		390 U	390 U	380 U	400 U	390 U	400 U	390 U	340 U	370 U	450 UJ	460 UJ	370 U
	Benzo(a)anthracene	224 or MDL (330)	5600	64J	120J	52J	200J	66J	41J	77	**341 U**	230J	**450** UJ	**460** U	R
	Chrysene	400	56000	100J	220J	97J	350J	120J	79J	91	342 U	270U	**450** UJ	260 J	R
	bis(2-Ethylhexyl)phthalate	50000		220J	390U	84J	97J	69J	140J	390U	343 U	370U	70 UJ	350 J	370 U
	Di-n-octylphthalate	50000		390J	390U	380J	400U	390U	400U	390U	344 U	370U	450 UJ	460 UJ	370 UJ
	Benzo(b)fluoranthene	1100	6000	110J	100J	150J	380J	180J	120J	40	345 U	250J	68 UJ	190 UJ	R
	Benzo(k)fluoranthene	1100	56000	140J	110J	180J	410	210J	120J	310J	346 U	280U	450 UJ	240 J	540 J
	Benzo(a)pyrene	61 or MDL (330)	1000	67J	100J	110J	250J	90J	62J	**350J**	**347 U**	230J	**450** UJ	**460** UJ	R
	Indeno(1,2,3-cd)pyrene	3200	5600	390U	390U	380U	400U	390U	400U	92J	348 U	370J	450 UJ	460 UJ	370 U
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	**390U**	**390U**	**380U**	**400U**	**390U**	**400U**	42J	**349 U**	**370J**	**450** UJ	**460** UJ	**370** UJ
	Benzo(g,h,i)perylene	50000	500000	390U	390U	400U	93J	48J	400U	85J	350 U	62J	450 UJ	79 J	370 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-DSB- 1-SB1-12-14-DUP		SSI-DSB- 1-SB2-21-24-DUP		SSI-DSB- 1-SB3-45-48-DS		SSI-DSB- 1-SB3-45-48-MS		SSI-DSB-1-SB1 12-14		SSI-DSB-1-SB2 21-24		SSI-DSB-1-SB3 45-48		SSI-DSB-1-SS 6-9		SSI-DSB-2-SB1 12-14		SSI-DSB-2-SB2 21-24		SSI-DSB-2-SB3 45-48	
Sample Date				12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005	
Sample Analyzed Date				12/20/2005		12/20/2005		12/20/2005		12/20/2005		12/19/2005		12/19/2005		12/20/2005		12/20/2005		12/20/2005		12/20/2005		12/25/2005	
Sample Depth (bgs)				12-14		21-24		45-48		45-48		12-14		21-24		45-48		6-9		12-14		21-24		45-48	
Sampling Method				Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe	
Surface Condition				Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault	
Sample Field Observations																									
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	365	U	62.1	J	**2930**		**3720**		351	U	346	U	395	U	5150	U	361	U	54.4	J	5490	U
	bis(2-Chloroethyl)ether	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	2-Chlorophenol	800		365	U	401	U	**2770**		**3580**		351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	1,2-Dichlorobenzene	7900	500000	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	1,3-Dichlorobenzene	1600	280000	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	1,4-Dichlorobenzene	8500	130000	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	2-Methylphenol	100 or MDL (330)	500000	365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	2,2'-oxybis(1-Chloropropane)	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	4-Methylphenol	900	500000	365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	N-Nitroso-di-n-propylamine	NL		365	U	401	U	1980		2440		351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Hexachloroethane	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Nitrobenzene	200 or MDL (330)		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Isophorone	4400		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	2-Nitrophenol	330 or MDL (330)		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	2,4-Dimethylphenol	NL		365	U	401	U	90.8	J	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	bis(2-Chloroethoxy)methane	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	2,4-Dichlorophenol	400		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	1,2,4-Trichlorobenzene	3400		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Naphthalene	13000	500000	77.7	J	162	J	58.5	J	172	J	35.8	J	346	U	50.6	J	5150	U	107	J	168	J	2120	J
	4-Chloroaniline	220 or MDL (330)		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Hexachlorobutadiene	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	4-Chloro-3-methylphenol	240 or MDL (330)		365	U	401	U	**2830**		**4580**		351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	2-Methylnaphthalene	36400		155	J	306	J	66.4	J	122	J	67.4	J	36.3	J	170	J	5150	U	210	J	445		5470	J
	Hexachlorocyclopentadiene	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	2,4,6-Trichlorophenol	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	2,4,5-Trichlorophenol	100		912	U	1000	U	1050	U	980	U	877	U	864	U	988	U	12900	U	903	U	1050	U	13700	U
	2-Chloronaphthalene	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	2-Nitroaniline	430 or MDL (800)		912	U	1000	U	1050	U	980	U	877	U	864	U	988	U	12900	U	903	U	1050	U	13700	U
	Dimethylphthalate	2000		365	U	401	U	421	U	392	U	351	U	40.1	J	288	J	5150	U	361	U	422	U	5490	U
	Acenaphthylene	41000	500000	713		501		531		896		176	J	121	J	445		5150	U	210	J	203	J	1100	J
	2,6-Dinitrotoluene	1000		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	3-Nitroaniline	500 or MDL (800)		912	U	1000	U	1050	U	980	U	877	U	864	U	988	U	12900	U	903	U	1050	U	13700	U
	Acenaphthene	50000	500000	40.5	J	140	J	1890		2610		351	U	346	U	395	U	5150	U	361	U	422	U	2250	J
	2,4-Dinitrophenol	200 or MDL (800)		912	U	1000	U	1050	U	980	U	877	U	864	U	988	U	12900	U	903	U	1050	U	13700	U
	4-Nitrophenol	100 or MDL (800)		912	U	1000	U	**1820**		**5800**		877	U	864	U	988	U	12900	U	903	U	1050	U	13700	U
	Dibenzofuran	6200		54.7	J	131	J	421	U	109	J	351	U	346	U	395	U	5150	U	63.6	J	98.3	J	5490	U
	2,4-Dinitrotoluene	NL		365	U	401	U	1940		2760		351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Diethylphthalate	7100		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	4-Chlorophenyl-phenylether	N/A		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Fluorene	50000	500000	53.3	J	122	J	53	J	126	J	351	U	346	U	54.9	J	5150	U	361	U	422	U	1720	J
	4-Nitroaniline	NL		912	U	1000	U	1050	U	980	U	877	U	864	U	988	U	12900	U	903	U	1050	U	13700	U
	4,6-Dinitro-2-methylphenol	NL		912	U	1000	U	1050	U	980	U	877	U	864	U	988	U	12900	U	903	U	1050	U	13700	U
	N-Nitrosodiphenylamine	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	4-Bromophenyl-phenylether	NL		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Hexachlorobenzene	410		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Pentachlorophenol	1000 or MDL (800)	6700	912	U	1000	U	**2500**		**3360**		877	U	864	U	988	U	12900	U	903	U	1050	U	13700	U
	Phenanthrene	50000	500000	520		1030		335	J	908		168	J	276	J	364	J	5150	U	347	J	378	J	5510	
	Anthracene	50000	500000	518		502		386	J	524		116	J	114	J	342	J	5150	U	173	J	172	J	1660	J
	Carbazole	NL		256	J	241	J	208	J	188	J	59.3	J	40.4	J	87.3	J	5150	U	85.3	J	87.7	J	5490	U
	Di-n-butylphthalate	8100		145	JB	168	JB	98.4	JB	96	JB	44.9	JB	50.1	JB	79.8	JB	5150	U	104	JB	126	JB	868	J
	Fluoroanthene	50000	500000	1750		3340		2530		9500	E	545		744		1250		5150	U	1010		588		8730	
	Pyrene	50000	500000	1050		1970		3750		6520	E	837		478		1270		5150	U	550		353	J	5260	J
	Butylbenzylphthalate	50000		365	U	401	U	421	U	392	U	42.5	J	346	U	395	U	5150	U	361	U	422	U	5490	U
	3,3'-Dichlorobenzidine	N/A		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Benzo(a)anthracene	224 or MDL (330)	5600	**745**		**1540**		**1150**		**2720**		288	J	**349**		**863**		5150	U	**414**		299	J	**3050**	J
	Chrysene	400	56000	**1080**		**2020**		**1630**		**2040**		334	J	281	J	**1210**		5150	U	**599**		**809**		**2930**	J
	bis(2-Ethylhexyl)phthalate	50000		361	J	779		421	U	392	U	175	J	346	U	2540		1950	JB	355	J	469		12800	B
	Di-n-octylphthalate	50000		365	U	401	U	421	U	392	U	351	U	346	U	395	U	5150	U	361	U	422	U	5490	U
	Benzo(b)fluoranthene	1100	6000	**2620**		**5090**		**3340**		**4590**		779		633		**4380**		5150	U	**1150**		**1760**		**3610**	J
	Benzo(k)fluoranthene	1100	56000	741		**1480**		832		**1460**		232	J	208	J	1020		**5150**	U	318	J	514		1080	J
	Benzo(a)pyrene	61 or MDL (330)	1000	**1160**		**2070**		**1480**		**3020**		**347**	J	**330**	J	**2210**		5150	U	**487**		**843**		**2640**	J
	Indeno(1,2,3-cd)pyrene	3200	5600	895		777		795		914		351	U	140	J	1680		5150	U	288	J	541		2240	J
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	**319**	J	**259**	J	**258**	J	**297**	J	**56.1**	J	**46.7**	J	**584**		5150	U	**110**	J	**213**	J	**775**	J
	Benzo(g,h,i)perylene	50000	500000	1170		765		860		844		177	J	149	J	1810		5150	U	290	J	497		2450	J

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-DSB-2-SS 6-9		SSI-DSB-3-SB1 12-14		SSI-DSB-3-SB2 21-24		SSI-DSB-3-SB3 45-48		SSI-DSB-3-SS 6-9		SSI-DSB-4-SB1 12-14		SSI-DSB-4-SB2 21-24		SSI-DSB-4-SB3 45-48		SSI-DSB-4-SS 6-9		SSI-DSB-5-SB1 12-14		SSI-DSB-5-SB2 21-24	
Sample Date				12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005	
Sample Analyzed Date				12/20/2005		12/25/2005		12/25/2005		12/25/2005		12/25/2005		12/25/2005		12/20/2005		12/20/2005		12/20/2005		12/20/2005		12/25/2005	
Sample Depth (bgs)				6-9		12-14		21-24		45-48		6-9		12-14		21-24		45-48		6-9		12-14		21-24	
Sampling Method				Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe	
Surface Condition				Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault		Asphault	
Sample Field Observations																									
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	63.5	J	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	bis(2-Chloroethyl)ether	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	2-Chlorophenol	800		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	1,2-Dichlorobenzene	7900	500000	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	1,3-Dichlorobenzene	1600	280000	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	1,4-Dichlorobenzene	8500	130000	NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	2-Methylphenol	100 or MDL (330)	500000	354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	2,2'-oxybis(1-Chloropropane)	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	4-Methylphenol	900	500000	354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	N-Nitroso-di-n-propylamine	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Hexachloroethane	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Nitrobenzene	200 or MDL (330)		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Isophorone	4400		829		353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	2-Nitrophenol	330 or MDL (330)		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	2,4-Dimethylphenol	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	bis(2-Chloroethoxy)methane	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	2,4-Dichlorophenol	400		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	1,2,4-Trichlorobenzene	3400		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM		NM	
	Naphthalene	13000	500000	354	U	56.2	J	157	J	**28300**		343	U	1750	U	67.8	J	341	J	1790	U	423	J	369	U
	4-Chloroaniline	220 or MDL (330)		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Hexachlorobutadiene	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	4-Chloro-3-methylphenol	240 or MDL (330)		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	2-Methylnaphthalene	36400		101	J	93.6	J	184	J	6240		343	U	1750	U	104	J	152	J	1790	U	708	J	369	U
	Hexachlorocyclopentadiene	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	2,4,6-Trichlorophenol	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	2,4,5-Trichlorophenol	100		886	U	883	U	968	U	4730	U	857	U	4370	U	874	U	2830	U	4480	U	9130	U	922	U
	2-Chloronaphthalene	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	2-Nitroaniline	430 or MDL (800)		886	U	883	U	968	U	4730	U	857	U	4370	U	874	U	2830	U	4480	U	9130	U	922	U
	Dimethylphthalate	2000		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Acenaphthylene	41000	500000	60.3	J	112	J	126	J	953	J	343	U	1750	U	172	J	1130	U	514	J	3650	U	369	U
	2,6-Dinitrotoluene	1000		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	3-Nitroaniline	500 or MDL (800)		886	U	883	U	968	U	4730	U	857	U	4370	U	874	U	2830	U	4480	U	9130	U	922	U
	Acenaphthene	50000	500000	63.5	J	353	U	387	U	4830		343	U	1750	U	349	U	1130	U	1790	U	2700	J	369	U
	2,4-Dinitrophenol	200 or MDL (800)		886	U	883	U	968	U	4730	U	857	U	4370	U	874	U	2830	U	4480	U	9130	U	922	U
	4-Nitrophenol	100 or MDL (800)		886	U	883	U	968	U	4730	U	857	U	4370	U	874	U	2830	U	4480	U	9130	U	922	U
	Dibenzofuran	6200		98.5	J	353	U	58.1	J	2040		343	U	1750	U	40.5	J	264	J	1790	U	2350	J	369	U
	2,4-Dinitrotoluene	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Diethylphthalate	7100		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	4-Chlorophenyl-phenylether	N/A		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Fluorene	50000	500000	354	U	353	U	387	U	3860		343	U	1750	U	349	U	1130	U	1790	U	4040		369	U
	4-Nitroaniline	NL		886	U	883	U	968	U	4730	U	857	U	4370	U	874	U	2830	U	4480	U	9130	U	922	U
	4,6-Dinitro-2-methylphenol	NL		886	U	883	U	968	U	4730	U	857	U	4370	U	874	U	2830	U	4480	U	9130	U	922	U
	N-Nitrosodiphenylamine	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	4-Bromophenyl-phenylether	NL		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Hexachlorobenzene	410		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Pentachlorophenol	1000 or MDL (800)	6700	886	U	883	U	968	U	4730	U	857	U	4370	U	874	U	2830	U	4480	U	9130	U	922	U
	Phenanthrene	50000	500000	824		356		471		12100		343	U	183	J	172	J	3200		560	J	25100		67.1	J
	Anthracene	50000	500000	147	J	186	J	179	J	2410		343	U	178	J	118	J	146	J	510	J	7440		369	U
	Carbazole	NL		73	J	106	J	99.5	J	1800	J	343	U	1750	U	76.5	J	1130	U	362	J	2370	J	369	U
	Di-n-butylphthalate	8100		354	U	75.6	JB	134	JB	216	JB	78.5	JB	194	JB	75.1	JB	1130	U	1790	U	3650	U	369	U
	Fluoroanthene	50000	500000	1450		943		902		10900		52.8	J	435	J	712		4460		1000	J	23300		101	J
	Pyrene	50000	500000	927		1270		1300		7520		57.9	J	588	J	537		3240		824	J	16100		49.1	J
	Butylbenzylphthalate	50000		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	3,3'-Dichlorobenzidine	N/A		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Benzo(a)anthracene	224 or MDL (330)	5600	**488**		**800**		**732**		**3990**		**343**	U	265	J	239	J	**1040**	J	**399**	J	**8260**		39.1	J
	Chrysene	400	56000	**501**		**1170**		**1200**		**3700**		343	U	**456**	J	343	J	**1330**		**619**	J	**6990**		37.6	J
	bis(2-Ethylhexyl)phthalate	50000		263	J	547		1200		1890	U	202	J	475	J	643		1130	U	766	J	3650	U	80.8	JB
	Di-n-octylphthalate	50000		354	U	353	U	387	U	1890	U	343	U	1750	U	349	U	1130	U	1790	U	3650	U	369	U
	Benzo(b)fluoranthene	1100	6000	618		**2280**		**2220**		**3940**		48.7	J	847	J	708		**1120**	J	**1670**	J	**7730**		60.9	J
	Benzo(k)fluoranthene	1100	56000	187	J	674		582		**1290**	J	343	U	297	J	203	J	347	J	319	J	**2670**	J	369	U
	Benzo(a)pyrene	61 or MDL (330)	1000	**415**		**816**		**805**		**2940**		343	U	**372**	J	**308**	J	**324**	J	**682**	J	**5780**		37.6	J
	Indeno(1,2,3-cd)pyrene	3200	5600	145	J	630		667		1520	J	343	U	403	J	258	J	279	J	609	J	2870	J	369	U
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	**55.3**	J	**228**	J	**208**	J	**534**	J	343	U	1750	U	**72**	J	**118**	J	1790	U	**880**	J	369	U
	Benzo(g,h,i)perylene	50000	500000	153	J	654		387	U	1780	J	343	U	482	J	288	J	312	J	704	J	2950	J	369	U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-DSB-5-SB3 45-48		SSI-DSB-5-SS 6-9		SSI-DSB-6-SB1 12-14		SSI-DSB-6-SB2 21-24		SSI-DSB-6-SB3 45-48		SSI-DSB-6-SS 6-9	
Sample Date				12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005		12/5/2005	
Sample Analyzed Date				12/25/2005		12/20/2005		12/25/2005		12/20/2005		12/20/2005		12/20/2005	
Sample Depth (bgs)				45-48		6-9		12-14		21-24		45-48		6-9	
Sampling Method				Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe	
Surface Condition				Asphault		Asphault		Asphault		Asphault		Asphault		Asphault	
Sample Field Observations															
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	370	U	355	U	358	U	343	U	374	U	1850	U
	bis(2-Chloroethyl)ether	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	2-Chlorophenol	800		370	U	355	U	358	U	343	U	374	U	1850	U
	1,2-Dichlorobenzene	7900	500000	NM		NM		NM		NM		NM		NM	
	1,3-Dichlorobenzene	1600	280000	NM		NM		NM		NM		NM		NM	
	1,4-Dichlorobenzene	8500	130000	NM		NM		NM		NM		NM		NM	
	2-Methylphenol	100 or MDL (330)	500000	370	U	355	U	358	U	343	U	374	U	1850	U
	2,2'-oxybis(1-Chloropropane)	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	4-Methylphenol	900	500000	370	U	355	U	358	U	343	U	374	U	1850	U
	N-Nitroso-di-n-propylamine	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	Hexachloroethane	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	Nitrobenzene	200 or MDL (330)		370	U	355	U	358	U	343	U	374	U	1850	U
	Isophorone	4400		370	U	355	U	358	U	343	U	374	U	1850	U
	2-Nitrophenol	330 or MDL (330)		370	U	355	U	358	U	343	U	374	U	1850	U
	2,4-Dimethylphenol	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	bis(2-Chloroethoxy)methane	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	2,4-Dichlorophenol	400		370	U	355	U	358	U	343	U	374	U	1850	U
	1,2,4-Trichlorobenzene	3400		NM		NM		NM		NM		NM		NM	
	Naphthalene	13000	500000	370	U	145	J	102	J	343	U	374	U	1850	U
	4-Chloroaniline	220 or MDL (330)		370	U	355	U	358	U	343	U	374	U	1850	U
	Hexachlorobutadiene	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	4-Chloro-3-methylphenol	240 or MDL (330)		370	U	355	U	358	U	343	U	374	U	1850	U
	2-Methylnaphthalene	36400		370	U	312	J	139	J	343	U	374	U	1850	U
	Hexachlorocyclopentadiene	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	2,4,6-Trichlorophenol	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	2,4,5-Trichlorophenol	100		926	U	887	U	895	U	858	U	936	U	4620	U
	2-Chloronaphthalene	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	2-Nitroaniline	430 or MDL (800)		926	U	887	U	895	U	858	U	936	U	4620	U
	Dimethylphthalate	2000		370	U	355	U	358	U	343	U	374	U	1850	U
	Acenaphthylene	41000	500000	370	U	83.4	J	606		172	J	56.2	J	318	J
	2,6-Dinitrotoluene	1000		370	U	355	U	358	U	343	U	374	U	1850	U
	3-Nitroaniline	500 or MDL (800)		926	U	887	U	895	U	858	U	936	U	4620	U
	Acenaphthene	50000	500000	370	U	71.7	J	44.1	J	343	U	374	U	1850	U
	2,4-Dinitrophenol	200 or MDL (800)		926	U	887	U	895	U	858	U	936	U	4620	U
	4-Nitrophenol	100 or MDL (800)		926	U	887	U	895	U	858	U	936	U	4620	U
	Dibenzofuran	6200		370	U	115	J	80.9	J	343	U	374	U	1850	U
	2,4-Dinitrotoluene	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	Diethylphthalate	7100		370	U	355	U	358	U	343	U	374	U	1850	U
	4-Chlorophenyl-phenylether	N/A		370	U	355	U	358	U	343	U	374	U	1850	U
	Fluorene	50000	500000	370	U	91.2	J	53.7	J	343	U	374	U	1850	U
	4-Nitroaniline	NL		926	U	887	U	895	U	858	U	936	U	4620	U
	4,6-Dinitro-2-methylphenol	NL		926	U	887	U	895	U	858	U	936	U	4620	U
	N-Nitrosodiphenylamine	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	4-Bromophenyl-phenylether	NL		370	U	355	U	358	U	343	U	374	U	1850	U
	Hexachlorobenzene	410		370	U	355	U	358	U	343	U	374	U	1850	U
	Pentachlorophenol	1000 or MDL (800)	6700	926	U	887	U	895	U	858	U	936	U	4620	U
	Phenanthrene	50000	500000	91.9	J	797		511		136	J	268	J	351	J
	Anthracene	50000	500000	370	U	170	J	666		188	J	64.4	J	303	J
	Carbazole	NL		370	U	121	J	687		209	J	374	U	1850	U
	Di-n-butylphthalate	8100		60.4	JB	66.3	JB	86.3	JB	48.7	JB	374	U	1850	U
	Fluoroanthene	50000	500000	151	J	1120		3290		371		623		1630	J
	Pyrene	50000	500000	133	J	516		2140		293	J	642		1430	J
	Butylbenzylphthalate	50000		370	U	355	U	255	J	343	U	374	U	284	J
	3,3'-Dichlorobenzidine	N/A		370	U	355	U	358	U	343	U	374	U	1850	U
	Benzo(a)anthracene	224 or MDL (330)	5600	77.8	J	327	J	**1070**		179	J	**408**		**1290**	J
	Chrysene	400	56000	70.4	J	372		**1950**		252	J	**411**		**1490**	J
	bis(2-Ethylhexyl)phthalate	50000		60.7	JB	409		397	B	97.5	JB	374	U	548	JB
	Di-n-octylphthalate	50000		370	U	355	U	358	U	343	U	374	U	1850	U
	Benzo(b)fluoranthene	1100	6000	87	J	421		**3700**		680		592		**2380**	
	Benzo(k)fluoranthene	1100	56000	370	U	160	J	683		154	J	155	J	685	J
	Benzo(a)pyrene	61 or MDL (330)	1000	58.5	J	**267**	J	**773**		**210**	J	**404**		**1100**	J
	Indeno(1,2,3-cd)pyrene	3200	5600	41.9	J	123	J	865		375		255	J	665	J
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	370	U	**47.9**	J	**226**	J	**91.3**	J	**82**	J	**238**	J
	Benzo(g,h,i)perylene	50000	500000	45.2	J	136	J	894		490		289	J	755	J

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Drum Storage Area B
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	DSBSS-1S	DSBSS-1D	DSBSS-2S	DSBSS-4A (Duplicate)	DSBSS-4B (MS)	DSBSS-4C (MSD)	DSBSS-2D	DSBSS-3S	DSBSS-3D	TP102-1S	TP102-2S (Duplicate)	TP102-2D
Sample Date			10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	10/30/1996	4/3/1997	4/3/1997	4/3/1997
Sample Analyzed Date			11/4/1996	11/4/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/4/1996	11/1/1996	11/4/1996	4/8/1997	4/8/1997	4/8/1997
Sample Depth (bgs)			0"-3" (shallow)	NA	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	NA	0"-3" (shallow)	NA	0" - 2" (shallow)	0" - 2" (shallow)	3.7' - 4.5' (deep)
Sampling Method			Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Drill Rig	Backhoe	Backhoe	Backhoe
Surface Condition			Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Compacted Gravel	Sand	Sand	Sand
Sample Field Observations			Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Predetermined Sample Depth; OVA reading not collected	Sample just above ground water table (due to no staining, odor or OVA reading)	OVA = 0 ppm	OVA = 0 ppm	OVA = 70 - 80 ppm
Volatile Organics (ppb) Allowable Holding Time: 10 days	Chloromethane	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Bromomethane	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Vinyl Chloride	200	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Chloroethane	1900	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Methylene Chloride	100	8.9 J	16	9 J	7.1 J	12 UJ	9.3 J	0.014	10 U	16	17 UJ	7 J	12 UJ
	Acetone	200	12 U	34	12 U	12 UJ	6.1 J	12 UJ	0.029	10 U	8.5 J	16 UJ	16 J	30 UJ
	Carbon Disulfide	2700	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	1,1-Dichloroethene	400	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	1,1-Dichloroethane	200	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	1,2-Dichlorethene (total)	300	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Chloroform	300	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	1,2-Dichloroethane	100	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	2-Butanone	300	12 U	7.8 J	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	1,1,1-Trichloroethane	800	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Carbon Tetrachloride	600	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Bromodichloromethane	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	1,2-Dichloropropane	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	cis-1,3-Dichloropropene	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Trichloroethene	700	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Dibromochloromethane	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	1,1,2-Trichlorethane	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Benzene	60	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	trans-1,3-Dichloropropene	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Bromoform	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	4-Methyl-2-Pentanone	1000	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	2-Hexanone	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Tetrachloroethene	1400	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	1,1,2,2-Tetrachloroethane	600	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Toluene	1500	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Chlorobenzene	1700	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Ethylbenzene	5500	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Styrene	NL	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ
	Xylenes(total)	1200	12 U	12 U	12 U	12 UJ	12 UJ	12 UJ	12 U	10 U	11 U	11 UJ	14 UJ	11 UJ

ppm - parts per million
ppb - parts per billion
bgs - below ground surface
Concentrations in bold are over the Criteria and regional soil background.
Concentrations in bold and italics are over the Criteria but not the regional soil background.
U - The analyte was analyzed for, but not detected.
J - Analyte detected below method detection limit and/or estimated concentration.
B - Indicates the analyte was found in the blank as well as the sample.
R - The presence or absence of the analyte cannot be verified due to failure to meet quality control criteria. Therefore the value is rejected and considered unusable.
NM - Analysis not performed.
NL - Analyte not listed in NYSDEC TAGM #4046

Environmental
Engineers & Scientists

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	TP103-1S	TP103-1D	TP106-1S	TP106-1D	TP107-1S	TP107-1D	TP108-1S	TP108-1D	MW4SR-SS1D	MW4SR-SS1S	MW4DR-SS1
Sample Date				4/3/1997	4/3/1997	4/7/1997	4/7/1997	4/7/1997	4/7/1997	4/8/1997	4/8/1997	4/21/1997	4/21/1997	5/6/1997
Sample Analyzed Date				4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/9/97 - 4/26/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97
Sample Depth (bgs)				1.3' - 1.5' (shallow)	7.5' (deep)	1.3' - 1.5' (shallow)	5.4' - 6.4' (deep)	0" - 2" (shallow)	2.5' - 3' (deep)	1' - 1.2' (shallow)	1.3' - 1.5' (deep)	4' - 6' (deep)	1' - 1. 5' (shallow)	15' - 16' (deep)
Sampling Method				Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary
Surface Condition				Asphalt Pavement	Asphalt Pavement	Concrete Pad/Reinforced Rebar	Concrete Pad/Reinforced Rebar	Gravel	Gravel	Asphalt Pavement	Asphalt Pavement	Asphalt	Asphalt	Asphalt
Sample Field Observations				OVA = 0 ppm	Gray Sand with Gravel, Sampled from Bottom of Test Pit (7.5'-8') ; OVA Reading not collected	OVA = 0 ppm	Black/Brown Mixed Oily Soil with Wood Fragments, OVA = 4 ppm	OVA = 0 ppm	Ash Layer, Black/Brown Coaly Cinder Bearing Material, OVA = 0 ppm	OVA = 0 ppm	Dark Gray-Black Gravely Sand, No Odor, OVA = 0 ppm	Dark Gray, Gray, Rusty Yellow Red Silty Clayey Sand Fill with Coal and Ash, OVA = 0 ppm	OVA = 0 ppm	Dark Gray Sandy Silty Clay, Plant Material and Shells; OVA Reading not collected
Metals (ppm)	Aluminum	SB (33,000)		6270	8200	9670	12100	3840	2060	8940	3710	9460	4730	16300
	Antimony	SB (NL)		0.7 B	0.76 B	0.66 U	0.9 B	10.3 B	5.4 B	0.65 U	2.2 B	2.3 B	1.3 B	1 U
	Arsenic	7.5 or SB (3-12)	16	7.4	3.7	6.4	4.7	7.2	**15.5**	3.4	**13.2**	**12.8**	***9.8***	***8.6***
	Barium	300 or SB (15-600)	400	79.7	87.2	84	43.2 B	126	67.3	101	**667**	73.2	47.7	46.9 B
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***0.32*** B	***0.44*** B	***0.43*** B	***0.32*** B	***0.42*** B	***0.28*** B	***0.46*** B	***0.28*** B	***0.57*** B	***0.36*** B	***1*** B
	Cadmium	1 or SB (0.1-1)	9.3	0.26 B	0.22 U	0.22 U	0.23 U	**1.5**	0.24 U	0.22 U	0.25 U	0.24 B	0.35 B	0.34 U
	Calcium	SB (130 - 35,000)		**36700**	4450	18300	2760	**56500**	1900	14400	17500	8730	21400	3300
	Chromium	10 or SB (1.3 - 40)	400-800	***16.6***	***17.8***	***18***	***14.8***	***34.5***	***16.2***	***17.5***	***12.6***	***20.8***	8.4	***28.7***
	Cobalt	30 or SB (2.5 - 60)		5.9 B	9.2 B	8.1 B	9 B	7.3 B	9.2 B	7.7 B	6.9 B	7.7 J	8.5 J	12.3 B
	Copper	25 or SB (1-50)	270	79	**51.7**	**71.9**	17	**176**	**84.4**	**61.2**	**89.1**	**70.7**	**155**	24
	Iron	2,000 or SB (2,000 -550,000)		***12900***	***17400***	***17700***	***21000***	***30600***	***27000***	***16800***	***22700***	***31500***	***24000***	***31800***
Allowable Holding Time:	Lead	400	1000	131	131	135	24.5	236	220	131	342	104	98	18.3
6 months	Magnesium	SB (100-5000)		3580	3570	3200	2810	**27300**	530 B	**6010**	1800	**5540**	**10700**	**5920**
28 days for Hg	Manganese	SB (50-5000)	15000	270	237	351	496	310	285	307	240	158	174	521
12 days for CN	Mercury	0.1	2.8	**0.27**	**0.23**	**0.11** U	**0.12** U	**0.25**	**4.7**	**0.22**	**0.73**	**0.12** U	**0.32**	**0.79**
	Nickel	13 or SB (0.5-25)	310	***15.8*** J	***20.4*** J	***16.9*** J	***13.4*** J	**41.2** J	11.6 J	***16.8*** J	***13.9*** J	***15.9***	8.3 B	**27.1**
	Potassium	SB (8,500-43,000)		942 B	1270	1520	799 B	597 B	259 B	1070 B	449 B	987 J	824 J	3400
	Selenium	2 or SB (0.1-3.9)	1500	0.95 J	0.9 J	0.89 J	1 J	0.94 J	0.97 J	0.86 J	1.2 J	1.1 B	1.7	1.4 B
	Silver	SB (NL)	1500	0.22 U	0.22 U	0.22 U	0.23 U	0.61 B	0.24 U	0.22 U	0.25 B	0.23 U	0.22 U	0.34 U
	Sodium	SB (6,000-8,000)		326 B	425 B	711 B	630 B	696 B	1080 B	449 B	246 B	509 B	558 B	714 B
	Thallium	SB (NL)		1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 B	1.7 B	1.7 U
	Vanadium	150 or SB (1-300)		18.6	27.7	27.3	26.8	40	10.4 B	27.9	15.1	30.8	24.8	39.2
	Zinc	20 or SB (9-50)	89,000	**208**	**136**	**119**	**50.8**	**410**	**110**	**151**	**640**	**116** J	**110** J	**77.5**
	Cyanide	NL	27	0.37 U	0.38 U	0.39 U	0.42 U	0.4 U	0.43 U	0.38 U	0.43 U	0.51 U	0.48 U	0.75 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	MW5SR-SS1S	MW5SR-SS2S (Duplicate)	MW5SR-SS1D	MW12S-SS1S	MW12S-SS1D	MW12S-SS2S (Duplicate)	MW12D-SS1	SSI-419-11-SB1 (12-14)	SSI-419-11-SB2 (45-48)	SSI-419-13(12-14)	SSI-419-13(21-24)	SSI-419-13(45-48)
Sample Date				4/15/1997	4/15/1997	4/15/1997	4/25/1997	4/25/1997	4/25/1997	5/8/1997	12/12/2005	12/12/2005	12/7/2005	12/7/2005	12/7/2005
Sample Analyzed Date				4/18/97 - 4/26/97	4/18/97 - 4/26/97	4/18/97 - 4/26/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97	12/29/2005	12/24/2005	12/22/2005	12/21/2005	12/17/2005
Sample Depth (bgs)				0" - 2" (shallow)	0" - 2" (shallow)	14' - 16' (deep)	0" - 2" (shallow)	2' - 10' (deep)	0" - 2" (shallow)	15.5' - 18' (deep)	(12-14)	(45-48)	(12-14)	(21-24)	(45-48)
Sampling Method				Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Hollow Stem Augers	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Asphault	Asphault	Asphault	Asphault	Asphault
Sample Field Observations				OVA = 1 ppm	OVA = 1 ppm	Dark Gray Silty Sand, Gravel/Rock, OVA = 900 ppm	OVA = 0 ppm	Dark Brown Silty Medium Sand, Gravely Fill with Medium Sand, OVA = 0 ppm	OVA = 0 ppm	Dark Gray Fine Sandy Silt, Plant Fragments; OVA reading not collected					
Metals (ppm)	Aluminum	SB (33,000)		7910	6850	9840	5370	5930	6290	11600	5000 J	6400 J	5700 J	6600 J	6200 J
	Antimony	SB (NL)		73.8	89.3	3.3 B	5.9 B	2.4 B	7.4 B	0.8 U	0.47	1.6	0.96	4.4	0.5
	Arsenic	7.5 or SB (3-12)	16	**25.2**	**24.9**	***9.1***	***9.8***	***7.7***	***10.2***	***8.4***	4.8	5.4	4.9	***8.4***	3.8 J
	Barium	300 or SB (15-600)	400	260	288	188	123	74.3	275	31.3 B	52 J	71 J	50 J	99 J	40 J
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***0.9*** B	***0.87*** B	***0.56*** B	***1.2***	***0.71*** B	***1.5***	***0.71*** B	***0.37*** J	***0.79*** J	***0.38*** J	***0.9*** J	***0.36*** J
	Cadmium	1 or SB (0.1-1)	9.3	**3.7**	**2.9**	0.22 U	**3.6**	0.79 B	**3.3**	0.27 U	0.22	0.31	0.25	0.32	0.056 J
	Calcium	SB (130 - 35,000)		5800	5660	9020	**44300**	**57100**	21900	2220	33000	12000	**39000**	32000	1000
	Chromium	10 or SB (1.3 - 40)	400-800	**111**	**116**	***27.2***	**114**	***20.9***	**95.9**	***21.8***	***15*** J	***32*** J	***19*** J	**42**	***15*** J
	Cobalt	30 or SB (2.5 - 60)		12.1 B	13.5	8.1 B	12.1 J	7.3 J	14.3 J	7.8 B	6.3	7.5	5.6	17	7.5
	Copper	25 or SB (1-50)	270	**427**	**440**	**233**	**837**	**114**	**802**	9.9	***45***	**89**	***48***	**190**	21
	Iron	2,000 or SB (2,000 -550,000)		***57400***	***65900***	***26000***	***46900***	***25500***	***46600***	***22400***	***12000***	***15000***	***12000***	***29000***	***15000***
Allowable Holding Time:	Lead	400	1000	**700**	**675**	**322**	**714**	197	**4440**	12.1	61	120	78	200	38
6 months	Magnesium	SB (100-5000)		2120	2300	2780	**23600**	**33400**	**9610**	4830	**11000**	4300	**7400**	**5900**	2500
28 days for Hg	Manganese	SB (50-5000)	15000	306	337	361	371	297	380	288	210	280	200 J	310	290
12 days for CN	Mercury	0.1	2.8	**1.4**	**1.4**	**1.1**	**1.3**	**0.87**	**1.2**	**0.13** U	**0.22**	**0.2**	0.1	**0.12**	**0.13**
	Nickel	13 or SB (0.5-25)	310	**92.1**	**103**	***23.8***	**78**	**28.1**	**129**	***16.9***	**22** J	***29*** J	***18*** J	**60**	**33** J
	Potassium	SB (8,500-43,000)		612 J	512 J	1190 J	822 J	991 J	711 J	2700	630 J	750 J	690 J	1200 J	880 J
	Selenium	2 or SB (0.1-3.9)	1500	**4.2**	**5.1**	1.6	0.88 U	0.87 U	0.88 U	1.1 U	1.2 U	1.8 U	1.4 J	***2.2*** U	1.7 U
	Silver	SB (NL)	1500	3.1	2.9	0.4 B	1 B	0.29 B	1.2 B	0.27 U	2.1 J	2.1	0.25	2.1	2 J
	Sodium	SB (6,000-8,000)		395 J	457 J	356 J	769 B	523 B	853 B	874 B	400 U	520 U	470 U	490 J	210 U
	Thallium	SB (NL)		1.2 U	2.2 B	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U	5.2	5.2	5	0.67	5.1
	Vanadium	150 or SB (1-300)		87.8	91.4	29.8	57.9	26.3	57.5	27.5	23	23	23	23	18
	Zinc	20 or SB (9-50)	89,000	**935**	**1120**	**454**	**1420** J	**231** J	**1850** J	**52.1**	**90**	**260**	**140**	**780**	**100**
	Cyanide	NL	27	0.56 U	0.57 U	0.49 U	0.5 U	0.49 U	0.51 U	0.59 U	0.53 U	0.55 U	NM	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-419-13(72-75)	SSI-419-13-SS(0-3)	SSI-419-14-SB1(12-14")	SSI-419-14-SB2(21-24")	SSI-419-14-SB3(45-48")	SSI-419-14-SB4(72-75")	SSI-419-14-SS(0-3")	SSI-419-15-SB1(12-14")	SSI-419-15-SB2(21-24")	SSI-419-15-SS(0-3")	SSI-419-16-SB1 (12-14)	SSI-419-16-SB2 (45-48)
Sample Date				12/7/2005	12/7/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/12/2005	12/12/2005
Sample Analyzed Date				12/17/2005	12/29/2005	12/24/2005	12/24/2005	12/22/2005	12/22/2005	12/24/2005	12/24/2005	12/24/2005	12/25/2005	12/29/2005	12/26/2005
Sample Depth (bgs)				(72-75)	(0-3)	(12-14")	(21-24")	(45-48")	(72-75")	(0-3")	(12-14")	(21-24")	(0-3")	(12-14)	(45-48)
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Grass	Grass
Sample Field Observations															
Metals (ppm) Allowable Holding Time: 6 months 28 days for Hg 12 days for CN	Aluminum	SB (33,000)		7200 U	5900 J	5200	5100	6400 J	7000 J	6700 J	4100 J	7400 J	3400 J	5800	5800 J
	Antimony	SB (NL)		14	1.1	20	20	2.1	0.45	5	10	1.9	0.74 J	37	3.2
	Arsenic	7.5 or SB (3-12)	16	4.3	4	56	26	11 J	10 J	38	5.1	7.4	1.1 J	21	14
	Barium	300 or SB (15-600)	400	90 J	42 J	300 J	320 J	42 J	39 J	140 J	220 J	120 J	12 J	250 J	79 J
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	0.47 U	0.29 J	0.36	0.32	0.35	0.44	0.53	0.32 J	0.46 J	0.11 U	0.83	0.47 J
	Cadmium	1 or SB (0.1-1)	9.3	1.1	0.16	3.4	7.7	1.7 J	1.7 J	2.7	0.23	0.12	1	3.5	0.24
	Calcium	SB (130 - 35,000)		11000	36000	8900	19000	1100	930	14000	44000	3500	15000	31000	2700
	Chromium	10 or SB (1.3 - 40)	400-800	18 J	18 J	21 J	28 J	15 J	14 J	40 J	42	24 J	6.8 J	72 J	23 J
	Cobalt	30 or SB (2.5 - 60)		9.3	4.7	8	7.2	6.6	8.7	9.7	11	9.2	5.6	8.9	7.4
	Copper	25 or SB (1-50)	270	19	44	340	600	22	19	210	340	110	81	420	87
	Iron	2,000 or SB (2,000 -550,000)		20000	12000	48000	44000	16000	17000	19000	19000	18000	14000	26000	17000
	Lead	400	1000	12	49	970	1300	31	21	640	510	97	9.8	5200	170
	Magnesium	SB (100-5000)		6900	5300	2000	2000	1900	1900	4000	27000	3200	8300	17000	2300
	Manganese	SB (50-5000)	15000	630 U	170	410	400	320 U	350 U	300	300	360	140 U	240	300
	Mercury	0.1	2.8	0.12	0.35	1	0.85	0.12	0.12	0.74	0.2	0.16	0.1 J	1.8	0.28
	Nickel	13 or SB (0.5-25)	310	31	12 J	30 J	38 J	14 J	13 J	40 J	25 J	18	3.5 J	78 J	28 J
	Potassium	SB (8,500-43,000)		2000 J	780 J	620 J	610 J	770 J	720 J	860 J	660 J	1200 J	310 J	780 J	870 J
	Selenium	2 or SB (0.1-3.9)	1500	1.6 U	1.4 J	4 U	4.2 U	2.1 U	2.7 U	2.8 J	1.8 J	2.4 U	1.7 U	3.3	1.8 U
	Silver	SB (NL)	1500	2.3 J	0.61	2.3 J	2.4 J	2.3 J	2.3 J	1.2 J	0.39 J	2.2 J	2 J	8.6 J	2.2 J
	Sodium	SB (6,000-8,000)		260 J	570 U	160 J	220 J	78 U	65 U	390 U	260 U	330 U	340 U	320 U	130 U
	Thallium	SB (NL)		1.2	4.8	0.96	0.93	5.7	5.8	5.7	5.2	5.6	5.1	6.5	5.4
	Vanadium	150 or SB (1-300)		21	22	32	17	20	20	40	18	29	21	100	29
	Zinc	20 or SB (9-50)	89,000	41	74	1100	1300	96	46	1200	1900	210	31	950	160
	Cyanide	NL	27	NM	NM	0.57 U	NM	0.59 U	NM	NM	NM	NM	NM	0.75	0.58 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-419-1-SB1 (12-14)	SSI-419-3-SB1(12-14")	SSI-419-3-SB2(45-48")	SSI-419-5-SB1(12-14")	SSI-419-5-SB2(45-48")	SSI-419-7-SB1(12-14")	SSI-419-7-SB2(45-48")	SSI-419-9-SB1 (12-14)	SSI-419-9-SB2 (45-48)	SSI-419-SB3(45-48")	SSI-419-SB4(72-75")	SSI-MW12-1-SB1(12-14)	SSI-MW12-1-SB1(12-14)DUP
Sample Date				12/12/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/12/2005	12/12/2005	12/8/2005	12/8/2005	12/7/2005	12/7/2005
Sample Analyzed Date				12/26/2005	12/25/2005	12/24/2005	12/22/2005	12/22/2005	12/24/2005	12/22/2005	12/24/2005	12/29/2005	12/22/2005	12/24/2005	12/17/2005	12/17/2005
Sample Depth (bgs)				(12-14)	(12-14")	(45-48")	(12-14")	(45-48")	(12-14")	(45-48")	(12-14)	(45-48)	(45-48")	(72-75")	(12-14)	(12-14)
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Grass	Asphault	Asphault	Grass	Grass	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Asphault	Asphault
Sample Field Observations																
Metals (ppm) Allowable Holding Time: 6 months 28 days for Hg 12 days for CN	Aluminum	SB (33,000)		12000	4600 J	5800 J	5500 J	5800 J	5200 J	7300 J	4800 U	5900 J	6400 J	5300 J	NM	NM
	Antimony	SB (NL)		32	1.6	1.1	2.3 J	1.2	14	1.8	13 U	0.53	0.75	0.8	NM	NM
	Arsenic	7.5 or SB (3-12)	16	**18**	5	4.3	2	**14**	**20**	**43**	3.3 J	***7.9***	6.9	3.4	NM	NM
	Barium	300 or SB (15-600)	400	***320***	64 J	79 J	44 J	47 J	240 J	79 J	25 J	66 J	***320*** J	43 J	NM	NM
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***1.7***	***0.34*** J	***0.77*** J	***0.23*** J	***0.34*** J	***0.54***	***0.33*** J	***0.25*** U	***0.43*** J	***0.39*** J	***0.34*** J	NM	NM
	Cadmium	1 or SB (0.1-1)	9.3	**10**	0.4	0.32	0.34	0.11	**4**	0.16	**1.1**	0.087	0.1	0.06	NM	NM
	Calcium	SB (130 - 35,000)		9600	17000	30000	**37000**	9100	6400	29000	**62000**	33000	3400	22000	NM	NM
	Chromium	10 or SB (1.3 - 40)	400-800	**130**	***17*** J	***25***	***13*** J	***13*** J	**73** J	***21*** J	5.9 J	8.9 J	***17*** J	***16*** J	NM	NM
	Cobalt	30 or SB (2.5 - 60)		14	4.7	11	4.3	6.2	8.4	6.7	1.5	4.3	7.6	7	NM	NM
	Copper	25 or SB (1-50)	270	**420**	**58**	**140**	**61**	***44***	**370**	***26***	8.8	25	***35***	**64**	NM	NM
	Iron	2,000 or SB (2,000 -550,000)		***51000***	***10000***	***13000***	***8200***	***13000***	***32000***	***16000***	***3800***	***11000***	***16000***	***15000***	NM	NM
	Lead	400	1000	**960**	100	230	120	71	**1000**	220	7.4	68	82	**46**	25	10
	Magnesium	SB (100-5000)		4000	2800	3500	2700	2100	2600	3200	3900	4700	2700	**13000**	NM	NM
	Manganese	SB (50-5000)	15000	350	160	210	140	220	340	300	74 U	190 J	330	270 U	NM	NM
	Mercury	0.1	2.8	**0.92**	**0.23**	**0.52**	**0.73**	**0.16**	**2.5**	**0.16**	**0.11** J	0.099	**0.13**	**0.11**	NM	NM
	Nickel	13 or SB (0.5-25)	310	**120**	***15*** J	**27** J	***14*** J	***14*** J	**62** J	13	3.9 J	***15*** J	***16*** J	***14*** J	NM	NM
	Potassium	SB (8,500-43,000)		1500 J	700 J	890 J	400 J	760 J	630 J	2800 J	140 J	1000 J	870 J	900 J	NM	NM
	Selenium	2 or SB (0.1-3.9)	1500	***3.9***	1.6 U	1.7 U	1.2 J	1.8 U	**4.1** J	1.9 U	0.63 U	1.2 U	2.2 U	1.9 U	NM	NM
	Silver	SB (NL)	1500	2.5	2.2 J	2.2 J	0.22 J	2.2 J	0.74 J	2.4 J	2.2 J	2.2 J	2.3 J	2.1 J	NM	NM
	Sodium	SB (6,000-8,000)		520 U	130 U	160 U	180 U	81 U	230 U	230 U	36 U	330 U	280 U	290 U	NM	NM
	Thallium	SB (NL)		5.6	5.6	5.5	5.5	5.5	6	6	5.6 J	5.5	5.6	5.3	NM	NM
	Vanadium	150 or SB (1-300)		100	19	21	16	18	47	29	6.7	23	23	24	NM	NM
	Zinc	20 or SB (9-50)	89,000	**1400**	**190**	**800**	**220**	**76**	**960**	***44***	19	***43***	**68**	**110**	NM	NM
	Cyanide	NL	27	0.74	0.57 U	0.56 U	0.56 U	0.87	0.9	0.6 U	0.56 U	0.56 U	NM	NM	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-MW12-1-SB2(21-24)	SSI-MW12-1-SB2(21-24)DUP	SSI-MW12-1-SS(6-9)	SSI-MW12-2-SB1(12-14)	SSI-MW12-2-SB2(21-24)	SSI-MW12-2-SS(0-3)	SSI-MW12-3-SB1(12-14)	SSI-MW12-3-SB2(21-24)	SSI-MW12-3-SS(0-3)	SSI-MW12-4-SB1(12-14)	SSI-MW12-4-SB2(21-24)	SSI-MW12-4-SS(0-3)
Sample Date				12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005
Sample Analyzed Date				12/17/2005	12/17/2005	12/17/2005	12/15/2005	12/15/2005	12/15/2005	12/15/2005	12/15/2005	12/15/2005	12/24/2005	12/15/2005	12/15/2005
Sample Depth (bgs)				(21-24)	(21-24)	(6-9)	(12-14)	(21-24)	(0-3)	(12-14)	(21-24)	(0-3)	(12-14)	(21-24)	(0-3)
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault
Sample Field Observations															
Metals (ppm) Allowable Holding Time: 6 months 28 days for Hg 12 days for CN	Aluminum	SB (33,000)		NM	NM	NM	NM	NM	NM	NM	NM	NM	3600 U	NM	NM
	Antimony	SB (NL)		NM	NM	NM	NM	NM	NM	NM	NM	NM	12 J	NM	NM
	Arsenic	7.5 or SB (3-12)	16	NM	NM	NM	NM	NM	NM	NM	NM	NM	1.3 J	NM	NM
	Barium	300 or SB (15-600)	400	NM	NM	NM	NM	NM	NM	NM	NM	NM	11 J	NM	NM
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.15 U	NM	NM
	Cadmium	1 or SB (0.1-1)	9.3	NM	NM	NM	NM	NM	NM	NM	NM	NM	1	NM	NM
	Calcium	SB (130 - 35,000)		NM	NM	NM	NM	NM	NM	NM	NM	NM	31000	NM	NM
	Chromium	10 or SB (1.3 - 40)	400-800	NM	NM	NM	NM	NM	NM	NM	NM	NM	4.5 J	NM	NM
	Cobalt	30 or SB (2.5 - 60)		NM	NM	NM	NM	NM	NM	NM	NM	NM	5.4	NM	NM
	Copper	25 or SB (1-50)	270	NM	NM	NM	NM	NM	NM	NM	NM	NM	***77***	NM	NM
	Iron	2,000 or SB (2,000 -550,000)		NM	NM	NM	NM	NM	NM	NM	NM	NM	***12000***	NM	NM
	Lead	400	1000	22	240	33	12	160	150	85	100	90	7	39	6.6
	Magnesium	SB (100-5000)		NM	NM	NM	NM	NM	NM	NM	NM	NM	**14000**	NM	NM
	Manganese	SB (50-5000)	15000	NM	NM	NM	NM	NM	NM	NM	NM	NM	110 U	NM	NM
	Mercury	0.1	2.8	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.1 J	NM	NM
	Nickel	13 or SB (0.5-25)	310	NM	NM	NM	NM	NM	NM	NM	NM	NM	7 J	NM	NM
	Potassium	SB (8,500-43,000)		NM	NM	NM	NM	NM	NM	NM	NM	NM	480 J	NM	NM
	Selenium	2 or SB (0.1-3.9)	1500	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.83 U	NM	NM
	Silver	SB (NL)	1500	NM	NM	NM	NM	NM	NM	NM	NM	NM	2.1 J	NM	NM
	Sodium	SB (6,000-8,000)		NM	NM	NM	NM	NM	NM	NM	NM	NM	410 U	NM	NM
	Thallium	SB (NL)		NM	NM	NM	NM	NM	NM	NM	NM	NM	5.2	NM	NM
	Vanadium	150 or SB (1-300)		NM	NM	NM	NM	NM	NM	NM	NM	NM	38	NM	NM
	Zinc	20 or SB (9-50)	89,000	NM	NM	NM	NM	NM	NM	NM	NM	NM	***22***	NM	NM
	Cyanide	NL	27	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.52 U	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-MW5-1-SB1(12-14")	SSI-MW5-1-SB1(12-14")DUP	SSI-MW5-1-SB2(21-24")	SSI-MW5-1-SB2(21-24")DUP	SSI-MW5-1-SS(0-3")	SSI-MW5-2-SB1(12-14")	SSI-MW5-2-SB2(21-24")	SSI-MW5-2-SB3(45-48")	SSI-MW5-2-SS(0-3")	SSI-MW5-3-SB1(12-14")	SSI-MW5-3-SB1(12-14")DUP	SSI-MW5-3-SB2(21-24")
Sample Date				12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005
Sample Analyzed Date				12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/24/2005	12/19/2005	12/24/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005
Sample Depth (bgs)				(12-14")	(12-14")	(21-24")	(21-24")	(0-3")	(12-14")	(21-24")	(45-48")	(0-3")	(12-14")	(12-14")	(21-24")
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault
Sample Field Observations															
Metals (ppm) Allowable Holding Time: 6 months 28 days for Hg 12 days for CN	Aluminum	SB (33,000)		NM	NM	NM	NM	NM	4400 J	NM	5400 J	NM	NM	NM	NM
	Antimony	SB (NL)		NM	NM	NM	NM	NM	8.1	NM	0.54	NM	NM	NM	NM
	Arsenic	7.5 or SB (3-12)	16	NM	NM	NM	NM	NM	**9.6**	NM	6.4	NM	NM	NM	NM
	Barium	300 or SB (15-600)	400	NM	NM	NM	NM	NM	95 J	NM	170 J	NM	NM	NM	NM
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	NM	NM	NM	NM	NM	***0.33***	NM	***0.31*** J	NM	NM	NM	NM
	Cadmium	1 or SB (0.1-1)	9.3	NM	NM	NM	NM	NM	**2.9**	NM	0.39	NM	NM	NM	NM
	Calcium	SB (130 - 35,000)		NM	NM	NM	NM	NM	2400	NM	8400	NM	NM	NM	NM
	Chromium	10 or SB (1.3 - 40)	400-800	NM	NM	NM	NM	NM	***29***	NM	***16*** J	NM	NM	NM	NM
	Cobalt	30 or SB (2.5 - 60)		NM	NM	NM	NM	NM	14	NM	6.3	NM	NM	NM	NM
	Copper	25 or SB (1-50)	270	NM	NM	NM	NM	NM	**240**	NM	**58**	NM	NM	NM	NM
	Iron	2,000 or SB (2,000 -550,000)		NM	NM	NM	NM	NM	***15000***	NM	***20000***	NM	NM	NM	NM
	Lead	400	1000	44	72	7.3	11	170	170	79	350	360	300	**560**	110
	Magnesium	SB (100-5000)		NM	NM	NM	NM	NM	2100	NM	1800	NM	NM	NM	NM
	Manganese	SB (50-5000)	15000	NM	NM	NM	NM	NM	410	NM	790	NM	NM	NM	NM
	Mercury	0.1	2.8	NM	NM	NM	NM	NM	**0.16**	NM	**0.32**	NM	NM	NM	NM
	Nickel	13 or SB (0.5-25)	310	NM	NM	NM	NM	NM	**88** J	NM	***15*** J	NM	NM	NM	NM
	Potassium	SB (8,500-43,000)		NM	NM	NM	NM	NM	670 J	NM	630 J	NM	NM	NM	NM
	Selenium	2 or SB (0.1-3.9)	1500	NM	NM	NM	NM	NM	**2.6** J	NM	**3.4** U	NM	NM	NM	NM
	Silver	SB (NL)	1500	NM	NM	NM	NM	NM	0.22 J	NM	2.2 J	NM	NM	NM	NM
	Sodium	SB (6,000-8,000)		NM	NM	NM	NM	NM	110 U	NM	210 U	NM	NM	NM	NM
	Thallium	SB (NL)		NM	NM	NM	NM	NM	5.4	NM	5.4	NM	NM	NM	NM
	Vanadium	150 or SB (1-300)		NM	NM	NM	NM	NM	21	NM	19	NM	NM	NM	NM
	Zinc	20 or SB (9-50)	89,000	NM	NM	NM	NM	NM	**1500**	NM	**260**	NM	NM	NM	NM
	Cyanide	NL	27	NM	NM	NM	NM	NM	0.56 U	NM	0.58	NM	NM	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Comerical (mg/kg draft)	SSI-MW5-3-SB2(21-24")DUP	SSI-MW5-3-SS(0-3")	SSI-MW5-4-SB1(12-14")	SSI-MW5-4-SB2(21-24")	SSI-MW5-4-SB2(21-24")DS	SSI-MW5-4-SB2(21-24")MS	SSI-MW5-4-SS(0-3")
Sample Date				12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005
Sample Analyzed Date				12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005
Sample Depth (bgs)				(21-24")	(0-3")	(12-14")	(21-24")	(21-24")	(21-24")	(0-3")
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault
Sample Field Observations										
Metals (ppm) Allowable Holding Time: 6 months 28 days for Hg 12 days for CN	Aluminum	SB (33,000)		NM	NM	NM	NM	NM	NM	NM
	Antimony	SB (NL)		NM	NM	NM	NM	NM	NM	NM
	Arsenic	7.5 or SB (3-12)	16	NM	NM	NM	NM	NM	NM	NM
	Barium	300 or SB (15-600)	400	NM	NM	NM	NM	NM	NM	NM
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	NM	NM	NM	NM	NM	NM	NM
	Cadmium	1 or SB (0.1-1)	9.3	NM	NM	NM	NM	NM	NM	NM
	Calcium	SB (130 - 35,000)		NM	NM	NM	NM	NM	NM	NM
	Chromium	10 or SB (1.3 - 40)	400-800	NM	NM	NM	NM	NM	NM	NM
	Cobalt	30 or SB (2.5 - 60)		NM	NM	NM	NM	NM	NM	NM
	Copper	25 or SB (1-50)	270	NM	NM	NM	NM	NM	NM	NM
	Iron	2,000 or SB (2,000 -550,000)		NM	NM	NM	NM	NM	NM	NM
	Lead	400	1000	180	230	210	140	160	**510**	130
	Magnesium	SB (100-5000)		NM	NM	NM	NM	NM	NM	NM
	Manganese	SB (50-5000)	15000	NM	NM	NM	NM	NM	NM	NM
	Mercury	0.1	2.8	NM	NM	NM	NM	NM	NM	NM
	Nickel	13 or SB (0.5-25)	310	NM	NM	NM	NM	NM	NM	NM
	Potassium	SB (8,500-43,000)		NM	NM	NM	NM	NM	NM	NM
	Selenium	2 or SB (0.1-3.9)	1500	NM	NM	NM	NM	NM	NM	NM
	Silver	SB (NL)	1500	NM	NM	NM	NM	NM	NM	NM
	Sodium	SB (6,000-8,000)		NM	NM	NM	NM	NM	NM	NM
	Thallium	SB (NL)		NM	NM	NM	NM	NM	NM	NM
	Vanadium	150 or SB (1-300)		NM	NM	NM	NM	NM	NM	NM
	Zinc	20 or SB (9-50)	89,000	NM	NM	NM	NM	NM	NM	NM
	Cyanide	NL	27	NM	NM	NM	NM	NM	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	419SS-1S	419SS-1D	419SS-2S	419SS-2D	419SS-3S	419SS-3D	419SS-4S	419SS-4D	419SS-5S	419SS-5D	419SS-8A (dup)
Sample Date			11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996	11/1/1996
Sample Analyzed Date			11/16/1996	11/16/1996	11/23/1996	11/16/1996	11/16/1996	11/16/1996	11/17/1996	11/17/1996	11/17/1996	11/17/1996	11/17/1996
Sample Depth (bgs)			0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	1'-1.2' (deep)
Sampling Method			Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Mattock/Aluminum Spoon
Surface Condition			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Field Observations			Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected
Pesticide Organics (ppb)	alpha -BHC	110	-	-	-	-	-	-	-	-	-	-	-
	beta-BHC	200	-	-	-	-	-	-	-	-	-	-	-
	delta-BHC	300	-	-	-	-	-	-	-	-	-	-	-
	gamma-BHC (Lindane)	6	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor	100	-	-	-	-	-	-	-	-	-	-	-
	Aldrin	41	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor epoxide	20	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan I	900	-	-	-	-	-	-	-	-	-	-	-
	Dieldrin	44	-	-	-	-	-	-	-	-	-	-	-
	4,4' - DDE	2100	-	-	-	-	-	-	-	-	-	-	-
	Endrin	100	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan II	900	-	-	-	-	-	-	-	-	-	-	-
	4,4' - DDD	2900	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan sulfate	1000	-	-	-	-	-	-	-	-	-	-	-
	4,4' - DDT	2100	-	-	-	-	-	-	-	-	-	-	-
Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	Methoxychlor	NL	-	-	-	-	-	-	-	-	-	-	-
	Endrin ketone	NL	-	-	-	-	-	-	-	-	-	-	-
	Endrin aldehyde	NL	-	-	-	-	-	-	-	-	-	-	-
	alpha - Chlordane	NL	-	-	-	-	-	-	-	-	-	-	-
	gamma - Chlordane	540	-	-	-	-	-	-	-	-	-	-	-
	Toxaphene	NL	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	**1100**	500	**2500**	**1400**	**3200**	**2300**	**4500**	**3600**	**3000**	**1300**	**1700**

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	419SS-8B (MS)	419SS-8C (MS dup)	419SS-6S	419SS-7S	419SS-9S	419SS-10S	419SS-10D	419SS-11S	419SS-11D	419SS-12S	419SS-12D	419SS-13S
Sample Date			11/1/1996	11/1/1996	11/15/1996	11/15/1996	11/15/1996	1/24/1997	1/24/1997	1/24/1997	1/24/1997	1/24/1997	1/24/1997	1/24/1997
Sample Analyzed Date			11/17/1996	11/17/1996	11/23/1996	11/23/1996	11/20/1996	2/8/1997	2/8/1997	2/9/1997	2/9/1997	2/8/1997	2/8/1997	2/9/1997
Sample Depth (bgs)			1'-1.2' (deep)	1'-1.2' (deep)	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	0"-3" (shallow)	12"-14" (deep)	0"-3" (shallow)	12"-14" (deep)	0"-3" (shallow)	12"-14" (deep)	0"-3" (shallow)
Sampling Method			Mattock/Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon
Surface Condition			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Field Observations			Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	-	-	-	-	-	-	-	-	-	-	-	-
	beta-BHC	200	-	-	-	-	-	-	-	-	-	-	-	-
	delta-BHC	300	-	-	-	-	-	-	-	-	-	-	-	-
	gamma-BHC (Lindane)	6	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor	100	-	-	-	-	-	-	-	-	-	-	-	-
	Aldrin	41	-	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor epoxide	20	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan I	900	-	-	-	-	-	-	-	-	-	-	-	-
	Dieldrin	44	-	-	-	-	-	-	-	-	-	-	-	-
	4,4' - DDE	2100	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin	100	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan II	900	-	-	-	-	-	-	-	-	-	-	-	-
	4,4' - DDD	2900	-	-	-	-	-	-	-	-	-	-	-	-
	Endosulfan sulfate	1000												
	4,4' - DDT	2100	-	-	-	-	-	-	-	-	-	-	-	-
	Methoxychlor	NL	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin ketone	NL	-	-	-	-	-	-	-	-	-	-	-	-
	Endrin aldehyde	NL	-	-	-	-	-	-	-	-	-	-	-	-
	alpha - Chlordane	NL	-	-	-	-	-	-	-	-	-	-	-	-
	gamma - Chlordane	540	-	-	-	-	-	-	-	-	-	-	-	-
	Toxaphene	NL	-	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-	-
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	-	-	-	-	-	-	-	-	-
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	1400	1300	**200000**	**210000**	**7400**	**1600**	300	**4700**	**1400**	**4200**	**2300**	650

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	419SS-13D	419SS-6D	419SS-7D	TP103-1S[3,4]	TP103-1D[3]	TP106-1S[3,4]	TP106-1D[3,4]	TP107-1S[3,4]	TP107-1D[3]	TP108-1S[3]	TP108-1D[3,4]	MW4SR-SS1D[3]
Sample Date			1/24/1997	4/11/1997	4/11/1997	4/3/1997	4/3/1997	4/7/1997	4/7/1997	4/7/1997	4/7/1997	4/8/1997	4/8/1997	4/21/1997
Sample Analyzed Date			2/9/1997	4/23/1997	4/23/1997	4/16/1997	4/16/1997	4/16/1997	4/16/1997	4/16/1997	4/16/1997	4/17/1997	4/17/1997	4/27/1997
Sample Depth (bgs)			12"-14" (deep)	1.0' - 1.2' (deep)	1.0' - 1.2' (deep)	1.3' - 1.5' (shallow)	7.5' (deep)	1.3' - 1.5' (shallow)	5.4' - 6.4' (deep)	0" - 2" (shallow)	2.5' - 3' (deep)	1' - 1.2' (shallow)	1.3' - 1.5' (deep)	4' - 6' (deep)
Sampling Method			Mattock/Aluminum Spoon	Mattock/ Aluminum Spoon	Mattock/ Aluminum Spoon	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Hollow Stem Augers
Surface Condition			Soil	Soil	Soil	Asphalt Pavement	Asphalt Pavement	Concrete Pad/Reinforced Rebar	Concrete Pad/Reinforced Rebar	Gravel	Gravel	Asphalt Pavement	Asphalt Pavement	Asphalt
Sample Field Observations			Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth; OVA Reading not collected	Predetermined Sample Depth; OVA Reading not collected	OVA = 0 ppm	Gray Sand with Gravel, Sampled from Bottom of Test Pit (7.5'-8') ; OVA Reading not collected	OVA = 0 ppm	Black/Brown Mixed Oily Soil with Wood Fragments, OVA = 4 ppm	OVA = 0 ppm	Ash Layer, Black/Brown Coaly Cinder Bearing Material, OVA = 0 ppm	OVA = 0 ppm	Dark Gray-Black Gravely Sand, No Odor, OVA = 0 ppm	Dark Gray, Gray, Rusty Yellow Red Silty Clayey Sand Fill with Coal and Ash, OVA = 0 ppm
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	-	-	-	1.9 U	1.9 U	1.9 UJ	2 U	2 U	2.1 U	1.9 U	2.1 U	1.9 U
	beta-BHC	200	-	-	-	1.9 U	1.9 U	1.9 UJ	2 U	2 U	2.1 U	1.9 U	2.1 U	1.9 U
	delta-BHC	300	-	-	-	1.9 U	1.9 U	1.9 UJ	2 U	2 U	2.1 U	1.9 U	2.1 U	1.9 U
	gamma-BHC (Lindane)	6	-	-	-	1.9 U	1.9 U	1.9 U	2 U	2 U	2.1 U	1.9 U	2.1 U	1.9 U
	Heptachlor	100	-	-	-	1.9 U	1.9 U	1.9 UJ	2 U	2 U	2.1 U	1.9 U	2.1 U	1.9 U
	Aldrin	41	-	-	-	1.9 U	1.9 U	R	2 U	2 U	R	R	R	1.9 U
	Heptachlor epoxide	20	-	-	-	1.9 U	1.9 U	1.9 UJ	2 U	2 U	2.1 U	1.9 U	2.1 U	1.9 U
	Endosulfan I	900	-	-	-	1.9 U	1.9 U	1.9 UJ	2 U	2 U	2.1 U	1.9 U	2.1 U	1.9 U
	Dieldrin	44	-	-	-	3.7 U	3.7 U	3.7 UJ	4 U	4 U	4.2 U	3.7 U	4.1 U	3.8 U
	4,4' - DDE	2100	-	-	-	3.7 U	3.7 U	3.7 UJ	4 U	4 U	4.2 U	3.7 U	4.1 U	3.8 U
	Endrin	100	-	-	-	3.7 U	3.7 U	3.7 UJ	4 U	4 U	4.2 U	3.7 U	4.1 U	3.8 U
	Endosulfan II	900	-	-	-	3.7 U	3.7 U	3.7 UJ	4 U	4 U	4.2 U	3.7 U	4.1 U	3.8 U
	4,4' - DDD	2900	-	-	-	3.7 U	3.7 U	3.7 UJ	4 U	4 U	4.2 U	3.7 U	4.1 U	3.8 U
	Endosulfan sulfate	1000	-	-	-	3.7 U	3.7 U	3.7 UJ	4 U	4 U	4.2 U	3.7 U	4.1 U	3.8 U
	4,4' - DDT	2100	-	-	-	3.7 U	3.7 U	3.7 UJ	4 U	4 U	4.2 U	3.7 U	4.1 U	3.8 U
	Methoxychlor	NL	-	-	-	19 U	19 U	19 UJ	20 U	20 U	21 U	19 U	21 U	19 U
	Endrin ketone	NL	-	-	-	3.7 U	3.7 U	3.7 UJ	4 U	4 U	4.2 U	3.7 U	4.1 U	3.8 U
	Endrin aldehyde	NL	-	-	-	3.7 U	3.7 U	3.7 UJ	4 U	4 U	4.2 U	3.7 U	4.1 U	3.8 U
	alpha - Chlordane	NL	-	-	-	1.9 U	1.9 U	1.9 UJ	2 U	2 U	2.1 U	1.9 U	2.1 U	1.9 U
	gamma - Chlordane	540	-	-	-	1.9 U	1.9 U	1.9 UJ	2 U	2 U	2.1 U	1.9 U	2.1 U	1.9 U
	Toxaphene	NL	-	-	-	190 U	190 U	190 UJ	200 U	200 U	210 U	190 U	210 U	190 U
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	37 U	37 U	37 UJ	40 U	40 U	42 U	37 U	41 U	38 U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	74 U	75 U	75 UJ	79 U	79 U	83 U	74 U	82 U	77 U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	37 U	37 U	37 UJ	40 U	40 U	42 U	37 U	41 U	38 U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	37 U	37 U	37 UJ	40 U	40 U	42 U	37 U	41 U	38 U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	37 U	37 U	37 UJ	40 U	40 U	42 U	37 U	41 U	38 U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	-	-	-	37 U	37 U	37 UJ	40 U	40 U	42 U	37 U	41 U	38 U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	**3000**	**54000**	**24000**	37 U	37 U	37 UJ	40 U	40 U	42 U	37 U	41 U	38 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	MW4SR-SS1S[3]	MW4DR-SS1	MW5SR-SS1S[3]	MW5SR-SS2S[3] (Duplicate)	MW5SR-SS1D[3]	MW12S-SS1S[3,4]	MW12S-SS1D[3]	MW12S-SS2S[3,4] (Duplicate)	MW12D-SS1[3]	SSI-419-10-SS (0-3)	SSI-419-11-SB1 (12-14)	SSI-419-11-SB2 (45-48)	SSI-419-11-SS (0-3)
Sample Date			4/21/1997	5/6/1997	4/15/1997	4/15/1997	4/15/1997	4/25/1997	4/25/1997	4/25/1997	5/8/1997	12/12/2005	12/12/2005	12/12/2005	12/12/2005
Sample Analyzed Date			4/27/1997	5/13/1997	4/24/1997	4/24/1997	4/24/1997	5/7/1997	5/6/1997	5/6/1997	5/16/1997	12/22/2005	12/29/2005	12/24/2005	12/22/2005
Sample Depth (bgs)			1' - 1. 5' (shallow)	15' - 16' (deep)	0" - 2" (shallow)	0" - 2" (shallow)	14' - 16' (deep)	0" - 2" (shallow)	2' - 10' (deep)	0" - 2" (shallow)	15.5' - 18' (deep)	(0-3)	(12-14)	(45-48)	(0-3)
Sampling Method			Hollow Stem Augers	Mud Rotary	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Hollow Stem Augers	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Asphalt	Asphalt	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Asphault	Asphault	Asphault	Asphault
Sample Field Observations			OVA = 0 ppm	Dark Gray Sandy Silty Clay, Plant Material and Shells; OVA Reading not collected	OVA = 1 ppm	OVA = 1 ppm	Dark Gray Silty Sand, Gravel/Rock, OVA = 900 ppm	OVA = 0 ppm	Dark Brown Silty Medium Sand, Gravely Fill with Medium Sand, OVA = 0 ppm	OVA = 0 ppm	Dark Gray Fine Sandy Silt, Plant Fragments; OVA reading not collected				
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	1.9 U	2.9 U	2.1 U	2.1 U	1.8 U	1.9 UJ	1.9 U	1.9 U	2.3 U	NM	1.75 U	1.83 U	NM
	beta-BHC	200	1.9 U	2.9 U	2.1 U	2.1 U	1.8 U	1.9 UJ	1.9 U	1.9 U	2.3 U	NM	1.75 U	1.83 U	NM
	delta-BHC	300	1.9 U	2.9 U	2.1 U	2.1 U	1.8 U	1.9 UJ	1.9 U	1.9 U	2.3 U	NM	1.75 U	1.83 U	NM
	gamma-BHC (Lindane)	6	1.9 U	2.9 U	2.1 U	2.1 U	1.8 U	1.9 UJ	1.9 U	1.9 U	2.3 U	NM	1.75 U	1.83 U	NM
	Heptachlor	100	1.9 U	2.9 U	2.1 U	2.1 U	1.8 U	1.9 UJ	1.9 U	1.9 U	2.3 U	NM	9.13	1.83 U	NM
	Aldrin	41	1.9 U	2.9 U	2.1 U	2.1 U	2.8 J	1.3 J	1.9 U	1.9 U	2.3 U	NM	1.75 U	1.83 U	NM
	Heptachlor epoxide	20	1.9 U	2.9 U	2.1 U	2.1 U	1.8 U	1.9 UJ	1.9 U	1.9 U	2.3 U	NM	1.75 U	1.83 U	NM
	Endosulfan I	900	1.9 U	2.9 U	1 J	2.1 U	1.8 U	1.9 UJ	1.9 U	1.9 U	2.3 U	NM	1.75 U	1.83 U	NM
	Dieldrin	44	3.8 U	5.8 U	4.2 U	4.3 U	3.7 U	3.7 UJ	3.7 U	3.8 U	4.5 U	NM	3.5 U	3.65 U	NM
	4,4' - DDE	2100	3.8 U	5.8 U	4.2 U	4.3 U	3.7 U	3.7 UJ	3.7 U	3.8 U	4.5 U	NM	13.7	3.65 U	NM
	Endrin	100	3.8 U	5.8 U	4.2 U	4.3 U	3.7 U	3.7 UJ	3.7 U	3.8 U	4.5 U	NM	3.5 U	3.65 U	NM
	Endosulfan II	900	3.8 U	5.8 U	4.2 U	4.3 U	3.7 U	3.7 UJ	3.7 U	3.8 U	4.5 U	NM	3.5 U	3.65 U	NM
	4,4' - DDD	2900	3.8 U	5.8 U	4.2 U	4.3 U	3.7 U	3.7 UJ	3.7 U	3.8 U	4.5 U	NM	3.5 U	3.65 U	NM
	Endosulfan sulfate	1000	3.8 U	5.8 U	4.2 U	4.3 U	3.7 U	3.7 UJ	3.7 U	3.8 U	4.5 U	NM	3.5 U	3.65 U	NM
	4,4' - DDT	2100	3.8 U	5.8 U	4.2 U	4.3 U	3.7 U	3.7 UJ	3.7 U	3.8 U	4.5 U	NM	7.31	3.65 U	NM
	Methoxychlor	NL	19 U	29 U	21 U	21 U	18 U	19 UJ	19 U	19 U	23 U	NM	17.5 U	18.3 U	NM
	Endrin ketone	NL	3.8 U	5.8 U	4.2 U	4.3 U	3.7 U	3.7 UJ	3.7 U	3.8 U	4.5 U	NM	3.5 U	3.65 U	NM
	Endrin aldehyde	NL	3.8 U	5.8 U	4.2 U	4.3 U	3.7 U	3.7 UJ	3.7 U	3.8 U	4.5 U	NM	3.5 U	3.65 U	NM
	alpha - Chlordane	NL	1.9 U	2.9 U	2.1 U	2.1 U	1.8 U	1.9 UJ	1.9 U	1.9 U	2.3 U	NM	71.7	3.13	NM
	gamma - Chlordane	540	1.9 U	2.9 U	2.1 U	2.1 U	1.8 U	1.9 UJ	1.9 U	1.9 U	2.3 U	NM	81.4	3.99	NM
	Toxaphene	NL	190 U	290 U	210 U	210 U	180 U	190 UJ	190 U	190 U	230 U	NM	175 U	183 U	NM
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	38 U	58 U	42 U	43 U	37 U	37 UJ	37 U	38 U	45 U	33.9 U	35 U	36.5 U	33.3 U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	76 U	120 U	83 U	85 U	73 U	75 UJ	75 U	76 U	90 U	67.8 U	70 U	73.1 U	66.7 U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	38 U	58 U	42 U	43 U	37 U	37 UJ	37 U	38 U	45 U	33.9 U	35 U	36.5 U	33.3 U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	38 U	58 U	42 U	43 U	37 U	37 UJ	37 U	38 U	45 U	33.9 U	35 U	36.5 U	33.3 U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	38 U	58 U	42 U	43 U	37 U	37 UJ	37 U	38 U	45 U	33.9 U	35 U	36.5 U	33.3 U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	38 U	58 U	42 U	43 U	37 U	37 UJ	37 U	38 U	45 U	33.9 U	35 U	36.5 U	33.3 U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	38 U	58 U	42 U	43 U	37 U	37 UJ	37 U	38 U	45 U	33.9 U	87.7	255	33.3 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	SSI-419-12-SS (0-3)	SSI-419-14-SB1(12-14")	SSI-419-14-SB3(45-48")	SSI-419-16-SB1 (12-14)	SSI-419-16-SB2 (45-48)	SSI-419-1-SB1 (12-14)	SSI-419-1-SB2 (21-24)	SSI-419-1-SB2 (21-24) DUP	SSI-419-1-SB3 (33-36)	SSI-419-1-SB3 (33-36) DUP	SSI-419-1-SB4 (45-48)	SSI-419-1-SB4 (45-48) MS
Sample Date			12/12/2005	12/8/2005	12/8/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005	12/12/2005
Sample Analyzed Date			12/22/2005	12/24/2005	12/22/2005	12/29/2005	12/26/2005	12/26/2005	12/22/2005	12/22/2005	12/22/2005	12/22/2005	12/21/2005	12/21/2005
Sample Depth (bgs)			(0-3)	(12-14")	(45-48")	(12-14)	(45-48)	(12-14)	(21-24)	(21-24)	(33-36)	(33-36)	(45-48)	(45-48)
Sampling Method			Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Asphault	Asphault	Asphault	Grass	Grass	Grass	Grass	Grass	Grass	Grass	Grass	Grass
Sample Field Observations														
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	beta-BHC	200	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	delta-BHC	300	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	gamma-BHC (Lindane)	6	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	Heptachlor	100	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	Aldrin	41	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	Heptachlor epoxide	20	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	Endosulfan I	900	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	Dieldrin	44	NM	3.81 U	3.92 U	4.56 U	3.86 U	3.96 U	NM	NM	NM	NM	NM	NM
	4,4' - DDE	2100	NM	3.81 U	3.92 U	4.56 U	3.86 U	3.96 U	NM	NM	NM	NM	NM	NM
	Endrin	100	NM	3.81 U	3.92 U	4.56 U	3.86 U	3.96 U	NM	NM	NM	NM	NM	NM
	Endosulfan II	900	NM	3.81 U	3.92 U	4.56 U	3.86 U	75.7	NM	NM	NM	NM	NM	NM
	4,4' - DDD	2900	NM	3.81 U	3.92 U	4.56 U	3.86 U	3.96 U	NM	NM	NM	NM	NM	NM
	Endosulfan sulfate	1000	NM	3.81 U	3.92 U	4.56 U	3.86 U	3.96 U	NM	NM	NM	NM	NM	NM
	4,4' - DDT	2100	NM	9.32	3.92 U	4.56 U	3.86 U	35	NM	NM	NM	NM	NM	NM
	Methoxychlor	NL	NM	19.1 U	19.6 U	22.8 U	19.3 U	19.8 U	NM	NM	NM	NM	NM	NM
	Endrin ketone	NL	NM	3.81 U	3.92 U	4.56 U	3.86 U	3.96 U	NM	NM	NM	NM	NM	NM
	Endrin aldehyde	NL	NM	3.81 U	3.92 U	4.56 U	3.86 U	3.96 U	NM	NM	NM	NM	NM	NM
	alpha - Chlordane	NL	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	gamma - Chlordane	540	NM	1.91 U	1.96 U	2.28 U	1.93 U	1.98 U	NM	NM	NM	NM	NM	NM
	Toxaphene	NL	NM	191 U	196 U	228 U	193 U	198 U	NM	NM	NM	NM	NM	NM
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	34 U	38.1 U	39.2 U	45.6 U	38.6 U	39.6 U	39.5 U	37.1 U	36.1 U	36.5 U	36.5 U	37 U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	68 U	76.3 U	78.4 U	91.2 U	77.2 U	79.2 U	79 U	74.1 U	72.1 U	73 U	72.9 U	74 U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	34 U	38.1 U	39.2 U	45.6 U	38.6 U	39.6 U	39.5 U	37.1 U	36.1 U	36.5 U	36.5 U	37 U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	34 U	38.1 U	39.2 U	45.6 U	38.6 U	39.6 U	39.5 U	37.1 U	36.1 U	36.5 U	36.5 U	37 U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	34 U	38.1 U	39.2 U	45.6 U	38.6 U	39.6 U	39.5 U	37.1 U	36.1 U	36.5 U	36.5 U	37 U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	34 U	38.1 U	39.2 U	45.6 U	38.6 U	39.6 U	39.5 U	37.1 U	36.1 U	36.5 U	36.5 U	37 U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	34 U	38.1 U	39.2 U	455	342	**4400**	**1550**	394	54.9	108	36.5 U	37 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	SSI-419-1-SB4 (45-48) MSD	SSI-419-2-SB1 (21-24)	SSI-419-2-SB2 (33-36)	SSI-419-3-SB1(12-14")	SSI-419-3-SB2(45-48")	SSI-419-3-SS(0-3")	SSI-419-4-SS(0-3")	SSI-419-5-SB1(12-14")	SSI-419-5-SB2(45-48")	SSI-419-5-SS(0-3")	SSI-419-6-SS(0-3")	SSI-419-7-SB1(12-14")
Sample Date			12/12/2005	12/12/2005	12/12/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005
Sample Analyzed Date			12/21/2005	12/22/2005	12/22/2005	12/25/2005	12/24/2005	12/21/2005	12/21/2005	12/22/2005	12/22/2005	12/21/2005	12/21/2005	12/24/2005
Sample Depth (bgs)			(45-48)	(21-24)	(33-36)	(12-14")	(45-48")	(0-3")	(0-3")	(12-14")	(45-48")	(0-3")	(0-3")	(12-14")
Sampling Method			Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Grass	Grass	Grass	Asphault	Asphault	Asphault	Grass	Grass	Grass	Grass	Sand/Gravel	Sand/Gravel
Sample Field Observations														
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	NM	NM	NM	1.89 U	1.85 U	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	beta-BHC	200	NM	NM	NM	1.89 U	1.85 U	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	delta-BHC	300	NM	NM	NM	1.89 U	1.85 U	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	gamma-BHC (Lindane)	6	NM	NM	NM	1.89 U	1.85 U	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	Heptachlor	100	NM	NM	NM	1.89 U	1.85 U	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	Aldrin	41	NM	NM	NM	1.89 U	1.85 U	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	Heptachlor epoxide	20	NM	NM	NM	19.4	**29.2**	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	Endosulfan I	900	NM	NM	NM	1.89 U	1.85 U	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	Dieldrin	44	NM	NM	NM	**49.4**	**60.9**	NM	NM	3.7 U	3.74 U	NM	NM	4.01 U
	4,4' - DDE	2100	NM	NM	NM	3.78 U	3.69 U	NM	NM	3.7 U	3.74 U	NM	NM	6.53
	Endrin	100	NM	NM	NM	3.78 U	3.69 U	NM	NM	3.7 U	3.74 U	NM	NM	4.01 U
	Endosulfan II	900	NM	NM	NM	3.78 U	3.69 U	NM	NM	3.7 U	3.74 U	NM	NM	4.01 U
	4,4' - DDD	2900	NM	NM	NM	3.78 U	3.69 U	NM	NM	3.7 U	3.74 U	NM	NM	4.01 U
	Endosulfan sulfate	1000	NM	NM	NM	3.78 U	3.69 U	NM	NM	3.7 U	3.74 U	NM	NM	4.01 U
	4,4' - DDT	2100	NM	NM	NM	6.03	3.69 U	NM	NM	3.7 U	3.74 U	NM	NM	49.7
	Methoxychlor	NL	NM	NM	NM	18.9 U	18.5 U	NM	NM	18.5 U	18.7 U	NM	NM	20.1 U
	Endrin ketone	NL	NM	NM	NM	3.78 U	3.69 U	NM	NM	3.7 U	3.74 U	NM	NM	4.01 U
	Endrin aldehyde	NL	NM	NM	NM	3.78 U	3.69 U	NM	NM	3.7 U	3.74 U	NM	NM	4.01 U
	alpha - Chlordane	NL	NM	NM	NM	3.76	2.74	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	gamma - Chlordane	540	NM	NM	NM	3.25	2.71	NM	NM	1.85 U	1.87 U	NM	NM	2.01 U
	Toxaphene	NL	NM	NM	NM	189 U	185 U	NM	NM	185 U	187 U	NM	NM	201 U
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	40.6 U	39.2 U	37 U	37.8 U	36.9 U	37 U	37.8 U	37 U	37.4 U	39.1 U	40.2 U	40.1 U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	81.3 U	78.5 U	73.9 U	75.7 U	73.9 U	73.9 U	75.6 U	74 U	74.8 U	78.1 U	80.3 U	80.3 U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	40.6 U	39.2 U	37 U	37.8 U	36.9 U	37 U	37.8 U	37 U	37.4 U	39.1 U	40.2 U	40.1 U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	40.6 U	39.2 U	37 U	37.8 U	36.9 U	37 U	37.8 U	37 U	37.4 U	39.1 U	40.2 U	40.1 U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	40.6 U	39.2 U	37 U	37.8 U	36.9 U	37 U	37.8 U	37 U	37.4 U	39.1 U	40.2 U	40.1 U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	40.6 U	39.2 U	37 U	37.8 U	36.9 U	37 U	37.8 U	37 U	37.4 U	39.1 U	40.2 U	40.1 U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	40.6 U	**2140**	695	71.4	194	181	67.9	37 U	37.4 U	293	496	40.1 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	SSI-419-7-SB2(45-48")		SSI-419-7-SS(0-3")		SSI-419-8-SS(0-3")		SSI-419-9-SB1 (12-14)		SSI-419-9-SB2 (45-48)		SSI-419-9-SS (0-3)		SSI-MW12-4-SB1(12-14)		SSI-MW5-2-SB1(12-14")		SSI-MW5-2-SB3(45-48")	
Sample Date			12/8/2005		12/8/2005		12/8/2005		12/12/2005		12/12/2005		12/12/2005		12/7/2005		12/8/2005		12/8/2005	
Sample Analyzed Date			12/22/2005		12/21/2005		12/21/2005		12/24/2005		12/29/2005		12/22/2005		12/24/2005		12/24/2005		12/24/2005	
Sample Depth (bgs)			(45-48")		(0-3")		(0-3")		(12-14)		(45-48)		(0-3)		(12-14)		(12-14")		(45-48")	
Sampling Method			Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe	
Surface Condition			Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Asphault		Asphault		Asphault	
Sample Field Observations																				
Pesticide Organics (ppb) Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	alpha -BHC	110	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	beta-BHC	200	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	delta-BHC	300	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	gamma-BHC (Lindane)	6	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	Heptachlor	100	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	Aldrin	41	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	Heptachlor epoxide	20	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	Endosulfan I	900	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	Dieldrin	44	3.96	U	NM		NM		3.7	U	3.7	U	NM		3.42	U	3.69	U	3.62	U
	4,4' - DDE	2100	3.96	U	NM		NM		3.7	U	3.7	U	NM		3.42	U	3.69	U	3.62	U
	Endrin	100	3.96	U	NM		NM		3.7	U	3.7	U	NM		3.42	U	3.69	U	3.62	U
	Endosulfan II	900	3.96	U	NM		NM		3.7	U	3.7	U	NM		3.42	U	3.69	U	3.62	U
	4,4' - DDD	2900	3.96	U	NM		NM		3.7	U	3.7	U	NM		3.42	U	3.69	U	3.62	U
	Endosulfan sulfate	1000	3.96	U	NM		NM		3.7	U	3.7	U	NM		3.42	U	3.69	U	3.62	U
	4,4' - DDT	2100	3.96	U	NM		NM		3.7	U	3.7	U	NM		3.42	U	3.69	U	3.62	U
	Methoxychlor	NL	19.8	U	NM		NM		18.5	U	18.5	U	NM		17.1	U	18.4	U	18.1	U
	Endrin ketone	NL	3.96	U	NM		NM		3.7	U	3.7	U	NM		3.42	U	3.69	U	3.62	U
	Endrin aldehyde	NL	3.96	U	NM		NM		3.7	U	3.7	U	NM		3.42	U	3.69	U	3.62	U
	alpha - Chlordane	NL	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	gamma - Chlordane	540	1.98	U	NM		NM		1.85	U	1.85	U	NM		1.71	U	1.84	U	1.81	U
	Toxaphene	NL	198	U	NM		NM		185	U	185	U	NM		171	U	184	U	181	U
	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	39.6	U	39.6	U	36.5	U	37	U	37	U	39.1	U	34.2	U	36.9	U	36.2	U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	79.2	U	79.2	U	73	U	74.1	U	74	U	78.2	U	68.4	U	73.7	U	72.5	U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	39.6	U	39.6	U	36.5	U	37	U	37	U	39.1	U	34.2	U	36.9	U	36.2	U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	39.6	U	39.6	U	36.5	U	37	U	37	U	39.1	U	34.2	U	36.9	U	36.2	U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	39.6	U	39.6	U	36.5	U	37	U	37	U	39.1	U	34.2	U	36.9	U	36.2	U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	39.6	U	39.6	U	36.5	U	37	U	37	U	39.1	U	34.2	U	36.9	U	36.2	U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	39.6	U	662		836		37	U	37	U	700		34.2	U	36.9	U	36.2	U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use comerical (ug/kg draft)	TP103-1S	TP103-1D	TP106-1S	TP106-1D	TP107-1S	TP107-1D	TP108-1S	TP108-1D	MW4SR-SS1D	MW4SR-SS1S	MW4DR-SS1	MW5SR-SS1S	MW5SR-SS2S (Duplicate)	MW5SR-SS1D	MW12S-SS1S	MW12S-SS1D	MW12S-SS2S (Duplicate)
Sample Date				4/3/1997	4/3/1997	4/7/1997	4/7/1997	4/7/1997	4/7/1997	4/8/1997	4/8/1997	4/21/1997	4/21/1997	5/6/1997	4/15/1997	4/15/1997	4/15/1997	4/25/1997	4/25/1997	4/25/1997
Sample Analyzed Date				4/10/1997	4/10/1997	4/14/1997	4/11/1997	4/11/1997	4/11/1997	4/12/1997	4/14/1997	4/25/1997	4/25/1997	5/10/1997	4/22/1997	4/22/1997	4/22/1997	5/2/1997	5/1/1997	5/2/1997
Sample Depth (bgs)				1.3' - 1.5' (shallow)	7.5' (deep)	1.5' - 1.5' (shallow)	5.4' - 6.4' (deep)	0" - 2" (shallow)	2.5' - 3' (deep)	1' - 1.2' (shallow)	1.3' - 1.5' (deep)	4' - 6' (deep)	1' - 1. 5' (shallow)	15' - 16' (deep)	0" - 2" (shallow)	0" - 2" (shallow)	14' - 16' (deep)	0" - 2" (shallow)	2' - 10' (deep)	0" - 2" (shallow)
Sampling Method				Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Hollow Stem Augers	Hollow Stem Augers	Hollow Stem Augers
Surface Condition				Asphalt Pavement	Asphalt Pavement	Concrete Pad/Reinforced Rebar	Concrete Pad/Reinforced Rebar	Gravel	Gravel	Asphalt Pavement	Asphalt Pavement	Asphalt	Asphalt	Asphalt	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel
Sample Field Observations				OVA = 0 ppm	Gray Sand with Gravel, Sampled from Bottom of Test Pit (7.5'-8') ; OVA Reading not collected	OVA = 0 ppm	Black/Brown Mixed Oily Soil with Wood Fragments, OVA = 4 ppm	OVA = 0 ppm	Ash Layer, Black/Brown Coaly Cinder Bearing Material, OVA = 0 ppm	OVA = 0 ppm	Dark Gray-Black Gravelly Sand, No Odor, OVA = 0 ppm	Dark Gray, Gray, Rusty Yellow Red Silty Clayey Sand Fill with Coal and Ash, OVA = 0 ppm	OVA = 0 ppm	Dark Gray Sandy Silty Clay, Plant Material and Shells; OVA Reading not collected	OVA = 1 ppm	OVA = 1 ppm	Dark Gray Silty Sand, Gravel/Rock, OVA = 900 ppm	OVA = 0 ppm	Dark Brown Silty Medium Sand, Gravely Fill with Medium Sand, OVA = 0 ppm	OVA = 0 ppm
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	bis(2-Chloroethyl)ether	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2-Chlorophenol	800		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	1,2-Dichlorobenzene	7900	500000	370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	1,3-Dichlorobenzene	1600	280000	370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	1,4-Dichlorobenzene	8500	130000	370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2-Methylphenol	100 or MDL (330)	500000	370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2,2'-oxybis(1-Chloropropa	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	4-Methylphenol	900	500000	370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	N-Nitroso-di-n-propylamin	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Hexachloroethane	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Nitrobenzene	200 or MDL (330)		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Isophorone	4400		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2-Nitrophenol	330 or MDL (330)		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2,4-Dimethylphenol	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	bis(2-Chloroethoxy)metha	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2,4-Dichlorophenol	400		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	1,2,4-Trichlorobenzene	3400		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Naphthalene	13000	500000	370 U	370 UJ	370 U	610	390 U	48 UJ	60 J	410 UJ	380 U	370 U	580 U	42 J	84 J	250 J	370 U	370 UJ	380 U
	4-Chloroaniline	220 or MDL (330)		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Hexachlorobutadiene	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	4-Chloro-3-methylphenol	240 or MDL (330)		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2-Methylnaphthalene	36400		370 U	370 UJ	370 U	90 J	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	97 J	370 U	370 UJ	380 U
	Hexachlorocyclopentadien	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2,4,6-Trichlorophenol	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2,4,5-Trichlorophenol	100		890 U	900 UJ	890 U	950 U	960 U	1000 UJ	890 U	980 UJ	920 U	900 U	1400 U	1000 U	1000 U	869 U	900 U	900 UJ	910 U
	2-Chloronaphthalene	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	2-Nitroaniline	430 or MDL (800)		890 U	900 UJ	890 U	950 U	960 U	1000 UJ	890 U	980 UJ	920 U	900 U	1400 U	1000 U	1000 U	869 U	900 U	900 UJ	910 U
	Dimethylphthalate	2000		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Acenaphthylene	41000	500000	370 U	370 UJ	370 U	390 U	390 U	51 UJ	100 J	410 UJ	380 U	370 U	580 U	410 U	420 U	39 J	370 U	370 UJ	380 U
	2,6-Dinitrotoluene	1000		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	3-Nitroaniline	500 or MDL (800)		890 U	900 UJ	890 U	950 U	960 U	1000 UJ	890 U	980 UJ	920 U	900 U	1400 U	1000 U	1000 U	890 U	900 U	900 UJ	910 U
	Acenaphthene	50000	500000	99 J	53 UJ	81 J	320 J	390 U	80 UJ	110 J	75 UJ	380 U	370 U	580 U	410 U	420 U	210 J	45 J	370 UJ	45 J
	2,4-Dinitrophenol	200 or MDL (800)		890 U	900 UJ	890 U	950 U	960 U	1000 UJ	890 U	980 UJ	920 U	900 U	1400 U	1000 U	1000 U	890 U	900 U	900 UJ	910 U
	4-Nitrophenol	100 or MDL (330)		890 U	900 UJ	890 U	950 U	960 U	1000 UJ	890 U	980 UJ	920 U	900 U	1400 U	1000 U	1000 U	890 U	900 U	900 UJ	910 U
	Dibenzofuran	6200		370 U	370 UJ	65 J	280 J	390 U	48 UJ	98 J	410 UJ	380 U	370 U	580 U	410 U	420 U	170 J	370 U	370 UJ	380 U
	2,4-Dinitrotoluene	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Diethylphthlate	7100		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	4-Chlorophenyl-phenyleth	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Fluorene	50000	500000	99 J	54 UJ	160 J	350 J	390 U	83 UJ	99 J	52 UJ	380 U	43 J	580 U	410 U	420 U	310 J	51 J	40 UJ	47 J
	4-Nitroaniline	NL		890 U	900 UJ	890 U	950 U	960 U	1000 UJ	890 U	980 UJ	920 U	900 U	1400 U	1000 U	1000 U	889 U	900 U	900 UJ	910 U
	4,6-Dinitro-2-methylphen	NL		890 U	900 UJ	890 U	950 U	960 U	1000 UJ	890 U	980 UJ	920 U	900 U	1400 U	1000 U	1000 U	889 U	900 U	900 UJ	910 U
	N-Nitrosodiphenylamine	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	4-Bromophenyl-phenyleth	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Hexachlorobenzene	410		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Pentachlorophenol	1000 or MDL (800)	6700	890 U	900 UJ	890 U	950 U	960 U	1000 UJ	890 U	980 UJ	920 U	900 U	1400 U	1000 U	1000 U	889 U	900 U	900 UJ	910 U
	Phenanthrene	50000	500000	860	440	1900	870	390 U	1200	1300	860	230 J	450	580 U	410 U	420 U	1900	140	330 UJ	400
	Anthracene	50000	500000	240 J	130 UJ	530	360 J	390 U	340 UJ	350 J	210 UJ	61 J	110 J	580 U	410 U	420 U	450	110 J	82 UJ	97 J
	Carbazole	NL		170 J	140 UJ	320 J	140 J	390 U	390 UJ	460	180 UJ	79 J	130 J	580 U	410 U	420 U	580	320 J	140 UJ	250 J
	Di-n-butylphthalate	8100		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 U	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Fluoranthene	50000	500000	820	460	R	230 J	390 U	1800	1200	1200	260 J	450	580 U	410 U	420 U	1700	800	350 UJ	680
	Pyrene	50000	500000	1200	490	3000 D	150 J	40 J	2100	2100	1300	290 J	930 J	580 U	410 U	420 U	1700	1100	330 UJ	1000
	Butylbenzylphthalate	50000		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 UJ	580 U	410 U	420 U	360 U	110 J	370 UJ	56 J
	3,3'-Dichlorobenzidine	NL		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410 UJ	380 U	370 UJ	580 U	410 U	420 U	360 U	370 U	370 UJ	380 U
	Benzo(a)anthracene	224 or MDL (330)	5600	R	290 UJ	2300	390 U	390 U	1100	730	800 UJ	140 J	250 J	580 U	410 U	420 U	720	700	170 UJ	560
	Chrysene	400	56000	540	310 UJ	1900	390 U	390 U	1100	800	790	150 J	280 J	580 U	410 U	420 U	820	820	160 UJ	610
	bis(2-Ethylhexyl)phthalate	50000		370 U	370 UJ	370 U	390 U	390 U	410 UJ	370 U	410	380 U	370 UJ	580 U	410 U	420 U	360 U	180 J	370 UJ	4500 D
	Di-n-octylphthalate	50000		370 UJ	370 UJ	39 J	390 U	390 UJ	410 UJ	370 UJ	410 UJ	380 UJ	370 UJ	580 U	410 U	420 U	45 J	370 UJ	370 UJ	140 J
	Benzo(b)fluoranthene	1100	6000	R	240 UJ	1900	390 U	390 UJ	1000	760 J	1200	120 J	210 J	580 U	410 U	420 U	520	1200 J	160 UJ	830 J
	Benzo(k)fluoranthene	1100	56000	480 J	210 UJ	1200	390 U	57 J	900	590 J	410 UJ	150 J	290 J	580 U	410 U	420 U	470	1000 J	160 UJ	820 J
	Benzo(a)pyrene	61 or MDL (330)	1000	R	260 UJ	1700	390 U	390 UJ	1000	610 J	740	110 J	240 J	580 U	410 U	420 U	630	830 J	150 UJ	590 J
	Indeno(1,2,3-cd)pyrene	3200	5600	370 U	96 UJ	570	390 U	390 UJ	370 UJ	220 J	330 UJ	380 UJ	91 J	580 U	410 U	420 U	320 J	280 J	52 UJ	220 J
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	370 UJ	48 UJ	300 J	390 U	390 UJ	190 UJ	370 UJ	170 UJ	380 UJ	370 UJ	580 U	410 U	420 U	120 J	100 J	370 UJ	83 J
	Benzo(g,h,i)perylene	50000	500000	370 U	110 UJ	520	390 U	390 UJ	370 UJ	230 UJ	380 UJ	380 UJ	96 J	580 U	410 U	420 U	320 J	260 J	50 UJ	200 J

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use cumerical (ug/kg draft)	MW12D-SS1	SSI-419-11-SB1 (12-14)	SSI-419-11-SB2 (45-48)	SSI-419-13(12-14)	SSI-419-13(21-24)	SSI-419-13(45-48)	SSI-419-13(72-75)	SSI-419-13-SS(0-3)	SSI-419-14-SB1(12-14")	SSI-419-14-SB2(21-24")	SSI-(419-14-SB3(45-48")	SSI-419-14-SB4(72-75")	SSI-419-14-SS(0-3")	SSI-419-15-SB1(12-14")	SSI-419-15-SB2(21-24")	SSI-419-15-SS(0-3")	SSI-419-16-SB1 (12-14)	SSI-419-16-SB2 (45-48)	SSI-419-1-SB1 (12 14)
Sample Date				5/8/1997	12/12/2005	12/12/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/12/2005	12/12/2005	12/12/2005
Sample Analyzed Date				5/15/1997	12/29/2005	12/24/2005	12/22/2005	12/21/2005	12/17/2005	12/17/2005	12/29/2005	12/24/2005	12/24/2005	12/22/2005	12/23/2005	12/24/2005	12/14/2005	12/24/2005	12/25/2005	12/29/2005	12/26/2005	12/26/2005
Sample Depth (bgs)				15.5' - 18' (deep)	(12-14)	(45-48)	(12-14")	(21-24)	(45-48)	(72-75)	(0-3)	(12-14")	(21-24")	(45-48")	(72-75")	(0-3")	(12-14")	(21-24")	(0-3")	(12-14)	(45-48)	(12-14)
Sampling Method				Mud Rotary	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Sand and Gravel	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Asphault	Grass	Grass	Grass
Sample Field Observations				Dark Gray Fine Sandy Silt, Plant Fragments; OVA reading not collected																		
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	bis(2-Chloroethyl)ether	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	2-Chlorophenol	800		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	1,2-Dichlorobenzene	7900	500000	440 U	10.5 U	11 U	NM	NM	NM	NM	NM	11.5 U	NM	11.8 U	NM	NM	NM	NM	NM	13.7 U	11.6 U	11.9 U
	1,3-Dichlorobenzene	1600	280000	440 U	10.5 U	11 U	NM	NM	NM	NM	NM	11.5 U	NM	11.8 U	NM	NM	NM	NM	NM	13.7 U	11.6 U	11.9 U
	1,4-Dichlorobenzene	8500	130000	440 U	10.5 U	11 U	NM	NM	NM	NM	NM	11.5 U	NM	11.8 U	NM	NM	NM	NM	NM	13.7 U	11.6 U	11.9 U
	2-Methylphenol	100 or MDL (330)	500000	440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	2,2'-oxybis(1-Chloropropa	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	4-Methylphenol	900	500000	440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	N-Nitroso-di-n-propylamin	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Hexachloroethane	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Nitrobenzene	200 or MDL (330)		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Isophorone	4400		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	2-Nitrophenol	330 or MDL (330)		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	2,4-Dimethylphenol	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	bis(2-Chloroethoxy)metha	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	2,4-Dichlorophenol	400		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	1,2,4-Trichlorobenzene	3400		440 U	10.5 U	11 U	NM	NM	NM	NM	NM	11.5 U	NM	11.8 U	NM	NM	NM	NM	NM	13.7 U	11.6 U	11.9 U
	Naphthalene	13000	500000	440 U	1750 U	517 J	7020 U	1060 U	361 U	405 U	706 J	3820 U	7920 U	392 U	395 U	1890 U	1590 J	2990	254 J	167 J	387 U	105 J
	4-Chloroaniline	220 or MDL (330)		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Hexachlorobutadiene	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	4-Chloro-3-methylphenol	240 or MDL (330)		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	2-Methylnaphthalene	36400		440 U	1750 U	185 J	7020 U	1060 U	361 U	405 U	472 J	3820 U	7920 U	392 U	395 U	1890 U	5610	12100	579 J	157 J	387 U	113 J
	Hexachlorocyclopentadien	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	2,4,6-Trichlorophenol	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	2,4,5-Trichlorophenol	100		1100 U	4370 U	4570 U	17600 U	2660 U	902 U	1010 U	4370 U	9540 U	19800 U	979 U	987 U	4720 U	4510 U	4790 U	4290 U	1140 U	969 U	991 U
	2-Chloronaphthalene	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	2-Nitroaniline	430 or MDL (800)		1100 U	4370 U	4570 U	17600 U	2660 U	902 U	1010 U	4370 U	9540 U	19800 U	979 U	987 U	4720 U	4510 U	4790 U	4290 U	1140 U	969 U	991 U
	Dimethylphthlate	2000		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Acenaphthylene	41000	500000	440 U	546 J	404 J	7020 U	129 J	361 U	405 U	482 J	2530 J	824 J	392 U	395 U	328 J	1800 U	1920 U	1720 U	72.8 J	387 U	67 J
	2,6-Dinitrotoluene	1000		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	3-Nitroaniline	500 or MDL (800)		1100 U	4370 U	4570 U	17600 U	2660 U	902 U	1010 U	4370 U	9540 U	19800 U	979 U	987 U	4720 U	4510 U	4790 U	4290 U	1140 U	969 U	991 U
	Acenaphthene	50000	500000	440 U	486 J	256 J	1170 J	1060 U	361 U	405 U	1220 J	1440 J	900 J	392 U	395 U	1890 U	1800 U	1920 U	1720 U	51.4 J	387 U	128 J
	2,4-Dinitrophenol	200 or MDL (800)		1100 U	4370 U	4570 U	17600 U	2660 U	902 U	1010 U	4370 U	9540 U	19800 U	979 U	987 U	4720 U	4510 U	4790 U	4290 U	1140 U	969 U	991 U
	4-Nitrophenol	100 or MDL (330)		1100 U	4370 U	4570 U	17600 U	2660 U	902 U	1010 U	4370 U	9540 U	19800 U	979 U	987 U	4720 U	4510 U	4790 U	4290 U	1140 U	969 U	991 U
	Dibenzofuran	6200		440 U	278 J	676 J	864 J	1060 U	361 U	405 U	868 J	981 J	958 J	392 U	395 U	1890 U	1800 U	1970 U	206 J	66.4 J	387 U	86 J
	2,4-Dinitrotoluene	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Diethylphthlate	7100		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	4-Chlorophenyl-phenyleth	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Fluorene	50000	500000	440 U	633 J	1830 U	1760 J	1122 J	361 U	405 U	1460 J	1170 J	914 J	392 U	395 U	1890 U	1800 U	1920 U	1720 U	60.5 J	387 U	131 J
	4-Nitroaniline	NL		1100 U	4370 U	4570 U	17600 U	2660 U	902 U	1010 U	4370 U	9540 U	19800 U	979 U	987 U	4720 U	4510 U	4790 U	4290 U	1140 U	969 U	991 U
	4,6-Dinitro-2-methylphan	NL		1100 U	4370 U	4570 U	17600 U	2660 U	902 U	1010 U	4370 U	9540 U	19800 U	979 U	987 U	4720 U	4510 U	4790 U	4290 U	1140 U	969 U	991 U
	N-Nitrosodiphenylamine	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	4-Bromophenyl-phenyleth	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Hexachlorobenzene	410		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Pentachlorophenol	1000 or MDL (800)	6700	1100 U	4370 U	4570 U	17600 U	2660 U	902 U	1010 U	4370 U	9540 U	19800 U	979 U	987 U	4720 U	4510 U	4790 U	4290 U	1140 U	969 U	991 U
	Phenanthrene	50000	500000	440 U	4580	8230	15900	1170	38.2 J	405 U	8260	13400	16800	392 U	395 U	1090 J	278 J	619 J	2300	812	297 J	1190
	Anthracene	50000	500000	440 U	1280 J	2040	2510 J	311 J	361 U	405 U	1540 J	4620	3310 J	392 U	395 U	315 J	1800 U	1920 U	1720 U	131 J	63.5 J	208 J
	Carbazole	NL		440 U	448 J	795 J	1450 J	1060 U	361 U	405 U	980 J	416 J	1450 J	392 U	395 U	1890 U	1800 U	1920 U	177 J	128 J	387 U	179 J
	Di-n-butylphthalate	8100		440 U	1750 U	1830 U	7020 U	1060 U	84.7 J	405 U	1750 U	3820 U	7920 U	128 JB	159 JB	1890 U	1800 U	1970 U	1720 U	62.1 J	110 J	599
	Fluoranthrene	50000	500000	440 U	10800	17600	23700	2780	66 J	405 U	12600	31900	24100	392 U	51.3 J	2770	296 J	925 J	1300 J	2090	561	2450
	Pyrene	50000	500000	440 U	7800	16700	18900	1930	73.2 J	405 U	8300	27000	19100	392 U	50.6 J	2180	337 J	973 J	1350 J	1310	424	1020
	Butylbenzylphthalate	50000		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	196 J	387 U	245 J
	3,3'-Dichlorobenzidine	NL		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Benzo(a)anthracene	224 or MDL (330)	5600	440 U	3860	15000	8610	1440	42.2 J	405 U	4500	12800	9970	392 U	395 U	1320 J	206 J	592 J	565 J	686	361 J	722
	Chrysene	400	56000	440 U	3580	16800	7760	1240	361 U	405 U	4670	12500	10100	392 U	395 U	1490 J	220 J	605 J	986 J	888	381 J	838
	bis(2-Ethylhexyl)phthalate	50000		440 U	1320 JB	1830 U	7020 U	453 JB	71 JB	47.8 JB	1750 B	3820 U	7920 U	101 JB	205 JB	1190 JB	326 JB	239 JB	1520 JB	2240 B	477 B	2230 B
	Di-n-octylphthalate	50000		440 U	1750 U	1830 U	7020 U	1060 U	361 U	405 U	1750 U	3820 U	7920 U	392 U	395 U	1890 U	1800 U	1920 U	1720 U	455 U	387 U	396 U
	Benzo(b)fluoranthene	1100	6900	440 U	4150	25300	9670	1830	51.6 J	405 U	4930	17600	11900	392 U	395 U	2430	337 J	950 J	640 J	1250	583	1250
	Benzo(k)fluoranthene	1100	56000	440 U	1430 J	6220	3290 J	614 J	361 U	405 U	1900	5680	4360 J	392 U	395 U	704 J	1800 U	266 J	1720 U	800 J	163 J	377 J
	Benzo(a)pyrene	61 or MDL (330)	1000	440 U	3230	15600	5680 J	1290	42.2 J	405 U	3090	13500	8970	392 U	395 U	1570 J	180 J	599 J	350 J	563	349 J	644
	Indeno(1,2,3-cd)pyrene	3200	5600	440 U	1260 J	6800	3330 J	676 J	361 U	405 U	2180	7880	4170 J	392 U	395 U	1180 J	197 J	451 J	254 J	373 J	214 J	512
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	440 U	485 J	2510	1050 J	200 J	361 U	405 U	646 J	2220 J	1430 J	392 U	395 U	378 J	1800 U	1920 U	1720 U	126 J	74 J	147 J
	Benzo(g,h,i)perylene	50000	500000	440 U	1320 J	6980	3630 J	657 J	361 U	405 U	2270 J	8540 J	4740 J	76 J	48.6 J	1610 J	209 J	452 J	378 J	390 J	235 J	496

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use conserical (ug/kg draft)	SSI-419-3-SB1(12-14")	SSI-419-3-SB2(45-48")	SSI-419-5-SB1(12-14")	SSI-419-5-SB2(45-48")	SSI-419-7-SB1(12-14")	SSI-419-7-SB2(45-48")	SSI-419-9-SB1 (12-14)	SSI-419-9-SB2 (45-48)	SSI-419-SB3(45-48")	SSI-419-SB4(72-75")	SSI-MW12-4-SB1(12-14)	SSI-MW5-2-SB1(12-14")	SSI-MW5-2-SB3(45-48")
Sample Date				12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/12/2005	12/12/2005	12/8/2005	12/8/2005	12/7/2005	12/8/2005	12/6/2005
Sample Analyzed Date				12/25/2005	12/24/2005	12/22/2005	12/22/2005	12/24/2005	12/22/2005	12/24/2005	12/29/2005	12/22/2005	12/24/2005	12/24/2005	12/24/2005	12/24/2005
Sample Depth (bgs)				(12-14')	(45-48")	(12-14")	(45-48")	(12-14")	(45-48")	(12-14)	(45-48)	(45-48")	(72-75")	(12-14)	(12-14")	(45-48")
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Asphault	Asphault	Grass	Grass	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Asphault	Asphault	Asphault
Sample Field Observations																
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	9260	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	bis(2-Chloroethyl)ether	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	2-Chlorophenol	800		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	1,2-Dichlorobenzene	7900	500000	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	NM	NM	10 U	11.1 U	10.9 U
	1,3-Dichlorobenzene	1600	280000	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	NM	NM	10 U	11.1 U	10.9 U
	1,4-Dichlorobenzene	8500	130000	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	NM	NM	10 U	11.1 U	10.9 U
	2-Methylphenol	100 or MDL (330)	500000	1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	2,2'-oxybis(1-Chloropropa	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	4-Methylphenol	900	500000	1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	N-Nitroso-di-n-propylamin	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	Hexachloroethane	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	Nitrobenzene	200 or MDL (330)		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	Isophorone	4400		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	2-Nitrophenol	330 or MDL (330)		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	2,4-Dimethylphenol	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	bis(2-Chloroethoxy)methan	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	2,4-Dichlorophenol	400		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	1,2,4-Trichlorobenzene	3400		11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	NM	NM	10 U	11.1 U	10.9 U
	Naphthalene	13000	500000	1890 U	14800 U	97.5 J	43 J	851 J	55 J	1840 U	324 J	387 U	1070	5150 U	403 J	7210 U
	4-Chloroaniline	220 or MDL (330)		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	Hexachlorobutadiene	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	4-Chloro-3-methylphenol	240 or MDL (330)		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	2-Methylnaphthalene	36400		1890 U	14800 U	63.1 J	374 U	757 J	396 U	1840 U	230 J	387 U	5050	5150 U	604 J	7210 U
	Hexachlorocyclopentadiene	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	2,4,6-Trichlorophenol	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	2,4,5-Trichlorophenol	100		4720 U	37000 U	923 U	934 U	5020 U	989 U	4610 U	4610 U	969 U	915	12900 U	4620 U	18000 U
	2-Chloronaphthalene	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	2-Nitroaniline	430 or MDL (800)		4720 U	37000 U	923 U	934 U	5020 U	989 U	4610 U	4610 U	969 U	915	12900 U	4620 U	18000 U
	Dimethylphthlate	2000		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	Acenaphthylene	41000	500000	1890 U	14800 U	182 J	242 J	795 J	396 U	1840 U	1840 U	43 J	84.9	5150 U	1850 U	7210 U
	2,6-Dinitrotoluene	1000		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210 U
	3-Nitroaniline	500 or MDL (800)		4720 U	37000 U	923 U	934 U	5020 U	989 U	4610 U	4610 U	969 U	915	12900 U	4620 U	18000
	Acenaphthene	50000	500000	1890 U	14800 U	151 J	374 U	1480 J	59.8 J	1840 U	1840 U	387 U	366	5150 U	1650 J	4030
	2,4-Dinitrophenol	200 or MDL (800)		4720 U	37000 U	923 U	934 U	5020 U	989 U	4610 U	4610 U	969 U	915	12900 U	4620 U	18000
	4-Nitrophenol	100 or MDL (330)		4720 U	37000 U	923 U	934 U	5020 U	989 U	4610 U	4610 U	969 U	915	12900 U	4630 U	18000
	Dibenzofuran	6200		1890 U	14800 U	156 J	374 U	974 J	50.7 J	1840 U	1840 U	387 U	366	5150 U	1290 J	1500
	2,4-Dinitrotoluene	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210
	Diethylphthlate	7100		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210
	4-Chlorophenyl-phenyleth	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210
	Fluorene	50000	500000	1890 U	14800 U	164 J	374 U	1440 J	42.3 J	1840 U	1840 U	387 U	87.1	5150 U	1790 J	5370
	4-Nitroaniline	NL		4720 U	37000 U	923 U	934 U	5020 U	989 U	4610 U	4610 U	969 U	915	12900 U	4620 U	18000
	4,6-Dinitro-2-methylphen	NL		4720 U	37000 U	923 U	934 U	5020 U	989 U	4610 U	4610 U	969 U	915	12900 U	4620 U	18000
	N-Nitrosodiphenylamine	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210
	4-Bromophenyl-phenyleth	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210
	Hexachlorobenzene	410		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210
	Pentachlorophenol	1000 or MDL (800)	6700	4720 U	37000 U	923 U	934 U	5020 U	989 U	4610 U	4610 U	969 U	915	12900 U	4620 U	18000
	Phenanthrene	50000	500000	1220 J	14800 U	2130	231 J	15600	689	1840 U	1170 J	155 J	489	804 J	18100	40100
	Anthracene	50000	500000	394 J	14800 U	470	103 J	3450	191 J	1840 U	271 J	43.4 J	109	5150 U	3910	9770
	Carbazole	NL		1890 U	14800 U	160 J	374 U	1670 J	99.7 J	1840 U	1840 U	387 U	366	5150 U	1070 J	2390
	Di-n-butylphthalate	8100		1890 U	14800 U	53.9 JB	143 JB	2010 U	124 JB	1840 U	1840 U	39.5 JB	366	5150 U	1850 U	7210
	Fluoranthene	50000	500000	6410	2560 J	4210	1160	24700	1150	1840 U	1790 J	632	1070	1640 J	13400	42300
	Pyrene	50000	500000	7340	1970 J	2730	1450	14500	788	1840 U	1490 J	465	699	1520 J	13200	31000
	Butylbenzylphthalate	50000		1890 U	79400	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210
	3,3'-Dichlorobenzidine	NL		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210
	Benzo(a)anthracene	224 or MDL (330)	5600	6610	14800 U	1850	1150	9150	604	1840 U	896 J	432	538	1030 J	5400	16100
	Chrysene	400	56000	6620	14800 U	1710	1000	8180	593	1840 U	923 J	398	532	974 J	5120	14800
	bis(2-Ethylhexyl)phthalate	50000		1890 U	18200 B	369 U	374 U	2010 U	105 JB	1840 U	627 JB	157 JB	604	2740 JB	1850 U	7210
	Di-n-octylphthalate	50000		1890 U	14800 U	369 U	374 U	2010 U	396 U	1840 U	1840 U	387 U	366	5150 U	1850 U	7210
	Benzo(b)fluoranthene	1100	6000	10800	1820 J	2110	1450	12000	902	1840 U	1100 J	709	884	1800 J	5150	17600
	Benzo(k)fluoranthene	1100	56000	3050	14800 U	652	515	3040	235 J	1840 U	383 J	236 J	235	5150 U	1780 J	5530
	Benzo(a)pyrene	61 or MDL (330)	1000	7310	1490 J	1710	1200	8130	800	1840 U	835 J	630	561	1020 J	4030	14000
	Indeno(1,2,3-cd)pyrene	3200	5600	3670	14800 U	861	697	3940	564	1840 U	474 J	356 J	419	851 J	1920	6560
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	1200 J	14800 U	288 J	247 J	1230 J	151 J	1840 U	1840 U	117 J	126	5150 U	634 J	2110
	Benzo(g,h,i)perylene	50000	500000	3740	14800 U	823	566	3790	634	1840 U	466 J	374 J	435	990 J	1900	6610

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	TP103-1S	TP103-1D	TP106-1S	TP106-1D	TP107-1S	TP107-1D	TP108-1S	TP108-1D	MW4SR-SS1D	MW4SR-SS1S	MW4DR-SS1	MW5SR-SS1S	MW5SR-SS2S (Duplicate)	MW5SR-SS1D	MW12S-SS1S	MW12S-SS1D	MW12S-SS2S (Duplicate)
Sample Date			4/3/1997	4/3/1997	4/7/1997	4/7/1997	4/7/1997	4/7/1997	4/8/1997	4/8/1997	4/21/1997	4/21/1997	5/6/1997	4/15/1997	4/15/1997	4/15/1997	4/25/1997	4/25/1997	4/25/1997
Sample Analyzed Date			4/8/1997	4/8/1997	4/10/1997	4/15/1997	4/10/1997	4/10/1997	4/10/1997	4/15/1997	4/25/1997	4/25/1997	5/9/1997	4/19/1997	4/17/1997	4/19/1997	4/28/1997	4/28/1997	4/28/1997
Sample Depth (bgs)			1.3' - 1.5' (shallow)	7.5' (deep)	1.3' - 1.5' (shallow)	5.4' - 6.4' (deep)	0" - 2" (shallow)	2.5' - 3' (deep)	1' - 1.2' (shallow)	1.3' - 1.5' (deep)	4' - 6' (deep)	1' - 1. 5' (shallow)	15' - 16' (deep)	0' - 2" (shallow)	0" - 2" (shallow)	14' - 16' (deep)	0" - 2" (shallow)	2' - 10' (deep)	0" - 2" (shallow)
Sampling Method			Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Backhoe	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Hollow Stem Augers	Hollow Stem Augers	Hollow Stem Augers
Surface Condition			Asphalt Pavement	Asphalt Pavement	Concrete Pad/Reinforced Rebar	Concrete Pad/Reinforced Rebar	Gravel	Gravel	Asphalt Pavement	Asphalt Pavement	Asphalt	Asphalt	Asphalt	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel
Sample Field Observations			OVA = 0 ppm	Gray Sand with Gravel, Sampled from Bottom of Test Pit (7.5'-8') ; OVA Reading not collected	OVA = 0 ppm	Black/Brown Mixed Oily Soil with Wood Fragments, OVA = 4 ppm	OVA = 0 ppm	Ash Layer, Black/Brown Coally Cinder Bearing Material, OVA = 0 ppm	OVA = 0 ppm	Dark Gray-Black Gravelly Sand, No Odor, OVA = 0 ppm	Dark Gray, Gray, Rusty Yellow Red Silty Clayey Sand Fill with Coal and Ash, OVA = 0 ppm	OVA = 0 ppm	Dark Gray Sandy Silty Clay, Plant Material and Shells; OVA Reading not collected	OVA = 1 ppm	OVA = 1 ppm	Dark Gray Silty Sand, Gravel/Rock, OVA = 900 ppm	OVA = 0 ppm	Dark Brown Silty Medium Sand, Gravely Fill with Medium Sand, OVA = 0 ppm	OVA = 0 ppm
Volatile Organics (ppb)	Chloromethane	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Bromomethane	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Vinyl Chloride	200	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Chloroethane	1900	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Methylene Chloride	100	11 UJ	11 J	8.5 UJ	7.6 JB	8.5 UJ	8.4 UJ	5.9 J	12 J	5.9 J	8.1 J	18 U	6.6 J	15 B	6.6 J	9.3 J	14 J	4.3 J
	Acetone	200	11 UJ	39 J	15 UJ	R	11 UJ	13 UJ	13	17 J	R	R	R	15 J	13 UJ	33 J	11 UJ	19 R	11 UJ
	Carbon Disulfide	2700	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	1,1-Dichloroethene	400	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	7.2 J	11 UJ	11 UJ	11 UJ
	1,1-Dichloroethane	200	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	1,2-Dichloroethene (total)	300	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Chloroform	300	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	1,2-Dichloroethane	100	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	2-Butanone	300	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	1,1,1-Trichloroethane	800	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Carbon Tetrachloride	600	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Bromodichloromethane	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	1,2-Dichloropropane	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
Allowable Holding Time: 10 days	cis-1,3-Dichloropropene	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Trichloroethene	700	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Dibromochloromethane	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	1,1,2-Trichloroethane	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Benzene	60	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	3.5 J	11 UJ	11 UJ	11 UJ
	trans-1,3-Dichloropropene	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Bromoform	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 U	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	4-Methyl-2-Pentanone	1000	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 UJ	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	2-Hexanone	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 UJ	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Tetrachloroethene	1400	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 UJ	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	1,1,2,2-Tetrachloroethane	600	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 UJ	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Toluene	1500	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 UJ	13 UJ	13 UJ	5 J	11 UJ	11 UJ	11 UJ
	Chlorobenzene	1700	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 UJ	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Ethylbenzene	5500	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 UJ	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Styrene	NL	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 UJ	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ
	Xylenes(total)	1200	11 UJ	11 UJ	11 UJ	12 U	12 UJ	13 UJ	11 U	12 UJ	11 UJ	11 UJ	18 UJ	13 UJ	13 UJ	11 UJ	11 UJ	11 UJ	11 UJ

ppm - parts per million
ppb - parts per billion
Concentrations in bold are over the Criteria and regional soil background.
Concentrations in bold and italics are over the Criteria but not the regional soil background.
U - The analyte was analyzed for, but not detected.
J - Analyte detected below method detection limit and/or estimated concentration.
D - Identified in analysis at secondary dilution factor.
B - Indicates the analyte was found in the blank as well as the sample.
R - The presence or absence of the analyte cannot be verified due to failure to meet quality control criteria. Therefore the value is rejected and considered unusable.
NM - Analysis not performed.
NL - Analyte not listed in NYSDEC TAGM #4046

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	MW12D-SS1	SSI-419-11-SB1 (12-14)	SSI-419-11-SB2 (45-48)	SSI-419-14-SB1(12-14")	SSI-419-14-SB3(45-48")	SSI-419-16-SB1 (12-14)	SSI-419-16-SB2 (45-48)	SSI-419-1-SB1 (12-14)	SSI-419-3-SB1(12-14")	SSI-419-3-SB2(45-48")	SSI-419-5-SB1(12-14")	SSI-419-5-SB3(45-48")	SSI-419-7-SB1(12-14")	SSI-419-7-SB2(45-48")	SSI-419-9-SB1 (12-14)	SSI-419-9-SB2 (45-48)	SSI-MW12-4-SB1(12-14)	SSI-MW5-2-SB1(12-14")	SSI-MW5-2-SB3(45-48")
Sample Date			5/8/1997	12/12/2005	12/13/2005	12/8/2005	12/8/2005	12/13/2005	12/13/2005	12/13/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/8/2005	12/12/2005	12/12/2005	12/7/2005	12/8/2005	12/8/2005
Sample Analyzed Date			5/12/1997	12/29/2005	12/24/2005	12/24/2005	12/22/2005	12/29/2005	12/26/2005	12/26/2005	12/25/2005	12/24/2005	12/22/2005	12/22/2005	12/24/2005	12/23/2005	12/24/2005	12/29/2005	12/24/2005	12/24/2005	12/24/2005
Sample Depth (bgs)			15.5' - 18' (deep)	(12-14)	(45-48)	(12-14")	(45-48")	(12-14)	(45-48)	(12-14)	(12-14")	(45-48")	(12-14")	(45-48")	(12-14")	(45-48")	(12-14)	(45-48)	1(12-14)	(12-14")	(45-48")
Sampling Method			Mud Rotary	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			Sand and Gravel	Asphault	Asphault	Asphault	Asphault	Grass	Grass	Grass	Asphault	Asphault	Grass	Grass	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Asphault	Asphault	Asphault
Sample Field Observations			Dark Gray Fine Sandy Silt, Plant Fragments; OVA reading not collected																		
	Chloromethane	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Bromomethane	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Vinyl Chloride	200	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Chloroethane	1900	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Methylene Chloride	100	13 UJ	12 B	11.4 B	51.1 B	62.6 B	18.7 B	16 B	12.1 B	19 B	77.6 B	56.4 B	55.9 B	49.6 B	34 B	10.5 JB	17.6 B	26 B	9.19 JB	10.5 JB
	Acetone	200	26 J	10.5 U	11 U	11.5 U	81.5	13.7 U	11.6 U	11.9 U	34.8	57.5	66	42.2	12 U	19.8	11.1 U	11.1 U	41	28.1	63.1
	Carbon Disulfide	2700	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	1,1-Dichloroethene	400	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	1,1-Dichloroethane	200	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	1,2-Dichloroethene (total)	300	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Chloroform	300	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	1,2-Dichloroethane	100	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	2-Butanone	300	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	1,1,1-Trichloroethane	800	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Carbon Tetrachloride	600	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
Volatile Organics (ppb)	Bromodichloromethane	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	1,2-Dichloropropane	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
Allowable Holding Time: 10 days	cis-1,3-Dichloropropene	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Trichloroethene	700	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Dibromochloromethane	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	1,1,2-Trichloroethane	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Benzene	60	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	2.39 J	10 U	11.1 U	10.9 U
	trans-1,3-Dichloropropene	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Bromoform	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	4-Methyl-2-Pentanone	1000	13 UJ	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2-Hexanone	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Tetrachloroethene	1400	13 UJ	10.5 U	11 U	5.64 J	48.9	13.7 U	11.6 U	11.9 U	10.3 J	31.7	11.8	6.93 J	11.5 J	2.43 J	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	1,1,2,2-Tetrachloroethane	600	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Toluene	1500	13 UJ	9.84 J	11 U	19.9	82.8	13.7 U	4.84 J	2.89 J	24.3	46.7	35.5	19.5	27.6	2.99 J	2.57 J	16.3	10 U	3.6 J	7.29 J
	Chlorobenzene	1700	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Ethylbenzene	5500	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	1.92 J	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Styrene	NL	13 UJ	10.5 U	11 U	11.5 U	11.8 U	13.7 U	11.6 U	11.9 U	11.4 U	11.1 U	11.1 U	11.2 U	12 U	11.9 U	11.1 U	11.1 U	10 U	11.1 U	10.9 U
	Xylenes(total)	1200	13 UJ	10.5 ##	11 ##	11.5 ##	11.8 ##	13.7 ##	11.6 ##	11.9 ##	11.4 ###	11.1 ##	11.1 #	11.2 ##	24 ##	11.9 ##	11.1 ##	11.1 ##	10 ##	11.1 ##	10.9 U

Environmental
Engineers & Scientists

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Commerical (mg/kg draft)	TP104-1S	TP104-1D	TP105-1S	TP105-1D	MW6SR-SS1S	MW6SR-SS1D	MW6D-SS1	MW6D-SS1S MS	MW6D-SS1S MSD	SS9-1S	SS9-1D	SS10-1S	SS10-1D	SS11-1S	SS11-1D
Sample Date				4/4/1997	4/4/1997	4/4/1997	4/4/1997	4/23/1997	4/23/1997	5/14/1997	5/14/1997	5/14/1997	4/22/1997	4/22/1997	4/22/1997	4/24/1997	4/14/1997	4/14/1997
Sample Analyzed Date				4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/9/97 - 4/26/97	4/18/97 - 4/26/97	4/18/97 - 4/26/97	5/19/97 - 5/21/97	5/19/97 - 5/21/97	5/19/97 - 5/21/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97	4/18/97 - 4/26/97	4/18/97 - 4/26/97
Sample Depth (bgs) (type)				0" - 2" (shallow)	5' - 5.5' (deep)	0" - 2" (shallow)	5.5' - 6' (deep)	0" - 2" (shallow)	8' - 10' (deep)	11' - 14' (deep)	11' - 14' (deep)	11' - 14' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)
Sampling Method				Backhoe	Backhoe	Backhoe	Backhoe	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Mud Rotary	Mud Rotary	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Drill Rig (due to bricks)/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon
Surface Condition				Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Brick and Rock	Brick and Rock	Brick and Rock	Brick and Rock	Brick and Rock	NA	NA	NA	NA	NA	NA
Sample Field Observations				OVA = 0 ppm	Light Gray Sand, Gravel, OVA = 5 - 20 ppm	OVA = 0 ppm	Medium Browns/Gray Sand with Gravel (structural fill), OVA = 20-30 ppm	OVA = 0 ppm	Brown Clayey, Silty Sand, Gravel, OVA = 600 ppm	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand, OVA = 100 - 400	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand OVA = 100 - 400	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand OVA = 100 - 400	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected
Metals (ppm)	Aluminum	SB (33,000)		8550	9670	3700	3950	9390	11100	15900	-	-	11700	4880	12000	3650	6290	9530
	Antimony	SB (NL)		0.87 B	0.68 U	0.64 U	0.79 B	3.7 B	1.5 B	0.89 U	126.94	-	1.6 B	4.6 B	1.7 B	0.96 B	1.2 B	45.8
	Arsenic	7.5 or SB (3-12)	16	2.6	**49.8**	5.3	3.7	4.1	2.3 B	7.3	***628.47***	-	2.3	6.9	1.8 B	4.7	5.6	***11.7***
	Barium	300 or SB (15-600)	400	53.3	96.5	98.5	28.6 B	54.5	36.5 B	49.3 B	***651.82***	-	33.7 B	49.5	35.8 B	48.3	84.4	271
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***0.62*** B	***0.87*** B	***1.1***	***0.23*** U	***0.93*** B	***0.72*** B	***0.92*** B	***17.14***	-	***0.63*** B	***0.66*** B	***0.44*** B	***0.78*** B	***0.63*** B	***0.79*** B
	Cadmium	1 or SB (0.1-1)	9.3	0.21 U	0.39 B	0.21 U	0.23 U	0.49 B	0.23 U	0.3 U	***14.25***	-	0.61 B	0.28 B	**1.3**	1 B	**1.4**	**13.6**
	Calcium	SB (130 - 35,000)		23700	13200	**45800**	**50700**	29100	1230	2860	-	-	26200	28900	21100	**41100**	**85200**	**69600**
	Chromium	10 or SB (1.3 - 40)	400-800	***14.8***	***19.8***	***20.7***	9.3	***23.3***	***20.3***	***28.3***	***89.48***	-	7.1	***12.6***	8.1 E	***13.3***	***23***	**93.5**
	Cobalt	30 or SB (2.5 - 60)		12.9	14.6	8.8 B	4.5 B	11.2 J	8.6 J	10.9 B	***157.86***	-	16.4 J	6.5 J	16.6 J	4.7 J	8.7 B	12.3
	Copper	25 or SB (1-50)	270	**337**	**216**	**124**	12.4	138	14.4	***30.8***	***109.53***	-	**272**	**71.6**	**222**	***30.2***	**178**	**590**
	Iron	2,000 or SB (2,000 -550,000)		***29000***	***27400***	***12900***	***14400***	***17900***	***18900***	***28200***	-	-	***37300***	***14500***	***36400***	***8330***	***18700***	***36300***
Allowable Holding Time:	Lead	400	1000	72.8	115	247	11.7	96.4	8.6	60.1	202.95	-	34.8	103	38.8	128	191	**2070**
6 months	Magnesium	SB (100-5000)		**9080**	2530	**15500**	3120	**12600**	2800	**5920**	-	-	**12500**	**5070**	**8930**	**7480**	**33400**	**26800**
28 days for Hg	Manganese	SB (50-5000)	15000	223	224	192	304	264	870	412	553.1	-	274	141	277	115	254	380
12 days for CN	Mercury	0.1	2.8	0.1 U	**0.41**	0.1 U	**0.12** U	**0.76**	**0.12** U	**0.67**	**1.4**	-	**0.11** U	**0.11** U	0.1 U	**0.11** U	**0.21**	**1.9**
	Nickel	13 or SB (0.5-25)	310	***23.4*** J	**28.7** J	**38.4** J	12.9 J	**27.1**	***17.2***	***24***	***170.83***	-	***13.5***	12	***13.1***	***14.2***	**31.1**	**90.6**
	Potassium	SB (8,500-43,000)		849 B	995 B	633 B	549 B	1320 J	1250 J	3250	-	-	1120 J	560 J	1110 J	621 J	1210 J	964 J
	Selenium	2 or SB (0.1-3.9)	1500	1.6 J	1.5 J	0.86 J	0.93 J	1.1	0.94 U	1.2 U	***599.88***	-	0.84 U	***2.3***	0.82 U	1.9	0.88 U	0.92 U
	Silver	SB (NL)	1500	0.21 U	0.23 U	0.23 B	0.23 U	0.21 U	0.23 U	0.4 B	15.07	-	0.21 U	0.22 U	0.2 U	0.23 U	0.57 B	45.9
	Sodium	SB (6,000-8,000)		**11901**	388 B	467 B	262 B	786 B	689 B	2130	-	-	1750	929 B	**1730**	421 B	954 J	1150 J
	Thallium	SB (NL)		1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.5 U	614.62	-	1.1 U	1.8 B	1 U	1.1 U	1.1 U	1.2 U
	Vanadium	150 or SB (1-300)		44.7	26.9	**21**	9.3 B	26.9	29.3	38.6	192.45	-	61.8	24.2	71.5	16.7	46.3	62.8
	Zinc	20 or SB (9-50)	89,000	**322**	**215**	**689**	***35.9***	**289** J	***43.5*** J	**80.7**	***239.8***	-	**115** J	**125** J	**273** J	**95.8** J	**439**	**1830**
	Cyanide	NL	27	0.35 U	0.38 U	0.37 U	0.4 U	0.46 U	0.53 U	0.68 U	7.61	-	0.48 U	0.52 U	0.48 U	0.52 U	0.48 U	0.51 U

Appendix 2 (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Commerical (mg/kg draft)	SS12-1S	SS12-1D	SS9-1S MS	SS9-1S MSD	SSI-MW6-1-SB1-12-14	SSI-MW6-1-SB2-21-24	SSI-MW6-1-SB2-21-24-DUP	SSI-MW6-1-SB3-45-48	SSI-MW6-1-SB4-72-75	SSI-MW6-1-SB4-72-75-DS	SSI-MW6-1-SB4-72-75-MS	SSI-MW6-1-SS-0-3	SSI-MW6-1-SS-0-3-DUP	SSI-MW6-2-45-48	SSI-MW6-2-72-75
Sample Date				4/14/1997	4/14/1997	4/22/1997	4/22/1997	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05
Sample Analyzed Date				4/18/97 - 4/26/97	4/18/97 - 4/26/97	5/3/97 - 5/14/97	5/3/97 - 5/14/97	12/22/2005	12/22/2005	12/20/2005	12/22/2005	12/20/2005	12/29/2005	12/24/2005	12/23/2005	12/23/2005	12/21/2005	12/23/2005
Sample Depth (hgs) (type)				0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	0" - 3" (shallow)	12-14	21-24	21-24	45-48	72-75	72-75	72-75	0-3	0-3	45-48	72-75
Sampling Method				Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				NA	NA	NA	NA	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations				Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected											
Metals (ppm)	Aluminum	SB (33,000)		8130	8570	-	-	1000 J	640 J	1200 J	5200	6400 J	7100 J	7100 J	5600 U	2200 J	6300 J	5000 J
	Antimony	SB (NL)		0.84 B	0.63 U	98.03	-	1.2	1.5	2.1	79	1.4 J	13	13	13	0.58 J	0.47	0.74
	Arsenic	7.5 or SB (3-12)	16	4.3	4.4	***410.67***	-	**17**	**17** J	**24** J	***12***	2.1 J	***9.9***	***11***	3.5 J	1.1 J	***7.4***	3.3 J
	Barium	300 or SB (15-600)	400	***383***	179	**440.65**	-	47 J	10 J	25 J	150	42 J	***510***	***510***	27 J	12 J	94 J	36 J
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***0.56*** B	**2.3**	***10.92***	-	***0.21*** J	***0.31*** J	***0.24*** J	**2.6**	***0.48*** U	**11**	**12**	***0.26*** J	0.11 J	***0.45*** U	***0.33*** J
	Cadmium	1 or SB (0.1-1)	9.3	0.21 U	0.21 U	***10.1***	-	0.28	0.16 J	0.26	**2.2**	1.1 J	**10** J	**10** J	0.19	0.061	**1.1**	0.2
	Calcium	SB (130 - 35,000)		22900	19900	-	-	2200	560	1400	35000	520	610	980	33000	**72000**	1500	**44000**
	Chromium	10 or SB (1.3 - 40)	400-800	***24.3***	**68.9**	***45.14***	-	5.9 J	3.7 J	8.6 J	**100**	**16** J	69	**61**	6.4 J	5.7 J	**17** J	**19** J
	Cobalt	30 or SB (2.5 - 60)		8.3 B	24	***108.54***	-	2.7	1.8	4.6	28	6.2	**120**	**120**	9.8	4.3	4.6	4.9
	Copper	25 or SB (1-50)	270	**80.8**	**272**	***319.35***	-	**45**	**41**	59	**1500**	**41**	**84**	**84**	**150**	**41**	56	**33**
	Iron	2,000 or SB (2,000 -550,000)		***19100***	***23400***	-	-	***9000***	***14000***	***12000***	***68000***	***13000***	***12000***	***12000***	***22000***	***12000***	***25000***	***11000***
Allowable Holding Time:	Lead	400	1000	367	295	128.28	-	31 J	12 J	61 J	**1100**	17	13	15	37	12	150	29
6 months	Magnesium	SB (100-5000)		3990	**6160**	-	-	320	56	190	**17000**	2000	2200	2300	**18000**	**40000**	1400	**16000**
28 days for Hg	Manganese	SB (50-5000)	15000	337	309	363.9	-	32	13 U	26 U	420	100 U	210	210	170 U	140 U	330	210 U
12 days for CN	Mercury	0.1	2.8	**0.2**	**0.11** U	**0.58**	-	**0.31** J	0.13 J	0.13	**0.92**	0.11	**0.45**	**0.59**	**0.11**	**0.11** J	**0.13**	**0.11**
	Nickel	13 or SB (0.5-25)	310	**44.3**	**126**	***106.68***	-	7.8 J	5.2 J	13 J	**210** J	***19*** J	**130** J	**130** J	11 J	7.1 J	***15*** J	9.9 J
	Potassium	SB (8,500-43,000)		913 J	1080 J	-	-	280 J	250 J	200 J	460 J	830 J	920	890	600 J	430 J	690 J	770 J
	Selenium	2 or SB (0.1-3.9)	1500	0.83 U	0.85 U	***381.89***	-	**3.3** U	3 U	3.2 U	***3.8*** J	1.3 U	**11**	**11**	1.6 U	0.75 J	2.1 U	0.85 U
	Silver	SB (NL)	1500	0.21 U	0.38 B	8.74	-	2.2	2.6	2.6	2.5	2.3	9.7	9.7	2.2	0.3 J	2.2 J	2.1
	Sodium	SB (6,000-8,000)		558 J	759 J	-	-	470 U	1200 U	560 U	580 U	790 U	650	800	870 U	410 U	370 U	500 U
	Thallium	SB (NL)		1 U	1.1 U	405.45	-	5.6 J	6.4 J	6.5 J	6.6	5.7	10	10	5.4	5.6	5.5	5.3
	Vanadium	150 or SB (1-300)		26.6	38.1	160.19	-	7.7	6.4	8.4	***230***	22	130	130	29	24	19	26
	Zinc	20 or SB (9-50)	89,000	**414**	**800**	***204.98***	-	**94**	***30***	**180**	**3800**	**110**	**140**	**160**	**180**	***33***	**110**	***49***
	Cyanide	NL	27	0.45 U	0.47 U	5.33	-	0.6 U	NM	NM	0.66 U	NM	NM	NM	NM	NM	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Commerical (mg/kg draft)	SSI-MW6-2-SB1-12-14	SSI-MW6-2-SB1-21-24	SSI-MW6-2-SS-6-9	SSI-MW6-3-SB1-12-14	SSI-MW6-3-SB2-21-24	SSI-MW6-3-SB3-45-48	SSI-MW6-3-SB4-72-75	SSI-MW6-3-SS-6-9	SSI-SS11-1-SB1(12-14)	SSI-SS11-1-SB2(21-24)	SSI-SS11-1-SS(0-3)	SSI-SS11-2-SB1(12-14)	SSI-SS11-2-SB2(21-24)	SSI-SS11-2-SS(0-3)	SSI-SS11-3-SB1(12-14)	SSI-SS11-3-SB2(21-24)
Sample Date				12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005
Sample Analyzed Date				12/22/2005	12/22/2005	12/23/2005	12/22/2005	12/29/2005	12/22/2005	12/20/2005	12/23/2005	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/22/2005	12/17/2005
Sample Depth (bgs) (type)				12-14	21-24	6-9	12-14	21-24	45-48	72-75	6-9	(12-14)	(21-24)	(0-3)	(12-14)	(21-24)	(0-3)	(12-14)	(21-24)
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations																			
Metals (ppm)	Aluminum	SB (33,000)		3500 J	2400 J	3500 J	3500 J	3000	6300 J	6800 J	3800 U	NM	NM	NM	NM	NM	NM	3500 J	NM
	Antimony	SB (NL)		0.92 J	4.5	0.66 J	1.8	26	0.59 J	0.84 J	14	NM	NM	NM	NM	NM	NM	4.7	NM
	Arsenic	7.5 or SB (3-12)	16	2.5	***10***	2.8	***7.8***	5.9	2.6	3	5.3	NM	NM	NM	NM	NM	NM	**13**	NM
	Barium	300 or SB (15-600)	400	47 J	48 J	46 J	48 J	100 J	150 J	77 J	49 J	NM	NM	NM	NM	NM	NM	72 J	NM
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	***0.31*** J	***0.8*** J	***0.24*** J	***0.68***	***0.91***	***0.43*** J	***0.48*** U	***0.27*** J	NM	NM	NM	NM	NM	NM	***0.52***	NM
	Cadmium	1 or SB (0.1-1)	9.3	0.61	0.78	0.15	**3.6**	**1.1**	0.3 J	**1.1** J	0.059	NM	NM	NM	NM	NM	NM	**2.9**	NM
	Calcium	SB (130 - 35,000)		28000	15000	**58000**	**47000**	**36000**	680	880	**42000**	NM	NM	NM	NM	NM	NM	33000	NM
	Chromium	10 or SB (1.3 - 40)	400-800	10 J	**22** J	9.3 J	**25** J	**70** J	**18** J	**20** J	**18** J	NM	NM	NM	NM	NM	NM	**14** J	NM
	Cobalt	30 or SB (2.5 - 60)		4.2	6.4	3.3	6.3	6.1	6.6	9.1	3.7	NM	NM	NM	NM	NM	NM	4.8	NM
	Copper	25 or SB (1-50)	270	**51**	**170**	23	**160**	**380**	**68**	**140**	22	NM	NM	NM	NM	NM	NM	**72**	NM
	Iron	2,000 or SB (2,000 -550,000)		***9600***	***9400***	***7300***	***20000***	***9700***	***15000***	***15000***	***18000***	NM	NM	NM	NM	NM	NM	***12000***	NM
Allowable Holding Time:	Lead	400	1000	58	160	36	120	220	31	79	85	140	**970**	39	20	49	82	150	61
6 months	Magnesium	SB (100-5000)		**9400**	1600	**29000**	**21000**	**5800**	1500	1600	**10000**	NM	NM	NM	NM	NM	NM	4600	NM
28 days for Hg	Manganese	SB (50-5000)	15000	140	93	140 U	210	140	140 U	260 U	210 U	NM	NM	NM	NM	NM	NM	120	NM
12 days for CN	Mercury	0.1	2.8	**0.12**	**0.55**	**0.11**	**0.26**	**2.8**	**0.11**	**0.11**	**0.11**	NM	NM	NM	NM	NM	NM	0.27	NM
	Nickel	13 or SB (0.5-25)	310	11 J	***21*** J	9 J	***24*** J	**32** J	12 J	***14*** J	12 J	NM	NM	NM	NM	NM	NM	17 J	NM
	Potassium	SB (8,500-43,000)		580 J	480 J	790 J	470 J	250 J	750 J	960 J	470 J	NM	NM	NM	NM	NM	NM	480 J	NM
	Selenium	2 or SB (0.1-3.9)	1500	0.92 U	2.6 U	0.76 J	1.8 U	1.6 J	1.6 U	1.9 U	0.92 U	NM	NM	NM	NM	NM	NM	***3.7*** J	NM
	Silver	SB (NL)	1500	2 J	2.2 J	0.47	2.1 J	0.55 J	2.1 J	2.2 J	2.2 J	NM	NM	NM	NM	NM	NM	1.1 J	NM
	Sodium	SB (6,000-8,000)		330 U	410 U	680 U	280 U	170 U	110 U	160 U	220 U	NM	NM	NM	NM	NM	NM	270 U	NM
	Thallium	SB (NL)		5	5.6	5.1	5.3	5.3	5.2	5.6	5.6	NM	NM	NM	NM	NM	NM	5.4	NM
	Vanadium	150 or SB (1-300)		17	19	19	23	22	31	24	20	NM	NM	NM	NM	NM	NM	17	NM
	Zinc	20 or SB (9-50)	89,000	**98**	**280**	**62**	**510**	**670**	**110**	**520**	**64**	NM	NM	NM	NM	NM	NM	**160**	NM
	Cyanide	NL	27	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1.2	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Commerical (mg/kg draft)	SSI-SS11-3-SB2(21-24)DUP	SSI-SS11-3-SB3(45-48)	SSI-SS11-3-SB3(45-48)DS	SSI-SS11-3-SB3(45-48)MS	SSI-SS11-3-SS(0-3)	SSI-SS11-4-SB1(12-14)	SSI-SS11-4-SB1(12-14)DUP	SSI-SS11-4-SB2(21-24)	SSI-SS11-4-SB2(21-24)DS	SSI-SS11-4-SB2(21-24)MS	SSI-SS11-4-SS(0-3)	SSI-SS11-5-SB1(12-14)	SSI-SS11-5-SB2(21-24)	SSI-SS11-5-SB3(45-48)	SSI-SS11-5-SB4(72-75)	SSI-SS11-5-SS(0-3)
Sample Date				12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005
Sample Analyzed Date				12/17/2005	12/19/2005	12/19/2005	12/19/2005	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/23/2005	12/29/2005	12/29/2005	12/23/2005	12/23/2005
Sample Depth (bgs) (type)				21-24	(45-48)	45-48	45-48	(0-3)	(12-14)	12-14	(21-24)	21-24	21-24	(0-3)	(12-14)	(21-24)	(45-48)	(72-75)	(0-3)
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations																			
Metals (ppm)	Aluminum	SB (33,000)		NM	7300 J	7000	7300	NM	NM	NM	NM	NM	NM	NM	2200 J	6900 J	8700 J	4800 J	2500 J
	Antimony	SB (NL)		NM	1.3 J	14	13	NM	NM	NM	NM	NM	NM	NM	0.6 J	1.2	1	0.87	1.4
	Arsenic	7.5 or SB (3-12)	16	NM	2.9	***11***	***11***	NM	NM	NM	NM	NM	NM	NM	2.2 J	4.9	6.2	4.3	6.9 J
	Barium	300 or SB (15-600)	400	NM	48 J	***510***	***500***	NM	NM	NM	NM	NM	NM	NM	25 J	56 J	81 J	55 J	25 J
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	NM	***0.44*** J	**11**	**11**	NM	NM	NM	NM	NM	NM	NM	0.15 J	***0.44*** J	***0.46*** J	***0.29*** J	***0.27*** J
	Cadmium	1 or SB (0.1-1)	9.3	NM	0.051	**10**	10	NM	NM	NM	NM	NM	NM	NM	0.33	0.24	0.18	0.2	0.75
	Calcium	SB (130 - 35,000)		NM	**13000**	**6500**	**3200**	NM	NM	NM	NM	NM	NM	NM	**210000**	8900	15000	**97000**	**76000**
	Chromium	10 or SB (1.3 - 40)	400-800	NM	18 J	**65**	**63**	NM	NM	NM	NM	NM	NM	NM	6 J	***19*** J	***19*** J	9.8 J	***11*** J
	Cobalt	30 or SB (2.5 - 60)		NM	6.9	**120**	**120**	NM	NM	NM	NM	NM	NM	NM	3.2	8.1	8.2	4.5	4
	Copper	25 or SB (1-50)	270	NM	23	**90**	**84**	NM	NM	NM	NM	NM	NM	NM	20	***30***	***28***	***28***	***42***
	Iron	2,000 or SB (2,000 -550,000)		NM	***18000***	***68000***	***17000***	NM	NM	NM	NM	NM	NM	NM	***7600***	***16000***	***19000***	***11000***	***8300***
Allowable Holding Time:	Lead	400	1000	100	**1200**	16	17	82	66	36	94	83	150	32	15	42	61	64	51
6 months	Magnesium	SB (100-5000)		NM	3100	2700	2800	NM	NM	NM	NM	NM	NM	NM	**6800**	2600	4100	**15000**	**39000**
28 days for Hg	Manganese	SB (50-5000)	15000	NM	400 U	1900	520	NM	NM	NM	NM	NM	NM	NM	190	420	270	150	130
12 days for CN	Mercury	0.1	2.8	NM	**0.11**	**0.53**	**0.52**	NM	NM	NM	NM	NM	NM	NM	**0.26**	**0.15**	**0.16**	**0.17**	**0.14**
	Nickel	13 or SB (0.5-25)	310	NM	***15***	**130**	**130**	NM	NM	NM	NM	NM	NM	NM	8.5 J	***23*** J	***19***	11	***14*** J
	Potassium	SB (8,500-43,000)		NM	1400 J	1300	1200	NM	NM	NM	NM	NM	NM	NM	710 J	980 J	2300 J	1200 J	460 J
	Selenium	2 or SB (0.1-3.9)	1500	NM	1.7 U	**11**	11	NM	NM	NM	NM	NM	NM	NM	0.57 J	1.8 U	2.2 U	1.2 J	0.87 J
	Silver	SB (NL)	1500	NM	2.2 J	9.5 J	10 J	NM	NM	NM	NM	NM	NM	NM	1.4 J	2.2 J	2.3 J	0.68 J	0.63 J
	Sodium	SB (6,000-8,000)		NM	240 J	210	250	NM	NM	NM	NM	NM	NM	NM	110 U	110 J	160 U	200 U	170 U
	Thallium	SB (NL)		NM	1.1	14	12	NM	NM	NM	NM	NM	NM	NM	5.1	0.79	5.7	4.8	5.2
	Vanadium	150 or SB (1-300)		NM	29	130	130	NM	NM	NM	NM	NM	NM	NM	12	29	23	18	18
	Zinc	20 or SB (9-50)	89,000	NM	***35***	**170**	**150**	NM	NM	NM	NM	NM	NM	NM	**77**	**75**	**92**	**83**	**140**
	Cyanide	NL	27	NM	0.55 U	2.4	2.6	NM	NM	NM	NM	NM	NM	NM	0.56 U	NM	5.6	NM	NM

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Commerical (mg/kg draft)	SSI-SS9-1-SB1-12-14	SSI-SS9-1-SB2-21-24	SSI-SS9-1-SB3-45-48	SSI-SS9-1-SB4-72-75	SSI-SS9-1-SS-6-9	SSI-SS9-2-SB1-12-14	SSI-SS9-2-SB2-21-24	SSI-SS9-2-SB3-45-48	SSI-SS9-2-SB4-72-75	SSI-SS9-2-SS-6-9	SSI-SS9-3-SB1-12-14	SSI-SS9-3-SB2-21-24	SSI-SS9-3-SB3-45-48	SSI-SS9-3-SB4-72-75	SSI-SS9-3-SS-6-9
Sample Date				12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005
Sample Analyzed Date				12/22/2005	12/21/2005	12/21/2005	12/22/2005	12/22/2005	12/29/2005	12/29/2005	12/22/2005	12/20/2005	12/23/2005	12/19/2005	12/19/2005	12/29/2005	12/21/2005	12/24/2005
Sample Depth (bgs) (type)				12-14	21-24	45-48	72-75	6-9	12-14	21-24	45-48	72-75	6-9	12-14	21-24	45-48	72-75	6-9
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations																		
Metals (ppm)	Aluminum	SB (33,000)		6400 J	7100 J	4000 J	5300 U	9100 J	870 J	2600 J	2200 U	4100 J	8000 U	540 J	1300 J	9000 J	570 J	1300 J
	Antimony	SB (NL)		3.3	4.3	1 J	13	0.59	0.64	0.48 J	14	1.3 J	14 J	0.59 J	0.68	0.87	0.4 J	0.76
	Arsenic	7.5 or SB (3-12)	16	5.8	3.4	3 J	***7***	**22** J	***8.2*** J	2.5 J	**170**	3.3	2.9 J	3.2 J	3.1 J	**47**	2.8 J	5.9 J
	Barium	300 or SB (15-600)	400	97	58	36 J	69 J	28 J	24 J	40 J	95 J	71 J	23 J	28 J	40 J	56 J	37 J	18 J
	Beryllium	0.16 (HEAST) or SB (0-1.75)	590	5.1 J	***1.5*** J	***0.2*** U	***0.31*** J	***0.38*** J	***0.24*** J	***0.29*** J	0.14 J	***0.27*** J	***0.18*** J	***0.36*** J	0.39 J	***0.85*** J	0.33 J	0.29 J
	Cadmium	1 or SB (0.1-1)	9.3	0.53	0.16	1.1	0.37	0.65	0.21	0.14	0.44	0.11	0.12	0.11	0.18	0.55	0.081	0.18
	Calcium	SB (130 - 35,000)		23000	**54000**	**48000**	6400	16000	4400	**39000**	10000	6500	18000	2500	16000	15000	3100	**93000**
	Chromium	10 or SB (1.3 - 40)	400-800	***38***	**52**	5.6 J	***14*** J	***22*** J	4.8 J	6.3 J	***12*** J	***12*** J	5.9	7.3 J	***23*** J	***24*** J	4.4 J	7.3 J
	Cobalt	30 or SB (2.5 - 60)		23	13	3.5	9.8	8.2	2.5	1.8	7.7	7.4	12	1.9	2.3	9.4	2	3
	Copper	25 or SB (1-50)	270	**270**	**150**	14	**57**	**62**	19	9.7	**70**	**110**	**190**	***30***	25	**200**	17	***33***
	Iron	2,000 or SB (2,000 -550,000)		***21000***	***14000***	***6700***	***27000***	***22000***	***5900***	***4300***	***25000***	***17000***	***28000***	***4400***	***5300***	***18000***	***3400***	***6500***
Allowable Holding Time:	Lead	400	1000	**1400**	140	4.4	210	55	41 J	46	210 J	130	27	65 J	210 J	130	56 J	35
6 months	Magnesium	SB (100-5000)		3300	3500	1600	2500	**11000**	340	1100	900	1700	**9600**	890	630	1800	250	**56000**
28 days for Hg	Manganese	SB (50-5000)	15000	280	230	120 U	490	370 U	29	60 U	54	330	180 U	21 U	41 U	81	16 U	110 U
12 days for CN	Mercury	0.1	2.8	**0.24**	**0.12**	**0.11** J	**0.46**	0.1	**0.12** J	**0.11** J	**0.57**	**0.35**	**0.11**	**0.11** J	**0.11** J	**0.27**	**0.11** J	**0.11** J
	Nickel	13 or SB (0.5-25)	310	**79** J	**94** J	6.7 J	***17*** J	***25*** J	5.5 J	4.3 J	***15*** J	***20*** J	10 J	5.1 J	5.6 J	**30** J	4.6 J	8.5 J
	Potassium	SB (8,500-43,000)		710 J	550 J	260 J	880 J	520 J	260 J	210 J	910 J	650 J	900 J	210 J	250 J	680 J	190 J	310 J
	Selenium	2 or SB (0.1-3.9)	1500	2 U	1.4 J	0.93 J	2.3 U	1.6 U	2.3 U	1 U	7.5 U	1.9 U	1.9 U	2.7 U	2.2 U	2.1 U	2.5 U	1 J
	Silver	SB (NL)	1500	2.2	0.3	0.26	2.2	2.1 J	2.1	2	2.3	2.2	2.2	2.2 J	2.1 J	2.2 J	2 J	0.26 J
	Sodium	SB (6,000-8,000)		1500 U	2400 U	530 U	1900 J	210 J	580 U	530 U	980 J	1400 U	2000 U	210 U	170 U	260 U	180 U	290 U
	Thallium	SB (NL)		5.4	5.6	5.6	1.2	0.96	5.3 J	5 J	0.71 J	5.6	5.6	5.5 J	5.2 J	5.6	5 J	5.5 J
	Vanadium	150 or SB (1-300)		21	14	11	18	20	8.1	9.2	10	13	32	8	9.1	23	8.1	8.6
	Zinc	20 or SB (9-50)	89,000	**1600**	**720**	***22***	**110**	**130**	***48***	19	***26***	**100**	**100**	**65**	***43***	**70**	**25**	**100**
	Cyanide	NL	27	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

Appendix (Continued
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	TP104-1S	TP104-1D	TP105-1S	TP105-1D	MW6SR-SS1S	MW6SR-SS1D	MW6D-SS1	MW6D-SS1S MS	MW6D-SS1S MSD	SS9-1S	SS9-1D	SS10-1S	SS10-1D	SS11-1S	SS11-1D
Sample Date			4/4/1997	4/4/1997	4/4/1997	4/4/1997	4/23/1997	4/23/1997	5/14/1997	5/14/1997	5/14/1997	4/22/1997	4/22/1997	4/22/1997	4/24/1997	4/14/1997	4/14/1997
Sample Analyzed Date			4/16/1997	4/16/1997	4/16/1997	4/16/1997	4/28/1997	4/28/1997	5/16/1997	5/16/1997	5/16/1997	4/28/1997	4/28/1997	4/28/1997	5/7/1997	4/20/1997	4/20/1997
Sample Depth (bgs)			0" - 2" (shallow)	5' - 5.5' (deep)	0" - 2" (shallow)	5.5' - 6' (deep)	0" - 2" (shallow)	8' - 10' (deep)	11' - 14' (deep)	11' - 14' (deep)	11' - 14' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)
Sampling Method			Backhoe	Backhoe	Backhoe	Backhoe	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Mud Rotary	Mud Rotary	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Drill Rig (due to bricks)/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon
Surface Condition			Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Brick and Rock	Brick and Rock	Brick and Rock	Brick and Rock	Brick and Rock	NA	NA	NA	NA	NA	NA
Sample Field Observations			OVA = 0 ppm	Light Gray Sand, Gravel, OVA = 5 - 20 ppm	OVA = 0 ppm	Medium Browns/Gray Sand with Gravel (structural fill), OVA = 20-30 ppm	OVA = 0 ppm	Brown Clayey, Silty Sand, Gravel, OVA = 600 ppm	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand, OVA = 100 - 400 ppm	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand OVA = 100 - 400 ppm	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand OVA = 100 - 400 ppm	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected
Pesticide Organics (ppb)	alpha -BHC	110	1.8 U	1.9 U	1.8 U	2 U	1.8 U	2 U	2.5 U	1.7 U	1.7 U	1.8 U	1.9 UJ	1.8 U	1.9 U	1.9 U	2 U
	beta-BHC	200	1.8 U	1.9 U	1.8 U	2 U	1.8 U	2 U	2.5 U	1.7 U	1.7 U	1.8 U	1.9 UJ	1.8 U	1.9 U	1.9 U	2 U
	delta-BHC	300	1.8 U	1.9 U	1.8 U	2 U	1.8 U	2 U	2.5 U	1.7 U	1.7 U	1.8 U	1.9 UJ	1.8 U	1.9 U	1.9 U	2 U
	gamma-BHC (Lindane)	6	1.8 U	1.9 U	1.8 U	2 U	1.8 U	2 U	2.5 U	14	15	1.8 U	1.9 UJ	1.8 U	1.9 U	1.9 U	2 U
	Heptachlor	100	1.8 U	1.9 U	1.8 U	2 U	1.8 U	2 U	2.5 U	14	14	1.8 U	1.9 UJ	1.8 U	1.9 U	1.9 U	2 U
	Aldrin	41	1.8 U	1.9 U	0.42 J	2 U	R	2 U	2.5 U	15	16	1.8 U	6.5 UJ	1.8 U	3.3	1.9 U	R
	Heptachlor epoxide	20	1.8 U	1.9 U	1.8 U	2 U	1.8 U	2 U	2.5 U	1.7 U	1.7 U	1.8 U	1.9 UJ	1.8 U	1.9 U	1.9 U	2 U
	Endosulfan I	900	1.8 U	1.9 U	1.8 U	2 U	1.8 U	2 U	2.5 U	1.7 U	1.7 U	1.8 U	1.9 UJ	1.8 U	1.9 U	1.9 U	2 U
	Dieldrin	44	3.5 U	3.8 U	3.6 U	3.9 U	3.6 U	4 U	5.1 U	30	31	3.6 U	3.8 UJ	3.5 U	3.8 U	3.7 U	3.9 U
	4,4' - DDE	2100	3.5 U	3.8 U	3.6 U	3.9 U	3.6 U	4 U	5.1 U	3.3 U	3.3 U	3.6 U	3.8 UJ	3.5 U	3.3 J	3.7 U	3.9 U
	Endrin	100	3.5 U	3.8 U	3.6 U	3.9 U	3.6 U	4 U	5.1 U	29	29	3.6 U	3.8 UJ	3.5 U	3.8 U	3.7 U	3.9 U
	Endosulfan II	900	3.5 U	3.8 U	3.6 U	3.9 U	3.6 U	4 U	5.1 U	3.3 U	3.3 U	3.6 U	3.8 UJ	3.5 U	3.8 U	3.7 U	3.9 U
	4,4' - DDD	2900	3.5 U	3.8 U	3.6 U	3.9 U	3.6 U	4 U	5.1 U	3.3 U	3.3 U	3.6 U	3.8 UJ	3.5 U	3.8 U	3.7 U	3.9 U
	Endosulfan sulfate	1000	3.5 U	3.8 U	3.6 U	3.9 U	3.6 U	4 U	5.1 U	3.3 U	3.3 U	3.6 U	3.8 UJ	3.5 U	3.8 U	3.7 U	3.9 U
	4,4' - DDT	2100	3.5 U	3.8 U	3.6 U	3.9 U	3.6 U	4 U	5.1 U	28	30	3.6 U	3.8 UJ	3.5 U	3.8 U	3.7 U	3.9 U
	Methoxychlor	NL	18 U	19 U	18 U	20 U	18 U	20 U	25 U	17 U	17 U	18 U	19 UJ	18 U	19 U	19 U	20 U
	Endrin ketone	NL	3.5 U	3.8 U	3.6 U	3.9 U	3.6 U	4 U	5.1 U	3.3 U	3.3 U	3.6 U	3.8 UJ	3.5 U	3.8 U	3.7 U	3.9 U
	Endrin aldehyde	NL	3.5 U	3.8 U	3.6 U	3.9 U	3.6 U	4 U	5.1 U	3.3 U	3.3 U	3.6 U	3.8 UJ	3.5 U	3.8 U	3.7 U	3.9 U
	alpha - Chlordane	NL	1.8 U	1.9 U	1.8 U	2 U	1.8 U	2 U	2.5 U	1.7 U	1.7 U	1.8 U	1.9 UJ	1.8 U	1.9 U	1.9 U	2 U
	gamma - Chlordane	540	1.8 U	1.9 U	1.8 U	2 U	1.8 U	2 U	2.5 U	1.7 U	1.7 U	1.8 U	1.9 UJ	1.8 U	1.9 U	1.9 U	2 U
	Toxaphene	NL	180 U	190 U	180 U	200 U	180 U	200 U	250 U	170 U	170 U	180 U	190 UJ	180 U	190 U	190 U	200 U
Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	35 U	38 U	36 U	39 U	36 U	40 U	51 U	33 U	33 U	36 U	38 UJ	35 U	38 U	37 U	39 U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	70 U	76 U	72 U	78 U	72 U	79 U	100 U	67 U	67 U	72 U	77 UJ	71 U	77 U	74 U	78 U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	35 U	38 U	36 U	39 U	36 U	40 U	51 U	33 U	33 U	36 U	38 UJ	35 U	38 U	37 U	39 U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	35 U	38 U	36 U	39 U	36 U	40 U	51 U	33 U	33 U	36 U	38 UJ	35 U	38 U	37 U	39 U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	35 U	38 U	36 U	39 U	36 U	40 U	51 U	33 U	33 U	36 U	38 UJ	35 U	38 U	37 U	39 U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	35 U	38 U	36 U	39 U	36 U	40 U	51 U	33 U	33 U	36 U	38 UJ	35 U	38 U	37 U	39 U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	35 U	38 U	36 U	39 U	36 U	40 U	51 U	33 U	33 U	36 U	38 UJ	35 U	38 U	37 U	39 U

Appendix (Continued
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	SS12-1S	SS12-1D	SS9-1S MS	SS9-1S MSD	SSI-MW6-1-SB1-12-14	SSI-MW6-1-SB3-45-48	SSI-SS11-3-SB1(12-14)	SSI-SS11-3-SB3(45-48)	SSI-SS11-3-SB3(45-48)DS	SSI-SS11-3-SB3(45-48)MS	SSI-SS9-1-SB1-12-14	SSI-SS9-1-SB3-45-48
Sample Date			4/14/1997	4/14/1997	4/22/1997	4/22/1997	12/6/2005	12/6/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/6/2005	12/6/2005
Sample Analyzed Date			4/20/1997	4/20/1997	4/28/1997	4/28/1997	12/22/2005	12/22/2005	12/22/2005	12/19/2005	12/19/2005	12/19/2005	12/22/2005	12/21/2005
Sample Depth (bgs)			0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	0" - 3" (shallow)	12-14	45-48	(12-14)	(45-48)	45-48	45-48	12-14	45-48
Sampling Method			Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			NA	NA	NA	NA	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations			Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected								
	alpha -BHC	110	1.8 U	1.8 U	1.7 U	1.7 U	1.97 U	2.19 U	5.67 U	1.83 U	1.83 U	1.81 U	1.86 U	1.92 U
	beta-BHC	200	1.8 U	1.8 U	1.7 U	1.7 U	1.97 U	2.19 U	5.67 U	1.83 U	1.83 U	1.81 U	1.86 U	1.92 U
	delta-BHC	300	1.8 U	1.8 U	1.7 U	1.7 U	1.97 U	2.19 U	5.67 U	1.83 U	1.83 U	1.81 U	1.86 U	1.92 U
	gamma-BHC (Lindane)	6	1.8 U	1.8 U	**16**	**17**	1.97 U	2.19 U	5.67 U	1.83 U	**10.6**	**8.85** E	1.86 U	1.92 U
	Heptachlor	100	1.8 U	1.8 U	16	16	1.97 U	2.19 U	5.67 U	1.83 U	12.4	10.2 E	1.86 U	1.92 U
	Aldrin	41	R	1.8 U	16	17	1.97 U	2.19 U	5.67 U	1.83 U	1.83 U	1.81 U	1.86 U	1.92 U
	Heptachlor epoxide	20	1.8 U	1.8 U	1.7 U	1.7 U	1.97 U	2.19 U	5.67 U	1.83 U	11.5	9.4 E	1.86 U	1.92 U
	Endosulfan I	900	1.8 U	1.8 U	1.7 U	1.7 U	1.97 U	2.19 U	5.67 U	1.83 U	1.83 U	1.81 U	1.86 U	1.92 U
	Dieldrin	44	3.5 U	3.5 U	32	34	3.95 U	4.38 U	11.3 U	3.66 U	20.9	18 E	3.73 U	3.83 U
	4,4' - DDE	2100	11	3.5 J	3.3 U	3.3 U	9.72	4.38 U	18	3.66 U	3.66 U	3.62 U	3.73 U	3.83 U
	Endrin	100	3.5 U	3.5 U	35	33	3.95 U	4.38 U	11.3 U	3.66 U	22.3	17.8 E	3.73 U	3.83 U
	Endosulfan II	900	3.5 U	3.5 U	3.3 U	3.3 U	3.95 U	4.38 U	11.3 U	3.66 U	3.66 U	3.62 U	3.73 U	3.83 U
	4,4' - DDD	2900	46 J	8.5 J	3.3 U	1.6 J	46.6	20.1	15	3.66 U	3.66 U	3.62 U	3.73 U	3.83 U
	Endosulfan sulfate	1000	3.5 U	3.5 U	3.3 U	3.3 U	3.95 U	4.38 U	11.3 U	3.66 U	3.66 U	3.62 U	3.73 U	3.83 U
	4,4' - DDT	2100	3.5 U	3.5 U	35	26	25.6	4.38 U	17.7	3.66 U	24.5	20.1 E	15.7	3.83 U
	Methoxychlor	NL	18 U	18 U	17 U	17 U	19.7 U	21.9 U	56.7 U	18.3 U	18.3 U	18.1 U	18.6 U	19.2 U
	Endrin ketone	NL	3.5 U	3.5 U	3.3 U	3.3 U	3.95 U	4.38 U	11.3 U	3.66 U	3.66 U	3.62 U	3.73 U	3.83 U
	Endrin aldehyde	NL	3.5 U	3.5 U	3.3 U	3.3 U	3.95 U	4.38 U	11.3 U	3.66 U	5.72	3.62 U	3.73 U	3.83 U
Pesticide Organics (ppb)	alpha - Chlordane	NL	6.7 J	3	1.7 U	1.7 U	6.12	2.19 U	5.67 U	1.83 U	1.83 U	1.81 U	1.86 U	1.92 U
	gamma - Chlordane	540	1.8 U	1.8 U	1.7 U	1.7 U	6.53	2.19 U	5.67 U	1.83 U	1.83 U	1.81 U	1.86 U	1.92 U
	Toxaphene	NL	180 U	180 U	170 U	170 U	197 U	219 U	567 U	183 U	183 U	181 U	186 U	192 U
Allowable Holding Time: Extract - 14 days from collection Analyze - 40 days from extraction	Aroclor -1016	1000(surface soils)/ 10,000 (subsurface soils)	35 U	35 U	33 U	33 U	39.5 U	43.8 U	113 U	36.6 U	36.6 U	36.2 U	37.3 U	38.3 U
	Aroclor -1221	1000(surface soils)/ 10,000 (subsurface soils)	70 U	71 U	67 U	67 U	79 U	87.6 U	227 U	73.1 U	73.2 U	72.3 U	74.6 U	76.6 U
	Aroclor -1232	1000(surface soils)/ 10,000 (subsurface soils)	35 U	35 U	33 U	33 U	39.5 U	43.8 U	113 U	36.6 U	36.6 U	36.2 U	37.3 U	38.3 U
	Aroclor -1242	1000(surface soils)/ 10,000 (subsurface soils)	35 U	35 U	33 U	33 U	39.5 U	43.8 U	113 U	36.6 U	36.6 U	36.2 U	37.3 U	38.3 U
	Aroclor -1248	1000(surface soils)/ 10,000 (subsurface soils)	35 U	35 U	33 U	33 U	39.5 U	43.8 U	113 U	36.6 U	36.6 U	36.2 U	37.3 U	38.3 U
	Aroclor -1254	1000(surface soils)/ 10,000 (subsurface soils)	35 U	35 U	33 U	33 U	39.5 U	43.8 U	113 U	36.6 U	36.6 U	36.2 U	37.3 U	38.3 U
	Aroclor - 1260	1000(surface soils)/ 10,000 (subsurface soils)	35 U	35 U	33 U	33 U	433	148	1510	36.6 U	144	36.2 U	329	38.3 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Commercial (ug/kg draft)	TP104-1S	TP104-1D	TP105-1S	TP105-1D	MW6SR-SS1S	MW6SR-SS1D	MW6D-SS1	MW6D-SS1S MS	MW6D-SS1S MSD	SS9-1S	SS9-1D	SS10-1S	SS10-1D	SS11-1S	SS11-1D
Sample Date				4/4/1997	4/4/1997	4/4/1997	4/4/1997	4/23/1997	4/23/1997	5/14/1997	5/14/1997	5/14/1997	4/22/1997	4/22/1997	4/22/1997	4/24/1997	4/14/1997	4/14/1997
Sample Analyzed Date				4/10/1997	4/14/1997	4/11/1997	4/10/1997	4/25/1997	4/25/1997	5/17/1997	5/16/1997	5/16/1997	4/25/1997	4/25/1997	4/25/1997	4/30/1997	4/17/1997	4/16/1997
Sample Depth (bgs)				0" - 2" (shallow)	5' - 5.5' (deep)	0" - 2" (shallow)	5.5' - 6' (deep)	0" - 2" (shallow)	8' - 10' (deep)	11' - 14' (deep)	11' - 14' (deep)	11' - 14' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)
Sampling Method				Backhoe	Backhoe	Backhoe	Backhoe	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Mud Rotary	Mud Rotary	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Drill Rig (due to bricks)/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon
Surface Condition				Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Brick and Rock	Brick and Rock	Brick and Rock	Brick and Rock	Brick and Rock	NA	NA	NA	NA	NA	NA
Sample Field Observations				OVA = 0 ppm	Light Gray Sand, Gravel, OVA = 5 - 20 ppm	OVA = 0 ppm	Medium Browns/Gray Sand with Gravel (structural fill), OVA = 20-30 ppm	OVA = 0 ppm	Brown Clayey, Silty Sand, Gravel, OVA = 600 ppm	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand, OVA = 100 - 400	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand OVA = 100 - 400	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand OVA = 100 - 400	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected
Semi-Volatile Organics (ppb) **Allowable Holding Time:** **Extract - 5 days from collection** **Analyze - 40 days from extraction**	Phenol	30 or MDL (330)	500000	**350** UJ	**370** UJ	**350** UJ	**390** U	**360** U	**390** U	**500** U	**3300**	**3400**	**350** U	**380** U	**350** U	**380** U	**360** U	**390** U
	bis(2-Chloroethyl)ether	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	2-Chlorophenol	800		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	**3500**	**3600**	350 U	380 U	350 U	380 U	360 U	390 U
	1,2-Dichlorobenzene	7900	500000	350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	1,3-Dichlorobenzene	1600	280000	350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	80 J
	1,4-Dichlorobenzene	8500	130000	350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	**2200** U	**2300**	350 U	380 U	350 U	380 U	360 U	260 J
	2-Methylphenol	100 or MDL (330)	500000	**350** UJ	**370** UJ	**350** UJ	**390** U	**360** U	**390** U	**500** U	**500** U	**500** U	**350** U	**380** U	**350** U	**380** U	**360** U	**390** U
	2,2'-oxybis(1-Chloropropane)	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	4-Methylphenol	900	500000	350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	N-Nitroso-di-n-propylamine	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	1800 U	2400	350 U	380 U	350 U	380 U	360 U	390 U
	Hexachloroethane	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	Nitrobenzene	200 or MDL (330)		**350** UJ	**370** UJ	**350** UJ	**390** U	**360** U	**390** U	**500** U	**500** U	**500** U	**350** U	**380** U	**350** U	**380** U	**360** U	**390** U
	Isophorone	4400		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	2-Nitrophenol	330 or MDL (330)		**350** UJ	**370** UJ	**350** UJ	**390** U	**360** U	**390** U	**500** U	**500** U	**500** U	**350** U	**380** U	**350** U	**380** U	**360** U	**390** U
	2,4-Dimethylphenol	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	bis(2-Chloroethoxy)methane	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	2,4-Dichlorophenol	400		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	**500** U	**500** U	**500** U	350 U	380 U	350 U	380 U	360 U	390 U
	1,2,4-Trichlorobenzene	3400		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	2400	2400	350 U	380 U	350 U	380 U	360 U	450
	Naphthalene	13000	500000	350 UJ	71 UJ	350 UJ	390 U	61 J	390 U	500 U	500 U	500 U	350 U	190 J	350 U	590	360 U	270 J
	4-Chloroaniline	220 or MDL (330)		**350** UJ	**370** UJ	**350** UJ	**390** U	**360** U	**390** U	**500** U	**500** U	**500** U	**350** U	**380** U	**350** U	**380** U	**360** U	**390** U
	Hexachlorobutadiene	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	4-Chloro-3-methylphenol	240 or MDL (330)		**350** UJ	**370** UJ	**350** UJ	**390** U	**360** U	**390** U	**500** U	**4800**	**3600**	**350** U	**380** U	**350** U	**380** U	**360** U	**390** U
	2-Methylnaphthalene	36400		41 J	370 UJ	350 UJ	390 U	64 J	390 U	500 U	500 U	500 U	350 U	190 U	350 U	1000	200 J	180 J
	Hexachlorocyclopentadiene	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	2,4,6-Trichlorophenol	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	2,4,5-Trichlorophenol	100		**840** UJ	**910** UJ	**860** UJ	**950** U	**870** U	**950** U	**1200** U	**1200** U	**1200** U	**860** U	**920** U	**850** U	**920** U	**880** U	**940** U
	2-Chloronaphthalene	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	2-Nitroaniline	430 or MDL (800)		**840** UJ	**910** UJ	**860** UJ	**950** U	**870** U	**950** U	**1200** U	**1200** U	**1200** U	**860** U	**920** U	**850** U	**920** U	**880** U	**940** U
	Dimethylphthalate	2000		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	Acenaphthylene	41000	500000	350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	53 J	350 U	380 U	360 U	390 U
	2,6-Dinitrotoluene	1000		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	3-Nitroaniline	500 or MDL (800)		**840** UJ	**910** UJ	**860** UJ	**950** U	**870** U	**950** U	**1200** U	**1200** U	**1200** U	**860** U	**920** U	**850** U	**920** U	**880** U	**940** U
	Acenaphthene	50000	500000	350 UJ	100 UJ	350 UJ	390 U	100 J	390 U	500 U	2300	2300	350 U	370 J	350 U	140 J	360 U	930
	2,4-Dinitrophenol	200 or MDL (800)		**840** UJ	**910** UJ	**860** UJ	**950** U	**870** U	**950** U	**1200** U	**1200** U	**1200** U	**860** U	**920** U	**850** U	**920** U	**880** U	**940** U
	4-Nitrophenol	100 or MDL (800)		**840** UJ	**910** UJ	**860** UJ	**950** U	**870** U	**950** U	**1200** U	**5000**	**5000**	**860** U	**920** U	**850** U	**920** U	**880** U	**940** U
	Dibenzofuran	6200		350 UJ	45 UJ	350 UJ	390 U	61 J	390 U	500 U	500 U	500 U	350 U	250 J	350 U	260 J	360 U	520
	2,4-Dinitrotoluene	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	2400	2300	350 U	380 U	350 U	380 U	360 U	390 U
	Diethylphthalate	7100		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	4-Chlorophenyl-phenylether	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	Fluorene	50000	500000	350 UJ	88 UJ	350 UJ	390 U	100 J	390 U	500 U	500 U	500 U	350 U	440	350 U	290 J	360 U	910
	4-Nitroaniline	NL		840 UJ	910 UJ	860 UJ	950 U	870 U	950 U	1200 U	1200 U	1200 U	860 U	920 U	850 U	920 U	880 U	940 U
	4,6-Dinitro-2-methylphenol	NL		840 UJ	910 UJ	860 UJ	950 U	870 U	950 U	1200 U	1200 U	1200 U	860 U	920 U	350 U	920 U	880 U	940 U
	N-Nitrosodiphenylamine	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	4-Bromophenyl-phenylether	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 U	360 U	390 U
	Hexachlorobenzene	410		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	**500** U	**500** U	**500** U	350 U	380 U	350 U	380 U	360 U	330 J
	Pentachlorophenol	1000 or MDL (800)	6700	**840** UJ	**910** UJ	**860** UJ	**950** U	**870** U	**950** U	**1200** U	**3600**	**3500**	**860** U	**920** U	**850** U	**920** U	**880** U	**940** U
	Phenanthrene	50000	500000	56 J	490	78 J	390 U	940	390 U	500 U	52 J	500 U	350 U	4400 D	350 U	1400	130 J	6700 D
	Anthracene	50000	500000	350 UJ	170 UJ	350 UJ	390 U	220 J	390 U	500 U	500 U	500 U	350 U	1500	350 U	220 J	83 J	1800
	Carbazole	NL		350 UJ	160 UJ	350 UJ	390 U	500	390 U	500 U	500 U	500 U	350 U	**1400**	350 U	560	360 U	2800
	Di-n-butylphthalate	8100		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	2400	2400	350 U	380 U	350 U	380 U	360 U	390 U
	Fluoroanthene	50000	500000	350 UJ	530	83 J	390 U	1300	390 U	500 U	500 U	500 U	350 U	7800 E	350 U	690	360 U	4700 E
	Pyrene	50000	500000	350 UJ	540	140 J	390 U	1200	390 U	500 U	2600	2600	43 J	10200 E	350 U	1200 J	520 J	13900 E
	Butylbenzylphthalate	50000		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 UJ	360 UJ	390 UJ
	3,3'-Dichlorobenzidine	NL		350 UJ	370 UJ	350 UJ	390 U	360 U	390 U	500 U	500 U	500 U	350 U	380 U	350 U	380 UJ	360 UJ	390 UJ
	Benzo(a)anthracene	224 or MDL (330)	5600	**350** UJ	250	**350** UJ	**390** U	**620**	**390** U	**500** U	**500** U	**500** U	**350** U	**4600** E	**350** U	**370** J	50 J	**3600** E
	Chrysene	400	56000	350 UJ	280	83 J	390 U	**680**	**390** U	**500** U	500 U	500 U	350 U	**4500** E	350 U	**480** J	95 J	**3000** J
	bis(2-Ethylhexyl)phthalate	50000		75 J	370 UJ	49 J	390 U	360 U	390 U	500 U	500 U	500 U	350 U	64 J	350 U	380 UJ	130 J	390 UJ
	Di-n-octylphthalate	50000		350 UJ	370 UJ	350 UJ	390 U	360 UJ	390 U	500 U	500 U	500 U	350 UJ	380 UJ	350 U	380 UJ	360 UJ	390 UJ
	Benzo(b)fluoranthene	1100	6000	350 UJ	390	350 J	390 U	530 J	390 U	500 U	500 U	500 U	350 UJ	**4400** J	350 U	410 J	110 J	**2500** J
	Benzo(k)fluoranthene	1100	56000	350 UJ	370 UJ	89 J	390 U	600 J	390 U	500 U	500 U	500 U	350 UJ	**3300** J	350 U	370 J	110 J	**3500** E
	Benzo(a)pyrene	61 or MDL (330)	1000	**350** UJ	220 UJ	**350** J	**390** U	**530** J	**390** U	**500** U	**500** U	**500** U	**350** UJ	**3700** J	**350** U	280 J	88 J	**3000** J
	Indeno(1,2,3-cd)pyrene	3200	5600	350 UJ	69 UJ	350 UJ	390 U	140 J	390 U	500 U	500 U	500 U	350 UJ	970 J	350 U	110 J	62 J	1400 J
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	**350** UJ	**370** UJ	**350** UJ	**390** U	55 J	**390** U	**500** U	**500** U	**500** U	**350** UJ	**370** J	**350** U	**380** UJ	**360** UJ	**530** J
	Benzo(g,h,i)perylene	50000	500000	350 UJ	90 UJ	350 UJ	390 U	140 UJ	390 U	500 U	500 U	500 U	350 UJ	920 J	350 U	150 J	98 UJ	1400 J

Appendix 2 (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Commercial (ug/kg draft)	SS12-1S	SS12-1D	SS9-1S MS	SS9-1S MSD	SSI-MW6-1-SB1-12-14	SSI-MW6-1-SB2-21-24	SSI-MW6-1-SB2-21-24-DUP	SSI-MW6-1-SB3-45-48	SSI-MW6-1-SB4-72-75	SSI-MW6-1-SB4-72-75-DS	SSI-MW6-1-SB4-72-75-MS	SSI-MW6-1-SS-0-3	SSI-MW6-1-SS-0-3-DUP	SSI-MW6-2-45-48	SSI-MW6-2-72-75
Sample Date				4/14/1997	4/14/1997	4/22/1997	4/22/1997	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005
Sample Analyzed Date				4/16/1997	4/16/1997	4/25/1997	4/25/1997	12/22/2005	12/22/2005	12/20/2005	12/22/2005	12/20/2005	12/29/2005	12/24/2005	12/23/2005	12/23/2005	12/21/2005	12/23/2005
Sample Depth (bgs)				0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	0" - 3" (shallow)	12-14	21-24	21-24	45-48	72-75	72-75	72-75	0-3	0-3	45-48	72-75
Sampling Method				Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				NA	NA	NA	NA	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations				Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected											
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	**350** U	**350** U	**2100**	**2100**	396 U	444 U	438 U	438 U	378 U	3040	4590	1810 U	1870 U	111 J	1860 U
	bis(2-Chloroethyl)ether	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	2-Chlorophenol	800		350 U	350 U	**2300**	**2300**	**396** U	**444** U	**438** U	**438** U	378 U	**2710**	**4290**	1810 U	1870 U	378 U	1860 U
	1,2-Dichlorobenzene	7900	500000	350 U	350 U	360 U	360 U	12 U	NM	NM	13 U	NM	NM	NM	NM	NM	NM	NM
	1,3-Dichlorobenzene	1600	280000	350 U	350 U	360 U	360 U	12 U	NM	NM	13 U	NM	NM	NM	NM	NM	NM	NM
	1,4-Dichlorobenzene	8500	130000	350 U	350 U	1500	1500	12 U	NM	NM	13 U	NM	NM	NM	NM	NM	NM	NM
	2-Methylphenol	100 or MDL (330)	500000	**350** U	**350** U	**360** U	**360** U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	2,2'-oxybis(1-Chloropropane)	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	4-Methylphenol	900	500000	350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	148 J	1860 U
	N-Nitroso-di-n-propylamine	NL		350 U	350 U	1600	1500	396 U	444 U	438 U	438 U	378 U	1990	2670	1810 U	1870 U	378 U	1860 U
	Hexachloroethane	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	Nitrobenzene	200 or MDL (330)		**350** U	350 U	**360** U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	Isophorone	4400		350 U	350 U	360 U	360 U	396 U	444 U	438 U	56.1 J	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	2-Nitrophenol	330 or MDL (330)		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	2,4-Dimethylphenol	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	bis(2-Chloroethoxy)methane	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	2,4-Dichlorophenol	400		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	1,2,4-Trichlorobenzene	3400		350 U	350 U	1500	1500	12 U	NM	NM	13 U	NM	NM	NM	NM	NM	NM	NM
	Naphthalene	13000	500000	350 U	350 U	360 U	360 U	518	202 J	312 J	197 J	378 U	382 U	49.9 J	1810 U	1870 U	69.5 J	466 J
	4-Chloroaniline	220 or MDL (330)		350 U	350 U	**360** U	**360** U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	Hexachlorobutadiene	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	4-Chloro-3-methylphenol	240 or MDL (330)		**350** U	**350** U	**3100**	**2900**	396 U	444 U	438 U	438 U	378 U	**2600**	**4370**	1810 U	1870 U	378 U	1860 U
	2-Methylnaphthalene	36400		350 U	350 U	360 U	360 U	1200	467	714	237 J	378 U	382 U	109 J	333 J	404 J	43.4 J	1640 J
	Hexachlorocyclopentadiene	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	2,4,6-Trichlorophenol	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	2,4,5-Trichlorophenol	100		**850** U	**850** U	**860** U	**870** U	991 U	1110 U	1090 U	1100 U	945 U	955 U	967 U	4520 U	4670 U	944 U	4660 U
	2-Chloronaphthalene	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	2-Nitroaniline	430 or MDL (800)		**850** U	**850** U	**860** U	**870** U	991 U	1110 U	1090 U	1100 U	945 U	955 U	967 U	4520 U	4670 U	944 U	4660 U
	Dimethylphthalate	2000		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	Acenaphthylene	41000	500000	68 J	52 J	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	307 J	1860 U
	2,6-Dinitrotoluene	1000		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	3-Nitroaniline	500 or MDL (800)		**850** U	**850** U	**860** U	**870** U	991 U	1110 U	1090 U	1100 U	945 U	955 U	967 U	4520 U	4670 U	944 U	4660 U
	Acenaphthene	50000	500000	45 J	44 J	1500	1400	84.8 J	444 U	228 J	336 J	378 U	2370	2740	260 J	335 J	55.2 J	1860 U
	2,4-Dinitrophenol	200 or MDL (800)		**850** U	**850** U	**860** U	**870** U	991 U	1110 U	1090 U	1100 U	945 U	955 U	967 U	4520 U	4670 U	944 U	4660 U
	4-Nitrophenol	100 or MDL (800)		**850** U	**850** U	**2000**	**1600**	991 U	1110 U	1090 U	1100 U	945 U	**3520**	**4850**	4520 U	4670 U	944 U	4660 U
	Dibenzofuran	6200		37 J	350 U	360 U	360 U	370 J	94.5 J	287 J	172 J	378 U	382 U	387 U	251 J	1870 U	48.4 J	1860 U
	2,4-Dinitrotoluene	NL		350 U	350 U	640	500	396 U	444 U	438 U	438 U	378 U	2070	2650	1810 U	1870 U	378 U	1860 U
	Diethylphthalate	7100		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	4-Chlorophenyl-phenylether	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	Fluorene	50000	500000	61 J	49 J	360 U	360 U	97.9 J	444 U	214 J	265 J	378 U	382 U	387 U	457 J	449 J	90.3 J	1860 U
	4-Nitroaniline	NL		850 U	850 U	860 U	870 U	991 U	1110 U	1090 U	1100 U	945 U	955 U	967 U	4520 U	4670 U	944 U	4660 U
	4,6-Dinitro-2-methylphenol	NL		850 U	850 U	860 U	870 U	991 U	1110 U	1090 U	1100 U	945 U	955 U	967 U	4520 U	4670 U	944 U	4660 U
	N-Nitrosodiphenylamine	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	4-Bromophenyl-phenylether	NL		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	Hexachlorobenzene	410		350 U	350 U	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	Pentachlorophenol	1000 or MDL (800)	6700	**850** U	**850** U	**1800**	**1600**	991 U	1110 U	1090 U	1100 U	945 U	**4980**	**3800**	4520 U	4670 U	944 U	4660 U
	Phenanthrene	50000	500000	670	540	360 U	360 U	1180	388 J	885	1370	378 U	41.3 J	89.4 J	540 J	798 J	771	945 J
	Anthracene	50000	500000	160 J	130 J	360 U	360 U	45.6 J	444 U	122 J	344 J	378 U	382 U	387 U	228 J	265 J	179 J	1860 U
	Carbazole	NL		220 J	160 J	360 U	360 U	396 U	444 U	57.3 J	222 J	378 U	382 U	387 U	1810 U	1870 U	113 J	1860 U
	Di-n-butylphthalate	8100		350 U	350 U	1500	1500	396 U	71.9 JB	438 U	95.9 JB	378 U	382 U	118 JB	1810 U	202 JB	76.3 JB	1860 U
	Fluoranthene	50000	500000	760	590	360 U	360 U	365 J	67 J	649	2540	378 U	382 U	102 J	1660 J	2130	1700	925 J
	Pyrene	50000	500000	1600 J	1800 J	2700	2900	268 J	56.3 J	372 J	1260	378 U	2890	2200	716 J	920 J	1540	369 J
	Butylbenzylphthalate	50000		140 J	350 UJ	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	3,3'-Dichlorobenzidine	NL		350 UJ	350 UJ	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	Benzo(a)anthracene	224 or MDL (330)	5600	**450** J	**480** J	**360** U	**360** U	196 J	444 U	175 J	**911**	**378** U	**382** U	**387** U	**376** J	**484** J	**578**	298 J
	Chrysene	400	56000	**530** J	**430** J	360 U	360 U	367 J	97.6 J	305 J	**861**	378 U	382 U	80.8 J	**475** J	**712** J	**721**	**554** J
	bis(2-Ethylhexyl)phthalate	50000		150 J	180 J	470	60 J	105 JB	118 JB	165 JB	252 JB	81.2 JB	161 JB	215 JB	387 JB	804 JB	126 JB	2520 B
	Di-n-octylphthalate	50000		350 UJ	350 UJ	360 U	360 U	396 U	444 U	438 U	438 U	378 U	382 U	387 U	1810 U	1870 U	378 U	1860 U
	Benzo(b)fluoranthene	1100	6000	550 J	500 J	360 U	360 U	304 J	49.7 J	222 J	**1110**	378 U	382 U	52.2 J	459 J	651 J	**1430**	414 J
	Benzo(k)fluoranthene	1100	56000	540 J	550 J	360 U	360 U	65.4 J	444 U	57.3 J	413 J	378 U	382 U	387 U	**1810** U	241 J	343 J	**1860** U
	Benzo(a)pyrene	61 or MDL (330)	1000	**520** J	**520** J	**360** U	**360** U	**99.1** J	444 U	**103** J	**715**	**378** U	**382** U	**387** U	**372** J	**437** J	**881**	**287** J
	Indeno(1,2,3-cd)pyrene	3200	5600	220 J	230 J	360 U	360 U	68.2 J	444 U	62.6 J	374 J	378 U	382 U	387 U	1810 U	213 J	467	1860 U
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	350 U	100 J	**360** U	**360** U	**46.4** J	444 U	438 U	**112** J	378 U	382 U	387 U	1810 U	1870 U	**145** J	1860 U
	Benzo(g,h,i)perylene	50000	500000	270 J	300 J	360 U	360 U	178 J	444 U	83.1 J	403 J	378 U	382 U	387 U	1810 U	301 J	386	211 J

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Commercial (ug/kg draft)	SSI-MW6-2-SB1-12-14		SSI-MW6-2-SB1-21-24		SSI-MW6-2-SS-6-9		SSI-MW6-3-SB1-12-14		SSI-MW6-3-SB2-21-24		SSI-MW6-3-SB3-45-48		SSI-MW6-3-SB4-72-75		SSI-MW6-3-SS-6-9		SSI-SS11-3-SB1(12-14)		SSI-SS11-3-SB3(45-48)		SSI-SS11-3-SB3(45-48)DS		SSI-SS11-3-SB3(45-48)MS		SSI-SS11-5-SB1(12-14)		SSI-SS11-5-SB2(21-24)		SSI-SS11-5-SB3(45-48)		SSI-SS11-5-SB4(72-75)	
Sample Date				12/6/2005		12/6/2005		12/6/2005		12/6/2005		12/6/2005		12/6/2005		12/6/2005		12/6/2005		12/7/2005		12/7/2005		12/7/2005		12/7/2005		12/7/2005		12/7/2005		12/7/2005		12/7/2005	
Sample Analyzed Date				12/22/2005		12/22/2005		12/23/2005		12/22/2005		12/29/2005		12/22/2005		12/20/2005		12/23/2005		12/22/2005		12/19/2005		12/19/2005		12/19/2005		12/23/2005		12/29/2005		12/29/2005		12/23/2005	
Sample Depth (bgs)				12-14		21-24		6-9		12-14		21-24		45-48		72-75		6-9		12-14		5-48)		45-48		45-48		(12-14)		(21-24)		(45-48)		(72-75)	
Sampling Method				Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe		Geoprobe	
Surface Condition				Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel		Sand/Gravel	
Sample Field Observations																																			
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	1780	U	1870	U	1810	U	1150	U	387	U	362	U	42	J	1890	U	3780	U	366	U	3050		2360		1710	U	366	U	392	U	1770	U
	bis(2-Chloroethyl)ether	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	2-Chlorophenol	800		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	2940		2490		1710	U	366	U	392	U	1770	U
	1,2-Dichlorobenzene	7900	500000	NM		NM		NM		NM		NM		NM		NM		NM		11	U	11	U	11	U	11	U	11	U	NM		11	U	NM	
	1,3-Dichlorobenzene	1600	280000	NM		NM		NM		NM		NM		NM		NM		NM		11	U	11	U	11	U	11	U	11	U	NM		11	U	NM	
	1,4-Dichlorobenzene	8500	130000	NM		NM		NM		NM		NM		NM		NM		NM		11	U	11	U	11	U	11	U	11	U	NM		11	U	NM	
	2-Methylphenol	100 or MDL (330)	500000	1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	2,2'-oxybis(1-Chloropropane)	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	4-Methylphenol	900	500000	1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	N-Nitroso-di-n-propylamine	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	1810		1510		1710	U	366	U	392	U	1770	U
	Hexachloroethane	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	Nitrobenzene	200 or MDL (330)		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	Isophorone	4400		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	2-Nitrophenol	330 or MDL (330)		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	2,4-Dimethylphenol	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	bis(2-Chloroethoxy)methane	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	2,4-Dichlorophenol	400		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	1,2,4-Trichlorobenzene	3400		NM		NM		NM		NM		NM		NM		NM		NM		11	U	11	U	11	U	11	U	11	U	NM		11	U	NM	
	Naphthalene	13000	500000	244	J	1210	J	1810	U	463	J	457		1230		434		1890	U	710	J	366	U	365	U	363	U	1710	U	65.5	J	3310		1770	U
	4-Chloroaniline	220 or MDL (330)		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	Hexachlorobutadiene	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	4-Chloro-3-methylphenol	240 or MDL (330)		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	2820		2600		1710	U	366	U	392	U	1770	U
	2-Methylnaphthalene	36400		301	J	3100		1150	J	1040	J	899		3210		461		1890	U	952	J	366	U	365	U	363	U	1710	U	95.6	J	2680		1770	U
	Hexachlorocyclopentadiene	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	2,4,6-Trichlorophenol	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	2,4,5-Trichlorophenol	100		4460	U	4660	U	4520	U	2870	U	968	U	906	U	946	U	4730	U	9450	U	915	U	913	U	906	U	4280	U	915	U	980	U	4430	U
	2-Chloronaphthalene	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	2-Nitroaniline	430 or MDL (800)		4460	U	4660	U	4520	U	2870	U	968	U	906	U	946	U	4730	U	9450	U	915	U	913	U	906	U	4280	U	915	U	980	U	4430	U
	Dimethylphthalate	2000		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	Acenaphthylene	41000	500000	548	J	1870	U	273	J	155	J	68.1	J	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	173	J	74	J	389	J	1770	U
	2,6-Dinitrotoluene	1000		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	3-Nitroaniline	500 or MDL (800)		4460	U	4660	U	4520	U	2870	U	968	U	906	U	946	U	4730	U	9450	U	915	U	913	U	906	U	4280	U	915	U	980	U	4430	U
	Acenaphthene	50000	500000	210	J	291	J	1810	U	1150	U	119	J	261	J	378	U	1890	U	1120	J	366	U	2100		1820		1710	U	52.7	J	3920		1770	U
	2,4-Dinitrophenol	200 or MDL (800)		4460	U	4660	U	4520	U	2870	U	968	U	906	U	946	U	4730	U	9450	U	915	U	913	U	906	U	4280	U	915	U	980	U	4430	U
	4-Nitrophenol	100 or MDL (800)		4460	U	4660	U	4520	U	2870	U	968	U	906	U	946	U	4730	U	9450	U	915	U	2300		2370		4280	U	915	U	980	U	4430	U
	Dibenzofuran	6200		184	J	856	J	1810	U	338	J	168	J	216	J	378	U	1890	U	775	J	366	U	365	U	363	U	1710	U	60.8	J	917		1770	U
	2,4-Dinitrotoluene	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	1940		1720		1710	U	366	U	392	U	1770	U
	Diethylphthalate	7100		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	4-Chlorophenyl-phenylether	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	Fluorene	50000	500000	202	J	239	J	1810	U	118	J	110	J	337	J	39	J	1890	U	896	J	366	U	365	U	363	U	1710	U	79.5	J	2020		1770	U
	4-Nitroaniline	NL		4460	U	4660	U	4520	U	2870	U	968	U	906	U	946	U	4730	U	9450	U	915	U	913	U	906	U	4280	U	915	U	980	U	4430	U
	4,6-Dinitro-2-methylphenol	NL		4460	U	4660	U	4520	U	2870	U	968	U	906	U	946	U	4730	U	9450	U	915	U	913	U	906	U	4280	U	915	U	980	U	4430	U
	N-Nitrosodiphenylamine	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	4-Bromophenyl-phenylether	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	Hexachlorobenzene	410		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	Pentachlorophenol	1000 or MDL (800)	6700	4460	U	4660	U	4520	U	2870	U	968	U	906	U	946	U	4730	U	9450	U	915	U	2380		2300		4280	U	915	U	980	U	4430	U
	Phenanthrene	50000	500000	1850		2860		642	J	1490		1440		826		91.2	J	297	J	13900		43.2	J	81.4	J	363	U	1710	U	537		2550		287	J
	Anthracene	50000	500000	464	J	1870	U	211	J	253	J	246	J	185	J	378	U	1890	U	2320	J	366	U	365	U	363	U	1710	U	206	J	924		1770	U
	Carbazole	NL		260	J	1870	U	1810	U	1150	U	170	J	104	J	79.4	J	1890	U	1580	J	366	U	365	U	363	U	1710	U	50.5	J	251	J	1770	U
	Di-n-butylphthalate	8100		350	JB	1870	U	463	JB	164	JB	62.3	JB	88	JB	57.9	JB	1890	U	3780	U	80.2	J	49.7	J	57.3	J	1710	U	70.3	J	57.6	J	1770	U
	Fluoranthene	50000	500000	3860		1160	J	1340	J	1630		3380		839		118	J	1050	J	23500		56	J	109	J	42.1	J	2530		1190		3370		833	J
	Pyrene	50000	500000	2100		558	J	517	J	877	J	1660		450		117	J	511	J	19000		60.8	J	2790		2570		1250	J	807		2550		569	J
	Butylbenzylphthalate	50000		1780	U	1870	U	1810	U	286	J	82.1	J	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	3,3'-Dichlorobenzidine	NL		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	Benzo(a)anthracene	224 or MDL (330)	5600	1570	J	541	J	398	J	698	J	1110		226	J	102	J	390	J	9030		41.4	J	47.5	J	363	U	1580	J	572		1710		363	J
	Chrysene	400	56000	1460	J	862	J	553	J	822	J	1170		186	J	99.5	J	386	J	8520		366	U	37.3	J	363	U	1710		514		1610		344	J
	bis(2-Ethylhexyl)phthalate	50000		697	JB	244	JB	595	JB	599	JB	230	JB	109	JB	97.2	JB	594	JB	571	JB	56.4	JB	127	JB	125	JB	1710	U	59.3	JB	392	U	1000	JB
	Di-n-octylphthalate	50000		1780	U	1870	U	1810	U	1150	U	387	U	362	U	378	U	1890	U	3780	U	366	U	365	U	363	U	1710	U	366	U	392	U	1770	U
	Benzo(b)fluoranthene	1100	6000	1700	J	730	J	678	J	996	J	1490		227	J	118	J	524	J	11300		47.2	J	50	J	363	U	2720		671		1380		542	J
	Benzo(k)fluoranthene	1100	56000	667	J	229	J	231	J	279	J	541		95.7	J	378	U	267	J	3240	J	366	U	365	U	363	U	894	J	228	J	547		1770	U
	Benzo(a)pyrene	61 or MDL (330)	1000	1340	J	384	J	533	J	624	J	951		147	J	89.3	J	422	J	6620		40.6	J	385	U	363	U	1110	J	495		1470		367	J
	Indeno(1,2,3-cd)pyrene	3200	5600	740	J	1870	U	300	J	1150	U	592		79.3	J	378	U	1890	U	4260		366	U	365	U	363	U	883	J	278	J	532		227	J
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	266	J	1870	U	1810	U	1150	U	206	J	42.4	J	378	U	1890	U	1350	J	366	U	365	U	363	U	353	J	93.4	J	195	J	1770	U
	Benzo(g,h,i)perylene	50000	500000	792	J	364	J	280	J	1150	U	582		101	J	60.1	J	240	J	4920		366	U	365	U	363	U	960	J	333	J	573		179	J

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	NYDEC Brownfield Restricted Use Commercial (ug/kg draft)	SSI-SS11-5-SS(0-3)	SSI-SS9-1-SB1-12-14	SSI-SS9-1-SB2-21-24	SSI-SS9-1-SB3-45-48	SSI-SS9-1-SB4-72-75	SSI-SS9-1-SS-6-9	SSI-SS9-2-SB1-12-14	SSI-SS9-2-SB2-21-24	SSI-SS9-2-SB3-45-48	SSI-SS9-2-SB4-72-75	SSI-SS9-2-SS-6-9	SSI-SS9-3-SB1-12-14	SSI-SS9-3-SB2-21-24	SSI-SS9-3-SB3-45-48	SSI-SS9-3-SB4-72-75	SSI-SS9-3-SS-6-9
Sample Date				12/7/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005	12/6/2005
Sample Analyzed Date				12/23/2005	12/22/2005	12/21/2005	12/21/2005	12/22/2005	12/22/2005	12/29/2005	12/29/2005	12/22/2005	12/20/2005	12/23/2005	12/19/2005	12/19/2005	12/29/2005	12/21/2005	12/24/2005
Sample Depth (bgs)				(0-3)	12-14	21-24	45-48	72-75	6-9	12-14	21-24	45-48	72-75	6-9	12-14	21-24	45-48	72-75	6-9
Sampling Method				Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition				Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations																			
Semi-Volatile Organics (ppb) Allowable Holding Time: Extract - 5 days from collection Analyze - 40 days from extraction	Phenol	30 or MDL (330)	500000	3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	55.6 J	1890 U	378 U	370 U	377 U	365 U	1850 U
	bis(2-Chloroethyl)ether	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	2-Chlorophenol	800		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	1,2-Dichlorobenzene	7900	500000	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	1,3-Dichlorobenzene	1600	280000	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	1,4-Dichlorobenzene	8500	130000	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	2-Methylphenol	100 or MDL (330)	500000	3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	2,2'-oxybis(1-Chloropropane)	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	4-Methylphenol	900	500000	3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	N-Nitroso-di-n-propylamine	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Hexachloroethane	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Nitrobenzene	200 or MDL (330)		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Isophorone	4400		3460 U	373 U	387 U	69.8 J	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	2-Nitrophenol	330 or MDL (330)		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	2,4-Dimethylphenol	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	65.3 J	1850 U
	bis(2-Chloroethoxy)methane	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	2,4-Dichlorophenol	400		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	1,2,4-Trichlorobenzene	3400		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	Naphthalene	13000	500000	3460 U	630	156 J	249 J	8100	3530 U	512	725	19300 U	826	2790	965	593	316 J	596	750 J
	4-Chloroaniline	220 or MDL (330)		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Hexachlorobutadiene	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	4-Chloro-3-methylphenol	240 or MDL (330)		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	2-Methylnaphthalene	36400		3460 U	1770	252 J	202 J	1100 J	3530 U	1500	1950	19300 U	216 J	1890 U	2900	1990	161 J	1660	1710 J
	Hexachlorocyclopentadiene	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	2,4,6-Trichlorophenol	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	2,4,5-Trichlorophenol	100		8650 U	933 U	968 U	959 U	9470 U	8830 U	904 U	913 U	48300 U	945 U	4720 U	944 U	925 U	944 U	912 U	4620 U
	2-Chloronaphthalene	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	2-Nitroaniline	430 or MDL (800)		8650 U	933 U	968 U	959 U	9470 U	8830 U	904 U	913 U	48300 U	945 U	4720 U	944 U	925 U	944 U	912 U	4620 U
	Dimethylphthalate	2000		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Acenaphthylene	41000	500000	3460 U	373 U	387 U	384 U	587 J	3530 U	361 U	365 U	19300 U	195 J	1890 U	378 U	370 U	115 J	365 U	1850 U
	2,6-Dinitrotoluene	1000		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	3-Nitroaniline	500 or MDL (800)		8650 U	933 U	968 U	959 U	9470 U	8830 U	904 U	913 U	48300 U	945 U	4720 U	944 U	925 U	944 U	912 U	4620 U
	Acenaphthene	50000	500000	3460 U	373 U	309 J	143 J	30800	3530 U	361 U	365 U	11100 J	1170	1890 U	378 U	123 J	226 J	90.8 J	1850 U
	2,4-Dinitrophenol	200 or MDL (800)		8650 U	933 U	968 U	959 U	9470 U	8830 U	904 U	913 U	48300 U	945 U	4720 U	944 U	925 U	944 U	912 U	4620 U
	4-Nitrophenol	100 or MDL (800)		8650 U	933 U	968 U	959 U	9470 U	8830 U	904 U	913 U	48300 U	945 U	4720 U	944 U	925 U	944 U	912 U	4620 U
	Dibenzofuran	6200		3460 U	373 U	387 U	129 J	**7460**	3530 U	414	521	**15100** J	507	1890 U	894	611	121 J	510	512 J
	2,4-Dinitrotoluene	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Diethylphthalate	7100		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	4-Chlorophenyl-phenylether	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Fluorene	50000	500000	3460 U	373 U	387 U	68.3 J	5080	3530 U	78.8 J	129 J	31900	499	678 J	193 J	149 J	191 J	135 J	1850 U
	4-Nitroaniline	NL		8650 U	933 U	968 U	959 U	9470 U	8830 U	904 U	913 U	48300 U	945 U	4720 U	944 U	925 U	944 U	912 U	4620 U
	4,6-Dinitro-2-methylphenol	NL		8650 U	933 U	968 U	959 U	9470 U	8830 U	904 U	913 U	48300 U	945 U	4720 U	944 U	925 U	944 U	912 U	4620 U
	N-Nitrosodiphenylamine	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	4-Bromophenyl-phenylether	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Hexachlorobenzene	410		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Pentachlorophenol	1000 or MDL (800)	6700	8650 U	933 U	968 U	959 U	9470 U	8830 U	904 U	913 U	48300 U	945 U	4720 U	944 U	925 U	944 U	912 U	4620 U
	Phenanthrene	50000	500000	3460 U	4610	966	509	3130 J	470 J	1380	1990	49000	2220	3400	2800	2050	1260	2340	1850
	Anthracene	50000	500000	3460 U	373 U	160 J	69 J	1610 J	3530 U	58.2 J	74.1 J	**157000**	835	525 J	108 J	123 J	359 J	201 J	1850 U
	Carbazole	NL		3460 U	373 U	387 U	58.3 J	1050 J	3530 U	361 U	89.8 J	8760 J	277 J	1890 U	102 J	90.7 J	80.4 J	67.5 J	1850 U
	Di-n-butylphthalate	8100		3460 U	373 U	387 U	56.8 J	3790 U	3530 U	91.1 JB	123 JB	19300 U	85.4 JB	736 J	99.7 JB	87 JB	135 JB	128 JB	1850 U
	Fluoroanthene	50000	500000	543 J	1570	804	449	23400	3530 U	498	882	**162000**	3940	2180	765	1380	2390	1740	898 J
	Pyrene	50000	500000	3460 U	4050	938	256 J	14100	3530 U	402	648	**82300**	2590	1220 J	298 J	405	2160	1020	676 J
	Butylbenzylphthalate	50000		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	3,3'-Dichlorobenzidine	NL		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Benzo(a)anthracene	224 or MDL (330)	5600	3460 U	**496**	267 J	75.6 J	**3120** J	3530 U	268 J	329 J	**20600**	**1310**	**521** J	**443**	**453**	**1040**	**776**	**397** J
	Chrysene	400	56000	3460 U	**613**	316 J	89.4 J	**2730** J	3530 U	**552**	**727**	**17200** J	**1200**	**721** J	**710**	**590**	**1080**	**903**	**766** J
	bis(2-Ethylhexyl)phthalate	50000		3460 U	1240 B	660 B	92.4 JB	3790 U	1360 JB	196 JB	242 JB	19300 U	130 JB	7600 B	414 B	177 JB	171 JB	279 JB	1020 JB
	Di-n-octylphthalate	50000		3460 U	373 U	387 U	384 U	3790 U	3530 U	361 U	365 U	19300 U	378 U	1890 U	378 U	370 U	377 U	365 U	1850 U
	Benzo(b)fluoranthene	1100	6000	**3460** U	649	301 J	78.2 J	**3180** J	**3530** U	366	446	**11200** J	**1570**	942 J	574	533	**1240**	969	842 J
	Benzo(k)fluoranthene	1100	56000	**3460** U	208 J	116 J	384 U	1080 J	**3530** U	98 J	107 J	**4310** J	366 J	421 J	119 J	141 J	368 J	279 J	247 J
	Benzo(a)pyrene	61 or MDL (330)	1000	3460 U	**413**	**198** J	49.1 J	**2060** J	3530 U	**206** J	**244** J	**6690** J	**1120**	**574** J	**235** J	**297** J	**861**	**594**	**212** J
	Indeno(1,2,3-cd)pyrene	3200	5600	3460 U	225 J	95.6 J	384 U	977 J	**3530** U	121 J	97.1 J	3150 J	479	1890 U	114 J	111 J	454	260 J	281 J
	Dibenzo(a,h)anthracene	14 or MDL (330)	560	3460 U	**68.7** J	387 U	384 U	3790 U	3530 U	**72.3** J	77.1 J	19300 U	**158** J	1890 U	**74** J	**55.9** J	**145** J	**104** J	**1850** U
	Benzo(g,h,i)perylene	50000	500000	3460 U	241 J	93.7 J	384 U	1280 J	3530 U	144 J	149 J	3250 J	524	1890 U	248 J	198 J	448	379	528 J

Appendix (Continued
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	TP104-1S	TP104-1D	TP105-1S	TP105-1D	MW6SR-SS1S	MW6SR-SS1D	MW6D-SS1	MW6D-SS1S MS	MW6D-SS1S MSD	SS9-1S	SS9-1D	SS10-1S	SS10-1D	SS11-1S	SS11-1D
Sample Date			4/4/1997	4/4/1997	4/4/1997	4/4/1997	4/23/1997	4/23/1997	5/14/1997	5/14/1997	5/14/1997	4/22/1997	4/22/1997	4/22/1997	4/24/1997	4/14/1997	4/14/1997
Sample Analyzed Date			4/8/1997	4/8/1997	4/8/1997	4/8/1997	4/25/1997	4/25/1997	5/15/1997	5/15/1997	5/15/1997	4/25/1997	6/16/1997	4/25/1997	6/18/1997	4/16/1997	4/16/1997
Sample Depth (bgs)			0" - 2" (shallow)	5' - 5.5' (deep)	0" - 2" (shallow)	5.5' - 6' (deep)	0" - 2" (shallow)	8' - 10' (deep)	11' - 14' (deep)	11' - 14' (deep)	11' - 14' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	1' - 1.2' (deep)
Sampling Method			Backhoe	Backhoe	Backhoe	Backhoe	Hollow Stem Augers	Hollow Stem Augers	Mud Rotary	Mud Rotary	Mud Rotary	Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Drill Rig (due to bricks)/Aluminum Spoon	Aluminum Spoon	Mattock/Aluminum Spoon
Surface Condition			Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Brick and Rock	Brick and Rock	Brick and Rock	Brick and Rock	Brick and Rock	NA	NA	NA	NA	NA	NA
Sample Field Observations			OVA = 0 ppm	Light Gray Sand, Gravel, OVA = 5 - 20 ppm	OVA = 0 ppm	Medium Browns/Gray Sand with Gravel (structural fill), OVA = 20-30 ppm	OVA = 0 ppm	Brown Claycy, Silty Sand, Gravel, OVA = 600 ppm	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand, OVA = 100 - 400 ppm	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand OVA = 100 - 400 ppm	Dark Gray/Black Clay, Low Silt, Clayey Silty Sand OVA = 100 - 400 ppm	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected
Volatile Organics (ppb)	Bromomethane	NL	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	Vinyl Chloride	200	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	Chloroethane	1900	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	Methylene Chloride	100	9.5 J	10 J	7.5 J	10 U	6 J	5.5 J	15 UJ	15 UJ	15 UJ	7.3 J	5.9 J	5.6 J	11 UJ	6.1 J	6.9 J
	Acetone	200	11 J	33 J	11 UJ	40 J	9.5 J	R	190 J	120 J	110 J	R	11 UJ	4.9 J	R	R	82 J
	Carbon Disulfide	2700	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	1,1-Dichloroethene	400	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	76 J	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	1,1-Dichloroethane	200	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	71 J	11 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	1,2-Dichloroethene (total)	300	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	Chloroform	300	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	1,2-Dichloroethane	100	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	2-Butanone	300	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	43 J	25 J	23 J	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	1,1,1-Trichloroethane	800	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	Carbon Tetrachloride	600	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	Bromodichloromethane	NL	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	1,2-Dichloropropane	NL	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	cis-1,3-Dichloropropene	NL	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
Allowable Holding Time:	Trichloroethene	700	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	58 J	60 J	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
10 days	Dibromochloromethane	NL	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	1,1,2-Trichloroethane	NL	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	Benzene	60	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	67 J	69 J	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	trans-1,3-Dichloropropene	NL	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	Bromoform	NL	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 U	11 UJ	11 UJ	12 UJ
	4-Methyl-2-Pentanone	1000	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
	2-Hexanone	NL	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
	Tetrachloroethene	1400	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
	1,1,2,2-Tetrachloroethane	600	11 UJ	11 UJ	11 UJ	12 U	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
	Toluene	1500	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 U	15 UJ	100 J	79 J	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
	Chlorobenzene	1700	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 U	15 UJ	69 J	70 J	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
	Ethylbenzene	5500	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
	Styrene	NL	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
	Xylenes(total)	1200	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ	12 U	15 UJ	15 UJ	15 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ

[1] Soil Clean-up Criteria are established by NYSDEC for lead and PCBs for the Site.

[2] Initial Soil Screening Criteria are based on NYSDEC TAGM #4046 RSCOs.

[3] A TCLP analysis was performed for this sample.

[4] The values reported for this sample are based on a reanalysis of the sample.

ppm - parts per million

ppb - parts per billion

bgs - below ground surface

Concentrations in bold are over the Criteria and regional soil background.

Concentrations in bold and italics are over the Criteria but not the regional soil background.

U - The analyte was analyzed for, but not detected.

J - Analyte detected below method detection limit and/or estimated concentration.

B - Indicates the analyte was found in the blank as well as the sample.

R - The presence or absence of the analyte cannot be verified due to failure to meet quality control criteria. Therefore the value is rejected and considered unusable.

NM - Analysis not performed.

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Railroad Siding Area
Analytical Results - Soil

Category	Parameter	TAGM 4046 Criteria	SS12-1S	SS12-1D	SS9-1S MS	SS9-1S MSD	SSI-MW6-1-SB1-12-14	SSI-MW6-1-SB3-45-48	SSI-SS11-3-SB1(12-14)	SSI-SS11-3-SB3(45-48)	SSI-SS11-3-SB3(45-48)DS	SSI-SS11-3-SB3(45-48)MS	SSI-SS9-1-SB1-12-14	SSI-SS9-1-SB3-45-48
Sample Date			4/14/1997	4/14/1997	4/22/1997	4/22/1997	12/6/2005	12/6/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/6/2005	12/6/2005
Sample Analyzed Date			4/17/1997	4/16/1997	4/25/1997	4/25/1997	12/22/2005	12/22/2005	12/22/2005	12/19/2005	12/19/2005	12/19/2005	12/22/2005	12/21/2005
Sample Depth (bgs)			0" - 3" (shallow)	1' - 1.2' (deep)	0" - 3" (shallow)	0" - 3" (shallow)	12-14	45-48	(12-14)	(45-48)	45-48	45-48	12-14	45-48
Sampling Method			Aluminum Spoon	Mattock/Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe	Geoprobe
Surface Condition			NA	NA	NA	NA	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand/Gravel
Sample Field Observations			Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected	Predetermined Sampling Depth; OVA reading not collected								
Volatile Organics (ppb) Allowable Holding Time: 10 days	Bromomethane	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Vinyl Chloride	200	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Chloroethane	1900	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Methylene Chloride	100	9.8 J	5.3 JB	4.7 UJ	5 J	45 B	35 B	27 B	29 B	34 B	34 B	36 B	12 B
	Acetone	200	11 U	9.4 J	11 UJ	11 UJ	12 U	39	11 U	26	26	21	32	29
	Carbon Disulfide	2700	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	1,1-Dichloroethene	400	11 U	11 U	38 J	33 J	12 U	13 U	11 U	11 U	63	64	11 U	11 U
	1,1-Dichloroethane	200	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	1,2-Dichloroethene (total)	300	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Chloroform	300	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	1,2-Dichloroethane	100	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	2-Butanone	300	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	1,1,1-Trichloroethane	800	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Carbon Tetrachloride	600	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Bromodichloromethane	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	1,2-Dichloropropane	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	cis-1,3-Dichloropropene	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Trichloroethene	700	11 U	11 U	39 J	38 J	12 U	13 U	11 U	11 U	65	67	11 U	11 U
	Dibromochloromethane	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	1,1,2-Trichloroethane	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Benzene	60	11 U	11 U	39 J	39 J	12 U	13 U	11 U	11 U	**69**	**71**	1.6 J	11 U
	trans-1,3-Dichloropropene	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Bromoform	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	4-Methyl-2-Pentanone	1000	11 U	11 U	11 UJ	11 UJ	NM	NM	NM	NM	NM	NM	NM	NM
	2-Hexanone	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Tetrachloroethene	1400	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	1,1,2,2-Tetrachloroethane	600	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Toluene	1500	11 U	11 U	48 J	49 J	15	2.8 J	4.6 J	0.96 J	70	72	14	5.8 J
	Chlorobenzene	1700	11 U	11 U	47 J	47 J	12 U	13 U	11 U	11 U	68	69	11 U	11 U
	Ethylbenzene	5500	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	1.4 J	11 U
	Styrene	NL	11 U	11 U	11 UJ	11 UJ	12 U	13 U	11 U	11 U	11 U	11 U	11 U	11 U
	Xylenes(total)	1200	11 U	11 U	11 UJ	11 UJ	12 0	13 0	11 0	11 0	11 0	11 0	22 0	11 U

[1] Soil Clean-up Criteria are established by NYSDEC for lea
[2] Initial Soil Screening Criteria are based on NYSDEC TAC
[3] A TCLP analysis was performed for this sample.
[4] The values reported for this sample are based on a reanaly

ppm - parts per million
ppb - parts per billion
bgs - below ground surface
Concentrations in bold are over the Criteria and regional s
Concentrations in bold and italics are over the Criteria but

U - The analyte was analyzed for, but not detected.
J - Analyte detected below method detection limit and/or estin
B - Indicates the analyte was found in the blank as well as the
R - The presence or absence of the analyte cannot be verified
NM - Analysis not performed.

Environmental
Engineers & Scientists

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Analytical Results - Groundwater

Category	Parameter	Groundwater Criteria[1]	Estimated Detection Limit	MW4SR	MW4DR	MW5SR	MW6SR	MW6DR	MW12S	MW12D	MW-12-SR	MW-3-SR	MW-5-SR	MW-6-SR	SSI-MW-4DR	SSI-MW-4DR DUP	SSI-MW-4SR
Well Installation Date				4/21/1997	5/8/1997	4/21/1997	4/21/1997	5/15/1997	4/25/1997	5/9/1997	1/18/2006	1/18/2006	1/17/2006	1/17/2006	5/8/1997	5/8/1997	4/21/1997
Screen Length				20'	20'	20'	15'	20'	10'	20'	10'	10'	20'	15'	20'	20'	20'
Total Depth				25'	101.5'	25'	18.5'	102'	15'	100'	15'	15'	25'	18.5'	101.5'	101.5'	25'
Sample Date				5/29/1997	5/29/1997	5/29/1997	5/28/1997	5/28/1997	5/28/1997	5/28/1997	2/2/2006	2/2/2006	2/2/2006	2/2/2006	12/19/2005	12/19/2005	12/19/2005
Sample Time				10:45 a.m.	10:20 a.m.	12:30 p.m.	3:40 p.m.	2:40 p.m.	12:15 p.m.	1:00 p.m.							
Sample Analyzed Date				6/6/1997	6/6/1997	6/6/1997	6/4/1997	6/4/1997	6/4/1997	6/4/1997	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	12/22/2005-12/29/2005	12/22/05-1/4/2006	12/22/2005-1/4/2006
Inorganics (ppm)	Aluminum	NL	0.2	4.37	1.21	23.4	1.39	0.14 J	5.27	0.289	0.48	16	1.1	0.26	8	8.4	0.2
	Dissolved Aluminum	NL	NA						0.043 J								
	Antimony	0.003 (S)	0.06	0.003 J	0.003 J	**0.0149 J**	0.003 J	0.003 J	0.003 J	0.003 J	**0.0067 J**	**0.012 J**	0.06 U	**0.01 J**	0.06 U	**0.012 J**	0.06 U
	Arsenic	0.025 (S)	0.01	0.006 U	0.006 U	**0.165**	0.0113	0.006 U	0.006 U	0.006 U	0.015 U	0.011 J	0.017	0.017	0.02	0.012 J	0.01 J
	Barium	1 (S)	0.2	0.148 J	0.0997 J	0.81 J	0.153 J	0.094 J	0.289 J	0.139 J	0.26	0.54	0.24	0.12 J	0.15 J	0.15 J	0.11 J
	Beryllium	0.011 (G)	0.005	0.0018 J	0.0012 J	0.002 J	0.0012 J	0.001 J	0.001 J	0.001 J	0.005 U	0.00059 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
	Cadmium	0.005 (S)	0.005	0.001 J	0.001 J	**0.0076 N**	0.001 J	0.001 J	0.001 J	0.001 J	0.0003 J	0.0015 J	0.00032 J	0.00074 J	0.0025 J	0.0027 J	0.00062 J
	Calcium	NL	5	69.5 J	148 J	48.1 J	96.6 J	216 J	92.4 J	154 J	110	110	81	34	190	200	68
	Chromium	0.05 (S)	0.01	0.0112 J	0.0037 J	**0.109 J**	0.0017 J	0.001 J	0.0032 J	0.001 J	0.0092 J	0.048	0.0081 J	0.01 U	0.022	0.024	0.01 U
	Cobalt	NL	0.05	0.0051 J	0.004 J	0.0288 J	0.0018 J	0.0022 J	0.0012 J	0.0012 J	0.0027 J	0.018 J	0.0048 J	0.0027 J	0.014 J	0.015 J	0.05 U
	Copper	0.2 (S)	0.025	0.0422	0.0471	**0.467**	0.0309	0.0441	0.022 J	0.0232 J	0.026	0.087	0.041	0.03	0.05	0.05	0.0029 J
	Iron	0.3 (S)	0.1	**16.4 J**	**1.89 J**	**48.2 J**	**4.66 J**	**9.43 J**	**5.52 J**	**5.38 J**	**16**	**33**	**15**	**2.4**	**19**	**20**	**3.1**
	Lead	0.025 (S)	0.003	0.0109 J	0.0023 J	**0.689 J**	0.0077 J	0.0031 J	**0.136**	0.002 J	0.01 U	**0.07**	**0.038**	0.0037 J	0.011	0.011	0.01 U
	Dissolved Lead	0.025 (S)	NA						0.003 U								
	Magnesium	35 (S)	5	**49.3 J**	**421 J**	**72.1 J**	**46.6 J**	**481 J**	17 J	**409 J**	26	14	29	30	**550**	**570**	**51**
	Manganese	0.3 (S)	0.015	**1.08 J**	**3.36 J**	**0.749 J**	**1.4 J**	**2.51 J**	**1.27 J**	**2.61 J**	**3.4**	**0.76**	**0.58**	0.26	**4.9**	**5.2**	1
	Mercury	0.0007 (S)	0.0002	0.0002 U	0.0002 U	**0.0024**	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00017 J	0.0002 U	0.00023	0.0002 U	0.0002 U	0.0002 U	0.0002 U
	Nickel	0.1 (S)	0.04	0.0135 J	0.0054 J	0.0629 J	0.0059 J	0.002 J	0.0053 J	0.0023 J	0.012 J	0.042	0.0098 J	0.011 J	0.023 J	0.024 J	0.0027 J
	Potassium	NL	.5	13.8	322	139	101	328	46.5	270	23	17	27	46	180	190	11
	Selenium	0.01 (S)	0.005	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.035 U	0.035 U	0.035 U	0.035 U	**0.026 J**	**0.023 J**	**0.012 J**
	Silver	0.05 (S)	0.01	0.001 U	0.001 U	0.0073 J	0.001 U	0.0012 J	0.001 U	0.0012 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0013 J	0.0017 J	0.00088 J
	Sodium	20 (S)	5	**98.2**	**5370**	**875**	**638**	**4870**	**822**	**4450**	**470**	**4300**	**230**	**570**	**4700**	**4600**	**99**
	Field TDS	NL	NA	250	1110	730	460	1290	5200	1580							
	Thallium	NL	0.01	0.005 J	0.005 J	0.005 J	0.005 J	0.0068 J	0.005 J	0.005 J	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
	Vanadium	NL	0.05	0.0106 J	0.0026 J	0.0738 J	0.0053 J	0.001 J	0.0021 J	0.001 J	0.05 U	0.066	0.018 J	0.02 J	0.044 J	0.049 J	0.023 J
	Zinc	NL	0.02	0.04 J	0.003 J	1.27 J	0.0191 J	0.003 J	0.0115 J	0.003 J	0.015 J	0.1	0.066	0.023 J	0.059 J	0.058 J	0.06 U
	Cyanide	0.2 (S)	0.01	0.009 J	0.009 J	0.009 J	0.0119 J	0.0265 J	0.0131 J	0.0123 J	0.01 U	0.15	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Analytical Results - Groundwater

Category	Parameter	Groundwater Criteria[1]	Estimated Detection Limit	MW4SR	MW4DR	MW5SR	MW6SR	MW6DR	MW12S	MW12D	MW-12-SR	MW-3-SR	MW-5-SR	MW-6-SR	SSI-MW-4DR	SSI-MW-4DR DUP	SSI-MW-4SR
Well Installation Date				4/21/1997	5/8/1997	4/21/1997	4/21/1997	5/15/1997	4/25/1997	5/9/1997	1/18/2006	1/18/2006	1/17/2006	1/17/2006	5/8/1997	5/8/1997	4/21/1997
Screen Length				20'	20'	20'	15'	20'	10'	20'	10'	10'	20'	15'	20'	20'	20'
Total Depth				25'	101.5'	25'	18.5'	102'	15'	100'	15'	15'	25'	18.5'	101.5'	101.5'	25'
Sample Date				5/29/1997	5/29/1997	5/29/1997	5/28/1997	5/28/1997	5/28/1997	5/28/1997	2/2/2006	2/2/2006	2/2/2006	2/2/2006	12/19/2005	12/19/2005	12/19/2005
Sample Time				10:45 a.m.	10:20 a.m.	12:30 p.m.	3:40 p.m.	2:40 p.m.	12:15 p.m.	1:00 p.m.							
Sample Analyzed Date				6/6/1997	6/6/1997	6/6/1997	6/4/1997	6/4/1997	6/4/1997	6/4/1997	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	12/22/2005-12/29/2005	12/22/05-1/4/2006	12/22/2005-1/4/2006
Pesticides (ppb)	alpha -BHC	NL	0.05	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	beta-BHC	NL	0.05	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	delta-BHC	NL	0.05	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	gamma-BHC (Lindane)	NL	0.05	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	Heptachlor	0.04 (S)	0.05	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	Aldrin	N.D. (S)	0.05	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	Heptachlor epoxide	0.03 (S)	0.05	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	Endosulfan I	NL	0.05	0.050 U	0.050 U	0.05 U	0.05 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	Dieldrin	0.004 (S)	0.1	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.102 U	0.102 U	0.102 U	0.102 U	0.109 U	0.109 U	0.109 U
	4,4' - DDE	NL	0.1	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.102 U	0.102 U	0.102 U	0.102 U	0.109 U	0.109 U	0.109 U
	Endrin	N.D. (S)	0.1	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.102 U	0.102 U	0.102 U	0.102 U	0.109 U	0.109 U	0.109 U
	Endosulfan II	NL	0.1	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.102 U	0.102 U	0.102 U	0.102 U	0.109 U	0.109 U	0.109 U
	4,4' - DDD	NL	0.1	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.102 U	0.102 U	0.102 U	0.102 U	0.109 U	0.109 U	0.109 U
	Endosulfan sulfate	NL	0.1	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.102 U	0.102 U	0.102 U	0.102 U	0.109 U	0.109 U	0.109 U
	4,4' - DDT	NL	0.1	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.102 U	0.102 U	0.102 U	0.102 U	0.109 U	0.109 U	0.109 U
	Methoxychlor	35 (S)	0.5	0.50 U	0.50 U	0.50 U	0.10 U	0.50 U	0.50 U	0.50 U	0.510 U	0.510 U	0.510 U	0.510 U	0.543 U	0.543 U	0.543 U
	Endrin ketone	5 (S)	0.1	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.102 U	0.102 U	0.102 U	0.102 U	0.109 U	0.109 U	0.109 U
	Endrin aldehyde	5 (S)	0.1	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.102 U	0.102 U	0.102 U	0.102 U	0.109 U	0.109 U	0.109 U
	alpha - Chlordane	0.05 (S)	0.05	0.050 U	0.050 U	0.05 U	0.050 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	gamma - Chlordane	0.05 (S)	0.05	0.050 U	0.050 U	0.05 U	0.050 U	0.05 U	0.050 U	0.050 U	0.0510 U	0.0510 U	0.0510 U	0.0510 U	0.0543 U	0.0543 U	0.0543 U
	Toxaphene	0.06 (S)	5	5.0 U	5.0 U	5.00 U	5.0 U	5.00 U	5.0 U	5.0 U	5.10 U	5.10 U	5.10 U	5.10 U	5.43 U	5.43 U	5.43 U
	Aroclor -1016	NL	1	1.0 U	1.0 U	1.00 U	1.0 U	1.00 U	1.0 U	1.0 U	1.02 U	1.02 U	1.02 U	1.02 U	1.09 U	1.09 U	1.09 U
	Aroclor -1221	NL	2	2.0 U	2.0 U	2.00 U	2.0 U	2.00 U	2.0 U	2.0 U	2.04 U	2.04 U	2.04 U	2.04 U	2.17 U	2.17 U	2.17 U
	Aroclor -1232	NL	1	1.0 U	1.0 U	1.00 U	1.0 U	1.00 U	1.0 U	1.0 U	1.02 U	1.02 U	1.02 U	1.02 U	1.09 U	1.09 U	1.09 U
	Aroclor -1242	NL	1	1.0 U	1.0 U	1.00 U	1.0 U	1.00 U	1.0 U	1.0 U	1.02 U	1.02 U	1.02 U	1.02 U	1.09 U	1.09 U	1.09 U
	Aroclor -1248	NL	1	1.0 U	1.0 U	1.00 U	1.0 U	1.00 U	1.0 U	1.0 U	1.02 U	1.02 U	1.02 U	1.02 U	1.09 U	1.09 U	1.09 U
	Aroclor -1254	NL	1	1.0 U	1.0 U	1.00 U	1.0 U	1.00 U	1.0 U	1.0 U	1.02 U	1.02 U	1.02 U	1.02 U	1.09 U	1.09 U	1.09 U
	Aroclor - 1260	NL	1	1.0 U	1.0 U	1.00 U	1.0 U	1.00 U	1.0 U	1.0 U	1.02 U	1.02 U	1.02 U	1.02 U	1.09 U	1.09 U	1.09 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Analytical Results - Groundwater

Category	Parameter	Groundwater Criteria[1]	Estimated Detection Limit	MW4SR	MW4DR	MW5SR	MW6SR	MW6DR	MW12S	MW12D	MW-12-SR	MW-3-SR	MW-5-SR	MW-6-SR	SSI-MW-4DR	SSI-MW-4DR DUP	SSI-MW-4SR
Well Installation Date				4/21/1997	5/8/1997	4/21/1997	4/21/1997	5/15/1997	4/25/1997	5/9/1997	1/18/2006	1/18/2006	1/17/2006	1/17/2006	5/8/1997	5/8/1997	4/21/1997
Screen Length				20'	20'	20'	15'	20'	10'	20'	10'	10'	20'	15'	20'	20'	20'
Total Depth				25'	101.5'	25'	18.5'	102'	15'	100'	15'	15'	25'	18.5'	101.5'	101.5'	25'
Sample Date				5/29/1997	5/29/1997	5/29/1997	5/28/1997	5/28/1997	5/28/1997	5/28/1997	2/2/2006	2/2/2006	2/2/2006	2/2/2006	12/19/2005	12/19/2005	12/19/2005
Sample Time				10:45 a.m.	10:20 a.m.	12:30 p.m.	3:40 p.m.	2:40 p.m.	12:15 p.m.	1:00 p.m.							
Sample Analyzed Date				6/6/1997	6/6/1997	6/6/1997	6/4/1997	6/4/1997	6/4/1997	6/4/1997	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	12/22/2005-12/29/2005	12/22/05-1/4/2006	12/22/2005-1/4/2006
Semi-Volatile Organics (ppb)	2-Methylphenol	NL	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	11.1 U	55.6 U	10.9 U
	4-Methylphenol	NL	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	7.64 J	10.0 U	11.1 U	55.6 U	10.9 U
	2,4-Dimethylphenol	50 (G)	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	2.76 J	11.1 U	55.6 U	10.9 U
	Naphthalene	10 (G)	1	**23**	10 U	1.2 J	10 U	10 U	10 U	10 U	10.0 U	10.0 U	**28.9**	10.0 U	11.1 U	55.6 U	10.9 U
	2-Methylnaphthalene	NL	NA	1.2 J	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	4.84 J	10.0 U	11.1 U	55.6 U	10.9 U
	Acenaphthylene	NL	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	11.1 U	55.6 U	10.9 U
	Acenaphthene	20 (S)	8	1 J	10 U	4.1 J	10 U	10 U	10 U	10 U	10.0 U	10.0 U	**28.2**	10.0 U	11.1 U	55.6 U	10.9 U
	Diethylphthalate	50 (G)	NA	10 U	10 U	10 U	10 U	10 U	2.1 J	10 U	23.3	43.8	28.7	**71.1**	11.1 U	55.6 U	10.9 U
	Fluorene	50 (G)	8	10 U	10 U	1.6 J	10 U	10 U	10 U	10 U	10.0 U	10.0 U	11.6	10.0 U	11.1 U	55.6 U	10.9 U
	Phenanthrene	50 (S)	22	10 U	10 U	3.4 J	10 U	10 U	10 U	10 U	10.0 U	10.0 U	12.1	10.0 U	11.1 U	55.6 U	10.9 U
	Anthracene	50 (G)	8	10 U	10 U	1.1 J	10 U	10 U	10 U	10 U	10.0 U	10.0 U	2.91 J	10.0 U	11.1 U	55.6 U	10.9 U
	Carbazole	NL	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	2.61 J	10.0 U	11.1 U	55.6 U	10.9 U
	Fluoroanthene	NL	8	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	2.4 J	10.0 U	11.1 U	55.6 U	10.9 U
	Pyrene	NL	8	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	2.54 J	10.0 U	11.1 U	55.6 U	10.9 U
	Benzo(a)anthracene	0.002 (G)	31	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	11.1 U	55.6 U	10.9 U
	Chrysene	0.002 (G)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	11.1 U	55.6 U	10.9 U
	Benzo(b)fluoranthene	0.002 (G)	19	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	11.1 U	55.6 U	10.9 U
	Benzo(k)fluoranthene	0.002 (G)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	11.1 U	55.6 U	10.9 U
	Benzo(a)pyrene	N.D.	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	11.1 U	55.6 U	10.9 U
	Indeno(1,2,3-cd)pyrene	0.002 (G)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	11.1 U	55.6 U	10.9 U
	Benzo(g,h,i)perylene	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	11.1 U	55.6 U	10.9 U

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Analytical Results - Groundwater

Category	Parameter	Groundwater Criteria[1]	Estimated Detection Limit	MW4SR	MW4DR	MW5SR	MW6SR	MW6DR	MW12S	MW12D	MW-12-SR	MW-3-SR	MW-5-SR	MW-6-SR	SSI-MW-4DR	SSI-MW-4DR DUP	SSI-MW-4SR
Well Installation Date				4/21/1997	5/8/1997	4/21/1997	4/21/1997	5/15/1997	4/25/1997	5/9/1997	1/18/2006	1/18/2006	1/17/2006	1/17/2006	5/8/1997	5/8/1997	4/21/1997
Screen Length				20'	20'	20'	15'	20'	10'	20'	10'	10'	20'	15'	20'	20'	20'
Total Depth				25'	101.5'	25'	18.5'	102'	15'	100'	15'	15'	25'	18.5'	101.5'	101.5'	25'
Sample Date				5/29/1997	5/29/1997	5/29/1997	5/28/1997	5/28/1997	5/28/1997	5/28/1997	2/2/2006	2/2/2006	2/2/2006	2/2/2006	12/19/2005	12/19/2005	12/19/2005
Sample Time				10:45 a.m.	10:20 a.m.	12:30 p.m.	3:40 p.m.	2:40 p.m.	12:15 p.m.	1:00 p.m.							
Sample Analyzed Date				6/2/1997	6/2/1997	6/2/1997	5/29/1997	5/29/1997	5/30/1997	5/30/1997	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	2/9/2006-2/22/06	12/22/2005-12/29/2005	12/22/05-1/4/2006	12/22/2005-1/4/2006
Volatiles Organics (ppb)	Acetone	50 (G)	10	10 U	10 U	10 U	12	10 U	3.9 J	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Benzene	1 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	2.93 J	10 U	10 U	10 U
	Bromodichloromethane	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Bromoform	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Bromomethane	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	2-Butanone	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Carbon Disulfide	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Carbon Tetrachloride	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Chlorobenzene	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Chloroethane	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Chloroform	7 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Chloromethane	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Dibromochloromethane	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	1,1-Dichloroethene	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	1,1-Dichloroethane	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	1,2-Dichloroethane	0.6 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	1,2-Dichloropropane	1	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	cis-1,3-Dichloropropene	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	trans-1,3-Dichloropropene	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Ethylbenzene	NL	10	4.7 J	10 U	10 U	4.4 J	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	3.79 J	10 U	10 U	10 U
	2-Hexanone	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	4-Methyl-2-Pentanone	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Methylene Chloride	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Styrene	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Tetrachloroethene	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	1,1,2,2-Tetrachloroethane	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Toluene	NL	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.2 J	1.75 J	2.15 J
	Trichloroethene	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	1,1,1-Trichloroethane	5 (S)	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	1,1,2-Trichlorethane	1	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Vinyl Chloride	2	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U
	Xylenes(total)	5 (S)	10	10 U	10 U	10 U	**21**	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	**41.36** J	10 U	10 U	10 U

Notes:

[1] Initial Screening Groundwater Criteria are based on NYSDEC Part 703 groundwater standards or TOGS No. 1.1.1 groundwater guidance values.

Concentrations in bold are above the Initial Screening Groundwater Criteria.

ppb parts per billion, equivalent to micrograms per liter
ppm parts per million, equivalent to milligrams per liter
NA Not Available
NL Not listed
U The analyte was analyzed for but not detected.
J Analyte detected below method detection limit and/or estimated concentration.
N Spiked sample recovery not within controle limits
ND Not detected.

APPENDIX D

TCLP ANALYTICAL RESULTS SUMMARY TABLES

Environmental
Engineers & Scientists

Appendix
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Soil TCLP Analytical Results

Parameter	STARS Memo #1	TP101-1S		TP101-1D		TP103-1S		TP103-1D		TP106-1S		TP106-1D		TP107-1S		TP107-1D		TP108-1S		TP108-1D	
Sample Date		4/3/1997		4/3/1997		4/3/1997		4/3/1997		4/7/1997		4/7/1997		4/7/1997		4/7/1997		4/8/1997		4/8/1997	
Sample Time		11:00 a.m.		11:15 a.m.		10:00 a.m.		10:45 a.m.		10:00 a.m.		12:15 p.m.		8:15 a.m.		9:00 a.m.		7:30 a.m.		10:30 a.m.	
Sample Analyzed Date		6/12/1997		6/13/1997		6/13/1997		6/13/1997		6/13/1997		6/13/1997		6/13/1997		6/13/1997		6/13/1997		6/13/1997	
Sample Depth (bgs) (type)		1' - 1.2' (shallow)		6.3' - 7' (deep)		1.3' - 1.5' (shallow)		7.5' (deep)		1.3' - 1.5' (shallow)		5.4' - 6.4' (deep)		0" - 2" (shallow)		2.5' - 3' (deep)		1' - 1.2' (shallow)		1.3' - 1.5' (deep)	
Sampling Method		Backhoe		Backhoe		Backhoe		Backhoe		Backhoe		Backhoe		Backhoe		Backhoe		Backhoe		Backhoe	
Surface Condition		Asphalt Pavement		Asphalt Pavement		Asphalt Pavement		Asphalt Pavement		Concrete Pad/Reinforced Rebar		Concrete Pad/Reinforced Rebar		Gravel		Gravel		Asphalt Pavement		Asphalt Pavement	
Sample Field Observations		OVA = 0 ppm		Heavy Fill, Gray/Brown Sand, Gravel, Rocks, OVA = 500 ppm		OVA = 0 ppm		Gray Sand with Gravel, Sampled from Bottom of Test Pit (7.5'-8') ; OVA Reading not collected		OVA = 0 ppm		Black/Brown Mixed Oily Soil with Wood Fragments, OVA = 4 ppm		OVA = 0 ppm		Ash Layer, Black/Brown Coaly Cinder Bearing Material, OVA = 0 ppm		OVA = 0 ppm		Dark Gray-Black Gravely Sand, No Odor, OVA = 0 ppm	
Lead (ppm)	5	**27.9**		1.55		0.0094		0.391		0.0082				0.11		0.0499		0.0624		0.0483	
Chromium (ppm)	5																				
Naphthalene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Acenaphthylene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Acenaphthene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Fluorene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Phenanthrene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Anthracene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Fluoroanthene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Pyrene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(a)anthracene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Chrysene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(b)fluoranthene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(k)fluoranthene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(a)pyrene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Indeno(1,2,3-cd)pyrene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Dibenz(a,h)anthracene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(g,h,i)perylene	NL	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ	100	UJ

Parameter	STARS Memo #1	MW4SR-SS1S		MW4SR-SS1D		MW5SR-SS1S		MW5SR-SS1D		MW12S-SS1S		MW12S-SS2S		MW12S-SS1D		TP102-1S		TP102-2D	
Sample Date		4/21/1997		4/21/1997		4/15/1997		4/15/1997		4/25/1997		4/25/1997		4/25/1997		4/3/1997		4/3/1997	
Sample Time		12:45 p.m.		2:00 p.m.		8:30 a.m.		10:00 a.m.		8:00 a.m.		8:00 a.m.		9:00 a.m.		2:00 p.m.		3:00 p.m.	
Sample Analyzed Date		6/17/1997		6/17/1997		7/15/1997		7/15/1997		6/17/1997		6/17/1997		6/17/1997		6/13/1997		6/13/1997	
Sample Depth (bgs) (type)		1' - 1. 5' (shallow)		4' - 6' (deep)		0" - 2" (shallow)		14' - 16' (deep)		0" - 2" (shallow)		0" - 2" (shallow)		2' - 10' (deep)		0" - 2" (shallow)		3.7' - 4.5' (deep)	
Sampling Method		Hollow Stem Augers		Hollow Stem Augers		Hollow Stem Augers		Mud Rotary		Hollow Stem Augers		Hollow Stem Augers		Hollow Stem Augers		Backhoe		Backhoe	
Surface Condition		Asphalt		Asphalt		Sand and Gravel		Sand and Gravel		Sand and Gravel		Sand and Gravel		Sand and Gravel		Sand		Sand	
Sample Field Observations		OVA = 0 ppm		Dark Gray, Gray, Rusty Yellow Red Silty Clayey Sand Fill with Coal and Ash, OVA = 0 ppm		OVA = 1 ppm		Dark Gray Silty Sand, Gravel/Rock, OVA = 900 ppm		OVA = 0 ppm		OVA = 0 ppm		Dark Brown Silty Medium Sand, Gravely Fill with Medium Sand, OVA = 0 ppm		OVA = 0 ppm		OVA = 70 - 80 ppm	
Lead (ppm)	5	0.123		0.0731		0.234		1.81		0.266				0.171		0.559		0.214	
Chromium (ppm)	5					0.001				0.0039						0.003			
Naphthalene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	240	J
Acenaphthylene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	U
Acenaphthene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	33	J
Fluorene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	20	J
Phenanthrene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	24	J
Anthracene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Fluoroanthene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Pyrene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(a)anthracene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Chrysene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(b)fluoranthene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(k)fluoranthene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(a)pyrene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Indeno(1,2,3-cd)pyrene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Dibenz(a,h)anthracene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(g,h,i)perylene	NL	100	UJ	100	UJ					100	UJ	100	UJ	100	UJ	100	UJ	100	UJ

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
TCLP Analytical Results - Soil

Parameter	STARS Memo #1	SS10-1D		SS11-1S		SS11-1D		SS12-1S		SS12-1D		TP103-1S		TP103-1D		TP104-1D		TP105-1S		MW6SR-SS1S	
Sample Date		4/24/1997		4/14/1997		4/14/1997		4/14/1997		4/14/1997		4/3/1997		4/3/1997		4/4/1997		4/4/1997		4/23/1997	
Sample Time		3:35 p.m.		2:00 p.m.		2:15 p.m.		2:45 p.m.		3:15 p.m.		10:00 a.m.		10:45 a.m.		8:55 a.m.		9:45 a.m.		8:10 a.m.	
Sample Analyzed Date		6/18/1997		7/15/1997		7/15/1997		7/15/1997		7/15/1997		6/13/1997		6/13/1997		6/13/1997		6/13/1997		6/16/1997	
Sample Depth (bgs) (type)		1' - 1.2' (deep)		0" - 3" (shallow)		1' - 1.2' (deep)		0" - 3" (shallow)		1' - 1.2' (deep)		1.3' - 1.5' (shallow)		7.5' (deep)		0" - 2" (shallow)		5' - 5.5' (deep)		0" - 2" (shallow)	
Sampling Method		Drill Rig (due to bricks)/Aluminum Spoon		Aluminum Spoon		Mattock/Aluminum Spoon		Aluminum Spoon		Mattock/Aluminum Spoon		Backhoe		Backhoe		Backhoe		Backhoe		Hollow Stem Augers	
Surface Condition		NA		NA		NA		NA		NA		Asphalt Pavement		Asphalt Pavement		Sand/Gravel		Sand/Gravel		Brick and Rock	
Sample Field Observations		Predetermined Sampling Depth; OVA reading not collected		Predetermined Sampling Depth; OVA reading not collected		Predetermined Sampling Depth; OVA reading not collected		Predetermined Sampling Depth; OVA reading not collected		Predetermined Sampling Depth; OVA reading not collected		OVA = 0 ppm		Gray Sand with Gravel, Sampled from Bottom of Test Pit (7.5'-8') ; OVA Reading not collected		OVA = 0 ppm		Light Gray Sand, Gravel, OVA = 5 - 20 ppm		OVA = 0 ppm	
Lead (ppm)	5	0.0182		0.049		3.98		0.529		0.572		0.0094		0.391		0.117		0.189		0.0908	
Chromium (ppm)	5																				
Naphthalene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Acenaphthylene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Acenaphthene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Fluorene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Phenanthrene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Anthracene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Fluoroanthene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Pyrene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(a)anthracene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Chrysene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(b)fluoranthene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(k)fluoranthene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(a)pyrene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Indeno(1,2,3-cd)pyrene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Dibenz(a,h)anthracene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ
Benzo(g,h,i)perylene	NL	100	U									100	UJ	100	UJ	100	UJ	100	UJ	100	UJ

Notes:

1	Initial Screening Groundwater Criteria are based on NYSDEC Part 703 groundwater standards or TOGS No. 1.1.1 groundwater guidance values.
(bold)	Concentrations in bold are above the Initial Screening Groundwater Criteria.
ppm	parts per million, equivalent to milligrams per liter
NA	Not Available
NL	Not listed
U	The analyte was analyzed for but not detected.
J	Analyte detected below method detection limit and/or estimated concentration.
ND	Not detected.

APPENDIX E

PCB GRID SAMPLING ANALYTICAL RESULTS SUMMARY TABLES

Environmental
Engineers & Scientists

Appendix
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Soil PCB Grid Sampling Analytical Results

Category	NYSDEC Soil Cleanup Criteria[1]	Estimated Detection Limit	G1SS-1D	G1SS-1S	G1SS-2D	G1SS-2S	G1SS-3D	G1SS-3S	G1SS-4D	G1SS-4S
Sample Date			10/25/1996	10/25/1996	10/30/1996	10/30/1996	11/4/1996	11/4/1996	10/25/1996	10/25/1996
Sample Time			3.45p.m	3:40p.m.	9:50a.m.	9:40a.m.	11:15a.m.	3:15p.m.	3:30p.m.	3:15p.m.
Sample Analysis Date			11/3/1996	11/3/1996	11/5/1996	11/5/1996	11/18/1996	11/18/1996	11/2/1996	11/2/1996
Sample Depth (bgs) (type)			1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)
Sampling Method			Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon
Surface Condition			NA	NA	NA	NA	NA	NA	NA	NA
Sample Field Observations			Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected
Concentrations Aroclor-1260 (ppb)	1000 (surface)/ 10000(subsurface soils)	33	66	160	160	78	190 J	140 J	200	37 J

Category	NYSDEC Soil Cleanup Criteria[1]	Estimated Detection Limit	G1SS-5S	G1SS-5D	G1SS-6D	G1SS-6S	G1SS-7D	G1SS-7S	G1SS-8D	G1SS-8S
Sample Date			10/25/1996	10/25/1996	10/25/1996	10/25/1996	10/25/1996	10/25/1996	10/30/1996	10/30/1996
Sample Time			11:40a.m.	12:00p.m.	10:10a.m.	9:54a.m.	11:15a.m.	11:00a.m.	8:50a.m.	8:40a.m.
Sample Analysis Date			11/2/1996	11/2/1996	11/2/1996	11/2/1996	11/2/1996	11/2/1996	11/5/1996	11/5/1996
Sample Depth (bgs) (type)			0"-3" (shallow)	1'-1.2' (deep)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)
Sampling Method			Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Drill Rig (concrete surface) and Aluminum Spoon	Drill Rig (concrete surface) and Aluminum Spoon
Surface Condition			NA	NA	NA	NA	NA	NA	NA	NA
Sample Field Observations			Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected
Concentrations Aroclor-1260 (ppb)	1000 (surface)/ 10000(subsurface soils)	33	190	42.4	50	190	110	240	39 U	40 U

Category	NYSDEC Soil Cleanup Criteria[1]	Estimated Detection Limit	G1SS-9D	G1SS-9S	G1SS-10D	G1SS-10S	G1SS-11D	G1SS-11S	G1SS-12D	G1SS-12S
Sample Date			10/30/1996	10/30/1996	11/4/1996	11/4/1996	11/4/1996	11/4/1996	10/25/1996	10/25/1996
Sample Time			8:00a.m.	7:50a.m.	10:10a.m.	10:00a.m.	4:15p.m.	4:00p.m.	12:45p.m.	12:30p.m.
Sample Analysis Date			11/5/1996	11/5/1996	11/18/1996	11/17/1996	11/18/1996	11/18/1996	11/2/1996	11/2/1996
Sample Depth (bgs) (type)			1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)
Sampling Method			Drill Rig (concrete surface) and Aluminum Spoon	Drill Rig (concrete surface) and Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon
Surface Condition			NA	NA	NA	NA	NA	NA	NA	NA
Concentrations Aroclor-1260 (ppb)	1000 (surface)/ 10000(subsurface soils)	33	39 U	37 U	82	66	28 J	24 J	25	31

Appendix (Continued)
Remedial Investigation Report
Brooklyn Navy Yard Parcel
Building 419 and Surrounding Area
Analytical Results - Soil

Category	NYSDEC Soil Cleanup Criteria[1]	Estimated Detection Limit	G1SS-13D	G1SS-13S	G1SS-14D	G1SS-14S	G1SS-15D	G1SS-15S	G1SS-16D	G1SS-16S
Sample Date			11/4/1996	11/4/1996	11/4/1996	11/4/1996	11/4/1996	11/4/1996	11/4/1996	11/4/1996
Sample Time			9:30a.m.	9:15a.m.	3:45p.m	3:30p.m.	10:45a.m.	10:30a.m.	4:30p.m.	4:20p.m.
Sample Analysis Date			11/17/1996	11/17/1996	11/18/1996	11/18/1996	11/18/1996	11/18/1996	11/18/1996	11/18/1996
Sample Depth (bgs) (type)			1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)
Sampling Method			Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon
Surface Condition			NA	NA	NA	NA	NA	NA	NA	NA
Sample Field Observations			Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected
Concentrations Aroclor-1260 (ppb)	1000 (surface)/ 10000(subsurface soils)	33	36 U	100	21 J	380	37 U	140	37 U	16 J

Category	NYSDEC Soil Cleanup Criteria[1]	Estimated Detection Limit	G1SS-17D	G1SS-17S	G1SS-18D	G1SS-18S	G1SS-19D	G1SS-19S	G1SS-20D	G1SS-20S
Sample Date			10/29/1996	10/29/1996	10/29/1996	10/29/1996	11/4/1996	11/4/1996	11/4/1996	11/4/1996
Sample Time			3:30p.m.	3:15p.m.	3:10p.m.	2:50p.m.	8:30a.m.	8:00a.m.	12:00p.m.	11:45a.m.
Sample Analysis Date			11/5/1996	11/5/1996	11/4/1996	11/4/1996	11/17/1996	11/17/1996	11/18/1996	11/18/1996
Sample Depth (bgs) (type)			1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)	1'-1.2' (deep)	0"-3" (shallow)
Sampling Method			Drill Rig (asphalt surface) and Aluminum Spoon	Drill Rig (asphalt surface) and Aluminum Spoon	Drill Rig (asphalt surface) and Aluminum Spoon	Drill Rig (asphalt surface) and Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon	Aluminum Spoon
Surface Condition			NA	NA	NA	NA	NA	NA	NA	NA
Sample Field Observations			Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected	Predetermined Sample Depth ; OVA reading not collected
Concentrations Aroclor-1260 (ppb)	1000 (surface)/ 10000(subsurface soils)	33	110	34 U	39 U	34 U	110	210	69	250

Allowable Holding Time:
Extract - 14 days from collection
Analyze - 40 days from extraction

[1] Soil Clean-up Criteria are estabiished by NYSDEC for lead and PCBs for the Site.

Concentrations in bold are over the Criteria.

Shaded cell indicates that this parameter was spiked for the MS and MSD sample

U - The analyte was analyzed for, but not detected.
J - Analyte detected below method detection limit and/or estimated concentration.
NL - Analyte not listed in NYSDEC TAGM #4046

ppm - parts per million

bgs - below ground surface

APPENDIX F

SSI SOIL TICS ANALYTICAL RESULTS SUMMARY TABLES

Environmental
Engineers & Scientists

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/12/2005	SSI-419-11-SB1 (12-14)	15-Isocopalol (r.t. = 15.68)	79191-29-0	2.13	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	2-Butyl-3-methylquinoxaline-1,4-dioxide (r.t. = 12.24)	77236-79-4	1.09	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.19)	123-42-2	2010	JNAB	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	3-Penten-2-one, 4-methyl- (r.t. = 3.5)	141-79-7	11	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	4H-Cyclopenta[def]phenanthrene (r.t. = 10.75)	203-64-5	1.94	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Benzene, 1-ethyl-3-methyl- (r.t. = 11.22)	620-14-4	0.00864	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Docosane (r.t. = 14.88)	629-97-0	3.44	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Eicosane (r.t. = 13.06)	112-95-8	0.924	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	erythro-N-Phenyl-2-phenyl-3-methylthiop (r.t. = 14.97)	86943-21-7	1.16	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Heneicosane (r.t. = 16.03)	629-94-7	2.02	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Heptadecane (r.t. = 14.19)	629-78-7	1.76	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Heptadecane (r.t. = 15.61)	629-78-7	3.6	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Hexadecane (r.t. = 13.45)	544-76-3	0.987	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Hexane (r.t. = 4.74)	110-54-3	0.00958	JNB	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Octadecane (r.t. = 13.83)	593-45-3	1.6	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Octadecane (r.t. = 15.23)	593-45-3	4.65	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Pentadecane (r.t. = 14.55)	629-62-9	2.56	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Perylene (r.t. = 14.49)	198-55-0	1.08	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Perylene (r.t. = 14.66)	198-55-0	2.99	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	Pyrene, 1-methyl- (r.t. = 12.12)	2381-21-7	0.952	JN	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	unknown (r.t. = 13.57)		0.915	J	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	unknown (r.t. = 15.35)		4.1	J	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	unknown (r.t. = 16.1)		1.51	J	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	unknown (r.t. = 16.16)		1.89	J	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	unknown (r.t. = 16.5)		1.35	J	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	unknown (r.t. = 17.04)		2.04	J	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	unknown (r.t. = 17.38)		0.951	J	OLM04.2
12/12/2005	SSI-419-11-SB1 (12-14)	unknown (r.t. = 3.35)		0.00703	J	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	11H-Benzo[b]fluorene (r.t. = 12.17)	243-17-4	1.26	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	1H-Indene, 2-phenyl- (r.t. = 10.84)	4505-48-0	1.79	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	4-NITRO-4\-AMINODIPHENYLSULPHONE (r.t. = 16.18)	1948-92-1	2.03	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Benz[a]anthracene, 1,12-dimethyl- (r.t. = 14.24)	313-74-6	1.26	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Benz[a]anthracene, 1-methyl- (r.t. = 13.73)	2498-77-3	0.928	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Benzene, 1-ethyl-3-methyl- (r.t. = 11.22)	620-14-4	0.00614	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Benzo[b]naphtho[2,1-d]thiophene (r.t. = 12.95)	239-35-0	0.825	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Hexane (r.t. = 4.74)	110-54-3	0.00782	JNB	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Perylene (r.t. = 14.58)	198-55-0	1.7	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Perylene (r.t. = 14.77)	198-55-0	14	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Phenanthrene, 9-methyl- (r.t. = 10.75)	883-20-5	1.89	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Pyrene, 1-methyl- (r.t. = 12.33)	2381-21-7	0.757	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	Tricyclo[4.4.0.0(2,5)]dec-8-ene, 1,2,3, (r.t. = 16.22)	77549-74-7	1.31	JN	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	unknown (r.t. = 11.06)		1.67	J	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	unknown (r.t. = 11.36)		1.66	J	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	unknown (r.t. = 14.09)		1.21	J	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	unknown (r.t. = 14.31)		1.86	J	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	unknown (r.t. = 15.45)		1.22	J	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	unknown (r.t. = 15.92)		2.86	J	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	unknown (r.t. = 17.95)		1.45	J	OLM04.2
12/12/2005	SSI-419-11-SB2 (45-48)	unknown (r.t. = 18.09)		1.49	J	OLM04.2
12/7/2005	SSI-419-13(12-14)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.3)	123-42-2	1640	JNAB	OLM04.2
12/7/2005	SSI-419-13(12-14)	2-Propenoic acid, 2-methyl- (r.t. = 3.07)	79-41-4	6.98	JN	OLM04.2
12/7/2005	SSI-419-13(12-14)	3-Penten-2-one, 4-methyl- (r.t. = 3.66)	141-79-7	10.8	JN	OLM04.2
12/7/2005	SSI-419-13(12-14)	4H-Cyclopenta[def]phenanthrene (r.t. = 10.89)	203-64-5	4.52	JN	OLM04.2
12/7/2005	SSI-419-13(12-14)	9,10-Anthracenedione (r.t. = 11.13)	84-65-1	3.29	JN	OLM04.2
12/7/2005	SSI-419-13(12-14)	Benzo[e]pyrene (r.t. = 14.79)	192-97-2	6.09	JN	OLM04.2
12/7/2005	SSI-419-13(12-14)	Phenanthrene, 3-methyl- (r.t. = 10.8)	832-71-3	2.89	JN	OLM04.2
12/7/2005	SSI-419-13(12-14)	unknown (r.t. = 15.85)		3.41	J	OLM04.2
12/7/2005	SSI-419-13(12-14)	unknown (r.t. = 4.13)		4.11	J	OLM04.2
12/7/2005	SSI-419-13(21-24)	11H-Benzo[b]fluorene (r.t. = 12.27)	243-17-4	0.441	JN	OLM04.2
12/7/2005	SSI-419-13(21-24)	28-NOR-17BETA(H)-HOPANE (r.t. = 15.54)	36728-72-0	0.846	JN	OLM04.2
12/7/2005	SSI-419-13(21-24)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.23)	123-42-2	17.8	JNAB	OLM04.2
12/7/2005	SSI-419-13(21-24)	Benzo[e]pyrene (r.t. = 14.82)	192-97-2	1.62	JN	OLM04.2
12/7/2005	SSI-419-13(21-24)	BIS(2-CYANOETHYL)MERCURY (r.t. = 14.34)	2517-77-3	0.442	JN	OLM04.2
12/7/2005	SSI-419-13(21-24)	Heptane, 2,5-dimethyl- (r.t. = 4.15)	2216-30-0	1.44	JNB	OLM04.2
12/7/2005	SSI-419-13(21-24)	unknown (r.t. = 10.91)		0.444	J	OLM04.2
12/7/2005	SSI-419-13(21-24)	unknown (r.t. = 14.3)		0.756	J	OLM04.2
12/7/2005	SSI-419-13(21-24)	unknown (r.t. = 14.64)		0.466	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/7/2005	SSI-419-13(21-24)	unknown (r.t. = 15.07)		0.674	J	OLM04.2
12/7/2005	SSI-419-13(21-24)	unknown (r.t. = 15.88)		1.21	J	OLM04.2
12/7/2005	SSI-419-13(21-24)	unknown (r.t. = 16.33)		0.562	J	OLM04.2
12/7/2005	SSI-419-13(21-24)	unknown (r.t. = 16.39)		0.48	J	OLM04.2
12/7/2005	SSI-419-13(45-48)	1-Hexanol, 2-ethyl- (r.t. = 6.06)	104-76-7	0.329	JN	OLM04.2
12/7/2005	SSI-419-13(45-48)	2-Butenedioic acid (Z)-, bis(2-methylpr (r.t. = 8.42)	14234-82-3	0.278	JN	OLM04.2
12/7/2005	SSI-419-13(45-48)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.29)	123-42-2	8.29	JNAB	OLM04.2
12/7/2005	SSI-419-13(45-48)	Benzene, 1,2,3-trimethyl- (r.t. = 5.83)	526-73-8	0.398	JN	OLM04.2
12/7/2005	SSI-419-13(45-48)	Heptane, 2,3-dimethyl- (r.t. = 4.48)	3074-71-3	0.402	JN	OLM04.2
12/7/2005	SSI-419-13(45-48)	Heptane, 2,4-dimethyl- (r.t. = 4.05)	2213-23-2	0.974	JNB	OLM04.2
12/7/2005	SSI-419-13(45-48)	Heptane, 2,5-dimethyl- (r.t. = 4.22)	2216-30-0	3.1	JNB	OLM04.2
12/7/2005	SSI-419-13(45-48)	Heptane, 2,6-dimethyl- (r.t. = 4.15)	1072-05-5	1.52	JNB	OLM04.2
12/7/2005	SSI-419-13(45-48)	unknown (r.t. = 11.27)		0.283	J	OLM04.2
12/7/2005	SSI-419-13(45-48)	unknown (r.t. = 5.38)		0.911	JB	OLM04.2
12/7/2005	SSI-419-13(72-75)	1-Hexanol, 2-ethyl- (r.t. = 6.06)	104-76-7	0.354	JN	OLM04.2
12/7/2005	SSI-419-13(72-75)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.29)	123-42-2	5.21	JNAB	OLM04.2
12/7/2005	SSI-419-13(72-75)	Benzene, 1,3,5-trimethyl- (r.t. = 5.83)	108-67-8	0.345	JN	OLM04.2
12/7/2005	SSI-419-13(72-75)	Heptane, 2,3-dimethyl- (r.t. = 4.48)	3074-71-3	0.418	JN	OLM04.2
12/7/2005	SSI-419-13(72-75)	Heptane, 2,4-dimethyl- (r.t. = 4.05)	2213-23-2	0.944	JNB	OLM04.2
12/7/2005	SSI-419-13(72-75)	Heptane, 2,5-dimethyl- (r.t. = 4.22)	2216-30-0	3.19	JNB	OLM04.2
12/7/2005	SSI-419-13(72-75)	Heptane, 2,6-dimethyl- (r.t. = 4.15)	1072-05-5	1.56	JNB	OLM04.2
12/7/2005	SSI-419-13(72-75)	unknown (r.t. = 5.38)		0.764	JB	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	(E)- and (Z)-15-Acetonyl-8.alpha.,17-ep (r.t. = 16.17)	88034-07-5	2.84	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	15-Isocopalol (r.t. = 15.68)	79191-29-0	2.66	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	2,6-DIMETHYL-6-NITRO-2-HEPTEN-4-ONE (r.t. = 6.66)	73583-56-9	4.6	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.32)	123-42-2	2060	JNA	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	3-Penten-2-one, 4-methyl- (r.t. = 3.49)	141-79-7	19.7	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	4H-Cyclopenta[def]phenanthrene (r.t. = 10.75)	203-64-5	2.3	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	6-Hydroxymethyl-8-methylbenzo[b]naphtho (r.t. = 16.11)	89817-17-4	3.02	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	9,10-Anthracenedione (r.t. = 10.99)	84-65-1	2.19	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	Benzo[j]fluoranthene (r.t. = 14.66)	205-82-3	4.23	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	Cyclopropanecarboxylic acid (r.t. = 2.86)	1759-53-1	8.98	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	Docosane (r.t. = 16.03)	629-97-0	2.02	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	Heptadecane (r.t. = 14.88)	629-78-7	3.48	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	Heptadecane (r.t. = 15.23)	629-78-7	3.19	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	Nonadecane (r.t. = 14.19)	629-92-5	2.79	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	Octadecane (r.t. = 13.83)	593-45-3	2.02	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	Octadecane (r.t. = 14.55)	593-45-3	3.01	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	Tricosane (r.t. = 15.61)	638-67-5	3.72	JN	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	unknown (r.t. = 14.46)		1.71	J	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	unknown (r.t. = 15.03)		1.45	J	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	unknown (r.t. = 15.35)		6.4	J	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	unknown (r.t. = 16.46)		1.69	J	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	unknown (r.t. = 16.55)		1.58	J	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	unknown (r.t. = 17.08)		1.41	J	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	unknown (r.t. = 18.13)		1.95	J	OLM04.2
12/7/2005	SSI-419-13-SS(0-3)	unknown (r.t. = 3.98)		10.7	J	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	1,2:3,4-Dibenzoanthracene (r.t. = 16.17)	215-58-7	2.67	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.17)	123-42-2	7.74	JNAB	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	4H-Cyclopenta[def]phenanthrene (r.t. = 10.84)	203-64-5	4.63	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	9H-Xanthen-9-one, 1-hydroxy-3,5,6-trime (r.t. = 17.94)	4090-62-4	2.88	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Anthracene, 2-methyl- (r.t. = 10.75)	613-12-7	2.93	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Benz[a]anthracene, 11-methyl- (r.t. = 13.72)	6111-78-0	1.87	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Benz[a]anthracene-7,12-dione (r.t. = 14.09)	2498-66-0	2.77	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Benzene, (1-methylethyl)- (r.t. = 5.1)	98-82-8	18.3	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Benzene, 1,2,3,4-tetrachloro-5,6-dimeth (r.t. = 15.91)	944-61-6	4.38	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Benzo[e]pyrene (r.t. = 14.75)	192-97-2	11.1	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	column bleed (r.t. = 3.33)		0.0144	J	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Ethanone, 1-(2,3,4-trimethylphenyl)- (r.t. = 6.78)	1467-36-3	11.7	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Ethanone, 1-(2,3,4-trimethylphenyl)- (r.t. = 6.93)	1467-36-3	8.62	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Ethanone, 1-(2,4,5-trimethylphenyl)- (r.t. = 6.82)	51322	7.02	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Hexane (r.t. = 4.73)	110-54-3	0.00664	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Perylene (r.t. = 14.57)	198-55-0	3.2	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Pyrene, 1-methyl- (r.t. = 12.32)	2381-21-7	1.78	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	Pyrene, 4-methyl- (r.t. = 12.08)	531039	1.57	JN	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	unknown (r.t. = 11.45)		2.66	J	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	unknown (r.t. = 15.13)		2.44	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/8/2005	SSI-419-14-SB1(12-14")	unknown (r.t. = 15.79)		2.2	J	OLM04.2
12/8/2005	SSI-419-14-SB1(12-14")	unknown (r.t. = 18.07)		2.81	J	OLM04.2
12/8/2005	SSI-419-14-SB2(21-24")	(5-CHLORO-8-QUINOLINATO-O,N)BORANE (r.t. = 10.84)	83210-19-9	3.47	JN	OLM04.2
12/8/2005	SSI-419-14-SB2(21-24")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.17)	123-42-2	11.5	JNAB	OLM04.2
12/8/2005	SSI-419-14-SB2(21-24")	Perylene (r.t. = 14.74)	198-55-0	6.71	JN	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	10-DEMETHYLSQUALENE (r.t. = 14.38)	59681-06-0	0.995	JN	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.2)	123-42-2	2.6	JNAB	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	Heptane, 2,5-dimethyl- (r.t. = 4.12)	2216-30-0	1.47	JNB	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	Heptane, 2,6-dimethyl- (r.t. = 4.05)	1072-05-5	0.783	JNB	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	Hexane (r.t. = 4.73)	110-54-3	0.0196	JN	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	unknown (r.t. = 11.18)		0.284	JB	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	unknown (r.t. = 13.48)		0.319	J	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	unknown (r.t. = 13.96)		0.756	J	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	unknown (r.t. = 14.41)		0.455	J	OLM04.2
12/8/2005	SSI-419-14-SB3(45-48")	unknown (r.t. = 14.83)		0.379	J	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	1,2-Benzenedicarboxylic acid, bis(2-met (r.t. = 10.39)	84-69-5	0.263	JN	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	10-DEMETHYLSQUALENE (r.t. = 14.38)	59681-06-0	0.691	JN	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	1H-Purin-6-amine, [(2-fluorophenyl)meth (r.t. = 14.41)	74421-44-6	0.412	JN	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.2)	123-42-2	3.79	JNAB	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	5-Iodopent-2-ene (r.t. = 3.59)	75067-63-9	0.399	JN	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	Benzene, 1,2,3-trimethyl- (r.t. = 5.76)	526-73-8	0.506	JN	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	Benzene, 1-ethyl-3-methyl- (r.t. = 5.48)	620-14-4	0.353	JN	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	Heptane, 2,4-dimethyl- (r.t. = 3.95)	2213-23-2	0.554	JNB	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	Heptane, 2,5-dimethyl- (r.t. = 4.13)	2216-30-0	2.61	JNB	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	Heptane, 2,6-dimethyl- (r.t. = 4.05)	1072-05-5	1.44	JNB	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	Hexanedioic acid, dioctyl ester (r.t. = 12.73)	123-79-5	1.43	JN	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	unknown (r.t. = 11.18)		1.5	JB	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	unknown (r.t. = 13.48)		0.242	J	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	unknown (r.t. = 13.96)		0.615	J	OLM04.2
12/8/2005	SSI-419-14-SB4(72-75")	unknown (r.t. = 14.83)		0.256	J	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.17)	123-42-2	3.09	JNAB	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	Benzene, 1,2,4-trimethyl-5-(1-methyleth (r.t. = 6.82)	10222-95-4	2.38	JN	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	Benzene, 1,3-bis(1-methylethyl)- (r.t. = 6.78)	99-62-7	3.04	JN	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	Benzene, 1,4-bis(1-methylethyl)- (r.t. = 6.93)	100-18-5	2.63	JN	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	Benzo[e]pyrene (r.t. = 14.75)	192-97-2	1.84	JN	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	Eicosane (r.t. = 15.33)	112-95-8	3.32	JN	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	Pentacosane (r.t. = 14.63)	629-99-2	1.57	JN	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	unknown (r.t. = 16.48)		1.23	J	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	unknown (r.t. = 17.21)		1.72	J	OLM04.2
12/8/2005	SSI-419-14-SS(0-3")	unknown (r.t. = 18.07)		0.819	J	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	1H-Indene, 2,3-dihydro-2-methyl- (r.t. = 7.3)	824-63-5	1.11	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.18)	123-42-2	3.43	JNAB	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	8-ALLYLCYCLO-OCTA-2,4,6-TRIENONE (r.t. = 7.51)	61775-56-2	1.1	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 1-(1,1-dimethylethyl)-4-methyl (r.t. = 6.91)	98-51-1	1.07	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 1,2,3,4-tetramethyl- (r.t. = 6.61)	488-23-3	2.03	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 1,2,3,4-tetramethyl- (r.t. = 6.63)	488-23-3	2.5	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 1,2,3-trimethyl- (r.t. = 5.74)	526-73-8	6.02	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 1,3-diethyl- (r.t. = 6.14)	141-93-5	3.8	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 1-ethyl-2,3-dimethyl- (r.t. = 6.76)	933-98-2	2.4	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 1-ethyl-4-methyl- (r.t. = 5.96)	622-96-8	3.12	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 1-methyl-2-(1-methylethyl)- (r.t. = 6.21)	527-84-4	10.8	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 2-ethenyl-1,3-dimethyl- (r.t. = 6.83)	2039-90-9	3.96	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, 2-ethyl-1,4-dimethyl- (r.t. = 6.34)	1758-88-9	5.05	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzene, diethylmethyl- (r.t. = 6.86)	25550-13-4	2.21	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Benzeneacetaldehyde, .alpha.-methyl- (r.t. = 6.16)	93-53-8	7.59	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Dodecane, 2,6,11-trimethyl- (r.t. = 6.23)	31295-56-4	3.39	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Heptane, 2,6-dimethyl- (r.t. = 7.43)	1072-05-5	1.09	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Indan, 5,6-dimethyl- (r.t. = 7.39)	1075-22-5	1.87	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Naphthalene, 1,5-dimethyl- (r.t. = 8.24)	571-61-9	1.72	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Naphthalene, 1-methyl- (r.t. = 7.77)	90-12-0	1.28	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Tetradecane (r.t. = 8.07)	629-59-4	2.78	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	Tridecane (r.t. = 7.57)	629-50-5	2.4	JN	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	unknown (r.t. = 6.27)		4.25	J	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	unknown (r.t. = 7.21)		1.21	J	OLM04.2
12/8/2005	SSI-419-15-SB1(12-14")	unknown (r.t. = 7.32)		1.1	J	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	1H-Indene, 2,3-dihydro-4,6-dimethyl- (r.t. = 7.39)	1685-82-1	2.15	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	1H-Indene, 2,3-dihydro-4,6-dimethyl- (r.t. = 7.57)	1685-82-1	2.1	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/8/2005	SSI-419-15-SB2(21-24")	4-Ethylindan (r.t. = 7.3)	66256-38-0	1.42	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, (2-methyl-1-propenyl)- (r.t. = 6.77)	768-49-0	3.64	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, (3-methyl-2-butenyl)- (r.t. = 7.47)	4489-84-3	1.17	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1,2,3,4-tetramethyl- (r.t. = 6.61)	488-23-3	3.09	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1,2-diethyl- (r.t. = 6.14)	135-01-3	6.47	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1,3-diethyl-5-methyl- (r.t. = 6.74)	2050-24-0	1.19	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1-ethyl-3-methyl- (r.t. = 5.74)	620-14-4	15.4	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1-ethyl-3-methyl- (r.t. = 5.96)	620-14-4	6.07	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1-methyl-2-(1-methylethyl)- (r.t. = 6.36)	527-84-4	6.81	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1-methyl-2-(1-methylethyl)- (r.t. = 6.63)	527-84-4	4.09	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1-methyl-2-(1-methylethyl)- (r.t. = 6.95)	527-84-4	1.15	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1-methyl-2-propyl- (r.t. = 6.16)	1074-17-5	12.9	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 1-methyl-4-(1-methylethyl)- (r.t. = 6.21)	99-87-6	21.5	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 2-ethenyl-1,3-dimethyl- (r.t. = 6.83)	2039-90-9	6.51	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 2-ethyl-1,4-dimethyl- (r.t. = 6.34)	1758-88-9	10.3	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzene, 4-ethyl-1,2-dimethyl- (r.t. = 6.53)	934-80-5	1.42	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Benzeneacetaldehyde, .alpha.-methyl- (r.t. = 6.27)	93-53-8	6.38	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Heptane, 2,6-dimethyl- (r.t. = 6.23)	1072-05-5	4.31	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Naphthalene, 1,2,3,4-tetrahydro-5-methy (r.t. = 7.5)	2809-64-5	1.25	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	Naphthalene, 1-methyl- (r.t. = 7.77)	90-12-0	2.3	JN	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	unknown (r.t. = 5.46)		3.95	J	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	unknown (r.t. = 6.86)		2.36	J	OLM04.2
12/8/2005	SSI-419-15-SB2(21-24")	unknown (r.t. = 6.91)		2.23	J	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.21)	54113-93-8	4.93	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	28-NOR-17BETA(H)-HOPANE (r.t. = 15.43)	36728-72-0	14.3	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Anthracene, 9-butyltetradecahydro- (r.t. = 16.67)	55133-89-6	4.98	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Anthracene, 9-cyclohexyltetradecahydro- (r.t. = 17.09)	55255-70-4	4.58	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Cholestane, (5.alpha.,14.beta.)- (r.t. = 14.53)	40071-70-3	1.9	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Docosane (r.t. = 13.88)	629-97-0	11.8	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Heptadecane (r.t. = 14.25)	629-78-7	3.52	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Heptadecane, 2,6,10,14-tetramethyl- (r.t. = 16.61)	18344-37-1	3.04	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Methyl 5-(2,4-dichlorophenoxy)methyl-3- (r.t. = 16.59)	85858-62-4	4.22	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Nonacosane (r.t. = 15.7)	630-03-5	6.63	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Nonadecane (r.t. = 14)	629-92-5	2.69	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Nonadecane (r.t. = 16.13)	629-92-5	3.7	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Octacosane (r.t. = 14.95)	630-02-4	8.17	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Octacosane (r.t. = 15.31)	630-02-4	11.2	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Octadecane (r.t. = 13.08)	593-45-3	2.35	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Octadecane (r.t. = 13.5)	593-45-3	4.34	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Octadecane (r.t. = 14.61)	593-45-3	5.33	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	Tricosane (r.t. = 13.11)	638-67-5	2.18	JN	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	unknown (r.t. = 12.56)		1.88	J	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	unknown (r.t. = 14.21)		2.54	J	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	unknown (r.t. = 15.06)		2.23	J	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	unknown (r.t. = 15.58)		2.05	J	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	unknown (r.t. = 15.78)		5.69	J	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	unknown (r.t. = 15.96)		2.37	J	OLM04.2
12/8/2005	SSI-419-15-SS(0-3")	unknown (r.t. = 16.27)		6.17	J	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	[4aS-(4a.alpha.,4b.beta.,7.alpha.,8.alp (r.t. = 15.68)	87953-46-6	2.07	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	1,1'-Biphenyl, 3-chloro-4-methoxy- (r.t. = 16.69)	21424-83-9	5.24	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	10.alpha.-Testosterone (r.t. = 17.07)	604-39-7	5.72	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	16-Octadecenal (r.t. = 15.05)	56554-87-1	2.44	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	1-Octadecene (r.t. = 13.84)	112-88-9	10.1	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	1-Tetradecanol (r.t. = 15.83)	112-72-1	2.93	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	2-Isopropenyl-5-acetyl-6-hydroxy-2,3-di (r.t. = 16.51)	6906-88-3	1.37	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	4-Oxo-3,4-dihydro-2,3-diazaphenoxathiin (r.t. = 16.77)	85302-01-8	0.903	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	7,10,13-Hexadecatrienoic acid, methyl e (r.t. = 11.57)	56554-30-4	1.42	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Benzene, 1-ethyl-3-methyl- (r.t. = 11.22)	620-14-4	0.0123	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Benzo[j]fluoranthene (r.t. = 14.67)	205-82-3	1.01	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Cyclotetradecane, 1,7,11-trimethyl-4-(1 (r.t. = 15.28)	1786-12-5	1.07	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Docosane (r.t. = 14.56)	629-97-0	12.7	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Eicosane (r.t. = 14.89)	112-95-8	1.3	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Eicosane (r.t. = 15.25)	112-95-8	10.8	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Hexane (r.t. = 4.76)	110-54-3	0.0126	JNB	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Octadecane (r.t. = 14.2)	593-45-3	1.73	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Octadecane (r.t. = 16.05)	593-45-3	2.77	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Pentacosane (r.t. = 13.07)	629-99-2	1.09	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/12/2005	SSI-419-16-SB1 (12-14)	Stigmast-5-en-3-ol, (3.beta.,24S)- (r.t. = 16.38)	83-47-6	8.15	JN	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	unknown (r.t. = 1.61)		0.007	J	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	unknown (r.t. = 13.91)		1.83	JB	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	unknown (r.t. = 15.32)		1.17	J	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	unknown (r.t. = 16.07)		2.24	J	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	unknown (r.t. = 16.18)		1.53	J	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	unknown (r.t. = 16.59)		1.18	J	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	unknown (r.t. = 16.85)		0.879	J	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	unknown (r.t. = 3.37)		0.00997	J	OLM04.2
12/12/2005	SSI-419-16-SB1 (12-14)	Vitamin E (r.t. = 15.43)	59-02-9	3.16	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	1,2-Benzenedicarboxylic acid, bis(2-met (r.t. = 10.31)	84-69-5	0.233	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.13)	123-42-2	5.78	JNAB	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	2-Propenoic acid, 2-methyl-, 2,3-dibrom (r.t. = 14.3)	3066-70-4	0.166	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	3-Penten-2-one, (E)- (r.t. = 3.92)	3102-33-8	1	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	5-Iodopent-2-ene (r.t. = 3.5)	75067-63-9	0.857	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Benzene, 1-ethyl-3-methyl- (r.t. = 11.22)	620-14-4	0.00907	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Benzenesulfonamide, N,4-dimethyl- (r.t. = 9.48)	640-61-9	0.3	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Benzo[e]pyrene (r.t. = 14.71)	192-97-2	0.467	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Eicosane (r.t. = 15.28)	112-95-8	0.645	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Heptane, 2,4-dimethyl- (r.t. = 3.86)	2213-23-2	0.419	JNB	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Heptane, 2,6-dimethyl- (r.t. = 3.95)	1072-05-5	0.983	JNB	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Hexadecanal (r.t. = 15.09)	629-80-1	0.535	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Hexane (r.t. = 4.76)	110-54-3	0.0114	JNB	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Octadecane (r.t. = 13.87)	593-45-3	0.208	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Octadecane (r.t. = 16.08)	593-45-3	0.207	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Octadecane, 1-chloro- (r.t. = 14.58)	3386-33-2	0.463	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	Octane, 3-methyl- (r.t. = 4.03)	2216-33-3	2.12	JN	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	unknown (r.t. = 14.19)		0.28	J	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	unknown (r.t. = 16.11)		0.304	J	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	unknown (r.t. = 16.41)		0.633	J	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	unknown (r.t. = 16.65)		0.268	J	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	unknown (r.t. = 17.12)		0.491	J	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	unknown (r.t. = 2.92)		1.21	J	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	unknown (r.t. = 5.25)		0.397	JB	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	unknown (r.t. = 6.11)		0.639	J	OLM04.2
12/12/2005	SSI-419-16-SB2 (45-48)	unknown (r.t. = 8.27)		0.241	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	(24R)-4-ERGOSTEN-3-ONE (r.t. = 17.17)	22260-46-4	5.11	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	(Z)14-TRICOSENYL FORMATE (r.t. = 14.41)	77899-10-6	1.87	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	(Z)14-TRICOSENYL FORMATE (r.t. = 15.11)	77899-10-6	2.97	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 15.76)	54113-93-8	0.939	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	1-Nonadecene (r.t. = 13.13)	18435-45-5	0.921	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	2,6,10,14,18,22-Tetracosahexaene, 2,6,1 (r.t. = 14.32)	7683-64-9	1.04	JNB	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	9,12-Octadecadienoic acid, methyl ester (r.t. = 11.6)	2566-97-4	1.56	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	9-Octadecenoic acid (Z)- (r.t. = 11.64)	112-80-1	2.89	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	Benzo[e]pyrene (r.t. = 14.74)	192-97-2	1.51	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	Docosane, 7-hexyl- (r.t. = 15.31)	55373-86-9	8.71	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	Ethanol, 2-(9-octadecenyloxy)-, (Z)- (r.t. = 15.9)	5353-25-3	2.37	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	Hexane (r.t. = 4.76)	110-54-3	0.00952	JNB	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	Nonadecane (r.t. = 14.61)	629-92-5	8.43	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	Phenanthrene, 4-methyl- (r.t. = 10.68)	832-64-4	1.59	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	s-Indacene-1,7-dione, 2,3,5,6-tetrahydr (r.t. = 11.22)	55591-17-8	2.03	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	Stigmast-5-en-3-ol, (3.beta.,24S)- (r.t. = 16.46)	83-47-6	3.99	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	Tetradecane (r.t. = 13.89)	629-59-4	1.22	JN	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	unknown (r.t. = 1.58)		0.00662	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	unknown (r.t. = 15.05)		0.988	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	unknown (r.t. = 16.16)		2.43	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	unknown (r.t. = 16.56)		1.04	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	unknown (r.t. = 16.77)		0.897	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	unknown (r.t. = 16.88)		3.52	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	unknown (r.t. = 17.76)		37	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	unknown (r.t. = 17.87)		48.8	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	unknown (r.t. = 18.02)		1.8	J	OLM04.2
12/12/2005	SSI-419-1-SB1 (12-14)	Vitamin E (r.t. = 15.49)	59-02-9	1.47	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	(9)(2,4)PYRROLOPHANE (r.t. = 15.75)	61576-01-0	1.99	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	1,2:3,4-Dibenzoanthracene (r.t. = 16.13)	215-58-7	1.84	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	1,2-Benzisothiazole-3-propanoic acid (r.t. = 8.18)	50565-45-2	4.67	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	2-(3'-Iodopropyl)-1,1-dimethyl-3-methyl (r.t. = 15.27)	95452-02-1	2.73	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/8/2005	SSI-419-3-SB1(12-14")	8,11-Octadecadienoic acid, methyl ester (r.t. = 16.24)	56599-58-7	1.68	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	9,10-Anthracenedione, 1-amino- (r.t. = 12.69)	82-45-1	1.44	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	Benzo[e]pyrene (r.t. = 14.72)	192-97-2	7.16	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	Chrysene, 5-methyl- (r.t. = 13.69)	3697-24-3	0.932	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	Hexane (r.t. = 4.74)	110-54-3	0.0069	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	Hexanedioic acid, dioctyl ester (r.t. = 12.66)	123-79-5	1.05	JNB	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	Phenol, 4,4'-(1-methylethylidene)bis- (r.t. = 11.85)	80-05-7	21.4	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	Pyrene, 1-methyl- (r.t. = 12.16)	2381-21-7	1.06	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	Spectra-Sorb UV 531 (r.t. = 14.23)	1843-05-6	4.62	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	Tinuvin P (r.t. = 11.44)	2440-22-4	66.4	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	Tricyclo[4.4.0.0(2,5)]dec-8-ene, 1,2,3, (r.t. = 16.18)	77549-74-7	3.67	JN	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 11.2)		7.1	JB	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 11.24)		17.8	J	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 12.39)		1.71	J	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 12.91)		0.851	J	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 12.99)		0.869	J	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 13.79)		1.04	J	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 14.96)		1.86	J	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 15.1)		25.1	J	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 15.29)		3.4	J	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 15.41)		3.35	J	OLM04.2
12/8/2005	SSI-419-3-SB1(12-14")	unknown (r.t. = 9.57)		12.8	J	OLM04.2
12/8/2005	SSI-419-3-SB2(45-48")	1,2-Benzenedicarboxylic acid, dibutyl e (r.t. = 12.14)	84-74-2	32.1	JN	OLM04.2
12/8/2005	SSI-419-3-SB2(45-48")	Hexane (r.t. = 4.73)	110-54-3	0.0222	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	10-DEMETHYLSQUALENE (r.t. = 14.38)	59681-06-0	0.366	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	2,6-DIMETHYL-6-NITRO-2-HEPTEN-4-ONE (r.t. = 6.78)	73583-56-9	0.18	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.44)	123-42-2	925	JNA	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.47)	123-42-2	6.63	JNA	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.48)	123-42-2	4.68	JNA	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.52)	123-42-2	21.5	JNA	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.59)	123-42-2	50.1	JNA	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.68)	123-42-2	10.9	JNA	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	3-Penten-2-one, 4-methyl- (r.t. = 3.64)	141-79-7	26.4	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	4,4\-DINITRODIPHENYLSULPHIDE (r.t. = 15.96)	22100-66-9	0.471	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	4-Fluorocumene (r.t. = 5.11)	403-39-4	2.41	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	7H-Benz[de]anthracen-7-one (r.t. = 12.85)	82-05-3	0.187	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	Aristolone (r.t. = 17.58)	6831-17-0	0.61	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	Benzo[e]pyrene (r.t. = 14.61)	192-97-2	0.372	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	Benzo[j]fluoranthene (r.t. = 14.79)	205-82-3	1.42	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	Chrysene, 5-methyl- (r.t. = 13.76)	3697-24-3	0.221	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	column bleed (r.t. = 3.58)		0.00717	J	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	Dibenz[a,h]anthracene (r.t. = 16.22)	53-70-3	0.396	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	Hexane (r.t. = 4.74)	110-54-3	0.0117	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	Pyrene, 1-methyl- (r.t. = 12.36)	2381-21-7	0.18	JN	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	unknown (r.t. = 12.98)		0.193	J	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	unknown (r.t. = 14.41)		0.499	J	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	unknown (r.t. = 15.84)		0.603	J	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	unknown (r.t. = 18.01)		0.444	J	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	unknown (r.t. = 18.14)		0.437	J	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	unknown (r.t. = 4.75)		6.31	J	OLM04.2
12/8/2005	SSI-419-5-SB1(12-14")	unknown (r.t. = 5.18)		2	J	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	1,2-Benzenedicarboxylic acid, bis(2-met (r.t. = 10.39)	84-69-5	0.259	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	1H-Purin-6-amine, [(2-fluorophenyl)meth (r.t. = 13.96)	74421-44-6	0.223	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	1H-Purin-6-amine, [(2-fluorophenyl)meth (r.t. = 14.41)	74421-44-6	0.482	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	2H-3,5a-Epoxynaphth[2,1-b]oxepin, dodec (r.t. = 16.22)	38419-74-8	0.322	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.25)	123-42-2	41.3	JNAB	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	4H-1-Benzopyran-4-one, 5-hydroxy-7-meth (r.t. = 14.71)	520-28-5	0.203	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	4-NITRO-4\-AMINODIPHENYLSULPHONE (r.t. = 15.94)	1948-92-1	0.182	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	5-Iodopent-2-ene (r.t. = 3.6)	75067-63-9	0.868	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	Benzo[b]chrysene (r.t. = 16.26)	214-17-5	0.213	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	Benzo[e]pyrene (r.t. = 14.6)	192-97-2	0.332	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	Benzo[e]pyrene (r.t. = 14.78)	192-97-2	0.85	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	CYCLOPENTA(DEF)PHENANTHRENONE (r.t. = 11.48)	5737-13-3	0.268	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	Heptane, 2,4-dimethyl- (r.t. = 3.95)	2213-23-2	0.882	JNB	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	Heptane, 2,5-dimethyl- (r.t. = 4.13)	2216-30-0	4.12	JNB	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	Heptane, 2,6-dimethyl- (r.t. = 4.05)	1072-05-5	3.75	JNB	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	Pyrene, 1-methyl- (r.t. = 12.36)	2381-21-7	0.187	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/8/2005	SSI-419-5-SB2(45-48")	trans-Farnesol (r.t. = 14.38)	106-28-5	0.296	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	Triphenylene, 2-methyl- (r.t. = 13.76)	1705-84-6	0.178	JN	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	unknown (r.t. = 11.18)		0.467	JB	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	unknown (r.t. = 12.98)		0.17	J	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	unknown (r.t. = 14.12)		0.205	J	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	unknown (r.t. = 15.82)		0.309	J	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	unknown (r.t. = 17.24)		0.184	J	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	unknown (r.t. = 18)		0.417	J	OLM04.2
12/8/2005	SSI-419-5-SB2(45-48")	unknown (r.t. = 18.14)		0.385	J	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	11H-Benzo[a]fluorene (r.t. = 12.21)	238-84-6	0.89	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	3-Benzyliden-3,8-dihydrocyclohept[e]ind (r.t. = 14.67)	78578-79-7	1.41	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	4H-Cyclopenta[def]phenanthrene (r.t. = 10.84)	203-64-5	3.6	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	9,10-Anthracenedione (r.t. = 11.08)	84-65-1	1.88	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Anthracene, 1-methyl- (r.t. = 10.75)	610-48-0	2.73	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Benzene, (1-methylethyl)- (r.t. = 11.2)	98-82-8	0.00882	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Benzene, 1-ethyl-3-methyl- (r.t. = 11.55)	620-14-4	0.00761	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Benzene, cyclopropyl- (r.t. = 12.04)	873-49-4	0.0067	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Benzo[b]chrysene (r.t. = 15.92)	214-17-5	2.14	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Benzo[b]naphtho[2,3-d]thiophene, 7,8,9, (r.t. = 14.58)	24964-06-5	1.63	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	column bleed (r.t. = 3.33)		0.0133	J	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Dibenzo[def,mno]chrysene (r.t. = 16.56)	191-26-4	1.44	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Hexane (r.t. = 4.73)	110-54-3	0.0125	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Naphthalene (r.t. = 13.49)	91-20-3	0.0669	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Perylene (r.t. = 14.77)	198-55-0	5.14	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Phenanthrene, 2,5-dimethyl- (r.t. = 11.36)	3674-66-6	1.91	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Phenanthrene, 4-methyl- (r.t. = 10.72)	832-64-4	2.26	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	Tricyclo[4.4.0.0(2,5)]dec-8-ene, 1,2,3, (r.t. = 16.19)	77549-74-7	1.84	JN	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	unknown (r.t. = 14.1)		2.09	J	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	unknown (r.t. = 15.8)		1.65	J	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	unknown (r.t. = 16.51)		1.26	J	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	unknown (r.t. = 17.97)		1.78	J	OLM04.2
12/8/2005	SSI-419-7-SB1(12-14")	unknown (r.t. = 5.61)		0.00617	J	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	10-DEMETHYLSQUALENE (r.t. = 14.38)	59681-06-0	0.268	JN	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	1H-Purin-6-amine, [(2-fluorophenyl)meth (r.t. = 14.41)	74421-44-6	0.322	JN	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.2)	123-42-2	3.38	JNAB	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	Benzo[j]fluoranthene (r.t. = 14.78)	205-82-3	0.551	JN	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	Dibenzo[def,mno]chrysene (r.t. = 15.96)	191-26-4	0.234	JN	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	Dibenzo[def,mno]chrysene (r.t. = 16.58)	191-26-4	0.209	JN	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	Heptane, 2,5-dimethyl- (r.t. = 4.12)	2216-30-0	1.58	JNB	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	Heptane, 2,6-dimethyl- (r.t. = 4.05)	1072-05-5	0.856	JNB	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	Perylene (r.t. = 14.6)	198-55-0	0.168	JN	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	Tricyclo[4.4.0.0(2,5)]dec-8-ene, 1,2,3, (r.t. = 16.21)	77549-74-7	0.189	JN	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	unknown (r.t. = 11.18)		0.384	JB	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	unknown (r.t. = 13.96)		0.194	J	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	unknown (r.t. = 14.27)		0.211	J	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	unknown (r.t. = 18)		0.175	J	OLM04.2
12/8/2005	SSI-419-7-SB2(45-48")	unknown (r.t. = 18.13)		0.256	J	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	2,6-DIMETHYL-6-NITRO-2-HEPTEN-4-ONE (r.t. = 6.75)	73583-56-9	1.77	JN	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.44)	123-42-2	43.3	JNA	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.5)	123-42-2	55.8	JNA	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	3-Penten-2-one, 4-methyl- (r.t. = 3.62)	141-79-7	314	JN	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	Cyclopentene, 1,3-dimethyl-2-(1-methyle (r.t. = 5.07)	61142-32-3	11.4	JN	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	Hexane (r.t. = 4.74)	110-54-3	0.00846	JNB	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	unknown (r.t. = 4.42)		5640	JB	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	unknown (r.t. = 4.48)		144	J	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	unknown (r.t. = 4.6)		67.4	J	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	unknown (r.t. = 4.64)		31.1	J	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	unknown (r.t. = 4.77)		803	J	OLM04.2
12/12/2005	SSI-419-9-SB1 (12-14)	unknown (r.t. = 5.13)		2.64	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	Benzene, 1-ethyl-3-methyl- (r.t. = 11.22)	620-14-4	0.00871	JN	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	Eicosane (r.t. = 15.23)	112-95-8	1.82	JN	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	Hexane (r.t. = 4.74)	110-54-3	0.0114	JNB	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	Tetradecane (r.t. = 13.45)	629-59-4	0.821	JN	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 11.06)		1.03	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 14.54)		1.11	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 15.02)		0.862	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 15.31)		1.01	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 15.35)		4.27	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 15.68)		4.2	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 16.11)		2.19	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 16.15)		1.72	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 16.47)		0.982	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 16.5)		0.89	J	OLM04.2
12/12/2005	SSI-419-9-SB2 (45-48)	unknown (r.t. = 3.35)		0.00685	J	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	10-DEMETHYLSQUALENE (r.t. = 14.38)	59681-06-0	0.534	JN	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	1-Hexanol, 2-ethyl- (r.t. = 5.99)	104-76-7	0.383	JN	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.2)	123-42-2	2.59	JNAB	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	2-Pentene, 4-bromo- (r.t. = 3.99)	1809-26-3	1.71	JN	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	9-Octadecenamide, (Z)- (r.t. = 14.27)	301-02-0	0.33	JN	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	Benzene, 1,3,5-trimethyl- (r.t. = 5.76)	108-67-8	0.709	JN	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	Benzene, 1-ethyl-3-methyl- (r.t. = 5.48)	620-14-4	0.47	JN	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	Benzo[e]pyrene (r.t. = 14.78)	192-97-2	0.503	JN	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	Butane, 2,3-dimethyl-2-nitro- (r.t. = 3.58)	34075-28-0	1.91	JN	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	Heptane, 2,5-dimethyl- (r.t. = 4.12)	2216-30-0	1.63	JNB	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	Heptane, 2,6-dimethyl- (r.t. = 4.04)	1072-05-5	0.778	JNB	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	unknown (r.t. = 14.12)		0.209	J	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	unknown (r.t. = 14.41)		0.317	J	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	unknown (r.t. = 15.49)		0.23	J	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	unknown (r.t. = 15.84)		0.401	J	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	unknown (r.t. = 16.27)		0.192	J	OLM04.2
12/8/2005	SSI-419-SB3(45-48")	unknown (r.t. = 16.34)		0.217	J	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	1H-Indene, 2,3-dihydro-1,2-dimethyl- (r.t. = 7.47)	17057-82-8	0.356	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	1H-Indene, 2,3-dihydro-1,4,7-trimethyl- (r.t. = 7.62)	54340-87-3	0.441	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	1H-Indene, 2,3-dihydro-4,6-dimethyl- (r.t. = 7.4)	1685-82-1	0.665	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzaldehyde, 4-(1-methylethyl)- (r.t. = 6.91)	122-03-2	0.325	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, (1,1-dimethylpropyl)- (r.t. = 6.77)	2049-95-8	0.671	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, (1-ethyl-2-propenyl)- (r.t. = 7.31)	19947-22-9	0.341	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1,2,3,4-tetramethyl- (r.t. = 6.62)	488-23-3	0.629	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1,3,5-trimethyl- (r.t. = 5.74)	108-67-8	2.58	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1,3-diethyl- (r.t. = 6.14)	141-93-5	1.56	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1,3-diethyl- (r.t. = 6.21)	141-93-5	4.45	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1-ethyl-2,3-dimethyl- (r.t. = 6.34)	933-98-2	1.94	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1-ethyl-2,4-dimethyl- (r.t. = 6.54)	874-41-9	0.341	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1-methyl-2-(1-methylethyl)- (r.t. = 6.64)	527-84-4	0.744	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1-methyl-2-(1-methylethyl)- (r.t. = 6.96)	527-84-4	0.338	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1-methyl-2-propyl- (r.t. = 6.17)	1074-17-5	2.82	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 1-methyl-4-(1-methylethyl)- (r.t. = 6.36)	99-87-6	1.39	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, 2-ethenyl-1,3-dimethyl- (r.t. = 6.84)	2039-90-9	1.25	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Benzene, pentamethyl- (r.t. = 7.29)	700-12-9	0.354	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Naphthalene, 1,2,3,4-tetrahydro-5-methy (r.t. = 7.51)	2809-64-5	0.514	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Naphthalene, 1-methyl- (r.t. = 7.77)	90-12-0	0.624	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	Tridecane (r.t. = 7.58)	629-50-5	0.709	JN	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	unknown (r.t. = 6.28)		1.73	J	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	unknown (r.t. = 6.86)		0.646	J	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	unknown (r.t. = 7.22)		0.4	J	OLM04.2
12/8/2005	SSI-419-SB4(72-75")	unknown (r.t. = 7.32)		0.382	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	2,4-Dioxabicyclo[3.2.1]octane, 6,7-dime (r.t. = 15.3)	55821-20-0	0.876	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	28-NOR-17BETA(H)-HOPANE (r.t. = 15.65)	36728-72-0	0.778	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	28-NOR-17BETA(H)-HOPANE (r.t. = 16)	36728-72-0	0.502	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.31)	123-42-2	1.46	JNAB	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	3-Hexen-2-one (r.t. = 3.75)	763-93-9	1.72	JNB	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	6,11-Dihydroxy-12H-benzo[b]xanthen-12-o (r.t. = 15.16)	89140-90-9	0.3	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Benz[a]anthracene-7,12-dione (r.t. = 14.25)	2498-66-0	0.305	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Benzo[e]pyrene (r.t. = 14.91)	192-97-2	2.1	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Chrysene, 1-methyl- (r.t. = 13.92)	3351-28-8	0.297	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Octacosane (r.t. = 14.78)	630-02-4	0.359	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Pentadecane (r.t. = 14.06)	629-62-9	0.392	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Pentadecane (r.t. = 15.5)	629-62-9	0.899	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Thiophene, 2-(methylselenyl)-5-(propylt (r.t. = 14.73)	31053-59-5	0.316	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Tricyclo[4.4.0.0(2,5)]dec-8-ene, 1,2,3, (r.t. = 15.91)	77549-74-7	0.346	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Triphenylene, 2-methyl- (r.t. = 13.88)	1705-84-6	0.385	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	unknown (r.t. = 13.2)		1.09	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	unknown (r.t. = 14.41)		0.394	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	unknown (r.t. = 14.71)		0.244	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	unknown (r.t. = 15.35)		1.01	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	unknown (r.t. = 15.63)		0.527	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	unknown (r.t. = 16.46)		0.698	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	unknown (r.t. = 16.53)		0.302	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	unknown (r.t. = 16.73)		0.637	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	unknown (r.t. = 18.28)		0.286	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB1-12-14-DUP	Yohimban-17-one (r.t. = 16.33)	523-14-8	0.345	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	1,2:3,4-Dibenzoanthracene (r.t. = 16.39)	215-58-7	0.303	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	1,2:3,4-Dibenzoanthracene (r.t. = 16.45)	215-58-7	0.56	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.29)	123-42-2	1.6	JNAB	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	3-Hexen-2-one (r.t. = 3.74)	763-93-9	3.27	JNB	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Benz[a]anthracene, 7-methyl- (r.t. = 13.88)	2541-69-7	0.226	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Benz[a]anthracene, 7-methyl- (r.t. = 13.92)	2541-69-7	0.194	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Benzo[c]phenanthrene, 5,8-dimethyl- (r.t. = 14.38)	54986-63-9	0.276	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Benzo[e]pyrene (r.t. = 14.73)	192-97-2	0.569	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Benzo[e]pyrene (r.t. = 14.92)	192-97-2	2.99	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Curan, 16,17,19,20-tetradehydro- (r.t. = 16.12)	56053-17-9	0.254	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Docosane (r.t. = 15.49)	629-97-0	0.661	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Isocopalane (r.t. = 15.99)	79191-19-8	0.597	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Perylene, 1,2,3,7,8,9-hexahydro- (r.t. = 14.25)	68912-99-2	0.447	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Pyrene, 1-methyl- (r.t. = 12.47)	2381-21-7	0.162	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Stigmast-5-en-3-ol, (3.beta.,24S)- (r.t. = 16.7)	83-47-6	0.58	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	Tetradecane (r.t. = 14.05)	629-59-4	0.29	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	unknown (r.t. = 13.09)		0.167	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	unknown (r.t. = 13.19)		0.184	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	unknown (r.t. = 14.57)		0.265	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	unknown (r.t. = 14.77)		0.391	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	unknown (r.t. = 15.29)		0.217	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB2-21-24-DUP	unknown (r.t. = 16.5)		0.251	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	13-Oxo-1,2,3,4,5,6-hexahydro-2,11-ethan (r.t. = 14.72)	99131-96-1	0.379	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.29)	123-42-2	1.68	JNAB	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	3-Penten-2-one, 4-methyl- (r.t. = 3.74)	141-79-7	3.23	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	4H-Cyclopenta[def]chrysen-4-one (r.t. = 14.52)	86853-91-0	0.353	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	6-Hydroxymethyl-8-methylbenzo[b]naphtho (r.t. = 16.44)	89817-17-4	0.789	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	9,10-Dihydrobenzo[b]fluoranthene (r.t. = 14.42)	88746-65-0	0.34	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	9-Octadecenamide, (Z)- (r.t. = 14.38)	301-02-0	0.402	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Benz[a]anthracene-7,12-dione (r.t. = 14.24)	2498-66-0	0.284	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Benzene, 1,2,3,4-tetrachloro-5,6-dimeth (r.t. = 16.12)	944-61-6	0.479	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Benzo[e]pyrene (r.t. = 14.91)	192-97-2	2.52	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Docosane (r.t. = 14.76)	629-97-0	0.315	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Neoisocarvomenthol (r.t. = 16.86)	42846-32-2	0.248	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Octadecane, 5,14-dibutyl- (r.t. = 15.11)	55282-13-8	0.407	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Pentadecane (r.t. = 14.04)	629-62-9	0.236	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Pentadecane (r.t. = 15.48)	629-62-9	1.03	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Phenanthrene, 9-dodecyltetradecahydro- (r.t. = 16.5)	55334-01-5	0.358	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Tricyclo[4.4.0.0(2,5)]dec-8-ene, 1,2,3, (r.t. = 16.39)	77549-74-7	0.614	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Triphenylene, 2-methyl- (r.t. = 13.87)	1705-84-6	0.222	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	unknown (r.t. = 13.92)		0.179	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	unknown (r.t. = 14.84)		0.359	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	unknown (r.t. = 15.29)		0.819	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	unknown (r.t. = 15.6)		0.324	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	unknown (r.t. = 15.63)		0.533	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	unknown (r.t. = 15.9)		0.318	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	unknown (r.t. = 15.98)		0.561	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	unknown (r.t. = 16.99)		0.252	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-DS	Urs-20-en-16-ol, (16.beta.,18.alpha.,19 (r.t. = 16.83)	66394-74-9	0.212	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	1,2:3,4-Dibenzoanthracene (r.t. = 16.36)	215-58-7	0.269	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	1,2:3,4-Dibenzoanthracene (r.t. = 16.42)	215-58-7	0.269	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.29)	123-42-2	3.13	JNAB	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	3-Hexen-2-one (r.t. = 3.74)	763-93-9	6.85	JNB	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	5-Methyl-2,4,6-tribomopyrimidine (r.t. = 9.53)	64188-81-4	1.52	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	7H-Benz[de]anthracen-7-one (r.t. = 13.56)	82-05-3	0.163	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	7H-Benzo[c]fluoren-7-one (r.t. = 12.95)	6051-98-5	0.2	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Benz[a]anthracene-7,12-dione (r.t. = 14.23)	2498-66-0	0.386	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Benz[j]aceanthrylene, 3-methyl- (r.t. = 15.16)	3343-10-0	0.501	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Benzo[c]phenanthrene, 5,8-dimethyl- (r.t. = 14.37)	54986-63-9	0.517	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Benzo[e]pyrene (r.t. = 14.9)	192-97-2	2.19	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Dibenzo[def,mno]chrysene (r.t. = 16.1)	191-26-4	0.732	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Isocopalane (r.t. = 15.97)	79191-19-8	0.586	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Lycopodan-5-one, 12-hydroxy-15-methyl-, (r.t. = 15.5)	21061-90-5	0.507	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Perylene (r.t. = 14.71)	198-55-0	0.551	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Tricyclo[4.4.0.0(2,5)]dec-8-ene, 1,2,3, (r.t. = 15.26)	77549-74-7	0.257	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	Triphenylene, 2-methyl- (r.t. = 13.87)	1705-84-6	0.171	JN	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	unknown (r.t. = 13.08)		0.16	J	OLM04.2
12/5/2005	SSI-DSB- 1-SB3-45-48-MS	unknown (r.t. = 16.15)		0.236	J	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.44)	54113-93-8	0.304	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.31)	123-42-2	21.6	JNAB	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	3-Penten-2-one, 4-methyl- (r.t. = 3.74)	141-79-7	13.7	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	7H-Benzo[c]fluoren-7-one (r.t. = 12.95)	6051-98-5	0.171	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	Benzo[e]pyrene (r.t. = 14.9)	192-97-2	0.811	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	Cholestan-7-one, (5.alpha.,14.beta.)- (r.t. = 15.63)	40072-53-5	0.221	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	Chrysene, 5-methyl- (r.t. = 13.87)	3697-24-3	0.161	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	CYCLOPENTA(DEF)PHENANTHRENONE (r.t. = 11.59)	5737-13-3	0.382	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	Heptadecane (r.t. = 15.48)	629-78-7	0.375	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	Hexadecane, 1-chloro- (r.t. = 13.27)	3/1/4860	0.201	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	Isocopalane (r.t. = 15.98)	79191-19-8	0.196	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	Methyl 4-(3,4-dimethoxy-2-(phenylmethox (r.t. = 15.44)	74614-96-3	0.925	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	Phosphoric acid, (1,1-dimethylethyl)phe (r.t. = 14.26)	56803-37-3	0.217	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	unknown (r.t. = 14.04)		0.291	J	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	unknown (r.t. = 14.16)		0.163	J	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	unknown (r.t. = 14.52)		0.149	J	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	unknown (r.t. = 15.14)		0.297	J	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	unknown (r.t. = 15.35)		0.367	J	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	unknown (r.t. = 15.92)		0.22	J	OLM04.2
12/5/2005	SSI-DSB-1-SB1 12-14	unknown (r.t. = 16.89)		1.16	J	OLM04.2
12/5/2005	SSI-DSB-1-SB2 21-24	[4aS-(4a.alpha.,4b.beta.,7.alpha.,8.alp (r.t. = 15.97)	87953-47-7	0.408	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB2 21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.29)	123-42-2	7.64	JNAB	OLM04.2
12/5/2005	SSI-DSB-1-SB2 21-24	3-Hexen-2-one (r.t. = 3.74)	763-93-9	12.6	JNB	OLM04.2
12/5/2005	SSI-DSB-1-SB2 21-24	Benzo[e]pyrene (r.t. = 14.71)	192-97-2	0.175	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB2 21-24	Benzo[e]pyrene (r.t. = 14.89)	192-97-2	0.583	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB2 21-24	Tridecane (r.t. = 11.57)	629-50-5	0.218	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB2 21-24	unknown (r.t. = 14.04)		0.162	J	OLM04.2
12/5/2005	SSI-DSB-1-SB2 21-24	unknown (r.t. = 14.37)		0.195	J	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	(1.alpha.,2.beta.,6.beta.)-(+-)-Ethyl 2 (r.t. = 18.17)	91199-89-2	1.02	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	[4aS-(4a.alpha.,4b.beta.,7.alpha.,8.alp (r.t. = 16)	87953-47-7	3.18	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.52)	54113-93-8	2.24	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	15-Isocopalol (r.t. = 16.85)	79191-29-0	1.24	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	20.xi.-Lanosta-7,9(11)-diene-3.beta.,18 (r.t. = 15.9)	25116-58-9	1.3	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Benzo[e]pyrene (r.t. = 14.91)	192-97-2	4.02	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Docosane (r.t. = 15.12)	629-97-0	1.26	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Docosane (r.t. = 16.37)	629-97-0	0.999	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Eicosane (r.t. = 11.11)	112-95-8	1.87	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Heptadecane, 2,6,10,15-tetramethyl- (r.t. = 11.57)	54833-48-6	2.38	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Isocopalane (r.t. = 17.54)	79191-19-8	0.693	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Nonadecane (r.t. = 14.77)	629-92-5	1.09	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Octadecane (r.t. = 10.15)	593-45-3	1.53	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Octadecane (r.t. = 14.04)	593-45-3	0.913	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Pentacosane (r.t. = 15.49)	629-99-2	1.99	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Tetradecane (r.t. = 10.63)	629-59-4	1.85	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Tricosane (r.t. = 14.41)	638-67-5	0.911	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	Tridecane (r.t. = 9.66)	629-50-5	2.22	JN	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	unknown (r.t. = 15.24)		0.798	J	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	unknown (r.t. = 15.61)		1.35	J	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	unknown (r.t. = 15.64)		3.36	J	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	unknown (r.t. = 16.46)		2.94	J	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	unknown (r.t. = 16.95)		0.745	J	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	unknown (r.t. = 17.34)		0.656	J	OLM04.2
12/5/2005	SSI-DSB-1-SB3 45-48	unknown (r.t. = 17.39)		1.06	J	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	1,2-Benzenedicarboxylic acid, dipentyl (r.t. = 10.72)	131-18-0	10.2	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	10-DEMETHYLSQUALENE (r.t. = 13.19)	59681-06-0	3.65	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	2,6-Octadiene, 4-methyl- (r.t. = 14.43)	74498-94-5	2.09	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.26)	123-42-2	277	JNAB	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	3-Penten-2-one, 4-methyl- (r.t. = 3.71)	141-79-7	6.06	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	Benzoic acid, hexyl ester (r.t. = 10.59)	6789-88-4	5.36	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/5/2005	SSI-DSB-1-SS 6-9	Eicosane (r.t. = 15.42)	112-95-8	2.47	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	Heptane, 2,6-dimethyl- (r.t. = 4.1)	1072-05-5	10.8	JNB	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	Hexadecanamide (r.t. = 14.32)	629-54-9	7.46	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	Hexadecane (r.t. = 17.35)	544-76-3	2.61	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	Octadecane (r.t. = 15.82)	593-45-3	2.49	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	Octane, 3-methyl- (r.t. = 4.18)	2216-33-3	25.2	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	Pentadecane (r.t. = 16.27)	629-62-9	3.15	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	Undecane (r.t. = 14)	1120-21-4	3.66	JN	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	unknown (r.t. = 14.85)		2.52	J	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	unknown (r.t. = 15.56)		4.51	J	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	unknown (r.t. = 15.91)		2.63	J	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	unknown (r.t. = 16.36)		3.72	J	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	unknown (r.t. = 16.41)		4.8	J	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	unknown (r.t. = 17.28)		2.51	J	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	unknown (r.t. = 18.01)		3.74	J	OLM04.2
12/5/2005	SSI-DSB-1-SS 6-9	unknown (r.t. = 6.21)		7.34	J	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	1,1'-Biphenyl, 2,2',3,4,4',5'-hexachlor (r.t. = 12.61)	35065-28-2	0.355	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	1,1'-Biphenyl, 2,2',4,4',5,5'-hexachlor (r.t. = 12.38)	35065-27-1	0.21	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.32)	123-42-2	1.45	JNAB	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	3-Hexen-2-one (r.t. = 3.76)	763-93-9	0.835	JNB	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	4H-Cyclopenta[def]chrysen-4-one (r.t. = 14.54)	86853-91-0	0.315	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	7H-Benz[de]anthracen-7-one (r.t. = 13.22)	82-05-3	0.184	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	9,10-Anthracenedione, 1,5-dimethoxy- (r.t. = 14.71)	6448-90-4	0.229	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	Benz[a]anthracene, 7,12-dimethyl- (r.t. = 14.3)	57-97-6	0.312	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	Benzo[e]pyrene (r.t. = 14.73)	192-97-2	0.301	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	Benzo[e]pyrene (r.t. = 14.92)	192-97-2	1.14	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	Chrysene, 5-methyl- (r.t. = 13.93)	3697-24-3	0.2	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	Isoquinoline, 1,2,3,4-tetrahydro-7-meth (r.t. = 16.86)	36646-87-4	0.262	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	Octadecane (r.t. = 11.6)	593-45-3	0.556	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	Octadecane (r.t. = 14.07)	593-45-3	0.189	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	Pentadecane (r.t. = 15.5)	629-62-9	0.607	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	p-Menth-1-ene-9-carbonitrile, (4R,8S)-((r.t. = 16.72)	26462-76-0	0.431	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	unknown (r.t. = 12.64)		0.183	J	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	unknown (r.t. = 14.4)		0.261	J	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	unknown (r.t. = 14.8)		0.233	J	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	unknown (r.t. = 15.26)		0.278	J	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	unknown (r.t. = 15.35)		0.851	J	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	unknown (r.t. = 16.01)		0.65	J	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	unknown (r.t. = 16.41)		0.258	J	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	unknown (r.t. = 16.53)		0.362	J	OLM04.2
12/5/2005	SSI-DSB-2-SB1 12-14	Urs-20-en-16-ol, (16.beta.,18.alpha.,19 (r.t. = 15.65)	66394-74-9	0.383	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	.delta.-Fenchane (r.t. = 14.08)	6248-88-0	0.31	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	1,1'-Biphenyl, 2,2',3,4,4',5'-hexachlor (r.t. = 12.61)	35065-28-2	0.402	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.31)	123-42-2	1.69	JNAB	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	3-(1'-Cyanoethylidene)-5.alpha.-cholest (r.t. = 15.33)	68550-52-7	0.636	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	3-Hexen-2-one (r.t. = 3.77)	763-93-9	3.15	JNB	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	4-[.beta.-[p'-(Di-n-butylamino)-p-stilb (r.t. = 14.09)	90134-08-0	0.49	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	4H-Cyclopenta[def]chrysen-4-one (r.t. = 14.54)	86853-91-0	0.97	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	Acridine, 9-methyl- (r.t. = 13.81)	611-64-3	0.491	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	Benzenamine, 2,3,4,5,6-pentachloro- (r.t. = 14.27)	527-20-8	0.42	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	Benzo[e]pyrene (r.t. = 14.94)	192-97-2	1.5	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	Thiosulfuric acid (H2S2O3), S-(2-aminoe (r.t. = 12.28)	2937-53-3	0.364	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	Triepoxide of 2,3,4,5,6-pentamethyl-4-v (r.t. = 16.07)	54325-80-3	0.271	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 13.22)		0.896	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 13.94)		0.285	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 14.14)		0.276	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 14.21)		0.381	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 14.4)		0.305	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 14.59)		0.378	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 14.73)		0.703	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 14.83)		0.41	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 15.14)		0.367	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 15.63)		0.597	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 15.8)		0.955	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 16.04)		0.393	J	OLM04.2
12/5/2005	SSI-DSB-2-SB2 21-24	unknown (r.t. = 16.17)		0.704	J	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	1,2-Benzenedicarboxylic acid, 3-nitro- (r.t. = 16.52)	603-11-2	12.6	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/5/2005	SSI-DSB-2-SB3 45-48	1,2-Benzenedicarboxylic acid, bis(2-eth (r.t. = 15.91)	117-81-7	9.67	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	1,2-Benzenedicarboxylic acid, bis(2-eth (r.t. = 15.96)	117-81-7	12.2	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	1,2-Benzenedicarboxylic acid, bis(2-eth (r.t. = 16.56)	117-81-7	24.6	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	1,2-Benzenedicarboxylic acid, diisodecy (r.t. = 15.77)	26761-40-0	9.25	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	1,2-Benzenedicarboxylic acid, dinonyl e (r.t. = 16)	84-76-4	9.19	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	1,2-Benzenedicarboxylic acid, ditridecy (r.t. = 15.69)	119-06-2	11.4	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	1,2-Benzenedicarboxylic acid, ditridecy (r.t. = 16.77)	119-06-2	11.2	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	1,3-Isobenzofurandione (r.t. = 7.73)	85-44-9	22	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Decane, 2-methyl- (r.t. = 10.06)	6975-98-0	15.9	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Decane, 4-methyl- (r.t. = 9.56)	2847-72-5	21.1	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Hexadecane (r.t. = 9.05)	544-76-3	11.3	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Octadecane (r.t. = 10.03)	593-45-3	15.7	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Octadecane (r.t. = 14.04)	593-45-3	12.4	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Pentadecane (r.t. = 10.99)	629-62-9	10.7	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Pentadecane (r.t. = 8.56)	629-62-9	12.6	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Tetradecane (r.t. = 8.07)	629-59-4	11.5	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Tetradecane (r.t. = 9.55)	629-59-4	24.9	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Triacontane (r.t. = 10.51)	638-68-6	11.5	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	Tridecane (r.t. = 9.28)	629-50-5	13	JN	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	unknown (r.t. = 15.24)		8.54	J	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	unknown (r.t. = 15.82)		14.4	J	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	unknown (r.t. = 16.27)		15.9	J	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	unknown (r.t. = 16.92)		20.9	J	OLM04.2
12/5/2005	SSI-DSB-2-SB3 45-48	unknown (r.t. = 8.36)		13.1	J	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.01)	54113-93-8	0.964	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.52)	54113-93-8	0.552	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	2,6-DIMETHYL-6-NITRO-2-HEPTEN-4-ONE (r.t. = 6.87)	73583-56-9	0.697	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	28-NOR-17ALPHA(H)-HOPANE (r.t. = 16.46)	53584-60-4	1.03	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.45)	123-42-2	40.6	JNA	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.48)	123-42-2	3.34	JNA	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.51)	123-42-2	1.29	JNA	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.64)	123-42-2	8.13	JNA	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	3-Hexen-2-one (r.t. = 3.8)	763-93-9	13.7	JNB	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	Docosane (r.t. = 14.18)	629-97-0	0.457	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	Hexadecane (r.t. = 11.59)	544-76-3	0.441	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	Hexadecane (r.t. = 15.12)	544-76-3	0.38	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	Octadecane (r.t. = 14.07)	593-45-3	0.717	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	Perylene (r.t. = 14.92)	198-55-0	0.652	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	Silane, (4-bromophenoxy)trimethyl- (r.t. = 15.29)	17878-44-3	0.641	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	Tetradecane (r.t. = 9.68)	629-59-4	0.469	JN	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	unknown (r.t. = 14.4)		0.328	J	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	unknown (r.t. = 15.25)		0.503	J	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	unknown (r.t. = 15.35)		0.383	J	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	unknown (r.t. = 15.51)		0.701	J	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	unknown (r.t. = 15.63)		0.648	J	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	unknown (r.t. = 15.65)		1.34	J	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	unknown (r.t. = 16.86)		0.582	J	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	unknown (r.t. = 18.16)		0.281	J	OLM04.2
12/5/2005	SSI-DSB-2-SS 6-9	unknown (r.t. = 4.69)		6.9	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	2-Butyl-3-methylquinoxaline-1,4-dioxide (r.t. = 12.29)	77236-79-4	0.16	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.15)	123-42-2	11.7	JNAB	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	3-Penten-2-one, 4-methyl- (r.t. = 3.57)	141-79-7	36	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	4-(Ethylenedioxy)-5-methoxy-1-oxo-1,2,3 (r.t. = 13.11)	76741-85-0	0.247	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	7H-Benz[de]anthracen-7-one (r.t. = 12.78)	82-05-3	0.174	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	7H-Benz[de]anthracen-7-one (r.t. = 14.07)	82-05-3	0.462	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	Benzo[e]pyrene (r.t. = 14.55)	192-97-2	0.273	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	Docosane (r.t. = 15.29)	629-97-0	0.669	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	Morpholinide of [Bis(trimethylsilyl)ami (r.t. = 16.15)	87383-38-8	0.74	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	Nonadecane (r.t. = 14.6)	629-92-5	0.554	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	Perylene (r.t. = 14.73)	198-55-0	1.43	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	Pyrene, 1-methyl- (r.t. = 12.15)	2381-21-7	0.147	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 13.75)		0.296	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 13.87)		0.583	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 14)		0.224	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 15.09)		0.305	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 15.38)		0.277	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 15.42)		0.347	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 15.68)		0.357	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 15.76)		0.873	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 16.26)		0.537	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 16.45)		0.719	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 2.85)		0.825	J	OLM04.2
12/5/2005	SSI-DSB-3-SB1 12-14	unknown (r.t. = 2.94)		0.742	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	1-Acetyl-4-methyldibenzofuran (r.t. = 9.98)	56426-91-6	1.74	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	1H-Indole, 5-methyl-2-phenyl- (r.t. = 15.87)	13228-36-9	2.37	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.15)	123-42-2	7.77	JNAB	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	3-Penten-2-one, 4-methyl- (r.t. = 3.57)	141-79-7	20.3	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	4H-Cyclopenta[def]chrysen-4-one (r.t. = 14.26)	86853-91-0	0.648	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Benzenamine, 4-(2-phenylethenyl)- (r.t. = 9.64)	834-24-2	0.919	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Benzenamine, 4-(2-phenylethenyl)-, (E)- (r.t. = 12.75)	4309-66-4	1.76	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Benzene, 1,3-dimethyl- (r.t. = 13.45)	108-38-3	0.736	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Benzenesulfonamide, N-ethyl-4-methyl- (r.t. = 9.73)	80-39-7	6.75	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Benzo[e]pyrene (r.t. = 14.75)	192-97-2	1.48	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Octacosane (r.t. = 15.31)	630-02-4	1.4	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Phosphine oxide, triphenyl- (r.t. = 13.39)	791-28-6	0.715	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Phosphoric acid, tri-o-tolyl ester (r.t. = 13.76)	78-30-8	0.678	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Phosphoric acid, tri-o-tolyl ester (r.t. = 13.88)	78-30-8	1.41	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	Stigmast-5-en-3-ol, (3.beta.,24S)- (r.t. = 16.49)	83-47-6	1.15	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 12.64)		1.55	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 12.87)		0.702	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 13.34)		0.868	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 14.08)		0.782	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 15.14)		1.16	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 15.18)		1.7	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 15.44)		1.04	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 15.56)		0.639	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 15.78)		0.694	J	OLM04.2
12/5/2005	SSI-DSB-3-SB2 21-24	unknown (r.t. = 9.5)		2.17	J	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	10-Methoxybenz[a]azulen-1,4-dione (r.t. = 11.61)	76319-77-2	10.3	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	11H-Benzo[b]fluorene (r.t. = 12.21)	243-17-4	1.22	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	11H-Benzo[b]fluorene (r.t. = 12.29)	243-17-4	0.952	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.16)	123-42-2	10.3	JNAB	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	3,4-Octadiene, 7-methyl- (r.t. = 17.92)	37050-05-8	3.99	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	3-Penten-2-one, 4-methyl- (r.t. = 3.59)	141-79-7	21.6	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Anthracene, 9-methyl- (r.t. = 10.75)	779-02-2	2.58	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Benzo[e]pyrene (r.t. = 14.75)	192-97-2	2.49	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Heptadecane (r.t. = 11.9)	629-78-7	0.992	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Heptadecane (r.t. = 14.63)	629-78-7	2.37	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Heptadecane (r.t. = 9.54)	629-78-7	2.39	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Naphthalene, 1-methyl- (r.t. = 7.76)	90-12-0	5.26	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Naphthalene, 2-phenyl- (r.t. = 11.06)	612-94-2	2.01	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Octacosane (r.t. = 13.15)	630-02-4	1.03	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Octadecane (r.t. = 10.03)	593-45-3	3.16	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Octadecane (r.t. = 12.33)	593-45-3	1.44	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Octadecane (r.t. = 13.92)	593-45-3	1.37	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Octadecane (r.t. = 14.03)	593-45-3	1	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Phenanthrene, 9-methyl- (r.t. = 10.72)	883-20-5	3.24	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Tetradecane (r.t. = 10.51)	629-59-4	2.24	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Tridecane (r.t. = 10.06)	629-50-5	1.92	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Tridecane (r.t. = 9.27)	629-50-5	2.54	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	Tridecane, 2-methyl- (r.t. = 10.99)	1560-96-9	1.96	JN	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	unknown (r.t. = 11.25)		2.21	J	OLM04.2
12/5/2005	SSI-DSB-3-SB3 45-48	unknown (r.t. = 9.41)		2.43	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	[4aS-(4a.alpha.,4b.beta.,7.alpha.,8.alp (r.t. = 17.14)	87953-47-7	0.178	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	28-NOR-17BETA(H)-HOPANE (r.t. = 15.81)	36728-72-0	0.363	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.2)	123-42-2	26.1	JNAB	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	3,7,11-Trimethyldodeca-1,6(E),10-triene (r.t. = 16.26)	66633-32-7	0.395	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	3-Penten-2-one, 4-methyl- (r.t. = 3.62)	141-79-7	33.7	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	4(1H)-Pteridinone, 6-acetyl-2-amino-7,8 (r.t. = 15.47)	42310-08-7	0.591	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	5-Hexen-2-one (r.t. = 2.91)	109-49-9	0.84	JNB	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	9-Octadecenamide, (Z)- (r.t. = 14.25)	301-02-0	0.295	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	Cyclopropanecarboxylic acid (r.t. = 3)	1759-53-1	0.569	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	Nonadecane (r.t. = 15.34)	629-92-5	0.182	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	Nonadecane, 2,3-dimethyl- (r.t. = 12.33)	75163-99-4	0.185	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/5/2005	SSI-DSB-3-SS 6-9	Octadecane (r.t. = 15.73)	593-45-3	0.22	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	Pentacosane (r.t. = 14.98)	629-99-2	0.207	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	Pentane, 2-methyl- (r.t. = 6.15)	107-83-5	0.541	JN	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 14.56)		0.265	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 14.78)		0.202	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 15.09)		0.233	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 15.45)		0.462	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 16.3)		0.51	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 16.59)		0.187	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 17)		0.265	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 17.06)		0.165	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 17.35)		0.258	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 17.86)		0.224	J	OLM04.2
12/5/2005	SSI-DSB-3-SS 6-9	unknown (r.t. = 8.32)		0.282	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	28-NOR-17BETA(H)-HOPANE (r.t. = 15.47)	36728-72-0	2.42	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.16)	123-42-2	10.6	JNAB	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	3,4-Octadiene, 7-methyl- (r.t. = 13.92)	37050-05-8	3.35	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	3-Penten-2-one, 4-methyl- (r.t. = 3.59)	141-79-7	27.7	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	AGATHOLIC ACID (r.t. = 14.56)	25671-16-3	1.79	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	Hexanedioic acid, dioctyl ester (r.t. = 12.7)	123-79-5	0.865	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	Isoquinoline, 1,2,3,4-tetrahydro-7-meth (r.t. = 15.82)	36646-87-4	1.59	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	Isozonarol (r.t. = 17.13)	39707-55-6	0.931	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	SESQUIROSEFURAN (r.t. = 15.09)	39007-93-7	1.15	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 11.15)		1.1	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 12.99)		0.721	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 13.53)		0.71	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 13.84)		1.23	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 14.03)		1.32	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 14.24)		0.931	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 14.29)		1.01	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 14.58)		1.1	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 14.65)		2.05	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 15.18)		2.14	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 15.44)		1.68	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 16.24)		1.67	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 16.3)		1.56	J	OLM04.2
12/5/2005	SSI-DSB-4-SB1 12-14	unknown (r.t. = 9.41)		1.54	J	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	1-Octadecene (r.t. = 12.27)	112-88-9	1.77	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	28-NOR-17ALPHA(H)-HOPANE (r.t. = 16.57)	53584-60-4	2.4	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	3-Penten-2-one, 4-methyl- (r.t. = 3.69)	141-79-7	1.4	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	9-Tricosene, (Z)- (r.t. = 13.62)	27519-02-4	2	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Cholestane, (5.alpha.,14.beta.)- (r.t. = 15.67)	40071-70-3	1.75	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Cyclohexane, eicosyl- (r.t. = 11.97)	4443-55-4	1.56	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Cyclotetradecanol, 1,7,11-trimethyl-4-((r.t. = 11.27)	20489-83-2	2.15	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Docosane (r.t. = 11.73)	629-97-0	2.96	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Docosane (r.t. = 12.51)	629-97-0	2.23	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Docosane (r.t. = 15.42)	629-97-0	3.91	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Heneicosane (r.t. = 12.62)	629-94-7	3.05	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Heptadecane, 2,6,10,15-tetramethyl- (r.t. = 11.55)	54833-48-6	2.42	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Hexadecane (r.t. = 12.01)	544-76-3	1.7	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Hexadecane (r.t. = 13.13)	544-76-3	1.81	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Hexadecane, 1-(ethenyloxy)- (r.t. = 10.82)	822-28-6	2.08	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Hexadecane, 2,6,10,14-tetramethyl- (r.t. = 13.91)	638-36-8	1.51	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Methyl 5-(2,4-dichlorophenoxy)methyl-3- (r.t. = 16.52)	85858-62-4	3.79	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Octadecane (r.t. = 10.6)	593-45-3	1.75	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Pentadecane (r.t. = 11.08)	629-62-9	2.72	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Tetracosane, 2,6,10,15,19,23-hexamethyl (r.t. = 13.49)	111-01-3	1.43	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	trans-1,3-Bis(trideuterioacetamido-dide (r.t. = 15.36)	70925-27-8	1.73	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	Tridecane (r.t. = 11.43)	629-50-5	2.71	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	unknown (r.t. = 13.05)		1.63	J	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	unknown (r.t. = 14.09)		2.14	J	OLM04.2
12/5/2005	SSI-DSB-4-SB2 21-24	unknown (r.t. = 16.07)		6.81	J	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.26)	123-42-2	32	JNAB	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	3-Hexen-2-one (r.t. = 3.7)	763-93-9	26.4	JNB	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	4H-Cyclopenta[def]chrysen-4-one (r.t. = 14.46)	86853-91-0	0.471	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	7H-Benzo[c]fluoren-7-one (r.t. = 12.9)	6051-98-5	0.536	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	Benzo[e]pyrene (r.t. = 14.84)	192-97-2	0.877	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/5/2005	SSI-DSB-4-SB3 45-48	CYCLOPENTA(DEF)PHENANTHRENONE (r.t. = 11.54)	5737-13-3	0.653	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	Naphthalene, 2-phenyl- (r.t. = 11.15)	612-94-2	0.481	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	Octadecane (r.t. = 14.12)	593-45-3	0.592	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	Pentadecane (r.t. = 14.81)	629-62-9	0.522	JN	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	unknown (r.t. = 14.33)		0.615	J	OLM04.2
12/5/2005	SSI-DSB-4-SB3 45-48	unknown (r.t. = 15.56)		0.564	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	1,1,3-Trifluoro-3,3-bis[ethyl(trimethyl (r.t. = 15.4)	80249-56-5	2.45	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	28-NOR-17BETA(H)-HOPANE (r.t. = 16.39)	36728-72-0	4.16	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.28)	123-42-2	7.16	JNAB	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	5H-Dibenzo[a,d]cycloheptene-5-carboxami (r.t. = 17.3)	10423-37-7	2.12	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	D-Homoandrostane, (5.alpha.,13.alpha.)- (r.t. = 14.75)	54482-31-4	10.1	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	E and Z isomers of 1-(2,6,6-Trimethyl-1 (r.t. = 14.66)	68965-69-5	2.66	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	Ethynyl (1R*,2R*,5S*)-5,8,8-trimethylbi (r.t. = 13.71)	85544-99-6	2.02	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	Ethynyl (1R*,2R*,5S*)-5,8,8-trimethylbi (r.t. = 14.02)	85544-99-6	6.2	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	Nonacosane (r.t. = 14.13)	630-03-5	6.76	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	Octadecane, 1-chloro- (r.t. = 13.75)	3386-33-2	2.54	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	Sigmosceptrellin-B (r.t. = 15.11)	81739-17-5	2.15	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	Tridecane (r.t. = 13.24)	629-50-5	5.32	JN	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 13.63)		2.28	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 13.97)		1.75	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 14.35)		3.09	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 14.69)		2.69	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 15.08)		2.55	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 15.24)		2.16	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 15.29)		1.75	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 15.56)		3.05	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 15.59)		10.2	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 15.94)		6.87	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 16.44)		3.4	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	unknown (r.t. = 16.84)		4.55	J	OLM04.2
12/5/2005	SSI-DSB-4-SS 6-9	Urs-20-en-16-ol, (16.beta.,18.alpha.,19 (r.t. = 16.78)	66394-74-9	2.12	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	11H-Benzo[b]fluorene (r.t. = 12.3)	243-17-4	1.74	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	11H-Benzo[b]fluorene (r.t. = 12.38)	243-17-4	1.71	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	1E,6E,10E-CEMBRATRIENE (EPIMER B) (r.t. = 14.73)	61527-67-1	2.25	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.25)	123-42-2	92	JNAB	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	3-Penten-2-one, 4-methyl- (r.t. = 3.69)	141-79-7	32.2	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	4H-Cyclopenta[def]phenanthrene (r.t. = 10.94)	203-64-5	5.07	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	Anthracene, 1-methyl- (r.t. = 10.84)	610-48-0	3.43	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	METHYLETHYLKETONE-2,4-DNP-D1 (r.t. = 14.39)	27820-01-5	1.57	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	Perylene (r.t. = 14.85)	198-55-0	5.23	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	Phenanthrene, 4-methyl- (r.t. = 10.81)	832-64-4	2.39	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	unknown (r.t. = 11.15)		2.38	J	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	unknown (r.t. = 14.18)		2.17	J	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	unknown (r.t. = 14.46)		2.88	J	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	unknown (r.t. = 15.27)		2.86	J	OLM04.2
12/5/2005	SSI-DSB-5-SB1 12-14	unknown (r.t. = 15.91)		1.99	J	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 17.13)	54113-93-8	0.266	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	13,14,15,16,17,18-Hexanorlabdane-8.alph (r.t. = 15.44)	82053-48-3	0.35	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	28-NOR-17BETA(H)-HOPANE (r.t. = 15.47)	36728-72-0	0.377	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.17)	123-42-2	6.68	JNAB	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	3-Penten-2-one, 4-methyl- (r.t. = 3.59)	141-79-7	15.3	JNB	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	4H-1,3,2-Dioxaborin, 4-ethenyl-2-ethyl- (r.t. = 8.35)	74630-04-9	0.503	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	7-Heptadecene, 1-chloro- (r.t. = 13.39)	56554-78-0	0.346	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	Dodecane, 4,6-dimethyl- (r.t. = 9.56)	61141-72-8	0.509	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	Ethynyl (1R*,2R*,5S*)-5,8,8-trimethylbi (r.t. = 14.56)	85544-99-6	0.362	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	Hexadecane (r.t. = 13.14)	544-76-3	0.373	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	Hexadecane, 2,6,10,14-tetramethyl- (r.t. = 10.06)	638-36-8	0.382	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	Pentadecane (r.t. = 13.54)	629-62-9	0.411	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	Pentadecane (r.t. = 13.75)	629-62-9	0.362	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	Tetradecane (r.t. = 14.04)	629-59-4	0.504	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	Tridecane (r.t. = 9.28)	629-50-5	0.699	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	Undecane, 2,8-dimethyl- (r.t. = 8.36)	17301-25-6	0.376	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	unknown (r.t. = 12.98)		0.255	J	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	unknown (r.t. = 14.24)		0.26	J	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	unknown (r.t. = 15.33)		0.235	J	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	unknown (r.t. = 15.81)		0.533	J	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	unknown (r.t. = 16.3)		0.33	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/5/2005	SSI-DSB-5-SB2 21-24	unknown (r.t. = 16.54)		0.242	J	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	unknown (r.t. = 16.62)		0.268	J	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	unknown (r.t. = 16.7)		0.23	J	OLM04.2
12/5/2005	SSI-DSB-5-SB2 21-24	unknown (r.t. = 8.06)		0.515	J	OLM04.2
12/5/2005	SSI-DSB-5-SB3 45-48	2-Butenedioic acid (Z)-, bis(2-methylpr (r.t. = 8.32)	14234-82-3	0.165	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB3 45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.17)	123-42-2	8.18	JNAB	OLM04.2
12/5/2005	SSI-DSB-5-SB3 45-48	3-Penten-2-one, 4-methyl- (r.t. = 3.6)	141-79-7	21.1	JNB	OLM04.2
12/5/2005	SSI-DSB-5-SB3 45-48	5-Hexen-2-one (r.t. = 2.9)	109-49-9	0.518	JNB	OLM04.2
12/5/2005	SSI-DSB-5-SB3 45-48	endo-3-(2'-Nitro-2'-propenyl)-2-bornano (r.t. = 15.8)	90059-92-0	0.215	JN	OLM04.2
12/5/2005	SSI-DSB-5-SB3 45-48	unknown (r.t. = 11.15)		0.184	J	OLM04.2
12/5/2005	SSI-DSB-5-SB3 45-48	unknown (r.t. = 13.73)		0.191	J	OLM04.2
12/5/2005	SSI-DSB-5-SB3 45-48	unknown (r.t. = 14.24)		0.17	J	OLM04.2
12/5/2005	SSI-DSB-5-SB3 45-48	unknown (r.t. = 15.13)		0.165	J	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	(7S,12Z)-12,14-Labdadiene-7,8-diol (r.t. = 15.61)	83915-63-3	0.371	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	(E)-4-(2',6',6'-Trimethyl-1'-cyclohexen (r.t. = 16.47)	89128-17-6	0.671	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	(E)-4-(2',6',6'-Trimethyl-1'-cyclohexen (r.t. = 16.53)	89128-17-6	0.437	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.01)	54113-93-8	0.917	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	1,1'-Biphenyl, 2,2',3,3',6,6'-hexachlor (r.t. = 12.86)	38411-22-2	0.34	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	1,1'-Biphenyl, 2,2',3,4,4',5'-hexachlor (r.t. = 12.6)	35065-28-2	0.379	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	1,1'-Biphenyl, hexachloro- (r.t. = 12.37)	26601-64-9	0.208	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	28-NOR-17ALPHA(H)-HOPANE (r.t. = 15.65)	53584-60-4	0.791	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.33)	123-42-2	1.42	JNAB	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	3-Hexen-2-one (r.t. = 3.76)	763-93-9	0.372	JNB	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	4-Methoxy-3-methylthioquinoline (r.t. = 16.42)	83936-11-2	0.38	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	Docosane (r.t. = 16.37)	629-97-0	0.269	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	E and Z isomers of 2,6,10-Trimethyl-2,6 (r.t. = 14.71)	68965-67-3	0.314	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	Eicosane (r.t. = 14.78)	112-95-8	0.224	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	Eicosane (r.t. = 15.13)	112-95-8	0.355	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	Hexatriacontane (r.t. = 15.5)	630-06-8	0.85	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	Octadecane (r.t. = 11.59)	593-45-3	0.424	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	Phenanthrene, 9-dodecyltetradecahydro- (r.t. = 16.95)	55334-01-5	0.219	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	Tetracosane (r.t. = 14.07)	646-31-1	0.654	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	Tricosane (r.t. = 13.68)	638-67-5	0.216	JN	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	unknown (r.t. = 13.86)		0.276	J	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	unknown (r.t. = 14.39)		0.387	J	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	unknown (r.t. = 15.35)		0.246	J	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	unknown (r.t. = 16.66)		0.213	J	OLM04.2
12/5/2005	SSI-DSB-5-SS 6-9	Urs-20-en-16-ol, (16.beta.,18.alpha.,19 (r.t. = 16.85)	66394-74-9	0.298	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	28-NOR-17BETA(H)-HOPANE (r.t. = 15.49)	36728-72-0	0.704	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.18)	123-42-2	4.97	JNAB	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	3-Penten-2-one, 4-methyl- (r.t. = 3.61)	141-79-7	11.8	JNB	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	4,14-Didecarboxyl-4-methyl-13,14-di(hyd (r.t. = 15.44)	82570-48-7	0.308	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	7H-Benzo[c]fluoren-7-one (r.t. = 12.84)	6051-98-5	0.251	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	7H-Benzo[c]fluoren-7-one (r.t. = 13.09)	6051-98-5	0.156	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	9,10-Anthracenedione (r.t. = 11.1)	84-65-1	0.574	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	Benz[a]anthracene-7,12-dione (r.t. = 13.8)	2498-66-0	0.251	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	Benzo[e]pyrene (r.t. = 14.79)	192-97-2	2.15	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	Chrysene, 1-methyl- (r.t. = 13.76)	3351-28-8	0.211	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	CYCLOPENTA(DEF)PHENANTHRENONE (r.t. = 11.47)	5737-13-3	0.489	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	CYCLOPENTA(DEF)PHENANTHRENONE (r.t. = 14.25)	5737-13-3	0.791	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	Cyclopropanecarboxylic acid (r.t. = 2.99)	1759-53-1	1.46	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	Heneicosane (r.t. = 15.35)	629-94-7	0.343	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	Perylene (r.t. = 14.61)	198-55-0	0.555	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	Perylene, 1,2,3,7,8,9-hexahydro- (r.t. = 14.12)	68912-99-2	0.825	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	Pyrene, 1-methyl- (r.t. = 12.35)	2381-21-7	0.17	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	unknown (r.t. = 12.97)		0.164	J	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	unknown (r.t. = 13.15)		0.2	J	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	unknown (r.t. = 13.43)		0.151	J	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	unknown (r.t. = 13.93)		0.517	J	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	unknown (r.t. = 14.65)		0.309	J	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	unknown (r.t. = 14.7)		0.612	J	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	unknown (r.t. = 15.83)		0.518	J	OLM04.2
12/5/2005	SSI-DSB-6-SB1 12-14	unknown (r.t. = 16.27)		0.807	J	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.26)	123-42-2	7.1	JNAB	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	3-Penten-2-one, 4-methyl- (r.t. = 3.7)	141-79-7	16.5	JNB	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	Benz[a]anthracene-7,12-dione (r.t. = 14.18)	2498-66-0	0.157	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	Benzo[c]cinnoline (r.t. = 11.18)	230-17-1	0.224	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/5/2005	SSI-DSB-6-SB2 21-24	Benzo[e]pyrene (r.t. = 14.85)	192-97-2	0.476	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	CYCLOPENTA(DEF)PHENANTHRENONE (r.t. = 11.54)	5737-13-3	0.154	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	Hexanedioic acid, dioctyl ester (r.t. = 12.78)	123-79-5	0.241	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	unknown (r.t. = 11.23)		0.442	J	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	unknown (r.t. = 15.41)		0.214	J	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	unknown (r.t. = 15.57)		0.192	J	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	unknown (r.t. = 15.82)		0.142	J	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	unknown (r.t. = 15.91)		0.454	J	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	unknown (r.t. = 16.04)		0.282	J	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	unknown (r.t. = 16.36)		0.254	J	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	unknown (r.t. = 3.1)		0.928	J	OLM04.2
12/5/2005	SSI-DSB-6-SB2 21-24	unknown (r.t. = 4.04)		0.429	J	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	1-Butene, 2,3-dimethyl- (r.t. = 4.05)	563-78-0	0.653	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	2,4-Di-tert-butyl-6-isopropylphenylisoc (r.t. = 14.18)	39777-68-9	0.222	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	2-Butenedioic acid (Z)-, bis(2-methylpr (r.t. = 8.39)	14234-82-3	0.187	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.26)	123-42-2	8.83	JNAB	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	3-Penten-2-one, 4-methyl- (r.t. = 3.71)	141-79-7	22	JNB	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	5-Hexen-2-one (r.t. = 3.02)	109-49-9	0.442	JNB	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	Benzo[e]pyrene (r.t. = 14.84)	192-97-2	0.354	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	Perylene (r.t. = 14.66)	198-55-0	0.291	JN	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	unknown (r.t. = 14.32)		0.206	J	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	unknown (r.t. = 14.81)		0.151	J	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	unknown (r.t. = 15.27)		0.321	J	OLM04.2
12/5/2005	SSI-DSB-6-SB3 45-48	unknown (r.t. = 3.11)		0.389	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	[4aS-(4a.alpha.,4b.beta.,7.alpha.,8.alp (r.t. = 17.28)	87953-45-5	1.11	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	28-NOR-17ALPHA(H)-HOPANE (r.t. = 15.57)	53584-60-4	2.46	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.25)	123-42-2	58.4	JNAB	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	2-Pentene, 2,3-dimethyl- (r.t. = 3.69)	10574-37-5	19.2	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	5-Iodopent-2-ene (r.t. = 3.64)	75067-63-9	5.55	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Benzo[c]phenanthrene (r.t. = 13.47)	195-19-7	0.798	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Benzo[j]fluoranthene (r.t. = 14.84)	205-82-3	1.77	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Docosane, 9-butyl- (r.t. = 15.43)	55282-14-9	2.95	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Nonadecane (r.t. = 14)	629-92-5	1.07	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Nonadecane (r.t. = 15.82)	629-92-5	1.39	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Octadecane (r.t. = 15.05)	593-45-3	1.41	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Pentadecane (r.t. = 14.36)	629-62-9	1.23	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Pentadecane, 8-hexyl- (r.t. = 14.71)	13475-75-7	1.29	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Phenanthrene, 9-dodecyltetradecahydro- (r.t. = 16.42)	55334-01-5	2.46	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	Tricosane (r.t. = 16.27)	638-67-5	2.18	JN	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 11.53)		0.818	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 14.12)		0.885	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 15.38)		1.4	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 15.53)		1.45	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 15.91)		1.55	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 16.36)		1.72	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 16.75)		1.25	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 17.19)		0.896	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 18.02)		1.2	J	OLM04.2
12/5/2005	SSI-DSB-6-SS 6-9	unknown (r.t. = 4.04)		4.43	J	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	1-Hexanol, 2-ethyl- (r.t. = 5.97)	104-76-7	2.9	JN	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.19)	123-42-2	63	JNAB	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	2-Pentene, 4-bromo- (r.t. = 3.97)	1809-26-3	11.3	JN	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	5-Iodopent-2-ene (r.t. = 3.56)	75067-63-9	7.45	JN	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	Heptane, 2,4-dimethyl- (r.t. = 3.93)	2213-23-2	3.54	JNB	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	Heptane, 2,5-dimethyl- (r.t. = 4.1)	2216-30-0	17.1	JNB	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	Heptane, 2,6-dimethyl- (r.t. = 4.02)	1072-05-5	8.01	JNB	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	Hexadecanamide (r.t. = 14.25)	629-54-9	7.91	JN	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	unknown (r.t. = 15.47)		3.19	J	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	unknown (r.t. = 3.01)		11.2	J	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	unknown (r.t. = 5.17)		3.73	J	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	unknown (r.t. = 5.29)		4.37	JB	OLM04.2
12/7/2005	SSI-MW12-4-SB1(12-14)	unknown (r.t. = 6.16)		5.72	J	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	11H-Benzo[b]fluorene (r.t. = 12.21)	243-17-4	0.884	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.18)	123-42-2	2.7	JNAB	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	7H-Benz[de]anthracen-7-one (r.t. = 12.82)	82-05-3	0.752	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	9,10-Anthracenedione (r.t. = 11.1)	84-65-1	1.27	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Anthracene, 1-methyl- (r.t. = 10.76)	610-48-0	3.18	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/8/2005	SSI-MW5-2-SB1(12-14")	Anthracene, 2-methyl- (r.t. = 10.73)	613-12-7	2.42	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Benzaldehyde, 3,5-dichloro-2-hydroxy- (r.t. = 10.86)	90-60-8	3.98	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	CYCLOPENTA(DEF)PHENANTHRENONE (r.t. = 11.46)	5737-13-3	1.36	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Dibenzothiophene (r.t. = 10.05)	132-65-0	1.29	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Hexane (r.t. = 4.74)	110-54-3	0.00668	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Naphthalene, 2-phenyl- (r.t. = 11.07)	612-94-2	1.64	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Perylene (r.t. = 14.75)	198-55-0	2.96	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Phenanthrene, 2,5-dimethyl- (r.t. = 11.37)	3674-66-6	1.8	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Phenanthrene, 2,7-dimethyl- (r.t. = 11.41)	1576-69-8	1.06	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Phenanthrene, 4-methyl- (r.t. = 10.88)	832-64-4	1.51	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Phenanthrene, 9-methyl- (r.t. = 10.82)	883-20-5	1.22	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	Pyrene, 2-methyl- (r.t. = 12.33)	3442-78-2	0.862	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB1(12-14")	unknown (r.t. = 12.95)		0.828	J	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	1,2:3,4-Dibenzoanthracene (r.t. = 16.17)	215-58-7	3.63	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	13-Oxo-1,2,3,4,5,6-hexahydro-2,11-ethan (r.t. = 14.57)	99131-96-1	3.79	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	1H-Indene, 2-phenyl- (r.t. = 10.72)	4505-48-0	5.09	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	4H-Cyclopenta[def]phenanthrene (r.t. = 10.84)	203-64-5	9.5	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	Anthracene, 2-methyl- (r.t. = 10.75)	613-12-7	5.69	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	Benzo[b]chrysene (r.t. = 15.9)	214-17-5	4.51	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	Benzo[e]pyrene (r.t. = 14.75)	192-97-2	9.65	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	Pyrene, 1-methyl- (r.t. = 12.21)	2381-21-7	3.83	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	Pyrene, 1-methyl- (r.t. = 12.28)	2381-21-7	3.41	JN	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	unknown (r.t. = 11.03)		0.00579	J	OLM04.2
12/8/2005	SSI-MW5-2-SB3(45-48")	unknown (r.t. = 12.35)		0.046	J	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 15.86)	54113-93-8	0.817	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	1H-Indene, 1-phenyl- (r.t. = 10.89)	1961-96-2	0.869	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	1-Pentene, 2-methyl- (r.t. = 5.61)	763-29-1	0.0067	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.21)	123-42-2	2.44	JNAB	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Anthracene, 1-methyl- (r.t. = 10.77)	610-48-0	0.671	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Anthracene, 2-methyl- (r.t. = 10.8)	613-12-7	0.921	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Benzene, 1-ethyl-4-methyl- (r.t. = 11.2)	622-96-8	0.0094	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Benzene, 1-ethyl-4-methyl- (r.t. = 11.55)	622-96-8	0.0069	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	column bleed (r.t. = 3.33)		0.023	J	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Dibenzofuran, 4-methyl- (r.t. = 9.37)	7320-53-8	0.687	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Docosane (r.t. = 11.94)	629-97-0	0.805	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Eicosane (r.t. = 11.03)	112-95-8	0.981	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Eicosane (r.t. = 11.49)	112-95-8	1.54	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Heptane, 2,5-dimethyl- (r.t. = 4.14)	2216-30-0	1.33	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Hexadecane (r.t. = 9.09)	544-76-3	0.815	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Hexane (r.t. = 4.73)	110-54-3	0.019	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Hexanedioic acid, dioctyl ester (r.t. = 12.75)	123-79-5	1.17	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Naphthalene, 1,3-dimethyl- (r.t. = 8.34)	575-41-7	0.944	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Naphthalene, 1,5-dimethyl- (r.t. = 8.46)	571-61-9	0.802	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Naphthalene, 1-methyl- (r.t. = 7.8)	90-12-0	0.974	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Naphthalene, 2,7-dimethyl- (r.t. = 8.37)	582-16-1	0.756	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Nonadecane (r.t. = 14.67)	629-92-5	0.785	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Octadecane (r.t. = 10.07)	593-45-3	0.917	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Octadecane (r.t. = 13.58)	593-45-3	0.695	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Pentadecane (r.t. = 10.56)	629-62-9	0.966	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Pentadecane, 2,6,10,14-tetramethyl- (r.t. = 9.6)	1921-70-6	1.94	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Phenanthrene, 2,5-dimethyl- (r.t. = 11.41)	3674-66-6	0.75	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	Tricosane (r.t. = 12.37)	638-67-5	0.959	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	unknown (r.t. = 3.06)		2.97	J	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	unknown (r.t. = 4.34)		0.0069	J	OLM04.2
12/6/2005	SSI-MW6-1-SB1-12-14	unknown (r.t. = 9.92)		0.704	J	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	1,4-Epoxy-2,3-dimethylidene-1,2,3,4-tet (r.t. = 11.94)	73862-76-7	0.33	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.22)	123-42-2	3.87	JNAB	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	4-Amino-9-fluorenone (r.t. = 12.22)	4269-15-2	0.308	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Anthracene, 9,10-dimethyl- (r.t. = 11.41)	781-43-1	0.294	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Benzene, 1,3,5-trimethyl- (r.t. = 5.77)	108-67-8	0.645	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Decane, 2-methyl- (r.t. = 7.46)	6975-98-0	0.326	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Heptadecane (r.t. = 13.95)	629-78-7	0.417	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Heptane, 2,5-dimethyl- (r.t. = 4.14)	2216-30-0	2.48	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Heptane, 2,6-dimethyl- (r.t. = 4.06)	1072-05-5	1.48	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Hexadecane (r.t. = 9.09)	544-76-3	0.311	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Hexanedioic acid, dioctyl ester (r.t. = 12.75)	123-79-5	0.399	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Naphthalene, 1,3-dimethyl- (r.t. = 8.45)	575-41-7	0.358	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-MW6-1-SB2-21-24	Naphthalene, 1,4-dimethyl- (r.t. = 8.27)	571-58-4	0.283	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Naphthalene, 1,5-dimethyl- (r.t. = 8.37)	571-61-9	0.329	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Naphthalene, 1-methyl- (r.t. = 7.8)	90-12-0	0.487	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Naphthalene, 2,3-dimethyl- (r.t. = 8.34)	581-40-8	0.475	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Nonane, 5-butyl- (r.t. = 10.07)	17312-63-9	0.295	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Octacosane (r.t. = 13.19)	630-02-4	0.267	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Phenanthrene, 2-methyl- (r.t. = 10.8)	2531-84-2	0.377	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Tricosane (r.t. = 11.49)	638-67-5	0.371	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	Tridecane (r.t. = 9.59)	629-50-5	0.589	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	unknown (r.t. = 12.37)		0.295	J	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	unknown (r.t. = 14.28)		0.451	J	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	unknown (r.t. = 3.07)		1.41	J	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24	unknown (r.t. = 9.07)		0.327	J	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	1H-Indene, 2-phenyl- (r.t. = 10.83)	4505-48-0	0.804	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.24)	123-42-2	3.36	JNAB	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	4-Amino-9-fluorenone (r.t. = 12.27)	4269-15-2	0.43	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	9-Octadecenamide, (Z)- (r.t. = 14.33)	301-02-0	0.635	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Anthracene, 2-methyl- (r.t. = 10.93)	613-12-7	0.825	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Benzene, 1,1'-(2,2,2-trichloroethyliden (r.t. = 12.78)	50-29-3	0.58	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Benzene, 1-chloro-2-[2-chloro-1-(4-chlo (r.t. = 11.71)	14835-94-0	0.585	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Chloditan (r.t. = 12.42)	53-19-0	0.912	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Docosane (r.t. = 11.98)	629-97-0	0.499	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Eicosane (r.t. = 11.06)	112-95-8	0.646	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Heptadecane (r.t. = 9.62)	629-78-7	0.928	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Heptane, 2,5-dimethyl- (r.t. = 4.17)	2216-30-0	1.35	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Hexadecane (r.t. = 9.12)	544-76-3	0.646	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Naphthalene, 1,5-dimethyl- (r.t. = 8.38)	571-61-9	0.786	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Naphthalene, 1-methyl- (r.t. = 7.83)	90-12-0	0.694	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Naphthalene, 2,3,6-trimethyl- (r.t. = 9.1)	829-26-5	0.547	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Octadecane (r.t. = 10.11)	593-45-3	0.677	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Octadecane (r.t. = 11.53)	593-45-3	1.09	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Octadecane (r.t. = 13.23)	593-45-3	0.378	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Octadecane (r.t. = 14)	593-45-3	0.501	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Octadecane (r.t. = 14.36)	593-45-3	0.424	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Pentadecane (r.t. = 14.71)	629-62-9	0.532	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Sigmosceptrellin-A (r.t. = 15.91)	73436-35-8	0.625	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	Triacontane (r.t. = 10.59)	638-68-6	0.517	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB2-21-24-DUP	unknown (r.t. = 3.1)		2.04	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.37)	54113-93-8	0.284	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	11H-Benzo[b]fluorene (r.t. = 12.26)	243-17-4	0.296	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	28-NOR-17ALPHA(H)-HOPANE (r.t. = 15.53)	53584-60-4	1.05	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	28-NOR-17ALPHA(H)-HOPANE (r.t. = 15.88)	53584-60-4	1.66	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.21)	123-42-2	2	JNAB	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Benzo[e]pyrene (r.t. = 14.81)	192-97-2	0.897	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Docosane, 11-butyl- (r.t. = 14.33)	13475-76-8	0.311	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Eicosane (r.t. = 15.02)	112-95-8	0.433	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Heptacosane (r.t. = 15.39)	593-49-7	1.12	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Heptadecane, 2,6,10,15-tetramethyl- (r.t. = 13.59)	54833-48-6	0.295	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Hexane (r.t. = 4.72)	110-54-3	0.0066	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Isocopalane (r.t. = 16.31)	79191-19-8	0.388	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Nonadecane (r.t. = 14.68)	629-92-5	1.23	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Octadecane (r.t. = 13.96)	593-45-3	0.672	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Octadecane, 1-chloro- (r.t. = 15.78)	3386-33-2	0.397	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	Phosphorothioic acid, O,O-diethyl O-(4- (r.t. = 16.56)	56-38-2	0.307	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 13.84)		0.322	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 14.29)		0.611	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 14.62)		0.287	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 15.06)		0.622	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 15.18)		0.285	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 15.24)		1.08	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 15.68)		0.343	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 15.74)		0.269	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 15.82)		0.517	J	OLM04.2
12/6/2005	SSI-MW6-1-SB3-45-48	unknown (r.t. = 18.04)		0.278	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.25)	123-42-2	4.81	JNAB	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75	2-Pentene, 2-methyl- (r.t. = 3.64)	625-27-4	0.367	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75	3-Penten-2-one, (E)- (r.t. = 4.04)	3102-33-8	0.374	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-MW6-1-SB4-72-75	Benzene, 1,3,5-trimethyl- (r.t. = 5.8)	108-67-8	0.326	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75	Heptane, 2,5-dimethyl- (r.t. = 4.18)	2216-30-0	3.22	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75	Heptane, 2,6-dimethyl- (r.t. = 4.1)	1072-05-5	2.09	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75	Hexadecanamide (r.t. = 14.32)	629-54-9	0.217	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75	Octane, 4-methyl- (r.t. = 4.01)	2216-34-4	0.662	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	1H-Purin-6-amine, [(2-fluorophenyl)meth (r.t. = 14.71)	74421-44-6	0.333	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.08)	123-42-2	4.06	JNAB	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	Heptane, 2,4-dimethyl- (r.t. = 3.81)	2213-23-2	0.465	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	Heptane, 2,5-dimethyl- (r.t. = 3.99)	2216-30-0	2.41	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	Oxirane, pentyl- (r.t. = 3.91)	5063-65-0	1.46	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 12.85)		0.22	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 13.36)		0.285	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 13.84)		0.335	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 14.14)		0.529	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 14.29)		0.258	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 14.88)		0.241	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 15.12)		0.224	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 15.22)		0.233	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 15.34)		0.457	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 15.56)		0.213	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 15.67)		0.242	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 16.09)		0.195	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 16.14)		0.238	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 2.75)		0.501	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 2.86)		2.21	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 6.08)		0.772	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 8.24)		0.506	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-DS	unknown (r.t. = 9.03)		0.305	J	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	1-Hexanol, 2-ethyl- (r.t. = 5.96)	104-76-7	0.478	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.16)	123-42-2	5.36	JNAB	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	5-Iodopent-2-ene (r.t. = 3.55)	75067-63-9	0.493	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Cyclopropanecarboxylic acid (r.t. = 2.99)	1759-53-1	1.52	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Docosane (r.t. = 14.98)	629-97-0	0.36	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Eicosane (r.t. = 10.03)	112-95-8	0.197	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Eicosane, 2-methyl- (r.t. = 13.92)	1560-84-5	0.585	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Heptane, 2,3-dimethyl- (r.t. = 3.91)	3074-71-3	0.437	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Heptane, 2,5-dimethyl- (r.t. = 4.09)	2216-30-0	2.11	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Heptane, 2,6-dimethyl- (r.t. = 4.01)	1072-05-5	1.33	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Hexadecane (r.t. = 11.9)	544-76-3	0.199	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Hexadecane (r.t. = 13.15)	544-76-3	0.212	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Octacosane (r.t. = 14.64)	630-02-4	0.56	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Octadecane (r.t. = 12.75)	593-45-3	0.288	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Pentadecane (r.t. = 11.45)	629-62-9	0.208	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Pentadecane (r.t. = 12.32)	629-62-9	0.176	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Tetradecane (r.t. = 10.51)	629-59-4	0.227	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Tricosane (r.t. = 9.04)	638-67-5	0.178	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Tridecane (r.t. = 9.54)	629-50-5	0.297	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	Tritetracontane (r.t. = 10.98)	7098-21-7	0.242	JN	OLM04.2
12/6/2005	SSI-MW6-1-SB4-72-75-MS	unknown (r.t. = 3.96)		0.492	JB	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	[4aS-(4a.alpha.,4b.beta.,7.alpha.,8.alp (r.t. = 16.3)	87953-47-7	3.63	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Cholestan-7-one, (5.alpha.,14.beta.)- (r.t. = 15.86)	40072-53-5	1.77	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Docosane (r.t. = 14.67)	629-97-0	3.66	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Heptadecane (r.t. = 12.78)	629-78-7	1.11	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Hexadecane, 7,9-dimethyl- (r.t. = 11.49)	21164-95-4	1.38	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Nonadecane (r.t. = 13.58)	629-92-5	1.92	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Octadecane (r.t. = 15.02)	593-45-3	2.07	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Octadecane (r.t. = 15.78)	593-45-3	1.82	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Octadecane (r.t. = 16.21)	593-45-3	1.39	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Phenanthrene, 9-dodecyltetradecahydro- (r.t. = 16.36)	55334-01-5	3.19	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Phenanthrene, 9-dodecyltetradecahydro- (r.t. = 16.68)	55334-01-5	1.02	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Tricosane (r.t. = 13.96)	638-67-5	2.89	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Tricosane (r.t. = 14.32)	638-67-5	2.11	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Tricosane (r.t. = 15.38)	638-67-5	1.87	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	Tridecane, 6-propyl- (r.t. = 13.19)	55045-10-8	0.935	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 14.07)		2.48	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 14.4)		0.946	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 14.42)		0.969	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 14.58)		0.913	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 14.59)		1.51	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 15.17)		1.34	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 15.51)		5.06	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 16.76)		1.64	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 16.84)		0.892	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3	unknown (r.t. = 17.2)		0.937	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	(Z)-4-2',6',6'-Trimethyl-2'-cyclohexen- (r.t. = 15.87)	93175-79-2	7.86	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.3)	54113-93-8	3.57	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	28-NOR-17BETA(H)-HOPANE (r.t. = 15.52)	36728-72-0	7.78	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Androstan-3-ol, (3.beta.,5.alpha.)- (r.t. = 15.73)	1224-92-6	1.63	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Docosane, 11-decyl- (r.t. = 13.58)	55401-55-3	2.83	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Dotriacontane (r.t. = 16.21)	544-85-4	1.44	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Eicosane (r.t. = 12.78)	112-95-8	1.29	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Eicosane (r.t. = 14.67)	112-95-8	3.44	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Hexanedioic acid, dioctyl ester (r.t. = 12.74)	123-79-5	1.23	JNB	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Hexatriacontane (r.t. = 15.02)	630-06-8	3.13	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	N-METHYL-DIBENZ(E,G)ISOINDOLE (r.t. = 15.18)	59788-15-7	1.65	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Nonadecane (r.t. = 14.32)	629-92-5	2.52	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Octadecane (r.t. = 15.77)	593-45-3	1.31	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Octadecane, 5,14-dibutyl- (r.t. = 13.96)	55282-13-8	3.08	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Tetracosane (r.t. = 15.39)	646-31-1	6.45	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	Tricosane (r.t. = 13.19)	638-67-5	1.37	JN	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	unknown (r.t. = 13.15)		1.25	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	unknown (r.t. = 14.15)		1.58	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	unknown (r.t. = 14.39)		1.62	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	unknown (r.t. = 14.81)		1.21	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	unknown (r.t. = 16.36)		3.74	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	unknown (r.t. = 16.69)		1.73	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	unknown (r.t. = 16.77)		1.94	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	unknown (r.t. = 17.2)		1.98	J	OLM04.2
12/6/2005	SSI-MW6-1-SS-0-3-DUP	unknown (r.t. = 17.61)		3.01	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 15.87)	54113-93-8	1.38	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.69)	54113-93-8	0.394	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	10-Methoxybenz[a]azulen-1,4-dione (r.t. = 11.65)	76319-77-2	1.57	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	28-NOR-17BETA(H)-HOPANE (r.t. = 15.52)	36728-72-0	1.04	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.21)	123-42-2	4.87	JNAB	OLM04.2
12/6/2005	SSI-MW6-2-45-48	7H-Benz[de]anthracen-7-one (r.t. = 12.86)	82-05-3	0.215	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	Cholestane (r.t. = 14.69)	481-21-0	0.311	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	Heptane, 2,5-dimethyl- (r.t. = 4.14)	2216-30-0	1.8	JNB	OLM04.2
12/6/2005	SSI-MW6-2-45-48	Perylene (r.t. = 14.62)	198-55-0	0.233	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	Perylene (r.t. = 14.8)	198-55-0	0.885	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	Pyrene, 1-methyl- (r.t. = 12.23)	2381-21-7	0.221	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	Pyrene, 1-methyl- (r.t. = 12.25)	2381-21-7	0.171	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	Pyrene, 1-methyl- (r.t. = 12.37)	2381-21-7	0.224	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	Triphenylene, 2-methyl- (r.t. = 13.78)	1705-84-6	0.221	JN	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 12.99)		0.174	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 13.95)		0.268	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 14.28)		0.372	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 15.05)		0.611	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 15.22)		0.321	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 15.37)		0.24	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 16.3)		0.713	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 16.37)		0.575	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 16.92)		0.277	J	OLM04.2
12/6/2005	SSI-MW6-2-45-48	unknown (r.t. = 17.2)		0.262	J	OLM04.2
12/6/2005	SSI-MW6-2-72-75	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.3)	54113-93-8	3.36	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	1,1':2',1''-Terphenyl (r.t. = 13.07)	84-15-1	1.3	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	28-NOR-17ALPHA(H)-HOPANE (r.t. = 15.04)	53584-60-4	2.9	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.21)	123-42-2	7.46	JNAB	OLM04.2
12/6/2005	SSI-MW6-2-72-75	BACCHARANE (r.t. = 16.36)	36441-74-4	4.71	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Eicosane (r.t. = 13.18)	112-95-8	1.69	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Heneicosane, 11-pentyl- (r.t. = 14.32)	14739-72-1	2.22	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Heptacosane (r.t. = 13.95)	593-49-7	4.67	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Heptacosane (r.t. = 16.21)	593-49-7	2.01	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	N-METHYL-DIBENZ(E,G)ISOINDOLE (r.t. = 15.49)	59788-15-7	3.09	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Nonadecane (r.t. = 13.57)	629-92-5	2.88	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-MW6-2-72-75	Octacosane (r.t. = 14.67)	630-02-4	4.63	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Octacosane (r.t. = 15.01)	630-02-4	2.83	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Octadecane (r.t. = 12.78)	593-45-3	1.51	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Octadecane (r.t. = 14.78)	593-45-3	1.36	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Pentacosane (r.t. = 15.38)	629-99-2	7.33	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Phenanthrene, 9-dodecyltetradecahydro- (r.t. = 17.2)	55334-01-5	1.79	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Triacontane (r.t. = 15.78)	638-68-6	2.19	JN	OLM04.2
12/6/2005	SSI-MW6-2-72-75	unknown (r.t. = 13.77)		1.37	J	OLM04.2
12/6/2005	SSI-MW6-2-72-75	unknown (r.t. = 14.07)		1.38	J	OLM04.2
12/6/2005	SSI-MW6-2-72-75	unknown (r.t. = 14.3)		1.33	J	OLM04.2
12/6/2005	SSI-MW6-2-72-75	unknown (r.t. = 14.42)		1.69	J	OLM04.2
12/6/2005	SSI-MW6-2-72-75	unknown (r.t. = 15.12)		2.16	J	OLM04.2
12/6/2005	SSI-MW6-2-72-75	unknown (r.t. = 15.86)		4.12	J	OLM04.2
12/6/2005	SSI-MW6-2-72-75	Urs-20-en-16-ol, (16.beta.,18.alpha.,19 (r.t. = 15.51)	66394-74-9	5.2	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-12-14	10-DEMETHYLSQUALENE (r.t. = 14.38)	59681-06-0	3.01	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-12-14	Anthracene, 9-butyltetradecahydro- (r.t. = 16.28)	55133-89-6	0.941	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-12-14	Benzo[j]fluoranthene (r.t. = 14.79)	205-82-3	1.38	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-12-14	Chrysene, 5-methyl- (r.t. = 13.76)	3697-24-3	0.798	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-12-14	Hexadecanoic acid (r.t. = 11.11)	57-10-3	3.26	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-12-14	unknown (r.t. = 15.36)		1.34	J	OLM04.2
12/6/2005	SSI-MW6-2-SB1-12-14	unknown (r.t. = 15.5)		1.21	J	OLM04.2
12/6/2005	SSI-MW6-2-SB1-12-14	unknown (r.t. = 15.84)		0.914	J	OLM04.2
12/6/2005	SSI-MW6-2-SB1-12-14	unknown (r.t. = 16.34)		1.08	J	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	[4aS-(4a.alpha.,4b.beta.,7.alpha.,8.alp (r.t. = 15.5)	87953-47-7	1.14	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	2,3:6,7-DICYCLOBUTABIPHENYLENE (r.t. = 11.1)	57674-80-3	1.78	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.2)	123-42-2	72.7	JNAB	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	4-Amino-9-fluorenone (r.t. = 12.21)	4269-15-2	1.43	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	7H-Benz[de]anthracen-7-one (r.t. = 12.85)	82-05-3	1.14	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Anthracene, 1-methyl- (r.t. = 10.88)	610-48-0	2.41	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Anthracene, 2-methyl- (r.t. = 10.91)	613-12-7	1.47	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Anthracene, 9-methyl- (r.t. = 10.79)	779-02-2	2.76	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Benzo[j]fluoranthene (r.t. = 14.79)	205-82-3	1.14	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Eicosane (r.t. = 13.57)	112-95-8	1.44	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Heptadecane, 8-methyl- (r.t. = 11.48)	13287-23-5	2.88	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Hexadecane (r.t. = 11.93)	544-76-3	1.12	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Hexadecane (r.t. = 9.08)	544-76-3	2.41	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Naphthalene, 1,3-dimethyl- (r.t. = 8.33)	575-41-7	2.39	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Naphthalene, 1,4-dimethyl- (r.t. = 8.45)	571-58-4	2.15	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Octadecane (r.t. = 13.95)	593-45-3	1.32	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Octadecane (r.t. = 14.66)	593-45-3	1.19	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Pentadecane (r.t. = 11.02)	629-62-9	2.14	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Phenanthrene, 2,7-dimethyl- (r.t. = 11.39)	1576-69-8	1.98	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Phenanthrene, 4,5-dimethyl- (r.t. = 11.28)	3674-69-9	2	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Tetradecane (r.t. = 12.36)	629-59-4	1.48	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	Triacontane (r.t. = 10.55)	638-68-6	2.16	JN	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	unknown (r.t. = 15.17)		1.09	J	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	unknown (r.t. = 8.26)		2.07	J	OLM04.2
12/6/2005	SSI-MW6-2-SB1-21-24	unknown (r.t. = 9.58)		1.96	J	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	28-NOR-17ALPHA(H)-HOPANE (r.t. = 15.52)	53584-60-4	9.39	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	28-NOR-17ALPHA(H)-HOPANE (r.t. = 16.36)	53584-60-4	5.4	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Benzene, hexaethyl- (r.t. = 15.17)	604-88-6	1.91	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Eicosane (r.t. = 15.02)	112-95-8	3.43	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Heneicosane (r.t. = 12.78)	629-94-7	1.93	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Heneicosane (r.t. = 15.38)	629-94-7	4.96	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Heneicosane (r.t. = 16.21)	629-94-7	3.1	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Isoquinoline, 1,2,3,4-tetrahydro-7-meth (r.t. = 16.69)	36646-87-4	3.52	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	METHYLETHYLKETONE-2,4-DNP-D1 (r.t. = 14.3)	27820-01-5	2.33	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Nonadecane (r.t. = 13.96)	629-92-5	6.31	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Nonadecane (r.t. = 14.32)	629-92-5	2.4	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Octacosane (r.t. = 14.67)	630-02-4	5.02	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Octadecane, 1-chloro- (r.t. = 14.07)	3386-33-2	3.48	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Pentadecane (r.t. = 15.78)	629-62-9	2.95	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Tetracosane (r.t. = 13.19)	646-31-1	1.67	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Tricosane (r.t. = 13.58)	638-67-5	3.03	JN	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	unknown (r.t. = 13.4)		1.26	J	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	unknown (r.t. = 14.19)		1.33	J	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	unknown (r.t. = 14.24)		1.39	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-MW6-2-SS-6-9	unknown (r.t. = 15.05)		2.47	J	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	unknown (r.t. = 15.67)		1.26	J	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	unknown (r.t. = 15.87)		3.43	J	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	unknown (r.t. = 16.05)		2.24	J	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	unknown (r.t. = 16.52)		1.5	J	OLM04.2
12/6/2005	SSI-MW6-2-SS-6-9	Urs-20-en-16-ol, (16.beta.,18.alpha.,19 (r.t. = 16.31)	66394-74-9	3.86	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	2,6-OCTADIENE, 2,6-DIMETHYL- (r.t. = 14.38)	2609-23-6	0.824	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	4,4\-DINITRODIPHENYLSULPHIDE (r.t. = 16.42)	22100-66-9	0.676	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	6(5H)-Phenanthridinone (r.t. = 12.21)	1015-89-0	0.64	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Anthracene, 9-cyclohexyltetradecahydro- (r.t. = 16.34)	55255-70-4	0.512	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Benzo[b]naphtho[2,1-d]thiophene (r.t. = 12.98)	239-35-0	0.533	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Chrysene, 1-methyl- (r.t. = 13.77)	3351-28-8	0.56	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Dibenzo[def,mno]chrysene (r.t. = 16.09)	191-26-4	0.883	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Eicosane, 10-methyl- (r.t. = 11.48)	54833-23-7	0.96	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Hexadecane, 2-methyl- (r.t. = 13.94)	1560-92-5	1.17	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Perylene (r.t. = 14.79)	198-55-0	0.829	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Phenanthrene, 2,7-dimethyl- (r.t. = 11.39)	1576-69-8	1.15	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Phenanthrene, 3-methyl- (r.t. = 10.79)	832-71-3	1.22	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Pyrene, 1-methyl- (r.t. = 12.36)	2381-21-7	0.65	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	Tetradecane (r.t. = 15.36)	629-59-4	0.769	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	unknown (r.t. = 11.12)		1.65	JB	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	unknown (r.t. = 13.81)		0.484	J	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	unknown (r.t. = 15.5)		0.954	J	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	unknown (r.t. = 15.84)		0.535	J	OLM04.2
12/6/2005	SSI-MW6-3-SB1-12-14	unknown (r.t. = 16.28)		0.587	J	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 15.69)	54113-93-8	0.482	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.12)	123-42-2	1.55	JNAB	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Benzene, 2,4-dichloro-1-[(4-chloropheny (r.t. = 12.13)	55759-88-1	0.401	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Eicosane (r.t. = 14.56)	112-95-8	9.54	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Eicosane (r.t. = 14.9)	112-95-8	6.85	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Eicosane (r.t. = 15.62)	112-95-8	2.97	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Eicosane (r.t. = 16.04)	112-95-8	1.92	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Heneicosane (r.t. = 16.51)	629-94-7	0.835	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Heptadecane, 2,6,10,15-tetramethyl- (r.t. = 17.05)	54833-48-6	0.622	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Hexadecane (r.t. = 11.81)	544-76-3	0.718	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Hexadecane, 1-chloro- (r.t. = 15.04)	3/1/4860	0.555	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Hexadecane, 2,6,10,14-tetramethyl- (r.t. = 9.47)	638-36-8	2.72	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Hexatriacontane (r.t. = 12.24)	630-06-8	1.85	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Hexatriacontane (r.t. = 12.67)	630-06-8	2.23	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Hexatriacontane (r.t. = 13.07)	630-06-8	3.68	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Hexatriacontane (r.t. = 13.46)	630-06-8	6.05	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Hexatriacontane (r.t. = 13.84)	630-06-8	7.32	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Nonadecane (r.t. = 14.21)	629-92-5	8.34	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Nonadecane (r.t. = 15.25)	629-92-5	6.16	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Perylene (r.t. = 14.67)	198-55-0	0.803	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Tetradecane (r.t. = 8.48)	629-59-4	1.55	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Tridecane (r.t. = 11.36)	629-50-5	1.86	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	Undecane, 2,10-dimethyl- (r.t. = 14.06)	17301-27-8	0.608	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	unknown (r.t. = 11.15)		3.19	JB	OLM04.2
12/6/2005	SSI-MW6-3-SB2-21-24	unknown (r.t. = 15.36)		0.5	J	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.23)	123-42-2	2.67	JNAB	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Benzene, 1,2,4-trimethyl- (r.t. = 5.77)	95-63-6	0.982	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Benzene, 1,2-diethyl- (r.t. = 6.23)	135-01-3	1.44	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Cyclohexane, pentyl- (r.t. = 6.76)	4292-92-6	0.568	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Cyclohexane, undecyl- (r.t. = 7.88)	54105-66-7	1.88	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Decane (r.t. = 5.8)	124-18-5	3.95	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Decane, 2-methyl- (r.t. = 6.26)	6975-98-0	1.06	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Decane, 3,8-dimethyl- (r.t. = 7.93)	17312-55-9	1.27	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Eicosane (r.t. = 13.96)	112-95-8	0.977	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Eicosane (r.t. = 14.67)	112-95-8	1.18	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Heptadecane (r.t. = 9.59)	629-78-7	1.45	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Hexadecane (r.t. = 9.1)	544-76-3	3.8	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Naphthalene, 1,3-dimethyl- (r.t. = 8.34)	575-41-7	2.29	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Naphthalene, 1,4-dimethyl- (r.t. = 8.46)	571-58-4	1.42	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Naphthalene, 1,5-dimethyl- (r.t. = 8.28)	571-61-9	2.05	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Naphthalene, 2,7-dimethyl- (r.t. = 8.37)	582-16-1	1.49	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Octadecane (r.t. = 13.19)	593-45-3	0.823	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-MW6-3-SB3-45-48	Pentadecane (r.t. = 8.61)	629-62-9	5.5	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Triacontane (r.t. = 8.4)	638-68-6	3.71	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Tridecane (r.t. = 7.61)	629-50-5	1.13	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	Undecane (r.t. = 9.32)	1120-21-4	1.63	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	unknown (r.t. = 11.29)		1.08	JB	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	unknown (r.t. = 5.5)		1.03	J	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	unknown (r.t. = 6.2)		1.47	J	OLM04.2
12/6/2005	SSI-MW6-3-SB3-45-48	unknown (r.t. = 6.3)		1.56	J	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	(4R,4aS,6S)-6-Isopropenyl-4,4a-dimethyl (r.t. = 16.95)	53768-26-6	0.507	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	10-Methoxybenz[a]azulen-1,4-dione (r.t. = 11.72)	76319-77-2	41.9	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	2,3-Dihydro-4,5-dimethoxy-6-methyl-3-me (r.t. = 16.76)	77028-60-5	0.236	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.25)	123-42-2	4.36	JNAB	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	3-[(Trimethylsilyl)ethynyl]benzotrifluo (r.t. = 11.1)	40230-93-1	1.26	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	5,4'-Dimethoxy-2-methylbibenzyl (r.t. = 11.5)	36126-09-7	0.798	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	9,10-Anthracenedione, 1-ethoxy- (r.t. = 13.27)	22924-20-5	0.234	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Benzene, 1,2,3,4-tetramethyl- (r.t. = 6.89)	488-23-3	0.293	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Benzene, 1,2,4-trimethyl- (r.t. = 5.8)	95-63-6	1.36	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Benzene, 1-ethyl-2,3-dimethyl- (r.t. = 6.27)	933-98-2	0.382	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Benzene, 1-ethyl-2-methyl- (r.t. = 5.52)	611-14-3	0.531	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Benzene, 1-ethyl-2-methyl- (r.t. = 6.02)	611-14-3	0.714	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Heptadecane (r.t. = 13.99)	629-78-7	0.186	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Heptane, 2,6-dimethyl- (r.t. = 4.1)	1072-05-5	0.789	JNB	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Hexadecane (r.t. = 14.35)	544-76-3	0.181	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	MECONINE-D3 (r.t. = 11.28)	29809-15-2	0.373	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Methyl Z,.xi.,Z-7",13-cyclo-7-ethyl-3, (r.t. = 12.19)	79310-45-5	0.275	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Nonadecane (r.t. = 14.71)	629-92-5	0.241	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	Octane, 3-methyl- (r.t. = 4.18)	2216-33-3	1.39	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	trans-Farnesol (r.t. = 14.43)	106-28-5	0.232	JN	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	unknown (r.t. = 11.35)		42.4	J	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	unknown (r.t. = 11.43)		0.47	J	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	unknown (r.t. = 12.15)		0.832	J	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	unknown (r.t. = 12.5)		0.194	J	OLM04.2
12/6/2005	SSI-MW6-3-SB4-72-75	unknown (r.t. = 8.38)		0.321	J	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 15.85)	54113-93-8	2.25	JN	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.29)	54113-93-8	1.57	JN	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	1,5-Heptadiene, 2,3,6-trimethyl- (r.t. = 14.38)	33501-88-1	0.961	JN	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	4,4-DIFLUORORETINOL (ALL-TRANS) (r.t. = 14.07)	90660-21-2	1.36	JN	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	Anthracene, 9-dodecyltetradecahydro- (r.t. = 15.51)	55401-75-7	2.77	JN	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	Docosane (r.t. = 14.67)	629-97-0	1.17	JN	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	Eicosane (r.t. = 15.37)	112-95-8	1.81	JN	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	Nonadecane (r.t. = 14.32)	629-92-5	1.19	JN	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	Octadecane (r.t. = 13.95)	593-45-3	1.93	JN	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	unknown (r.t. = 14.17)		1.17	J	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	unknown (r.t. = 14.42)		0.892	J	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	unknown (r.t. = 15.04)		1.42	J	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	unknown (r.t. = 16.1)		1.13	J	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	unknown (r.t. = 16.2)		0.994	J	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	unknown (r.t. = 16.35)		1.85	J	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	unknown (r.t. = 16.76)		0.894	J	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	unknown (r.t. = 17.07)		0.968	J	OLM04.2
12/6/2005	SSI-MW6-3-SS-6-9	unknown (r.t. = 17.11)		0.972	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	17-Pentatriacontene (r.t. = 11.6)	6971-40-0	5.27	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.11)	123-42-2	3.24	JNAB	OLM04.2
12/20/2005	SSI-SEDMW-12-1	3,7,11-Tridecatrienenitrile, 4,8,12-tri (r.t. = 14.32)	1499692	1.97	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	5.alpha.-Cholestan-3-one (r.t. = 15.6)	566-88-1	5.17	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	5.ALPHA.-STIGMAST-3-ONE (r.t. = 16.47)	83-46-5	1.89	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Cholest-4-en-3-one (r.t. = 16.14)	601-57-0	1.13	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Cholestan-3-ol, (3.alpha.,5.alpha.)- (r.t. = 15.64)	516-95-0	1.92	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Cholestan-3-one (r.t. = 15.8)	15600-08-5	1.53	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Dihydrocholesterol (r.t. = 15.44)	80-97-7	9.63	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Epiergostanol (r.t. = 16.27)	1694036	4.38	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Ethane, 1,1-difluoro- (r.t. = 1.65)	75-37-6	0.034	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Nonadecane (r.t. = 14.6)	629-92-5	1.71	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Octadecanoic acid (r.t. = 11.71)	57-11-4	5.5	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Pentadecane, 2,6,10,14-tetramethyl- (r.t. = 13.51)	1921-70-6	1.49	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Tetracosane (r.t. = 13.88)	646-31-1	1.52	JN	OLM04.2
12/20/2005	SSI-SEDMW-12-1	Tetradecane, 1-chloro- (r.t. = 13.11)	2425-54-9	2.58	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 11.62)		3.25	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 13.62)		2.14	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 15.76)		2.63	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 15.91)		1.4	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 16.45)		1.15	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 16.59)		3.67	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 16.72)		1.11	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 16.85)		1.1	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 17.05)		3.95	J	OLM04.2
12/20/2005	SSI-SEDMW-12-1	unknown (r.t. = 17.21)		1.33	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 17.88)	54113-93-8	0.966	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	1-Tetradecanamine, N,N-dimethyl- (r.t. = 11.4)	112-75-4	1.48	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.08)	123-42-2	8.53	JNAB	OLM04.2
12/20/2005	SSI-SEDMW-3-1	6-Acetyl-5-hydroxy-1,8-dimethyl-1,2,3,4 (r.t. = 16.51)	69611-14-9	2.41	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	Acetamide, N-(2-methylphenyl)- (r.t. = 9.72)	120-66-1	1.56	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	Cholestane, 4,5-epoxy-, (4.alpha.,5.alp (r.t. = 15.53)	6079-19-2	3.32	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	Dihydrocholesterol (r.t. = 15.38)	80-97-7	6.06	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	Dodecane (r.t. = 15.24)	112-40-3	1.43	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	Ethane, 1,1-difluoro- (r.t. = 1.67)	75-37-6	0.0384	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	Octadecane (r.t. = 13.84)	593-45-3	2.46	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	trans-Farnesol (r.t. = 14.27)	106-28-5	1.07	JN	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 12.4)		0.713	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 13.29)		0.834	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 13.46)		1.12	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 14.56)		2.43	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 14.9)		2.13	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 15.58)		1.3	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 15.7)		2.13	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 15.73)		1.09	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 15.83)		0.796	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 16.18)		0.924	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 16.38)		1.2	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 16.62)		0.923	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 17.12)		1.13	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	unknown (r.t. = 9.47)		1.25	J	OLM04.2
12/20/2005	SSI-SEDMW-3-1	VALENCANE (r.t. = 17.76)	28940-75-2	1.25	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	1-Tetradecanamine, N,N-dimethyl- (r.t. = 9.57)	112-75-4	1.77	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	2-Butanone, 4-(dimethylamino)-3-methyl- (r.t. = 10.55)	22104-62-7	1.21	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	2-Butanone, 4-(dimethylamino)-3-methyl- (r.t. = 11.49)	22104-62-7	1.65	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.16)	123-42-2	12.2	JNAB	OLM04.2
12/20/2005	SSI-SEDMW-6-1	3,4-DICHLOROPHENYL ISOCYANATE (r.t. = 7.68)	102-36-3	2.21	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Benzenamine, 3,4-dichloro- (r.t. = 8.31)	95-76-1	1.53	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Cholest-5-en-3-one (r.t. = 16.19)	601-54-7	2.29	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Cholestane, 4,5-epoxy-, (4.alpha.,5.alp (r.t. = 15.65)	6079-19-2	16.1	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Dihydrocholesterol (r.t. = 15.49)	80-97-7	23.8	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Dihydrocholesterol (r.t. = 15.68)	80-97-7	6.57	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Ethane, 1,1-difluoro- (r.t. = 1.65)	75-37-6	0.0427	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Heptane, 2,5-dimethyl- (r.t. = 4.09)	2216-30-0	3.66	JNB	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Phenol, 3-(1,1-dimethylethyl)- (r.t. = 9.61)	585-34-2	1.35	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Phenol, nonyl- (r.t. = 9.68)	25154-52-3	1.37	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Phenol, nonyl- (r.t. = 9.89)	25154-52-3	1.2	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	Undecane (r.t. = 10.06)	1120-21-4	0.882	JN	OLM04.2
12/20/2005	SSI-SEDMW-6-1	unknown (r.t. = 17.11)		2.75	J	OLM04.2
12/20/2005	SSI-SEDMW-6-1	unknown (r.t. = 3.66)		0.0177	JB	OLM04.2
12/20/2005	SSI-SEDMW-6-1	unknown (r.t. = 9.56)		2.32	J	OLM04.2
12/20/2005	SSI-SEDMW-6-1	unknown (r.t. = 9.64)		1.56	J	OLM04.2
12/20/2005	SSI-SEDMW-6-1	unknown (r.t. = 9.71)		1.07	J	OLM04.2
12/20/2005	SSI-SEDMW-6-1	unknown (r.t. = 9.76)		2.1	J	OLM04.2
12/20/2005	SSI-SEDMW-6-1	unknown (r.t. = 9.8)		2.15	J	OLM04.2
12/20/2005	SSI-SEDMW-6-1	unknown (r.t. = 9.84)		1.39	J	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	1,2:3,4-Dibenzoanthracene (r.t. = 15.96)	215-58-7	3.41	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	1,2:3,4-Dibenzoanthracene (r.t. = 16.23)	215-58-7	1.74	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.21)	123-42-2	17.7	JNAB	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	4H-Cyclopenta[def]phenanthrene (r.t. = 10.89)	203-64-5	3.38	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	9,10-Anthracenedione (r.t. = 11.13)	84-65-1	2.02	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	Anthracene, 2-methyl- (r.t. = 10.77)	613-12-7	1.65	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	Benzo[e]pyrene (r.t. = 14.8)	192-97-2	7.83	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/7/2005	SSI-SS11-3-SB1(12-14)	column bleed (r.t. = 3.33)		0.0062	J	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	CYCLOPENTA(DEF)PHENANTHRENONE (r.t. = 11.5)	5737-13-3	2.29	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	Heptane, 2,5-dimethyl- (r.t. = 4.14)	2216-30-0	4.3	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	Hexane (r.t. = 4.74)	110-54-3	0.0083	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	Phenanthrene, 9-methyl- (r.t. = 10.8)	883-20-5	2.49	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	unknown (r.t. = 11.11)		1.64	J	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	unknown (r.t. = 12.99)		1.53	J	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	unknown (r.t. = 18.16)		2.37	J	OLM04.2
12/7/2005	SSI-SS11-3-SB1(12-14)	unknown (r.t. = 3.07)		8.94	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	1-Hexanol, 2-ethyl- (r.t. = 6.06)	104-76-7	0.366	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.29)	123-42-2	7.17	JNAB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	Cholest-5-en-3-ol (3.beta.)- (r.t. = 15.76)	57-88-5	0.298	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	column bleed (r.t. = 3.56)		0.006	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	Heptane, 2,4-dimethyl- (r.t. = 4.05)	2213-23-2	0.601	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	Heptane, 2,5-dimethyl- (r.t. = 4.22)	2216-30-0	1.88	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	Heptane, 2,6-dimethyl- (r.t. = 4.14)	1072-05-5	0.994	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	unknown (r.t. = 11.27)		0.18	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	unknown (r.t. = 15.95)		0.161	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	unknown (r.t. = 18)		0.373	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	unknown (r.t. = 5.38)		0.796	JB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)	unknown (r.t. = 8.42)		0.234	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.35)	123-42-2	83.5	JNAB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	9-Octadecenamide, (Z)- (r.t. = 14.35)	301-02-0	0.19	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	Heptane, 2,4-dimethyl- (r.t. = 4.05)	2213-23-2	0.699	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	Heptane, 2,5-dimethyl- (r.t. = 4.22)	2216-30-0	2.02	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	Heptane, 2,6-dimethyl- (r.t. = 4.14)	1072-05-5	1.01	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	Hexanedioic acid, dioctyl ester (r.t. = 12.82)	123-79-5	0.417	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	unknown (r.t. = 11.27)		0.64	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	unknown (r.t. = 18)		0.237	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	unknown (r.t. = 5.38)		0.673	JB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)DS	unknown (r.t. = 6.24)		0.434	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	2-Butenedioic acid (Z)-, bis(2-methylpr (r.t. = 8.42)	14234-82-3	0.149	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.29)	123-42-2	6.63	JNAB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	3-Hexen-2-one, 5-methyl- (r.t. = 5.38)	5166-53-0	0.452	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	Heptane, 2,4-dimethyl- (r.t. = 4.05)	2213-23-2	0.36	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	Heptane, 2,5-dimethyl- (r.t. = 4.22)	2216-30-0	1.06	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	Heptane, 2,6-dimethyl- (r.t. = 4.15)	1072-05-5	0.54	JNB	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	Hexanedioic acid, dioctyl ester (r.t. = 12.82)	123-79-5	0.242	JN	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	unknown (r.t. = 11.27)		0.47	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	unknown (r.t. = 16.56)		0.161	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	unknown (r.t. = 16.64)		0.352	J	OLM04.2
12/7/2005	SSI-SS11-3-SB3(45-48)MS	unknown (r.t. = 18)		1.02	J	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	2,6,10-Dodecatrien-1-ol, 3,7,11-trimeth (r.t. = 14.38)	4128-17-0	0.787	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	A-Norcholestan-2-one, (5.alpha.)- (r.t. = 15.21)	2310-36-3	1.1	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	Hexanedioic acid, dioctyl ester (r.t. = 12.73)	123-79-5	1.08	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	unknown (r.t. = 14.42)		0.772	J	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	unknown (r.t. = 14.68)		0.685	J	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	unknown (r.t. = 15.16)		0.94	J	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	unknown (r.t. = 15.23)		0.932	J	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	unknown (r.t. = 15.37)		1.4	J	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	unknown (r.t. = 15.5)		1.4	J	OLM04.2
12/7/2005	SSI-SS11-5-SB1(12-14)	unknown (r.t. = 16.29)		0.863	J	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 15.67)	54113-93-8	0.896	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.07)	123-42-2	6.23	JNAB	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	9-Octadecenamide, (Z)- (r.t. = 14.15)	301-02-0	0.47	JNB	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Benz[a]anthracene, 7-methyl- (r.t. = 13.64)	2541-69-7	0.178	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Benzo[b]naphtho[2,1-d]thiophene (r.t. = 12.85)	239-35-0	0.168	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Eicosane (r.t. = 13.82)	112-95-8	0.456	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Heptadecane, 2,6,10,15-tetramethyl- (r.t. = 11.36)	54833-48-6	0.379	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Hexadecane (r.t. = 14.54)	544-76-3	0.442	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Hexanedioic acid, dioctyl ester (r.t. = 12.61)	123-79-5	0.55	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Isoquinoline, 1,2,3,4-tetrahydro-7-meth (r.t. = 15.35)	36646-87-4	0.278	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Pentadecane (r.t. = 10.9)	629-62-9	0.335	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Perylene (r.t. = 14.66)	198-55-0	0.455	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Tetradecane (r.t. = 10.42)	629-59-4	0.349	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Tridecane (r.t. = 9.46)	629-50-5	0.781	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	Tridecane (r.t. = 9.94)	629-50-5	0.444	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/7/2005	SSI-SS11-5-SB2(21-24)	unknown (r.t. = 11.06)		0.891	J	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	unknown (r.t. = 12.24)		0.189	J	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	unknown (r.t. = 13.57)		0.179	J	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	unknown (r.t. = 13.94)		0.239	J	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	unknown (r.t. = 15.06)		0.438	J	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	unknown (r.t. = 15.23)		0.351	J	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	unknown (r.t. = 16.16)		0.442	J	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	unknown (r.t. = 16.75)		0.182	J	OLM04.2
12/7/2005	SSI-SS11-5-SB2(21-24)	unknown (r.t. = 6.08)		1.97	J	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	1,2,3,3a,5,6,6a,7-Octahydro-1,3a,6-trim (r.t. = 16.75)	71583-68-1	0.674	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	11H-Benzo[b]fluorene (r.t. = 12.12)	243-17-4	0.34	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	11H-Benzo[b]fluorene (r.t. = 12.2)	243-17-4	0.259	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	2-Isopropenyl-5-acetyl-6-hydroxy-2,3-di (r.t. = 16.49)	6906-88-3	0.713	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	2-Methyl-dibenzo[c,h][1,6]naphthyridin- (r.t. = 15.81)	91622-73-0	1.14	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.08)	123-42-2	5.34	JNAB	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Anthracene, 2-methyl- (r.t. = 10.63)	613-12-7	0.898	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Benzo[e]pyrene (r.t. = 14.67)	192-97-2	1.81	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Citronellyl propionate (r.t. = 17.74)	141-14-0	2.05	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Eicosane (r.t. = 15.23)	112-95-8	1.19	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Hexatriacontane (r.t. = 14.55)	630-06-8	1.41	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Naphthalene, 1-methyl- (r.t. = 7.68)	90-12-0	1.79	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Octadecane (r.t. = 13.83)	593-45-3	0.462	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Pyrene, 1-methyl- (r.t. = 12.24)	2381-21-7	0.249	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Tetradecanal (r.t. = 15.04)	124-25-4	0.827	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	Triphenylene, 2-methyl- (r.t. = 13.64)	1705-84-6	0.303	JN	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	unknown (r.t. = 11.27)		0.949	J	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	unknown (r.t. = 12.86)		0.221	J	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	unknown (r.t. = 13.06)		0.258	J	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	unknown (r.t. = 14.56)		0.881	J	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	unknown (r.t. = 15.38)		1.04	J	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	unknown (r.t. = 16.11)		0.625	J	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	unknown (r.t. = 16.36)		1.21	J	OLM04.2
12/7/2005	SSI-SS11-5-SB3(45-48)	unknown (r.t. = 16.94)		0.782	J	OLM04.2
12/7/2005	SSI-SS11-5-SB4(72-75)	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.2)	123-42-2	21.1	JNAB	OLM04.2
12/7/2005	SSI-SS11-5-SB4(72-75)	Octadecanamide (r.t. = 14.27)	124-26-5	2.53	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Benzene, 1-(1-methylethenyl)-2-(1-methy (r.t. = 13.98)	5557-93-7	0.16	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Decane, 2-methyl- (r.t. = 7.49)	6975-98-0	1.56	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Decane, 5-propyl- (r.t. = 8.48)	17312-62-8	7.16	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Dodecane (r.t. = 9.41)	112-40-3	2.65	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Eicosane (r.t. = 11.15)	112-95-8	3.52	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Heptadecane (r.t. = 12.06)	629-78-7	3.77	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Hexadecane (r.t. = 8.66)	544-76-3	1.5	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Hexadecane (r.t. = 9.2)	544-76-3	3.99	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Hexadecane, 2,6,10,14-tetramethyl- (r.t. = 10.22)	638-36-8	1.49	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Hexadecane, 2,6,10,14-tetramethyl- (r.t. = 11.61)	638-36-8	2.97	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Hexadecane, 2,6,10,14-tetramethyl- (r.t. = 14.18)	638-36-8	1.56	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Naphthalene, 1,2,3,4-tetrahydro-2,7-dim (r.t. = 14.25)	13065-07-1	0.14	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Naphthalene, 1,2,3,4-tetrahydro-6-methy (r.t. = 13.86)	1680-51-9	0.33	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Naphthalene, 1,4-dimethyl- (r.t. = 8.41)	571-58-4	1.47	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Nonadecane (r.t. = 10.68)	629-92-5	2.35	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Octadecane (r.t. = 10.19)	593-45-3	3.39	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Octadecane (r.t. = 12.48)	593-45-3	3.3	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Pentadecane (r.t. = 8.69)	629-62-9	1.49	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Pentadecane, 2,6,10,14-tetramethyl- (r.t. = 9.72)	1921-70-6	6.03	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Phenanthrene, 2,5-dimethyl- (r.t. = 11.54)	3674-66-6	2.24	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Pyrene, 4-methyl- (r.t. = 12.62)	12/6/3353	2.13	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Tetradecane (r.t. = 8.18)	629-59-4	6.42	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Tridecane (r.t. = 13.57)	629-50-5	0.61	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Tridecane, 7-methyl- (r.t. = 13.39)	26730-14-3	0.27	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	Undecane, 2,6-dimethyl- (r.t. = 12.96)	17301-23-4	0.32	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 10.04)		1.7	J	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 10.45)		1.41	J	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 11.01)		1.44	J	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 12.43)		0.25	J	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 12.52)		2.01	J	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 13.25)		0.21	J	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 13.31)		0.24	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 14.11)		0.19	J	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 15.67)		1.49	J	OLM04.2
12/6/2005	SSI-SS9-1-SB1-12-14	unknown (r.t. = 16.02)		1.65	J	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 15.91)	54113-93-8	1.59	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Benzene, 4-(2-butenyl)-1,2-dimethyl-, ((r.t. = 7.83)	54340-86-2	1.67	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Eicosane (r.t. = 12.4)	112-95-8	1.56	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Heptadecane (r.t. = 11.97)	629-78-7	3.4	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Heptadecane (r.t. = 9.62)	629-78-7	4.64	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Heptadecane, 2,6,10,15-tetramethyl- (r.t. = 11.52)	54833-48-6	1.47	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Hexadecane (r.t. = 8.42)	544-76-3	2.56	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Hexadecane (r.t. = 9.12)	544-76-3	5.21	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Hexadecane, 2,6,10,14-tetramethyl- (r.t. = 10.14)	638-36-8	1.55	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Naphthalene, 1,4,6-trimethyl- (r.t. = 8.88)	2131-42-2	1.69	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Naphthalene, 1,4,6-trimethyl- (r.t. = 8.93)	2131-42-2	1.77	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Naphthalene, 1,4,6-trimethyl- (r.t. = 9)	2131-42-2	1.4	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Naphthalene, 2,3,6-trimethyl- (r.t. = 8.79)	829-26-5	1.12	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Naphthalene, 2,6-dimethyl- (r.t. = 8.3)	581-42-0	1.35	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Nonadecane (r.t. = 10.59)	629-92-5	2.55	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Octadecane (r.t. = 10.11)	593-45-3	2.58	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Octadecane, 2,6-dimethyl- (r.t. = 7.47)	75163-97-2	1.41	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Pentadecane (r.t. = 11.06)	629-62-9	2.16	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Pentadecane (r.t. = 8.62)	629-62-9	4.36	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Phenanthrene, 2,5-dimethyl- (r.t. = 11.44)	3674-66-6	1.11	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Tetradecane (r.t. = 8.13)	629-59-4	4.01	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	Tridecane (r.t. = 7.62)	629-50-5	2.17	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	unknown (r.t. = 15.56)		1.91	J	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	unknown (r.t. = 8.48)		1.15	J	OLM04.2
12/6/2005	SSI-SS9-1-SB2-21-24	unknown (r.t. = 9.34)		2.93	J	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	2,6-Octadiene, 4-methyl- (r.t. = 14.43)	74498-94-5	0.227	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	2H-Pyran-2-one, tetrahydro-4-hydroxy-4- (r.t. = 6.25)	503-48-0	0.992	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.43)	123-42-2	1370	JNA	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.52)	123-42-2	213	JNA	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.67)	123-42-2	18	JNA	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.73)	123-42-2	14.5	JNA	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	3,3-Dimethyl-2-isopropyl-cyclopentene (r.t. = 5.14)	72535-89-8	3.25	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	3-Penten-2-one, (E)- (r.t. = 2.9)	3102-33-8	1.36	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	3-Penten-2-one, 4-methyl- (r.t. = 3.7)	141-79-7	53.5	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	9-Octadecenamide, (Z)- (r.t. = 14.32)	301-02-0	0.23	JNB	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Docosane (r.t. = 10.59)	629-97-0	0.361	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Heptane, 2,5-dimethyl- (r.t. = 4.17)	2216-30-0	1.13	JNB	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Naphthalene, 2,7-dimethyl- (r.t. = 8.38)	582-16-1	0.589	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Pentacosane (r.t. = 10.11)	629-99-2	0.427	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Pentadecane (r.t. = 11.07)	629-62-9	0.321	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Phenanthrene, 3-methyl- (r.t. = 10.84)	832-71-3	0.247	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Tetradecane (r.t. = 11.53)	629-59-4	0.465	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Triacontane (r.t. = 9.12)	638-68-6	0.374	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Tridecane (r.t. = 10.14)	629-50-5	0.211	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	Tridecane (r.t. = 9.62)	629-50-5	0.738	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	unknown (r.t. = 15.52)		0.166	J	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	unknown (r.t. = 4.6)		19.1	J	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	unknown (r.t. = 5.21)		5.83	J	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	unknown (r.t. = 5.44)		2.63	JB	OLM04.2
12/6/2005	SSI-SS9-1-SB3-45-48	unknown (r.t. = 6.42)		1.43	J	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	11H-Benzo[b]fluorene (r.t. = 12.25)	243-17-4	1.9	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	11H-Benzo[b]fluorene (r.t. = 12.33)	243-17-4	1.52	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	2,4-Hexadiyn-1-one, 1-phenyl- (r.t. = 9.59)	495-74-9	1.83	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.22)	123-42-2	3.62	JNAB	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	4H-Cyclopenta[def]phenanthrene (r.t. = 10.89)	203-64-5	8.31	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	5H-Dibenzo[c,f][1,2]diazepine, 3,8-dich (r.t. = 15.37)	955-66-8	1.78	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	9,10-Dihydroanthracene (r.t. = 9.65)	613-31-0	2.47	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	Benzene, [1-(2,4-cyclopentadien-1-ylide (r.t. = 9.27)	2320-32-3	4.34	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	Benzene, 1,1'-methylenebis- (r.t. = 9.29)	101-81-5	1.98	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	Benzo[e]pyrene (r.t. = 14.8)	192-97-2	3.3	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	Dibenzofuran, 4-methyl- (r.t. = 9.37)	7320-53-8	4.26	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	Dibenzothiophene (r.t. = 10.09)	132-65-0	2.99	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	Naphthalene, 2-phenyl- (r.t. = 11.11)	612-94-2	1.56	JN	OLM04.2
12/6/2005	SSI-SS9-1-SB4-72-75	unknown (r.t. = 3.07)		4.02	J	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-SS9-1-SS-6-9	Isoquinoline, 1,2,3,4-tetrahydro-7-meth (r.t. = 15.84)	36646-87-4	5.16	JN	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 13.95)		3.46	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 14.07)		1.54	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 14.18)		2.01	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 14.69)		3.82	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 14.8)		3.13	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 15.12)		1.92	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 15.21)		1.88	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 15.36)		1.42	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 15.48)		1.56	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 15.5)		6.87	J	OLM04.2
12/6/2005	SSI-SS9-1-SS-6-9	unknown (r.t. = 16.29)		1.81	J	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.08)	123-42-2	3.71	JNAB	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Anthracene, 2-methyl- (r.t. = 10.63)	613-12-7	0.954	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Anthracene, 2-methyl- (r.t. = 10.66)	613-12-7	1.27	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Benzo[c]cinnoline, 4-methyl- (r.t. = 10.27)	19174-78-8	0.892	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Docosane (r.t. = 11.36)	629-97-0	1.61	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Eicosane (r.t. = 14.54)	112-95-8	1.01	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Eicosane (r.t. = 9.94)	112-95-8	1.42	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Heptadecane (r.t. = 11.81)	629-78-7	0.824	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Heptadecane (r.t. = 9.46)	629-78-7	1.72	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Hexadecane (r.t. = 8.96)	544-76-3	1.06	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Isocopalane (r.t. = 15.68)	79191-19-8	1.2	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Naphthalene, 1,5-dimethyl- (r.t. = 8.22)	571-61-9	0.98	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Naphthalene, 1,5-dimethyl- (r.t. = 8.33)	571-61-9	0.845	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Naphthalene, 1,6,7-trimethyl- (r.t. = 8.94)	2245-38-7	0.85	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Naphthalene, 2,7-dimethyl- (r.t. = 8.15)	582-16-1	0.868	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Naphthalene, 2,7-dimethyl- (r.t. = 8.24)	582-16-1	0.858	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Octadecane (r.t. = 13.45)	593-45-3	0.938	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Octadecane (r.t. = 13.83)	593-45-3	0.8	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Octadecane (r.t. = 14.88)	593-45-3	0.901	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Pentadecane (r.t. = 10.9)	629-62-9	1.6	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Pentadecane, 2,6,10,14-tetramethyl- (r.t. = 9.47)	1921-70-6	1.41	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Phenanthrene, 2,7-dimethyl- (r.t. = 11.27)	1576-69-8	0.964	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	Tetradecane (r.t. = 10.43)	629-59-4	1.55	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	unknown (r.t. = 12.24)		0.939	J	OLM04.2
12/6/2005	SSI-SS9-2-SB1-12-14	unknown (r.t. = 9.79)		1.1	J	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.19)	54113-93-8	1.24	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	1,5,5-Trimethyl-4-phenyl-cyclopentan-1, (r.t. = 9.79)	33930-85-7	1.38	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	28-NOR-17BETA(H)-HOPANE (r.t. = 15.71)	36728-72-0	1.67	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.12)	123-42-2	1.46	JNAB	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Anthracene, 1-methyl- (r.t. = 10.64)	610-48-0	1.35	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Benzenesulfonic acid, 4-bromo-, hydrazi (r.t. = 9.33)	2297-64-5	2.5	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Docosane (r.t. = 13.46)	629-97-0	1.06	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Eicosane (r.t. = 10.9)	112-95-8	1.84	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Eicosane (r.t. = 14.9)	112-95-8	1.89	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Heptadecane (r.t. = 14.2)	629-78-7	1.4	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Heptadecane (r.t. = 9.46)	629-78-7	1.44	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Heptadecane, 2,6,10,15-tetramethyl- (r.t. = 12.67)	54833-48-6	1.03	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Nonadecane (r.t. = 14.56)	629-92-5	2	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Octacosane (r.t. = 15.25)	630-02-4	1.41	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Octadecane (r.t. = 13.84)	593-45-3	1.59	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Octadecane (r.t. = 9.94)	593-45-3	1.63	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Phenanthrene, 2,3-dimethyl- (r.t. = 11.28)	3674-65-5	1.54	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Phenanthrene, 4-methyl- (r.t. = 10.67)	832-64-4	1.84	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Tetradecane (r.t. = 10.43)	629-59-4	1.67	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Tetratetracontane (r.t. = 15.64)	7098-22-8	1.2	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Tricosane (r.t. = 12.25)	638-67-5	1.19	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Tridecane, 2-methyl- (r.t. = 11.36)	1560-96-9	2	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	Undecane, 2,6-dimethyl- (r.t. = 9.47)	17301-23-4	1.64	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	unknown (r.t. = 15.38)		1.99	J	OLM04.2
12/6/2005	SSI-SS9-2-SB2-21-24	unknown (r.t. = 16.13)		1.21	J	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	(+-)-3,3-Dimethyltricyclo[5.4.0.0(2,9)] (r.t. = 10.92)	57768-52-2	13.5	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	(E)-4-(2',6',6'-Trimethyl-1'-cyclohexen (r.t. = 15.86)	89128-17-6	11.8	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	11H-Benzo[b]fluorene (r.t. = 12.13)	243-17-4	9.66	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	4H-Cyclopenta[def]phenanthrene (r.t. = 10.89)	203-64-5	36	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	9,10-Anthracenedione (r.t. = 11.13)	84-65-1	8.65	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-SS9-2-SB3-45-48	9H-Fluoren-9-one (r.t. = 9.99)	486-25-9	8.32	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	9H-Fluorene, 1-methyl- (r.t. = 9.78)	1730-37-6	16.6	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	9H-Fluorene, 9-methyl- (r.t. = 9.81)	2523-37-7	8.13	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	9-METHYL-9-SILAFLUORENE (r.t. = 10.04)	53268-89-6	11.6	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Anthracene, 1-methyl- (r.t. = 10.77)	610-48-0	16.8	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Anthracene, 2-methyl- (r.t. = 10.86)	613-12-7	14.9	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Dibenzofuran, 4-methyl- (r.t. = 9.37)	7320-53-8	19.4	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Dibenzofuran, 4-methyl- (r.t. = 9.46)	7320-53-8	17	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Dibenzothiophene (r.t. = 10.09)	132-65-0	16.7	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Naphthalene, 1,2,3-trimethyl-4-propenyl (r.t. = 9.58)	26137-53-1	13	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Naphthalene, 2-phenyl- (r.t. = 11.11)	612-94-2	25	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Perylene (r.t. = 14.8)	198-55-0	8.21	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Phenanthrene, 2,5-dimethyl- (r.t. = 11.41)	3674-66-6	12.2	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	Phenanthrene, 3-methyl- (r.t. = 10.8)	832-71-3	17.9	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	unknown (r.t. = 11.45)		11.6	J	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	unknown (r.t. = 11.66)		9.94	J	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	unknown (r.t. = 15.51)		9.92	J	OLM04.2
12/6/2005	SSI-SS9-2-SB3-45-48	unknown (r.t. = 9.27)		10.5	J	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	11H-Benzo[b]fluorene (r.t. = 12.3)	243-17-4	0.256	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	11H-Benzo[b]fluorene (r.t. = 12.38)	243-17-4	0.211	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	1H-Pyrrole-2,5-dione (r.t. = 5.35)	541-59-3	4.04	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.25)	123-42-2	4.99	JNAB	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Anthracene, 9-methyl- (r.t. = 10.84)	779-02-2	0.435	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Benzo[c]phenanthrene (r.t. = 13.47)	195-19-7	0.193	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Chrysene, 1-methyl- (r.t. = 13.82)	3351-28-8	0.2	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Heptane, 2,5-dimethyl- (r.t. = 4.17)	2216-30-0	2.29	JNB	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Isocopalane (r.t. = 15.91)	79191-19-8	0.597	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Octadecane (r.t. = 14)	593-45-3	0.17	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Perylene (r.t. = 14.66)	198-55-0	0.264	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Perylene (r.t. = 14.85)	198-55-0	1.02	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Pyrene, 1-methyl- (r.t. = 12.42)	2381-21-7	0.218	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	Tricyclo[4.4.0.0(2,5)]dec-8-ene, 1,2,3, (r.t. = 16.35)	77549-74-7	0.252	JN	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	unknown (r.t. = 11.23)		0.43	JB	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	unknown (r.t. = 15.43)		0.436	J	OLM04.2
12/6/2005	SSI-SS9-2-SB4-72-75	unknown (r.t. = 15.57)		0.323	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	(E)-2,3-Dichlorobutenoyl chloride (r.t. = 15.08)	91841-91-7	5.46	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	2,5-Furandione, 3-(dodecenyl)dihydro- (r.t. = 14.62)	25377-73-5	11.5	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	2,6,10,14,18,22-Tetracosahexaene, 2,6,1 (r.t. = 14.74)	7683-64-9	7.05	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	Cyclopentaneethanol, 2-(hydroxymethyl)- (r.t. = 14.71)	485-42-7	10.6	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	Eicosane, 10-methyl- (r.t. = 10.55)	54833-23-7	8.65	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	Kaur-16-en-18-oic acid, 6,7-dihydroxy-, (r.t. = 14.59)	15959-13-4	8.28	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	Methyl 5-(2,4-dichlorophenoxy)methyl-3- (r.t. = 16.67)	85858-62-4	7.18	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	Noraporphin-7-one, 4,5,6,6a-tetradehydr (r.t. = 15.13)	15358-01-7	7.75	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	Pentadecane (r.t. = 11.02)	629-62-9	9.34	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	Phenanthrene, 3,6-dimethyl- (r.t. = 11.4)	1576-67-6	13.6	JN	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 11.19)		8.7	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 13.65)		5.5	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 14.33)		6.24	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 14.39)		6.69	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 15.38)		20	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 15.43)		7.47	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 15.49)		17.1	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 15.51)		41.6	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 15.64)		8.99	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 16.04)		6.97	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 16.3)		24.6	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 16.35)		13.2	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 17.33)		5.56	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	unknown (r.t. = 17.81)		7.4	J	OLM04.2
12/6/2005	SSI-SS9-2-SS-6-9	Urs-20-en-16-ol, (16.beta.,18.alpha.,19 (r.t. = 15.86)	66394-74-9	26.3	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	1-Isopropyl-2-methylnaphthalene (r.t. = 9.99)	32114-79-7	1.16	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	4-Amino-9-fluorenone (r.t. = 12.32)	4269-15-2	0.709	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	7H-Benz[de]anthracen-7-one (r.t. = 12.95)	82-05-3	0.739	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	7H-Benz[de]anthracen-7-one (r.t. = 13.07)	82-05-3	0.635	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Anthracene, 1-methyl- (r.t. = 10.84)	610-48-0	1.21	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Anthracene, 1-methyl- (r.t. = 11)	610-48-0	1.09	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Anthracene, 2-methyl- (r.t. = 10.88)	613-12-7	1.57	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-SS9-3-SB1-12-14	Benzo[c]phenanthrene, 5,8-dimethyl- (r.t. = 14.37)	54986-63-9	0.693	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Benzo[e]pyrene (r.t. = 14.89)	192-97-2	0.984	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Docosane (r.t. = 15.47)	629-97-0	0.59	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Dodecane, 2-methyl-8-propyl- (r.t. = 9.67)	55045-07-3	1.84	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Eicosane (r.t. = 11.11)	112-95-8	1.47	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Eicosane (r.t. = 12.87)	112-95-8	0.83	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Eicosane (r.t. = 14.04)	112-95-8	0.953	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Heptadecane (r.t. = 12.01)	629-78-7	0.699	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Hexadecane (r.t. = 13.66)	544-76-3	0.711	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Hexadecane (r.t. = 14.4)	544-76-3	0.826	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Hexadecane, 5-butyl- (r.t. = 10.63)	7/8/6912	0.997	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Hexanedioic acid, dioctyl ester (r.t. = 12.83)	123-79-5	1.12	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Pentadecane (r.t. = 11.57)	629-62-9	1.79	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Pentadecane (r.t. = 14.75)	629-62-9	0.974	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	Phenanthrene, 2,5-dimethyl- (r.t. = 11.49)	3674-66-6	1.64	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	unknown (r.t. = 12.45)		0.857	J	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	unknown (r.t. = 15.61)		0.594	J	OLM04.2
12/6/2005	SSI-SS9-3-SB1-12-14	unknown (r.t. = 15.97)		1.29	J	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.33)	123-42-2	1.48	JNAB	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	3,6-Dioxa-2,4,5,7-tetrasilaoctane, 2,2, (r.t. = 14.51)	4342-25-0	0.339	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	6(5H)-Phenanthridinone (r.t. = 12.31)	1015-89-0	0.27	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	7H-Benz[de]anthracen-7-one (r.t. = 13.07)	82-05-3	0.431	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	7H-Benzo[c]fluoren-7-one (r.t. = 12.95)	6051-98-5	0.474	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Anthracene, 2-methyl- (r.t. = 10.88)	613-12-7	1.61	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Benzo[c]phenanthrene, 5,8-dimethyl- (r.t. = 14.37)	54986-63-9	0.317	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Benzo[e]pyrene (r.t. = 14.89)	192-97-2	0.586	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Chrysene, 3-methyl- (r.t. = 13.87)	3351-31-3	0.291	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Eicosane (r.t. = 11.11)	112-95-8	1.38	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Heptadecane (r.t. = 12.01)	629-78-7	0.366	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Heptadecane (r.t. = 14.75)	629-78-7	0.524	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Hexadecane (r.t. = 13.66)	544-76-3	0.35	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Hexatriacontane (r.t. = 11.57)	630-06-8	2.74	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Hexatriacontane (r.t. = 12.87)	630-06-8	0.368	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Isozonarol (r.t. = 15.97)	39707-55-6	0.777	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Octadecane (r.t. = 14.04)	593-45-3	0.613	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Octadecane (r.t. = 14.4)	593-45-3	0.293	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Octadecane (r.t. = 15.1)	593-45-3	0.304	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Pentadecane, 2,6,10,14-tetramethyl- (r.t. = 9.67)	1921-70-6	1.8	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Phenanthrene, 2,5-dimethyl- (r.t. = 11.49)	3674-66-6	1.65	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	Tricosane (r.t. = 12.45)	638-67-5	0.483	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	unknown (r.t. = 12.83)		0.389	J	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	unknown (r.t. = 15.61)		0.344	J	OLM04.2
12/6/2005	SSI-SS9-3-SB2-21-24	unknown (r.t. = 9.99)		1.37	J	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	1,1',3-Trimethyl-4,5'-bipyrimidine-2,2' (r.t. = 15.22)	79888-86-1	0.406	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	11H-Benzo[b]fluorene (r.t. = 12.11)	243-17-4	0.193	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.11)	123-42-2	33.5	JNAB	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	6,11-Dihydroxy-12H-benzo[b]xanthen-12-o (r.t. = 15.79)	89140-90-9	0.366	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Anthracene, 9-methyl- (r.t. = 10.66)	779-02-2	0.362	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Benz[a]anthracene, 7-methyl- (r.t. = 13.63)	2541-69-7	0.157	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Benzo[e]pyrene (r.t. = 14.65)	192-97-2	0.641	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Cyclopropanecarboxylic acid (r.t. = 2.86)	1759-53-1	1.11	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Dodecane (r.t. = 14.54)	112-40-3	0.397	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Estra-1,3,5,7,9,15-hexaen-17-one, 3-met (r.t. = 16.04)	56588-53-5	0.345	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Heptane, 2,5-dimethyl- (r.t. = 3.99)	2216-30-0	2.15	JNB	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Heptane, 2,6-dimethyl- (r.t. = 3.91)	1072-05-5	1.37	JNB	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Octadecane (r.t. = 13.82)	593-45-3	0.241	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Pentacosane (r.t. = 9.97)	629-99-2	0.342	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Pyrene, 2-methyl- (r.t. = 12.23)	3442-78-2	0.244	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Tetradecane (r.t. = 10.42)	629-59-4	0.363	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Tridecane (r.t. = 9.46)	629-50-5	0.967	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	Tridecane (r.t. = 9.94)	629-50-5	0.476	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	unknown (r.t. = 11.06)		0.525	JB	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	unknown (r.t. = 11.36)		0.418	J	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	unknown (r.t. = 13.45)		0.161	J	OLM04.2
12/6/2005	SSI-SS9-3-SB3-45-48	unknown (r.t. = 15.5)		0.266	J	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.24)	123-42-2	12.9	JNAB	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Anthracene, 2-methyl- (r.t. = 10.77)	613-12-7	1.13	JN	OLM04.2

Appendix
Supplementary Site Assesment
Brooklyn NavyYard Parcel
Soil TICs Analytical Results

SAMPDATE	SAMPNUM	ANALTPARAM	CAS	CONC	QAQUAL	ANLYS_MTHD
12/6/2005	SSI-SS9-3-SB4-72-75	Anthracene, 2-methyl- (r.t. = 10.8)	613-12-7	1.52	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Anthracene, 2-methyl- (r.t. = 10.92)	613-12-7	0.986	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Azulene, 7-ethyl-1,4-dimethyl- (r.t. = 9.93)	529-05-5	1.23	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Benzo[e]pyrene (r.t. = 14.81)	192-97-2	0.986	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Decane, 1-iodo- (r.t. = 10.56)	2050-77-3	1.57	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Docosane (r.t. = 11.94)	629-97-0	0.624	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Docosane (r.t. = 13.96)	629-97-0	0.559	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Docosane (r.t. = 14.67)	629-97-0	0.825	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Eicosane (r.t. = 11.03)	112-95-8	1.53	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Heptadecane, 2,6,10,15-tetramethyl- (r.t. = 11.5)	54833-48-6	2.76	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Hexadecane (r.t. = 9.09)	544-76-3	1.23	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Hexatriacontane (r.t. = 12.79)	630-06-8	0.696	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Hexatriacontane (r.t. = 13.19)	630-06-8	0.554	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Naphthalene, 1,3-dimethyl- (r.t. = 8.34)	575-41-7	1.25	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Naphthalene, 1,4,6-trimethyl- (r.t. = 9.07)	2131-42-2	1.04	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Octadecane (r.t. = 10.07)	593-45-3	1.39	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Phenanthrene, 2,3-dimethyl- (r.t. = 11.41)	3674-65-5	1.36	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Phenanthrene, 9-dodecyltetradecahydro- (r.t. = 15.87)	55334-01-5	1.06	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Tetracosane, 2,6,10,15,19,23-hexamethyl (r.t. = 9.6)	111-01-3	3.12	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Tricosane (r.t. = 12.38)	638-67-5	0.79	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	Tricosane (r.t. = 14.32)	638-67-5	0.797	JN	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	unknown (r.t. = 11.2)		1.07	JB	OLM04.2
12/6/2005	SSI-SS9-3-SB4-72-75	unknown (r.t. = 12.75)		0.664	J	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN (r.t. = 16.31)	54113-93-8	2.15	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	2-Allyl-5-t-butylhydroquinone (r.t. = 15.81)	73685-60-6	2.14	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	2-Pentanone, 4-hydroxy-4-methyl- (r.t. = 4.18)	123-42-2	3.95	JNAB	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Anthracene, 1-methyl- (r.t. = 10.76)	610-48-0	1.61	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Anthracene, 9-butyltetradecahydro- (r.t. = 17.13)	55133-89-6	2.31	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Cyclopropanecarboxylic acid (r.t. = 3)	1759-53-1	13.5	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Decane, 2-methyl- (r.t. = 10.04)	6975-98-0	1.71	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Heptadecane, 2,6,10,15-tetramethyl- (r.t. = 10.07)	54833-48-6	1.45	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Hexadecane (r.t. = 9.05)	544-76-3	1.91	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Naphthalene, 1,5-dimethyl- (r.t. = 8.31)	571-61-9	1.61	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Nonadecane (r.t. = 13.55)	629-92-5	1.93	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Octadecane (r.t. = 11.46)	593-45-3	1.88	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Octadecane (r.t. = 13.93)	593-45-3	2.02	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Pentadecane (r.t. = 10.52)	629-62-9	1.63	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Pentadecane, 2,6,10,14-tetramethyl- (r.t. = 9.56)	1921-70-6	5.38	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Phenanthrene, 2,3,5-trimethyl- (r.t. = 11.9)	3674-73-5	1.66	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Tetradecane (r.t. = 10.99)	629-59-4	1.83	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	Undecane, 3,5-dimethyl- (r.t. = 9.28)	17312-81-1	1.55	JN	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	unknown (r.t. = 11.37)		1.54	J	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	unknown (r.t. = 15.13)		2.26	J	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	unknown (r.t. = 15.34)		1.84	J	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	unknown (r.t. = 15.47)		5.42	J	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	unknown (r.t. = 16.25)		1.99	J	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	unknown (r.t. = 8.37)		1.59	J	OLM04.2
12/6/2005	SSI-SS9-3-SS-6-9	unknown (r.t. = 9.88)		1.79	J	OLM04.2

Notes:
J-estimated value
N- presumptive evidence for compound
B-found in blank as well as sample
A-suspected aldol condensation product

APPENDIX G

GROUNDWATER FIELD DATA SHEETS

Environmental
Engineers & Scientists

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Brooklyn Navy Yard
DATE: 12/19/05
WEATHER:
CONSULTING FIRM: HZI
FIELD PERSONNEL: GP + AG

MONITOR WELL #: MW45R
WELL PERMIT #:
WELL DEPTH:
WELL DIAMETER: Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1350	✓		4.81	NA	0.001	NA	214	NA	6.71	NA	173	NA	18.94	NA	410	
1425			4.73		0.001		201		7.52		174		17.67			16.6
1500			4.67		0.001		201		7.33		177		18.26			19.0
1520	✓		4.68		0.001		201		7.32		177		18.52			20.0
1534		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature;

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Brooklyn Navy Yard
DATE: 12/20/05
WEATHER:
CONSULTING FIRM: HQI
FIELD PERSONNEL: GP+AG

MONITOR WELL #: 4 DR
WELL PERMIT #:
WELL DEPTH:
WELL DIAMETER: Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1115	✓		4.59	NA	0.001	NA		NA	4.98	NA	171	NA	11.26	NA	390	
1125			4.73		0.001				5.54		157		16.01			
1145			4.58		0.001				6.05		151		17.86			
1215	✓		4.41		0.00				6.40		150		17.83			
1225		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Brooklyn Navy Yard
DATE: 02/02/06
WEATHER:
CONSULTING FIRM: HQI
FIELD PERSONNEL: AG

MONITOR WELL #: 55R
WELL PERMIT #:
WELL DEPTH:
WELL DIAMETER: Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1503			7.20	NA	0.171	NA	-139	NA	0	NA	65.7	NA	16.54	NA	350	
1506			7.20		0.171		-141		0		58.1		16.59			
1509			7.21		0.172		-142		0		53.7		16.94			
1512			7.25		0.172		-149		0		52.7		16.99			
1515			7.23		0.175		-150		0		47.2		17.24			
1518			7.24		0.181		-153		0		36.4		17.55			
1521			7.35		0.181		-158		0		31.7		17.72			
1524			7.31		0.186		-165		0		27.0		17.78			
1527			7.30		0.192		-169		0		27.6		17.79			
1530	✓		7.31		0.191		-168		0		27.0		17.74			
1532		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature;

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Brooklyn Navy Yard
DATE: 02/02/06
WEATHER:
CONSULTING FIRM: HAI
FIELD PERSONNEL: AG

MONITOR WELL #: 12SR
WELL PERMIT #:
WELL DEPTH:
WELL DIAMETER: Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1400	✓		7.00	NA	0.341	NA	-133	NA	0	NA	66.4	NA	21.30	NA	200	
1403			7.02		0.340		-132		0		67.2		21.49			
1406			7.04		0.323		-132		0		62.5		18.32			
1409			7.04		0.332		-133		0		41.4		17.87			
1412			7.04		0.33		-133		0		19.3		16.96			
1415			7.04		0.324		-134		0		11.0		16.77			
1418			7.03		0.327		-135		0		7.6		16.54			
1421			7.04		0.327		-136		0		4.2		16.64			
1424			7.04		0.327		-137		0		4.1		16.68			
1427	✓		7.04		0.327		-137		0		4.1		16.65			
1430		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature;

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Brookhaven Navy Yard
DATE: 02/02/06
WEATHER:
CONSULTING FIRM: HQI
FIELD PERSONNEL: AG

MONITOR WELL #: 35R
WELL PERMIT #:
WELL DEPTH:
WELL DIAMETER: Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm):
BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1219	√		7.49	NA	2.18	NA	28	NA	0.19	NA	853	NA	18.60	NA	400	
1222			7.49		2.20		28		0.21		515		18.31			
1228			7.49		2.22		10		0.31		106		18.42			
1231			7.49		2.22		4		0.37		78.0		18.42			
1234			7.49		2.22		-3		0.51		49.1		18.47			
1237			7.49		2.23		-7		0.63		34.9		17.90			
1240			7.49		2.24		-9		0.68		25.4		17.90			
1243			7.49		2.26		-17		0.58		20.2		17.96			
1247			7.49		2.27		-19		0.56		19.4		17.91			
1250	√		7.49		2.28		-22		0.56		18.5		17.90			
1255		√														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature;

LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: Brooklyn Navy 92nd
DATE: 02/02/06
WEATHER:
CONSULTING FIRM: HQI
FIELD PERSONNEL: AG

MONITOR WELL #: 65R
WELL PERMIT #:
WELL DEPTH:
WELL DIAMETER: Inches
SCREENED/OPEN INTERVAL:

PID/FID READINGS (ppm): BACKGROUND:
BENEATH OUTER CAP:
BENEATH INNER CAP:
PUMP INTAKE DEPTH: ft below TOC
DEPTH TO WATER BEFORE PUMP INSTALLATION : ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
1045	✓		7.63	NA	0.429	NA	-133	NA	0	NA	15.1	NA	16.85	NA	300 ml/min	
1048			7.57		0.485		-134		0		13.8		16.66			
1051			7.50		0.488		-136		0		18.9		23.00			
1054			7.75		0.327		-152		0		13.3		20.15			
1057			7.71		0.338		-154		0		14.6		20.08			
1100			7.67		0.362		-146		0		16.0		20.71			
1103			7.67		0.375		-146		0		16.2		20.23			
1106			7.63		0.397		-150		0		16.1		21.74			
1109			7.67		0.343		-156		0		13.8		20.81			
1112	✓		7.67		0.401		-159		0		13.4		20.24			
1114		✓														

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature;

APPENDIX H

DATA VALIDATION REPORTS

Environmental
Engineers & Scientists

DATA QUALIFIER SUMMARY - ORGANICS

SSI-419-1-SB1 The result of the initial sample should not be used or reported. The results of the rerun of the sample should be reported and used with all parameters qualified with J.	
SSI-419-9-SB2 (45-48") The result of the initial sample should not be used or reported. The results of the rerun of the sample should be reported and used with all parameters qualified with J.	
SSI-419-11-SB2 (45-48") The results for the rerun sample should not be used or reported. The results of the initial analysis of the sample should be reported and used with all parameters qualified with J.	
SSI-419-16-SB1 (12-14") The results for the rerun sample should not be used or reported. The results of the initial analysis of the sample should be reported and used with all parameters qualified with J.	
SSI-419-16-SB2 (45-48") The results for the rerun sample should not be used or reported. The results of the initial analysis of the sample should be reported and used with all parameters qualified with J.	
SSI-419-3-SB2 (45-48") The results of the analysis for the initial sample should not be used or reported. The results of the rerun of the sample should be reported and used with the following parameters qualified with J:	Acetone Methylene Chloride Tetrachloroethene Toluene Chloromethane Bromomethane Vinyl chloride Chloroethane Carbon disulfide 1,1-dichloroethene 1,1-dichloroethane Cis-1,2-dichloroethene Trans-1,2-dichloroethene Chloroform 1,2-dichloroethane 2-butanone 1,1,1-Trichloroethane Carbon tetrachloride Bromodichloromehtane 1,2-Dichloropropane Trans-1,3-dichloropropene Trichloroethene Dibromochloromethane 1,1,2-Trichloroethane Benzene

	Cis-1,3-dichloropropene Bromoform
SSI-419-S-SB1 (12 – 14") The results of the initial sample analysis should not be used or reported. The results of the rerun of the sample should be reported and used without any qualifiers.	
SSI-419-7-SB1 (12 – 14") The results of the analysis of the rerun sample should not be used or reported. The results of the initial analysis of the sample should be reported and used with the following parameters qualified with J:	Methylene chloride Toluene
SSI-419-14-SB1 (12 – 14") The results of the initial sample analysis should not be used or reported. The results of the rerun of the sample should be reported and used without any qualifiers.	
SSI-419-14-SB3 (45 – 48") The results of the initial sample analysis should not be used or reported. The results of the rerun of the sample should be reported and used with the following parameters qualified with J:	Acetone Methylene chloride Tetrachloroethene Toluene Chloromethane Bromomethane Vinyl chloride Chloroethane Carbon disulfide 1,1-dichloroethene 1,1-dichloroethane Cis-1,2-dichloroethene Trans-1,2-dichloroethene Chloroform 1,2-dichloroethane 2-butanone 1,1,1-Trichloroethane Carbon tetrachloride Bromodichloromehtane 1,2-Dichloropropane Trans-1,3-dichloropropene Trichloroethene Dibromochloromethane 1,1,2-Trichloroethane Benzene Cis-1,3-dichloropropene Bromoform
SSI-S11-3-SB1 (12-14) The initial sample should not be reported or used. All detected and non detected parameters for	

the rerun sample should be qualified with J.
SSI-SS9-1SB1 The initial sample should not be reported or used. All detected and non-detected parameters should be qualified with J.
SSI-MW6-1-SB1-12-14 The results from the rerun sample should not be reported or used. The detected and non-detected parameters should be qualified with J.
SSI-MW-4DR DUP The result of the rerun sample should not be reported or used. The results of the initial analysis of the sample should be reported and used with all parameters qualified with J.

Environmental

Engineers & Scientists

DATA QUALIFIER SUMMARY – SEMI-VOLATILE ORGANICS

The initial analysis from sample **SSI-SEDMW-12-1** should not be reported or used. The following compounds for the rerun sample should be qualified with J:	benzo[a]pyrene benzo[b]fluoranthene, benzo[g,h,i]perylene benzo[k]fluoranthene indeno[1,2,3-cd]pyrene
The initial analysis from sample **SSI-419-1-SB1 (12-14")** should not be reported or used. The following compounds for the rerun sample should be qualified with J:	benzo[a]anthracene bis-2-ethylhexylphthalate chrysene pyrene, benzo[a]pyrene benzo[b]fluoranthene benzo[g,h,i]perylene dibenzo[a,h]anthracene indeno[1,2,3-cd]pyrene bezo[k]fluoranthene
The initial analysis of the following samples should not be reported or used. The last analysis of these samples should be used.	SSI-419-15-SB1 (12 – 14) SSI-419-15-SB2 (21 – 24") SSI-419-SB4 (72 – 75") SSI-MW5-2-SB1 (12 – 14") SSI-419-3-SB1 (12 – 14") SSI-419-3-SB2 (45 – 48") SSI-419-7-SB1 (12 – 14") SSI-419-14-SS (0 – 3") SSI-419-14-SB1 (12 – 14") SSI-419-14-SB2 (21 – 24") SSI-419-15-SS (0 – 3") SSI-MW5-2-SB3 (45 – 48")
SSI-SS11-3-SB1(12-14) The following compounds should be qualified with R:	Naphthalene 2-methylnapthalene acenapthene dibenzofuran fluorene phenantrhrene anathracene carbazole fluoranthene pyrene benzo[a]anthracene chrysene bis(2-ethylhexyl)phthalate benzo[b]fluoranthene benzo[k]fluoroanthene benzo[a]pyrene indeno[1,2,3-cd]pyrene dibenzo[a,h]anthracene

DATA QUALIFIER SUMMARY –
SEMI VOLATILE ORGANICS

	benzo[g,h,i]perylene
SSI-SS11-5-SS (0-3) The initial analysis of the sample should not be reported or used. The file 5M.13538 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-SS11-5-SB1 (12-14) The rerun analysis of the sample should not be reported or used. The file 5M.13501 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol 2,4,5-trichlorophenol 2,4,6-trichlorophenol 2,4-dinitrophenol 2,4-dinitrotoluene 2,6-dinitrotoluene 2-nitroaniline 4-chlorophenyl-phenylether

	4-nitroaniline 4-nitrophenol acenaphthene acenaphthylene dibenzofuran diethylphthalate dimehtylphthalate fluorene hexachlorocylclopentadiene
SSI-419-13-SS (0-3) The following compounds should be qualified with R:	Benzo[g,h,i]perylene
SSI-SS11-5-SB4 (72-75) The initial analysis of the sample should not be reported or used. The file 5M.13537 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol 2,4,5-trichlorophenol 2,4,6-trichlorophenol 2,4-dinitrophenol 2,4-dinitrotoluene 2,6-dinitrotoluene 2-nitroaniline 4-chlorophenyl-phenylether 4-nitroaniline 4-nitrophenol acenaphthene acenaphthylene dibenzofuran diethylphthalate dimehtylphthalate fluorene hexachlorocylclopentadiene

DATA QUALIFIER SUMMARY –
SEMI VOLATILE ORGANICS

SSI-SS9-1SS-6-9 The initial analysis of the sample should not be reported or used. The file 5M.13533 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2-chlorophenol 2-methylphenol 4-methylphenol bis(2-chloroethyl)ether hexachlorobutadiene n-nitroso-di-n-propylamine phenol
SSI-SS9-1-SB1 The rerun analysis of the sample should not be reported or used. The file 5M.13432 should be used with the following parameters qualified with J:	Benzo[a]anthracene Benzo[g,h,i]perylene bis(2-ethylhexyl)phthalate chrysene fluoranthene phenanthrene pyrene
SSI-SS9-1-SB3-45-48 The initial analysis of the sample should not be reported or used. The file 5M.13428 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2-chlorophenol 2-methylphenol 4-methylphenol bis(2-chloroethyl)ether hexachlorobutadiene n-nitroso-di-n-propylamine phenol
SSI-SS9-2-6 The initial analysis of the sample should not be reported or used. The file 5M.13536 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-MW6-1-SS-0-3 The initial analysis of the sample should not be reported or used. The file 5M.13542 should be	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol

used with the following parameters qualified with J:	2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-MW6-1-SS-0-3 dup The initial analysis of the sample should not be reported or used. The file 5M.13540 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2-chlorophenol 2-methylphenol 4-methylphenol bis(2-chloroethyl)ether hexachlorobutadiene n-nitroso-di-n-propylamine phenol
SSI-MW6-1-SB3-45-48 The following compounds should be qualified with R:	Acetophenone Isophorone Naphthalene 2-methylanaphthalene 1,1-biphenyl acenaphthene dibenzofuran fluorene phenanthrene anthracene carbazole di-n-butylphthalate fluoranthene pyrene benzo[a]anthracene chrysene bis(2-ethylhexy)phthalate benzo[b]fluoranthene benzo[k]fluoranthene benzo[a]pyrene indeno[1,2,3-cd]pyrene dibenzo[a,h]anthracene benzo[g,h,i]perylene

SSI-MW6-1-SB4-72-75 The initial analysis of the sample should not be reported or used. The file 5M.13558 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-MW6-2-6-9 The initial analysis of the sample should not be reported or used. The file 5M.13535 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-MW6-2-SB1-12-14 The initial analysis of the sample should not be reported or used. The file 5M.13512 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol

	2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol 2,4,5-trichlorophenol 2,4,6-trichlorophenol 2,4-dinitrophenol 2,4-dinitrotoluene 2,6-dinitrotoluene 2-nitroaniline 4-chlorophenyl-phenylether 4-nitroaniline 4-nitrophenol acenaphthene acenaphthylene dibenzofuran diethylphthalate dimehtylphthalate fluorene hexachlorocylclopentadiene
SSI-MW6-2-SB1-21-24 The initial analysis of the sample should not be reported or used. The file 5M.13544 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene

	nitrobenzene phenol 2,4,5-trichlorophenol 2,4,6-trichlorophenol 2,4-dinitrophenol 2,4-dinitrotoluene 2,6-dinitrotoluene 2-nitroaniline 4-chlorophenyl-phenylether 4-nitroaniline 4-nitrophenol acenaphthene acenaphthylene dibenzofuran diethylphthalate dimehtylphthalate fluorene hexachlorocylclopentadiene
SSI-MW6-2-45-48 The initial analysis of the sample should not be reported or used. The file 5M.13764 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2-chlorophenol 2-methylphenol 4-methylphenol bis(2-chloroethyl)ether hexachlorobutadiene n-nitroso-di-n-propylamine phenol
SSI-MW6-2-72-74 The initial analysis of the sample should not be reported or used. The file 5M.13539 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-MW6-2-SS-6-9 The initial analysis of the sample should not be	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol

reported or used. The file 5M.13541 should be used with the following parameters qualified with J:	2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-MW6-3-SB1-12-14 The initial analysis of the sample should not be reported or used. The file 5M.13513 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol 2,4,5-trichlorophenol 2,4,6-trichlorophenol 2,4-dinitrophenol 2,4-dinitrotoluene 2,6-dinitrotoluene 2-nitroaniline 4-chlorophenyl-phenylether 4-nitroaniline 4-nitrophenol acenaphthene

	acenaphthylene dibenzofuran diethylphthalate dimehtylphthalate fluorene hexachlorocylclopentadiene
SSI-MW6-3-SB3-45-48 The initial analysis of the sample should not be reported or used. The file 5M.13452 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2-chlorophenol 2-methylphenol 4-methylphenol bis(2-chloroethyl)ether hexachlorobutadiene n-nitroso-di-n-propylamine phenol
SSI-DSB-1-SB1 (12-14) The initial analysis of the sample should not be reported or used. The file 5M.13303 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-DSB-1-SB2 (21-24) The initial analysis of the sample should not be reported or used. The file 5M.13304 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene

	hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-DSB-1-SB3 (45-48) The initial analysis of the sample should not be reported or used. The file 5M.13248 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-DSB-2-SS (6-9) The initial analysis of the sample should not be reported or used. The file 5M.13387 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2-chlorophenol 2-methylphenol 4-methylphenol bis(2-chloroethyl)ether hexachlorobutadiene n-nitroso-di-n-propylamine phenol
SSI-DSB-2-SB1 (12-14) The initial analysis of the sample should not be reported or used. The file 5M.13578 should be used.	
SSI-DSB-2-SB2 (21-24) The initial analysis of the sample should not be reported or used. The file 5M.13579 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2-chlorophenol 2-methylphenol 4-methylphenol bis(2-chloroethyl)ether hexachlorobutadiene n-nitroso-di-n-propylamine phenol
SSI-DSB-4-SS (6-9)	2,2'-oxybis-(1-chloropropane)

The initial analysis of the sample should not be reported or used. The file 5M.13575 should be used with the following parameters qualified with J:	2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-DSB-4-SB2 (21-24) The initial analysis of the sample should not be reported or used. The file 5M.13372 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2-chlorophenol 2-methylphenol 4-methylphenol bis(2-chloroethyl)ether hexachlorobutadiene n-nitroso-di-n-propylamine phenol

SSI-DSB-5-SS (6-9) The initial analysis of the sample should not be reported or used. The file 5M.13302 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-DSB-6-SS (6-9) The initial analysis of the sample should not be reported or used. The file 5M.13419 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2-chlorophenol 2-methylphenol 4-methylphenol bis(2-chloroethyl)ether hexachlorobutadiene n-nitroso-di-n-propylamine phenol The benzo[k]fluoranthene, benzo[g,h,i]-perylene, chrysene, dibenzo[a,h]anthracene and indeno[1,2,3-cd]pyrene should be qualified with R.
SSI-DSB-1SB1 (12-14)DUP The initial analysis of the sample should not be reported or used. The file 5M.13300 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane

	isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-DSB-1SB2 (21-24)DUP The initial analysis of the sample should not be reported or used. The file 5M.13301 should be used with the following parameters qualified with J:	2,2'-oxybis-(1-chloropropane) 2,4-dichlorophenol 2,4-dimethylphenol 2-chlorophenol 2-methylnapthalene 2-methylphenol 2-nitrophenol 4-chloro-3-methyphenol 4-chloroaniline 4-methylphenol acetophenone bis(2-chloroethoxy)methane bis(2-chloroethyl)ether hexachlorobutadiene hexachloroethane isophorone n-nitroso-di-n-propylamine naphthalene nitrobenzene phenol
SSI-DSB-1-SS (6-9) The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13389 should be used. No qualifiers are required.	
SSI-DSB-2-SB3 (45-48) The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13577 should be used. No qualifiers are required.	
SSI-DSB-3-SS (6-9) The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13582 should be used. No qualifiers are required.	
SSI-DSB-3-SB1 (12-14) The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13606 should be used. No qualifiers are required.	
SSI-DSB-3-SB2 (21-24) The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13607 should be used. No qualifiers are required.	

SSI-DSB-3-SB3 (45-48)
The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13574 should be used. No qualifiers are required.

SSI-DSB-4-SB1 (12-14)
The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13576 should be used. No qualifiers are required.

SSI-DSB-4-SB3 (45-48)
The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13376 should be used. No qualifiers are required.

The Benzo[b]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenzo[a,h]-anthra-cene and benzo[g,h,i]perylene concentrations should be qualified with R.

SSI-DSB-5-SB1 (12-14)
The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13377 should be used. No qualifiers are required.

SSI-DSB-6-SB1 (12-14)
The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13581 should be used. No qualifiers are required.

SSI-DSB-6-SB3 (45-48)
The benzo[g,h,i]perylene concentration should be qualified with R.

MW-6-SR
The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.15225 should be used. No qualifiers are required.

PESTICIDES AND PCBs
Six sample delivery groups (SDG) were reviewed for pesticides and/or PCBs. Twenty percent of each SDG were subjected to complete validation while the remaining samples were subjected to partial validation.
For pesticides and/or PCBs the following quality control measures were evaluated during partial validation according to New York Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) and the United States Environmental Protection Agency (USEPA) Contract Laboratory Program National Functional Guidelines for Organic Data Review:

Holding times
Blanks
Surrogate Recovery
Matrix spike/matrix spike duplicate
Field duplicate
Overall assessment of data

DATA QUALIFIER SUMMARY –
SEMI VOLATILE ORGANICS

In addition to the quality control measures evaluated for partial validation of the data, the following measures were evaluated for complete validation:

Calibration
Compound identification
Compound quantitation and reported detection limits

HOLDING TIMES
All samples were analyzed within the required holding times.

BLANKS
Method blanks were run as required. No contamination was present in any method blank or instrument blank.

SURROGATE RECOVERY
Surrogate recoveries for the blank samples were within the required quality control limits. Surrogate recoveries were outside of the required limits for 21 of the samples. Qualifiers were applied and are presented in the summary section.

MATRIX SPIKE/MATRIX SPIKE DUPLICATES
All matrix spike/matrix spike duplicate recoveries and relative percent differences were within the required limits.

FIELD DUPLICATES
All relative percent differences for the field duplicates were within acceptable ranges with the exception of Aroclor 1260 for two samples that exceeded the 50 % requirement.

CALIBRATION

Initial Calibration
Initial calibrations were performed as required. All retention time windows and relative percent standard deviations were within acceptable limits.

Continuing Calibration
Continuing calibrations were run as required. All retention times and percent differences were within required limits.

COMPOUND IDENTIFICATION
All detected compounds for the complete validation samples were correctly identified.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS
All detected concentrations for the complete validation samples were calculated correctly. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA
Based on a review of the data, the overall quality of the pesticides and PCB data were considered to be good. Based on the surrogate recoveries qualifiers were required. No data were rejected.

DATA QUALIFIER SUMMARY

SSI-419-1-SB1 (12-14") – Qualify p,p-DDT, endosuulfan II and Aroclor 1260 with J
SSI-419-7-SB1 (12 – 14") – Qualify p,p'-DDE and p,p'-DDT with J
SSI-419-14-SB1 (12 – 14") – Qualify p,p'-DDT with J
SSI-419-4-SS (0 – 3") – Qualify all PCB Aroclors with J
SSI-419-5-SS (0 – 3") – Qualify Aroclor 1260 with J
SSI-419-6-SS (0 – 3") – Qualify Aroclor 1260 with J
SSI-419-7-SS (0 – 3") – Qualify Aroclor 1260 with J
SSI-419-8-SS (0 – 3") – Qualify Aroclor 1260 with J

The undiluted sample for SSI-SS11-3-SB1 (12-14) should not be used.

SSI-SS11-3-SB1 (12-14)

The following compounds should be qualified with J:

- Aroclor 1260
- p,p'DDD
- p,p-DDE
- p,p-DDT

SSI-MW6-1-SB3-45-48

The following compounds should be qualified with J:

- Aroclor 1260
- p,p'-DDD with J

The undiluted sample for samples SSI-DSB-2-SB1 (12-14), SSI-DSB-2-SB2 (21-24), SSI-DSB-6-SS (6-9) and SSI-DSB-1-SB2 (21-24) DUP should not be used.

SSI-DSB-1-SS (6-9)	Qualify Aroclor 1260 with J
SSI-DSB-1 SB3 (45-48)	Qualify Aroclor 1260 with J
SSI-DSB-2-SB1 (3x) (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-2-SB2 (3x) (21-24)	Qualify Aroclor 1260 with J
SSI-DSB-2-SB3 (45-48)	Qualify Aroclor 1260 with J
SSI-DSB-3-SB1 (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-3-SB2 (21-24)	Qualify Aroclor 1260 with J
SSI-DSB-5-SB1 (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-6-SS 2x (6-9)	Qualify Aroclor 1260 with J
SSI-DSB-6-SB1 (12-14)	Qualify Aroclor 1260 with J
SI-DSB-1SB2 (3x) (21-24)	Qualify Aroclor 1260 with J

Environmental

Engineers & Scientists

DATA QUALIFIER SUMMARY - INORGANICS

Sample ID	Required Qualifiers
SSI-MW-4SR	Qualify lead with J Qualify copper with J
SSI-MW-4SR-MS	Qualify lead with J Qualify arsenic with J+ Qualify copper with J
SSI-MW-4SR-MSD	Qualify lead with J Qualify arsenic with J+ Qualify copper with J
SSI-MW-4DR	Qualify lead with J Qualify arsenic with J+ Qualify copper with J
SSI-MW-4DR-DUP	Qualify lead with J Qualify copper with J
SSI-FB	Qualify lead with J Qualify copper with J
SSI-SEDMW-3-1	Qualify manganese with J Qualify vanadium with J Qualify mercury with J Qualify nickel with J Qualify zinc with J
SSI-SEDMW-12-1	Qualify manganese with J Qualify vanadium with J Qualify mercury with J Qualify nickel with J Qualify zinc with J
SSI-SEDMW-6-1	Qualify manganese with J Qualify vanadium with J Qualify mercury with J Qualify nickel with J Qualify zinc with J
SSI-419-3-SB1 (12 – 14")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-3-SB2 (45 – 48")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-5-SB1 (12 – 14")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
SSI-419-5-SB2 (45 – 48")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-7-SB1 (12 – 14")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-7-SB2 (45 – 48")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-14-SB1 (12 – 14")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-14-SB2 (21 – 24")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-14-SB3 (45 – 48")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-14-SB4 (72 – 75")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-15-SS (0 – 3")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-15-SB1 (12 – 14")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-15-SB2 (21 – 24")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-SB3 (45 – 48")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-419-SB4 (72 – 75")	Qualify copper with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-MW5-2-SB1 (12 – 14")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-MW5-2-SB3 (45 – 48")	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
FB-120805	Qualify copper with J Qualify manganese with J Qualify nickel with J Qualify zinc with J
SSI-DSA-1-SS (0-3)	Qualify lead with J
SSI-DSA-1-SB1 (12-14)	Qualify lead with J
SSI-DSA-1-SB2 (21-24)	Qualify lead with J
SSI-DSA-1-SB2 (21-24) MS	Qualify lead with J
SSI-DSA-1-SB2 (21-24) MSD	Qualify lead with J
SSI-DSA-2-SS (0-3) DUP	Qualify lead with J
SSI-DSA-2-SS (0-3)	Qualify lead with J
SSI-DSA-2-SB1 (12-14)	Qualify lead with J
SSI-DSA-2-SB1 (12-14) DUP	Qualify lead with J
SSI-DSA-2-SB2 (21-24)	Qualify lead with J
SSI-DSA-2-SB2 (21-24) DUP	Qualify lead with J
SSI-DSA-3-SS (0-3)	Qualify lead with J
SSI-DSA-3 SB1 (12-14)	Qualify lead with J
SSI-DSA-3-SB2 (21-24)	Qualify lead with J
SSI-419-1-SB1 (12-14)	Qualify antimony with J Qualify lead with J Qualify thallium with J Qualify cobalt with J Qualify nickel with J Qualify selenium with J
SSI-419-9-SB1 (12-14)	Qualify antimony with J Qualify lead with J Qualify thallium with J Qualify cobalt with J Qualify nickel with J Qualify selenium with J
SSI-419-9-SB2 (45-48)	Qualify antimony with J Qualify lead with J Qualify thallium with J Qualify cobalt with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify nickel with J Qualify selenium with J
SSI-419-11-SB1 (12-14)	Qualify antimony with J Qualify lead with J Qualify thallium with J Qualify cobalt with J Qualify nickel with J Qualify selenium with J
SSI-419-11-SB2 (21-24)	Qualify antimony with J Qualify lead with J Qualify thallium with J Qualify cobalt with J Qualify nickel with J Qualify selenium with J
SSI-419-16-SB1 (12-14)	Qualify antimony with J Qualify lead with J Qualify thallium with J Qualify cobalt with J Qualify nickel with J Qualify selenium with J
SSI-419-16-SB2 (45-48)	Qualify antimony with J Qualify lead with J Qualify thallium with J Qualify cobalt with J Qualify nickel with J Qualify selenium with J
FB-121205	Qualify antimony with J Qualify lead with J Qualify thallium with J Qualify cobalt with J Qualify nickel with J Qualify selenium with J
MW-6-SR	Qualify iron with J Qualify copper with J Qualify zinc with J Qualify mercury with J
MW-3-SR	Qualify iron with J Qualify copper with J Qualify zinc with J Qualify mercury with J
Field Blank	Qualify iron with J Qualify copper with J Qualify zinc with J Qualify mercury with J
MW-12-SR	Qualify iron with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify copper with J Qualify zinc with J Qualify mercury with J
MW-5-SR	Qualify iron with J Qualify copper with J Qualify zinc with J Qualify mercury with J
SSI-DSB-5-SB2 21-24	Qualify calcium with J Qualify copper with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-5-SB3 45-48	Qualify calcium with J Qualify copper with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-6-SS 6-9	Qualify calcium with J Qualify copper with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-6-SB1 12-14	Qualify copper with J Qualify calcium with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-6-SB2 21-24	Qualify calcium with J Qualify copper with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-6-SB3 45-48	Qualify calcium with J Qualify copper with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-1-SB1-12-14	Qualify calcium with J Qualify copper with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-1-SB2-21-24	Qualify calcium with J Qualify copper with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-1-SB3-45-48	Qualify calcium with J Qualify copper with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-1-SB3-45-48 MS	Qualify calcium with J Qualify copper with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-1-SB3-45-48 DS	Qualify calcium with J Qualify copper with J Qualify manganese with J Qualify zinc with J Qualify cobalt with J Qualify lead with J
SSI-DSB-1-SS 6-9	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-1-SB1 12-14	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-1-SB2 21-24	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-1-SB3 45-48	Qualify nickel with J Qualify antimony with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-2-SS 6-9	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-2-SB1 12-14	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-2-SB2 21-24	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-2-SB3 45-48	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-3-SS 6-9	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-3-SB1 12-14	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-3-SB2 21-24	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-3-SB3 45-48	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-4-SS 6-9	Qualify nickel with J Qualify antimony with J

DATA QUALIFIER SUMMARY – INORGANICS

Sample ID	Required Qualifiers
	Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-4-SB1 12-14	Qualify nickel with Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J J
SSI-DSB-4-SB2 21-24	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-4-SB3 45-48	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DSB-5-SS 6-9	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-DS-5-SB1 12-14	Qualify nickel with J Qualify antimony with J Qualify copper with J Qualify chromium with J Qualify manganese with J
SSI-SS11-1-SS (0-3)	Qualify lead with J
SSI-SS11-1-SB1 (12-14)	Qualify lead with J
SSI-SS11-1-SB2 (21-24)	Qualify lead with J
SSI-SS11-2-SS (0-3)	Qualify lead with J
SSI-SS11-2-SB1 (12-14)	Qualify lead with J
SSI-SS11-2-SB2 (21-24)	Qualify lead with J
SSI-SS11-3-SS (0-3)	Qualify lead with J
SSI-SS11-3-SB2 (21-24)	Qualify lead with J
SSI-SS11-3-SB2 (21-24) DUP	Qualify lead with J
SSi-SS11-4-SS (0-3)	Qualify lead with J
SSI-SS11-4-SB1 (12-14)	Qualify lead with J
SSI-SS11-4-SB2 (21-24)	Qualify lead with J
SSI-SS11-4-SB1 (12-14) DUP	Qualify lead with J
SSI-SS11-4-SB2 (21-24) MS	Qualify lead with J
SSI-SS11-4-SB2 (21-24) MSD	Qualify lead with J
SSI-SS11-3-SB1 (12-14)	Qualify nickel with J Qualify lead with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS11-3-SB3 (45-48)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS11-3-SB3 (45-48) MS	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS11-3-SB3 (45-48) DS	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS11-5-SS (0-3)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS11-5-SB1 (12-14)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS11-5-SB2 (21-24)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS11-5-SB3 (45-48)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify manganese with J
SSI-SS11-SB4 (72-75)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-419-13-SS (0-3)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-419-13 (12-14)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-419-13 (21-24)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-419-13 (45-48)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-419-13 (72-75)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
FB 120705	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS9-1-SS-6-9	Qualify nickel with J Qualify lead with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS9-1-SB1 (12-14)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS9-1-SB2 (21-24)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS9-1-SB3 (45-48)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS9-1-SB4-(72-75)	Qualify nickel with J Qualify lead with J Qualify calcium with J Qualify antimony with J Qualify arsenic with J Qualify manganese with J
SSI-SS9-2-SS-6-9	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify lead with J Qualify zinc with J
SSI-SS9-2-SB1-12-14	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify lead with J Qualify zinc with J
SSI-SS9-2-SB2-21-24	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
SSI-SS9-2-SB3-45-48	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-SS9-2-SB4-72-75	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-SS9-3-SS-6-9	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-SS9-3-SB1-12-14	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-SS9-3-SB2-21-24	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-SS9-3-SB3-45-48	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-SS9-3-3-SB4-72-75	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-MW6-1-SS-0-3	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-MW6-1-SS-0-3 DUP	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
SSI-MW6-1-SB1 12-14	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-MW6-1-SB2 21-24	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-MW6-1-SB2 21-24 DUP	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-MW6-1-SB3 45-48	Qualify calcium with J Qualify lead with J Qualify nickel with J Qualify vanadium with J Qualify antimony with J Qualify manganese with J Qualify arsenic with J
SSI-MW6-1-SB4-72-75	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-MW6-1-SB4-72-75 MS	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-MW6-1-SB4-72-75 MSD	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-MW6-2-SS-6-9	Qualify lead with J Qualify chromium with J Qualify antimony with J Qualify copper with J Qualify zinc with J
SSI-MW6-2-SB1-12-14	Qualify lead with J Qualify chromium with J Qualify antimony with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify copper with J Qualify zinc with J
SSI-MW6-2-SB1-21-24	Qualify copper with J Qualify zinc with J Qualify iron with J Qualify antimony with J Qualify cobalt with J Qualify mercury with J
SSI-MW6-2—45-48	Qualify copper with J Qualify zinc with J Qualify iron with J Qualify antimony with J Qualify cobalt with J Qualify mercury with J
SSI-MW6-2-72-75	Qualify copper with J Qualify zinc with J Qualify iron with J Qualify antimony with J Qualify cobalt with J Qualify mercury with J
SSI-MW6-3-SS-6-9	Qualify copper with J Qualify zinc with J Qualify iron with J Qualify antimony with J Qualify cobalt with J Qualify mercury with J
SSI-MW6-3-SB1-12-14	Qualify copper with J Qualify zinc with J Qualify iron with J Qualify antimony with J Qualify cobalt with J Qualify mercury with J
SSI-MW6-3-SB2-21-24	Qualify copper with J Qualify zinc with J Qualify iron with J Qualify antimony with J Qualify cobalt with J Qualify mercury with J
SSI-MW6-3-SB3-45-48	Qualify copper with J Qualify zinc with J Qualify iron with J Qualify antimony with J Qualify cobalt with J Qualify mercury with J
SSI-MW6-3-SB4-72-75	Qualify copper with J

DATA QUALIFIER SUMMARY –
INORGANICS

Sample ID	Required Qualifiers
	Qualify zinc with J Qualify iron with J Qualify antimony with J Qualify cobalt with J Qualify mercury with J
SSI-MW12-1-SS (6-9)	Qualify lead with J
SSI-MW12-1-SB1 (12-14)	Qualify lead with J
SSI-MW12-1-SB1 (12-14)DUP	Qualify lead with J
SSI-MW12-1-SB2- (21-24)	Qualify lead with J
SSI-MW12-1-SB2 (21-24)DUP	Qualify lead with J
SSI-MW12-1-SB2 (21-24)DUP	Qualify lead with J

Environmental

Engineers & Scientists

DATA REVIEW FOR HCI PROJECT 5110612

INTRODUCTION

Twenty eight soil samples and one aqueous sample were included in this project. All samples were collected on December 5 and 6, 2005 and were received in the laboratory on December 6, 2005.

The samples included in this project and the required analyses are:

SSI-DSB-1-SS (6-9)	TCL SVOCs, PCB
SSI-DSB-1-SB1 (12-14)	TCL SVOCs, PCB
SSI-DSB-1-SB2 (21-24)	TCL SVOCs, PCB
SSI-DSB-1-SB3 (45-48)	TCL SVOCs, PCB
SSI-DSB-2-SS (6-9)	TCL SVOCs, PCB
SSI-DSB-2-SB1 (12-14)	TCL SVOCs, PCB
SSI-DSB-2-SB2 (21-24)	TCL SVOCs, PCB
SSI-DSB-2-SB3 (45-48)	TCL SVOCs, PCB
SSI-DSB-3-SS (6-9)	TCL SVOCs, PCB
SSI-DSB-3-SB1 (12-14)	TCL SVOCs, PCB
SSI-DSB-3-SB2 (21-24)	TCL SVOCs, PCB
SSI-DSB-3-SB3 (45-48)	TCL SVOCs, PCB
SSI-DSB-4-SS (6-9)	TCL SVOCs, PCB
SSI-DSB-4-SB1 (12-14)	TCL SVOCs, PCB
SSI-DSB-4-SB2 (21-24)	TCL SVOCs, PCB
SSI-DSB-4-SB3 (45-48)	TCL SVOCs, PCB
SSI-DSB-5-SS (6-9)	TCL SVOCs, PCB
SSI-DSB-5-SB1 (12-14)	TCL SVOCs, PCB
SSI-DSB-5-SB2 (21-24)	TCL SVOCs, PCB
SSI-DSB-5-SB3 (45-48)	TCL SVOCs, PCB
SSI-DSB-6-SS (6-9)	TCL SVOCs, PCB
SSI-DSB-6-SB1 (12-14	TCL SVOCs, PCB
SSI-DSB-6-SB3 (45-48)	TCL SVOCs, PCB
SSI-DSB-1SB1 (12-14) DUP	TCL SVOCs, PCB
SSI-DSB-1SB3 (21-24) DUP	TCL SVOCs, PCB
SSI-DSB-1SB3 (45-48) MS	TCL SVOCs, PCB
SSI-DSB-1SB3 (45-48) DS	TCL SVOCs, PCB
FB121605A	TCL SVOCs, PCB

Twenty percent of the samples collected were selected for complete validation. Six samples, SSI-DSB-1-SS (6-9), SSI-DSB-2-SB1 (12-14), SSI-DSB-3-SB2 (21-24), SSI-DSB-4-SB3 (45-48), SSI-DSB-6-SS (6-9), and SSI-DSB-6-SB3 (45-48) were selected for complete validation. The complete validation section applies only to the six complete validation samples.

SEMIVOLATILE ORGANICS

PARTIAL VALIDATION

For semivolatile organics the following quality control measures were evaluated during partial validation:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicatae
- Overall assessment of data

HOLDING TIMES

All samples were initially extracted and analyzed within the required holding times. Samples SSI-DSB-1-SS (6-9), SSI-DSB-2-SS (6-9) and SSI-DSB-2-SB3 (45-48) were re-extracted outside of the holding time due to the poor sample matrix.

BLANKS

Three soil matrix blanks and one aqueous matrix blank were run as part of this SDG. Bis-2-ethylhexylphthalate was detected in the aqueous method blank.

Bis-2-ethylhexylphthalate and di-n-butylpthalate were detected in two of the soil matrix blanks. Di-n-octylphthalate was detected in the other soil matrix blank. In addition tentatively identified compounds (TICs) were detected in all three soil matrix blanks.

One field blank was analyzed as part of this SDG. Bis-2-ethylhexylphthalate was detected in the field blank.

No qualifiers were applied based on the blanks.

SURROGATE RECOVERY (SYSTEM MONITORING COMPOUND)

The recoveries of the eight surrogates were within acceptable limits for all blanks. The following samples had surrogate recoveries that were outside the acceptable limits.

The recovery of phenol-d5 was out of the acceptable range for samples SSI-DSB-1-SB2 (21-24), SSI-DSB-1SB2 (21-24)DUP, SSI-DSB-1SB3 (34-39)MS, and FB120605A.

The recovery of 2-fluorophenol, 2-chlorophenol-d4 and 2,4,6-tribromophenol were out of the acceptable range for sample SSI-DSB-2-SS (6-9). The sample was rerun and the recoveries of 2-fluororophenol and 2,4,6-tribromophenol were out of the acceptable range. The results of the initial analysis should not be used or reported. No qualifiers were applied to the rerun sample.

The recovery of 2-fluorophenol and 2,4,6-tribormophenol were out of the acceptable range for sample SSI-DSB-6-SS (6-9). The sample was rerun and all surrogate recoveries were within acceptable ranges. The results of the initial analysis should not be used or reported.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Two matrix spike and matrix spike duplicates were run as part of this SDG.

The recovery of pyrene in the one of the matrix spike and matrix spike duplicate were outside the acceptable range. The recovery of n-nitroso-di-n-propylamine in the matrix spike duplicate was outside of the acceptable range. The relative percent differences (RPD) were outside the acceptable ranges for phenol, n-nitroso-di-n-propylamine and acenaphthene. No qualifiers were applied based on spike recoveries or RPDs.

The RPDs for phenol, 2-chlorophenol, n-nitroso-di-n-propylamine, 4-chloro-3-methylphenol, acenaphthene, 2,4-dinitrotouene, 4-nitrophenol and pyrene were outside of acceptable ranges. No qualifiers were applied based on the RPDs.

FIELD DUPLICATE

Two samples were collected in duplicate for semivolatile analyses, SSI-DSB-1-SB2 (12-14) and SSI-DSB-1-SB2 (21-24).

All detected parameters for the two SSI-DSB-1-SB2 (12-14) samples were in good agreement with the exception of acetophenone, butylbenzylphthalate, dibenzofuran, fluorene and indeno[1,2,3-cd]pyrene that were detected in one sample and not the other, benzo[k]fluoranthene which had a relative percent difference greater than 50%.

All detected parameters for the two SSI-DSB-1-SB2 (21-24) samples were in good agreement with the exception of 1,1-biphenyl, acenapthene, bis2-ethylhexylphthalate, dibenzofuran, dimethylphthalate, fluorene, naphthalene, and phenol that were detected in one sample and not in the other. The difference in the benzo[a]pyrene, benzo[b]fluroanthene, benzo[k]fluoranthene, chrysene, and pyrene concentrations in the two samples exceeded the required criteria.

No qualifiers were applied based on the field duplicates.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal standard performance
- Target compound list (TCL) compound identification

- Compound quantitation and reported detection limits

INSTRUMENT PERFORMANCE

The instrument performance check was performed at the required frequency and the ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

Initial calibrations were performed. The relative response factors and percent differences of the response factors were within acceptable limits.

CONTINUING CALIBRATION

Continuing calibrations were run as required. The relative response factors were within acceptable ranges for all parameters. The 2,2'-oxybis-(1-chloropropane) percent difference on the continuing calibration file 5M13443.D (run 12/21/05). The pentachlorophenol percent difference on the continuing calibration file 5M 13555.D (run 12/24/05).

No qualifiers were applied based on the continuing calibration.

INTERNAL STANDARD PERFORMANCE

Internal standard retention times were within the required limits. The internal standard areas were outside the required limits for samples:

SSI-DSB-1-SS (6-9)	(Areas 1 and 2)
SSI-DSB-1-SB1 (12-14)	(Areas 1, 2, and 3)
SSI-DSB-1-SB2 (21-24)	(Areas 1 and 2)
SSI-DSB-1-SB3 (45-48)	(Area 1)
SSI-DSB-2-SS (6-9)	(Areas 1 and 2)
SSI-DSB-2-SB1 (12-14)	(Areas 1, 2, and 6)
SSI-DSB-2-SB2 (21-24)	(Areas 1 and 2)
SSI-DSB-2-SB3 (45-48)	(Areas 1 and 2)
SSI-DSB-3-SS (6-9)	(Areas 1 and 2)
SSI-DSB-3-SB1 (12-14)	(Areas 1 and 2)
SSI-DSB-3-SB2 (21-24)	(Areas 1, 2 and 3)
SSI-DSB-3-SB3 (45-48)	(Areas 1, 2, 3, and 5)
SSI-DSB-4-SS (6-9)	(Areas 1, 2 and 3)
SSI-DSB-4-SB1 (12-14)	(Areas 1 and 2)
SSI-DSB-4-SB2 (21-24)	(Areas 1, 2 and 5)
SSI-DSB-4-SB3 (45-48)	(Areas 1, 2 and 3)
SSI-DSB-5-SS (6-9)	(Areas 1, 2 and 3)
SSI-DSB-5-SB1 (12-14)	(Areas 1 and 2)
SSI-DSB-6-SS (6-9)	(Areas 1 and 2)
SSI-DSB-6-SB1 (12-14)	(Area 1)

SSI-DSB-1SB1 (12-14)DUP (Areas 1, 2, and 3)
SSI-DSB-1SB2 (21-24)DUP (Areas 1, 2, and 3)

The internal standards were rerun for the above samples and the results of the rerun samples are as follows:

SSI-DSB-1-SS (6-9)	All areas within limits	Use rerun (5M.13389)
SSI-DSB-1-SB1 (12-14)	(Areas 1 and 2)	Use rerun (5M.13303)
SSI-DSB-1-SB2 (21-24)	(Areas 1 and 2)	Use rerun (5M.13304)
SSI-DSB-1-SB3 (45-48)	(Areas 1 and 2)	Use initial (5M.13248)
SSI-DSB-2-SS (6-9)	(Area 1)	Use rerun (5M.13387)
SSI-DSB-2-SB1 (12-14)	(Areas 5 and 6)	Use rerun (5M.13578)
SSI-DSB-2-SB2 (21-24)	(Areas 1 and 6)	Use rerun (5M.13579)
SSI-DSB-2-SB3 (45-48)	All areas within limits	Use rerun (5M.13577)
SSI-DSB-3-SS (6-9)	All areas within limits	Use rerun (5M.13582)
SSI-DSB-3-SB1 (12-14)	All areas within limits	Use rerun (5M.13606)
SSI-DSB-3-SB2 (21-24)	All areas within limits	Use rerun (5M.13607)
SSI-DSB-3-SB3 (45-48)	All areas within limits	Use rerun (5M.13574)
SSI-DSB-4-SS (6-9)	(Areas 1and 2)	Use rerun (5M.13575)
SSI-DSB-4-SB1 (12-14)	All areas within limits	Use rerun (5M.13576)
SSI-DSB-4-SB2 (21-24)	(Area 1)	Use rerun (5M.13372)
SSI-DSB-4-SB3 (45-48)	All areas within limits	Use rerun (5M.13376)
SSI-DSB-5-SS (6-9)	(Areas 1, 2 and 6)	Use rerun (5M.13302)
SSI-DSB-5-SB1 (12-14)	All areas within limits	Use rerun (5M.13377)
SSI-DSB-6-SS (6-9)	(Area 1)	Use rerun (5M.13419)
SSI-DSB-6-SB1 (12-14)	All areas within limits	Use rerun (5M.13581)
SSI-DSB-1SB1 (12-14)DUP	(Areas 1, 2, and 6)	Use rerun (5M.13300)
SSI-DSB-1SB2 (21-24)DUP	(Areas 1, 2, 5 and 6)	Use rerun (5M.13301)

The initial analysis should not be reported or used for the following samples: SSI-DSB-1-SS (6-9), SSI-DSB-2-SB3 (45-48), SSI-DSB-3-SS (6-9), SSI-DSB-3-SB1 (12-14), SSI-DSB-3-SB2 (21-24), SSI-DSB-3-SB3 (45-48), SSI-DSB-4-SB1 (12-14), SSI-DSB-4-SB3 (45-48), SSI-DSB-5-SB1 (12-14) and SSI-DSB-6-SB1 (12-14). The laboratory file number indicated above should be used. No qualifiers are required.

For the following samples the qualifiers are required as indicated.

SSI-DSB-1-SB1 (12-14)

The initial analysis of the sample should not be reported or used. The file 5M.13303 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol

2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-1-SB2 (21-24)

The initial analysis of the sample should not be reported or used. The file 5M.13304 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-1-SB3 (45-48)

The initial analysis of the sample should not be reported or used. The file 5M.13248 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)

2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-2-SS (6-9)

The initial analysis of the sample should not be reported or used. The file 5M.13387 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-DSB-2-SB1 (12-14)

The initial analysis of the sample should not be reported or used. The file 5M.13578 should be used. No qualifiers are required.

SSI-DSB-2-SB2 (21-24)

The initial analysis of the sample should not be reported or used. The file 5M.13579 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol

bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-DSB-4-SS (6-9)

The initial analysis of the sample should not be reported or used. The file 5M.13575 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-4-SB2 (21-24)

The initial analysis of the sample should not be reported or used. The file 5M.13372 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-DSB-5-SS (6-9)

The initial analysis of the sample should not be reported or used. The file 5M.13302 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-6-SS (6-9)

The initial analysis of the sample should not be reported or used. The file 5M.13419 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-DSB-1SB1 (12-14)DUP

The initial analysis of the sample should not be reported or used. The file 5M.13300 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol

2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-1SB2 (21-24)DUP

The initial analysis of the sample should not be reported or used. The file 5M.13301 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

TARGET COMPOUND IDENTIFICATION

Sample SSI-DSB-1-SS (6-9)

All compounds detected were correctly identified.

Sample SSI-DSB-2-SB1 (12-14)

All compounds detected were correctly identified.

Sample SSI-DSB-3-SB2 (21-24)

All compounds detected were correctly identified.

Sample SSI-DSB-4-SB3 (45-48)

2-Methylnaphthalene, anthracene, benzo[a]anthracene, benzo[k]fluoranthene, chrysene, dibenzofuran, fluoranthene, naphthalene, phenanthrene and pyrene were correctly identified. Benzo[b]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenzo[a,h]anthracene and benzo[g,h,i]perylene were detected , however the delta retention times were greater that the acceptable limit. These concentrations should be qualified with R.

Sample SSI-DSB-6-SS (6-9)

Acenaphthylene, anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, bis(2-ethylhexyl)phthalate, butylbenzylphthalate, fluoranthene, phenanthrene and pyrene were correctly identified. Benzo[k]fluoranthene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene and indeno[1,2,3-cd]pyrene were detected, however the delta retention times were greater than the acceptable limit. These concentrations should be qualified with R.

Sample SSI-DSB-6-SB3 (45-48)

Acenaphthylene, anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, fluoranthene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene were correctly identified. Benzo[g,h,i]perylene was detected, however the delta retention times were greater than the acceptable limit. This concentration should be qualified with R.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMIT

All concentrations for the six complete validation samples were calculated correctly. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF THE DATA

The data in this project, based on the above validation, are usable as reported with the following exceptions:

SSI-DSB-1-SB1 (12-14)

The initial analysis of the sample should not be reported or used. The file 5M.13303 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-1-SB2 (21-24)

The initial analysis of the sample should not be reported or used. The file 5M.13304 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone

n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-1-SB3 (45-48)

The initial analysis of the sample should not be reported or used. The file 5M.13248 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-2-SS (6-9)

The initial analysis of the sample should not be reported or used. The file 5M.13387 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-DSB-2-SB1 (12-14)

The initial analysis of the sample should not be reported or used. The file 5M.13578 should be used.

SSI-DSB-2-SB2 (21-24)

The initial analysis of the sample should not be reported or used. The file 5M.13579 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-DSB-4-SS (6-9)

The initial analysis of the sample should not be reported or used. The file 5M.13575 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-4-SB2 (21-24)

The initial analysis of the sample should not be reported or used. The file 5M.13372 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-DSB-5-SS (6-9)

The initial analysis of the sample should not be reported or used. The file 5M.13302 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-6-SS (6-9)

The initial analysis of the sample should not be reported or used. The file 5M.13419 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol

4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

The benzo[k]fluoranthene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene and indeno[1,2,3-cd]pyrene should be qualified with R.

SSI-DSB-1SB1 (12-14)DUP

The initial analysis of the sample should not be reported or used. The file 5M.13300 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-1SB2 (21-24)DUP

The initial analysis of the sample should not be reported or used. The file 5M.13301 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol

4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-DSB-1-SS (6-9)

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13389 should be used. No qualifiers are required.

SSI-DSB-2-SB3 (45-48)

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13577 should be used. No qualifiers are required.

SSI-DSB-3-SS (6-9)

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13582 should be used. No qualifiers are required.

SSI-DSB-3-SB1 (12-14)

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13606 should be used. No qualifiers are required

SSI-DSB-3-SB2 (21-24)

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13607 should be used. No qualifiers are required

SSI-DSB-3-SB3 (45-48)

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13574 should be used. No qualifiers are required

SSI-DSB-4-SB1 (12-14)

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13576 should be used. No qualifiers are required

SSI-DSB-4-SB3 (45-48)

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13376 should be used. No qualifiers are required.

The Benzo[b]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenzo[a,h]anthracene and benzo[g,h,i]perylene concentrations should be qualified with R.

SSI-DSB-5-SB1 (12-14)

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13377 should be used. No qualifiers are required

SSI-DSB-6-SB1 (12-14).

The initial analysis of the sample should not be used or reported. The rerun of the sample, file 5M.13581 should be used. No qualifiers are required

Sample SSI-DSB-6-SB3 (45-48)

The benzo[g,h,i]perylene concentration should be qualified with R.

PCBs

PARTIAL VALIDATION

For pesticides and PCBs the following quality control measures were evaluated:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

HOLDING TIMES

All samples were extracted and analyzed within the required holding times.

BLANKS

No contamination was detected in the blanks.

SURROGATE RECOVERY

All surrogate recoveries for the blank samples were within the required quality control limits.

The surrogate recoveries were outside the quality control limits for samples:

SSI-DSB-1-SS (6-9)	(DCB Surrogate, Columns 1 and 2)
SSI-DSB-1 SB3 (45-48)	(DCB Surrogate, Column 2)
SSI-DSB-2-SB1 (3x) (12-14)	(DCB Surrogate, Columns 1 and 2)
SSI-DSB-2-SB2 (3x) (21-24)	(DCB Surrogate, Columns 1 and 2)
SSI-DSB-2-SB3 (45-48)	(DCB Surrogate, Column 2)
SSI-DSB-3-SB1 (12-14)	(DCB Surrogate, Column 2)
SSI-DSB-3-SB2 (21-24)	(DCB Surrogate, Column 2)
SSI-DSB-5-SB1 (12-14)	(DCB Surrogate, Column 2)
SSI-DSB-6-SS 2x (6-9)	(DCB Surrogate, Column 2)
SSI-DSB-6-SB1 (12-14)	(DCB Surrogate, Column 2)
SSI-DSB-1SB2 (3x) (21-24)	(DCB Surrogate, Column 2)

The following qualifiers are required based on surrogate recoveries:

SSI-DSB-1-SS (6-9)	Qualify Aroclor 1260 with J
SSI-DSB-1 SB3 (45-48)	Qualify Aroclor 1260 with J
SSI-DSB-2-SB1 (3x) (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-2-SB2 (3x) (21-24)	Qualify Aroclor 1260 with J
SSI-DSB-2-SB3 (45-48)	Qualify Aroclor 1260 with J
SSI-DSB-3-SB1 (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-3-SB2 (21-24)	Qualify Aroclor 1260 with J
SSI-DSB-5-SB1 (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-6-SS 2x (6-9)	Qualify Aroclor 1260 with J
SSI-DSB-6-SB1 (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-1SB2 (3x) (21-24)	Qualify Aroclor 1260 with J

The undiluted sample for samples SSI-DSB-2-SB1 (12-14), SSI-DSB-2-SB2 (21-24), SSI-DSB-6-SS (6-9) and SSI-DSB-1-SB2 (21-24) DUP should not be used. The Aroclor 1260 concentration exceeded the calibration range of the instrument. The samples were diluted and rerun.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All spike recoveries were within acceptable limits. The relative percent differences for all compounds were within acceptable limits.

FIELD DUPLICATE

Two duplicates were collected for PCB analysis. Samples SSI-DSB-1-SB1 (12-14) and SSI-DSB-1-SB2 (21-24) were collected in duplicate.

The Aroclor 1260 concentration from the two samples from SSI-DSB-1-SB1 (12-14) were in good agreement.

The Aroclor 1260 concentration from the two samples from SSI-DSB-1-SB2 (21-24) exceeded the 50% relative percent difference for soil samples. Aroclor 1248 was detected in one sample but not in the other.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data, the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Compound identification
- Compound quatitation and reported detection limit

INSTRUMENT PERFORMANCE

The instrument performance check was performed as required.

CALIBRATION

INITIAL CALIBRATION

The initial calibration was performed as required. All retention time windows and relative percent standard deviations were within acceptable ranges.

CONTINUING CALIBRATION

Instrument blanks, individual standard mixtures and performance evaluation standards were run at the proper frequency. The retention times and percent differences were within the required limits.

TARGET COMPOUND IDENTIFICATION

Sample SSI-DSB-1-SS (6-9)

All detected compounds were correctly identified.

Sample SSI-DSB-2-SB1 (12-14)

All detected compounds were correctly identified.

Sample SSI-DSB-3-SB2 (21-24)

All detected compounds were correctly identified.

Sample SSI-DSB-4-SB3 (45-48)

All detected compounds were correctly identified.

Sample SSI-DSB-6-SS (6-9)

All detected compounds were correctly identified.

Sample SSI-DSB-6-SB3 (45-48)

All detected compounds were correctly identified.

COMPOUNDS QUANTITATION AND REPORTED DETECTION LIMITS

All detected concentrations for the six complete validation samples were calculated correctly. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA

The data in this project, based on the above validation are usable as reported with the following exceptions:

The undiluted sample for samples SSI-DSB-2-SB1 (12-14), SSI-DSB-2-SB2 (21-24), SSI-DSB-6-SS (6-9) and SSI-DSB-1-SB2 (21-24) DUP should not be used.

The following qualifiers are required based on surrogate recoveries:

SSI-DSB-1-SS (6-9)	Qualify Aroclor 1260 with J
SSI-DSB-1 SB3 (45-48)	Qualify Aroclor 1260 with J
SSI-DSB-2-SB1 (3x) (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-2-SB2 (3x) (21-24)	Qualify Aroclor 1260 with J
SSI-DSB-2-SB3 (45-48)	Qualify Aroclor 1260 with J
SSI-DSB-3-SB1 (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-3-SB2 (21-24)	Qualify Aroclor 1260 with J
SSI-DSB-5-SB1 (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-6-SS 2x (6-9)	Qualify Aroclor 1260 with J
SSI-DSB-6-SB1 (12-14)	Qualify Aroclor 1260 with J
SSI-DSB-1SB2 (3x) (21-24)	Qualify Aroclor 1260 with J

Environmental

Engineers & Scientists

DATA REVIEW FOR HCI PROJECT 5120813 - ORGANICS

INTRODUCTION

Three soil samples and seven aqueous samples were included in this project. All samples were collected on December 6 and 7, 2005 and received in the laboratory on December 8, 2005. Additional sample volume was collected for samples on December 13, 2005 and received in the laboratory on December 15, 2005.

The samples included in this project and the required organic analyses are:

SSI-SS11-3-SB1 (12-14)	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-SS11-3-SB3 (45-48)	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-SS11-3-SB3 (45-48)MS	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-SS11-3-SB3 (45-48)DS	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-SS11-5-SS (0-3)	TCL SVOCs
SSI-SS11-5-SB1 (12-14)	TCL SVOCs
SSI-SS11-5-SB2 (21-24)	TCL SVOCs
SSI-SS11-5-SB3 (45-48)	TCL SVOCs
SSI-SS11-5-SB4 (72-75)	TCL SVOCs
SSI-419-13-SS (0-3)	TCL SVOCs
SSI-419-13 (21-24)	TCL SVOCs
SSI-419-13 (45-48)	TCL SVOCs
SSI-419-13 (72-75)	TCL SVOCs
FB-120705	TCL SVOCs, PCB/Pesticides
SSI-SS9-1-SS-6-9	TCL SVOCs
SSI-SS9-1-SB-12-14	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-SS9-1-SB2-21-24	TCL SVOCs
SSI-SS9-1-SB3-45-48	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-SS9-1-SB4-72-75	TCL SVOCs
SSI-SS9-2-6-9	TCL SVOCs
SSI-SS9-2-SB-12-14	TCL SVOCs
SSI-SS9-2-SB2-21-24	TCL SVOCs
SSI-SS9-2-SB3-45-48	TCL SVOCs
SSI-SS9-2-SB4-72-75	TCL SVOCs
SSI-SS9-3-6-9	TCL SVOCs
SSI-SS9-3-SB-12-14	TCL SVOCs
SSI-SS9-3-SB2-21-24	TCL SVOCs
SSI-SS9-3-SB3-45-48	TCL SVOCs
SSI-SS9-3-SB4-72-75	TCL SVOCs
SSI-MW6-1-SS-0-3	TCL SVOCs
SSI-MW6-1-SS-0-3 DUP	TCL SVOCs
SSI-MW6-1-SB1-12-14	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-MW6-1-SB2-21-24	TCL SVOCs
SSI-MW6-1-SB2-21-24 DUP	TCL SVOCs
SSI-MW6-1-SB3-45-48	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-MW6-1-SB4-72-75	TCL SVOCs
SSI-MW6-1-SB4-72-75 MS	TCL SVOCs

SSI-MW6-1-SB4-72-75 DS	TCL SVOCs
SSI-MW6-2-SS-6-9	TCL SVOCs
SSI-MW6-2-SB1-12-14	TCL SVOCs
SSI-MW6-2-SB2-21-24	TCL SVOCs
SSI-MW6-2-45-48	TCL SVOCs
SSI-MW6-2-72-75	TCL SVOCs
SSI-MW6-3-SS-6-9	TCL SVOCs
SSI-MW6-3-SB1-12-14	TCL SVOCs
SSI-MW6-3-SB2-21-24	TCL SVOCs
SSI-MW6-3-SB3-45-48	TCL SVOCs
SSI-MW6-3-SB4-72-75	TCL SVOCs
SSI-MW12-4-SB1 (12-14)	TCL VOCs, TCL SVOCs, PCB/Pesticides

Twenty percent of the samples collected were selected for complete validation. Ten samples SSI-SS11-3-SB1(12-14), SSI-SS11-5-SS (0-3), SSI-419-13-SS (0-3), SSI-SS9-1SS-6-9, SSI-SS9-2-6, SSI-SS9-SS-6-9, SSI-MW6-1-SS-0-3, SSI-MW6-1,SB3-45-48, SSI-MW6-2-SB1-12-14, and SSI-MW6-3-SB1-12-14 were selected for complete validation. The complete validation section applies only to the ten complete validation samples.

VOLATILE ORGANICS

PARTIAL VALIDATION

For volatile organics the following quality control measures were evaluated during partial validation:

- Holding times
- Blanks
- Surrogate Recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

HOLDING TIMES

All samples were analyzed within the required holding times.

BLANKS

Methylene chloride was detected below the required detection limit in the daily blanks from December 14th and 15th. No qualification was applied.

No field blank was submitted for volatile organics. No trip blank was submitted as part of this SDG.

SURROGATE RECOVERY (SYSTEM MONITORING COMPOUND RECOVERY)

The recovery of the three system monitoring compounds were within acceptable limits for all blanks. The recovery of the three system monitoring compounds were within acceptable limits for all samples except as noted below.

The recovery of all of the system monitoring compounds were within the acceptable limits for sample SSI-S11-3-SB1 (12-14). The sample was rerun because of internal standard recoveries for the initial sample were outside the acceptable limits. The recovery of one system monitoring compound (toluene-d8) was outside the acceptable limits for rerun sample. Based on the internal standard areas (discussed later in this report) the rerun sample should be used. Both detected and non-detected parameters should be qualified with J.

The recovery of all of the system monitoring compounds were within the acceptable limits for sample SSI-SS9-1SB1. The sample was rerun because of internal standard recoveries for the initial sample were outside the acceptable limits. The recovery of one system monitoring compound (1,2-dichloroethane d-4)) was outside the acceptable limits for rerun sample. Based on the internal standard areas (discussed later in this report) the rerun sample should be used. Both detected and non-detected parameters should be qualified with J.

The recovery of one system monitoring compound (4-bromofluorobenzene) was outside the acceptable limits for sample SSI-MW6-1-SB1-12-14. The sample was rerun and two system monitoring compounds (touene-d8 and 4-bromofluorobenzene) were outside the acceptable limits. The results from the rerun sample should not be reported or used. The detected and non-detected parameters for the initial sample should be qualified with J.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All spike recoveries were within acceptable limits. All relative percent differences were within acceptable limits.

FIELD DUPLICATES

No filed duplicates were collected for volatile organics analyses.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal Standards performance
- Target compound list compound identification
- Compound quantitation and reported detection limits

INSTRUMENT PERFORMANCE

The instrument performance check was performed at the required frequency and ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

The relative response factor for 1,1,2,2-tetrachloroethane was out of the acceptable range. All relative percent standard deviations (%RSD) are within acceptable ranges for all parameters. No qualifiers were applied.

CONTINUING CALIBRATION

The relative response factors for 1,1,2,2-tetrachloroethane and 1,3-dichlorobenzene were out of the acceptable range. All percent differences were within acceptable ranges. No qualifiers were applied.

INTERNAL STANDARD PERFOMANCE

Internal standard retention times were within the required limits.

Internal standard areas were outside the required limits for samples SSI-S11-3SB1 (12-14), SSI-SS9-1-SB1, SSI-SS9-1-SB3-45-48, and SSI-MW6-1-SB1-12-14. The samples were rerun.

The areas for all three internal standards were outside the required limits for sample SSI-SS11-3-SB1 (12-14). The sample was rerun and the areas for one of the internal standards (chlorobenzene-d5) was outside the required limits. The results from the initial sample should not be reported or used. The following parameters should be qualified with "J":

2-Hexanone
4-Methyl-2-pentanone
Tetrachloroethene
1,2,3,4-Tetrachloroethene
Toluene
Chlorobenzene
Ethylbenzene
Styrene
o-Xylene
m+p-Xylene

The areas for all two internal standards (1,4-difluorobenzene and chlorobenzene-d5) were outside the required limits for sample SSI-SS9-1-SB1. The sample was rerun and the areas for three internal standards were outside the required limits. The results from the rerun sample should not be reported or used. The following parameters should be qualified with "J":

1,1,1-Trichloroethane
Carbon tetrachloride
Bromodichloromehtane
1,2-Dichloropropane
Trans-1,3-dichloropropene
Trichloroethene
Dibromochloromethane
1,1,2-Trichloroethane
Benzene
Cis-1,3-dichloropropene
Bromoform
2-Hexanone
4-Methyl-2-pentanone
Tetrachloroethene
1,2,3,4-Tetrachloroethene
Toluene
Chlorobenzene
Ethylbenzene
Styrene
o-Xylene
m+p-Xylene

The area for one internal standard (chlorobenzene-d5) was outside the required limits for sample SSI-SS9-1-SB3-45-48. The sample was rerun and all internal standards were within the required limits. The results for the initial sample should not be reported or used. The results of the rerun sample should be used. No qualifiers are required.

The areas for all three internal standards were outside the required limits for sample SSI-MW6-1-SB1-12-14. The sample was rerun and the areas for all three standard were was outside the required limits. The results from the rerun sample should not be reported or used. All parameters should be qualified with J.

TARGET COMPOUND IDENTIFICATION

Sample SSI-SS11-3-SB1 (12-14)

Methylene chloride and toluene were correctly identified. No other compounds were detected.

Sample SSI-MW6-1-SB3-45-48

Acetond, methylene chloride and toluene were correctly identified. No other compounds were detected.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All concentrations were calculated correctly for the five complete validation samples. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA

The data in this project, based on the above validation are usable as reported with the following exceptions:

SSI-S11-3-SB1 (12-14)

The initial sample should not be reported or used. All detected and non detected parameters for the rerun sample should be qualified with J.

SSI-SS9-1SB1

The initial sample should not be reported or used. All detected and non-detected parameters should be qualified with J.

SSI-MW6-1-SB1-12-14

The results from the rerun sample should not be reported or used. The detected and non-detected parameters should be qualified with J.

SEMIVOLATILE ORGANICS

PARTIAL VALIDATION

For semivolatile organics the following quality control measures were evaluated during partial validation:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicatae
- Overall assessment of data

HOLDING TIMES

All samples were initially extracted and analyzed within the required holding times. Sample SSI-MW6-1-SB4-72-75 was re-extracted due to low surrogate recoveries outside of the required detection limit. Sample SSI-MW12-4-SSB1 (12-14) was re-extracted outside of the required holding time due to matrix interference.

BLANKS

Seven soil matrix blanks and one aqueous matrix blank were run as part of this SDG. Bis-2-ethylhexylphthalate was detected in the aqueous method blank.

Bis-2-ethylhexylphthalate was detected in all of the soil matrix blanks. Di-n-butylphthalate was detected in five of the soil matrix blanks. Di-n-octylphthalate was detected in one of the soil matrix blanks. In addition tentatively identified compounds (TICs) were detected in all seven soil matrix blanks.

One field blank was analyzed as part of this SDG. Bis-2-ethylhexylphthalate was detected in the field blank.

No qualifiers were applied based on the blanks.

SURROGATE RECOVERY (SYSTEM MONITORING COMPOUND)

The recoveries of the eight surrogates were within acceptable limits for all blanks. The following samples had surrogate recoveries that were outside the acceptable limits.

The recovery of 2-fluorophenol, phenol-d5, 2-chlorophenol-d5, 2-fluorobiphenyl, and 2,4,6-tribromophenol were outside of the acceptable limits for sample SSI-S11-5-SB1 (12-14). The sample was rerun and the recoveries of 2-fluorophenol, 1,2-dichlorobenzene-d4 and nitrobenzene-d5 were out of the acceptable range. The results of the initial sample should not be used. The rerun sample should be used (file 5M.13538). No qualifiers were applied due to the surrogates being diluted out.

The recovery of 2-fluorophenol, phenol-d5, 2-chlorophenol-d4, 1,2-dichlorobenzene-d4, and 2,4,6-tribromophenol were outside the acceptable limits for sample SSI-SS11-5-SB1 (12-14). The sample was rerun and the recoveries of 2-fluorophenol, 2-chlorophenol-d4 and 2,3,6-tribromophenol were outside of the acceptable limits. The rerun sample should not be reported or used. The initial sample should be used (file 5M.13501). No qualifiers were applied due to the surrogates being diluted out.

The recovery of all surrogates were outside of the acceptable limits for sample SSI-SS11-5-SB4 (72-75). The sample was rerun and the recoveries of 2-fluorophenol, phenol-d5, and 2,4,6-tribromophenol were outside of the acceptable limits. The initial sample should not be reported or used. The rerun sample should be used (file 5M.13537). No qualifiers were applied due to the surrogates being diluted out.

The recovery of surrogates 2-fluorophenol, phenol-d5, 2-chlorophenol-d4, and 2,4,6-tribromophenol were outside of the acceptable limits for sample SSI-SS9-1SS (6-9). The sample was rerun and the recoveries of the same surrogates were outside of the acceptable limits. The initial sample should not be reported or used. The rerun sample should be used (file 5M.13533). No qualifiers were applied due to the surrogates being diluted out.

The recovery of surrogates 2-fluorophenol and phenol-d5 were outside of the acceptable limits for sample SSI-SS9-1SB3 (445-48). The sample was rerun and the recovery of surrogate

2-fluorophenol was outside the acceptable limit. The initial sample should not reported or used. The rerun sample should be used (5M.13428). No qualifiers were applied to the rerun sample.

The recovery of all surrogates were outside of the acceptable limits for sample SSI-SS9-2-6. The sample was rerun and the recovery of surrogate 2-fluorophnol and 2,4,6-tribromophenol were outside of the acceptable limits. The initial sample should not be reported or used. The rerun sample should be used (file 5M.13536). No qualifiers were applied to the rerun sample.

The recovery of surrogate 1,2-dichlorobenzene-d4 was outside of the acceptable limits for sample SSI-MW6-SS-0-3. The sample was rerun and all surrogates were within the acceptable limits. The initial sample should not be used or reported. The rerun sample should be used (5M.13542). No qualifiers were applied to the rerun sample.

The recovery of surrogates phenol-d5, 2-chlorophenol-d4, and 1,2-dichorlorbenzene-d4 were outside of the acceptable limits for sample SSI-MW6-1-SS-0-3 dup. The sample was rerun and all surrogates were within the acceptable limits. The initial sample should not be reported or used. The rerun sample should be used (5M.13540). No qualifiers were applied to the rerun sample.

The recovery of surrogates phenol-d5, 2-chlorophenol-d4, and 1,2-dichorlorbenzene-d4 were outside of the acceptable limits for sample SSI-MW6-2-SS-6-9. The sample was rerun and all surrogates were within the acceptable limits. The initial sample should not be reported or used. The rerun sample should be used (5M.13535). No qualifiers were applied to the rerun sample.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The recovery of pyrene in the one of the matrix spike and matrix spike duplicate were outside the acceptable range. The recovery of n-nitroso-di-n-propylamine in the matrix spike duplicate was outside of the acceptable range. The relative percent differences (RPD) were outside the acceptable ranges for phenol, n-nitroso-di-n-propylamine and acenaphthene. No qualifiers were applied based on spike recoveries or RPDs.

The RPDs for phenol, 2-chlorophenol, 4-chloro-3-methylphenol were outside of acceptable ranges for another matrix spike and matrix spike duplicate. No qualifiers were applied based on the RPDs.

The pentachlorophenol recovery was outside the acceptable range in a third matrix spike. The 4-chloro-3-methylphenol and pentachlorophenol RPDs were outsidet the acceptable limits. No qualifiers were applied based on the spike recoveries or RPDs.

The n-nitroso-di-n-propylamine and pyrene recoveries were outside the acceptable range in at fourth matrix spike. The RPDs for phenol, n-nitroso-di-n-propylamine, 4-chloro-3-methylphenol, acenapthene, 2,4-dinitrotoluene, pentachlorophenol and pyrene were ouside the acceptable limits. No qualifiers were applied based on the spike recoveries or RPDs.

FIELD DUPLICATE

One samples was collected in duplicate for semivolatile analyses. The differences in the two samples collected from SSI-MW6-1-SB1-21-24 were within acceptable limits.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal standard performance
- Target compound list (TCL) compound identification
- Compound quantitation and reported detection limits

INSTRUMENT PERFORMANCE

The instrument performance check was performed at the required frequency and the ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

Initial calibrations were performed. The relative response factors and percent differences of the response factors were within acceptable limits.

CONTINUING CALIBRATION

Continuing calibrations were run as required. The relative response factors were within acceptable ranges for all parameters. The 2,2'-oxybis-(1-chloropropane) percent difference on the continuing calibration file 5M13443.D (run 12/21/05). The 2,2'-oxybis-(1-chloropropane) percent difference on the continuing calibration file 5M13519.D (run 12/23/05). The pentachlorophenol percent difference on the continuing calibration file 5M 13519.D (run 12/23/05). The pentachlorophenol percent difference on the continuing calibration file 5M 13756.D (run 12/29/05).

No qualifiers were applied based on the continuing calibration.

INTERNAL STANDARD PERFORMANCE

Internal standard retention times were within the required limits. The internal standard areas were outside the required limits for samples:

SSI-SS11-5-SS (0-3)	(Areas 1 and 2)
SSI-SS11-5-SB1 (12-14)	(Areas 1, 2, and 3)
SSI-SS11-5-SB4 (72-75)	(Area 1)
SSI-SS9-1SS-6-9	(Areas 1, 2, 3, and 4)
SSI-SS9-1-SB1	(Areas 3, 4, and 5)
SSI-SS9-1-SB3-45-48	(Area 1)
SSI-SS9-2-6	(Areas 1, 2, 3, 4, 5, and 6)
SSI-SS9-SB1-12-14	(Areas 1, 2, and 3)
SSI-SS9-3-SB2-21-24	(Areas 1 and 2)
SSI-MW6-1-SS-0-3	(Areas 1, 2, and 3)
SSI-MW6-1-SS-0-3 dup	(Areas 1, 2, and 3)
SSI-MW6-1-SB4-72-75	(Areas 1, 2, 3, and 4)
SSI-MW6-2-6-9	(Areas 1, 2, and 3)
SSI-MW6-2-SB1-12-14	(Areas 1, 2, 3, and 4)
SSI-MW6-2-SB1-21-24	(Areas 1, 2, 3, and 4)
SSI-MW6-2-45-48	(Area 1)
SSI-MW6-2-72-74	(areas 1, 2, and 3)
SSI-MW6-2-SS-6-9	(Areas 1, 2, and 3)
SSI-MW6-3-SB1-12-14	(Areas 1, 2, 3, and 4)
SSI-MW6-3-SB3-45-48	(Area 2)

The internal standards were rerun for the above samples and the results of the rerun samples are as follows:

SSI-SS11-5-SS (0-3)	(Areas 1 and 2)	Use rerun (5M.13538)
SSI-SS11-5-SB1 (12-14)	(Areas 1, 2 and 3)	Use initial (5M.13501)
SSI-SS11-5-SB4 (72-75)	(Areas 1, 2, and 3)	Use initial (5M.13537)
SSI-SS9-1SS-6-9	(Area 1)	Use rerun (5M.13533)
SSI-SS9-1-SB1	(Areas 1, 2 and 3)	Use initial (5M.13432)
SSI-SS9-1-SB3-45-48	(Area 1)	Use rerun (5M.13428)
SSI-SS9-2-6	(Areas 1 and 2)	Use rerun (5M.13536)
SSI-SS9-SB1-12-14	All areas within limits	Use rerun (5M.13772)
SSI-SS9-3-SB2-21-24	All areas within limits	Use rerun (5M.13768)
SSI-MW6-1-SS-0-3	(Areas 1 and 2)	Use rerun (5M.13542)
SSI-MW6-1-SS-0-3 dup	(Area 1)	Use rerun (5M.13540)
SSI-MW6-1-SB4-72-75	(Areas 1 and 2)	Use rerun (5M.13558)
SSI-MW6-2-6-9	(Areas 1 and 2)	Use rerun (5M.13535)
SSI-MW6-2-SB1-12-14	(Areas 1, 2 and 3)	Use rerun (5M.13512)
SSI-MW6-2-SB1-21-24	(Areas 1, 2 and 3)	Use rerun (5M.13544)
SSI-MW6-2-45-48	(Area 1)	Use rerun (5M.13764)
SSI-MW6-2-72-74	(Areas 1 and 2)	Use rerun (5M.13539)
SSI-MW6-2-SS-6-9	(Areas 1 and 2)	Use rerun (5M.13541)
SSI-MW6-3-SB1-12-14	(Areas 1, 2 and 3)	Use rerun (5M.13513)
SSI-MW6-3-SB3-45-48	(Area 1)	Use rerun (5M.13452)

The initial analysis should not be reported or used for the following samples: SSI-SS111-5-SS (0-3), SSI-SS11-5-SB1 (12-14), SSI-SS9-1SS-6-9, SSI-SS9-1-SB3-45-48, SSI-SS9-2-6,

SSI-SS9-SB1-12-14, SSI-SS9-3-SB2-21-24, SSI-MW6-1-SS-0-3, SSI-MW6-SS-0-3 DUP, SSI-MW6-1-SB4-72-75, SSI-MW5-2-6-9, SSI-MW6-2-SB1-12-14, SSI-MW6-2-SB1-21-24, SSI-MW6-2-45-48, SSI-MW6-2-72-74, SSI-MW6-2-SS-6-9, SSI-MW6,-3-SB1-12-14, AND SSI-MW6-3-SB1-45-48. The laboratory file number indicated above should be used. No qualifiers are required for the rerun sample for SSI-SS9-SB1-12-14 (file 5M.13772) and SSI-SS9-3-SB2-21-24 (file 5M.13768).

For the following samples the qualifiers are required as indicated.

SSI-SS11-5-SS (0-3)

The initial analysis of the sample should not be reported or used. The file 5M.13538 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-SS11-5-SB1 (12-14)

The rerun analysis of the sample should not be reported or used. The file 5M.13501 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol

4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol
acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene
hexachlorocylclopentadiene

SSI-SS11-5-SB4 (72-75)

The initial analysis of the sample should not be reported or used. The file 5M.13537 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether

hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol
acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene
hexachlorocylclopentadiene

SSI-SS9-1SS-6-9

The initial analysis of the sample should not be reported or used. The file 5M.13533 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-SS9-1-SB1

The rerun analysis of the sample should not be reported or used. The file 5M.13432 should be used with the following parameters qualified with J:

Benzo[a]anthracene
Benzo[g,h,i]perylene
bis(2-ethylhexyl)phthalate
chrysene
fluoranthene

phenanthrene
pyrene

SSI-SS9-1-SB3-45-48

The initial analysis of the sample should not be reported or used. The file 5M.13428 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-SS9-2-6

The initial analysis of the sample should not be reported or used. The file 5M.13536 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-1-SS-0-3

The initial analysis of the sample should not be reported or used. The file 5M.13542 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-1-SS-0-3 dup

The initial analysis of the sample should not be reported or used. The file 5M.13540 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-MW6-1-SB4-72-75

The initial analysis of the sample should not be reported or used. The file 5M.13558 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol

4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-2-6-9

The initial analysis of the sample should not be reported or used. The file 5M.13535 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-2-SB1-12-14

The initial analysis of the sample should not be reported or used. The file 5M.13512 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol

2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol
acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene
hexachlorocylclopentadiene

SSI-MW6-2-SB1-21-24

The initial analysis of the sample should not be reported or used. The file 5M.13544 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol

acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol
acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene
hexachlorocylclopentadiene

SSI-MW6-2-45-48

The initial analysis of the sample should not be reported or used. The file 5M.13764 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-MW6-2-72-74

The initial analysis of the sample should not be reported or used. The file 5M.13539 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol

2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-2-SS-6-9

The initial analysis of the sample should not be reported or used. The file 5M.13541 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-3-SB1-12-14

The initial analysis of the sample should not be reported or used. The file 5M.13513 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol
acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene
hexachlorocylclopentadiene

SSI-MW6-3-SB3-45-48

The initial analysis of the sample should not be reported or used. The file 5M.13452 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)

2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

TARGET COMPOUND IDENTIFICATION

Sample SSI-SS11-3-SB1(12-14)

Naphthalene, 2-methylnapthalene, acenapthene, dibenzofuran, fluorene, phenantrhrene, anathracene carbaole, fluoranthene, pyrene, benzo[a]anthracene, chrysene, bis(2-ethylhexyl)phthalate, benzo[b]fluoranthene, benzo[k]fluoroanthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenzo[a,h]anthracene and benzo[g,h,i]perylene were detected, however the delta retention times were greater than the acceptable limits. These concentrations should be qualified with R.

Sample SSI-SS11-5-SS (0-3)

All compounds detected were correctly identified.

Sample SSI-419-13-SS (0-3)

Napthalene, dibenzofuran, fluorene, phenanthrene, anthracene, carbazole, fluoranthene, pyrene, benzo[a]anthracene, chrysene, bis(2-ethylhexyl)phthalate, benzo[b]fluornathene, bemz[k]fluoranthene, bemzo[a]pyrene, indeno[1,2,3-cd]pyrene, and dibenzo[a,h]anthracene were correctly identified. Benzo[g,h,i]perylene was detected, however the delta retention time was greater than the acceptable limit. The concentration should be qualified with R.

Sample SSI-SS9-1SS-6-9

All compounds detected were correctly identified.

Sample SSI-SS9-2-6

All compounds detected were correctly identified.

Sample SSI-SS9-SS-6-9

All compounds detected were correctly identified.

Sample SSI-MW6-1-SS-0-3

All compounds detected were correctly identified.

Sample SSI-MW6-1-SB3-45-48

Acetophenone, isophorone, naphthalene, 2-methylanaphthalene, 1,1-biphenyl, acenaphthene, dibenzofuran, fluoene, phenanthrene, anthracene carbazole, ci-n-butylphthalate, fluoranthene pyrene, benzo[a]anthracene, chrysene, bis(2-ethylhexy)phthalate, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, dibenzo[a,h]anthracene and benzo[g,h,i]perylene were detected, however the delta retention times were greater than the acceptable limit. These concentrations should be qualified with R.

Sample SSI-MW6-2-SB1-12-14

All compounds detected were correctly identified.

Sample SSI-MW6-3-SB1-12-14

All compounds detected were correctly identified.

OVERALL ASSESSMENT OF THE DATA

The data in this project, based on the above validation, are usable as reported with the following exceptions:

SSI-SS11-3-SB1(12-14)

The following compounds should be qualified with R:
Naphthalene
2-methylnapthalene
acenapthene
dibenzofuran
fluorene
phenantrhrene
anathracene
carbazole
fluoranthene
pyrene
benzo[a]anthracene
chrysene
bis(2-ethylhexyl)phthalate
benzo[b]fluoranthene
benzo[k]fluoroanthene
benzo[a]pyrene
indeno[1,2,3-cd]pyrene
dibenzo[a,h]anthracene
benzo[g,h,i]perylene .

SSI-SS11-5-SS (0-3)

The initial analysis of the sample should not be reported or used. The file 5M.13538 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-SS11-5-SB1 (12-14)

The rerun analysis of the sample should not be reported or used. The file 5M.13501 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine

naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol
acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene
hexachlorocylclopentadiene

SSI-419-13-SS (0-3)

The following compounds should be qualified with R

Benzo[g,h,i]perylene

SSI-SS11-5-SB4 (72-75)

The initial analysis of the sample should not be reported or used. The file 5M.13537 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine

naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol
acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene
hexachlorocylclopentadiene

SSI-SS9-1SS-6-9

The initial analysis of the sample should not be reported or used. The file 5M.13533 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-SS9-1-SB1

The rerun analysis of the sample should not be reported or used. The file 5M.13432 should be used with the following parameters qualified with J:

Benzo[a]anthracene
Benzo[g,h,i]perylene
bis(2-ethylhexyl)phthalate
chrysene
fluoranthene
phenanthrene
pyrene

SSI-SS9-1-SB3-45-48

The initial analysis of the sample should not be reported or used. The file 5M.13428 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-SS9-2-6

The initial analysis of the sample should not be reported or used. The file 5M.13536 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-1-SS-0-3

The initial analysis of the sample should not be reported or used. The file 5M.13542 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol

2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-1-SS-0-3 dup

The initial analysis of the sample should not be reported or used. The file 5M.13540 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-MW6-1-SB3-45-48

The following compounds should be qualified with R:

Acetophenone
Isophorone
Naphthalene
2-methylanaphthalene
1,1-biphenyl
acenaphthene
dibenzofuran
fluorene
phenanthrene
anthracene
carbazole
di-n-butylphthalate
fluoranthene

pyrene
benzo[a]anthracene
chrysene
bis(2-ethylhexy)phthalate
benzo[b]fluoranthene
benzo[k]fluoranthene
benzo[a]pyrene
indeno[1,2,3-cd]pyrene
dibenzo[a,h]anthracene
benzo[g,h,i]perylene

SSI-MW6-1-SB4-72-75

The initial analysis of the sample should not be reported or used. The file 5M.13558 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-2-6-9

The initial analysis of the sample should not be reported or used. The file 5M.13535 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol

4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-2-SB1-12-14

The initial analysis of the sample should not be reported or used. The file 5M.13512 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol

acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene
hexachlorocylclopentadiene

SSI-MW6-2-SB1-21-24

The initial analysis of the sample should not be reported or used. The file 5M.13544 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol
2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol
acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene

hexachlorocylclopentadiene

SSI-MW6-2-45-48

The initial analysis of the sample should not be reported or used. The file 5M.13764 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

SSI-MW6-2-72-74

The initial analysis of the sample should not be reported or used. The file 5M.13539 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-2-SS-6-9

The initial analysis of the sample should not be reported or used. The file 5M.13541 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)

2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol

SSI-MW6-3-SB1-12-14

The initial analysis of the sample should not be reported or used. The file 5M.13513 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2,4-dichlorophenol
2,4-dimethylphenol
2-chlorophenol
2-methylnapthalene
2-methylphenol
2-nitrophenol
4-chloro-3-methyphenol
4-chloroaniline
4-methylphenol
acetophenone
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
hexachlorobutadiene
hexachloroethane
isophorone
n-nitroso-di-n-propylamine
naphthalene
nitrobenzene
phenol
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrophenol

2,4-dinitrotoluene
2,6-dinitrotoluene
2-nitroaniline
4-chlorophenyl-phenylether
4-nitroaniline
4-nitrophenol
acenaphthene
acenaphthylene
dibenzofuran
diethylphthalate
dimehtylphthalate
fluorene
hexachlorocylclopentadiene

SSI-MW6-3-SB3-45-48

The initial analysis of the sample should not be reported or used. The file 5M.13452 should be used with the following parameters qualified with J:

2,2'-oxybis-(1-chloropropane)
2-chlorophenol
2-methylphenol
4-methylphenol
bis(2-chloroethyl)ether
hexachlorobutadiene
n-nitroso-di-n-propylamine
phenol

PCBs

PARTIAL VALIDATION

For pesticides and PCBs the following quality control measures were evaluated:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

HOLDING TIMES

All samples were extracted and analyzed within the required holding times.

BLANKS

No contamination was detected in the blanks.

SURROGATE RECOVERY

All surrogate recoveries for the blank samples were within the required quality control limits.

The surrogate recoveries were outside the quality control limits for samples:

SSI-SS11-3-SB1(12-14)	(DCB Surrogate, Column 2)
SSI-MW6-1-SB3-45-48	(DCB Surrogate, Column 2)

The following qualifiers are required based on surrogate recoveries:

SSI-SS11-3-CB1 (12-14)	Qualify Aroclor 1260, p,p'DDD, p,p-DDE and p,p-DDT with J
SSI-MW6-1-SB3-45-48	Qualify Aroclor 1260 and p,p'-DDD with J

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All spike recoveries were within acceptable limits. The relative percent differences for all compounds were within acceptable limits.

FIELD DUPLICATE

No field duplicates were collected for PCB analysis.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data, the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Compound identification
- Compound quatitation and reported detection limit

INSTRUMENT PERFORMANCE

The instrument performance check was performed as required.

CALIBRATION

INITIAL CALIBRATION

The initial calibration was performed as required. All retention time windows and relative percent standard deviations were within acceptable ranges.

CONTINUING CALIBRATION

Instrument blanks, individual standard mixtures and performance evaluation standards were run at the proper frequency. The retention times and percent differences were within the required limits.

TARGET COMPOUND IDENTIFICATION

Sample SSI-S11-3-SB1 (12-14)

All detected compounds were correctly identified.

Sample SSI-MW6-1-SB3 (45-48)

All detected compounds ere correctly identified.

COMPOUNDS QUANTITATION AND REPORTED DETECTION LIMITS

All detected concentrations for the six complete validation samples were calculated correctly. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA

The data in this project, based on the above validation are usable as reported with the following exceptions:

The undiluted sample for SSI-SS11-3-SB1 (12-14) should not be used.

SSI-SS11-3-SB1 (12-14)

The following compounds should be qualified with J:

Aroclor 1260
p,p'DDD
p,p-DDE
p,p-DDT

SSI-MW6-1-SB3-45-48

The following compounds should be qualified with J:
Aroclor 1260
p,p'-DDD with J

Environmental

Engineers & Scientists

DATA REVIEW FOR HCI PROJECT 5121302

INTRODUCTION

Twenty four soil samples and one aqueous sample were included in this project. All samples were collected on December 8, 2005 and were received in the laboratory on December 12, 2005.

The samples included in this project and the required organic analyses are:

SSI-419-3-SS (0-3")	PCBs
SSI-419-3-SB1 (12 – 14")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-3-SB2 (45 – 48")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-4-SS (0 – 3")	PCBs
SSI-419-5-SS (0 – 3")	PCBs
SSI-419-5-SB1 (12 – 14")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-5-SB2 (45 – 48")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-6-SS (0 – 3")	PCBs
SSI-419-7-SS (0 – 3")	PCBs
SSI-419-7-SB1 (12 – 14")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-7-SB2 (45 – 48")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-8-SS (0 – 3")	PCBs
SSI-419-14-SS (0 – 3")	TCL SVOCs
SSI-419-14-SB1 (12 – 14")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-14-SB2 (21 – 24")	TCL SVOCs
SSI-419-14-SB3 (45 – 48")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-14-SB4 (72 – 75")	TCL SVOCs
SSI-419-15-SS (0 – 3")	TCL SVOCs
SSI-419-15-SB1 (12 – 14")	TCL SVOCs
SSI-419-15-SB2 (21 – 24")	TCL SVOCs
SSI-419-SB3 (45 – 48")	TCL SVOCs
SSI-419-SB4 (72 – 75")	TCL SVOCs
SSI-MW5-2-SB1 (12 – 14")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-MW5-2-SB3 (45 – 48")	TCL VOCs, TCL SVOCs, PCB/Pesticides
FB-120805	TCL VOCs, TCL SVOCs, PCB/Pesticides

There is an error in the required analyses in the SDG narrative provided with the laboratory report. Volatile organics are listed in the narrative as required for samples SSI-419-14-SS (0 – 3"), SSI-419-14-SB2 (21 – 24"), SSI-419-SB4 (72 – 74"), SSI-419-15-SS (0 – 3"), SSI-419-15-SB1 (12 – 14"), SSI-419-15-SB2 (21 – 24"), SSI-419-SB3 (45 – 48"), and SSI-419-SB4 (72 – 74") but are not requested on the chain of custody forms. The analyses were not run.

There is a second error in the required analysis in the SDG narrative provided with the laboratory report. Pesticides and PCBs are listed in the narrative as being required for samples SSI-419-14-SS (0 – 3"), SSI-419-14-SB2 (21 – 24"), SSI-419-SB3 (45 – 48"), SSI-419-SB4 (72 – 75"), SSI-419-15-SS (0 – 3"), SSI-419-15-SB1 (12 – 14"), SSI-419-15-SB2 (21 – 24"), SSI-419-15-SB3 (45 – 48") and SSI-419-15-SB4 (72 – 75") but were not requested on the chain of custody forms. The analyses were not run.

Twenty percent of the samples collected were selected for complete validation. Five samples, SSI-419-SSB1 (12 – 14"), SSI-419-5-S2 (45 – 48"), SSI-419-7-SB2 (45 – 48"), SSI-419-14-SB1 (12 – 14") and SSI-MW5-2-SB1 (12 – 14") were selected for complete validation. The discussion in the partial validation section of this report applies to all samples in this project. The complete validation section applies only to the five complete validation samples.

VOLATILE ORGANICS

PARTIAL VALIDATION

For volatile organics the following quality control measures were evaluated during partial validation:

- Holding times
- Blanks
- Surrogate Recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

HOLDING TIMES

All samples were analyzed within the required holding times.

BLANKS

Methylene chloride was detected below the required detection limit in the daily blanks from December 14th and 15th. No qualification was applied.

No field blank was submitted for volatile organics. No trip blank was submitted as part of this SDG.

SURROGATE RECOVERY (SYSTEM MONITORING COMPOUND RECOVERY)

The recovery of the three system monitoring compounds were within acceptable limits for all blanks. The recovery of the three system monitoring compounds were within acceptable limits for all samples except as noted below.

The recovery of two of the system monitoring compounds (toluene-d8 and 4-bromofluorobenzene) were outside the acceptable limits for sample SSI-419-3-SB2 (45 – 48"). The sample was rerun and one system monitoring compound (toluene-d8) was outside the acceptable limit. The data for the initial sample analyses should not be used. The results for the rerun sample should be reported and used with the following parameters qualified with "J":

Acetone 0.0296 J
Methylene Chloride 0.0342 BJ

Tetrachloroethene 0.0205 J
Toluene 0.0306 J

The recovery of one of the system monitoring compounds (toluene-d8) was outside the acceptable limits for sample SSI-419-S-SB1 (12 – 14"). The sample was rerun and all system monitoring compounds were within acceptable limits. The data for the initial sample analyses should not be used. The results for the rerun samples should be reported and used. No qualifiers are required.

The recovery of one of the system monitoring compounds (toluene-d8) was outside the acceptable limits for sample SSI-419-7-SB1 (12 -14"). The sample was rerun and two system monitoring compounds (toluene-d8 and 1,2-dichloroethane-d4) were outside the acceptable limits. The data for the rerun sample should not be used. The data for the initial samples analysis should be used with the following compounds qualified with "J":

Methylene chloride 0.0496 BJ
Toluene 0.0276 J

The recovery of one of the system monitoring compounds (toluene-d8) was outside the acceptable limits for sample SSI-419-14-SB1 (12 – 14"). The sample was rerun and all system monitoring compounds were within acceptable limits. The data for the initial sample analysis should not be used. The results for the rerun sample should be reported and used. No qualifiers are required.

The recovery of two of the system monitoring compounds (1,2-dichloroethane d-4, and toluene-d8) were outside of the acceptable limits for sample SSI-419-14-SB3 (45-48"). The sample was rerun and both system monitoring compounds were still outside the acceptable limits. Based on the results, the rerun analyses should not be used. The initial analyses should be reported and used. With the following compounds qualified:

Acetone 0.0815 J
Methylene chloride 0.0626 BJ
Tetrachloroethene 0.0489 J
Toluene 0.0828 J

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All spike recoveries were within acceptable limits. All relative percent differences were within acceptable limits.

FIELD DUPLICATES

No filed duplicates were collected for volatile organics analyses.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal Standards performance
- Target compound list compound identification
- Compound quantitation and reported detection limits

INSTRUMENT PERFORMANCE

The instrument performance check was performed at the required frequency and ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

The relative response factor for 1,1,2,2-tetrachloroethane was out of the acceptable range. All relative percent standard deviations (%RSD) are within acceptable ranges for all parameters. No qualifiers were applied.

CONTINUING CALIBRATION

The relative response factors for 1,1,2,2-tetrachloroethane and 1,3-dichlorobenzene were out of the acceptable range. All percent differences were within acceptable ranges. No qualifiers were applied.

INTERNAL STANDARD PERFOMANCE

Internal standard retention times were within the required limits.

Internal standard areas were outside the required limits for samples SSI-419-3-SB2 (45 – 48"), SSI-419-7-SB1 (12 – 14"), SSI-419-14-SB1 (12 – 14"), and SSI-419-14-SB3 (45 -48"). The samples were rerun.

The areas for all three internal standards were outside the required limits for sample SSI-419-3-SB2 (45-48"). The sample was rerun and the areas for two of the internal standards (bromochloromethane and 1,4-difluorobenzene) were outside the required limits. The results from the initial sample should not be reported or used. The following parameters should be qualified with "J":

Chloromethane
Bromomethane
Vinyl chloride
Chloroethane
Methylene chloride
Acetone
Carbon disulfide

1,1-dichloroethene
1,1-dichloroethane
Cis-1,2-dichloroethene
Trans-1,2-dichloroethene
Chloroform
1,2-dichloroethane
2-butanone
1,1,1-Trichloroethane
Carbon tetrachloride
Bromodichloromehtane
1,2-Dichloropropane
Trans-1,3-dichloropropene
Trichloroethene
Dibromochloromethane
1,1,2-Trichloroethane
Benzene
Cis-1,3-dichloropropene
Bromoform

The area for one internal standard (1,4-difluorobenzene) was outside the required limits for sample SSI-419-7-SB1 (12-14"). The sample was rerun and all areas were within the required limits. The results from the initial analyses should not be reported or used. No qualifiers are required for the rerun sample.

The area for one internal standard (1,4-difluorobenzene) was outside the required limits for sample SSI-419-14-SB1 (12-14"). The sample was rerun and all areas were within the required limits. The results from the initial analyses should not be reported or used. No qualifiers are required for the rerun sample

The areas for two internal standards (bromochloromethane and 1,4-difluorobenzene) for sample SSI-419-SB3 (45 – 48") were outside the required limits. The sample was rerun and the same two areas were outside the required limits as for the initial analysis. The results for the initial sample should not be reported or used. The results from the rerun analysis should be qualified with "J":

Chloromethane
Bromomethane
Vinyl chloride
Chloroethane
Methylene chloride
Acetone
Carbon disulfide
1,1-dichloroethene
1,1-dichloroethane
Cis-1,2-dichloroethene
Trans-1,2-dichloroethene
Chloroform
1,2-dichloroethane

2-butanone
1,1,1-Trichloroethane
Carbon tetrachloride
Bromodichloromehtane
1,2-Dichloropropane
Trans-1,3-dichloropropene
Trichloroethene
Dibromochloromethane
1,1,2-Trichloroethane
Benzene
Cis-1,3-dichloropropene
Bromoform

TARGET COMPOUND IDENTIFICATION

Sample SSI-419-3-SS (0 – 3")

Acetone, methylene chloride, tetrachloroethene and toluene were correctly identified. No other compounds were detected.

Sample SSI-419-5-SB2 (45 -48")

Acetone, methylene chloride, tetrachloroethene and toluene were correctly identified. No other compounds were detected.

Sample SSI-419-7-SB2 (45 – 48")

Acetone, methylene chloride, tetrachloroethene and toluene were correctly identified. No other compounds were detected.

Sample SSI-419-14-SB1 (12 – 14")

Methylene chloride, tetrachloroethene and toluene were correctly identified. No other compounds were detected.

Sample SSI-MW5-2-SB1 (12 -14")

Acetone, methylene chloride and toulene were correctly identified. No other compounds were detected.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All concentrations were calculated correctly for the five complete validation samples. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA

The data in this project, based on the above validation are usable as reported with the following exceptions:

SSI-419-3-SB2 (45-48")

The results of the analysis for the initial sample should not be used or reported. The results of the rerun of the sample should be reported and used with the following parameters qualified with J:

Acetone
Methylene Chloride
Tetrachloroethene
Toluene
Chloromethane
Bromomethane
Vinyl chloride
Chloroethane
Carbon disulfide
1,1-dichloroethene
1,1-dichloroethane
Cis-1,2-dichloroethene
Trans-1,2-dichloroethene
Chloroform
1,2-dichloroethane
2-butanone
1,1,1-Trichloroethane
Carbon tetrachloride
Bromodichloromehtane
1,2-Dichloropropane
Trans-1,3-dichloropropene
Trichloroethene
Dibromochloromethane
1,1,2-Trichloroethane
Benzene
Cis-1,3-dichloropropene
Bromoform

SSI-419-S-SB1 (12 – 14")

The results of the initial sample analysis should not be used or reported. The results of the rerun of the sample should be reported and used without any qualifiers.

SSI-419-7-SB1 (12 – 14")

The results of the analysis of the rerun sample should not be used or reported. The results of the initial analysis of the sample should be reported and used with the following parameters qualified with J:

Methylene chloride
Toluene

SSI-419-14-SB1 (12 – 14")

The results of the initial sample analysis should not be used or reported. The results of the rerun of the sample should be reported and used without any qualifiers.

SSI-419-14-SB3 (45 – 48")

The results of the initial sample analysis should not be used or reported. The results of the rerun of the sample should be reported and used with the following parameters qualified with J:

Acetone
Methylene chloride
Tetrachloroethene
Toluene
Chloromethane
Bromomethane
Vinyl chloride
Chloroethane
Carbon disulfide
1,1-dichloroethene
1,1-dichloroethane
Cis-1,2-dichloroethene
Trans-1,2-dichloroethene
Chloroform
1,2-dichloroethane
2-butanone
1,1,1-Trichloroethane
Carbon tetrachloride
Bromodichloromehtane
1,2-Dichloropropane
Trans-1,3-dichloropropene
Trichloroethene
Dibromochloromethane
1,1,2-Trichloroethane
Benzene
Cis-1,3-dichloropropene
Bromoform

SEMIVOLATILE ORGANICS

PARTIAL VALIDATION

For semivolatile organics the following quality control measures were evaluated during partial validation:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicatae
- Overall assessment of data

HOLDING TIMES

All samples were extracted and analyzed within the required holding times.

BLANKS

Two soil matrix blanks and one aqueous matrix blank were run as part of this SDG. Bis-2-ethylhexylphthalate was detected in the aqueous method blank. All other parameters were not detected.

Bis-2-ethylhexylphthalate and di-n-butylpthalate were detected in both soil matrix blanks. In addition tentatively identified compounds (TICs) were detected in both soil matrix blanks.

One field blank was analyzed as part of this SDG. Bis-2-ethylhexylphthalate was detected in the field blank.

No qualifiers were applied based on the blanks.

SURROGATE RECOVERY (SYSTEM MONITORING COMPOUND)

The recoveries of the eight surrogates were within acceptable limits for all blanks and samples with the exception of Nitrobenzene-d5 for the water matrix blank WMB0023C, 2-fluorophenol for sample SSI-419-5-SB1 (12 – 14"), and phenol-d5 for sample SSI-419-14-SB1 (12-14").

No qualifiers were applied based on the surrogate recoveries.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

The recovery of pentachlorophenol for the MSD was out of the acceptable range as was the relative percent difference (RPD). The recovery of 4-chloro-3-methylphenol was out of the acceptable range.

The recovery of 4-nitrophenol and pentachlorophenol for the aqueous matrix blank was outside of the acceptable ranges.

No qualifiers were applies base on spike recoveries and RPDs.

FIELD DUPLICATE

No field duplicate was collected for semivolatile organics.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal standard performance
- Target compound list (TCL) compound identification
- Compound quantitation and reported detection limits

INSTRUMENT PERFORMANCE

The instrument performance check was performed at the required frequency and the ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

Initial calibrations were performed. The relative response factors and percent differences of the response factors were within acceptable limits.

CONTINUING CALIBRATION

Continuing calibrations were run as required. The relative response factors were within acceptable ranges for all parameters. The pentachlorophenol and 2,2'-oxybis(1-chloropropane) percent differences on continuing calibration file 5M13519.D (run 12/23/05) were out of the acceptable range.

No qualifiers were applied based on the continuing calibration.

INTERNAL STANDARD PERFORMANCE

Internal standard retention times were within the required limits. The internal standard areas were outside the required limits for samples:

SSI-419-15-SB1 (12 – 14) (Areas 1 and 2)
SSI-419-15-SB2 (21 – 24") (Area 1)
SSI-419-SB4 (72 – 75") (Areas 1 and 2)
SSI-MW5-2-SB1 (12 – 14") (Areas 1, 2, and 3)
SSI-419-3-SB1 (12 – 14") (Areas 1, 2, and 3)
SSI-419-3-SB2 (45 – 48") (Areas 1 and 2)
SSI-419-7-SB1 (12 – 14") (Areas 1 and 2)
SSI-419-14-SS (0 – 3") (Areas 1, 2, and 3)
SSI-419-14-SB1 (12 – 14") (Areas 1 and 2)
SSI-419-14-SB2 (21 – 24") (Areas 1, 2, and 3)
SSI-419-15-SS (0 – 3") (Area 1)
SSI-MW5-2-SB3 (45 – 48") (Areas 1, 2, and 3)

The internal standards were rerun for the above samples and the rerun areas were all within acceptable limits.

The initial analysis for the above samples should not be reported or used. The latest analysis for each sample should be reported and used.

No qualifiers are required.

TARGET COMPOUND IDENTIFICATION

Sample SSI-419-3-SB1 (12 – 14")

All compounds detected were correctly identified.

Sample SSI-419-5-SB2 (45 – 48")

All compounds detected were correctly identified.

Sample SSI-419-7-SB2 (45 – 48")

All compounds detected were correctly identified.

Sample SSI-419-14-SB1 (12 -14")

All compounds detected were correctly identified.

Sample SSI-MW5-2-SB1 (12 – 14")

All compounds detected were correctly identified.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMIT

All concentrations for samples SSI-419-3-SB1 (12 – 14"), SSI-419-5-SB2 (45-48"), SSI-7-SB2 (45-48"), SSI-419-14-SB1 (12 – 14"), and SSI-MW5-2-SB1 (12-14") were calculated correctly. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA

The data in this project based on the above validation, are usable as reported with the following exceptions:

The initial analysis of the following samples should not be reported or used. The last analysis of these samples should be used.

SSI-419-15-SB1 (12 – 14)
SSI-419-15-SB2 (21 – 24")
SSI-419-SB4 (72 – 75")
SSI-MW5-2-SB1 (12 – 14")
SSI-419-3-SB1 (12 – 14")
SSI-419-3-SB2 (45 – 48")
SSI-419-7-SB1 (12 – 14")
SSI-419-14-SS (0 – 3")
SSI-419-14-SB1 (12 – 14")
SSI-419-14-SB2 (21 – 24")
SSI-419-15-SS (0 – 3")
SSI-MW5-2-SB3 (45 – 48")

PESTICIDES AND PCBs

PARTIAL VALIDATION

For pesticides and PCBs the following quality control measures were evaluated:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

HOLDING TIMES

All samples were extracted and analyzed within the required holding times.

BLANKS

No contamination was detected in the blanks.

SURROGATE RECOVERY

All surrogate recoveries for the blank samples were within the required quality control limits.

The surrogate recoveries were outside the quality control limits for samples:

SSI-419-7-SB1 (12 – 14") (DCB surrogate, Column 2)
SSI-419-14-SB1 (12 – 14") (DCB surrogate, Column 2)
SSI-419-4-SS (0 – 3") (TCMX surrogate, Columns 1 and 2)
SSI-419-5-SS (0 – 3") (DCB surrogate, Column 2)
SSI-419-6-SS (0 – 3") (DCB surrogate, Columns 1 and 2)
SSI-419-7-SS (0 – 3") (DCB surrogate, Columns 1 and 2)
SSI-419-8-SS (0 – 3") (DCB surrogate, Columns 1 and 2)

The following qualifiers are required based on surrogate recoveries:

SSI-419-7-SB1 (12 – 14") – Qualify p,p'-DDE and p,p'-DDT with J
SSI-419-14-SB1 (12 – 14") – Qualify p,p'-DDT with J
SSI-419-4-SS (0 – 3") – Qualify all PCB Aroclors with J
SSI-419-5-SS (0 – 3") – Qualify Aroclor 1260 with J
SSI-419-6-SS (0 – 3") – Qualify Aroclor 1260 with J
SSI-419-7-SS (0 – 3") – Qualify Aroclor 1260 with J
SSI-419-8-SS (0 – 3") – Qualify Aroclor 1260 with J

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All spike recoveries were within acceptable limits. The relative percent differences for all compounds were within acceptable limits.

FIELD DUPLICATE

No field duplicate was collected for pesticides and PCBs.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data, the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Compound identification
- Compound quatitation and reported detection limit

INSTRUMENT PERFORMANCE

The instrument performance check was performed as required.

CALIBRATION

INITIAL CALIBRATION

The initial calibration was performed as required. All retention time windows and relative percent standard deviations were within acceptable ranges.

CONTINUING CALIBRATION

Instrument blanks, individual standard mixtures and performance evaluation standards were run at the proper frequency. The retention times and percent differences were within the required limits.

TARGET COMPOUND IDENTIFICATION

Sample SSI-419-3-SB1 (12 – 14")

Aldrin, a-chlordane, dieldrin, p,p'-DDT and y-chlordane were correctly identified. The retention time on one column for Aroclor 1260 was outside the required limit. Aroclor 1260 was considered to be identified correctly although one peak on column 2 was ouside the retention time window. All other peaks were within the required retention time window.

Sample SSI-419-5-SB2 (45 – 48")

No compounds were detected.

Sample SSI-419-7-SB2 (45 – 46")

No compounds were detected.

Sample SSI-MW5-2-SB1 (12 -14")

No compounds were detected.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All detected concentrations for the four complete validation samples were calculated correctly. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA

The data in this project based on the above validation are usable as reported with the following exceptions:

SSI-419-7-SB1 (12 – 14") – Qualify p,p'-DDE and p,p'-DDT with J
SSI-419-14-SB1 (12 – 14") – Qualify p,p'-DDT with J
SSI-419-4-SS (0 – 3") – Qualify all PCB Aroclors with J
SSI-419-5-SS (0 – 3") – Qualify Aroclor 1260 with J

SSI-419-6-SS (0 – 3") – Qualify Aroclor 1260 with J
SSI-419-7-SS (0 – 3") – Qualify Aroclor 1260 with J
SSI-419-8-SS (0 – 3") – Qualify Aroclor 1260 with J

Environmental

Engineers & Scientists

DATA REVIEW FOR HCI PROJECT 5121404

INTRODUCTION

Twenty soil samples and four aqueous samples were included in this project. All samples were collected on December 12, 2005 and received in the laboratory on December 13, 2005.

The samples included in this project and the required organic analyses are:

SSI-419-1-SB1 (12-14")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-1-SB2 (21-24")	PCB
SSI-419-1-SB2 (21-24")DUP	PCB
SSI-419-1-SB3 (33-36")	PCB
SSI-419-1-SB3 (33-36")DUP	PCB
SSI-419-1-SB4 (45-48")	PCB
SSI-419-1-SB4 (45-48")MS	PCB
SSI-419-1-SB4 (45-48")MSD	PCB
SSI-419-2-SB1 (21-24")	PCB
SSI-419-2-SB2 (33-36")	PCB
SSI-419-9-SS (0-3")	PCB
SSI-419-9-SB1 (12-14")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-9-SB2 (45-48")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-10-SS (0-3")	PCB
SSI-419-11-SS (0-3")	PCB
SSI-419-11-SB1 (12-14")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-11-SB2 (45-48")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-12-SS (0-3")	PCB
SSI-419-16-SB1 (12-14")	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-419-16-SB2 (45-48")	TCL VOCs, TCL SVOCs, PCB/Pesticides
FB-121205	TCL VOCs, TCL SVOCs, PCB/Pesticides
FB-120805	TCL VOCs
TB-120805	TCL VOCs
TB-121205	TCL VOCs

There was an error in the SDG narrative provided with the laboratory report. The samples FB-121205, FB-120805, TB120805, TB121205 were listed as soil samples although they were aqueous samples.

Twenty percent of the samples collected were selected for complete validation. Three samples, SSI-419-1-SB1 (12-14"), SSI-419-9-SB1 (12-14"), SSI-419-11-SB2 (45-48") and SSI-419-16-SB2 (45-48") were selected for complete validation. The discussion in the partial validation section of this report applies to all samples in this project. The complete validation section applies only to the three complete validation samples.

VOLATILE ORGANICS

PARTIAL VALIDATION

For volatile organics the following quality control measures were evaluated during partial validation:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

HOLDING TIMES

All samples were analyzed within the required holding times.

BLANKS

Methylene chloride was detected below the required detection limit in the soil daily blank from December 22nd. Hexane was also detected as a tentatively identified compound in the same blank below the required detection limit. No qualifiers were applied.

Methylene chloride and toluene were detected in the trip blanks from December 8th and December 12th at concentrations below the required detection limit. No qualifiers were applied.

SURROGATE RECOVERY (SYSTEM MONITORING COMPOUND RECOVERY)

The recovery of the three system monitoring compounds were within acceptable limits for all blanks. The recovery of the three system monitoring compounds were within acceptable limits for all samples except as noted below:

The recovery of two of the system monitoring compounds (toluene-d8, and 4-bromofluorobenzne were outside the acceptable limits for sample SSI-419-1-SB1 (12-14"). The sample was rerun and one system monitoring compound (4-bromofluoromethane) was outside the acceptable limit. The data for the initial sample should not be used. The results for the rerun sample, both detected and non-detected compounds should be qualified with J.

The recovery of one of the system monitoring compounds (toluene-d8) was outside the acceptable limits for sample SSI-419-9-SB1 (12-14"). The sample was rerun and one system monitoring compound (toluene-d8) was outside the acceptable limit. The data for the initial sample should not be used. The results for the rerun sample, both detected and non-detected compounds, should be qualified with J.

The recovery of one of the system monitoring compounds (toluene-d8) was outside the acceptable limits for sample SSI-419-11-SB2 (45-48"). The sample was rerun and one system

monitoring compound (toluene-d8) was outside the acceptable limit. The data for the rerun sample should not be used. The results for the initial sample, both detected and non-detected compounds, should be qualified with J.

The recovery of two of the system monitoring compounds (toluene-d8 and 4-bromofluorobenzene were outside the acceptable limits for sample SSI-419-15-SB1 (12-14"). The sample was rerun and two system monitoring compounds (toluene-d8 and 4-bromofluorobenzene) were outside the acceptable limits. The data for the rerun sample should not be used. The results for the initial sample, both detected and non-detected compounds, should be qualified with J.

The recovery of one of the system monitoring compounds (4-bromofluorobenzene) was outside the acceptable limits for sample SSI-419-16-SB2 (45-48"). The sample was rerun and one system monitoring compound (4-bromofulorobenzene) was outside the acceptable limits. The data for the rerun sample should not be used. The results for the initial sample, both detected and non-detected compounds, should be qualified with J.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All spike recoveries were within acceptable limits. All relative percent differences were within acceptable limits.

FIELD DUPLICATES

No field duplicates were collected for volatile organics.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal standard performance
- Target compound list compound identification
- Compound quantitation and reported detection limits

INSTRUMENT PERFORMANCE

The instrument performance test was performed at the required frequency and ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

The percent relative standard deviation for bromomethane exceeded the acceptable limit for the initial calibration for the aqueous samples. No qualifiers were applied.

The relative response factor for trichloroethene, 1,1,2,2-tetrachloroethane and 1,3-dichlorobenzene were outside the acceptable range for the soil initial calibration. All percent relative standard deviations were within the acceptable range. No qualifiers were applied.

CONTINUING CALIBRATION

All relative response factors and relative percent standard deviations were within acceptable ranges for all parameters.

INTERNAL STANDARDS

Internal standard retention times were within the required limits.

Internal standard areas were outside the acceptable limits for samples SSI-419-16-SB1 (12-14") and SSI-419-16-SB2 (45-48"). The samples were rerun.

The area for one internal standard (chlorobenzene-d8) was outside the required limits for sample SSI-419-16-SB1 (12-14"). The sample was rerun and the area for one internal standard (chlorobenzene-d8) was outside the acceptable limits. The results from the rerun sample should not be reported or used. The following compounds for the initial analyses should be qualified with J:

2-Hexanone
4-Methyl-2-pentanone
Tetrachloroethene
1,1,2,2-Tetrachloroethane
Toluene
Chlorobenzene
Ethylbenzene
Syrene
o-Xylene
m&p-Xylene

The area for one internal standard (chlorobenzene-d8) was outside the required limits for sample SSI-419-16-SB2 (45-48"). The sample was rerun and the area for one internal standard (chlorobezene-d8) was outside the acceptable limits. The results from the rerun sample should not be reported or used. The following compounds for the initial analyses should be qualified with J:

2-Hexanone
4-Methyl-2-pentanone

Tetrachloroethene
1,1,2,2-Tetrachloroethane
Toluene
Chlorobenzene
Ethylbenzene
Syrene
o-Xylene
m&p-Xylene

TARGET COMPOUND IDENTIFICATION

Sample SSI-419-1-SB1 (12-14")

Methylene chloride and toluene were correctly identified. No other compounds were detected.

Sample SSI-419-9-SB1 (12-14")

Methylene chloride was correctly identified. No other compounds were detected.

Sample SSI-419-11-SB2 (45-48")

Methylene chloride was correctly identified. No other compounds were detected.

Sample SSI-419-16-SB2 (45-48")

Methylene chloride and toluene were correctly identified. No other compounds were detected.

COMPOUND DETECTION AND REPORTED DETECTION LIMITS

All concentrations were calculated correctly for the five complete validation samples. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA

The data in this project, based on the above validation, are usable as reported with the following exceptions:

SSI-419-1-SB1

The result of the initial sample should not be used or reported. The results of the rerun of the sample should be reported and used with all parameters qualified with J.

SSI-419-9-SB2 (45-48")

The result of the initial sample should not be used or reported. The results of the rerun of the sample should be reported and used with all parameters qualified with J.

SSI-419-11-SB2 (45-48")

The results for the rerun sample should not be used or reported. The results of the initial analysis of the sample should be reported and used with all parameters qualified with J.

SSI-419-16-SB1 (12-14")

The results for the rerun sample should not be used or reported. The results of the initial analysis of the sample should be reported and used with all parameters qualified with J.

SSI-419-16-SB2 (45-48")

The results for the rerun sample should not be used or reported. The results of the initial analysis of the sample should be reported and used with all parameters qualified with J.

SEMIVOLATILE ORGANICS

PARTIAL VALIDATION

For semivolatile organics the following quality control measures were evaluated during partial validation:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicatae
- Overall assessment of data

HOLDING TIMES

All samples were extracted and analyzed within the required holding times.

BLANKS

One soil matrix blank and one aqueous matrix blank were run as part of this SDG. Bis-2-ethylhexylphthalate was detected in the aqueous method blank below the required detection limit. One tentatively identified compound (TIC) was detected in the aqueous method blank.

Bis-2-ethylhexylphthalate and di-n-octylphthalate were detected in the soil matrix blank below the required detection limits. TICs were also detected in the soil matrix blank.

One field blank was analyzed for semivolatile organics. Bis-2-ethylhexylphthalate and di-n-octylphthalate were detected in the field blank.

No qualifiers were applied based on the blanks.

SURROGATE RECOVERY (SYSTEM MONITORING COMPOUND)

The recovery of the eight surrogates were within acceptable limits for all blanks and samples with the following exceptions:

The recovery of nitrobenzene-d5 was out of the range for the aqueous method blank, WMB0023C. The recovery of 2,4,6-tribromophenol was out of the acceptable range for sample SSI-419-11-SB1 (12-14"). The recovery of phenol-d5 was out of the acceptable range for sample SSI-419-1-SB1 (12-14"). The recovery of 2-fluorophenol and 2,4,6-tribromophenol were out of the acceptable range for sample SSI-419-9-SB1 (12-14").

No qualifiers were applied based on the surrogate recoveries.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The recovery of N-nitroso-di-npropylamine and pyrene for the MSD was out of the acceptable range. The relative percent difference (RPD) was out of the acceptable range for phenol, n-nitroso-di-npropylamine, 4-chloro-3-methylphenol, acenaphthene, 2,4-dinitrotoluene, pentachlorophenol and pyrene.

No qualifiers were applied based on spike recoveries and RPDs.

FIELD DUPLICATE

No field duplicate was collected for semivolatile organics.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal standard performance
- Target compound list (TCL) compound identification
- Compound quantitation and reported detection limits

INSTRUMENT PERFORMANCE

The instrument performance check was performed at the required frequency and the ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

Initial calibrations were performed. The relative response factors and percent differences of the response factors were within acceptable limits.

CONTINUING CALIBRATION

Continuing calibrations were run as required. The relative response factors were within acceptable ranges for all parameters. The pentachlorophenol and 2,2-oxybis(1-chloropropane) percent differences on continuing calibration file 5M13519.D (run on 12/23/05) were out of the acceptable range. The pentachlorophenol percent differences on continuing calibration files 5M13756.D (run of 12/29/05) and 5M13555.D (run on 12/14/05) were out of the acceptable range. The 2,2-oxybis(1-chloropropane) percent differences on continuing calibration file 5M13443.D (run 12/21/05) were out of the acceptable range.

No qualifiers were applied based on the continuing calibration.

INTERNAL STANDARD PERFORMANCE

Internal standard retention times were within required limits. The internal standard areas were outside the required limits for sample SSI-419-1-SB1 (12-14") (Areas 1 and 5). The sample was rerun and the internal standard for areas 5 and 6 were outside of acceptable limits. The results for the initial analysis should not be used. The detected compounds, benzo[a]anthracene, bis-2-ethylhexylphthalate, chrysene, pyrene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, dibenzo[a,h]anthracene, indeno[1,2,3-cd]pyrene, and bezo[k]fluoranthene should be qualified with J.

TARGET COMPOUND IDENTIFICATION

Sample SSI-419-1-SB1 (12-14")

All compounds detected were correctly identified.

Sample SSI-419-9-SB1 (12-14")

No compounds were detected.

Sample SSI-419-11-SB2 (45-48")

All compounds detected were correctly identified.

Sample SSI-419-16-SB2 (45-48")

All compounds detected were correctly identified.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All concentrations for samples SSI-419-SB1 (12-14"), SSI-419-9-SB1 (12-14"), SSI-419-11-SB2 (45-48") and SSI-419-16-SB2 (45-48") were calculated correctly. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA

The data in this project, based on the above validation, are usable as reported with the following exceptions:

The initial analysis from sample SSI-419-1-SB1 (12-14") should not be reported or used. The following compounds for the rerun sample should be qualified with J:

benzo[a]anthracene
bis-2-ethylhexylphthalate
chrysene
pyrene,
benzo[a]pyrene
benzo[b]fluoranthene
benzo[g,h,i]perylene
dibenzo[a,h]anthracene
indeno[1,2,3-cd]pyrene
bezo[k]fluoranthene

PESTICIDES AND PCBS

PARTIAL VALIDATION

For pesticides and PCBs the following quality control measures were evaluated:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

HOLDING TIMES

All samples were extracted and analyzed within the required holding times.

BLANKS

No contamination was detected in the blanks.

SURROGATE RECOVERY

All surrogate recoveries for the blank samples were within the required quality control limits.

The surrogate recoveries were outside the quality control limits for sample:

SSI-419-1-SB1 (12-14") (DCB surrogate, Columns 1 and 2)

The following qualifiers are required based on surrogate recoveris:

SSI-419-1-SB1 (12-14") – Qualify p,p-DDT, endosuulfan II and Aroclor 1260 with J

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All spike recoveries were with in acceptable limits. The relative percent differences for all compounds were within acceptable limits.

FIELD DUPLICATE

Two field duplicates were analyzed for PCBs.

The relative percent difference between the detected Aroclor 1260 concentrations reported for the two samples from SSI-419-1-SB2 exceeded the 50% requirement for soil samples.

The relative percent difference between the detected Aroclor 1260 concentrations reported for the two samples from SSI-419-1-SB3 was within the required limits.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data, the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Compound identification
- Compound quatitation and reported detection limit

INSTRUMENT PERFORMANCE

The instrument performance check was performed as required.

CALIBRATION

INITIAL CALIBRATION

The initial calibration was performed as required. All retention time windows and relative percent standard deviations were within acceptable ranges.

CONTINUING CALIBRATION

Instrument blanks, individual standard mixtures and performance evaluation standards were run at the proper frequency. The retention times and percent differences were within the required limits.

TARGET COMPOUND IDENTIFICATION

Sample SSI-419-1-SB1 (12-14")

All detected compounds were correctly identified.

Samples SSI-419-9-SB1 (12-14")

No compounds were detected.

Samples SSI-419-11-SB2 (45-48")

All detected compounds were correctly identified.

Samples SSI-419-16-SB2 (45-48")

All detected compounds were correctly identified.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All detected concentrations for the four complete validation samples were calculated correctly. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF THE DATA

The data in this project, based on the above validation are usable as reported with the following exceptions:

SSI-419-1-SB1 (12-14") – Qualify p,p-DDT, endosuulfan II and Aroclor 1260 with J

Environmental

Engineers & Scientists

DATA REVIEW FOR HCI PROJECT 5122101

INTRODUCTION

Three soil samples and seven aqueous samples were included in this project. All samples were collected on December 19, 2005 and received in the laboratory on December 21, 2005.

The samples included in this project and the required organic analyses are:

SSI-MW-4SR	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-MW-4SR MS	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-MW-4SR MSD	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-MW-4DR	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-MW-4DR DUP	TCL VOCs, TCL SVOCs, PCB/Pesticides
FB	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-SEDMW-3-1	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-SEDMW-12-1	TCL VOCs, TCL SVOCs, PCB/Pesticides
SSI-SEDMW-6-1	TCL VOCs, TCL SVOCs, PCB/Pesticides
TB	TCL VOCs

Twenty percent of the samples collected were selected for complete validation. Two samples SSI-MW-4SR and SSI-SEDMW-12-1 were selected for complete validation. The discussion in the partial validation section of this report applies to all samples in this project. The complete validation section applies only to the two complete validation samples.

VOLATILE ORGANICS

PARTIAL VALIDATION

For volatile organics the following quality control measures were evaluated during partial validation:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

HOLDING TIMES

All samples were analyzed within the required holding times.

BLANKS

Methylene chloride was detected below the required detection limit in the daily blank from December 28th. No qualifiers were applied.

Methylene chloride and toluene were detected below the required detection limit in the field blank. No qualifiers were applied.

No volatile organics were detected in the trip blank.

SURROGATE RECOVERY (SYSTEM MONITORING COMPOUND RECOVERY)

The recovery of the three system monitoring compounds were within acceptable limits for all blanks. The recovery of the three system monitoring compounds were within acceptable limits for all samples except as noted below.

The recovery of one of the system monitoring compounds (4-bromofluorobenzene) was out of the acceptable limits for sample SSI-MW-4DR DUP. The sample was rerun and one of the system monitoring compounds (4-bromofluorobenzene was out of the acceptable limits. The data for the rerun sample should not be used. The data for the initial samples, both detected and non-detected compounds should be qualified with J.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All spike recoveries were within acceptable limits. All relative percent differences were within acceptable limits.

FIELD DUPLICATES

One aqueous field duplicate was collected for volatile organics analyses. The relative percent difference for toluene, the only detected volatile organic, was within the acceptable range.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal standard performance
- Target compound list compound identification
- Compound quantitation and reported detection limits

INSTRUMENT PERFORMANCE

The instrument performance test was performed at the required frequency and ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

The relative response factors for trichloroethene, 1,1,2,2-tetrachloroethane, and 1,3-dichlorobenzene were outside of the acceptable limits for the soil initial calibration performed on December 28th. No qualifiers were applied.

The relative response factor for 1,1,2-2-tetrachloroethane was outside the acceptable limits for the soil initial calibration performed on December 22nd. No qualifiers were applied.

The percent relative standard deviation for bromomethane exceeded the acceptable limits for the aqueous initial calibration performed on December 20th. No qualifiers were applied.

CONTINUING CALIBRATION

All relative response factors and relative percent standard deviations were within acceptable ranges for all parameters.

INTERNAL STANDARDS

Internal standard retention times were within the required limits. Internal standard areas were within the acceptable ranges.

TARGET COMPOUND IDENTIFICATION

Sample SSI-MW-4SR

Toluene was correctly identified . No other compounds were detected.

Sample SSI-SEDMW-12-1

Acetone, methylene chloride and toluene were correctly identified. No other compounds were detected.

COMPOUND DETECTION AND REPORTED DETECTION LIMITS

All concentrations were calculated correctly for the two complete validation samples. Detection limits were adjusted as required.

OVERALL ASSESSMENT OF DATA

The data in this project, based on the above validation, are usable with the following exceptions:

SSI-MW-4DR DUP

The result of the rerun sample should not be reported or used. The results of the initial analysis of the sample should be reported and used with all parameters qualified with J.

SEMIVOLATILE ORGANICS

PARTIAL VALIDATION

For semivolatile organics the following quality control measures were evaluated during partial validation:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicatae
- Overall assessment of data

HOLDING TIMES

All samples were extracted and analyzed within the required holding times.

BLANKS

One soil method bland and one aqueous method blank were run as part of this SDG. Bis-(2-ethylhexyl)phthalate was detected in the aqueous method blank below the required detection limit. Bis-(2-ethylhexyl)phthalate and di-n-butylphthalate were detected in the soil method blank below the required detection limit.

One field blank was collected as part of this SDG. 2,4-dinitrotouene, 4-nitrotoluene, acetophenone, bis-(2-ethylhexyl)phthalate, caprolactam, di-n-butylphthalate and diethylphthalate were detected in the field blank below the required detection limit. No qualifiers were applied based on the blanks.

SURROGATE RECOVERY (SYSTEM MONITORING COMPOUND)

The recovery of the eight surrogates were within acceptable limits for all blanks and samples.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The 4-nitrophenol and pentachlorophenol recoveries in the aqueous method blank were outside of the acceptable range. All other relative percent differences were within acceptable limits.

The phenol, 2-chlorophenol, n-nitroso-di-n-propylamine, 4-chloro-3-methylphenol, acenaphthene, 2,4-dinitrotoluene and pyrene recoveries were outside of the acceptable range for the soil method blank. All other relative percent duplicates were within the acceptable limits.

The sample matrix spike and matrix spike duplicate recoveries were within the acceptable limits. All relative percent differences were within acceptable limits.

No qualifiers were applied based on the spike recoveries and relative percent differences.

FIELD DUPLICATE

One duplicate aqueous sample was collected. The relative percent differences exceeded the 40% limit. No qualifiers were applied based on the field duplicates.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Internal standard performance
- Target compound list (TCL) compound identification
- Compound quantitation and reported detection limits

INSTRUMENT PERFORMANCE

The instrument performance check was performed at the required frequency and the ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

Initial calibrations were performed. The relative response factors and percent differences of the response factors were within acceptable limits.

CONTINUING CALIBRATION

The continuing calibration performed on December 23rd had two compounds, pentachlorophenol and 2,2'-oxybis-(1-chloropropane), that exceeded the acceptable range for percent difference.

The continuing calibration performed on December 24th had one compound, pentachlorophenol, that exceeded the acceptable range for percent difference.

The continuing calibration performed on December 29th had one compound, pentachlorophenol, that exceeded the acceptable range for percent difference.

All relative response factors and other percent differences were within acceptable limits.

No qualifiers were applied based on the continuing calibration.

INTERNAL STANDARD PERFORMANCE

Internal standard retention times were within the required limits. The internal standard areas were outside the required limits for sample SSI-SEDMW-12-1 (areas 1 and 2). The sample was rerun and the internal standard for area 6 was outside the acceptable limits. The results for the initial analysis should not be used. The detected compounds, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, benzo[k]fluoranthene, and indeno[1,2,3-cd]pyrene should be qualified with J.

TARGET COMPOUND IDENTIFICATION

Sample SSI-MW-4SR

All compounds detected were correctly identified.

Sample SSI-SEDMW-12-1

All compounds detected were correctly identified.

COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All concentrations for sample SSI-MW-4SR and SSI-SEDMW-12-1 were calculated correctly. Detection limits were adjusted as required.

OVERALL ASSSESSMENT OF DATA

The data in this project, based on the above validation, are usable as reported with the following exceptions:

The initial analysis from sample SSI-SEDMW-12-1 should not be reported or used. The following compounds for the rerun sample should be qualified with J:

benzo[a]pyrene
benzo[b]fluoranthene,
benzo[g,h,i]perylene
benzo[k]fluoranthene
indeno[1,2,3-cd]pyrene

PESTICIDES AND PCBS

PARTIAL VALIDATION

For pesticides and PCBs the following quality control measures were evaluated:

- Holding times
- Blanks
- Surrogate recovery
- Matrix spike/matrix spike duplicate
- Field duplicate
- Overall assessment of data

HOLDING TIMES

All samples were extracted and analyzed within the required holding times.

BLANKS

No contamination was detected in the blanks.

SURROGATE RECOVERY

The recovery of the three system monitoring compounds were within acceptable limits for all blanks. The recovery of the three system monitoring compounds were within acceptable limits for all samples.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

All spike recoveries were within acceptable limits. All relative percent differences were within acceptable limits.

FIELD DUPLICATES

No compounds were detected in either the sample or the duplicate sample.

COMPLETE VALIDATION

In addition to the quality control measures evaluated for partial validation of the data, the following measures were evaluated for complete validation:

- Instrument performance
- Calibration
- Compound identification
- Compound quatitation and reported detection limit

INSTRUMENT PERFORMANCE

The instrument performance check was performed at the required frequency and ion abundance criteria were met.

CALIBRATION

INITIAL CALIBRATION

The relative response factor for 1,1,2,2-tetrachloroethane was out of the acceptable range. All relative percent standard deviations (%RSD) are within acceptable ranges for all parameters. No qualifiers were applied.

CONTINUING CALIBRATION

The relative response factors for 1,1,2,2-tetrachloroethane and 1,3-dichlorobenzene were out of the acceptable range. All percent differences were within acceptable ranges. No qualifiers were applied.

TARGET COMPOUND IDENTIFICATAION

Sample SSI-MW-4SR

No compounds were detected

Sample SEDMW-12-1

All detected compounds were correctly identified.

COMPOUND QUATITATION AND REPORTED DETECTION LIMITS

All detected concentrations for the complete validation samples were calculated correctly. Detected limits were adjusted as required.

OVERALL ASSESSMENT OF THE DATA

The data in this project, based on the above validation, are usable as reported.

APPENDIX I

SSI ANALYTICAL LABORATORY DATA PACKAGES (PDF FILES ON DISK)

Environmental
Engineers & Scientists

APPENDIX J

ANALYTICAL DATA SUMMARY OF SOIL DATA FROM OTHER BROOKLY NAVY YARD LOCATIONS (PDF FILE ON DISK)

Environmental
Engineers & Scientists