Ecosystems Strategies, Inc.

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December 26, 2012

Parag B. Amin P.E. NYSDEC, Division of Environmental Remediation Remedial Bureau C Section B 625 Broadway Albany, New York 12233-7014

RECEIVED

DEC 28 2012

Remedial Bureau C Div of Environmedial Bureau C via e-mail: pbamin@gw.dec.state.py.us

Re: Beacon Terminal Site 555 South Avenue, City of Beacon, Dutchess County, New York Brownfields Cleanup Program Site: C314117 ESI File: BB04157.51

Dear Mr. Amin:

Enclosed please find two copies, one hard copy and one electronic copy in CD form, of the <u>Final</u> <u>Remedial Investigation Report</u> (<u>Final RIR</u>) for the Beacon Terminal Site dated January 2011 and revised December 2012. In addition, a copy of the <u>Final RIR</u> (in electronic form) will be submitted to the New York State Department of Health (NYSDOH).

If you have any questions, please contact me at 845-452-1658.

Sincerely,

ECOSYSTEMS STRATEGIES, INC.

Tal & atto

Paul H. Ciminello President

PHC: RAM/cla

cc: D. Lloyds, Beacon Terminal Associates, LLP A. Perretta, NYSDOH

REMEDIAL INVESTIGATION REPORT

Prepared for the

Beacon Terminal Site

NYSDEC BCP Site: C314117

Located at

555 South Avenue City of Beacon Dutchess County, New York

January 2011 (Revised December 2012)

ESI File: BB04157.51

Prepared By:

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Prepared By:

Prepared For:

Ecosystems Strategies, Inc. 24 Davis Avenue Poughkeepsie, New York 12603 Beacon Terminal Associates, LLP 18 East 22nd Street New York, New York 10010

I, Paul H. Ciminello, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Paul & hot

Paul H. Ciminello President



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1.0 INTRODUCTION

1.1 Purpose

This <u>Remedial Investigation Report</u> (<u>RIR</u>) summarizes environmental investigation services performed by Ecosystems Strategies, Inc. (ESI) and authorized subcontractors at the Beacon Terminal property (hereafter referred to as the "Site"), located at 555 South Avenue, City of Beacon, Dutchess County, New York (see Figure 1, Appendix A). The work was performed to investigate the potential for and document the extent of contamination resulting from historic uses of the property (see Section 2.1, below).

Investigative services were conducted consistent with the <u>Remedial Investigation Work Plan</u> (<u>RIWP</u>), dated July 2007 (revised October 2007), and the <u>Supplemental Remedial Investigation</u> <u>Work Plan</u>, dated June 2008 (revised November 2008), as approved by the New York State Department of Environmental Conservation (NYSDEC). The Work Plans are hereafter referenced as "Work Plan" and "Supplemental Work Plan", respectively. Any variations from the approved work plans are described in Section 3.0.

This <u>RIR</u> describes all fieldwork methodology and sample collection procedures, includes discussions of laboratory data, and provides conclusions and recommendations drawn from the fieldwork and analytical data.

1.2 Limitations

This written analysis is an assessment of the Site characterization activities conducted on the Beacon Terminal property, and is not relevant to any other property. It is a representation of those portions of the property analyzed as of the respective dates of fieldwork. This RIR cannot be held accountable for activities or events resulting in changes in Site conditions after the dates of fieldwork.

Services summarized in this <u>RIR</u> were performed in general conformance with the <u>Draft Division of</u> <u>Environmental Remediation-10</u>, <u>Technical Guidance for Site Investigation and Remediation</u> (<u>DER-10</u>) dated December 2002. Unless specifically noted, the findings and conclusions contained herein must be considered not as scientific certainties, but as probabilities based on professional judgment.

1.3 Objectives

ESI conducted an environmental investigation and remedial alternatives analysis at the Site in order to achieve the following objectives:

- To document impacts to on-site soil, groundwater, surface water, and sediment from former Site uses;
- To delineate, to the extent feasible, the lateral and vertical extent of any and all documented on-site contamination;
- To determine if on-site contamination has the potential to migrate off-site;



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2.0 SITE DESCRIPTION

2.1 Site Location, Features, and History

The Site consists of 11.07 acres located in the City of Beacon, Dutchess County, New York (tax parcel: Section 5954, Block 16, Lot 751258). The Site is located adjacent to the northern edge of Fishkill Creek (the southeast corner of the Site includes a portion of the creek and the southern bank), approximately 2,000 feet east of the Hudson River, and has overall southerly (towards the Creek) slopes. A Site Location Map is provided as Figure 1 in Appendix A.

The Site is presently improved with eight vacant industrial buildings (B-1, B-2, B-3, B-4, B-5 [A and B], B-6, B-7, and B-8) formerly used for various manufacturing and warehousing purposes. These buildings occupy approximately fifty percent of the Site; the remainder of the property includes paved parking areas, paved drives, and undeveloped grassland and woodlands. Fieldwork Maps, depicting the layout of the Site are provided as Figures 3 through Figure 10 in Appendix A.

Previous Site Uses

The Site has a long history of known industrial use. A Site sketch and description, obtained from the Beacon Historical Society, depicts three buildings (now buildings B-1 and B-2) on-site. These buildings were constructed in 1878 as the Tioranda Hat Works. Building B-1 is described as an engine room and boiler house, and building B-2 is described as the main factory, housing felting, dyeing, carding, and wool sorting operations. Information regarding specific historical material handling, storage, and disposal is not readily available. However, review of historic Sanborn Fire Insurance Maps indicates that the Site was occupied by the Tioranda Hat Works until at least 1919. Three of the present-day buildings (B-1, B-2, and B-4) were on-site at that time, with dyeing operations in the portions of buildings B-2 and B-4 most proximal to Fishkill Creek. Sanborn maps depict on-site hatworks facilities until at least 1946.

By 1962, the complex, comprising all buildings currently on Site, is called "Beacon Terminal". Six of the buildings are depicted as being in use by the Atlas Fiber Company, a fiber reclaimer, while one building (B-5A and B-5B) is occupied by Chemical Rubber Products, Inc. and one building (B-7) is occupied by BASF Colors & Chemicals. From approximately 1972 to 1995, the buildings were used for storage by various occupants. The buildings have remained vacant since 1995.

2.2 Site Topography

The surface of the Site generally slopes gently to moderately downward to the southeast, towards Fishkill Creek, with a surface elevation ranging approximately 20-40 feet above mean sea level (msl).

2.3 Site Climate

According to available sources, average temperatures for the month of January (coldest month) in Beacon, New York range from 17 to 36 degrees Fahrenheit (-8 to 2 degrees Celsius). Average temperatures for the month of July (warmest month) range from 64 to 85 degrees Fahrenheit (18 to 29 degrees Celsius). Annual precipitation is frequent and steady year-round, with an average yearly precipitation of 44.79 inches.



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2.4 Site Geology

State maps indicate that soils at the Site consist of lacustrine silt and clay deposits and outwash sand and gravel, overlying sandstone and shale. The local soil survey indicates that the Nassau-Cardigan Complex and the Knickerbocker fine sandy loam soils types are located on the Site. The Nassau series consists of shallow, somewhat excessively drained soils formed in till. The Cardigan series consists of moderately deep, well drained soils formed in till or colluvium. They are underlain by folded interbedded phyllite, slate, shale, and schist. The Knickerbocker series consists of very deep, well and somewhat excessively drained, soils formed in sandy glacio-fluvial deposits.

Subsurface soils in the northeastern portion of the Site, encountered in soil borings, generally consisted of brown clay with gravel and fragments of brick (fill) underlain by moist to wet grey silty clay. Subsurface soils in the western portion of the Site generally consisted of brown and greybrown silty clay with sand. The western edge of the Site (to the west of the parking lot) consists of approximately 6" to 5' of variable fill materials including construction debris (e.g., concrete blocks, bricks, scrap metal, wood fragments, etc.), fabric (likely from former Site activities), and miscellaneous trash. A detailed description of soils encountered during the Site investigation is provided in Table 1, Appendix B.

2.5 Site Surface Hydrology and Wetlands

The southeastern corner of the Site is submerged under the Fishkill Creek and the remaining southern property border adjoins Fishkill Creek. Fishkill Creek is mapped as a federal wetland. No other wet areas or mapped wetlands are present at the Site. The mouth of Fishkill Creek (where it enters the Hudson River), located west of the Site, is mapped as both a federal and a state wetland.

2.6 Site Groundwater Hydrology

Groundwater measurements were collected on-site during groundwater monitoring events. The topography slopes gently to moderately across the Site to the south towards Fishkill Creek, with monitoring wells MW-01, MW-03, 2MW-04, 2MW-05, and 2MW-06 located on the northern (upland) portion of the Site. MW-02 is located directly north of Fishkill Creek in the lowland portion of the Site. MW-03 is located near the northwestern corner of the Site in an area of relative shallow bedrock and was dry during the June 2008 and June 2009 sampling events.

Depth to groundwater varied from 7 feet below surface grade (bsg) to 20 feet bsg on the upland portion of the Site. Depth to groundwater was around 4 feet bsg in MW-2, located near Fishkill Creek. The overall direction of groundwater flow is in a southern direction, towards Fishkill Creek. Direction of groundwater flow is illustrated on Figure 2 Appendix A. Groundwater is not used for potable purposes on the Site.

2.7 Description of Adjoining and Surrounding Area Properties

The Site is located along Fishkill Creek in a suburban area comprised primarily of single-family residential, recreational, and vacant properties. A description of the adjoining and nearby properties is provided in Table A, below.



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Table A: Land Uses in the Vicinity of the S	ite
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Direction	Adjoining Use(s)	Surrounding Use(s)
North	Railroad	Single-family residential
East	Madam Brett Park	RecreationalUndeveloped/wooded
South	Fishkill CreekSingle-family residential	Single-family residentialUndeveloped/wooded
West	Undeveloped/wooded	Hudson River

2.8 Current and Proposed Usage of the Site

The Site is presently improved with eight vacant industrial buildings formerly used for various manufacturing and warehousing purposes. These buildings occupy approximately fifty percent of the Site; the remainder of the property includes paved parking areas, paved drives, and undeveloped grassland and woodlands.

It is ESI's understanding that the Site is proposed for re-use as a residential condominium complex with limited commercial uses at the completion of remedial activities. According to the redevelopment plan, buildings B-1 and B-2 will remain on Site while all other buildings (B-3, B-4, B-5A, B-5B, B-6, B-7, and B-8) will be razed to accommodate construction of the complex. There are no known proposed changes to the usages of adjoining properties.

2.9 Previous Environmental Investigation/Remediation

Environmental investigations and remedial activities were conducted by various consultants from the mid-1990s to the present. Much of the work was conducted due to the historic storage of petroleum products and other chemicals on-site. Four underground storage tanks (USTs) used for the storage of toluene are likely to have been installed in the early 1950s, when building B-5A was constructed. Six aboveground storage tanks (ASTs) used for the storage of lubricating oil, hydrochloric, and sulfuric acids, and at least ten USTs used for the storage of fuel oil, toluene, and other chemicals were documented on the Site in 1993. Neither these tanks nor their closures appear to have been properly documented. In addition, storage drums of varying sizes were found at a number of interior locations.

In August 1995, two test pits were excavated west of the parking area and east of the City of Beacon Sewer, laboratory results; however, are not available.

In 1996, ESI conducted a limited subsurface investigation in the vicinity of the toluene USTs (now removed, see below). Ten borings were completed to a depth ranging from 7.0 feet below surface grade (bsg) to 11.0 feet bsg. Volatile organic compounds (VOCs) (benzene, toluene, and xylene) were detected at levels which exceeded NYSDEC guidance levels. NYSDEC spill #9600893 (currently closed) was recorded for the Site at that time.

Work conducted at the Site in October 2000, as part of the Voluntary Cleanup Program Site #V00443-3, included the removal of the four toluene USTs located just beyond the northern wall of building B-5A, at the junction with building B-5B. Post-excavation inspections documented water with a product sheen and numerous small holes in the tanks, and NYSDEC spill #0008142 (currently closed) was reported. Post-excavation soil sampling indicated elevated levels of toluene in sixteen of twenty-four confirmatory samples (levels ranging from 3,220 to 326,000 parts per billion [ppb]). The majority of samples with elevated toluene levels (ten of sixteen) were drawn from



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the bottom of the excavation, suggesting deep penetration of the contaminant. Soils from the excavation of the toluene USTs were stockpiled on-site on the parking area located to the west of building B-7.

Also in October 2000, all ASTs (with the exception of the four chemical holding tanks located in building B-2) were cleaned and removed from the Site, miscellaneous containerized liquids and solids were repackaged removed, and a 550-gallon UST was removed from the western side of building B-5B. The UST was reported to be full of water, with no observed sheen or odor. Post-excavation sampling did not reveal detectable organic compounds. However, somewhat elevated metals were found in this area (lead at 470 ppm, nickel at 30 ppm, and zinc at 100 ppm).

In May 2001, the stockpiled soils (from the removal of the toluene USTs) were sampled and found to contain elevated levels of toluene, with concentrations ranging from non-detect to 2,020,000 ppb. Subsequent stockpile sampling, in October 2002, did not find detectable levels of toluene or other organic compounds, indicating the volatization of toluene over time.

In 2005, the soil stockpile was relocated to the northwestern corner of the Site and covered with at least 24 inches of clean cover soil, in the area indicated on the Figures in Appendix A.

On June 22, 2009 staining was observed to the east of building B-2, just outside of a former loading dock. Subsequent investigations determined that this staining had occurred when water entered a transformer located inside of the building resulting in the release of oily water to the loading lock floor (concrete) and exiting the building beneath the former loading dock door. This water ran over the ground surface (asphalt and bare soil) to the south exiting the Site. Booms and absorbent pads were utilized to prevent further migration of the oil from the area. The transformer was covered to prevent additional water from entering the transformer (water was entering from the roof).

A spill was reported to the NYSDEC by ESI on June 22, 2009 and spill number 0904692 was assigned to the Site. An additional spill was reported by a concerned citizen on June 23, 2009 and spill number 0904705 was also assigned to the Site.

A sample of the transformer oil was obtained directly from the transformer reservoir from beneath the water layer (floating on top of the oil). The transformer oil sample was submitted for analysis of polychlorinated biphenyls (PCBs) utilizing USEPA Method SW-846. No PCBs were detected in the transformer oil. The oil and water from inside of the transformer and remaining water from inside of the building were subsequently collected and disposed of off-site. All visually impacted material (soil and asphalt) were excavated and properly disposed of off-site. Endpoint samples were collected in the areas of excavation and VOC concentrations in remaining on-site soils were determined to be below established action levels, and residual oil staining inside of the building was cleaned. Both spill numbers (0904692 and 0904705) have been closed by the NYSDEC.

2.10 Current Regulatory Status

The Site is currently in the NYSDEC Brownfield Cleanup Program (BCP) and is identified as Site C314117.



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3.0 SITE INVESTIGATION

3.1 General Provisions

3.1.1 Utility Markout

Prior to the initiation of fieldwork (and prior to any subsequent intrusive fieldwork), a request for a complete utility markout of the subject property was submitted by ESI as required by New York State Department of Labor regulations. Confirmation of underground utility locations was secured and a field check of the utility markout was conducted prior to the extension of soil borings, test pits, and/or the installation of monitoring wells.

3.1.2 Agency Notification

The NYSDEC was notified in writing prior to the initiation of the on-site work and during the course of the fieldwork. Changes to fieldwork scheduling and interim updates were provided via email and/or telephone calls.

3.1.3 Equipment Decontamination and Calibration

Prior to the initiation of fieldwork, all field equipment used during the work was properly decontaminated in accordance with NYSDEC guidelines, and all field instruments were properly calibrated in accordance with procedures set forth by the equipment manufacturer(s).

A MiniRAE photo-ionization detector (PID) was utilized by ESI personnel to screen all encountered material for the presence of any volatile organic vapors where appropriate. Prior to the initiation of fieldwork, this PID was properly calibrated to read parts per million calibration gas equivalents (ppm-cge) of isobutylene in accordance with protocols set forth by the equipment manufacturer.

3.1.4 Subcontractors

ESI supervised the extension of test pits, soil borings, and the installation of monitoring wells by Aztech Technologies, Inc. (Aztech) and the extension of soil borings by Todd Syska, Inc. (Syska). ESI personnel developed all monitoring wells and collected all sub-slab soil gas, soil, groundwater, surface water, and sediment samples. Laboratory services were subcontracted to Test America Laboratories, Inc. (Test America), a New York State Department of Health (NYSDOH) certified laboratory (ELAP Certification Number 10602 and 10391). Data Usability Summary services were completed by Premier Environmental Services (Premier) and ChemWorld Environmental, Inc. (ChemWorld).

3.1.5 Fieldwork Observations and Sample Collection

An assessment of encountered field conditions (e.g., soil type and field indications of contamination) was made during the collection of all samples. A MiniRAE PID was utilized by ESI personnel to screen encountered material for the presence of any volatile organic vapors. ESI personnel maintained field logs documenting all field observations and measurements (see Table 1, Fieldwork Observations, in Appendix B).

All media samples were collected in a manner consistent with NYSDEC sample collection protocols. Dedicated, disposable gloves were worn by all personnel handling samples, and collected media was placed into laboratory-supplied glassware or plastic jars. All sample containers were maintained at low temperature prior to, and during, transport to Test America for analytical testing. Appropriate chain-of-custody procedures were followed.

Sampling equipment was decontaminated, when possible, prior to initiation of fieldwork and before each new sample location.



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3.1.6 Terminology

Guidance Levels

The term "guidance level", as defined in this <u>RIR</u>, refers to the concentration of a particular contaminant above which remedial actions are considered more likely. The overall objective of setting guidance levels is to assess the integrity of on-site media relative to conditions that are likely to present a threat to public health or the environment, given the existing and probable future uses of the Site. On-site soils, groundwater, surface-water, and sediments with contaminant levels exceeding these guidance levels are considered more likely to warrant remediation.

Guidance levels for all compounds detected in soils are based on NYSDEC Remedial Program Soil Cleanup Objectives (SCOs) for Restricted Residential Use, as provided in 6 NYCRR Subpart 375, Table 375-6.8(b).

Guidance levels for all compounds detected in water are based on NYSDEC <u>Division of Water</u> <u>Technical and Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance</u> <u>Values and Groundwater Effluent Limitations</u> (TOGS 1.1.1).

Guidance levels for all compounds detected in sediments are based on sediment criteria provided in NYSDEC's Division of Fish, Wildlife and Marine Resources, <u>Technical Guidance for Screening</u> <u>Contaminated Sediments (TGSCS</u>), dated November 1993 and revised January 1999. Sediment criteria provided in the <u>TGSCS</u> includes several levels of protection for VOCs, SVOCs, pesticides and PCBs; and lowest effect level and severe effect level for TAL metals.

Few official guidance levels currently exist for VOCs in soil gas. The New York State Department of Health (NYSDOH) <u>Guidance for Evaluating Soil Vapor Intrusion in the State of New York</u>, dated October 2006, contains "air guideline values" for five compounds (methylene chloride, polychlorinated biphenyls, tetrachlorodibenzo-p-dioxin, tetrachloroethene [PCE], and trichloroethene [TCE]) in indoor air. Compounds detected in soil gas are compared to these available guidance values.

Background Levels

The term "background level", as defined in this <u>RIR</u>, is the concentration of a particular metal that is known to naturally occur in soils. The overall objective of setting background levels is to assess metal concentrations relative to those that are naturally occurring. On-site soils with concentrations exceeding these background levels are considered more likely to have been affected by anthropogenic contributions. The background levels for metals provided in this <u>RIR</u> are based on the NYSDEC's <u>Background Levels of Heavy Metals in Soils of the Lower Hudson Valley (Summary of Results)</u>, July 2003 [revised July 2006].

3.1.7 Documented Variations from the Approved Work Plans

There were no significant deviations from the Work Plan and the Supplemental Work Plan that were critical to the validity of the conclusions and recommendations presented in Section 4.0. Based on actual field conditions, some sampling locations were modified in consultation with NYSDEC personnel. In addition, two groundwater monitoring wells (one west of building B-8, and one on the southwest corner of the Site) could not be installed due to the presence of shallow bedrock in these areas. It was determined, in consultation with the NYSDEC, that the three existing wells and the three newly installed wells (see Section 3.4, below) would be sufficient to characterize the groundwater on the Site.



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3.2 Soil Gas Investigation

Fourteen (2SV-01 to 2SV-14) sub-slab soil gas samples and two (2SV-15 and 2SV-16) soil gas samples were collected throughout the Site in January 2008. Sampling locations for soil gas samples were selected to provide a general screening of soil gas conditions at the Site.

3.2.1 Sample Collection Methodology

Sub-slab soil gas sampling was conducted directly beneath the slab. The slab was breached utilizing a concrete drill and the hole was extended approximately two inches into the sub-grade material.

The end of the sample tubing (0.188 inch inner diameter Teflon) was attached to an "air stone" filter and inserted through the slab breach. Clean sand was poured into the void surrounding the air stone leaving approximately two inches of depth between the top of the sand and the surface of the concrete slab. The remaining space was sealed off with a non-VOC containing material (moistened bentonite) to prevent surface air from entering the system. Before purging, a properly calibrated PID was used to measure volatile organics by connecting the PID to the inserted Teflon tubing.

The space around the sampling point was enclosed and sealed (with a metal hemisphere and clay) in order to introduce a tracer gas (helium) into the area surrounding the probe point. Helium was introduced into the enclosure and a Radiodetection Multi-gas Leak Locator model MDG 2002 (helium detector) was utilized to determine when the interior atmosphere reached 80% helium. At this point, a vacuum pump was utilized to purge the standing air from the tubing and open the soil interval. At least three borehole and tubing volumes were purged prior to collection at a rate of 0.2 liters per minute. Following purging, the sub-slab and soil vapor samples were collected over a one-hour period using a six-liter stainless steel, laboratory supplied Summa canister with a one-hour calibrated flow controller.

Soil gas sampling was conducted utilizing the same methods as described above with the exception that hand boring equipment was utilized to open a 2-inch diameter hole into the soil column approximately 3 to 4 feet deep. The samples were then collected as described above.

For each sampling canister, the pre- and post-sample canister pressure, start and stop times, and location of each sampling point was recorded.

3.2.2 Fieldwork Observations and Sample Submission

Building slabs observed at the Site generally consisted of 4 to 8 inches of concrete, with the exception of the northwestern portion of building B-2 which had a brick floor. Building slabs were observed to generally be in good condition which allowed for the installation of monitoring points at the planned locations. However, the sampling point which had been planned for the eastern portion of building B-2 was moved approximately 80 feet to the west due to an approximately 4-foot void encountered throughout this portion of the slab. No significant PID readings were encountered during the installation of the monitoring points. No odors or other visual evidence of contamination were noted during soil gas sampling.

All sub-slab and soil vapor samples were submitted for analysis of VOCs via USEPA method TO-15.

3.2.3 Laboratory Results

Soil gas sampling locations and significant detections are depicted on Figure 3, Appendix A, and soil gas data are presented in Table 3, Appendix B.



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One chlorinated VOC, trichloroethene, was detected above the NYSDOH guideline value of 5 $\mu g/m^3$ at 2SV-11 (86 $\mu g/m^3$), located in building B-7. No other compounds were detected above the available guidance values (see Section 3.1.6, above).

Low levels of benzene, toluene, ethylbenzene, and toluene (BTEX) compounds were detected throughout the Site. The peak level of BTEX was detected at 2SV-14 in building B-8 (531 μ g/m³) and the average for Site was 84 μ g/m³. Similarly, peak total VOCs were detected at 2SV-14 (596 μ g/m³); however, the majority of samples (13 of 16) had a total of VOCs detected between 43 μ g/m³ and 194 μ g/m³. Two other locations 2SV-06 (building B-4) and 2SV-10 (building B-6) had total VOC detections of 268 μ g/m³ and 316 μ g/m³, respectively. Low level to trace concentrations of BTEX related VOCs and other chlorinated compounds were detected in all of the samples from the Site.

3.2.4 Nature and Extent of Contamination

Low-level VOCs were detected in soil gas throughout the Site. With the exception of trichloroethene detected in the northern portion of building B-7, the levels detected indicate widespread trace to low-level impacts, likely due to the historical industrial use of the Site.

3.3 Soil Investigation

Twenty-four test pits (2TP-1 to 2TP-24) were extended throughout the western portion of the Site by Aztech on January 30, 2008. Twenty-five soil borings (2B-01A to 2B-15 and 2MW-04 to 2MW-07 and 2MW-09; including 2B-01B, 2B-01C, 2B-15A, 2B-15B, and 2B-15C) were completed by Aztech on January 31 and February 4 through February 8, 2008. Three of the borings (2MW-04 to 2MW-06) were completed as monitoring wells, see Section 3.4, below. Thirteen surface soil samples (2HB-01 to 2HB-13) were collected by ESI on February 25, 2008. Sampling locations for test pits, soil borings, and surface soil samples extended in January and February 2008 were selected to provide a general screening of surface and subsurface conditions at the Site.

Thirteen additional mechanical soil borings (3B-01 to 3B-11 and 4B-01 and 4B-02) were extended by Syska on January 19 and January 27, 2009, and June 1 and June 2, 2009 to delineate contamination discovered during the on-site investigation completed in 2008. In addition, ESI completed five additional surface samples (3HB-01 to 3HB-05). Two of these samples (3HB-01 and 3HB-02) were extended to confirm previous results at sampling locations 2HB-02 and 2HB-06.

Three of the samples (3HB-03, 3HB-04, and 3HB-05) were collected at the request of the NYSDEC in the following areas: near the northwest corner of the Site, under the elevated sewer line, and in an undisturbed area along the "Existing Fisherman's Trail", respectively.

A <u>Supplemental Soil Sampling Work Plan</u>, dated June 2011, was prepared and approved by the NYSDEC for the extension of two on-site samples (4SS-1 and 4SS-2) west of the Fisherman's Trail. The purpose of this additional work was to document contaminant concentrations along the western edge of the Site and to present data useful to determine the likelihood of off-site migration of known on-site contaminants.

The data from these sampling points are incorporated in the discussions below and are represented in appropriate Figures and Tables (Appendices A and B).

3.3.1 Test Pits

Test pits were extended using a backhoe to a maximum depth of 5 feet bsg or until native material (no fill) was reached. During the extension of the test pits, it was observed that the western edge of the Site (to the west of the parking lot) slopes steeply towards the riverfront trail. The subsurface to the north and west of the parking area and at the toe of the slope generally consists of approximately 6" to 5' of variable fill materials including construction debris (e.g., concrete blocks,



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bricks, scrap metal, wood fragments, etc.) and miscellaneous trash; the subsurface to the south and west of the parking area and off the "fisherman's trail" generally included fabric (likely from former Site activities), and miscellaneous trash. Field observations are located in Table 1, Appendix B. Samples were collected directly from the wall or the base of the test pits (shallow test pits) or from the bucket of the excavator (deeper test pits).

3.3.2 Surface Samples

Surface soil samples were collected from the 0-4" and 0-2" depth intervals using a stainless steel trowel where soil was exposed at the surface or to expose soil located beneath vegetation. In areas beneath concrete or asphalt, the surface was breached using a Hilti drill and a hand-held direct-push corer equipped with disposable acetate sleeves (used to prevent the cross contamination of soil samples) was used to retrieve a shallow soil sample from beneath the solid surface. Surface soils observed at the Site generally consisted of brown clay and loamy clay with gravels. No odors or other visual evidence of contamination were noted during surface sampling. Field observations are located in Table 1, Appendix B.

3.3.3 Soil Borings

Mechanical soil borings were extended throughout the Site and inside of buildings B-5A and B-5B using a track-mounted Geoprobe unit. Soil boring samples were collected from various depths from the surface to 28.5 feet bsg. Subsurface soils from the northeastern portion of the Site generally consisted of brown clay with gravel and fragments of brick (fill) underlain by moist to wet brown and grey silty clay. Subsurface soils from the western portion of the Site generally consisted of brown silty clay with sand. Field evidence of contamination, including odors and positive PID readings, was encountered on the northwestern corner of the Site near the wood line and the abandoned railroad spur, and beneath the slab in the northeast corner of building B-5B. Field observations are located in Table 1, Appendix B.

3.3.4 Sample Submission

Soil from across the Site (soil borings, surface soils, and test pits) was submitted for laboratory analysis of VOCs using USEPA Method 8260 (several of the samples were submitted for analysis of the aromatic fraction of VOCs only), semi-volatile organic compounds (SVOCs) using USEPA Method 8270, Target Analyte List (TAL) metals utilizing various USEPA Methods, pesticides using USEPA Method 8081, and PCBs using USEPA Method 8082. A list of laboratory submissions is included in Table 2, Appendix B.

3.3.5 Laboratory Results

VOCs

Significant detections of VOCs in soils are depicted on Figure 3 and Figure 4, Appendix A, and summaries of laboratory data are located in Tables 3 through 6, Appendix B.

The primary VOC of concern detected in soils at the Site was toluene. Toluene was detected at elevated concentrations (guidance level of 100,000 μ g/kg) in the following locations:

- Elevated concentrations of toluene were detected northwest of building B-7 (near the wooded area and abandoned railroad spur) at boring 2B-01C [1-3'] (4,600,000 µg/kg).
 Additional borings were extended in this area to delineate the horizontal and vertical extent of the toluene contamination.
- Elevated concentrations of toluene (140,000 µg/kg to 970,000 µg/kg) were detected in soil borings 3B-07 [3-4', 6-8'] and 3B-08 [2-4', 5.5-6' and 13'], 3B-09 [5-6'], and 3B-10 [16']) in the area of the abandoned rail spur and into the wooded area at depths between 2 feet bsg



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to 13 feet' bsg. Peak concentrations were generally detected in the 1 to 4 foot interval and decreased with depth; however, elevated concentrations continued to be detected at 13' feet bsg near the abandoned rail spur (see Figures 4 and 11, Appendix A and Section 3.3.6, below). In addition, an elevated concentration of methylcyclohexane (guidance level 10,000 μ g/kg) was detected at 3B-03 [4-6'] (62,000 μ g/kg).

Lower concentrations of toluene (at or below guidance levels) were detected in subsurface soils beneath the northwest corner of building B-5A (located in a small enclosed room) and the northeast corner of building B-5B at soil borings 2B-15A [7-8'] (100,000 µg/kg), 2B-15 [4-5'] (22,000 µg/kg), and 2B-15C [5-6'] (1,600 µg/kg). Field evidence and laboratory detections of contamination were limited to the near surface to 10 feet bsg interval; however, the majority of impact was observed between the 4 to 10 feet bsg range.

Very low-level concentrations of tetrachloroethene (peak detection 42 µg/kg at 2TP-11 [0-6"], guidance level 19,000 µg/kg) were found in soil samples throughout the Site and estimated low-levels of 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,2-dichloroethylene, chlorobenzene, and cyclohexane were detected northwest of building B-7 near the wooded area. In addition, a very low level of trichloroethene was detected in boring 2B-15 (building B5-B).

Elevated tentatively identified compounds (TICs) and unknown compounds were detected at 2B-01C [1-3'] (1,140,000 μ g/kg, guidance level for total VOCs 100,000 μ g/kg. No other significant VOCs were detected in soil borings, surface soils, or test pits at the Site.

SVOCs

Significant detections of SVOCs in soils are depicted on Figure 5 and Figure 8, Appendix A, and summaries of laboratory data are located in Tables 7 through 9, Appendix B.

Elevated levels of polycyclic aromatic compounds (PAHs), a subset of SVOCs, were detected across the Site in surface soils, test pits, and in soil boring 2B-05 [4-5'] (western parking area). Elevated compounds detected included: benzo(a)anthracene (peak detection 18,000 μ g/kg, average of detections 2,453 μ g/kg, guidance level 1,000 μ g/kg), benzo(a)pyrene (peak detection 17,000 μ g/kg, average 2,304 μ g/kg, guidance level 1,000 μ g/kg), benzo(b)fluoranthene (peak detection 21,000 μ g/kg, average 2,784 μ g/kg, guidance level 1,000 μ g/kg), benzo(k)fluoranthene (peak detection 7,600 μ g/kg, average 1,190 μ g/kg, guidance level 800 μ g/kg), dibenzo(a,h)anthracene (peak detection 3,300 μ g/kg, average 691 μ g/kg, guidance level 330 μ g/kg), and indeno(1,2,3-cd)pyrene (peak detection 17,000 μ g/kg, average 2,191 μ g/kg, guidance level 500 μ g/kg). (Note: peak concentrations of PAHs were detected at test pit 2TP-2 [2-3'; debris in this test pit included asphalt, concrete, concrete block, fabric, and metal]) In addition, 2-methylphenol was detected at 2B-15 [4-5'] (720 μ g/kg, guidance level 100 μ g/kg) and 3B-03 [4-6'] (310 μ g/kg, estimated).

Low to trace-level concentrations of several additional SVOCs were detected throughout the Site in one or more of the surface soil, test pit, or soil boring samples. SVOCs detected included: 1,1-biphenyl, 2-methylnapthalene, 2-nitroaniline, 3-nitroaniline, 4-methylphenol, 4-nitroaniline, acenaphthene, acenaphthylene, anthracene, benzaldehyde, benzo(g,h,i)perylene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, carbazole, dibenzofuran, di-n-butyl phthalate, fluoranthene, fluorene, naphthalene, n-nitrosodiphenylamine, pentachlorophenol, phenanthrene, and pyrene.

The concentrations of SVOCs detected throughout the Site are consistent with impacts associated with asphalt paving and/or historic fill, which is present throughout the Site and was observed in subsurface test pit areas.

Significantly elevated concentrations of total unknown SVOCs were detected at surface soil sample 2HB-06[0-4"] (3,348,120 µg/kg, guidance level for total SVOCs 500,000 µg/kg). An additional surface sample, 3HB-01 [0-2"] was taken near 2HB-06 to confirm the presence of elevated



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concentrations of SVOCs. TICs were detected above the guidance level of 500,000 μ g/kg at 3HB-01 (602,700 μ g/kg) confirming the presence of elevated SVOCs in this area.

TAL Metals

Significant detections of metals in soils are depicted on Figure 6 and Figure 8, Appendix A, and summaries of laboratory data are located in Tables 10 through 12, Appendix B.

Soil Borings

Elevated levels of magnesium were detected in the majority of the soil borings (peak detection 11,000 mg/kg at 2B-14 [22-24'], average 7,528 mg/kg, guidance level 5,000 mg/kg). In addition, an elevated level of calcium (37,100 mg/kg) was detected at 2B-14 and at a concentration of 41,000 at 3B-05 [10-12'] (guidance level 35,000 mg/kg). Low-level concentrations of all of the TAL metals, with the exception of antimony and silver were detected in the samples taken from the soil borings.

Surface Soils

Several TAL metals were detected in surface soils from across the Site. Peak concentrations were generally detected at 2HB-02 (0-4") and include: lead at 2,830 mg/kg (guidance level 400 mg/Kg)and chromium (491 mg/kg, guidance level 180 mg/kg). However, a confirmation sample (3HB-02 [0-2"]) taken near 2HB-02 did not have elevated levels of lead, cadmium, chromium, copper, nickel, or zinc indicating the localized nature of the peak concentrations. Elevated concentrations of barium (guidance level 400 mg/Kg) at 1,620 mg/Kg; chromium (guidance level 160 mg/Kg) at 692 mg/Kg; and, copper (guidance level 270 mg/Kg) at 1,070 mg/Kg were detected in sample 4SS-2 (0-3").

Elevated concentrations of magnesium (peak detection 61,600 mg/kg at 3HB-02, average 11,894 mg/kg) were detected in surface soil samples across the Site. In addition, elevated concentrations of arsenic were detected at 2HB-02 (19.1 mg/kg)and 2HB-12 [0-4"] (25.4 mg/kg). With the exception of 2HB-10 [0-4"], located across Fishkill Creek on the southern border of the Site, which had an elevated level of mercury (1.6 mg/kg, guidance level 0.81 mg/kg). In addition, cadmium, copper, lead, and nickel were found in several of the on-site surface soil samples. The levels of metals in surface soils are consistent with the historic on-site industrial uses and the presence of heterogeneous fill across the Site.

Test Pits

Elevated levels of metals were detected in near-surface soils in test pits 2TP-11 [0-6"], 2TP-11B [6'-1'], and 2TP-15 [1-2'], in the areas where buried fabric was observed (likely to be from former onsite fabric reclamation activities). Peak concentrations occurred at TP-11 and included: chromium (788 mg/kg), copper (4,530 mg/kg, guidance level 270 mg/kg,), and lead (531 mg/kg).

Pesticides

Peak detections of pesticides in soils are depicted on Figure 7 and Figure 8, Appendix A, and a summary of laboratory data is located in Table 13, Appendix B.

Low-level concentrations of four pesticides were detected in the majority of surface soil samples from throughout the Site, with the exception of 2HB-07 and 3HB-02, and included 4,4 DDD (peak concentration 49 μ g/kg at 2HB-05, average concentration 9.88 μ g/kg, guidance level 1,300 μ g/kg), 4,4 DDE (peak 66 μ g/kg at 2HB-02, average 18.02 μ g/kg, guidance level 8,900 μ g/kg), 4,4 DDT (peak 530 μ g/kg at 2HB-02, average 37.58 μ g/kg, guidance level 7,900 μ g/kg), and dieldrin (peak 150 μ g/kg at 2HB-02, average 35.99, guidance level 200 μ g/kg). In addition, endrin (28 μ g/kg, guidance level 11,000 μ g/kg) was detected in the duplicate sample (taken at 2HB-02). A confirmation sample (3HB-02 [0-2"]) taken near 2HB-02 did not indicate the presence of elevated



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pesticides. Very low-levels of several other pesticides (including: aldrin, alpha-BHC, beta-BHC, delta-BHC, endosulfan I, endosulfan II, endosulfan sulfate, endrin aldehyde, gamma-chlordane, heptachlor, and heptachlor expoxide) were also detected in one or more sample located through the Site. These samples were generally collected in or around the existing structures in area which would have been managed as part of the grounds.

PCBs

Significant detections of PCBs in soils are depicted on Figure 7 and Figure 8, Appendix A, and summaries of laboratory data are located in Tables 14 through 16, Appendix B.

Elevated concentrations of total PCBs (guidance level 1,000 μ g/kg) were detected in test pit samples 2TP-11 (7,500 μ g/kg – Aroclor 1254), 2TP-11B (1,600 μ g/kg – Aroclor 1268), and 2TP15 (3,400 μ g/kg – Aroclor 1254); significantly elevated levels were found in areas where fabric was observed (2TP-11 and 2TP-15) and 4SS-2 (0-3") (8,530 ug/Kg – Aroclor 1262). Note: PCB-1262 is not part of the standard USEPA Method 8082 list; however, it was included in the laboratory analysis. A low concentration of PCB-1268 was detected in background surface soil sample 2HB-12 (120 μ g/kg). PCBs were detected below the SCO in soil boring 2B-07 [3-4'] and 3B03 [4-6'], and in surface samples 2HB-01, 2HB-03, 2HB-04, 2HB-05, 2HB-06, 2HB-08, 2HB-09, 2HB-10, 2HB-11 (background sample), 2HB-13, 3HB-01, 3HB-03, 3HB-04, and 3HB-05.

Quality Control Samples (Blanks)

VOCs in quality control samples (blanks) are summarized in Tables 29 and 30, Appendix B.

Low to trace levels of acetone, methyl ethyl ketone, and methylene chloride, often laboratory introduced contaminants, were detected in the trip blanks and rinse blanks collected during soil sampling. In addition, a trace concentration of toluene was detected in the trip blank from February 4, 2008. Trace, estimated, concentrations of toluene were detected in the rinse blanks from February 4 to 6, 2008. In addition, an estimated trace level of o-xylene was detected in the rinse blank collected on January 19, 2009. TICs were detected in the trip blank from January 19, 2009 and the rinse blank from January 27, 2009.

3.3.6 Nature and Extent of Contamination

VOC contamination, specifically toluene, is limited to a location northwest of building B-7, to the west of the abandoned railroad spur. Contamination in this area exists primarily along the abandoned spur and from 10 to 30 feet into the woods located on the northwest corner of the Site. The contamination generally extends to approximately 3 feet in the south (near 2B-01C) and from 2 to 13 feet bsg in to the north along the abandoned rail spur.

Elevated levels metals and PCBs were detected in the surface and near-surface samples taken during extension of the test pits on the western side of the Site (on the southern side of the fisherman's trail and between the parking area and the western side of the trail at the western edge of the Site). The proximity of 4SS-2 to the western property boundary raises the potential that soils containing elevated PCBs extend off-site. The elevated levels of contaminants were specifically located in areas where degraded fabric material (presumably from historic on-site fabric reclamation activities) was observed. Contaminated soil is generally limited to the surface and near surface (0-2 feet); however, other debris was also observed in this area (see Section 3.3.1). This debris and intermixed soils are proximal to a walking path accessible to the public. Response actions to restrict movement off the path may be appropriate.

The source of PCBs in surface soils at 4SS-2 is not known. Fill material sampled in the vicinity of this data point documented low levels of PCBs, indicating that the source of these PCBs may be associated with the fill. The absence of PCBs in the deeper sample at 4SS-2 implies a limited (vertical) concern.



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Slightly elevated to low-levels of SVOCs and metals were detected in surface soils located throughout the Site and, with the exception of limited areas near the on-site transformer (hand borings 2HB-06, 2HB-07, and 3HB-01) and to the southwest of building B-5B (hand boring 2HB-02), are consistent with the historic use of the Site for industrial purposes.

Currently the majority of the eastern portion of the Site is covered with buildings, roadways, and/or asphalt parking areas limiting access to these soils. Generally, surface soils across the Site will be disturbed during demolition and construction; however, measures will be put in place (health and safety, community air monitoring, stormwater protection, erosion control, etc.) to protect construction workers and the environment during construction activities. Subsequent to re-development a majority of these soils will be covered with buildings, drives, and parking. The laboratory results highlight the need for cover of these low-quality surface soils on the eastern portion of the Site in areas not planned for buildings, drives, and/or parking areas.

Based on the relatively immobility of toluene, PCBs, and metals, and an absence of significant groundwater contamination (see Section 3.4.6, below), groundwater flow is not likely to have a significant impact in the horizontal and vertical movement of contamination throughout the Site.

3.4 Groundwater Investigation

3.4.1 Monitoring Well Installation

ESI personnel supervised the installation of three on-site groundwater-monitoring wells (2MW-04, 2MW-05, and 2MW-06) by Aztech on February 7 and 8, 2008. Monitoring well locations are illustrated on the Fieldwork Maps, provided in Appendix A.

A Geoprobe was used to extend soil borings at 2MW-04, 2MW-05, and 2MW-06 (see Section 3.3.3, above) which were finished as monitoring wells. Each well is constructed of two-inch PVC casing and 0.01-inch slotted PVC well screening, which extends above the water table. The annular spaces between well screens and boreholes were backfilled with clean #2 silica sand, followed by at least a one-foot thick bentonite seal. The wells are protected by either stickup (exterior) or drive over (inside building B-5A), steel outer casings and/or covers.

3.4.2 Monitoring Well Development

All of the monitoring wells were developed, including the three existing wells (MW-1, MW-2, and MW-3), on February 21, 2008 (MW-01, 2MW-04, 2MW-05, and 2MW-06) and February 25, 2008 (MW-02 and MW-03). The purpose of the well development was to clear fine-grained material that might have settled around the well screen and to enhance the natural hydraulic connection between the well screen and the surrounding soils. Water removed from each monitoring well during well development was visually inspected for indications of contamination. No odors, visual evidence of contamination or positive PID readings were noted in the purge water from the monitoring wells.

All wells were developed utilizing a submersible Whale pump and dedicated plastic tubing. Development was conducted by lowering the pump below the water table and surging (raising and lowering the pump). After surging at each monitoring well, the pump was turned on. Purge water was directed through a Horiba U-22 multi-parameter instrument with a flow thru-cell (Horiba). Development was considered complete when the turbidity of the discharged water was below 50 NTUs and other parameters (e.g., dissolved oxygen, pH, temperature) stabilized. Development was attempted at all wells were utilizing this protocol; however, MW-02 and MW-03 both ran dry during re-development and were observed to have slow recharge. Monitoring wells 2MW-05 and 2MW-06 were developed, but would not clear so that a turbidity reading could be obtained. Both wells were surged several times, pumped until dry and allowed to recharge at least twice before development was considered complete.



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3.4.3 Groundwater Flow

The height of each well casing was surveyed relative to fixed on-site locations, and the direction of groundwater flow was determined based on elevations of static groundwater, measured using an electronic depth meter accurate to the nearest 0.01-foot. A discussion on groundwater flow is presented in Section 2.6, above.

3.4.4 Sample Collection Methodology

Three groundwater monitoring events were conducted in February 2008, June 2008, and June 2009. (Note: MW-03 was dry and was not sampled during the June 2008 and June 2009 monitoring events).

Prior to sampling, each monitoring well casing was opened and the well column was immediately screened with a PID to document the presence of any volatile organic vapors. All wells were purged and sampled following the USEPA Low-Flow Method. All sampling was conducted using the Horiba, dedicated plastic tubing, and a Grunfos Redi-Flo pump, with the exception of 2MW-05 on June 2, 2009 which was hand-bailed due to the failure of the pump. All wells were purged at a flow rate between 100 and 200 ml per minute, for a period of no less than 15 minutes. Flow rate was determined using a graduated cylinder and a stopwatch.

Sample collection occurred when the field parameters stabilized (achieved when three consecutive readings were within the required parameters specified by the USEPA protocol), with the exception of MW-5 which continues to have elevated levels of suspended sediment preventing a turbidity measurement. Each groundwater sample was collected in laboratory supplied glassware, preserved with acid as appropriate for the specific analysis. No groundwater samples were filtered prior to submission to the laboratory. After sample collection, the containers were placed in a cooler prior to transport to the laboratory. All samples were accompanied by proper chain of custody documentation.

3.4.5 Fieldwork Observations and Sample Submission

No evidence of contamination (e.g., sheens, odors, significant PID readings) was observed during groundwater sampling in February 2008, June 2008, and June 2009.

Groundwater was submitted for laboratory analysis of VOCs utilizing USEPA Method 8260 (February 2008, June 2008, and June 2009), SVOCs (February 2008) utilizing USEPA Method 8270, total and dissolved TAL metals (February 2008) utilizing various USEPA Methods, and PCBs utilizing USEPA Method 8082 (February 2008).

3.4.6 Laboratory Results

VOCs in groundwater are summarized in Table 17, Appendix B. SVOCs in groundwater are summarized in Table 18, Appendix B. Significant detections of metals in groundwater are depicted in Figure 9, Appendix A, and laboratory data is summarized in Table 19, Appendix B. PCBs in groundwater are summarized in Table 20, Appendix B. VOCs in quality control samples (blanks) are summarized in Tables 29 and 30, Appendix B.



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VOCs

Groundwater was sampled for VOCs in February 2008, June 2008, and June 2009 (note: Monitoring well MW-3 was dry in June 2008 and June 2009). No significant VOCs were detected in groundwater at the Site. A trace-level of trichloroethene was detected at 2MW-06 in February 2008, but was not detected in June 2008 or June 2009. Carbon disulfide was detected at trace levels in MW-01 (June 2008) and 2MW-05 (February 2008), but were not detected in subsequent sampling events. Trace levels of acetone, often a laboratory introduced contaminant, was also detected in one of the wells.

SVOCs

No significant SVOC concentrations were detected in groundwater at the Site in February 2008. Trace-levels of TICs were detected in each of the wells. Due to the lack of SVOCs detected in February 2008, the groundwater samples were not analyzed for SVOCs in June 2008 or June 2009.

TAL Metals

Elevated concentrations of several total TAL metals (including aluminum, iron, lead, magnesium, manganese and sodium) were detected in the monitoring wells in February 2008. Peak concentrations were detected at 2MW-05 and included: aluminum (132,000 µg/L, guidance level 100 µg/L), arsenic (110 µg/L, guidance level 25 µg/L), beryllium (8 µg/L, guidance level 3 µg/L), cadmium (11 µg/L, guidance level 5 µg/L), chromium (280 µg/L, guidance level 50 µg/L), cobalt (220 µg/L, guidance level 5 µg/L), copper (610 µg/L, guidance level 200 µg/L), iron (305,000 µg/L, guidance level 300 µg/L), lead (220 µg/L, guidance level 25 µg/L), magnesium (133,000 µg/L, guidance level 35,000 µg/L), manganese (22,100 µg/L, guidance level 300 µg/L), nickel (380 µg/L, guidance level 100 µg/L), and vandium (170 µg/L, guidance level 14 µg/L). Elevated levels of arsenic, beryllium, cadmium, chromium, copper, nickel, and vanadium were detected at monitoring well 2MW-05 only. In addition, the peak concentration of sodium was detected at 2MW-04 (111,000 µg/L, guidance level 20,000 µg/L).

Additional analysis was completed for dissolved lead (all wells) and dissolved TAL metals (MW-05). All dissolved lead values were below the guidance level (25 μ g/L). No significant exceedences of dissolved metals were detected MW-5 (elevated total metals at MW-5 appear to be due to suspended solids, see Section 3.4.4, above). Due to the lack of significant exceedances of TAL metals in February 2008, the groundwater samples were not analyzed for TAL metals in June 2008 or June 2009.

PCBs

No PCB concentrations were detected in groundwater at the Site in February 2008.

Quality Control Samples (Blanks)

Low to trace levels of methyl ethyl ketone and methylene chloride, often laboratory introduced contaminants, were detected in the trip blanks collected during groundwater sampling. In addition, a trace concentration of trichloroethene was detected in the trip blank from February 28, 2008. A trace, estimated, concentration of 1,2-dichloroethane was detected in the trip blank from June 1, 2009.

3.4.7 Nature and Extent of Contamination

No significant groundwater contamination was detected on-site. Based on the relatively immobility of on-site contamination groundwater flow is not likely to have a significant impact in the horizontal and vertical movement of contamination throughout the Site.



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3.5 Sediment Investigation

Two sediment samples (2SED-1 and 2SED-2) were collected from Fishkill Creek one from on-site (2SED-1) and one upstream of the Site (2SED-2) on February 25, 2008. Sediment sampling locations are illustrated on the Fieldwork Maps, provided in Appendix A.

3.5.1 Sample Collection Methodology

ESI collected sediment sampling from Fishkill Creek utilizing a properly decontaminated trowel. Sediment samples were place directly into laboratory supplied containers. Both sediment samples were submitted for analysis of VOCs using USEPA Method 8260, TAL metals using various USEPA Methods, and PCBs using USEPA Method 8082. In addition, 2SED-1 was submitted for analysis of SVOCs using USEPA Method 8270, pesticides using USEPA Method 8081, total organic carbon (TOC) using the Lloyd-Kahn Method, dioxins/furans using USEPA Method 8280, and methylene blue active substance using USEPA Method 5540C.

3.5.2 Fieldwork Observations and Sample Submission

Sediment samples consisted of brown silt and clay with gravels. No field evidence of contamination was noted during sediment collection.

3.5.3 Laboratory Results

VOCs in sediment are summarized in Table 21, Appendix B. SVOCs in sediment are summarized in Table 22, Appendix B. TAL metals in sediment are summarized in Table 23, Appendix B. Pesticides in sediment are summarized in Table 24, Appendix B. PCBs in sediment are summarized in Table 25, Appendix B.

VOCs

An estimated low-level of toluene concentration (0.0091 μ g/g) was detected at 2SED-2 located upstream of the Site. This toluene concentration does not exceed applicable sediment criteria. In addition, estimated low-levels of acetone and methylene chloride, which are often laboratory introduced contaminants, were detected in the same sample. No sediment criterion exist for acetone and methylene chloride. No VOCs were detected in 2SED-1, the sediment sample taken on-site. In addition, all the VOC levels detected were well below BCP Restricted Residential use SCOs.

SVOCs

Low to trace-level concentrations (all estimated with the exception of fluoranthene) of several SVOCs were detected in sediment sample 2SED-1. SVOCs detected included: anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluroanthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, fluoranthene, ideno(1,2,3-cd)pyrene, phenanthrene, and pyrene. No sediment criteria exist for: benzo(b)fluroanthene, benzo(g,h,i)perylene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene. All other detectable concentrations do not exceed their applicable sediment criteria.

TAL Metals

Slightly elevated concentrations of the following TAL metals were detected in all sediment samples above the Lowest Effect Level sediment criteria: arsenic (6.3 ppm at 2 SED-2 only, sediment criteria 6.0 ppm); cooper (peak concentration of 45 ppm at 2SED-1, sediment criteria 16.0 ppm); lead (peak concentration of 61.7 ppm at 2SED-1, sediment criteria 31.0 ppm); manganese (623 ppm at 2 SED-2 only, sediment criteria 460.0 ppm); nickel (peak concentration of 24 ppm at 2SED-1, guidance level 16.0 ppm), and zinc (133 ppm at 2 SED-1 only, sediment criteria 120.0 ppm).



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The Lowest Effect Level sediment criteria indicates a level of sediment contamination that can be tolerated by the majority of benthic organism, but still causes toxicity to a few species. The Severe Effect Level sediment criteria indicate the concentration at which pronounced disturbance of sediment dwelling community can be expected. No detectable concentration exceeded the Severe Effect Level sediment criteria.

In addition, low-levels of remaining TAL metals, with the exception of antimony, cadmium, selenium, and silver, were detected in sediment samples 2SED-1 and SED-2. In addition, with the exception of magnesium in both samples and zinc in 2SED-1, all detections are below BCP Restricted Residential use SCOs.

Pesticides

Low-levels of 4,4'-DDD (estimated 0.0035 μ g/g, sediment criteria 0.01 μ g/g), 4,4'-DDE (estimated 0.0014 μ g/g, sediment criteria 0.01 μ g/g), 4,4'-DDT (estimated 0.0027 μ g/g, sediment criteria 0.01 μ g/g), dieldrin (0.0078 μ g/g, sediment criteria 0.1 μ g/g), gamma-chlordane (estimated 0.0021 μ g/g, sediment criteria not established), heptachlor epoxide (estimated 0.0004 μ g/g, sediment criteria 0.0008 μ g/g), and total DDT (0.0076 μ g/g, sediment criteria not established) were detected in sediment sample 2SED-1.

PCBs

Exceedances of PCB 1254 (estimated 0.0048 μ g/g) and PCB 1268 (estimated 0.0010 μ g/g) were detected in sediment sample 2SED-1 (sediment criteria 0.0008 μ g/g for Human Health Bioaccumulation). Detectable concentrations in 2SED-1 did not exceed all other levels of protection (Benthic Aquatic Life Acute/Chronic Toxicity and Wildlife Bioaccumulation). No PCBs were detected in 2SED-2.

TOC, Dioxins/Furans, and Methylene Blue Active Substances

TOC for 2SED-1 was determined to be 13,900 mg/kg. Methylene blue active substances were not detected in sample 2SED-1. Four dioxin/furan compounds were detected at low levels in the sediment sample 2SED-1 including: 1,2,3,4,6,7,8-HpCDD (.077 parts per billion [ppb], sediment criteria not determined), OCDD (1 ppb, sediment criteria not determined), 1,2,3,4,6,7,8-HpCDF (.022 ppb, sediment criteria not determined), OCDD (0.120 ppb, sediment criteria not determined). Five other compounds were detected at estimated low levels including: 1,2,3,6,7,8-HxCDD (.0013 ppb), 1,2,3,7,8,9-HxCDD (.0012ppb), 1,2,3,4,7,8-HxCDF (.00062 ppb), 1,2,3,6,7,8-HxCDF (.00056 ppb), and 1,2,3,4,7,8,9-HpCDF (.0026 ppb).

3.5.4 Nature and Extent of Contamination

Low levels of contaminants detected in the sediment samples from on-site and upstream are not indicative of significant contamination.

3.6 Surface Water Investigation

3.6.1 Sample Collection Methodology

Two surface water samples (2SW-1 and 2SW-2) were collected from Fishkill Creek, one from onsite (2SW-1) and one upstream of the Site (2SW-2), by ESI on February 28, 2008. Sample SW-1 was collected from the north bank of Fishkill Creek approximately in the center of the Site, sample SW-2 was collected along the north shore of Fishkill Creek from a trail located on Madam Brett Park (located to the east of the Site).



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Surface water samples were collected directly from the Creek, then transferred (as necessary) to smaller sized glassware (1 liter amber jars, 500 ml plastic jars, and 40 ml vials, preserved with acid as appropriate for the specific analysis). No surface water samples were filtered prior to submission to the laboratory.

3.6.2 Fieldwork Observations and Sample Submission

No significant field evidence of contamination was noted during the sampling of surface water. Both surface-water samples were submitted for analysis of VOCs using USEPA Method 8260, TAL Metals using various USEPA Methods, and PCBs using USEPA Method 8082.

3.6.3 Laboratory Results

VOCs in surface water are summarized in Table 26, Appendix B. Significant detections of TAL metals in surface water are depicted on Figure 10, Appendix A, and laboratory data is summarized in Table 27, Appendix B. PCBs in surface water are summarized in Table 28, Appendix B.

VOCs

No VOCs were detected in surface-water samples.

TAL Metals

An elevated concentration of aluminum (estimated 110 μ g/L at 2SW-1, guidance level 100 μ g/L) was detected in surface water sample 2SW-1. Low level concentrations of barium, calcium, iron, lead, magnesium, manganese, potassium, and sodium were detected in both samples. A low-level concentration of vanadium was also detected in 2SW-2, only.

PCBs

No PCBs were detected in either surface-water sample submitted for laboratory analysis.

3.6.4 Nature and Extent of Contamination

A slightly elevated level of aluminum detected in the on-site surface water is not indicative of significant contamination. It is also unlikely that the aluminum originated on-site, based on detections of aluminum in on-site soils (See Section 3.3.5, above) No other significant contamination was detected in surface water.

3.7 Data Generation and Validation

Complete laboratory data packages were provided to an independent, third-party data validator. A summary of the findings in the <u>Data Usability Summary Reports</u> (<u>DUSRs</u>) for the work outlined in this RIR is presented below. (Note: Several of the laboratory data packages have been submitted for DUSR analysis but have not been received by ESI. <u>DUSR</u> reports and analysis for these laboratory results will be submitted under separate cover).

Soil Gas

Sixteen soil gas samples were collected and analyzed for VOCs (USEPA Method TO-15). The DUSR found that all of the data is acceptable for use, with the exception of a few compounds that did not meet QC criteria for the laboratory calibration standard analysis. The following compounds were qualified with the "UJ/J" suffix as a result: isobutyl alcohol, tert butyl alcohol, 1,4-dioxane, and methyl butyl ketone.



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Soil Samples

With the exception of sample 2B-14 (22-24'), twenty-two VOC compounds were qualified with the "UJ/J" suffix because the compounds did not meet QC criteria or were detected in the method blank (compounds included: 1,1,2,2-tetrachloride; 1,2,3-trichlorobenzene; 1,2,4-trichlorobenzene; 1,2-dibromo-3-chloropropane; 2,2-dichloropropane; 2-chlorotoluene; acetone; bromomethane; carbon tetrachloride; chloroethane; chloromethane; dichlorodifluoromethane; hexachlorobutadiene; methlylene chloride; methyl ethyl ketone; m&p xylene; naphthalene; o-xylene; tert-butylbenzene; toluene; total xylene; and, trichlorofluoromethane). Seventeen additional VOC compounds were labeled "UJ/J" in sample 2B-14 because the compounds did not meet QC criteria.

Of these compounds, seven (acetone, methlylene chloride, methyl ethyl ketone, m&p xylene, oxylene, total xylene and toluene) were detected in any of the samples and these were qualified "UJ/J" due to detection in the method blanks. Acetone, methylene chloride, and methyl ethyl ketone are often laboratory introduced contaminants and were therefore judged to be insignificant. Although toluene is one of the contaminants of concern detected at this Site, the detections that were qualified "UJ/J" were generally estimated ("J" flagged) prior to the DUSR evaluation and were detected at levels far below the guidance value for toluene in soil. No significant detections of toluene were qualified with the "UJ/J" suffix in the DUSR review.

Three SVOCs were qualified with the "UJ/J" suffix because the compounds did not meet QC criteria (compounds included: bis[2-chloroethyl]ether, 2-2'oxybis[1-chloropropane], and bis [2-ethylhexyl]phthalate). Several tentatively identified compounds (TICs, including: adol condensation product, n-butyl benzenesulfomide, and several "unknown" compounds) were qualified with the "UJ/J" suffix and were subsequently removed from the TICs and total SVOC columns in the summary tables.

Seven metals were qualified with the "J" suffix because the compounds did not meet QC criteria in some of the samples. The metals included: antimony, arsenic, calcium, cobalt, manganese, potassium, and thallium. The summary tables were updated to reflect this change.

Mercury samples were submitted for analysis from two intervals for the test pit samples where elevated levels of mercury were detected in the surface or near-surface interval. The second interval (deeper interval) was submitted after the hold time had expired and was therefore qualified with the "J" suffix.

Two PCB compounds (1254 and 1260) were qualified with the "J" suffix because the compounds did not meet QC criteria. As described above, some test pit samples were submitted for analysis from two intervals where elevated levels of PCBs were detected in the surface or near-surface interval. The second interval (deeper interval) was submitted after the hold time had expired and was therefore qualified with the "J" suffix.

Groundwater Samples

Nineteen VOC compounds were qualified with the "UJ/J" suffix because the compounds did not meet QC criteria or were detected in the method blanks (compounds included: 1,2 dibromo-3-chloropropane; 1,2,3-trichlorobenzene; 1,2,4-trichlorobenzene; 1-chlorohexane; 1-chlorohexane; 2-hexanone; 4-isopropyl ketone; acetone; carbon disulfide; chloroethane; chloromethane; dichlorodifluoromethane; hexachlorobutadiene; methyl isobutyl ketone; methylene chloride; naphthalene; n-butylbenzene; trichloroethene; and, trichlorofluoromethane).

In addition, one compound 1,4-dioxane was qualified with a "R" suffix (unusable) in the June 2008 sample set because the response factor did not meet the minimum repose criteria.

Of these compounds, only three (acetone, methlylene chloride, and trichloroethene) were detected in any of the samples and these were qualified "UJ/J" due to detection in the method blanks. Acetone and methylene chloride are often laboratory introduced contaminants and were therefore



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judged to be insignificant. Trichloroethene was detected in three wells (MW-01, MW-03, and 2MW-06) at very low estimated levels (0.31 to 0.43 μ g/L) and were qualified with a "UJ/J" after the DUSR review. No significant detections of trichloroethene were detected in the groundwater samples.

Surface Water Samples

All data for surface water samples was judged usable and suited for analysis.

Sediment Samples

All data for sediment samples was judged usable and suited for analysis.

3.8 Exposure Assessment

An exposure assessment was conducted to qualitatively assess the potential impacts of known environmental contaminants from the existing Site on human health, cognizant of all possible exposure pathways (i.e. ingestion, inhalation, and direct contact). Both current (existing conditions) and future use (proposed multi-unit residential development) scenarios were considered.

The primary contaminant present in Site soils is toluene, located in subsurface soils beneath the sub-slab of building B-5B and on the northwest corner of the Site. In addition, metals (primarily lead and mercury) and PCBs were detected in near-surface soils located to the southwest of the western parking area and west of the Fisherman's Trail.

To a lesser degree, PAHs, metals, and pesticides were detected in surface soils throughout the Site, with hot-spots located near the southwest corner of building B-5B and in the transformer cage located to the northeast of building B-2.

Low-level contamination was detected in soil gas, groundwater, and sediment. No significant contamination was detected in surface water. All potential exposure pathways for each media were identified in the current and future scenario.

Current Scenario

Under the current scenario the Site will remain vacant; therefore, Site trespassers are the likely receptor population.

Soil Gas

Inhalation is the most like route of exposure to low-level contamination in on-site soil gas in the vicinity of building B-7. Access to soil gas is currently limited by the restricted entrance to the interior of building B-7. This restriction minimizes the exposure to trichoroethene in soil gas by trespassers.

<u>Soils</u>

No existing or potential exposure pathways (through direct contact, inhalation or ingestion) for onsite contaminated subsurface soils are anticipated as subsurface soils will not be disturbed during the current scenario.

Potential exposure pathways for contaminated surface soils, direct contact and ingestion, are anticipated during the current scenario due to limited access to surface soils. Access to surface soils is currently limited by coverage of soils with buildings and asphalt. In addition, heavy vegetation covers surface soils in the area near the trails. These restrictions minimize chronic exposure to contaminants in surface soils, although acute exposure may exist if surface soils were to be uncovered.



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Groundwater

Ingestion and direct contact are the most like route of exposure to low-level TAL metals contamination in on-site groundwater. On-site groundwater is not being used for drinking water at the Site, as the area is served by the public water supply. Site trespassers could come into contact with the groundwater if they perform ground intrusive work at the Site.

Sediments

Ingestion and direct contact are the most like route of exposure to low-level TAL metals and PCB contamination in sediments along the Fishkill Creek. Site trespassers could come into contact with sediments if they come into contact with off-shore sediment during recreational activities.

Surface Water

No significant contamination is present in surface water. No significant existing or potential exposure pathways for migration of contamination are anticipated during the current scenario.

Future Scenario (multi-unit residential complex)

In conjunction with construction activities, remedial activities will take place at the Site in order to address soil contamination. Remedial activities are expected to remove and reduce contamination at the Site (see Section 5.0, below). Trespassers, construction workers, remediation personnel, and users of adjoining properties are likely the receptor populations.

Soil Gas

Inhalation of soil gas is the likely route of exposure for receptor populations. The implementation of a <u>Health and Safety Plan</u> (<u>HASP</u>, incorporating a Community Health and Safety Plan), and a <u>Community Air Monitoring Plan</u> CAMP, will mitigate possible impacts to the on-site and off-site receptor populations.

The potential exist for low-level VOC contamination in soil to remain on-site after development activities. Inhalation of soil vapors is a potential route of exposure for receptor populations (on-site workers, users, and users of adjoining properties). A Sub-Slab Depressurization System (SSDS) is proposed in order to remove any potential vapors that might accumulate beneath all new on-site structures.

<u>Soil</u>

Contaminated soils are a potential source of concern during development activities. Site clearing, soil excavation and removal, and soil grading activities are the most likely release and transport mechanism for contaminants. Inhalation of dust generated on-site, and direct contact with soils, are the likely routes of exposure. The implementation of a <u>HASP</u> and a <u>CAMP</u> will mitigate possible impacts to the on-site and off-site receptor populations. Any development activity that involves soil disturbance will require monitoring and mitigation plans to address potential dust generation and contaminant migration.

The potential exist for low-level contamination in soil to remain on-site after development activities. Access to low-level contamination in surface soils will be limited by paved areas, building footprints, and a barrier layer of at least two feet of soil (in specified areas). No potential exposure pathways through direct contact or ingestion for low-level contamination in subsurface soils are anticipated, as subsurface soils will not be disturbed following remediation and construction.



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Groundwater

Direct contact with on-site groundwater during construction and periodic sampling is a potential route of exposure for receptor populations. During Site development activities, groundwater exposure will be controlled by strict health and safety protocols. No current use of groundwater exits and no future use is proposed.

<u>Sediments</u>

Ingestion and direct contact are the most like route of exposure to low-level TAL metals and PCB contamination in sediments along the Fishkill Creek. Receptor populations could come into contact with sediments if they come into contact with off-shore sediment during recreational activities.

Surface Water

No significant contamination is present in surface water. No significant existing or potential exposure pathways for migration of contamination are anticipated during the future scenario.

3.9 Fish and Wildlife Impact Analysis

As requested by the NYSDEC, a partial Fish and Wildlife Impact Analysis (FWIA) through Step II (Contaminant-Specific Impact Analysis), Part A (Pathway Analysis) was completed for the Site following the department's October 1994 guidance document titled "*Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (FWIA)*". The partial FWIA was completed by Matthew D. Rudikoff Associates, Inc. and is dated January 5, 2009. The analysis was completed to:

- Document the extent of cover types flora and fauna on an in the vicinity of the Site.
- Evaluate the extent to which Site biological resources showed evidence of stress.
- Assess the potential for reported Site contaminants to migrate from the Site.
- Identify the potential pathway(s) of contaminant movement from Site sources to potential biological receptors.

The following is a summary of the FWIA, the complete report is located in Appendix E.

3.9.1 On-site Flora and Fauna

The study was conducted between May and September 2008 in order to be able to determine the Site flora and fauna during the growing season. Seven cover types and 35 species of fish and wildlife were identified on or in close proximity to the Site. It was determined that although Site flora and fauna was reasonably diverse, it was typical of industrial sites with extensive buildings, pavement, impoverished soils and chronically disturbed vegetation that substantially reduce habitat value. Most of the species observed were development-associated species and no evidence of atypical or aberrant growth, atypical external morphology or behavior, or other observable indications of environmental stress was observed.

3.9.2 Species of Concern

A small population of Davis' sedge (*Carex davisii*), a NYSDEC-listed threatened Natural Heritage Program rare plant species, was found on the western side of the Site near a tree line bordering an old field. Two rare cover types (Freshwater Intertidal Shore and Freshwater Subtidal Aquatic Bed) were observed along the southern boundary of the Site.



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3.9.3 Potential for Wildlife Exposure to Contaminants

It was determined that exposure of Site biota to areas of elevated VOCs was very low due to the lack of VOCs in surface or groundwater and that exposure to elevated SVOCs was very limited due to the detections occurring in areas that provided little of any significant wildlife habitat or foraging area.

Potential exposure of wildlife to Site contaminants was determined to be greatest on the westerly one-third of the Site where elevated levels of metals and PCBs were detected within 1-foot of the soil surface and where the highest plant biomass, plant species richness and most wildlife were observed. Remediation activities are planned in this area and will prevent the continued potential exposure of Site biota to elevated levels of metals and PCBs.

Contaminants in sediments are limited to low-level exceedances of PCBs and TAL metals. PCB concentrations in sediments do not exceed sediment criteria for Benthic Aquatic Life Acute/Chronic Toxicity and Wildlife Bioaccumulation, therefore, impact to wildlife from PCBs in sediments is not anticipated. In addition, slightly elevated concentrations of some TAL metals is not anticipated to significantly impact wildlife as the Lowest Effect Level sediment criteria (sediment criteria exceeded) indicates a level of sediment contamination that can be tolerated by the majority of benthic organism with toxicity to a few species. No detectable concentration exceeded the Severe Effect Level sediment criteria indicate the concentration at which pronounced disturbance of sediment dwelling community can be expected.



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4.0 CONCLUSIONS AND RECOMMENDATIONS

This office has completed the environmental investigative services summarized in Section 3.0 at the Beacon Terminal Site, located at 555 South Avenue, City of Beacon, New York. The investigation was conducted in order to determine the impacts from historical Site uses and the nature and extent of contamination, and to provide guidance on response actions warranted to address identified environmental conditions. Conclusions and recommendations drawn from the investigative findings are provided below.

4.1 Conclusions

- 1. Analyte concentrations above Restricted Residential Use SCOs are present on the Site:
 - Elevated concentrations of toluene were found in the vicinity of the abandoned rail spur and wood line.
 - Elevated concentrations of PCBs and metals (primarily lead and mercury), were found on the southwest corner of the Site, primarily in the areas where degraded fabric was observed on both sides of the Fisherman's Trail raising the potential that soils with elevated PCBs could extend off-site.
 - Low concentrations of toluene (at or below guidance levels) were detected in subsurface soils beneath the northwest corner of building B-5A (located in a small enclosed room) and the northeast corner of building B-5B.
 - Low levels of PAHs and metals are present in surface and subsurface soils throughout the Site.
 - Low levels of pesticides are present in surface soils throughout the Site.
 - An elevated concentration of trichloroethene in soil gas in the vicinity of building B-7.

These findings support the conclusion former commercial/industrial uses have impacted Site soils; areas with significantly elevated contaminant levels, however, are generally restricted to well-defined portions of the Site.

- 2. Site groundwater has not been significantly impacted on-site contamination.
- 3. No significant contamination was encountered in Site surface-water or sediment.

4.2 Recommendations

- 1. It is recommended that remediation be conducted in the following areas:
 - On the northwest corner and north-central portions of the Site (near the abandoned railroad spur and wood line) in the area of the toluene and PAHs impacted soils, corresponding to the vicinity of sampling locations 2HB-02, 2B-15, 2B-15A, 2B-15C, and 3B-01 through 3B-11 (Figure 11).
 - In the area of the Fisherman's trail and southwest of the western parking lot in the area of the abandoned fabric, corresponding to the vicinity of sampling locations 4SS-2, 2TP-2, 2TP-8, 2TP-11, 2TP-12, and 2TP-15 (Figure 12).



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- Northeast of building B-2, in the vicinity of sampling location 2HB-06 and 3HB-01 (Figure 11).
- In the northern portion of building B-7, corresponding to sampling location 2SV-11(Figure 11).
- Post-excavation confirmatory sampling and proper documentation of remedial activities (including waste disposal manifests and laboratory data) should be provided to the NYSDEC. The overall volume of contaminated soil and fabric/debris to be removed is estimated to be approximately 1,500-2,000 cubic yards and an equivalent volume of backfill should be imported to restore the original grade. Limited portions of the Site not covered by proposed new residential structures or other impermeable areas (e.g., asphalt) should be covered by a suitable barrier layer of at least two feet of soil (such material must be approved by the NYSDEC as acceptable for Site use) to address remaining low-level surface and subsurface contamination of PAHs, metals, and pesticides.
- 2. An evaluation for soil vapor intrusion should be considered if new structures are erected in areas with elevated levels of VOCs (vicinity of buildings B-5A, B-5B, and B-7; and in the northwest corner of the Site), depending on the upon the remedy implementation.
- 3. No further investigation of groundwater and no groundwater remediation is warranted at this time. Monitoring wells should be sampled once subsequent to Site remediation for VOCs to confirm prior groundwater findings.



APPENDIX A

Figures





Site ID C314117 555 South Avenue City of Beacon Dutchess County, New York


















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Ecosystems Strategies, Inc.



APPENDIX B

Tables



Table 1: Fieldwork Observations (Page 1 of 11)(NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material,
generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
2SV-01	Building B-1	6"	4" concrete, 2" sub-grade	No	0.0	NEC
2SV-02	Central portion of building B-2 (moved to the west of original location due to void under eastern portion of building B-2)	10"	8" concrete, 2" sub-grade	No	0.0	NEC
2SV-03	Western portion of building B-2	4"	2" concrete, 2" sub-grade	No	0.1	NEC
2SV-04	Northern portion of building B-3	6"	4" concrete, 2" sub-grade	No	0.0	NEC
2SV-05	Southern portion of building B-3	6"	4" concrete, 2" sub-grade	No	0.0	NEC
2SV-06	Building B-4	8"	6" concrete, 2" sub-grade	No	0.1	NEC
2SV-07	Eastern portion of building B-5A	10"	8" concrete, 2" sub-grade	No	0.0	NEC
2SV-08	Western portion of building B-5A	8"	6" concrete, 2" sub-grade	No	0.0	NEC
2SV-09	Building B-5B	8"	6" concrete, 2" sub-grade	No	0.0	NEC
2SV-10	Building B-6	8"	6" concrete, 2" sub-grade	No	0.2	NEC
2SV-11	Northern portion of Building B-7	10"	8" concrete, 2" sub-grade	No	0.0	NEC
2SV-12	Southern portion of Building B-7	10"	8" concrete, 2" sub-grade	No	0.0	NEC
2SV-13	Northern portion of building B-8	5"	3" concrete, 2" sub-grade	No	0.0	NEC
2SV-14	Southern portion of building B-8	5"	3" concrete, 2" sub-grade	No	0.0	NEC
2SV-15	Center of relocated soil	0-1' 1-4'	brown clay fill	No	0.0	NEC
2SV-16	Center of western parking area	0-4" 4-12"	4" asphalt, 8" brown clay with gravels and brick fragments (fill)	No	0.0	NEC
		1'-3.5'	grey silty clay with gravels			
2B-01A	Southwest of relocated soil	0-6" 6"-1' 1'-4' 4'-5' 5'-7'	Topsoil Brown clay Brown silty clay Brown silty clay, moist Brown silty clay, very moist	No No No Yes	0.0 0.0 45 35 700	NEC NEC Moderate odor Moderate odor Strong odor, perched water at 6'
		7'-9' 9'-10' 10'-11' 11'-12.5'	Brown silty clay, very moist Brown silty clay, moist Brown silty clay, moist Weathered shale, refusal at 12.5'	No No No	165 97 14 10	Strong odor Strong odor Slight odor Slight odor



 Table 1: Fieldwork Observations (Page 2 of 11)

 (NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material, generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
2B-01B	West of relocated soil	0-4' 4-9.0' 9.0-10' 10'-11 11-13' 13-15' 15'-16.5' 16.5'-17'	Brown clay with shale layer at 3' Brown silty clay, moist Brown silty clay, moist Weathered shale, refusal at 17'	No No No No No No No	0.0 0.0 8.2 299 48 38 15 10	NEC NEC Slight odor Strong odor Moderate odor Moderate odor Slight odor Slight odor
2B-01C	Southwest of relocated soil, near tree line	0-2" 2"-10" 1'-1.5' 1.5'-2.5' 2.5'-3.5' 3.5-5.0' 5.0'-6.5' 6.5'-7.5' 7.5'-10.0' 10.0'	Topsoil Brown clay Brown silty clay Brown silty clay, moist Brown silty clay, moist Brown silty clay, very moist Brown silty clay, very moist Brown silty clay, very moist Weathered shale, refusal at 10'	No No No No No No No No No No	2.2 6.6 2118 1025 1379 346 803 205 225 90.9	NEC Slight odor Very strong odor Very strong odor Very strong odor Strong odor Strong odor Strong odor Moderate odor
2B-02	Southeast of relocated soil	0-2" 2"-3' 3'-10' 10'-12' 12'	Topsoil Brown clay with gravels Brown silty clay, moist Brown silty clay, very moist Weathered shale, refusal at 12'	No No No No No	0.0 0.0 0.0 0.0 0.0	NEC NEC NEC NEC NEC NEC
2B-03	Northeast quadrant of the western parking area	0-3" 3"-6" 6"-2'	Asphalt Black gravel Brown clay with gravels	No No No	0.0 0.0 0.0	NEC NEC, sample not sent for analysis due to asphalt NEC
2B-04	Southeast quadrant of the western parking area	2'-3' 0-2" 2"-6" 6"-1.5' 1.5'-3' 3'-7' 7-13.5'	Decomposed shale, refusal at 3' Asphalt Brown clay with gravels Brown clay Grey silty clay with gravels Grey silty clay, with weathered shale Weathered shale, refusal at 13.5'	No No No No No No	0.0 0.0 0.0 0.0 0.0 0.0 0.0	NEC NEC NEC NEC NEC NEC NEC
2B-05	Northwest quadrant of the western parking area	0-3" 3"-1' 1'-3' 3'-7' 7'-9'	Asphalt Brown clay with gravels Grey silty clay with gravels Grey silty clay, very wet Very weathered shale, refusal at 9'	No No Yes No	0.0 0.0 0.0 0.0 0.0	NEC NEC NEC NEC, perched water table at 4' NEC
2B-06	Southwest quadrant of the western parking area	0-4" 4"-1' 1'-5' 5'-9' 9'	Asphalt Brown Clay with gravels and brick fragments (fill) Grey silty clay with gravels Grey silty clay with pockets of yellow sand Weathered shale, refusal at 9'	No No No No No	0.0 0.0 0.0 0.0 0.0 0.0	NEC NEC NEC NEC NEC
2B-07	East of on-site transformer	0-3" 3"-2.5' 2.5'-6' 6.0-8.0' 8.0'	Asphalt Lt brown sandy clay with gravels Dk brown sandy clay with gravels Brown sandy clay, moist Weathered shale, Refusal	No No No No	0.0 0.0 0.0 0.0 0.0	NEC NEC NEC NEC NEC
2B-08	North of on-site transformer	0-3" 3"-3.5' 3.5'-5' 5'-5.5' 5.5'-6.0' 6.0'	Asphalt Lt brown sandy clay with gravels Dk brown sandy clay , moist Brown sandy clay, moist Decomposed Shale Refusal	No No No No No No	0.0 0.0 0.0 0.0 0.0 0.0 0.0	NEC NEC NEC NEC NEC NEC



Table 1: Fieldwork Observations (Page 3 of 11)(NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material,
generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
2B-09	Northeast corner of the	0-6"	Concrete	No	0.0	NEC
	northwest quadrant of building B-5A (inside of	6"-4' 4'-8 5'	Brown clay, moist Brown silty clay, yery moist	No	0.0	NEC perched water at
	building)	4-0.5	blown sity clay, very molst	163	0.0	6'
		8.5'-9'	Weathered shale, Refusal at 9'	No	0.0	NEC
2B-10	Approximate center of	0-6"	Concrete	No	0.0	NEC
	building B-5A (Inside of building)	0-2 2-13'	Brown clay with gravels and brick fragments	NO	0.0	NEC
	bullanig)	13'-13.5'	Weathered Shale, refusal at 13.5'	No	0.0	NEC
2B-11	Approximately 30' west	0-6"	Concrete	No	0.0	NEC
	of 2B-09 (inside of	6"-2'	Brown clay, moist	No	0.0	NEC
	building)	2 -5 5'-6'	Brown silty clay, moist Brown silty clay, very moist	Yes	0.0	NEC Slight odor
		6-9'	Brown silty clay, wely moist	No	0.0	NEC
		9'-12'	Grey silty clay, very moist	No	0.0	NEC
		12'-13'	Grey silty clay, wet	Yes	0.0	NEC, perched water
		13'-20'	Grev silty clay, very moist	No	0.0	table NEC
		20'-20.5	Weathered Shale	No	0.0	NEC
2B-12	West-central portion of	0-6"	Concrete	No	0.0	NEC
	building B-5A (inside of	6"-3'	Brown clay with gravels and brick fragments	No	0.0	NEC
	building)	3'-8'	Brown clay with gravels	No	0.0	NEC
		8'-'13' 13'-17'	Grey slity clay, very moist Brown clay with grayels	NO NO	0.0	NEC
		17'-17.5'	Weathered Shale	No	0.0	NEC
2B-13	Outside of southeast	0-6"	Concrete	No	0.0	NEC
	corner of small	6"-5'	Brown clay with gravels and brick fragments	No	0.0	NEC
	separate room of	5'-10'	Grey clay with gravels	No	0.0	NEC
	building b-5A (inside of building)	22'-24'	Clay with sand and gravels water table at 25'	Yes	0.0	NEC
	2 a.i.a.i.g)	25'	Refusal	Yes	0.0	NEC
2B-14	East-central portion of	0-6"	Concrete	No	0.0	NEC
	building B-5B (inside of	6"-5'	Brown clay with gravels and brick fragments	No	0.0	NEC
	building)	5'-/' 7' 10'	Brown clay Brown silty clay, moist	NO	0.0	NEC
		10'-24'	Grev silty clay, wery moist to wet	No	0.0	NEC
		24'-25'	Grey silty clay and gravels, water table at 25'	Yes	0.0	NEC
		25'	Refusal	Yes	0.0	NEC
2B-15	Northeast corner of	0-6"	Concrete	No	0.0	NEC
	of building)	6"-3'	Brown clay	No	37	Slight odor
	or ballanig)	3'-5'	Brown clay	No	382	Strong odor
		5'-7'	Brown silty clay, wet	No	39	Slight odor
		7'-9'	Brown silty clay, wet	No	5	Slight odor
		10'-15'	Grey silty clay, very wet	No	0.9	NEC
		15'-21'	Grey silty clay, moist	No	0.0	NEC
		21'-25'	Brown rock	Yes	0.0	NEC
2B-15A	Approximately 20' to	0-6"	Concrete	No	0.0	NEC
	the west of 2B-15	6"-4'	Brown clay	No	0.0	NEC
		4'-7'	Brown clay, moist	No	1.5	Slight odor
		7'-7.5'	Grey silty clay, very moist	No	76	Moderate odor
		7.5'-9'	Grey silty clay, wet	No	0.5	Slight odor
		10'-15'	Grey silty clay, very wet	No	0.9	NEC
		15'-21'	Grey silty clay and sand, wet	No	0.0	NEC
		21'-25'	Brown rock	Yes	0.0	NEC



Table 1: Fieldwork Observations (Page 4 of 11)(NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material,
generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
2B-15B	Approximately 20'	0-6"	Concrete	No	0.0	NEC
	south of 2B-15	6"-2'	Grey clay with gravels	No	0.0	NEC
		2'-10'	Grey silty clay, moist	No	0.0	NEC
2B-15C	Approximately 20' to	0-6"	Concrete	No	0.0	NEC
	the east of 2B-15	6"-1.5'	Grey silty clay with gravels and brick fragments	No	0.0	NEC
	(Inside of separate	1.5'-4.5'	Grey silty clay, moist	No	1.5	Slight odor
		4.5'-6'	Grey silty clay, moist	No	75.5	Moderate odor
		6'-8.5'	Grey silty clay, moist	No	26	Moderate odor
		8.5'-15'	Grey silty clay, wet	No	1.7	Slight odor
		15'-19'	Grey silty clay, wet	No	0.9	NEC
		19'	Refusal	Yes	0.0	NEC
3B-01	Approximately 31.5'	0-4"	Brown loamy clay, topsoil	No	0.0	NEC
	northeast of 3B-04	4"-2'	Brown sandy clay with gravels, dry	No	0.0	NEC
		2'-4'	Brown silty clay, moist	No	19	Very slight odor
		4'-5'	Brown silty clay, moist	No	55	Slight odor
		5'-8'	Brown silty clay, moist	No	2.0	NEC
		8'-8.5'	Brown silty clay, moist	No	3.0	NEC
		8.5'-11'	Brown silty clay, moist	No	0.0	NEC
3B-02	Approximately 20' west	0-4'	Brown clay with sand, very moist	No	0.0	NEC
	of 2B-03, inside of the	4'-6'	Brown silty clay, very moist	No	0.6	NEC
	wooded area	6-8'	Grey-brown silty clay, moist	No	1.8	NEC
		8'-12'	Grey-brown silty clay, moilst	No	2.2	NEC
		12'-14.5'	Grey-brown silty clay, refusal at 14.5'	No	0.0	NEC
3B-03	Approximately 10'	0-6"	Dark Brown loamy clay with gravels	No	0.0	NEC
	south of 2B-01C, east	6"-2'	Brown sandy clay	No	1.5	NEC
	of wood line	2'-4'	Brown silty clay with sand	No	1387	Strong odor
		4'-5'	Brown silty clay with sand	No	1587	Strong odor
		5-6'	Brown cay with sand	No	103	Slight odor
		6-8'	Brown clay with sand, moist	No	34-54	Slight odor
		8-12'	Brown clay with sand, wet at 10', refusal at 12'	Yes	1.3	NEC
3B-04	Approximately 15'	0-4'	Dark brown silty clay with sand	No	0.0	NEC
	north 2B-01C and 25'	4"-4'	Brown silty clay with sand	No	0.0	NEC
	wood line	4'-8"	Brown silty clay to clay	No	0.0	NEC
		8'-10'	Brown clay	No	33-95	Slight odor
		10'	Refusal, decomposed shale	No		
3B-05	Approximately 15.5'	0-4'	Dark brown loamy clay	No	0.0	NEC
	west of 3B-04, inside of	4"-4'	Brown silty clay with sand	No	0.0	NEC
	wooded area	4'-8'	Brown silty clay to clay, very moist	No	16-61	Slight odor
		8'-12'	Brown clay with sand	No	159-344	Moderate odor
		12'-14'	Brown clay with sand, wet at 13.5'	Yes	260	Moderate odor
		14'-16'	Brown clay with sand	Yes	60	Slight odor
		16'-17'	Brown clay with sand and gravels	Yes	132	Slight odor
		17'-17.7'	Grey sand, refusal at 17.7	Yes	3.9	NEC



 Table 1: Fieldwork Observations (Page 5 of 11)

 (NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material, generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
3B-06	Approximately 21'	0-4'	Brown sandy clay with gravels	No	0.0	NEC
	south of 3B-03, east of	4'-8'	Brown silty clay with sand	No	0.0	NEC
	wooded area	8'-9'	Brown silty clay with sand and gravels	No	0.0	NEC
		9'-12'	Grey-brown sandy clay	No	0.0	NEC
		12'-12.7'	Grey-brown sandy clay, refusal at 12.7'	No	0.0	NEC
3B-07	Approximately 15'	0-1'	Dark brown loamy clay with sand	No	1.9	NEC
	northwest of 3B-05,	1'-4	Brown sandy clay	No	190-380	Strong odor
	Inside of wooded area	4'-8'	Brown silty clay with sand, moist	No	82-218	Moderate odor
		8'-12'	Brown silty clay with sand, moist	No	140-362	Moderate odor
		12'-13'	Brown silty clay, moist	No	148	Moderate odor
		13'-15'	Brown silty clay, moist	No	60	Slight odor
		15'-16'	Brown silty clay, moist., refusal at 16'	No	30	Slight odor
3B-08	Approximately 24'	0-6'	Dark brown loamy clay	No	0.0	NEC
	northwest of 3B-04,	6'-2'	Brown clay with sand	No	20	NEC
	near wet-weather	2'-4'	Brown clay with sand	No	195	Moderate odor
	stream	4'-6'	Brown clay with sand, PID over-range at 6'	No	671-OR	Strong odor
		6'-8'	Brown silty clay	No	299	Moderate odor
		8'-12	Brown silty clay	No	5-202	Slight to moderate odor
		12'-16'	Grey-brown silty clay	No	48-307	Slight to moderate odor
		16'-18'	Grey-brown silty clay	N0	438-803	Strong odor
		18'-19'.3'	Grey-brown silty clay, refusal at 19.3		5.0	NEC
3B-09	Approximately 25'	0-4"	Brown silt with tree roots	No	0.0	NEC
	northwest of 3B-08 and	4"-8"	Brown clay, dry	No	676	Noticeable odor
	42 southwest of tree in center of open area	8"-4'	Brown silty clay, moist	No	1087	Strong odor
		4'-7'	Brown silty clay, moist	No	OR	Very strong odor
		7'-8'	Brown silty clay, moist	No	8961	Very strong odor
		8'-9'	Brown silty clay, moist to very moist	No	182	Slight odor
		9'-10.5'	Brown silty clay, moist	No	89	Slight odor
		10.5'-12'	Brown silty clay to 11.5 grey silty clay below,	No	64	Slight odor
		12'-13'	Grev silty clay, moist	No	25.8	NEC
		13'-16'	Grev silty clay, moist	No	0.0	NEC
3B-10	Approximately 18' west	0-4"	Brown loamy clay, topsoil	No	0.0	NEC
00 10	of 3B-07 and 26'	4"-2'	Brown sandy clay with gravels dry	No	0.0	NEC
	southwest 3B-11 inside		Brown sandy clay, dry	No	0.0	NEC
	of wooded area	4'-6'	Brown silty clay, dry	No	0.0	NEC
		6'-8'	Brown silty clay, moist to very moist	No	56	Slight odor at 8'
		8'-9'	Brown silty clay, moist to very moist	No	0.0	
		Q'_10'	Brown silty clay, moist	No	100	Slight odor
		10'-13'	Brown silty clay, moist	No	69	Slight odor
		13'-14'	Brown silty clay, moist	No	25	
		14'-15'	Brown silty clay, moist	No	125	Slight odor
		15'-16'	Brown silty clay, moist	No	9	NEC
3B-11	Approximately 22'	0-4"	Brown loamy, topsoil	No	0.0	NEC
	northeast of 3B-09	4"-4'	Brown silty clay, moist	No	0.0	NEC
		4'-8'	Brown silty clay, moist	No	0.0	NEC
		8'-9'	Brown silty clay, moist	No	0.0	NEC
		9'-12'	Brown silty clay with fine sand, moist	No	0.0	NEC



 Table 1: Fieldwork Observations (Page 6 of 11)

 (NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material, generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
4B-01	West of 2B-15A, inside of building B-5B	0-4'	Concrete underlain by sand and gravels and brown clay with gravels, bricks, and sand (fill)	No	0.0	NEC
		4'-8'	Brown to grey-brown clay with gravels, moist	No	0.0	NEC
		8'-12	Grey-brown silty clay, very moist	No	0.0	NEC
		12'-16''	Grey silty clay, refusal at 16'	No	0.0	NEC
4B-02	South of 2B-15A, inside of Building B-5B	0-4'	Concrete underlain by sand and gravels and brown clay with gravels, bricks, and sand (fill)	No	0.0	NEC
		4'-8'	Brown to grey-brown silty clay with gravels, moist	No	7.0	NEC
		8'-12	Grey-brown silty clay, wet	Yes	0.5	NEC
		12'-16''	Grey silty clay, refusal at 16'	Yes	0.0	NEC
MW-1	North of building B-5A	-	Existing monitoring well, re-developed with new wells on 2/28/08	-	0.0	Water at 22.24, total depth 28' on 1/22/08
MW-2	Southeast of building B-4 (near stairs for elevated walkway)	-	Existing monitoring well, re-developed with new wells on 2/28/08	-	0.0	Water at 4.0', total depth 8.45' on 1/22/08
MW-3	Northwest of building B-7, located in grassy area north of parking area	-	Existing monitoring well, re-developed with new wells on 2/28/08	-	0.0	Water at 10.64', total depth 11.75' on 1/21/08
2MW-04	Northeast corner of	0-2"	Brown, topsoil	No	0.0	NEC
	Site	2"-6"	Brick fragments and gravel (fill)	No	0.0	NEC
		6"-3'	Lt brown sandy clay	No	0.0	NEC
		3'-5'	Brown clay	No	0.0	NEC
		5'-13.5'	Brown silty clay, moist	Yes	0.0	perched water at 10.5', NEC
		13.5'-21'	Grey silty clay, very moist	No	0.0	NEC
		21'-22'	Grey silty clay with gravels, wet, refusal at 22'	Yes	0.0	NEC
2MW-05	Inside of building B-5A	0-6"	Concrete	No	0.0	NEC
		6"-5'	Brown clay with gravels and brick fragments	No	0.0	NEC
		5'-9' 10' 20'	Brown clay with gravels	NO Voc	0.0	NEC
		20'-22'	Weathered shale, refusal at 22'	No	0.0	NEC
2MW-06	South of building B-5B	0-2"	Brown tonsoil	No	0.0	NEC
2000 00		2"-6"	Gravel (fill)	No	0.0	NEC
		2 -0 6" 0'	Brown alow with grouple	No	0.0	NEC
		2'-10'	Brown silty clay, moist	Yes	0.0	perched water at 6', NEC
		10'-15'	Brown silty clay, very moist	No	0.0	NEC
		15' 28'	Grow silty clay, very moist	No	0.0	NEC
		28'-28.5'	Decomposed shale, refusal at 28.5'	Yes	0.0	NEC
2MW-07	East of Building B-7	0-6"	Asphalt	No	0.0	NFC
		6"-1 25"	Brown clay with gravel (fill)	No	0.0	NEC
		1 25'-2'	Concrete	No	0.0	NEC
		2'-6'	Decomposed Shale, refusal at 6'	No	0.0	NEC
		2-0		NO	0.0	Well not placed due to
						shallow bedrock
2MW-08	In-between buildings B-2 and B-4	-	Not installed, can not move equipment into area due to building, MW-02 near area	-	-	-



 Table 1: Fieldwork Observations (Page 7 of 11)

 (NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material, generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
2MW-09	Southwest corner of	0-2"	Gravel fill	No	0.0	NEC
	Site	2"-3.5'	Brown clay	No	0.0	NEC
		3.5'-5'	Weathered shale, well not installed due to high bedrock in area	No	0.0	NEC
2HB-01	Southwest of building B-7	0-4"	Brown loamy clay	No	0.0	NEC
2HB-02	Southwest of building B-5B	0-4"	Brown clay with gravels	No	0.0	NEC
2HB-03	In-between buildings B-7 and B-8 (west of roadway between buildings)	0-4"	Brown loamy clay	No	0.0	NEC
2HB-04	Southwest corner of building B-4	0-4"	Brown Clay	No	0.0	NEC
2HB-05	Southeast corner of Building B-2 (under shed/storage area)	0-4"	Brown Clay	No	0.0	NEC
2HB-06	East of on-site transformers	0-8" 8"-12"	Concrete Brown clay with gravels	No No	0.0 0.0	NEC NEC
2HB-07	South of on-site	0-8"	Concrete	No	0.0	NEC
	transformers, near machinery which held 137 gallons of oil	8"-12"	Brown clay with gravels	No	0.0	NEC
2HB-08	In-between buildings B-3 and B-5A	0-4"	Brown clay with gravels	No	0.0	NEC
2HB-09	Southeast corner of Site (across Fishkill Creek)	0-4"	Brown loamy clay	No	0.0	NEC
2HB-10	Southwest corner of site (across Fishkill Creek)	0-4"	Brown clay	No	0.0	NEC
2HB-11	Off-site, Northern wooded area directly off of South Avenue	0-4"	Brown loamy clay	No	0.0	NEC
2HB-12	Off-site, Central portion of wooded area	0-4"	Brown loamy clay	No	0.0	NEC
2HB-13	Northern bank of Fishkill Creek, center of Site	0-4"	Brown loamy clay	No	0.0	NEC
3HB-01	Inside of transformer cage	0-2"	0-2", beneath approximately 6" of concrete, moist brown clay	No	0.0	NEC
3HB-02	West side of Building B-5B	0-2"	0-2", beneath approximately 2" of asphalt brown silty clay, fill	No	0.0	NEC
3HB-03	Soil beneath raised sewer line	0-2"	Brown silty clay with rocks	No	0.0	NEC
3HB-04	East side of Fisherman's trail approximately 6' east of path, approximately ½ way down trail	0-2"	Dark brown loamy topsoil	No	0.0	NEC



Table 1: Fieldwork Observations (Page 8 of 11)(NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material,
generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
3HB-05	Northwest corner of Site	0-2"	Dark brown loamy topsoil	No	0.0	NEC
4SS-1	Western side of site, west of Fisherman's Trail.	0-2'	Dark brown loamy topsoil to 4" above light gray/brown dense clay.	No	0.0	NEC
4SS-2	Southwest corner of site, southwest of Fisherman's Trail	0-2'	Fabric at surface above dark brown loamy topsoil to 4" above light gray/brown dense clay.	No	0.0	Dark felt-like fabric at surface.
2TP-1	Western edge of parking area, approximately 50' from northwest corner of parking area (on top of slope)	0-3.0' 3.0'	Brown clay with asphalt, concrete, pipe, and other metal debris (fill) Native brown clay soil	No	0.0 0.0	Fill mixed with soils
2TP-2	Approximately 20' north of TP-1 (on top of slope)	0-5.5' 5.5'	Brown clay with asphalt, concrete, concrete block, small amounts of fabric, and metal debris (fill) Native brown clay, soils	No No	0.0	Fill mixed with soils
2TP-3	Approximately 20' south of TP-1 (on top	0-6"	Brown clay with concrete and a small amount of debris (fill)	No	0.0	Fill mixed with soils
	of slope)	6"-2.0'	Native brown clay soils	No	0.0	NEC
2TP-4	Approximately 70' south of TP-3, approximately 40' north of southwest corner of parking area (on top of slope)	0-1"	Brown clay soils	No	0.0	NEC
2TP-5	Approximately 25' south of TP-4 (on top of slope)	0-1" 1"	Rubber or plastic material and asphalt (fill) and brown clay Native Brown clay soils	No No	0.0 0.0	Fill mixed with soils
2TP-6	Approximately 35' northwest of TP-7 (in wooded area, top of slope)	0-1'	Brown clay soils	No	0.0	NEC
2TP-7	Approximately 35' west of TP-8 (in wooded area, top of slope)	0-1'	Brown clay soils	No	0.0	NEC
2TP-8	Approximately 25' northeast of TP-9 (in wooded area, top of slope)	0-1'	Rocks, dirt, obvious fill Fill in area (not able to reach with machinery including concrete rubble, bricks, appears to be road cut debris)	No	0.0	Fill mixed with soils
2TP-9	Approximately 25' northeast of TP-10 (in wooded area, top of slope)	0-3'	Bricks, concrete rubble, and soils, obvious fill	No	0.0	Fill mixed with soils
2TP-10	Approximately 15' north of northwest corner of parking area (in wooded area, top of slope)	0-2'	Brown clay soils	No	0.0	NEC



Table 1: Fieldwork Observations (Page 9 of 11)(NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material,
generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
2TP-11	North of "Fisherman's	0-6"	Degraded fabric material	No	0.0	Fill material
	Trail" approximately ½ way down-slope	6"-1'	Brown clay soils	No	0.0	Residue from material
2TP-12	Approximately 35'	0-1.5"	Degraded fabric material	No	0.0	Fill material
	northeast of TP-11 (north side of trail)	1.5'	Brown clay soils	No	0.0	Residue from material
2TP-13	Approximately 20' southwest of TP-11 (north side of trail)	0-3'	Brown clay soils	No	0.0	NEC
2TP-14	Northeast of	Surface	Fabric and asphalt	No	0.0	Surface debris
	intersection of "Fisherman's Trail" and main riverfront trail	Surface- 1'	Reddish-brown clay soils with rocks and gravels	No	0.0	NEC
2TP-15	East of the trail, southwest corner of	0-2'	Fabric with scrap metal, PVC piping, other trash	No	0.0	Fill
	area below the parking	2'-4'	scrap metal, PVC piping , wood and, other	No	0.0	Fill mixed with soils
	arca	4'-5'	trash Brown clay soils overlying weathered shale at 5'	No	0.0	NEC
2TP-16	Northeast of TP-4, at bottom of slope	0-2'	Fabric with scrap metal, PVC piping, other trash	No	0.0	Fill
		2'-5'	scrap metal, PVC piping and, other trash	No	0.0	Fill mixed with soils
		5'	Brown clay soils overlying weathered shale at 5'	No	0.0	NEC
2TP-17	North of TP-15, east of main trail	0-2'	Small amount of fabric , scrap metal, and other trash	No	0.0	Fill
		2'-3'	Brown clay soils	No	0.0	Fill mixed with soils
		3'	Weathered shale	No	0.0	NEC
2TP-18	West of TP-3 at bottom of slope	0-4'	Small amounts of fabric, scrap metal, concrete blocks, metal piping, plastic, and other trash,	No	0.0	Fill
		4'-5'	mixed with dark brown clay soils Brown clay soils overlying weathered shale at 5'	No	0.0	NEC
2TP-19	North of TP-17, east of main trail	0-4'	Brown clay soils	No	0.0	NEC
2TP-20	West of TP-2 at bottom of slope	0-5'	Investigate base of fill at slope. Fill consists of rocks, bricks, wood, fabric, roofing tar, plastic, and miscellaneous trash. The fill exists over the whole slope in this area to a depth of approximately 4-5'. In addition numerous small containers and a 275 gallon AST were observed at the surface in this area.	No	0.0	Fill
2TP-21	West of northwest corner of parking area, at bottom of slope	0-1' 1'	Concrete block and metal debris Native brown clay	No No	0.0 0.0	Fill NEC
2TP-22	Directly west of the center of the parking area and at bottom of slope	0-5'	Investigate base of fill at slope. Fill consists of concrete blocks and brick mixed will fill dirt over the whole slope in this area to a depth of 4'-5'	No	0.0	Fill



Table 1: Fieldwork Observations (Page 10 of 11)

(NEC = No odors or visual evidence of contamination. The term fill indicates the presence of non-native material, generally variable in texture.)

Sampling Site	Location	Depth	Soil Characteristics	Groundwater Encountered	PID Reading (ppm)	Field Observations
2TP-23	West of TP-5, at bottom of slope	0-1'	Brown clay	No	0.0	NEC
2TP-24	Directly west of southwest corner of parking area, at the bottom of the slope	0-1'	Brown clay	No	0.0	NEC
2SST-1	Surface soil taken from under tank resting on slope near northeast corner of parking area	0-4"	Taken directly under 275 gallon AST observed near TP-20	No	0.0	NEC
4SS-1	Surface soil taken from the northwestern portion of the Site	0-3"	Dark brown silty clay with dark material and fabric	No	0.0	NEC
4SS-2	Surface soil taken from the southwestern portion of the Site	0-3" 15-18"	Dark brown silty clay Dark brown silty clay	No No	0.0 0.0	NEC NEC



Table 1: Fie	eldwork Obs	ervations (Page 11	of 11)
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Monitoring Well	Depth to	o Water fr of PVC	om top	PI	D Readin	g	Field Observ	vations	
Date	2/28/08	6/19/08	6/1/09	2/28/08	6/19/08	6/1/09	2/28/08	6/19/08	6/1/09
MW-01	20.55	21.39	19.8	0.0	3.4	0.0	NEC	NEC	NEC
MW-02	3.79	4.42	4.35	0.0	0.0	0.0	NEC	NEC	NEC
MW-03	7.95	*	*	0.0	0.0	0.0	NEC	Well Dry	Well Dry
2MW-04	7.10	12.4	9.79	0.0	0.0	0.0	NEC	NEC	NEC
2MW-05	18.75	18.67	18.22	0.4	0.0	0.0	NEC	NEC	NEC
2MW-06	11.5	13.4	13.95	0.0	0.0	0.0	NEC	NEC	NEC
NEC = No ev *Well dry	vidence of	contamina	ation						

Table 2 : Sample Submission for Laboratory Analysis

Analysia	Analytical	Matriana	Samula Numbere	Total
Analyte		Matrices		Analyzed
Compounds (VOCs)	15	Soil Gas	25V-01, 25V-02, 25V-03, 25V-04, 25V-05, 25V-06, 25V-07, 25V-08, 25V-09, 25V-10, 25V-11, 25V- 12, 25V-13, 25V-14, 25V-15, and 25V-16	16
Volatile Organic Compounds (VOCs)	USEPA 8260	Soil	VOCs full compound list included: 2SST-1 (0-4"), 2TP-2 (3'), 2TP-8 (1'), 2TP-11 (0-6"), 2TP-15 (1-2') 2B-01C (1-3'), 2B-02 (10-12'), 2B-04 (5-7'), 2B-05 (4-5'), 2B-06 (4-5'), 2B-07 (3-4'), 2B-08 (5-6'), 2B-09 (6-7'), 2B-10 (9-10'), 2B-11 (5-7'), 2B-12 (15-17'), 2B-13 (23-25'), 2B-14 (22-24'), 2B-15 (4-5'), 2B-154 (7-8'), 2B-15C (5-6'), 2MW-04 (20-21'), 2MW-05 (26-28'), 2MW-06 (6-5.5'), 2MW-00 (2-3.5'), 3B-03 (4- 6'), 3B-05 (10-12'), 3B-09 (1-2'), 3B-09 (5-6'), 3B-09 (16'), 3B-10 (10-11'), 3B-10 (16'), 3B-11 (12'), 4B- 01 (6-8'), 4B-02 (4-5'), 2HB-01 (0-4''), 2HB-02 (0-4''), 2HB-03 (0-4''), 2HB-04 (0-4''), 2HB-05 (0-4''), 2HB-05 (0-4''), 2HB-04 (0-4''), 2HB-10 (0-4''), 2HB-10 (0-4''), 2HB-10 (0-4''), 2HB-01 (0-4''), 2HB-01 (0-4''), 2HB-10 (0-4''), 2HB-10 (0-4''), 2HB-11 (0-4''), 2HB-12 (0-4''), and 2HB-13 (0-4''), 3HB-01 (0-2''), 3HB-02 (0-2''), 3HB-03 (0-2''), 3HB-04 (0-2''), 3HB-05 (0-4''), 2HB- (0-3'') and 455-2 (0-3''). VOCs aromatic only list included: 3B-01 (5-6'), 3B-06 (11'), 3B-02 (1-2), 3B-02 (10-12'), 3B-03 (3'), 3B-03 (10'), 3B-04 (1-3'), 3B-04 (9-10'), 3B-05 (5-6'), 3B-05 (17'), 3B-06 (1-2'), 3B-07 (16-4''), 3B-07 (15-16'), 3B-06 (2-4'), 3B-08 (15.5-6'), 3B-08 (13'), 3B-04 (1-3'), 3B-04 (1-3'), 3B-04 (2-4'), 3B-08 (15.5-6'), 3B-08 (13'), 3B-04 (11'), 2HB-10 (0-4''), 4B-10 (0-4''), 3B-02 (10-12'), 3B-07 (15-16'), 3B-06 (2-4'), 3B-08 (15.5-6'), 3B-08 (13'), 3B-04 (15.5'), 3B-08 (13'), 3B-04 (15.5'), 3B-08 (14'), 3B-08 (15.5-6'), 3B-08 (13'), 3B-04 (15'), 3B-04 (15'), 3B-03 (1-2'), 3B-08 (15'), 3B-08	80
Volatile Organic Compounds (VOCs)	USEPA 8260	Sediment	2SED-1, 2SED-2	2
Volatile Organic Compounds (VOCs)	USEPA 8260	Groundwater	MW-01(2/28/08, 6/19/08, 6/1/09), MW-02(2/28/08, 6/19/08, 6/1/09), MW-03(2/28/08), 2MW-04(2/28/08, 6/19/08, 6/1/09), 2MW-05 (2/28/08, 6/19/08, 6/2/09), 2MW-06 (2/28/08, 6/19/08, 6/1/09). Duplicate: 2MW-04 (2/28/2008)	16
Volatile Organic Compounds (VOCs)	USEPA 8260	Surface Water	2SW-1, 2SW-2	2
Semi-volatile Organic Compounds (SVOCs)	USEPA 8270	Soil	2SST-1 (0-4"), 2TP-2 (3'), 2TP-8 (1'), 2TP-11 (0-6"), 2TP-15 (1-2'), 2B-01C (1-3), 2B-02 (10-12'), 2B-04 (4-5"), 2B-05 (4-5'), 2B-06 (4-5'), 2B-07 (3-4'), 2B-08 (5-6'), 2B-09 (6-7'), 2B-10 (9-10'), 2B-11 (5-7'), 2B-12 (15-17'), 2B-13 (23-25'), 2B-14 (22-24'), 2B-15 (4-5'), 2MW-06 (6-6.5'), 2MW-09 (2-3.5'), 3B-03 (4-6'), 3B-05 (10-12'), 4B-01 (6-4''), 2HB-02 (0-4''), 2HB-03 (0-4''), 2HB-04 (0-4''), 2HB-03 (0-4''), 2HB-03 (0-4''), 2HB-04 (0-4''), 2HB-03 (0-4''), 2HB-04 (0-4''), 2HB-03 (0-4''), 2HB-04 (0-4''), 2HB-03 (0-4''), 2HB-04 (0-4''), 2HB-04 (0-4''), 2HB-04 (0-4''), 2HB-04 (0-4''), 2HB-04 (0-2'), 3HB-04 (0-2'), 3HB-04 (0-2'), 3HB-04 (0-2'), 3HB-05 (0-2''), 3HB-03 (0-4''), 3HB-04 (0-2'), 3HB-05 (0-2''), 3HB-03 (0-4''), 3HB-04 (0-2'), 3HB-05 (0-2''), 3HB-03 (0-2''), 3HB-04 (0-2'), 3HB-05 (0-2''), 3HB-03 (0-2''), 3HB-04 (0-2'), 3HB-05 (0-2''), 3	46
Semi-volatile Organic Compounds (SVOCs)	USEPA 8270	Sediment	29FD.1	1
Semi-volatile Organic Compounds (SVOCs)	USEPA 8270	Groundwater	MW-01(2/28/08), MW-02(2/28/08), MW-03(2/28/08), 2MW-04(2/28/08), 2MW-05 (2/28/08), 2MW-06 (2/28/08), 2	7
Target Analyte List Metals	USEPA 6010 and 7471	Soil	2SST-1 (0-4"), 2TP-2 (3'), 2TP-2B (4-5'), 2TP-8 (1'), 2TP-11 (0-6"), 2TP-11B (6"-1), 2TP-15 (1-2'), 2TP- 15 (3.5'), 2B-01C (1-3'), 2B-02 (10-12'), 2B-04 (5-7'), 2B-05 (4-5'), 2B-06 (4-5'), 2B-07 (3-4'), 2B-08 (5- 6'), 2B-09 (6-7'), 2B-10 (9-10'), 2B-11 (5-7'), 2B-12 (15-17'), 2B-13 (23-25'), 2B-14 (22-24'), 2B-16 (4- 5'), 2MW-06 (6-6.5'), 2MW-09 (2-3.5'), 3B-03 (4-6'), 3B-05 (10-12'), 4B-01 (6-8'), 4B-02 (4-5'), 2B-16 (4-5'), 2B-16 (4-7'), 2HB-04 (0-4''), 2HB-05 (0-4''), 2HB-06 (0-4''), 2HB-06 (0-4''), 2HB-06 (0-4''), 2HB-06 (0-4''), 2HB-06 (0-4''), 2HB-06 (0-4''), 2HB-07 (0-4''), 2HB-08 (0-4''), 2HB-06 (0-4''), 2HB-06 (0-4''), 2HB-01 (0-2''), 2HB-08 (0-4''), 2HB-01 (0-4''), 2HB-01 (0-4''), 2HB-01 (0-2''), 3HB-03 (4-6') Duplicates: 2B-11 (5-7'), 2HB-02 (0-4''), 3B-03 (4-6')	49
Target Analyte List Metals	USEPA 6010 and 7471	Sediment	2SED-1, 2SED-2	2
Target Analyte List Metals	USEPA 6010 and 7470	Groundwater	MW-01(total and dissolved, 2/28/08), MW-02(total and dissolved, 2/28/08), MW-03(total and dissolved, 2/28/08), 2MW-03(total and dissolved, 2/28/08), 2MW-05 (total and dissolved, 2/28/08), 2MW-06 (total and dissolved, 2/28/08). Duplicate: 2MW-04	13
Target Analyte List Metals	USEPA 6010 and 7470	Surface Water	2SW-1 (total and dissolved), 2SW-2 (total and dissolved)	
Polychlorinated Biphenyls (PCBs)	USEPA 8082	Soil	2SST-1 (0-4"), 2TP-2 (3'), 2TP-2B (4-5'), 2TP-8 (1'), 2TP-11 (0-6"), 2TP-11B (6"-1), 2TP-15 (1-2'), 2TP-15 (1-2'), 2TP-15 (1-2'), 2E-12 (15-17'), 2B-13 (23-25'), 2B-14 (22-24'), 2B-15 (4-5'), 3B-03 (4-6'), 3B-05 (10-12'), 4B-01 (6-8'), 4B-02 (4-5'), 2HB-01 (0-4''), 2HB-02 (0-4''), 2HB-03 (0-4''), 2HB-04 (0-4''), 2HB-05 (0-4''), 2HB-06 (0-4''), 2HB-07 (0-4''), 2HB-06 (0-4''), 2HB-07 (0-4''), 2HB-08 (0-4''), 2HB-09 (0-4''), 2HB-10 (0-4''), 2HB-10 (0-4''), 2HB-13 (0-4''), 3HB-01 (0-2''), 3HB-06 (0-2''), 3HB-05 (0-2''), 3HB-	42
Polychlorinated Biphenyls (PCBs)	USEPA 8082	Sediment	2SED-1, 2SED-2	2
Polychlorinated Biphenyls (PCBs)	USEPA 8082	Groundwater	MW-01(2/28/08), MW-02(2/28/08), MW-03(2/28/08), 2MW-04(2/28/08), 2MW-05 (2/28/08), 2MW-06 (2/28/08). Duplicate: 2MW-04 (2/28/2008)	7
Polychlorinated Biphenyls (PCBs)	USEPA 8082	Surface Water	2SW-1, 2SW-2	2
Pesticides	USEPA 8081	Soil	2HB-01 (0-4"), 2HB-02 (0-4"), 2HB-03 (0-4"), 2HB-04 (0-4"), 2HB-05 (0-4"), 2HB-06 (0-4"), 2HB-07 (0-4"), 2HB-08 (0-4"), 2HB-09 (0-4"), 2HB-10 (0-4"), 2HB-11 (0-4"), 2HB-12 (0-4"), 2HB-13 (0-4"), 3HB-01 (0-2"), 3HB-02 (0-2"), 3HB-03 (0-2"), 3HB-04 (0-2"), 3HB-05 (0-2"), 3B-03 (4-6'), 3B-05 (10-12"), 4B-01 (6-8), 4B-02 (4-5'), 4SS-1 (0-3") and 4SS-2 (0-3"). Duplicate: 2HB-02, 3B-03 (4-6')	23
Pesticides	USEPA 8081	Sediment	2SED-1	1
Volatile Organic Compounds (VOCs)	USEPA 8260	Water	Trip Blanks (1/30/08, 1/31/08, 2/4/08, 2/5/08, 2/6/08, 2/25/08, 2/28/08, 2/28/08, 1/19/09, 1/27/09, 6/1/09) and Rinse Blanks (1/31/08, 2/4/08, 2/5/08, 2/6/08, 2/25/08, 6/19/08, 1/19/09, 1/27/09, 6/3/09)	20



 Table 3: VOCs in Soil Gas

 Results provided in µg/m³. Results in bold exceed NYSDOH Background Levels.

Compound	Guideline								S	ample ID							
Compound	Values	2SV-01	2SV-02	2SV-03	2SV-04	2SV-05	2SV-06	2SV-07	2SV-08	2SV-09	2SV-10	2SV-11	2SV-12	2SV-13	2SV-14	2SV-15	2SV-16
	Date	1/22/08	1/22/08	1/22/08	1/21/08	1/21/08	1/23/08	1/21/08	1/21/08	1/21/08	1/22/08	1/21/08	1/21/08	1/23/10	1/23/10	1/22/10	1/22/10
	Decil Para #															Relocated	Parking
	Building #	B-1	B-2	B-2	B-3	B-3	B-4	B-5A	B-5A	B-5B	B-6	B-7	B-7	B-8	B-8	Soil	Lot
1,1,1-Trichloroethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	NE	0.84	ND	ND	ND	ND	2.2	1.2	ND	ND	ND	ND	ND	2	ND	ND	ND
1,2-Dibromoethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorotetrafluoroethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1.3.5-Trimethylbenzene	NF	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1.3-Butadiene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11
1.3-Dichlorobenzene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1.4-Dichlorobenzene	NF	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1.4-Dioxane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2.2.4-Trimethylpentane	NF	17	ND	0.93	ND	0.79	4.1	ND	0.98	ND	ND	ND	ND	ND	ND	25	1.8
2-Chlorotoluene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Chloropropene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	NE	0.98	ND	ND	ND	0.88	2.6	12	ND	ND	ND	ND	ND	ND	ND	ND	0.88
Acetone	NE	ND	64	13	ND	48	ND	17	ND	26	290	ND	ND	76	48	ND	24
Benzene	NE	64	3	35	17	35	15	2.8	3.8	35	5.1	2.7	2.9	11	310	5.8	77
Bromodichloromethane	NE	ND	ND	0.0 ND		ND	ND	2.0	ND	ND	J.T	2.7	2.3	ND	ND	S.0	ND
Bromoethene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	NE	17	34	17	11	3.4	14	17	11	ND	ND	ND	ND	ND	ND	2.6	2.6
Carbon Tetrachloride	NE	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NE	13	ND	ND	ND	13	ND	ND	ND	13	ND	1.8	1.2	ND	ND	ND	ND
Chloromethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1 2-Dichloroethene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1.3-Dichloropropene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NE	2.2	1.2	1.3	0.89	1	5.2	0.76	5.2	0.89	ND	0.65	ND	2.5	ND	93	1.3
Dibromochloromethane	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NE	3.1	ND	ND	2.3	ND	2.6	2.1	2.4	2.6	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	NE	6.1	3.2	3.9	1.3	3.2	18	2.6	2.3	1.6	ND	1.7	2.3	6.1	8.3	6.1	5.2
Freon TF	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropyl Alcohol	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Butyl Ketone	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	NE	2	2.6	1.9	1.8	3.2	2	2.5	1.4	1.9	ND	1.4	1.3	3.5	ND	ND	3.8
Methyl Isobutyl Ketone	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-Butyl Ether	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Heptane	NE	7.8	2.6	4.1	3.2	5.7	18	2.7	5.7	3.2	ND	4.1	2.1	5.3	6.1	13	7.4
n-Hexane	NE	14	3.4	6.7	4.2	5.3	25	3	6.7	3.9	ND	4.9	2.6	10	11	6.3	9.5
Styrene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butyl Alcohol	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	100	ND	ND	ND	ND	ND	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	NE	31	20	20	9.4	24	83	23	21	15	21	16	21	34	150	41	30
trans-1,2-Dichloroethene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	86	ND	ND	ND	ND	ND
Trichlorofluoromethane	NE	1.3	ND	ND	ND	ND	ND	ND	ND	0.96	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (m,p)	NE	20	12	12	4.3	9.6	61	9.6	6.9	5.2	ND	5.6	7.4	27	52	20	17
Xylene (o)	NE	3.3	2.4	2	1	2.1	9.6	2.3	1.6	1.3	ND	1.3	1.8	6.5	11	3.9	2.8
Xylene (total)	NE	23	15	14	5.6	12	69	13	8.7	6.9	ND	6.9	9.6	35	65	25	19
Total VOCs	NE	106.72	117.8	71.03	41.09	111.97	268.2	72.46	68.98	67.35	316.1	126.15	42.6	183.9	596.4	194.2	124.98

Notes:

Guideline values based on NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006 Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations. ND = Not Detected NE = Not Established



Table 4: VOCs in Soil Borings All results provided in µg/kg (parts per billion). Results in **bold** exceed designated guidance levels.

			1	1	1	1	-		-							Sample	Identification		1			-		_								
Compound		2B-01C	2B-02	2B-04	2B-05	2B-06	2B-07	2B-08	2B-09	2B-10	2B-11***	2B-12	2B-13	2B-14	2B-15	2B-15 A	2B-15 C	2MW-04	2MW-05	2MW-06	2MW-09	3B-01	3B-01	3B-02	3B-02	3B-03 3	B-03***	3B-03	3B-04	3B-04		i I
(USEPA Method 8260)	Guidance Level	(1-3')	(10-12')	(5-7')	(4-5')	(4-5')	(3-4')	(5-6')	(6-7')	(9-10')	(5-7')	(15-17')	(23-25')	(22-24')	(4-5')	(7-8')	(5-6')	(20-21')	(26-28')	(6-6.5')	(2-3.5')	(5-6')	(11')	(1-2')	(10-12')	(3')	(4-6')	(10')	(1-3')	(9-10')	4SS-1 (0-3")	4SS-2 (0-3")
· · ·	Date	2/4/2008	2/5/2008	2/4/2008	1/31/2008	2/4/2008	1/31/2008	1/31/2008	2/5/2008	2/5/2008	2/5/2008	2/5/2008	2/5/2008	2/6/2008	2/6/2008	2/6/2008	2/6/2008	1/31/2008	2/6/2008	1/31/2008	2/5/2008	6/3/2009	6/3/2009	1/19/09	1/19/09	1/19/09	1/19/09	1/19/09	1/19/09	1/19/09	6/29/2011	6/29/2011
1,1,1,2-Tetrachloroethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
1,1,1-Trichloroethane	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,1,2,2-Tetrachioroethane	**	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND	ND ND	NA NA	NA NA	NA NA	ND	NA NA	NA NA	NA NA	ND ND	ND ND
1,1,2-Trichloroethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,1-Dichloroethane	26,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,1-Dichloroethene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,1-Dichloropropene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA NA	NA NA	NA	NA	NA NA	NA	NA	ND	ND
1.2.3-Trichloropropane	100.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,2,3-Trimethylbenzene	**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
1,2,4-Trichlorobenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	470 J	NA	NA	NA	ND	ND
1,2,4-Trimethylbenzene	52,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	30 J	240
1,2-Dibromo-3-chloropropane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,2-Dibromoetnane (EDB)	100.000	ND ND	ND	ND ND	ND	ND ND	ND ND	ND	ND	ND ND	ND	ND	ND ND	ND	ND	ND	ND	ND ND	ND	ND ND	ND	ND	ND 1.8.1	NA ND	0.68 L	NA 730 L	ND 550 L	NA	NA ND	NA ND	ND ND	ND ND
1,2-Dichloroethane	3,100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,2-Dichloroethene (total)	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,2-Dichloropropane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,3,5-Trimethylbenzene	100,000	ND	ND	ND ND	ND	ND ND	ND ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND ND	NA ND	NA ND	NA	ND	NA	NA	NA	13 J	80 ND
1.3-Dichloropropane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,4-Dichlorobenzene	13,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	13,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1-Chlorohexane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
2,2-Dichloropropane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
2-Butanone (MEK)	**	NA	NA	NA ND	NA ND	NA ND	NA ND	NA	NA	NA ND	NA	NA	NA ND	NA	NA	NA	NA	NA	NA	NA ND	NA	NA NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	ND	ND
2-Hexanone	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
4-Chlorotoluene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
4-Isopropyltoluene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
4-Metnyl-2-pentanone (MIBK)	100.000	NA	NA	NA ND	17 I	NA ND	NA ND	NA	NA	NA ND	NA	NA	NA ND	NA	NA	NA	NA	NA	NA	NA ND	NA	NA 11 1	NA 12 I	NA	NA NA	NA	NA	NA	NA	NA	ND	ND
Benzene	4,800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Bromodichloromethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND
Bromotorm	100.000	ND	ND	ND ND	ND	ND ND	ND ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND ND	NA	NA NA	NA	ND	NA	NA	NA	ND	ND
Carbon disulfide	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Carbon tetrachloride	2,400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Chlorobenzene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.0 J	590 J	84 J	6.0 J	ND	ND	ND	ND
Chloroform	1,900^	ND	ND	ND ND	ND	ND ND	ND ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND ND	NA	NA NA	NA	ND	NA	NA	NA	ND	ND
Chloromethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
1,2-Dichloroethylene (cis)	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6 J	NA	NA	NA	ND	NA	NA	NA	ND	ND
cis-1,3-Dichloropropene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Cyclohexane	**	NA	NA	NA ND	NA ND	NA ND	NA ND	NA	NA	NA ND	NA	NA	NA ND	NA	NA	NA	NA	NA	NA	NA ND	NA	ND	ND ND	NA	NA NA	NA I	2,300 J	NA	NA	NA	ND	ND
Dibromomethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Dichlorodifluoromethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Ethylbenzene	41,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	69 J
Hexachlorobutadiene	**	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	NA NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	ND	ND
Isopropylbenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	18 J
m-&p-Xylenes	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	34 J	290
Methyl Ethyl Ketone	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
methyl isobutyl ketone	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Methyl-tert-butyl-ether (MTBE)	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Methylene chloride	100,000***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14 J	11 J	NA	NA	NA	ND	NA	NA	NA	19 ND	44
Methylacetate	100,000	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA NA	NA NA	NA	NA NA	NA NA	NA	NA	NA NA	NA NA	NA	NA NA	NA NA	NA NA	221	ND	NA NA	NA NA	NA	ND 62,000	NA	NA	NA NA	ND	
Naphthalene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 J	ND
n-Butylbenzene	12,000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	40 J
n-Propylbenzene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
o-Xylene	100,000	ND	ND	ND NA	ND	ND NA	ND NA	ND	ND	ND NA	ND	ND	ND NA	ND	ND	ND	ND	ND	ND	ND NA	ND	ND NA	ND NA	NA	NA NA	NA	ND	NA	NA	NA	11 J	76 ND
sec-Butylbenzene	100.000	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Styrene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
tert-Butylbenzene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Tetrachloroethene	19,000	ND	ND	2.6 J	ND	ND 2.6.L	ND	ND	ND	2 J	4.6 J	ND	ND	ND	ND	ND 100.000	ND	ND	1.5 J	ND ND	9	ND 20	ND	NA	NA 7.9	NA 96.000	ND 12.000	NA 28	NA	NA 2.000	ND	21 J
1.2-Dichloroethylene (trans)	**	4,000,000	ND	ND	ND	2.0 J	ND	ND	ND	ND	ND	ND	ND	ND	22,000 ND	ND	1,000 ND	ND	ND	ND	ND	ND ND	ND	2.9 J NA	NA	NA	ND	NA	NA	2,500 NA	ND	ND
trans-1,3-Dichloropropene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Trichloroethene	Guidance	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	340 J	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Trichlorofluoromethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND
Vinyi chloride	900		ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND NA	ND NA	NA	NA ND	NA	NU NA	NA	NA ND	NA ND	ND 45 I	ND 360
** = Guidance level not established	NE	1,140,000 J	ND	ND	ND	4.7 J	ND	ND	ND	7.3 J	ND	ND	130 J	ND	17,000 J	6,300 J	12,360 J	ND	ND	110 J	6.4 J	ND	3.47 J	NA	NA	NA	3,900 J	NA	NA	NA	ND	ND
Total VOCs	**	5,740,000	ND	2.6	17.0	7.3	ND	ND	ND	9.3	4.6	ND	130.0	ND	44,790	130,300	143,360	790	1,202	110	15	51	32	2.9	12.48	87,320	165,504	34	2	2,900	162	1265
Notes:																																ļ

Guidance levels based on BCP Restricted Residential Use SCOs, 6 NYCRR Part 375, Table 375-6.8(b), except as noted. *** Sample with duplicate analysis J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value ND = Not Detected TBD = To Be Determined NA = Not Analyzed

Table 5: VOCs in Surface Soil

All results provided in μ g/kg (parts per billion). Results in **bold** exceed designated guidance levels.

Compound	Cuidanaa	200.01	200 02***		200.04	200.05	200.06	200.07	200.00	Sam	ple Identific	ation	1 2UD 12 1	2UD 12		200.02	200.02	200.04	200.05	
(USEPA Method 8260)	Level	200-01 (0-4")	(0-4")	(0-4")	2nd-04 (0-4")	2HB-05 (0-4")	(0-4")	(0-4")	(0-4")	2HB-09 (0-4")	2HB-10 (0-4")	(0-4")	(0-4")	(0-4")	(0-2")	(0-2")	(0-2")	опь-04 (0-2")	(0-2")	(2HB-02, 0-4)
	Date	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	6/2/2009	6/2/2009	6/1/2009	6/1/2009	6/1/2009	2/25/2008
1,1,1,2-Tetrachloroethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
1.1.2.2-Tetrachloroethane	21.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	26,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	100,00	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND NA	ND NA	ND NA	ND	ND NA	ND ND
1,2,3-Trichlorobenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
1,2,3-Trichloropropane	80,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-1 methyldenzene	21,000	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND
1,2-Dibromoethane (EDB)	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	3,100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1.2-Dichloropropane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	ND	ND
1,3,5-Trimethylbenzene	52,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	13,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	13.000	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND
1,4-Dioxane	21,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
1-Chlorohexane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
2,2-Dichloropropane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
2-Chlorotoluene	**		ND			ND		ND	ND	ND ND		ND		ND	NA ND	NA ND	NA ND	NA		ND
4-Chlorotoluene	21,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
4-Isopropyltoluene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	100,000	15 J	9.7 J	ND	ND	9.6 J	140	11 J	11 J	6 J	8.6 J	6.1 J	ND	ND	14 J	9.9 J	7.2 J	ND	ND	12 J
Bromobenzene	4,000	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND NA	ND NA	ND	ND	ND NA	ND ND
Bromodichloromethane	21,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	100.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	2,400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	21 000	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND
Chloromethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethylene (cis)	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cvclobexane	**	ND NA	ND NA	ND NA	ND NA	ND	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND	ND ND	ND ND	ND ND	ND	ND ND	ND NA
Dibromochloromethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
Dichlorodifluoromethane Ethylbenzene	41 000	ND	ND ND	ND ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND
Hexachlorobutadiene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
Isopropylbenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m-&p-Xylenes Methyl acetate	100,000	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND ND	ND ND	ND ND	ND	ND ND	ND NA
Methyl Ethyl Ketone	100,000	ND	ND	ND	ND	ND	8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methyl isobutyl ketone	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl-ether (MTBE)	21,000	ND	ND NA	ND NA	ND	ND	ND	ND NA	ND NA	ND NA	ND	ND NA	ND NA	ND	ND ND	ND ND	ND ND	ND	ND ND	ND
Methylene chloride	100,000	2.6 J	ND	ND	ND	ND	2.9 J	ND	2.3 J	ND	2.1 J	ND	3.6 J	1.9 J	3.6 J	3.3 J	3.4 J	2.4 J	ND	4.8 J
Naphthalene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
n-Butylbenzene	12,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND ND	ND	ND	ND	ND	ND
o-Xvlene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	19,000	3.4 J	ND	1.3 J	ND	ND	ND	ND	ND	2 J	0.93 J	ND	9.1 J	ND	ND	ND	ND	ND	ND	3.9 J
I oluene	100,00	3.4 J	ND	ND	ND	ND	2.8 J	ND	ND	0.72 J	0.97 J	ND	ND ND	ND	ND	0.23 J	ND	ND	ND	ND
trans-1,3-Dichloropropene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	21,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
total Xvlenes	900	ND ND	ND ND	ND ND		ND ND			ND ND	ND ND	ND ND		ND ND	ND ND	ND NA	ND	ND NA	NA	ND NA	
Total TICs	NE	ND	ND	ND	ND	ND	6.6 J	ND	ND	ND	ND	ND	ND	ND	3.5 J	NA	NA	8.8 J	NA	ND
Total Unknown Compunds	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
Total VOCs	Guidance	24.4	9.7	1.3	ND	9.6	160.3	11	13.3	8.72	12.6	6.1	12.7	1.9	21.1	13.43	10.6	11.2	0	20.7

Notes:

Notes: Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations. Guidance levels based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8(b), except as noted. ** = Guidance level not established *** Sample with duplicate analysis J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value. ND = Not Detected TBD = To Be Determined NA = Not Analyzed



Ecosystems	Strategies, Inc.

Table 6: VOCs in Test Pits All results provided in µg/kg (parts per billion). Results in **bold** exceed designated guidance levels.

				Sample Ider	ntification	
Compound		2SST-1	2TP-2	2TP-8	2TP-11	2TP-15
(USEPA Method 8260)	Guidance Level	(0'-4")	(3')	(1')	(0-6")	(1-2')
	Date	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008
1,1,1,2-Tetrachloroethane	**	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	100,000	ND	ND	ND	ND	ND
Total TICs	35,000	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	**	ND	ND	ND	ND	ND
1,1-Dichloroethane	26,000	ND	ND	ND	ND	ND
1,1-Dichloroethene	100,00	ND	ND	ND	ND	ND
1,1-Dichloropropene	**	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	**	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	80,000	ND	ND	ND	ND	ND
1,2-Dichloroethylene (trans)	3,400	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	52,000	ND	ND	ND	ND	ND
Total TICs	**	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	**	ND	ND	ND	ND	ND
1,2-Dichloropenzene	100,000	ND	ND	ND	ND	ND
1,2-Dichloroethane	3,100	ND	ND	ND	ND	ND
1,2-Dichloroethene (total)	**	ND	ND	ND	ND	ND
1,2-Dichloropropane	**	ND	ND	ND	ND	ND
1,3,5-Trimetnyibenzene	52,000	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	49,000	ND	ND	ND	ND	ND
1,2-Dichloroethylene (trans)	**	ND	ND	ND	ND	ND
1,4-Dichloropenzene	13,000	ND	ND	ND	ND	ND
1 Otal TICS	**	ND	ND	ND	ND	ND
2,2-Dichloropropane	**	ND	ND	ND	ND	ND
2-Chilorototuene 2-Hovanone	**					
4-Chlorotoluene	**					
Total TICs	**	ND	ND	ND	ND	ND
Acetone	100,000	ND	ND	ND	ND	ND
Benzene	4 800	ND	ND	ND	ND	ND
Bromobenzene	**	ND	ND	ND	ND	ND
Bromodichloromethane	**	ND	ND	ND	ND	ND
Total TICs	**	ND	ND	ND	ND	ND
Bromomethane	**	ND	ND	ND	ND	ND
Carbon disulfide	100,000	ND	ND	ND	ND	ND
Carbon tetrachloride	2 400	ND	ND	ND	ND	ND
Chlorobenzene	100.000	ND	ND	ND	ND	ND
Chloroethane	**	ND	ND	ND	ND	ND
1.2-Dichloroethylene (trans)	49.000	ND	ND	ND	ND	ND
Total TICs	**	ND	ND	ND	ND	ND
1.2-Dichloroethylene (cis)	100,000	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	**	ND	ND	ND	ND	ND
Dibromochloromethane	**	ND	ND	ND	ND	ND
Dibromomethane	**	ND	ND	ND	ND	ND
Dichlorodifluoromethane	**	ND	ND	ND	ND	ND
Ethylbenzene	41,000	ND	ND	ND	ND	ND
Hexachlorobutadiene	**	ND	ND	ND	ND	ND
Isopropylbenzene	2,300	ND	ND	ND	ND	ND
p-&m-Xylenes	100,000	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	100,000	ND	ND	ND	ND	ND
methyl isobutyl ketone	**	ND	ND	ND	ND	ND
Methyl-tert-butyl-ether (MTBE)	100,000	ND	ND	ND	ND	ND
Methylene chloride	100,000	ND	ND	ND	ND	ND
Naphthalene	100,000	ND	ND	ND	ND	ND
Total TICs	12,000	ND	ND	ND	ND	ND
n-Propylbenzene	100,000	ND	ND	ND	ND	ND
o-Xylene	100,000	ND	ND	ND	ND	ND
sec-Butylbenzene	100,000	ND	ND	ND	ND	ND
Styrene	**	ND	ND	ND	ND	ND
tert-Butylbenzene	100,000	ND	ND	ND	ND	ND
Tetrachloroethene	19,000	ND	21.0	4.9	42.0	15.0
Toluene	100,000	ND	ND	ND	ND	1 J
1,2-Dichloroethylene (trans)	190	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	**	ND	ND	ND	ND	ND
Trichloroethene	21,000	ND	ND	ND	ND	ND
Trichlorofluoromethane	**	ND	ND	ND	ND	ND
Total TICs	900	ND	ND	ND	ND	ND
total Xylenes	100,000	ND	ND	ND	ND	ND
Total TICs	NE	ND	ND	ND	15,050 J	ND
Total Unknown Compounds	NE	ND	ND	ND	1,730 J	ND
Total VOCs	**	ND	21	49	16 812	16

Notes: Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations.

Concentrations. Guidance levels based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8(b), except as noted. ** = Guidance level not established J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value. ND = Not Detected TBD = To Be Determined NA = Not Analyzed



 Table 7: SVOCs in Soil Borings

 Results provided in µg/kg (parts per billion). Results shown in bold exceed guidance levels.

Compound														Sample	dentificat	ion									
	Guidance	2B-01C	2B-02	2B-04	2B-05	2B-06	2B-07	2B-08	2B-09	2B-10	2B-11***	2B-12	2B-13	2B-14	2B-15	2MW-06	2MW-09	3B-03	3B-05	4B-01	4B-02	4SS-1	4SS-2	DUPLICATE	DUPLICATE
(USEPA Method 8270)	Level	(1-3')	(10-12')	(5-7')	(4-5')	(4-5')	(3-4')	(5-6')	(6-7')	(9-10')	(5-7')	(15-17')	(23-25')	(22-24')	(4-5')	(6-6.5')	(2-3.5')	(4-6')	(10-12')	(6-8')	(4-5')	(0-3")	(0-3")	(2B-11, 5-7')	(3B-03, 4-6')
1.1'-Biphenyl	**	2/4/2000 NA	2/3/2008 NA	2/4/2000 NA	NA	NA	NA	NA	2/3/2000 NA	NA	NA	NA	NA	2/0/2008 NA	2/0/2008 NA	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA
2,2'-oxybis[1-chloropropane]	**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND
1,2-Dichlorobenzene	49.000	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND		NA NA	NA NA	NA NA	NA NA	ND ND	ND ND	ND ND	ND ND
1,4-Dichlorobenzene	13,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND
2,2'-oxybis[1-chloropropane]	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND
2,4,5-1 richlorophenol	**	ND ND	ND	ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND
2,4-Dichlorophenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	**	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND ND	ND	ND
2,4-Dinitrotoluene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND 210 I
2-Methylphenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	720	ND	ND	310 J	ND	ND	ND	ND	ND	ND	1.000 J
2-Nitroaniline	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	**	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND
4,6-Dinitro-2-methylphenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol 4-Chloroaniline	**	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
4-Chlorophenyl phenyl ether	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	660	ND	ND	260 J	ND	ND	ND	ND	ND	ND	1,100 J
4-Nitroaniline 4-Nitrophenol	**	ND ND	ND ND	ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND
Acenaphthene	**	ND	ND	ND	430	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	94.9	ND	ND	ND
Acenaphthylene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110 J	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	100,000	ND NA	ND NA	ND	750 NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	ND NA	120 J	ND ND	ND ND	ND ND	ND ND	175	ND ND	ND NA	ND NA
Anthracene	100,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	689	ND	NA	NA
Benzaldehyde	**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	330 J	ND	ND	ND	661	ND	NA	17,000 J
Benzo(a)anthracene	1,000	ND ND	ND	87 J	1,500	ND	74 J	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	280 J	ND ND	ND ND	ND ND	ND ND	293	ND ND	ND ND	ND ND
Benzo(b)fluoranthene	1,000	ND	ND	79 J	1,300	ND	86 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	290 J	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(ghi)perylene	100,000	ND	ND	ND	900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	180 J	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	3,900	ND ND	ND	ND	590 ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	96 J	ND NA	ND NA	ND NA	ND	ND	ND ND	ND ND	ND ND
Bis(2-chloroethoxy)methane	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	578	ND	ND
Bis(2-chloroethyl)ether	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	**	110 J	ND	760 ND	ND ND	ND	94 J	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	210 J	ND ND	ND ND	ND ND	ND 727	ND ND	64 J ND	290 J
Caprolactam	**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	181 J	ND	NA	NA
Carbazole	**	ND	ND	ND	160 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene Dibenzo(a b)anthracene	3,900	ND ND	ND	98 J	1,400	ND ND	92 J	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	360 J	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND
Dibenzofuran	**	ND	ND	ND	100 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,710	ND	ND
Diethyl phthalate	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimetnyl phthalate	**	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	1,160 ND	ND ND	ND ND	ND 85.1
Di-n-octyl phthalate	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100,000	ND	ND	160 J	2,800	ND	140 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	500	110 J	ND	ND	ND	ND	ND	ND	100 J
Hexachlorobenzene	1.200	ND ND	ND ND	ND	290 J ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Hexachlorobutadiene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	314	ND	ND	ND
Hexachlorocyclopentadiene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1.2.3-cd)pyrene	500	ND ND	ND ND	69.J	ND 1.000	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	210.J	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Isophorone	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	180 J
Nitrobenzene n-Nitroso-di-n-propylamine	100,000	ND ND	ND ND	ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND
n-Nitrosodiphenylamine	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene Phenol	100,000	ND ND	ND	160 J	2,400	ND	110 J	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	450 ND	100 J	ND ND	ND ND	ND ND	553 ND	ND ND	ND ND	120 J
Pyrene	100,000	ND	ND	150 J	2,400	62 J	160	ND	ND	ND	ND	ND	ND	ND	ND	ND	490	110 J	ND	ND	ND	1080	ND	ND	100 J
Total TICs	NE	1,710 J	ND	ND	5,030 J	2,000 J	ND	860 J	ND	ND	ND	ND	ND	270 J	66,000 J	ND	1,160 J	14,060 J	5,800	13,430 J	1.46 J	ND	ND	ND	46,180 J
Total Unknown Compunds	NE **	2,370 J	230 J	1,080 J	3,370 J	4,760 J	1,930 J	44 J	1,620 J	330 J	ND	550 J	ND	ND 270	2,690 J	240 J	1,470 J	2,290 J	880	240 J	ND	ND	ND	680 J	28,500 J
Notes:		4,190	230	2,709	25,650	0,022	2,704	904	1,020	330	ND	550	ND	270	70,070	240	5,955	17,010	0,000	13,070	1.40	ND	ND	744	94,900
Cells highlighted in yellow, indicate of	concentration	s above gui	dance value	es. Cells hig	ghlighted in t	blue, indicat	e detected o	concentration	s.																
Guidance levels based on BCP Res	tricted Reside	ential SCOs	6 NYCRR	Part 375, T	able 375-6.8	8b, except a	as noted.																		
** cleanup objective not established	(individual S	VOCs not lis	ted, and tot	al SVOCs,	must be les	s than or ea	qual to 50,00	00 ppb and 50	00,000 ppb,	, repectively	/)														
Sample with duplicate analysis			i da antificio di		The set is i			a a liantic la s		*															
J - Data indicate the presence of a d ND - Not Detected	compound the	at meets the	identificatio	n criteria.	i ne result is	iess than t	ne quantitati	on limit but gi	eater than	zero. The	concentratio	on given is a	m approxir	nate value.											



 Table 8: SVOCs in Surface Soils

 Results provided in µg/kg (parts per billion). Results shown in bold exceed guidance levels.

Compound								-	-	Sam	ple Identific	ation								
	Guidance	2HB-01	2HB-02***	2HB-03	2HB-04	2HB-05	2HB-06	2HB-07	2HB-08	2HB-09	2HB-10	2HB-11	2HB-12	2HB-13	3HB-01	3HB-02	3HB-03	3HB-04	3HB-05	DUPLICATE
(USEPA Method 8270)	Level	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-2")	(0-2")	(0-2")	(0-2")	(0-2")	(2HB-02, 0-4")
	Date	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	6/2/2009	6/2/2009	6/1/2009	6/1/2009	6/1/2009	2/25/2008
1,1'-Biphenyl	**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29 J	ND	ND	ND	ND	NA
1,2,4-Trichlorobenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
1,2-Dichlorobenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
1,3-Dichlorobenzene	2,400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND
2,2'-oxybis[1-chloropropane]	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chiorophenoi	**	ND	ND	ND	ND	ND	ND 200 I	ND		ND	ND	ND 02 I		ND		ND	ND		IND 15 I	ND 550
2-wethylnaphtnalene	**	ND	ND	ND	ND	ND	300 J	ND	370 J	ND	ND	92 J	270 J	ND	110 J	ND	ND	15 J	15 J	55U
2-Methylphenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND 120 1	ND	ND		ND	ND	ND	ND
2-Nitrophonol	**												120 J							
3 3-Dichlorobenzidine	**		ND	ND	ND	ND			ND					ND		ND	ND			
3-Nitroaniline	**		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND			ND
4 6-Dinitro-2-methylphenol	**		ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110 J	ND	ND
4-Nitroaniline	**	ND	810 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	170 J
4-Nitrophenol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20,000	ND	ND	ND	ND	ND	450 J	ND	2,500	ND	ND	78 J	150 J	ND	150	ND	ND	ND	26 J	140 J
Acenaphthylene	**	ND	1,700	ND	ND	75	880 J	ND	ND	ND	ND	830	210 J	ND	1,200	1,200 J	ND	45 J	400	190 J
Acetophenone	**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Aniline	**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Anthracene	**	120 J	1,300	210 J	ND	180	1,900	ND	4,100	61 J	ND	960	260 J	ND	1,300	ND	21 J	40 J	360	160 J
Benzaldehyde	**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	300 J	150 J	NA
Benzo(a)anthracene	1,000	670	5,200	1,100	110 J	820	4,000	ND	8,500	310 J	62 J	1,600	500 J	110 J	2,700	ND	76 J	110 J	800	150 J
Benzo(a)pyrene	1,000	620	3,800	1,100	130 J	860	3,400	ND	6,100	230 J	ND	1,300	460 J	90 J	3,100	ND	88 J	120 J	800	140 J
Benzo(b)fluoranthene	1,000	740	5,100	1,500	220 J	1,400	3,900	ND	7,100	310 J	ND	1,600	640 J	120 J	2,700	ND	96 J	160 J	1,000	240 J
Benzo(ghi)perylene	100,000	390 J	3,500	650	99 J	540	2,100	ND	2,900	150 J	ND	/10	300 J	ND	2,700	ND	63 J	130 J	840	93 J
Benzo(k)fluoranthene	800	290 J	1,700	540 J	ND	480	1,400 J	ND	2,500	120 J	ND	600	180 J	ND	1,100	ND	39 J	51 J	380	// J
Benzyl alconol	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA ND	NA ND	NA ND	NA ND	NA ND	ND
Bis(2-chloroothyl)othor	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
Bis(2-ethylbexyl)phthalate	**	230.1	1 900	370.1	170	320	ND	53.1	ND	82.1	95.1	89.1	300.1	150.1	34.1	ND	110.1	150.1	78.1	1 500
Butyl benzyl phthalate	**	ND	ND	ND	ND	74	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26.1	23.1	ND
Caprolactam	**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Carbazole	**	ND	ND	110	ND	130	630 J	ND	1.700 J	ND	ND	97 J	ND	ND	280 J	ND	ND	ND	97 J	ND
Chrysene	1,000	630	3,800	1,100	180	1,100	4,300	ND	7,400	290 J	ND	1,500	620 J	100 J	3,100	ND	86 J	150 J	830	160 J
Dibenzo(a h)anthracene	330	120 J	1,100	160	ND	150	630 J	ND	1,000 J	ND	ND	230 J	ND	ND	780	ND	ND	33 J	200 J	ND
Dibenzofuran	**	ND	ND	ND	ND	ND	350	ND	880 J	ND	ND	ND	ND	ND	93 J	ND	ND	ND	ND	ND
Diethyl phthalate	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	**	ND	870	ND	ND	90	ND	ND	ND	ND	ND	ND	120 J	ND	ND	ND	ND	ND	ND	130 J
Di-n-octyl phthalate	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	**	1,100	6,700	1,900	280	2,000	8,400	ND	18,000	340 J	97 J	2,400	850	180 J	4,600	ND	130 J	220 J	1,400	260 J
Fluorene	30,000	ND	150 J	ND	ND	ND	520 J	ND	1,700 J	ND	ND	150 J	150 J	ND	280	ND	ND	ND	33 J	100 J
Hexachlorobenzene	330	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachiorobutadiene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
Hexachlorocyclopentadiene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
Indono(1.2.2-cd)pyropo	500	190	4 700	760	100	670	2 400	ND	2 000	200 1	ND	820	250 1	1ND 90.1	2 000		52 1	120 1	020	120 1
Isonhorone	**			ND	ND	ND	2,400 ND	ND	ND	ND		ND		ND	2,300	ND	ND	ND	ND	ND
Naphthalene	**	ND	ND	ND	ND	ND	630.1	ND	710.1	ND	ND	140.1	380.1	ND	110	ND	ND	ND	ND	1,200
Nitrobenzene	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Nitroso-di-n-propylamine	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodiphenylamine	**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	280 J	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	800	ND	ND	86 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	450	1,900	720	140 J	960	7,400	ND	16,000	84 J	ND	1,000	630 J	100 J	2,900	ND	74 J	130 J	340 J	220 J
Phenol	330	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	100,000	920	5,800	1,200	190	1,100	6,900	ND	13,000	300	85 J	1,900	730 J	170 J	4,900	ND	130 J	220 J	1,200	140 J
Total TICs	NE	1,990 J	14,500 J	14,130 J	8,020 J	3,470 J	9,080 J	ND	10,200 J	3,510 J	500 J	4,520 J	30,580 J	6,230 J	602,700 J	290,000 J	300,000 J	172,800 J	153,800 J	6,320 J
Total Unknown Compunds	NE	67,250 J	112,000 J	76,610 J	72,300 J	70,140 J	3,348,120 J	73,110 J	78,960 J	66,010 J	64,240 J	47,860 J	127,840 J	71,320 J	5,800 J	8,100 J	12,580 J	53,400 J	68,300 J	76,360 J
Total SVOCs	**	76,000	176,530	102,246	81,939	84,559	3,407,690	73,163	187,520	71,997	65,079	68,486	165,920	78,650	643,566	299,300	313,545	228,330	232,002	88,420

Notes: Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations. Guidance levels based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8b, except as noted. Guidance levels based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8b, except as *** Sample with duplicate analysis J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.



 Table 9: SVOCs in Test Pits

 Results provided in μg/kg (parts per billion). Results shown in bold exceed guidance levels.

Compound	Guidance			Sample Identification	ı	
(USEPA Method 8270)	Level	2SST-1 (0-4")	2TP-2 (3')	2TP-8 (1')	2TP-11 (0-6")	2TP-15 (1-2')
	Date	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008
1,2,4-Trichlorobenzene	**	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	**	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	**	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1,800	ND	ND	ND	ND	ND
2,2'-oxybis[1-chloropropane]	**	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	**	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	**	ND	ND	ND	ND	ND
2,4-Dichlorophenol	**	ND	ND	ND	ND	ND
2,4-Dimethylphenol	**	ND	ND	ND	ND	ND
2,4-Dinitrophenol	**	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	**	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	**	ND	ND	ND	ND	ND
2-Chloronaphthalene	**	ND	ND	ND	ND	ND
2-Chilorophenoi	**	ND	ND	110 I	ND	ND
2-Wethylnaphthalene	**		ND		ND	ND
2-Methyphenol	**	ND	ND	ND	ND	ND
2-Nitrophenol	**	ND	ND	ND	ND	ND
3.3-Dichlorobenzidine	**	ND	ND	ND	ND	ND
3-Nitroaniline	**	ND	ND	ND	150.1	ND
4.6-Dinitro-2-methylphenol	**	ND	ND	ND	ND	ND
4-Bromophenvl phenvl ether	**	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	**	ND	ND	ND	ND	ND
4-Chloroaniline	**	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	**	ND	ND	ND	ND	ND
4-Methylphenol	**	ND	ND	ND	ND	ND
4-Nitroaniline	**	ND	ND	ND	380 J	ND
4-Nitrophenol	**	ND	ND	ND	ND	ND
Acenaphthene	**	ND	ND	90 J	ND	660 J
Acenaphthylene	100,000	160 J	3100 J	740	110 J	2,000
Anthracene	**	180 J	3600 J	690	130 J	3,400
Benzo(a)anthracene	1,000	180 J	18,000	1,500	250 J	11,000
Benzo(a)pyrene	1,000	140 J	17,000	1,400	350 J	11,000
Benzo(b)fluoranthene	**	250 J	21,000	1,400	780	13,000
Benzo(gni)perviene	100,000	360 J	16,000	1,300	420 J	9,400
Benzo(k)fluorantnene	000 **	76 J	7,600	540	420 J	4,200
Benzyl alconol Bis(2-chloroethoxy)methane	**	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	**	ND	ND	ND	ND	ND
Bis(2-ethylbexyl)phthalate	**	3 500	1 300 .1	69.1	800	470.1
Butyl benzyl phthalate	**	ND	ND	ND	ND	ND
Carbazole	**	ND	1.000 J	89 J	ND	960 J
Chrysene	1,000	190 J	15,000	1,400	530 J	10,000
Dibenzo(a h)anthracene	330	ND	3,300 J	300 J	89 J	2,100
Dibenzofuran	**	ND	ND	ND	ND	ND
Diethyl phthalate	**	ND	ND	ND	ND	ND
Dimethyl phthalate	**	ND	ND	ND	ND	ND
Di-n-butyl phthalate	**	94 J	ND	ND	320 J	ND
Di-n-octyl phthalate	**	ND	ND	ND	ND	ND
Fluoranthene	100,000	240 J	31,000	2,200	310 J	16,000
Fluorene	**	ND	ND	230 J	ND	770 J
Hexachlorobenzene	**	ND	ND	ND	ND	ND
Hexachloropyclonentadione	**		ND	ND	ND	ND
Heyachloroethane	**	ND	ND	ND	ND	ND
Indeno(1.2.3-cd)nyrene	500	290 1	17 000	1 200	440 1	10,000
Isophorone	**	ND	ND	ND	ND	ND
Naphthalene	12,000	ND	ND	100 J	220 J	290 J
Nitrobenzene	**	ND	ND	ND	ND	ND
n-Nitroso-di-n-propylamine	**	ND	ND	ND	ND	ND
n-Nitrosodiphenylamine	**	ND	ND	ND	110 J	ND
Pentachlorophenol	800	ND	ND	ND	170 J	ND
Phenanthrene	**	140 J	6,900	1,800	200 J	7,600
Phenol	330	ND 260 L	ND 20.000	ND 2.600	ND 260 J	ND 17.000
Total TICs	**	200 J 9 350	29,000	2,000	200 J	33 200 1
Total Unknown Compunds	NF	15,090.1	58,000.1	4,640.1	61,300 J	21,500 J
Total SVOCs	**	30,500	278,000	27,438	110,339	174,550

Notes:

 Kotes:
 Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations.
 Guidance levels based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8b, except as noted.
 ** cleanup objective not established (individual SVOCs not listed, and total SVOCs, must be less than or equal to 50,000 ppb and 500,000 ppb, repectively) J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value. Guidance levels based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8b, except as noted. ND = Not Detected NE = Not Established

 Table 10: Metals in Soil Borings

 Results provided in mg/kg (parts per million). Results shown in bold exceed guidance levels.

					_		-				-		S	ample Ide	entification	1								
Metal	Guidance Level	Background Concentrations	2B-01C (1-3')	2B-02 (10-12')	2B-04 (5-7')	2B-05 (4-5')	2B-06 (4-5')	2B-07 (3-4')	2B-08 (5-6')	2B-09 (6-7')	2B-10 (9-10')	2B-11 (5-7')	2B-12 (15-17')	2B-13 (23-25')	2B-14 (22-24')	2B-15 (4-5')	2MW-06 (6-6.5')	2MW-09 (2-3.5')	3B-03 (4-6')	3B-05 (10-12')	4B-01 (6-8')	4B-02 (4-5')	DUPLICATE (2B-11, 5-7')	DUPLICATE (3B-03, 4-6')
		Date	2/4/2008	2/5/2008	2/4/2008	1/31/2008	2/4/2008	1/31/2008	1/31/2008	2/5/2008	2/5/2008	2/5/2008	2/5/2008	2/5/2008	2/6/2008	2/6/2008	1/31/2008	2/5/2008	1/19/2009	1/19/2009	1/27/2009	1/27/2009	2/5/2008	1/19/2009
Aluminum	SB*	33,000	13,800	16,000	19,300	15,700	16,200	22,700	15,100	15,500	16,700	16,400	15,200	10,600	8,880	18,100	16,200	22,500	16,900	14,300	16,800	17,500	15,100	15,700
Antimony	SB*	NP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	16	7.4 (HV)	5.7 J	7.8 J	6.4 J	7.6 J	6.3 J	8 J	12.7	8.8 J	5.6 J	7.8 J	7.9 J	5.7 J	7.3 J	15.8	9 J	7.9 J	8.8	6.1	7.2	7.6	7.6 J	6.8
Barium	400	81.1 (HV)	61.1	86.8	80.7	73.8	172	134	70.9	72.3	57.0	82.2	64.7	35.8	37.9	103.0	76.0	87.5	103.0	99.2	80.7	84.9	78.3	85.1
Beryllium	72	0.75 (HV)	0.62 J	0.85 J	1 J	0.74 J	0.8 J	1.2 J	1 J	0.84 J	0.7 J	0.87 J	0.83 J	0.53 J	ND	1 J	0.85 J	0.85 J	0.96 J	0.72 J	0.87 J	0.76 J	0.82 J	0.77 J
Cadmium	4.3	0.22 (HV)	1.3 J	1.4 J	1.3 J	ND	1.2 J	ND	ND	ND	1.4 J	ND	ND	1.2 J	ND	1.4 J	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	SB*	130 - 35,000	33,900	27,400 J	8,670	6,550	1,620	3,240	2,380	3,390 J	1,840 J	25,000 J	2,840 J	28,200 J	37,100	23,500	3,290	2,060 J	4,460 J	41,000	28,000	12,400	11,500 J	8,840 J
Chromium	180	20.9 (HV)	18.8	20.8	26.7	20.7	23.8	24.7	22.0	21.0	18.0	27.7	19.8	13.6	11.4	23.9	22.0	23.8	25.5	20.2	23.1	23.9	22.3	23.4
Cobalt	30* or SB	2.5 - 60	11.3 J	13.2	13.9	12.4	10.4	14.3	9.2	14.7 J	11 J	14.1 J	13.9 J	9.5 J	9.0	17.6	15.1	12.2 J	18.9	12.8	15.1	14.6	14.7 J	16.4
Copper	270	23.4 (HV)	31.3	32.3	27.0	31.7	35.0	27.8	42.5	36.6	33.6	33.9	34.0	25.0	21.9	35.3	36.4	32.9	41.3	33.1	38.0	39.2	33.0	35.3
Iron	2,000* or SB	2,000 - 550,000	29,200	32,800	37,700	29,300	25,100	37,400	40,500	36,000	36,200	34,800	33,700	24,900	20,300	36,800	35,500	33,500	39,800	31,300	35,100	38,300	32,200	36,500
Lead	400	72.5** (HV)	13.9	15.0	29.3	38.4	148	24.3	14.3	17.6	19.8	15.3	15.6	10.7	8.5	19.0	16.5	29.9	18.8	13.8	16.1	18.7	15.1	15.8
Magnesium	SB*	100 - 5,000	8,880	10,300	9,190	6,840	4,750	5,840	4,470	6,300	6,860	8,410	6,310	8,790	11,000	10,800	6,540	5,530	9,330	9,110	11,700	9,280	7,160	9,580
Manganese	2,000	50 - 5,000	662	828	1,080	680	929	1,750	1,010	990	1,120	845	772	964	697	964	894	588	1,320 J	751	649	775	817	1,000 J
Mercury	0.81	0.24 (HV)	0.035 J	0.027 J	0.036 J	0.043 J	0.065	0.059 J	0.120	0.042 J	0.029 J	0.031 J	0.017 J	0.017 J	0.021 J	0.025 J	0.03 J	0.099	0.05 J	0.034 J	.037 J	.039 J	0.025 J	0.063
Nickel	310	21.0 (HV)	29.5	29.8	31.9	26.0	23.3	31.4	27.3	35.2	28.4	32.6	30.0	20.0	17.0	35.4	33.5	26.0	40.4	29.1	33.9	34.7	31.3	37.5
Potassium	SB*	8,500 - 43,000	1,420	1,950	987	1,010 J	949	1,590 J	1,070 J	1,330	1,200	1,840	1,540	862	951 J	2200 J	1,600 J	847	1,410	1,570	2,460	2,130	1,590	1,420
Selenium	180	1 (HV)	1.8 J	ND	2.5 J	1.8 J	2 J	2.3 J	2.3 J	ND	2 J	ND	ND	ND	ND	ND	ND	ND	2.1 J	1.1 J	ND	ND	ND	2.1 J
Silver	180	NP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	SB*	6,000 - 8,000	85.6 J	101 J	60.9 J	70.1 J	43.9 J	241 J	128 J	77.7 J	45.1 J	111 J	79.6 J	60.1 J	73.5 J	121 J	98.4 J	47.3 J	117 J	111 J	136 J	132 J	104 J	112 J
Thallium	SB*	NP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.4 J	ND	ND
Vanadium	100* or SB	1 - 300	18.7	22.7	28.1	24.1	23.6	27.4	24.4	22.4	18.0	23.7	21.6	14.0	12.0	26.4	23.8	30.0	25.7	20.3	26.1	25.1	23.2	23.7
Zinc	10,000	87.1 (HV)	67.3	76.2	99.2	78.4	273	94.2	76.5	80.2	78.8	77.0	78.9	58.4	50.2	92.1	84.9	98.1	96.0	77.6	84.0	87.8	75.1	84.8
Notes:																								

Notes: Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations. Guidance levels based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8(b), except as noted. HV = Background levels based on NYSDEC data for metals in Lower Hudson Valley soils (90% upper confidence limit). ** Background lead concentrations in urban settings typically range from 200 to 500 ppm. J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value ND = Not Detected NP = Not Provided SB = Site Background NA = Not Available



Table 11: Metals in Surface Soil

Results provided in mg/kg (parts per million). Results shown in **bold** exceed guidance levels.

	Restricted											Samp	le Identifie	cation									
	Residential	Background		0110 0000	0110.00	0110.04			0110.07			0110 40	0110 44		0110 40	0110.04	0110 00	0110 00			400.4	400.0	DUDUGATE
Metal	SCOs	Concentrations	2HB-01 (0-4")	2HB-02 (0-4")	2HB-03 (0-4")	2HB-04 (0-4")	2HB-05 (0-4")	2HB-06 (0-4")	2HB-07 (0-4")	2HB-08 (0-4")	2HB-09 (0-4")	2HB-10 (0-4")	2HB-11 (0-4")	2HB-12 (0-4")	2HB-13 (0-4")	3HB-01 (0-2")	3HB-02 (0-2")	3HB-03 (0-2")	3HB-04 (0-2")	3HB-05 (0-2")	455-1	455-2	(2HB-02)
		Date	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	6/2/2009	6/2/2009	6/1/2009	6/1/2009	6/1/2009	6/29/2011	6/29/2011	2/25/2008
Aluminum	SB*	33.000	15.800	11.600	14.600	10,700	12,900	11,200	14.400	19.300	14,300	15,900	9.180	5.060	18,000	8.640	9.800	17,500	18,100	9,960	14.300	1.070	11,200
Antimony	SB*	NP	ND	23.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.5 J	2.1 J	ND	ND	ND	ND	ND	ND	19.4	11 J
Arsenic	16	7.4 (HV)	7.3	19.1	6.6 J	6.8	15.2	10.7	6.4	9.8	6.6	5.4 J	6.8 J	25.4	7.9	10.3	8.0	6.3	6.6	3.8 J	7.85	3.13	15
Barium	400	81.1 (HV)	83.3	257	81.7	77.6	114	65.9	69.7	112	123	99.6	48.3	480	67.4	72.8	34.0	87.7	65.9	90.4	100	1,620	62.3
Beryllium	72	0.75 (HV)	0.87 J	ND	0.83 J	0.61 J	0.62 J	0.68 J	0.61 J	1.1 J	0.72 J	0.82 J	ND	ND	0.98 J	0.64 J	0.5 J	0.88 J	0.84 J	0.49 J	ND	ND	ND
Cadmium	4.3	0.22 (HV)	ND	3.9 J	ND	ND	2.9 J	ND	ND	ND	ND												
Calcium	SB*	130 - 35,000	3,050	37,200	8,630	64,000	5,370	23,300	5,020	2,980	2,590	2,890	37,200	19,300	4,330	21,700	119,000	13,000	2,720	6,530	21,400	1,600	9,510
Chromium	180	20.9 (HV)	20.9	491	20.4	18.3	27.1	18.3	17.1	27.2	21.9	23	12.1	14.3	28.1	15.4	18.4	24.8	32.70	14.4	17.6	692	22.4
Cobalt	30* or SB	2.5 - 60	13.9	11.2	14.3	10.3	17.7	9.3	12.5	16.9	13.9	13.7	8.4	6.4	18.4	6.8	9.6	15.7	8.0	8.2	7.62	ND	10
Copper	270	23.4 (HV)	38.1	219	38	57.4	60.5	38.8	26.9	41.3	189	39.1	23.9	49.8	50	34.6	41.9	71.9	68.8	35.1	57.8	1,070	79.9
Iron	2,000* or SB	2,000 - 550,000	31,000	27,100	27,500	21,800	45,100	24,700	28,600	39,000	31,200	29,400	21,000	18,500	38,400	18,000	20,700	32,200	25,600	19,600	18,300	8,910	27,300
Lead	400	72.5** (HV)	53.3	2,830	51.6	69.1	205	94	24	25.3	214	88.9	57.9	149	38.3	80	27	45	66	117	135	295	316
Magnesium	SB*	100 - 5,000	6,060	23,400	5,500	38,400	6,480	7,200	6,090	6,920	5,960	6,850	22,000	2,280	7,330	4,820	61,600	7,710	4,840	4,180	8,500	295	9,910
Manganese	2,000	50 - 5,000	1,230	702	991	568	1,130	529	1,060	833	709	400	560	439	940	514	449	666	433	701	728	129	572
Mercury	0.81	0.24 (HV)	0.084	0.098	0.13	0.075	0.20	0.078	0.061	0.041 J	0.28	1.6	0.066	0.41	0.091	0.16	.04 J	0.36	0.17	0.25	ND	ND	0.075
Nickel	310	21.0 (HV)	29.7	41.9	28.5	22.7	36.6	24.6	26.7	37.9	36.6	31.2	19	40.7	38.3	18.0	24.0	35.7	26.5	21.5	21	46.2	28.4
Potassium	SB*	8,500 - 43,000	1,030	1,110	1,300	1,230	1,010	1,040	937	1,710	1,090	1,010	1,250	757	1,460	748	840	1,010	650	1,010	874	260	839
Selenium	180	1 (HV)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.1 J	ND	ND	ND	ND	4.1 J	ND	2.73	3.14	ND
Silver	180	NP	ND	ND	ND	ND	ND	1.2 J	ND	1.3 J	0.13 J	0.22 J	ND	ND	ND								
Sodium	SB*	6,000 - 8,000	42.4 J	109 J	36.4 J	112 J	59.3 J	165 J	67.3 J	76.6 J	61.5 J	91.5 J	82.9 J	80.2 J	42.2 J	64.7 J	139	268	ND	ND	158	158	43.2 J
Thallium	SB*	NP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.2 J	1.7 J	2.7 J	2.5 J	1.8 J	2 J	ND	ND	3.1 J
Vanadium	100* or SB	1 - 300	34.4	28.6	33.7	28.8	44.2	24.6	17.9	31	24.3	23.8	21.2	78.8	35.8	16.3	37.5	28.5	43.2	22.6	158	40.3	22.1
Zinc	10,000	87.1 (HV)	139	854	375	394	1,930	148	202	127	819	164	85.7	546	136	123	81	157	155	216	193	243	472
Notes: Cells highlighted in y	yellow, indicate cr	oncentrations above g	juidance va	lues. Cells !	highlighted	in blue, ind [;]	icate detect	ed concent	rations.														

Cells nigningineta in yeliow, indicate concentrations above guidance values. Cells nigningineta in bule, indicate detected or Guidance levels based on BCP Restricted Residential SCOs, 6 NYCRP Part 375, Table 375-6.8(b), except as noted. HV = Background levels based on NYSDEC data for metals in Lower Hudson Valley soils (90% upper confidence limit).

* Background lead concentrations in urban settings typically range from 200 to 500 ppm.

**Sample with dupilcate analysis

J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value ND = Not Detected NP = Not Provided SB = Site Background NA = Not Available



Table 12: Metals in Test Pits

Results provided in mg/kg (parts per million). Results shown in **bold** exceed guidance levels.

			Sample Identification										
	Guidance	Background	2SST-1	2TP-2	2TP-2B	2TP-8	2TP-11	2TP-11B	2TP-15	2TP-15B			
Metal	Level	Concentrations	(0-4")	(3')	(4-5')	(1')	(0-6")	(6"-1')	(1-2')	(3.5')			
		Date	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008			
Aluminum	SB*	33,000	17,700	9,780	16,600	18,000	3,820	14,100	11,700	17,200			
Antimony	SB*	NP	44.3	ND	2.4 J	ND	18.3	ND	8.8 J	ND			
Arsenic	16	7.4 (HV)	10.7	12.7	12.7 J	6.9 J	13.1 J	9.9 J	9.6 J	6.3 J			
Barium	400	81.1 (HV)	95.1	164.0	96.6	94.1	249.0	103.0	78.0	92.0			
Beryllium	72	0.75 (HV)	0.81 J	ND	0.84 J	0.84 J	ND	0.68 J	ND	0.81 J			
Cadmium	4.3	0.22 (HV)	1.7 J	2 J	ND	ND	ND	1.2 J	2 J	ND			
Calcium	SB*	130 - 35,000	4,360	21,500	3,070	21,400	389	917	28,400	1,220			
Chromium	180	20.9 (HV)	32.4	61.6	23.4	21.7	788.0	95.0	61.3	36.7			
Cobalt	30* or SB	2.5 - 60	16.0	9.9	15.3	14.2	2 J	9.4	9.5	15.0			
Copper	270	23.4 (HV)	51.3	240	36.8	31.4	4,530	1,210	842	181			
Iron	2,000* or SB	2,000 - 550,000	47,600	31,200	37,900	31,200	11,900	26,500	47,400	34,700			
Lead	400	72.5 ** (HV)	223	256	35.9	28.6	531	180	319	62.8			
Magnesium	SB*	100 - 5,000	6,820	6,790	6,170	13,800	496	4,830	18,000	5,970			
Manganese	2,000	50 - 5,000	1,530	974	973	850	34.2	256	719	747			
Mercury	0.81	0.24 (HV)	0.21	0.44	0.06 J	0.061	4.0	0.23 J	0.29	0.19 J			
Nickel	310	21.0 (HV)	39.8	40.9	32.1	30.2	25.3	80.6	34.9	33.3			
Potassium	SB*	8,500 - 43,000	1,890	1,240	1540 J	2,180	278 J	978 J	1,130	1370 J			
Selenium	180	1 (HV)	ND	ND	13.6	ND	3 J	ND	2.4 J	ND			
Silver	180	NP	ND	2.3 J	ND	ND	15.0	1.5 J	0.97 J	ND			
Sodium	SB*	6,000 - 8,000	64.2 J	182 J	56.4 J	87.9 J	ND	43.6 J	107 J	39.4 J			
Thallium	SB*	NP	ND	ND	9.5	ND	ND	2.9 J	ND	3.4 J			
Vanadium	100* or SB	1 - 300	36.2	36.8	25.7	32.0	73.2	21.0	34.5	27.1			
Zinc	10,000	87.1 (HV)	508	650	102	81.8	120	706	404	178			

Notes:

Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations.

Guidance levels based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8(b), except as noted.

HV = Background levels based on NYSDEC data for metals in Lower Hudson Valley soils (90% upper confidence limit).

** Background lead concentrations in urban settings typically range from 200 to 500 ppm.

J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

The concentration given is an approximate value.

ND = Not Detected NP = Not Provided SB = Site Background NA = Not Available

Table 13: Pesticides in Soils

Results provided in µg/kg (parts per billion). Results shown in **bold** exceed guidance levels.

Compound													Sample	Identifica	ation											
	Guidance	2HB-01	2HB-02	2HB-03	2HB-04	2HB-05	2HB-06	2HB-07	2HB-08	2HB-09	2HB-10	2HB-11	2HB-12	3HB-01	3HB-02	3HB-03	3HB-04	3HB-05	3B-03	3B-05	4B-01	4B-02	4SS-1	4SS-2	DUPLICATE	DUPLICATE
(USEPA Method 8081)	Level	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-2")	(0-2")	(0-2")	(0-2")	(0-2")	(4-6')	(10-12')	(6-8')	(4-5')	(0-3")	(0-3")	(2HB-02)	(3B-03, 4-6')
	Date	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	6/2/2009	6/2/2009	6/1/2009	6/1/2009	6/1/2009	1/19/2009	1/19/2009	1/27/2009	1/27/2009	6/29/2011	6/29/2011	2/25/2008	1/19/2009
4,4'-DDD	13,000	ND	ND	ND	ND	49	11	ND	1.8 J	2.6 J	1.5 J	15	13	9.8 J	ND	0.98 J	8 J	2.4 J	ND							
4,4'-DDE	9,000	66	ND	58	7.5	5.8 J	4.9	ND	0.73 J	2.6 J	1.3 J	ND	11	ND	ND	ND	39	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	8,000	80	530	120	25	100	44	ND	21	14	1 J	31	26	32	ND	ND	25	4.4	ND	ND	ND	ND	ND	ND	90	ND
Aldrin	97	ND	ND	ND	4.2	ND	ND	ND	ND	ND	ND	ND	2.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.7 J	ND
alpha-BHC	480	0.65 J	ND	3.6 J	ND	ND	2.7	ND	ND	ND	ND	0.97 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.4 J	ND
alpha-Chlordane	4,200	7.2	ND	ND	ND	ND	ND	ND	ND	0.82 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
beta-BHC	360	ND	ND	3.6 J	8.2	ND	ND	ND	ND	ND	ND	0.62 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.4 J	ND
Chlordane (technical)	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
delta-BHC	100,000	0.14 J	ND	0.92 J	ND	ND	1.2 J	ND	0.26 J	0.35 J	ND	0.5 J	2.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	200	2.9 J	150 J	6.2 J	81	200	3.5 J	ND	3.6 J	1.1 J	3.8 J	1.6 J	8.4	ND	ND	7.9	26	ND	ND	ND	ND	ND	ND	ND	51	ND
Endosulfan I	24,000	ND	ND	ND	ND	ND	4.7	ND	0.42 J	ND	ND	ND	2.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	24,000	0.34 J	ND	ND	1.3 J	ND	3.9 J	ND	ND	0.39 J	ND	1.1 J	4.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11 J	ND
Endosulfan sulfate	24,000	ND	ND	ND	ND	ND	7.4	ND	ND	0.47 J	0.21 J	7.1	4.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	11,000	ND	ND	ND	ND	ND	7.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	28	ND						
Notes:																										
Cells highlighted in blue, indicate	detected cond	centrations.																								
Guidance levels based on BCP R	estricted Res	idential Use	SCOs, 6 NY	CRR Part 3	75, Table 37	5-6.8(b), exce	ept as noted.																			
ND - Not Detected NE - Not E	atabliabad																									

ND = Not Detected NE = Not Established





Table 14: PCBs in Soil Borings

Results	provided	in µg/	/kg (parts	s per	billion).

PCB Compound	Sample Identification																	
	2B-07	2B-08	2B-09	2B-10	2B-11	2B-12	2B-13	2B-14	2B-15	3B-03	3B-05	4B-01	4B-02	4SS-1	4SS-2	4SS-2	DUPLICATE	DUPLICATE
(USEPA Method 8082)	(3-4')	(5-6')	(6-7')	(9-10')	(5-7')	(15-17')	(23-25')	(22-24')	(4-5')	(4-6')	(10-12')	(6-8')	(4-5')	(0-3")	(0-3")	(15"-18")	(2B-11, 5-7')	(3B-03, 4-6')
Date	1/31/2008	1/31/2008	2/5/2008	2/5/2008	2/5/2008	2/5/2008	2/5/2008	2/6/2008	2/6/2008	1/19/2009	1/19/2009	1/27/2009	1/27/2009	6/29/2011	6/29/2011	6/29/2011	2/5/2008	1/19/2009
PCB 1016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1221	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1232	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1248	5.6 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1254	3.6 J	ND	ND	ND	ND	ND	ND	ND	ND	17 J	ND	31 J						
PCB 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB, Total	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,530	ND	ND	ND
Notes:																		

Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations. Guidance level = 1,000 ppb, based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8(b).

ND = Not Detected



Table 15: PCBs in Surface Soil

Results provided in μ g/kg (parts per billion).

Compound									Sample	e Identifica	tion								
(USEPA	2HB-01	2HB-02*	2HB-03	2HB-04	2HB-05	2HB-06	2HB-07	2HB-08	2HB-09	2HB-10	2HB-11	2HB-12	2HB-13	3HB-01	3HB-02	3HB-03	3HB-04	3HB-05	DUPLICATE
Method 8082)	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-4")	(0-2")	(0-2")	(0-2")	(0-2")	(0-2")	(2HB-02)
Date	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	2/25/2008	6/2/2009	6/2/2009	6/1/2009	6/1/2009	6/1/2009	2/25/2008
PCB 1016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
PCB 1221	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
PCB 1232	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
PCB 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
PCB 1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
PCB 1254	ND	ND	ND	ND	ND	3.6 J	ND	9.4 J	4.9 J	13 J	3.6 J	100	5.1 J	ND	ND	9.1 J	ND	15 J	ND
PCB 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
PCB-1268	40	ND	16 J	100	35	10 J	ND	ND	9.6 J	12 J	ND	120	71	11 J	ND	20	83	ND	150 J
PCB, Total	40	ND	16	100	35	14	ND	9	15	25	4	220	76	11	ND	9.1	83	15	150
Notes:																			

Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations. Guidance level = 1,000 ppb, based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8(b).

* Sample with Duplicate analysis ND = Not Detected



Table 16: PCBs in Test Pits

Results provided in µg/kg (parts per billion).

PCB Compound				Samp	le Identification			
(USEPA Method 8082)	2SST-1 (0-4")	2TP-2 (3')	2TP-2B (4-5')	2TP-8 (1')	2TP-11 (0-6")	2TP-11 B (6"-1')	2TP-15 (1-2')	2TP-15B (3.5')
Date	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008	1/30/2008
PCB 1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1248	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1254	53	120 J	ND	ND	7,500 J	ND	3,400 J	ND
PCB 1260	ND	87 J	ND	ND	ND	ND	ND	ND
PCB 1268	NA	NA	9.3 J	NA	NA	1,600 J	NA	1,000 J
PCB, Total	53	207	9	ND	7,500	1,600	3,400	1,000
Notes: Cells highlighted in yellow, i	ndicate concer	ntrations above	guidance value	es. Cells highlig	nted in blue, indic	cate detected conce	entrations.	

Guidance level = 1,000 ppb, based on BCP Restricted Residential SCOs, 6 NYCRR Part 375, Table 375-6.8(b).

ND = Not Detected NA = Not Analyzed


Table 17 : VOCs in Groundwater

All results provided in $\mu g/L.~$ Results in bold exceed designated guidance levels.

		Sample Identification																
	Guidance																	Duplicate
(USEPA Method 8260)	Level		MW-01			MW-02		MW-03		2MW-04"			2MW-05			2MW-06		(2MW-04)
1112 Totrachlaracthana	Date	2/28/2008	6/19/2008	6/1/2009	2/28/2008	6/19/2008	6/1/2009	2/28/2008	2/28/2008	6/19/2008	6/1/2009	2/28/2008	6/19/2008	6/2/2009	2/28/2008	6/19/2008	6/1/2009	2/28/2008
1,1,1,2-Tetrachioroethane	5			NA ND	ND		NA ND	ND	ND ND			ND					NA ND	ND
1 1 2 2-Tetrachloroethane	5		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1.1.2-Trichloro-1.2.2-trifluoroethane	NF	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
1.1.2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	NA	NA	ND	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
1,2,3-Trichlorobenzene	5	ND	NA	NA	ND	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
1,2,3-Trichloropropane	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chioropropane	0.04		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND	ND	ND
1.2-Dischlorobenzene	3		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1.2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1.2-Dichloroethene. Total	5*	ND	NA	NA	ND	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
1,2-Dichloropropane	1	ND	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NE	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
2 2-Dichleropropage	5		NA NA	NA NA		NA NA	NA NA			NA NA	NA NA		NA NA	NA NA		NA NA	NA NA	
2,2-Dichloroptopane	5		NA NA	NA	ND	NA	NA	ND	ND	NA	NA		NA	NA NA		NA NA	NA	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	NA	NA	ND	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
4-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND	1.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	NA	NA	ND	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromotorm	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfido) NE		ND 0.25 L	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND		ND	ND	ND
Carbon tetrachloride	5	ND	0.25 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NE E	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Dibromomothano	5		ND	ND	ND	ND	ND NA	ND	ND	ND	ND		NA	ND		ND NA	ND	ND
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethvibenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	NA	NA	ND	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	NE	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Metnyi Etnyi Ketone	50		ND	ND														
Methyl tert-butyl ether	10		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
n-Butylbenzene	5	ND	ND	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND
N-Propylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND
Toluono	5																	
trans-1.2-Dichloroethene	5	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
trans-1.3-Dichloropropene	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.43 J	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	5	ND	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
Total TICs	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.8	ND	ND	ND	ND
Total Unknown Compounds	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
I otal VOCs	NE	I ND	0.25	ND	ND	ND	1.7	ND	ND	ND	ND ND	0.7	ND	9.8	0.43	I ND	ND	ND

 Total VOCs
 NE
 ND
 0.25
 ND
 ND
 ND
 1.7
 ND
 ND

 Notes:
 Cells highlighted in blue, indicate detected concentrations.
 Guidance levels based on NYSDEC TOGS 1.1.1.
 *
 *
 *
 Applies to the individual isomers cis-1,2-Dichloroethene and trans-1,2-Dichloroethene.
 ***Applies to the individual isomers 1,3-4ichloropropene.
 ***Applies to the individual isomers 1,3-Xylene (m-Xylene) and 1,4-Xylene (p-Xylene).
 #
 Sample with duplicate analysis
 J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

 The concentration given is an approximate value.
 ND = Not Detected
 NE = Not Established
 ND = Not Detected
 NE = Not Established



Table 18: SVOCs in Groundwater

All results provided in μ g/L (parts per billion). Results in **bold** exceed designated guidance levels.

Compound		Sample Identification						
	Guidance							DUPLICATE
(USEPA Method 8270)	Level	MW-01	MW-02	MW-03	2MW-04*	2MW-05	2MW-06	(2MW-04)
	Date	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND
2,2-oxybis (1-chloropropane)	5	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	NE	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	NE	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	5	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	10	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	5	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	5	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	10	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	NE	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NE	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	NE	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	5	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	NE	ND	ND	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	5	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	5	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NE	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NE	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	NE	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	5	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NE	ND	ND	ND	ND	ND	ND	ND
4-Metnyiphenoi	NE	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	5	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	NE	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	NE 50	ND	ND	ND	ND	ND	ND	ND
Anthracene	50	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthono	0.002	ND	ND	ND	ND	ND	ND	ND
Benzo(ghi)pervlene	NE	ND	ND		ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	ND	ND	ND	ND	ND	ND	ND
Benzyl alcohol	NE	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	5	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	1	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	5	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	50	ND	ND	ND	ND	ND	ND	ND
Carbazole	NE	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a h)anthracene	NE	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NE	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	50	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	50	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	50	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	50	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.04	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	5	ND	ND	ND	ND	ND	ND	ND
Indeno(1 2 3-cd)pyrene	0.002	ND	ND	ND	ND	ND	ND	ND
Isophorone	50	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.4	ND	ND	ND	ND	ND	ND	ND
n-Nitroso-di-n-propylamine	NE	ND	ND	ND	ND.	ND	ND	ND N=
n-Nitrosodimethylamine	50	ND	ND	ND	ND	ND	ND	ND
Pentachiorophenol	1	ND	ND	ND	ND	ND	ND	ND
Phenal	50	ND	ND	ND	ND	ND	ND	ND
Phenoi	50	ND	ND	ND	ND	ND	ND	ND
Total TICs	50 NE	ND	ND	ND 2.7.1	ND		ND 20.1	ND 2.4.1
Total Unknown Compounds	NE		J.TJ ND	2.7 J	4.9 J	3.7 J		2.4 J
Total SVOCe	NE	21	3.1	2.7	40	3.7	20	2.4
Notes:		21	0.1	2.1	7.3	5.1	20	2.4
II								

Cells highlighted in blue, indicate detected concentrations. Guidance levels based on NYSDEC <u>TOGS 1.1.1</u>.

* Sample with duplicate analysis J - Data indicate the presence of a compound that meets the identification criteria. The result is less limit but greater than zero. The concentration given is an approximate value. ND = Not Detected NE = Not Established NA = Not Analyzed



Table 19: Metals in Groundwater

All results provided in ug/L. Results in **bold** exceed designated guidance levels.

			Sample Identification											
TAL METAL	Guidance Level	MW-01 (Total)	MW-01 (Dissolved)	MW-02 (Total)	MW-02 (Dissolved)	MW-03 (Total)	MW-03 (Dissolved)	2MW-04** (Total)	2MW-04** (Dissolved)	2MW-05 (Total)	2MW-05 (Dissolved)	2MW-06 (Total)	2MW-06 (Dissolved)	DUPLICATE (2MW-04, Total)
	Date	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008
Aluminum	100	1,100	NA	2,700	NA	1,800	NA	420 J	NA	132,000	130 J	1,100	NA	940
Antimony	3	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	ND	NA	ND
Arsenic	25	6.4 J	NA	ND	NA	ND	NA	ND	NA	110	ND	ND	NA	ND
Barium	1,000	130	NA	36	NA	66	NA	120	NA	860	73	48	NA	120
Beryllium	3	ND	NA	ND	NA	ND	NA	ND	NA	8	ND	ND	NA	ND
Cadmium	5	ND	NA	ND	NA	ND	NA	ND	NA	11	ND	ND	NA	ND
Calcium	NE	111,000	NA	42,800	NA	88,200	NA	239,000	NA	303,000	140,000	97,700	NA	234,000
Chromium	50	22 J	NA	14 J	NA	5.6 J	NA	11 J	NA	280	ND	35 J	NA	22 J
Cobalt	5	2.9 J	NA	4 J	NA	ND	NA	8.1 J	NA	220	ND	2.6 J	NA	7.7 J
Copper	200	14	NA	22	NA	20	NA	9 J	NA	610	ND	11	NA	6.6 J
Iron	300*	2,600	NA	5,900	NA	3,100	NA	920 J	NA	305,000	ND	2,400	NA	1900 J
Lead	25	25 J	9.4 J	22 J	ND	36 J	ND	11 J	5.5 J	220	ND	39 J	ND	10 J
Magnesium	35,000	41,500	NA	9,000	NA	63,400	NA	49,600	NA	133,000	49,700	25,300	NA	48,500
Manganese	300*	680	NA	100	NA	26	NA	150	NA	22,100	1,800	110	NA	160
Mercury	0.7	ND	NA	ND	NA	ND	NA	ND	NA	ND	0.37	ND	NA	ND
Nickel	100	18	NA	11	NA	6.6 J	NA	9 J	NA	380	11	23	NA	16
Potassium	NE	2,000	NA	1,700	NA	2,300	NA	1,700	NA	15,400	3,800	2,300	NA	1,700
Selenium	10	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	ND	NA	ND
Silver	50	ND	NA	ND	NA	ND	NA	1.7 J	NA	ND	ND	ND	NA	1.7 J
Sodium	20,000	30,300	NA	4,700	NA	30,000	NA	111,000	NA	37,000	31,800	20,200	NA	<u>107,000</u>
Thallium	0.5	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	ND	NA	ND
Vanadium	14	1.6 J	NA	9	NA	3.9 J	NA	ND	NA	170	ND	3	NA	1.8 J
Zinc	2,000	ND	NA	38 J	NA	21 J	NA	19 J	NA	920	ND	14	NA	ND

Notes:

Cells highlighted in yellow, indicate concentrations above guidance values. Cells highlighted in blue, indicate detected concentrations.

*Guidance level for total of iron and manganese is 500 ug/L.

** Sample with duplicate analysis

J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration

given is an approximate value.

ND = Not Detected NE = Not Established NA = Not Analyzed



Table 20: PCBs in GroundwaterResults provided in µg/kg (parts per billion).

PCB Compound				Sam	ple Identific	cation			
									DUPLICATE
(USEPA Method 8082)	MW-01	MW-02	MW-03	2MW-04*	2MW-05	2MW-06	2SW-1	2SW-2	(2MW-04)
Date	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008	2/28/2008
PCB 1016	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1221	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1232	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1248	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND
Notes:									
Guidance level = 0.09 ppl * Sample with duplicate a	Guidance level = 0.09 ppb (Total PCB), based on NYSDEC <u>TOGS 1.1.1</u> Sample with duplicate analysis								

* Sample with duplica ND = Not Detected

Table 21: VOCs in Sediment

All results provided in µg/g (parts per million).

		Levels of		Sample Identification		
			Benthic Aquatic			
	Human Health	Benthic Aquatic	Life Chronic	Wildlife		
Compound (USEPA Method 8260)	Bioaccumulation	Life Acute Toxicity	Toxicity	Bioaccumulation	2 SED-1	2 SED-2
					2/25/2008	2/25/2008
1,1,1,2-Tetrachloroethane	0.3	NE	NE	NE	ND	ND
1,1,1-Trichloroethane	NE	NE	NE	NE	ND	ND
1,1,2,2-Tetrachloroethane	NE	NE	NE	NE	ND	ND
1,1,2-Trichloroethane	0.6	NE	NE	NE	ND	ND
1,1-Dichloroethane	NE	NE	NE	NE	ND	ND
1,1-Dichloroethene	0.02	NE	NE	NE	ND	ND
1,1-Dichloropropene	NE	NE	NE	NE	ND	ND
1,2,3-Trichlorobenzene	NE	910	91	NE	ND	ND
1,2,3-Trichloropropane	NE	NE	NE	NE	ND	ND
1,2,4-Trichlorobenzene	NE	910	91	NE	ND	ND
1,2,4-Trimethylbenzene	NE	1631	186	NE	ND	ND
1,2-Dibromo-3-chloropropane	NE	NE	NE	NE	ND	ND
1,2-Dibromoethane (EDB)	NE	NE	NE	NE	ND	ND
1,2-Dichlorobenzene	NE	NE	NE	NE	ND	ND
1,2-Dichloroethane	0.7	NE	NE	NE	ND	ND
1,2-Dichloroethene (total)	NE	NE	NE	NE	ND	ND
1,2-Dichloropropane	NE	NE	NE	NE	ND	ND
1,3,5-Trimethylbenzene	NE	NE	NE	NE	ND	ND
1,3-Dichlorobenzene	NE	NE	NE	NE	ND	ND
1,3-Dichloropropane	NE	NE	NE	NE	ND	ND
1,4-Dichlorobenzene	NE	NE	NE	NE	ND	ND
1-Chlorohexane	NE	NE	NE	NE	ND	ND
2,2-Dichloropropane	NE	NE	NE	NE	ND	ND
2-Chlorotoluene	NE	NE	NE	NE	ND	ND
2-Hexanone	NE	NE	NE	NE	ND	ND
4-Chlorotoluene	NE	NE	NE	NE	ND	ND
4-Isopropyltoluene	NE	NF	NF	NE	ND	ND
Acetone	NE	NE	NE	NE	ND	0.0053.1
Benzene	0.6	103	28	NE	ND	ND
Bromobenzene	NE	NE	NE	NE	ND	ND
Bromodichloromethane	NE	NE	NE	NE	ND	ND
Bromoform	NE	NE	NE	NE	ND	ND
Bromomethane	NE	NE	NE	NE	ND	ND
Carbon disulfide	NE	NE	NE	NE	ND	ND
Carbon tetrachloride	0.6	NE	NE	NE	ND	ND
Chlorobenzene	NE	34.6	3.5	NE	ND	ND
Chloroethane	NE	NE	NE	NE	ND	ND
Chloroform	NE	NE	NE	NE	ND	ND
Chloromethane	NE	NE	NE	NE	ND	ND
1,2-Dichloroethylene (cis)	NE	NE	NE	NE	ND	ND
cis-1,3-Dichloropropene	NE	NE	NE	NE	ND	ND
Dibromochloromethane	NE	NE	NE	NE	ND	ND
Dibromomethane	NE	NE	NE	NE	ND	ND
Dichlorodifluoromethane	NE	NE	NE	NE	ND	ND
Ethylbenzene	NE	212	24	NE	ND	ND
Hexachlorobutadiene	0.3	55	5.5	4	ND	ND
Isopropylbenzene	NE	105	12	NE	ND	ND
m-&p-Xylenes	NE	833	92	NE	ND	ND
Methyl Ethyl Ketone	NE	NE	NE	NE	ND	ND
methyl isobutyl ketone	NE	NE	NE	NE	ND	ND
Methyl-tert-butyl-ether (MTBE)	NE	NE	NE	NE	ND	ND
Methylene chloride	NE	NE	NE	NE	ND	0.0054 J
Naphthalene	NE	NE	NE	NE	ND	ND
n-Butylbenzene	NE	NE	NE	NE	ND	ND
n-Propylbenzene	NE	NE	NE	NE	ND	ND
o-Xylene	NE	833	92	NE	ND	ND
sec-Butylbenzene	NE	NE	NE	NE	ND	ND
Styrene	NE	NE	NE	NE	ND	ND
tert-Butvlbenzene	NE	NE	NE	NE	ND	ND
Tetrachloroethene	0.8	NF	NF	NF	ND	ND
Toluono	NE	225	40	NE	ND	0.0001
1.2 Diobleroothulana (trans)		233	49 NF			0.00913
tropo 1.2 Dichlerence (trans)	NE	NE	NE	NE	ND	ND
Trichloroothono	NE 2.0	NE	NE	NE		
Trichlorofluoromethano	2.0	NE	NE	NE		
Vinyl chlorido	0.07	NE	NE	NE		
Total Vulence	0.07	NE	NE	NE		
	NE	NE	NE	NE		
Total Unknown Compunds	NE	NE	NE	NE		
	NE	NE	NE	NE		0.01161
Notes:	NL				שא	0.011013
1000.						

Notes. concentrations. Guidance levels based on sediment criteria provided in <u>Technical Guidance for Screening Contaminated Sediments</u> (dated November 1993, revised January 1999). J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value. ND = Not Detected NE = Not Established



Table 22: SVOCs in Sediments

Results provided in ug/g (parts per million).

		Levels of	Protection		
Compound			Benthic Aquatic		Sample Identification
	Human Health	Benthic Aquatic	Life Chronic	Wildlife	
(USEPA Method 8270)	Bioaccumulation	Life Acute Toxicity	Toxicity	Bioaccumulation	2 SED-1
					2/25/2008
1,2,4-Trichlorobenzene	NE	910	91	NE	ND
1,2-Dichlorobenzene	NE	120.0	12.0	NE	ND
1,3-Dichlorobenzene	NE	NE	NE	NE	ND
1,4-Dichlorobenzene	NE	NE	NE	NE	ND
2.2-oxybis (1-chloropropane)	NE	NE	NE	NE	ND
2.4.5-Trichlorophenol	NE	NE	NE	NE	ND
2.4.6-Trichlorophenol	NE	NE	NE	NE	ND
2.4.0-Inchlorophenol	NE	NE	NE	NE	ND
2.4 Dimethylphonol	NE	NE	NE	NE	ND
2,4-Dimetryphenol	NE	NE		NE	ND
2,4-Dinitrophenoi	NE	NE	NE	NE	ND
2,4-Dinitrotoluene	NE	NE	NE	NE	ND
2,6-Dinitrotoluene	NE	NE	NE	NE	ND
2-Chloronaphthalene	NE	NE	NE	NE	ND
2-Chlorophenol	NE	NE	NE	NE	ND
2-Methylnaphthalene	NE	304	34	NE	ND
2-Methylphenol	NE	NE	NE	NE	ND
2-Nitroaniline	NE	NE	NE	NE	ND
2-Nitrophenol	NE	NE	NE	NE	ND
3.3-Dichlorobenzidine	NE	NE	NE	NE	ND
3-Nitroaniline	NF	NF	NF	NF	ND
4.6-Dinitro-2-mothylphonol	NE	NE	NE	NE	ND
4-Bromonhonyl nhonyl other	NE	NE	NE	NE	
4-Chloro-3-methylabonal	NE	NE	NE	NE	
4-Chlore-s-illine	NE	NE	NE	NE	
4-Chioroaniline	NE	NE	NE	NE	ND ND
4-Chlorophenyl phenyl ether	NE	NE	NE	NE	ND
4-Methylphenol	NE	NE	NE	NE	ND
4-Nitroaniline	NE	NE	NE	NE	ND
4-Nitrophenol	NE	NE	NE	NE	ND
Acenaphthene	NE	NE	140	NE	ND
Acenaphthylene	NE	NE	NE	NE	ND
Acetophenone	NE	NE	NE	NE	NA
Anthracene	NE	986	107	NE	0.096 J
Benzo(a)anthracene	NE	94	12	NE	0.320 J
Benzo(a)pyrene	1.3	NF	NF	NE	0.300.1
Benzo(b)fluoranthene	NE	NE	NE	NE	0.360 J
Benzo(gbi)norvlopo	NE	NE	NE	NE	0.300 3
Benzo(k)fluoranthona	NE	NE	NE	NE	0.200 J
Benzo(k)nuoranmene	NE	NE		INE NE	0.130 J
Benzyl alconol	NE	NE	NE	NE	ND
Bis(2-chloroetnoxy)methane	NE	NE	NE	NE	ND
Bis(2-chloroethyl)ether	0.03	NE	NE	NE	ND
Bis(2-ethylhexyl)phthalate	NE	NE	199.5	NE	0.130 J
Butyl benzyl phthalate	NE	NE	NE	NE	ND
Carbazole	NE	NE	NE	NE	ND
Chrysene	NE	NE	NE	NE	0.350 J
Dibenzo(a h)anthracene	NE	NE	NE	NE	ND
Dibenzofuran	NE	NE	NE	NE	ND
Diethyl phthalate	NE	NE	NE	NE	ND
Dimethyl phthalate	NE	NE	NE	NE	ND
Di-n-butyl phthalate	NE	NE	NE	NE	ND
Di-n-octyl phthalate	NE	NE	NE	NE	ND
Fluoranthene	NE	NE	1020	NE	0,560
Fluorene	NF	73	8	NE	ND
Heyachlorobonzono	0.15	0091	5570	12	
Hexachiorobenzene	0.15	5001	5570	12	
	0.3	55.0	5.5	4	ND ND
Hexachiorocyclopentadiene	NE	44.0	4.4	NE	ND ND
Hexachloroethane	NE	NE	NE	NE	ND
Indeno(1 2 3-cd)pyrene	NE	NE	NE	NE	0.240 J
Isophorone	NE	NE	NE	NE	ND
Naphthalene	NE	258	30	NE	ND
Nitrobenzene	NE	NE	NE	NE	ND
n-Nitroso-di-n-propylamine	NE	NE	NE	NE	ND
n-Nitrosodiphenylamine	NE	NE	NE	NE	ND
Pentachlorophenol	NE	100	40	NE	ND
Phenanthrene	NE	NE	120	NE	0.240 J
Phenol	NE	NE	NE	NE	ND
Pyrene	NE	8775	961	NE	0.450 J
Total TICs	NE	NE	NE	NE	6.090 J
Total Unknown Compounds	NE	NE	NE	NE	61.250 J
Total SVOCs	NE	NE	NE	NE	70.716
Total PAHs	NE	NE	NE	NE	3.246

Notes:

Notes: Cells highlighted in blue, indicate detected concentrations. Guidance levels based on sediment criteria provided in <u>Technical Guidance for Screening Contaminated Sediments</u> (dated November 1993, revised January 1999). J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value. ND = Not Detected NE = Not Established <u>TICs = Tentatively Identified Compounds</u>

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Table 23: Metals in Sediments

Results provided in mg/kg (parts per million). Results shown in **bold** and highlighted in yellow exceed Lowest Effect Level guidance values.

	Lowest Effect		Sample Ide	ntification
Metal	Level	Severe Effect Level	2 SED-1	2 SED-2
			2/25/2008	2/25/2008
Aluminum	NE	NE	10,300	11,200
Antimony	2.0	25.0	ND	ND
Arsenic	6.0	33.0	2.9 J	6.3
Barium	NE	NE	32.8	71.3
Beryllium	NE	NE	ND	0.6 J
Cadmium	0.6	9.0	ND	ND
Calcium	NE	NE	4,450	2,720
Chromium	26.0	110	14.8	14.8
Cobalt	NE	NE	8.2	9.7
Copper	16.0	110	45	23.3
Iron	2.0%	4.0%	23,700	25,100
Lead	31.0	110	61.7	33.4
Magnesium	NE	NE	7,080	5,170
Manganese	460.0	1100.0	363	623
Mercury	0.15	1.3	0.051 J	0.096
Nickel	16.0	50.0	24	22.1
Potassium	NE	NE	670	859
Selenium	NE	NE	ND	ND
Silver	1.0	2.2	ND	ND
Sodium	NE	NE	55.3 J	98.1 J
Thallium	NE	NE	3.2 J	ND
Vanadium	NE	NE	15	18.3
Zinc	120.0	270.0	133	76.8

Notes:

Cells highlighted in blue, indicated detected concentrations.

Guidance levels based on sediment criteria provided in <u>Technical Guidance for Screening Contaminated Sediments</u>

(dated November 1993, revised January 1999).

J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.

ND = Not Detected NE = Not Established



Table 24: Pesticides in Sediment

Results provided in ug/g (parts per million).

		Levels of I	Protection		Sample Identification				
			Benthic Aquatic						
	Human Health	Benthic Aquatic	Life Chronic	Wildlife					
Compound	Bioaccumulation	Life Acute Toxicity	Toxicity	Bioaccumulation	2 SED-1				
(USEPA Method 8081)					2/25/2008				
4,4'-DDD	0.01	NE	NE	1.0	0.0035 J				
4,4'-DDE	0.01	NE	NE	1.0	0.0014 J				
4,4'-DDT	0.01	1100	1.0	1.0	0.0027 J				
Aldrin	0.1	NE	NE	NE	ND				
alpha-BHC	NE	NE	NE	NE	ND				
alpha-Chlordane	NE	NE	NE	NE	ND				
beta-BHC	NE	NE	NE	NE	ND				
Chlordane	0.001	1.4	0.03	0.01	NA				
delta-BHC	NE	NE	NE	NE	ND				
Dieldrin	0.1	NE	9.0	NE	0.0078				
Endosulfan I	NE	0.78	0.03	NE	ND				
Endosulfan II	NE	0.78	0.03	NE	ND				
Endosulfan sulfate	NE	NE	NE	NE	ND				
Endrin	0.8	NE	NE	NE	ND				
Endrin aldehyde	NE	NE	NE	NE	ND				
Endrin ketone	NE	NE	NE	NE	ND				
gamma-BHC (Lindane)	NE	NE	NE	NE	ND				
gamma-Chlordane	NE	NE	NE	NE	0.0021 J				
Heptachlor	0.0008	13.1	0.1	0.03	ND				
Heptachlor Epoxide	0.0008	13.1	0.1	0.03	0.0004 J				
Methoxychlor	NE	NE	0.6	NE	ND				
Toxaphene	0.02	3.2	0.01	NE	ND				
Total DDT**	NE	NE	NE	NE	0.0076				
Notes:									
Cells highlighted in blue, indicate detected concentrations.									
Guidance levels based on sediment	uidance levels based on sediment criteria provided in <u>Technical Guidance for Screening Contaminated Sediments</u>								

(dated November 1993, revised January 1999).

J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value. ** Sum of 4,4'- DDE, 4,4'- DDD, and 4,4'- DDT.

ND = Not Detected NE = Not Established



Table 25: PCBs in Sediment

Results provided in ug/g (parts per million). Results shown in **bold** and highlighted in yellow exceed one or more levels of protection guidance values.

PCB Compound	Sample I	dentification
(USEPA Method 8082)	2 SED-1	2 SED-2
Date	2/25/2008	2/25/2008
PCB 1016	ND	ND
PCB 1221	ND	ND
PCB 1232	ND	ND
PCB 1242	ND	ND
PCB 1248	ND	ND
PCB 1254	0.0048 J	ND
PCB 1260	ND	ND
PCB 1268	0.0010 J	ND
PCB, Total	0.0148 J	ND
Nietees		

Notes:

Cells highlighted in blue, indicated detected concentrations.

Guidance levels for total PCBs for the different levels of protection are as follow: 0.0008 ppm for Human Health Bioaccumulation; 2,760.0 ppm for Benthic Aquatic Life Acute Toxicity; 19.3 ppm for Benthic Aquatic Life Chronic Toxicity; and 1.4 ppm for Wildlife Bioaccumulaiton.

ND = Not Detected



Table 26 : VOCs in Surface Water

All results provided in µg/L. Results in **bold** exceed designated guidance levels.

		Sample Identification		
(USEDA Mothod 9360)		26W/ 1	26W/ 2	
(USEPA Method 8260)	Guidance Level	2577-1	25//-2	
1 1 1 2-Tetrachloroethane	Date	2/28/2008 ND	2/28/2008	
1.1.1-Trichloroethane	5	ND	ND	
1,1,2,2-Tetrachloroethane	0.2	ND	ND	
1,1,2-Trichloroethane	1	ND	ND	
1,1-Dichloroethane	5	ND	ND	
1,1-Dichloroethene	0.7	ND	ND	
1,2-Dichloropropene	5			
1.2.3-Trichloropropane	0.04	ND	ND	
1,2,4-Trichlorobenzene	5	ND	ND	
1,2,4-Trimethylbenzene	5	ND	ND	
1,2-Dibromo-3-Chloropropane	0.04	ND	ND	
1,2-Dibromoethane	NE 2	ND	ND	
1,2-Dichloropenzene	06	ND		
1.2-Dichloroethene. Total	5	ND	ND	
1,2-Dichloropropane	1	ND	ND	
1,3,5-Trimethylbenzene	5	ND	ND	
1,3-Dichlorobenzene	3	ND	ND	
1,3-Dichloropropane	5	ND	ND	
1,4-Dichlorobenzene	3 NF	ND	ND ND	
2.2-Dichloropropane	5	ND	ND	
2-Chlorotoluene	5	ND	ND	
2-Hexanone	50	ND	ND	
4-Chlorotoluene	5	ND	ND	
4-Isopropyltoluene	5	ND	ND	
Acetone	50 1	ND		
Bromobenzene	5	ND	ND	
Bromodichloromethane	50	ND	ND	
Bromoform	50	ND	ND	
Bromomethane	5	ND	ND	
Carbon disulfide	NE 0.4	ND		
Chlorobenzene	5	ND	ND ND	
Chloroethane	5	ND	ND	
Chloroform	7	ND	ND	
Chloromethane	NE	ND	ND	
cis-1,2-Dichloroethene	5	ND	ND	
CIS-1,3-Dichloropropene	0.4	ND ND	ND ND	
Dibromomethane	5	ND	ND	
Dichlorodifluoromethane	5	ND	ND	
Ethylbenzene	5	ND	ND	
Hexachlorobutadiene	0.04	ND	ND	
Isopropylbenzene	5	ND	ND	
Methyl Ethyl Kotone	50	ND	ND	
methyl isobutyl ketone	NE	ND	ND	
Methyl tert-butyl ether	NE	ND	ND	
Methylene Chloride	5	ND	ND	
Naphthalene	10	ND	ND	
n-Butylbenzene	5	ND	ND	
o-Xvlene	5	ND	ND	
sec-Butylbenzene	5	ND	ND	
Styrene	5	ND	ND	
tert-Butylbenzene	5	ND	ND	
Tetrachloroethene	0.07	ND	ND	
Toluene	5	ND	ND	
trans-1,2-Dichloropropene	04	ND	ND	
Trichloroethene	5	ND	ND	
Trichlorofluoromethane	5	ND	ND	
Vinyl chloride	0.3	ND	ND	
Xylenes (total)	5	ND	ND	
I otal TICs	NE	ND	ND ND	
Total VOCs	NE	ND	ND	
Nisteer	NE		שא	

Notes:

Guidance levels based on NYSDEC<u>TOGS 1.1.1</u>, source of drinking water (surface). ND = Not Detected NE = Not Established

Table 27: Metals in Surface Water

All results provided in ug/L. Results in **bold** exceed designated guidar

			Sample Identificatopm								
	Guidance										
	Level		2SW-1								
TAL METAL		2SW-1 (Total)	(Dissolved)	2SW-2 (Total)	2SW-2 (Dissolved)						
	Date	2/28/2008	2/28/2008	2/28/2008	2/28/2008						
Aluminum	100	110 J	NA	100	NA						
Antimony	3	ND	NA	ND	NA						
Arsenic	50	ND	NA	ND	NA						
Barium	1,000	14	NA	14	NA						
Beryllium	3	ND	NA	ND	NA						
Cadmium	5	ND	NA	ND	NA						
Calcium	NE	36,100	NA	34,600	NA						
Chromium	50	ND	NA	ND	NA						
Cobalt	5	ND	NA	ND	NA						
Copper	200	ND	NA	ND	NA						
Iron	300*	230	NA	230	NA						
Lead	50	13 J	ND	15 J	ND						
Magnesium	35,000	10,900	NA	10,800	NA						
Manganese	300*	41	NA	40	NA						
Mercury	0.7	ND	NA	ND	NA						
Nickel	100	ND	NA	ND	NA						
Potassium	NE	1,200	NA	1,100	NA						
Selenium	10	ND	NA	ND	NA						
Silver	50	ND	NA	ND	NA						
Sodium	NE	43,500	NA	44,700	NA						
Thallium	0.5	ND	NA	ND	NA						
Vanadium	14	ND	NA	1	NA						
Zinc	2,000	ND	NA	ND	NA						
Notoe											

Cells highlighted in yellow, indicate concentrations above guidance levels. Cells highlighted in blue, indicate detected concentrations.

Guidance levels based on NYSDEC TOGS 1.1.1, source of drinking water (surface).

*Guidance level for total of iron and manganese is 500 ug/L.

J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.

ND = Not Detected NE = Not Established NA = Not Analyzed



Table 28: PCBs in Surface Water

Results provided in ug/L (parts per million). Results shown in **bold** exceed guidance levels.

PCB Compound	Sample	Identification						
(USEPA Method 8082)	2SW-1	2SW-2						
PCB 1016	ND	ND						
PCB 1221	ND	ND						
PCB 1232	ND	ND						
PCB 1242	ND	ND						
PCB 1248	ND	ND						
PCB 1254	ND	ND						
PCB 1260	ND	ND						
PCB, Total	ND	ND						
Notes:	Notes:							
Guidance levels .09 ug/L (source of drinking water) NYSDEC Division of Water TOGS 1.1.1 (June 1998) and subsequent NYSDEC Memoranda.								
ND = Not Detected								



Table 29: Trip Blank

	Guidance										Trip Dian'	
		Trip Blank Trip Blank (Soil		Trip Blank	Trip Blank	Trip Blank	Trip Blank (Surface	Trip Blank (Groundwater	Trip Blank (Groundwater	Trip Blank (Soil	(Soil	Trip Blank (Groundwa
(USEPA Method 8260)	Level	(Test Pits)	Borings)	(Soil Borings)	(Soil Borings)	(Soil Borings)	Samples)	Samples)	Samples)	Borings)	Borings)	Samples
1.1.1.2-Tetrachloroethane	5	ND	ND	2/4/2008 ND	2/3/2008 ND	2/0/2008 ND	2/23/2008 ND	ND	ND	ND	NA	NA
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1 1-Dichloroethene	5	ND ND	ND	ND	ND	ND ND	ND	ND	ND	ND	NA NA	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,3-Trichloropropane	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2,4-1rimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1.2-Dibromoethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	1.2 J
1,2-Dichloroethene, Total	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1.3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Chlorohexane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
2-Uniorotoluene 2-Hexanone	50	ND ND	ND ND	ND ND	ND ND	ND ND	ND				NA NA	NA ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
4-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Acetone	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Benzene	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA NA	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon disulfide	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
cis-1,3-Dichloropropene	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
m&p-Xylene	5***	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Methyl Ethyl Ketone	50	ND	6.4 J	ND	ND	ND	ND	5.7 J	7.4 J	ND	NA	ND
Methyl isobutyl ketone	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Methylene Chloride	5	0.61.J	0.5.1	0.55.1	0.94.1	0.71	0.76.1	0.69.J	1.3.J	ND	NA	ND
Naphthalene	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
N-Propylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
o-Xylene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Styrene	5							ND			NA	
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Toluene	5	ND	ND	0.16	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Trichlorosthono	0.4**	ND	ND	ND	ND	ND	ND	ND	ND 0.46 L	ND	NA	ND
Trichlorofluoromethane	5								0.46 J		NA	
Vinyl chloride	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Xylenes (total)	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total TICs	NE	ND	ND	ND	ND	ND	ND	ND	ND	5.69	NA	ND
Total Unknown Compounds	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
I OTAL VOUS	NE	ND	ND	ND	ND	ND	ND	6.39	9.16	5.69	NA	1.2
ells highlighted in blue, indicate detect idance levels based on NYSDEC <u>TOC</u> pplies to the individual isomers cis-1,2- Applies to the sum of cis- and trans-1,3 Applies to the individual isomers 1,3->	ed concentratio <u>SS 1.1.1</u> . Dichloroethene -dichloroproper Kylene (m-Xyler	ns. and trans-1, ne. ne) and 1,4-X	2-Dichloroet ylene (p-Xyl	hene. ene).								



Table 30: Rinse Blanks

All results provided in $\mu\text{g/L}.$ Results in **bold** exceed designated guidance levels.

		Sample Identification									
		Rinse Blank	Rinse Blank	Rinse Blank	Rinse Blank	Rinse Blank	Rinse Blank	Rinse Blank	Rinse Blank	Rinse Blank	
	Guidance	(Soil	(Soil	(Soil	(Soil	(Surface	(GW	(Soil	(Soil	(Soil	
(USEPA Method 8260)	Level	Borings)	Borings)	Borings)	Borings)	Samples)	Samples)	Borings)	Borings)	Borings)	
	Date	1/31/2008	2/4/2008	2/5/2008	2/6/2008	2/25/2008	6/19/2008	1/19/2009	1/27/2009	6/3/2009	
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,1,1-Inchloroethane	5	ND	ND	ND	ND	ND	ND	ND	NA NA	ND	
1.1.2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,2,3-Trichlerebenzene	0.04	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1.2.4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	NA NA	ND	
1.2-Dibromo-3-Chloropropane	0.04	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,2-Dibromoethane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,2-Dichloroethene, Total	5*	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1.3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1-Chlorohexane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
	50	ND	ND	ND	ND	ND	ND	ND	NA NA	ND	
4-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Acetone	50	ND	ND	ND	ND	ND	ND	ND	NA	6.1 J	
Benzene	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Bromobenzene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Bromomethane	5	ND	ND	ND	ND	ND	ND	ND	NA NA	ND	
Carbon disulfide	NE	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	NA	ND	
cis-1 2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	NA NA	ND	
cis-1,3-Dichloropropene	0.4**	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Dibromomethane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	0.5	ND	ND	ND	ND	ND	ND	ND	NA NA	ND	
m&p-Xvlene	5***	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Methyl Ethyl Ketone	50	9.3 J	ND	ND	ND	ND	ND	ND	NA	ND	
methyl isobutyl ketone	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Methyl tert-butyl ether	10	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Methylene Chloride	5	ND	0.31 J	ND	ND	ND	ND	ND	NA	ND	
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
N-Propylbenzene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
o-Xylene	5	ND	ND	ND	ND	ND	ND	0.076 J	NA	ND	
sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Styrene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Tetrachloroethene	5								NA NA		
Toluene	5	ND	0.22 J	0.13 J	0.17 J	ND	ND	ND	ND	ND	
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
trans-1,3-Dichloropropene	0.4**	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Vinyi chloride Xylenes (total)	2	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	NA ND		
Total TICs	NE	ND	ND	ND	ND	ND	ND	ND	21	ND	
Total Unknown Compounds	NE	ND	ND	ND	ND	ND	ND	ND	NA	ND	
Total VOCs	NE	ND	ND	ND	ND	ND	ND	ND	21	ND	

Notes:

Cells highlighted in yellow, indicate cdetected concentrations. Guidance levels based on NYSDEC <u>TOGS 1.1.1</u>. *Applies to the individual isomers cis-1,2-Dichloroethene and trans-1,2-Dichloroethene. **Applies to the sum of cis- and trans-1,3-dichloropropene. *** Applies to the individual isomers 1,3-Xylene (m-Xylene) and 1,4-Xylene (p-Xylene).

J - Data indicate the presence of a compound that meets the identification criteria. The result is less than the quantation limit but greater than zero. The concentration given is an approximate value. ND = Not Detected NE = Not Established



APPENDIX C

Laboratory Reports (provided electronically – CD)



APPENDIX D

Data Usability Summary Reports (provided electronically – CD)



APPENDIX E

Fish and Wildlife Impact Analysis (provided electronically – CD)