August 2010

FINAL ENGINEERING REPORT

Coral Island Shopping Center
1650 Richmond Avenue
Staten Island, Richmond County, New York

NYSDEC BCP Number: C243033

Prepared for:

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CERTIFICATIONS

I, Brian P. Morrissey, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the remedial program for the Coral Island Shopping Center Site (NYSDEC BCA Index No. W2-1040-05-01 Site No. C243033).

I certify that the Site description presented in this FER is identical to the Site descriptions presented in the Environmental Easement, the Site Management Plan, and the Brownfield Cleanup Agreement for Coral Island Shopping Center and related amendments.

I certify that the Remedial Action Work Plan (or Remedial Design) was implemented and that all construction activists were completed in substantial conformance with the Department-approved Remedial Action Work Plan (or Remedial Design) and were personally witnessed by me or a person under my direct supervision.

The data submitted to the Department demonstrates that the remediation requirements set forth in the remedial work plan and any other relevant provisions of ECL 27-1419 have been or will be achieved in accordance with the time frames, if any, established in the work plan. A Site Management Plan has been submitted by the applicant for the continual and proper operation, maintenance, and monitoring of any engineering controls employed at the site including the proper maintenance of any remaining monitoring wells, and that such plan has been approved by the Department.

Any financial assurance mechanisms required by the Department pursuant to ECL 27-1419 have been executed.

I certify that all export of contaminated soil, fill, water or other material from the property was performed in accordance with the Remedial Action Work Plan, and were taken to facilities licensed to accept this material in full compliance with all Federal, State and local laws.

I certify that all import of soils from off-Site, including source approval and sampling, has been performed in a manner that is consistent with the methodology defined in the Remedial Action Work Plan.

I certify that all invasive work during the remediation and all invasive development work were conducted in accordance with dust and odor suppression methodology and soil screening methodology defined in the Remedial Action Work Plan.

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

062617	8/12/2010	Brian P. Morrissey
NYS Profession Engineer #	Date	Signature

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

LIST OF ACRONYMS

µg/kg .....Micrograms per Kilogram

µg/m^3.....Micrograms per Cubic Meter

1,2 DCE.....cis-1,2-dichloroethene

AAR/RAWP .....Alternatives Analysis Report/Remedial Action Work Plan

ARARs.....Applicable or Relevant and Appropriate Requirements

AWQSGVs .....Ambient Water Quality Standards and Guidance Values

BCA .....Brownfield Cleanup Agreement

BCP .....Brownfield Cleanup Program

BLS .....Below Land Surface

CAMP .....Community Air Monitoring Plan

CERCLA.....Comprehensive Environmental Response, Compensation and Liability Act

CPP .....Citizen Participation Plan

CQAP.....Construction Quality Assurance Plan

DER-10 .....NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation

DO.....Dissolved Oxygen

DUSR.....Data Usability Summary Report

ECL .....Environmental Conservation Law

ECs/ICs .....Engineering and Institutional Controls

ERD.....Enhanced Reductive Dechlorination

ESA .....Environmental Site Assessment

HASP .....Health and Safety Plan

IRM .....Interim Remedial Action

mg/l .....Milligrams per liter

MW .....Monitoring Well

NYCRR.....New York Codes, Rules and Regulations

NYSDEC.....New York State Department of Environmental Conservation

NYSDOH.....New York State Department of Health

ORP.....Oxidation – Reduction Potential

PCBs .....Polychlorinated Biphenyls

PCE .....Tetrachloroethene (Perchloroethene)

PPE.....Personal Protective Equipment

PVC.....Polyvinyl Chloride
QAPP .....Quality Assurance Project Plan
RAO .....Remedial Action Objective
RAWP .....Remedial Action Work Plan
RI.....Remedial Investigation
RSCOs.....Recommended Soil Cleanup Objectives
SB.....Soil Boring
SCGs .....Standards, Criteria, and Guidance
SCOs .....Soil Cleanup Objectives
SMP.....Site Management Plan
SoMP.....Soil/Materials Management Plan
SOP .....Site Operation Plan
SRI .....Supplemental Remedial Investigation
SVOCs .....Semivolatile Organic Compounds
TAGM.....NYSDEC Technical and Administrative Guidance Memorandum
TBC.....To be Considered
TCE.....Trichloroethene
TAL.....Target Analyte List
TCL.....Target Compound List
TWA .....Total Weighted Average
USEPA.....United States Environmental Protection Agency
USGS .....United States Geological Survey
VOCs.....Volatile Organic Compounds

1.0 INTRODUCTION

On behalf of WWP Associates, LLP ("WWP") Remedial Engineering, P.C. and Roux Associates, Inc. (hereafter collectively referred to as "Remedial Engineering") have prepared this Final Engineering Report for the Coral Island Shopping Center located at 1650 Richmond Avenue, Staten Island, Richmond County, New York (the "Site" as shown in Figure 1). This Final Engineering Report summarizes the Remedial Action conducted at the Site in accordance with Remedial Engineering's August 16, 2007 Remedial Action Work Plan ("RAWP") to address an area of impacted soil and groundwater that resulted from historic releases associated with a dry cleaner at the Site. Following the Remedial Action, the Site will remain as a commercial property.

In order to address the environmental conditions, WWP entered into New York State's Brownfield Cleanup Program ("BCP") with an agreement (Index Number: W2-1040-05-01) dated March 2005 between WWP and the New York State Department of Environmental Conservation ("NYSDEC").

A digital copy of this FER with all project documents approved under the BCP is included in Appendix A.

1.1 Site Location and Description

The "Site" is the Coral Island Shopping Center and is defined, for the purposes of the BCP, as the area within the limits of the property boundary as shown in Plate 1. A survey map is presented as Appendix B and a metes and bounds description is presented as Appendix C. The Site is an approximately 3.9 acre property located at 1650 Richmond Avenue, Staten Island, Richmond County New York (Figure 1). Furthermore, the Site is defined as Block 2236, Lot 125, at latitude 40° 36' 27" north and longitude 74° 9' 47" west. The Coral Island Shopping Center consists of two single story buildings, each with multiple tenants and a parking lot (Plate 1). The building at the north end of the Site includes the Charming Cleaners ("Dry Cleaner"), the focus of the remediation. The tenant space to the west of the Dry Cleaner is the Tiffany Superette (the "Market," formerly Tic-Tac Meats and Deli), a small grocery store with a kitchen and storage in the rear of the store. A utility room for the entire building is located off the kitchen area at the

rear of the Market space. The tenant space to the east of the Dry Cleaner is the J+J Page Stationery ("Stationery").

The area behind the Dry Cleaner is gravel covered (over landscaping fabric) and is approximately 15 feet wide with the building to the south and a chain link fence on the property line to the north. A transformer is located approximately 20 feet to the west of the back door of the cleaners, with less than three feet of clearance between the building and the transformer, and the transformer and the chain link fence. There is a concrete sidewalk east of the Dry Cleaner space to a point where there is less than four feet of clearance between the property line fence and the corner of the building.

Immediately north of the Site and adjacent to the Dry Cleaner is the Our Lady of Pity Church (the "Church") property. The Moore Catholic High School (the "School") is located to the west and northwest. The School's football field is to the west. Richmond Avenue is located to the east of the Site. There is a gasoline filling station, additional commercial buildings, and Victory Boulevard located to the south of the Site. Residential properties and Victory Boulevard are located to the southwest. Victory Boulevard and Richmond Avenue are large commercial corridors with mixed residential and commercial use, including auto repair, gasoline station, and car wash facilities.

The general area of remediation is located behind the Dry Cleaner and includes work both onsite and offsite. As described above, the onsite area of remediation is gravel covered (over landscaping fabric) and is approximately 15 feet wide, with the building to the south and a chain link fence on the property line to the north. A transformer is located approximately 20 feet to the west of the back door of the Dry Cleaner, with less than three feet of clearance between the building and the transformer, and the transformer and the chain link fence. There is concrete sidewalk east of the Dry Cleaner space to a point where there is less than four feet of clearance between the property line fence and the corner of the building.

The offsite area of remediation is immediately north of the Site, and includes vegetation and grass covered areas located behind a multi-use building ("Multi-Use Building") associated with the Our Lady of Pity Church. Adjacent properties will be discussed in greater detail below.

1.2 Contemplated Redevelopment Plan

There is no specific redevelopment plan for the Site at this time. The Site is currently a commercial shopping center and the use will continue into the foreseeable future. The Remedial Action performed under the RAWP has made the Site protective of human health and the environment to standards consistent with the contemplated end use.

1.3 Description of Surrounding Property

Richmond Avenue is located to the east of the Site. There is a McDonald's restaurant located immediately to the southeast of the Site that has an access driveway from the Coral Island Shopping Center parking lot. There is a Mobil service station, additional commercial buildings, and Victory Boulevard located to the south of McDonald's. Residential properties and Victory Boulevard are located to the southwest. Victory Boulevard and Richmond Avenue are large commercial corridors with mixed residential and commercial use, including auto repair, gasoline station, and car wash facilities.

Immediately north of the Site and adjacent to the Dry Cleaner is the Our Lady of Pity Church property, specifically a grass covered area behind a large multi-use building that includes meeting rooms, a kitchen, and a gym mostly used for basketball.

The Moore Catholic High School ("School") is located to the west and northwest. The School property includes three main buildings: a group of modular classrooms consisting of multiple trailers parked on an asphalt parking lot, the main school building, and an administration building. The School's football field is to the west.

2.0 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS

The Site was investigated between August 2005 and December 2006 in accordance with the scope of work presented in the NYSDEC-approved Remedial Investigation (RI) Work Plan dated April 18, 2005, and the NYSDEC-approved Supplemental Remedial Investigation (SRI) Work Plan dated June 12, 2006. The Remedial Investigation Report, which summarizes the results of the RI and SRI, was submitted to NYSDEC on February 23, 2007 Based on the results of the RI, the Site was declared not to be a significant threat by NYSDEC and New York State Department of Health ("NYSDOH").

Previous investigations performed at the Site are discussed in the reports listed below. Results of these investigations, where appropriate, are included in the following sections:

- MTS EnviroSuv. "Hazardous Substances Survey and Report." August 12, 1994.
- EBI Consulting. "Phase I Environmental Site Assessment Report." June 17, 2004.
- EBI Consulting. "Limited Subsurface Investigation Report." July 13, 2004.
- Roux Associates, Inc. "Site Assessment Report." September 14, 2004.
- Roux Associates, Inc. "Remedial Investigation Report." February 23, 2007.

2.1 Summary of Remedial Investigations Performed

The following sections provide a summary of the remedial investigations that were performed at the Site.

2.1.1 Borings and Wells

Twenty-six soil borings were completed during the RI and 19 were completed during the SRI (Plate 2). Soil borings were backfilled with concrete, or bentonite chips, or sand (shallow soil borings on Church property), and the ground surface was restored to match pre-installation conditions.

Thirteen two-well clusters, each consisting of a shallow and deep temporary monitoring well, were installed in during the RI (Plate 2). Four two-well clusters were installed during the SRI. One well in each cluster was screened above the top of the shallow silt unit identified during the

preliminary investigation, and one well was screened above the top of the deeper silt/clay unit. Well construction details are provided on well construction logs (Appendix D).

2.1.2 Samples Collected

2.1.2.1 Ambient Air Sampling

Ambient air samples were collected during the Limited Site Assessment in July 2004 from within the Dry Cleaner and the tenant spaces immediately east and west of the Dry Cleaner (Market and Stationery), as well as in the parking lot south of the Dry Cleaner. Three ambient air samples and a duplicate were collected during the RI; ten air samples were collected in November 2005; and seven air samples plus a duplicate were collected during both the SRI in August 2006 and during a confirmation event in December 2006. The following table summarizes the ambient air samples that were collected:

	Designation	Location	Type
RI	AS-101	Dry Cleaners	Indoor
RI	AS-102	Utility room behind Market	Indoor
RI	AS-103	South of Church gym	Outdoor
RI	AS-103 (DUP)	South of Church gym	Outdoor
11/05	AS-104	School Modular Classrooms girl's bathroom	Indoor
11/05	AS-105	School Modular Classrooms Room M-7	Indoor
11/05	AS-106	School Modular Classrooms Room M-10	Indoor
11/05	AS-107	South of School Modular Classrooms	Outdoor
11/05	AS-108	School Main Building kitchen/cafeteria	Indoor
11/05	AS-109	School Administration Building Room CV-5	Indoor
11/05	AS-110	Church gym	Indoor

	Designation	Location	Type
11/05	AS-111	Church storage room off gym	Indoor
11/05	AS-112	Church general purpose room	Indoor
11/05	AS-113	South of Church gym	Outdoor
SRI	AS-301	South of School cafeteria	Outdoor
SRI	AS-302	School Main Building kitchen/cafeteria	Indoor
SRI	AS-302 (DUP)	School Main Building kitchen/cafeteria	Indoor
SRI	AS-303	School Main Building Office	Indoor
SRI	AS-304	School Main Building Room A-6	Indoor
SRI	AS-305	South of Church gym	Outdoor
SRI	AS-306	Church gym	Indoor
SRI	AS-307	Church classroom	Indoor
12/06	AS-301	South of School cafeteria	Outdoor
12/06	AS-302	School Main Building kitchen/cafeteria	Indoor
12/06	AS-303	School Main Building Office	Indoor
12/06	AS-304	School Main Building Room A-6	Indoor
12/06	AS-305	South of Church gym	Outdoor
12/06	AS-306	Church gym	Indoor
12/06	AS-306 (DUP)	Church gym	Indoor
12/06	AS-307	Church classroom	Indoor

DUP – Duplicate sample

At each ambient air sampling location, a sample was collected in a pre-evacuated six-liter Summa canister and regulator supplied by the laboratory. During the Limited Site Assessment and the RI, the Summa canister was allowed to collect the sample over a 0.5-hour period. During the SRI and December 2006 event, the Summa canisters were allowed to collect the sample over an 8-hour period. Once the Summa canister was filled, the valve on the canister was

closed. Air samples collected during the RI were analyzed for Target Compound List ("TCL") volatile organic compounds ("VOCs") using United States Environmental Protection Agency ("USEPA") method TO 15, and for a reduced list using USEPA Method TO 15 SIM during the SRI and December 2006 confirmatory sampling event.

2.1.2.2 Soil Vapor Sampling

Three soil vapor samples were collected during the RI, and five soil vapor samples and duplicates were collected during both the SRI in August 2006 and during a confirmation event in December 2006, as summarized in the table below. All sampling locations were selected by the NYSDEC, NYSDOH, and Roux Associates during several Site visits.

	Designation	Location	Type
RI	SG-101	Dry Cleaners	sub-slab
RI	SG-102	Utility room behind Market	sub-slab
RI	SG-103	South of Church gym	outdoor soil
SRI	SV-201	School Main Building kitchen closet	sub-slab
SRI	SV-202	School Main Building telephone room	sub-slab
SRI	SV-203	South of Church gym	outdoor soil
SRI	SV-204	Church Storage room off gym	sub-slab
SRI	SV-204 (DUP)	Church Storage room off gym	sub-slab
SRI	SV-205	Church Small boiler room	sub-slab
12/06	SV-201	School Main Building kitchen closet	sub-slab
12/06	SV-202	School Main Building telephone room	sub-slab
12/06	SV-204	Church storage room off gym	sub-slab
12/06	SV-205	Church small boiler room	sub-slab
12/06	SV-206	School Main Building Room A-6	sub-slab
12/06	SV-206 (DUP)	School Main Building Room A-6	sub-slab

Designation	Location	Type

DUP – Duplicate sample
No sample collected in December 2006 from SV-203 due to water being drawn into sample.

Each sample was collected in a pre-evacuated six-liter Summa canister with a regulator supplied by the laboratory. During the RI, the Summa canister was allowed to collect the sample over a 0.5-hour period. During the SRI and December 2006 event, the Summa canisters were allowed to collect the sample over an 8-hour period. Once the Summa canister was filled, the valve on the canister was closed and the canister disconnected from the sampling tubing. Soil vapor samples collected during the RI were analyzed for TCL VOCs using USEPA method TO 15, and for a reduced list using USEPA method TO 15 SIM during the SRI and December 2006 confirmatory sampling event.

2.1.2.3 Soil Boring and Surface Soil Sampling

Thirty-one samples and one duplicate from 17 of the 26 RI soil borings were analyzed during the RI. Thirty-four samples and two duplicates from the 19 SIR soil borings were analyzed during the SRI. Table 1 of the Remedial Action Work Plan summarizes soil borings completed at the Site.

At each soil boring location, soil samples were collected using a Geoprobe direct push sampler. Soil samples were collected in five-foot increments to the completion depth. Each five-foot increment was collected in dedicated acetate sleeves. All soil samples were analyzed for TCL VOCs. In addition, soil samples collected from soil borings SB-101, SB-107, SB-107A, SB-108, SB-109, SB-113, SB-114, SB-115, SB-116, and SB-117 were analyzed for TCL semivolatile organic compounds (SVOCs), TCL pesticides and herbicides, TCL polychlorinated biphenyls (PCBs), and the target analyte list (TAL) of metals.

Two surface soil samples (SB-127 and SB-128) were collected from beneath the grassy area on the adjacent Church property immediately north of the Site (Plate 2). At each of the Church locations, soil from the zero to two-inch (0.17 feet) interval below the grass was collected using a hand trowel. Samples were placed into pre-cleaned four-ounce VOC sample jars and placed on ice in a cooler at 4°C. Surface soil samples were analyzed for TCL VOCs.

2.1.2.4 Groundwater Sampling

Groundwater samples were collected during the RI from four of the shallow temporary monitoring wells and all 13 of the deep wells (Plate 2). Groundwater samples were also collected as grab samples from eight soil borings during the RI (SB-113 through SB-120).

Groundwater samples were collected approximately one to two weeks after well installation or immediately following completion of the soil boring through a Geoprobe screen for grab samples. At each groundwater sampling location, groundwater samples were collected using low-flow (minimal drawdown) procedures.

Groundwater samples were collected from both wells at each of the four clusters installed during the SRI. All groundwater samples were analyzed for TCL VOCs. In addition, groundwater samples collected from monitoring wells MW-101S, MW-101D, MW-104D, MW-107S, MW-107D, and MW-108D, were analyzed for TCL SVOCs, TCL pesticides and herbicides, TCL PCBs, and TAL metals.

Monitoring wells MW-103S, MW-104S, MW-105S, MW-106S, MW-108S, MW-109S, MW-111S, MW-112S, and MW-126S were not sampled due to the lack of water in the wells.

2.1.3 Summary of Remedial Investigation Findings

Air

Indoor air sampling in the Church and School indicated that all but one detection of tetrachloroethene ("PCE") in indoor air were below the outdoor ambient air concentrations collected concurrently with each sampling event. Subsequent confirmation sampling suggested that the one PCE detection was an anomalous sampling event. Based on NYSDOH guidance, the concentrations of trichloroethene ("TCE") in one indoor air sample required that, "reasonable and practical measures should be taken to identify the sources and reduce the exposure." The remedial actions described further in this report included those reasonable and practical measures. A summary of VOCs detected in soil vapor and air are presented as Table 1 and Table 2, respectively.

Soil

The results of the investigation indicated that shallow soil (i.e., less than five feet deep) in the immediate vicinity of the back of the Dry Cleaner is impacted by concentrations of PCE above 6 NYCRR Subpart 375-6 Restricted Commercial Soil Cleanup Objectives (SCOs). Shallow soils impacted by high concentrations of PCE were also observed in a small area immediately north of the Site on Church property. Analytical results of VOCs, SVOCs, metals, PCBs, and pesticides/herbicides detected in soil are summarized in Table 3 through Table 7.

Groundwater

Associated with the impacted soil is a plume of relatively high concentrations of dissolved VOCs in the underlying groundwater. The plume extends offsite toward the west-northwest beneath Church and School properties. The maximum down gradient extent of the plume is approximately 260 feet. The VOCs detected in groundwater include PCE and high concentrations of associated degradation products: TCE, cis- and trans-1,2-dichloroethene ("DCE"), and vinyl chloride. The presence of significant concentrations of degradation products indicates that natural biodegradation of the VOCs in the plume is occurring. Analytical results of VOCs, SVOCs, metals, PCBs, and pesticides/herbicides detected in groundwater are summarized in Table 8 through Table 12.

2.2 Significant Threat

The NYSDEC and NYSDOH have determined that this Site does not pose a significant threat to human health and the environment. Notice of that determination was provided for public review (Appendix E).

2.3 Site History

The following sections provide a history of the Site and the surrounding areas.

2.3.1 Past Uses and Ownership

As part of the RI, Roux Associates conducted a search for records in the Staten Island Department of Buildings, as well as with the current owner of the shopping center. Based on those searches and a review of historical reports, it was determined that dry cleaning operations at the Site commenced in 1975 . All dry cleaning operations were performed in the same tenant

space since 1975, and no other occupants of any building at the Site that would potentially use PCE were identified. Since 1975, there have been four operators of the Dry Cleaners at the Site. Ilio-Umberto Cleaning & Tailoring, Inc. operated the facility from 1975 to 1986. DFG Dry Cleaning Corp., doing business as (d/b/a) Coral Lanes Cleaners, began operation in 1986. Operation of the facility transitioned to Chim Bok Chung d/b/a Charming French Cleaners between 1986 and 1993 (the exact date is unknown). In 1993, the current operator, Guyon Cleaners, Inc. d/b/a Charming Cleaners assumed operation of the facility.

A 1994 "Hazardous Substances Survey and Report" prepared by MTS EnviroSurv reported that a majority of cleaning activities conducted by Charming Cleaners were performed offsite. In addition, MTS EnviroSurv was able to review waste manifests for verification of removal of PCE waste by Safety Kleen. There were no floor drains observed in the Dry Cleaner space during the 1991 inspection by MTS EnviroSurv. The current dry cleaning tenant, Charming Cleaners, operates fourth generation self-enclosed units, as reported in the June 17, 2004 "Phase I Environmental Site Assessment Report" ("Phase I ESA") and in the facility audit conducted as part of RI. These units were installed at the facility after 2000. There were no floor drains observed in the Dry Cleaner space during the 2004 inspection by EBI Consultants ("EBI") or during the RI. Waste handling manifests dating back to 2000 were reviewed by EBI as part of the Phase I ESA and to January 2007 by Roux Associates. A Compliance Audit of the facility dated February 23, 2007 was included as an appendix to the RI Report.

2.3.2 Sanborn Maps

Sanborn Fire Insurance Maps reviewed by EBI, as presented in the Phase I ESA, indicated that a house was located on the Site in 1917 and that between 1937 and 1950, the Site appeared vacant. Building Department records indicate that the property was used as a parking lot as early as 1949 and a bowling alley was constructed on the Site sometime between 1955 and 1958. In 1958, two pipeline easements (one liquefied natural gas and one jet fuel) were granted that cross the Site in a west to east direction approximately 30 feet south of the building. These pipelines currently exist on the Site.

In 1974, the bowling alley was converted into a strip mall-type shopping center. The building was expanded in 1995 to its current configuration (Plate 1). A separate building was constructed in the southern portion of the Site, also in 1995 (Plate 1).

2.4 Geological Conditions

The Site is located in the Embayed section of the Coastal Plain physiogeographic province. The province is characterized by areas of low relief and consists of unconsolidated Cretaceous Coastal Plain sediments overlying igneous and metamorphic bedrock.

2.4.1 Lithology

A generalized hydrogeologic cross-section of the Site that depicts lithology is included as Plate 3. The cross section line runs east-west, approximately parallel to and running along the fence that marks the northern border of the Site. Based on a review of the RI results, the area of the Site immediately behind and beneath the Dry Cleaner (i.e., the source area) is underlain by the following generalized layers:

- A one-inch thick surface course of gravel underlain by landscaping fabric.
- Fill: ranging from two to four-feet thick and described as a brown coarse to fine sand with brick, glass, concrete and wood fragments.
- Sand and Silt: two to six-foot thick layer of grey to brown, coarse to fine sand and silt, with occasional variable amounts of gravel. For clarification purposes in the discussion below, this layer will be referred to as the sand layer.
- Silt: eight to 13-foot thick layer of brown silt with some gravel and little fine sand.
- Silt and Clay: brown silt and clay, greater than 12-feet thick immediately beneath the Dry Cleaner.

The sand layer ranges from two to 6.5 feet in thickness beneath most of the Site, with the exception of the western portion. In the vicinity of Well Cluster MW-103S/D beneath the western portion of the Site, the sand layer dips down and increases in thickness to approximately 15 feet, and is overlain by a four-foot thick zone of primarily silt with a one-foot thick embedded sand and silt layer. The shallow silt zone was observed to the west at the MW-104S/D cluster, where it is approximately three-feet thick. In the vicinity of Well Cluster MW-108S/D in the eastern portion of the Site, the sand layer is also overlain by a two-foot thick silt layer.

The eight to 13 foot-thick layer consisting of primarily silt beneath the sand layer was also identified beneath most of the Site, with the exception of the western portion, where it pinches out or grades to the coarser sand and silt layer in the vicinity of Well Cluster MW-103S/D. Deep wells screened in this silt layer beneath the Dry Cleaner (MW-101D and MW-102D) indicated impacts by VOCs.

Beneath the silt layer is a finer-grained silt and clay to clay layer. The silt and clay layer is thickest beneath the source area in the vicinity of Well Cluster MW-101S/D, where it is over 12 feet thick. Note that the bottom of the silt and clay layer was not encountered in the boring for Well Cluster MW-101S/D. The silt and clay layer decreases in thickness toward the east and west away from beneath the source area. Toward the east at MW-108S/D, the silt and clay layer is only approximately two feet thick. Toward the west at Well Cluster MW-103S/D, only a 1.5-foot thick clay layer is present. The clay layer increases again in thickness further toward the west at Well Cluster MW-104S/D, where it is over three feet thick. Note that the bottom of the clay layer at MW-104S/D was not encountered.

A sand and silt layer was observed beneath the silt and clay layer at the borings for SB-1, MW-103S/D, and MW-108S/D. The thickness of this layer is unknown and it represents the lowest unit observed at the Site.

2.4.2 Hydrogeology

The shallow water-level elevations reported in the Remedial Investigation Report indicated groundwater at depths ranging from approximately 4.1 feet below land surface ("bls") to 7.5 feet bls, with flow components in a northwesterly direction in the vicinity of the source area behind the Dry Cleaner. A shallow water-level elevation map produced from data obtained during the SRI in August 2006 is included as Plate 4.

Water level elevations measured in deep wells in August 2006 indicated groundwater at depths ranging from approximately 4.1 feet bls to 8.9 feet bls. There was a "high spot" observed in the potentiometric surface immediate vicinity of the Dry Cleaner, with groundwater flow directions radially outward from that location to the south, west and northwest. Deeper groundwater flows toward the west beneath the western portion of the Site, and to the west-northwest beneath

School property. A deep water-level elevation map produced from data obtained during the SRI in August 2006 is included as Plate 5.

2.5 Contamination Conditions

The following sections provide a conceptual model of Site contamination, and identify the areas requiring remediation (i.e., areas of concern) based on comparisons with applicable Standards, Criteria and Guidance (SCGs).

2.5.1 Conceptual Model of Site Contamination

The probable source of VOC contamination in soil and groundwater at the Site was direct discharges to the ground of PCE associated with dry cleaning operations at the Site. Most likely, this occurred between 1975 and 2000 (the timeframe when a dry cleaner was present onsite and no disposal records are available for review). This resulted in PCE impacts to both onsite and offsite soil. The PCE migrated down the soil column and dissolved into the groundwater, resulting in a VOC plume that traveled vertically and down gradient, impacting onsite and offsite groundwater.

2.5.2 Description of Areas of Concern

Soil quality data indicates that shallow soil in a focused area behind the Dry Cleaner and Market, and extending onto the Church property immediately to the north, was impacted by relatively high concentrations of VOCs, primarily PCE and TCE. The impacted zone was generally restricted to the upper two to five feet of fill. Downgradient vertical migration of PCE may have been impeded by a shallow low-permeability layer of silt at five to seven feet bls that was observed at most soil boring locations. High concentrations of PCE and TCE were also observed in shallow soil (i.e., less than two feet bls) immediately behind and slightly to the west of the Dry Cleaners along the fence at locations near the electrical transformer.

Groundwater quality data indicates that groundwater to a depth of approximately 20 feet bls was impacted by relatively high concentrations of PCE and associated degradation products (i.e., TCE, cis- and trans-1,2 DCE and vinyl chloride) beneath the source area behind the Dry Cleaner. A plume of groundwater impacted by VOCs extended offsite toward the west-northwest beneath the Church and School properties (Plate 6). The plume extended laterally to the south

beneath most of the shopping center building containing the Dry Cleaner and just south to beneath the northern portion of the parking lot. The maximum down gradient extent of the plume was approximately 260 feet.

Additional details regarding the pre-remediation extent of soil and groundwater contamination as identified during the Remedial Investigation are provided in Section 2.5.4 and Section 2.5.5, respectively.

2.5.3 Identification of Standards, Criteria and Guidance

Standards, Criteria and Guidance ("SCGs") are promulgated requirements ("standards" and "criteria") and non-promulgated guidance ("guidance") that govern activities that may affect the environment and are used by the Department of Environmental Remediation ("DER") at various stages in the investigation and remediation of a site. SCGs incorporate the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986's ("CERCLA") concept of "applicable or relevant and appropriate requirements" ("ARARs") and the USEPA's "to be considered" category of non-enforceable criteria or guidance. General SCGs are referenced in the NYSDEC DER-10, Brownfield Cleanup Program Guidance, Generic Community Air Monitoring Plan, Waste Transporter Regulations (Part 364) and Waste Management Regulations (Part 360). SCGs applicable to the Site are as follows:

<u>SCGs for Soil</u>

The SCGs for soil were developed to remediate impacts that are the result of historic releases from the onsite Dry Cleaner based on a restricted commercial use scenario for onsite areas (which is consistent with the current zoning), or unrestricted use scenario for offsite areas (consistent with the zoning offsite), and the reasonably anticipated future use of the Site as a commercial strip mall. Therefore, the SCGs for soil are the restricted commercial criteria for onsite areas, and unrestricted residential criteria for offsite areas, consistent with the criteria contained in the 6 NYCRR Part 375 Regulations.

SCGs for Groundwater

Based upon the evaluation of the current groundwater data, the following SCGs for groundwater were identified:

- New York State Groundwater Quality Standards – 6 NYCRR Part 703; and
- NYSDEC Ambient Water Quality Standards and Guidance Values (AWQSGVs) – TOGS 1.1.1.

SCGs for Air and Soil Vapor

Based upon the evaluation of the current indoor air and soil vapor data, the following SCGs were identified:

- October 2006, NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

2.5.4 Soil/Fill Contamination

The following sections summarize the concentrations of contaminants detected in the soil, and a comparison of the contaminant levels with the SCGs.

2.5.4.1 Description of Soil/Fill Contamination

Shallow soil in a focused area behind the Dry Cleaner and Market, and extending onto the Church property in one location immediately to the north, was impacted by relatively high concentrations of VOCs, primarily PCE and TCE. The impacted zone was generally restricted to the upper two to five feet of fill. Sampling locations are shown in Plate 2.

PCE was the only VOC detected in onsite soil at concentrations above the Restricted Commercial Use SCOs, as summarized below:

Designation	Depth (ft bls)	PCE (150)
SB-101	0.5-2	390
SB-102X	2.5-5	500
SB-103X (DUP)	0.5-2	180
SB-201	3-5	2,200

Concentrations in milligrams per kilogram (mg/kg)

Designation	Depth (ft bls)	PCE (150)

ft bls – feet below land surface
(150) – denotes restricted commercial use SCO
(DUP) – duplicate sample
-- – not detected or detected below SCO

PCE, TCE and cis-1,2-DCE were the compounds potentially associated with the Dry Cleaner detected in offsite soil at concentrations above the Unrestricted Use SCOs, as summarized below:

Designation	Depth (ft bls)	PCE (1.3)	TCE (0.47)	cis-1,2-DCE (0.25)
SB-214	0-2	1,600	15	0.57
SB-214	3-5	11	--	--

Concentrations in milligrams per kilogram (mg/kg)
ft bls – feet below land surface
(1.3) – denotes unrestricted use SCO
(DUP) – duplicate sample
-- – not detected or detected below SCO

Location SB-214 is in the grassy area behind the Church's gym immediately north of the Dry Cleaner. One additional VOC (acetone) was detected in soil boring SB-210 at a depth of three to five feet at a concentration that slightly exceeded the Unrestricted Use SCOs.

Any SVOCs, metals, PCBs, or pesticides/herbicides detected at the Site, both onsite and offsite, are considered representative of urban fill of undocumented origin that is present beneath most of the Site, and is not representative of impacts due to Site-related activities. Analytes detected above unrestricted use SCOs are summarized on Table 17.

2.5.4.2 Comparison of Soil/Fill with SCGs

Section 2.5.4.1 provided a comparison of the soil/fill contamination with SCGs, and tables showing exceedances. Plate 7 is a spider map that shows the location and summarizes exceedances of applicable SCOs for all soil/fill.

2.5.5 On-Site and Off-Site Groundwater Contamination

The following sections summarize the concentrations of contaminants detected in onsite and offsite groundwater, and a comparison of the contaminant levels with the SCGs.

2.5.5.1 Description of Groundwater Contamination

The major contaminants detected in the groundwater were VOCs potentially associated with the Dry Cleaner (i.e., PCE and its degradation products). The following table summarizes VOC concentrations detected in the onsite and offsite monitoring wells that were above NYSDEC AWQSGVs:

Well Designation	Well Depth (feet)	Location	PCE (5)	TCE (5)	1,1-DCE (5)	cis-1,2-DCE (5)	VC (2)
MW-101S	5-10	Onsite	3,500	9,900	220J	31,000	2,800
MW-101D	13-18	Onsite	17,000	6,700	--	19,000	1,500
MW-102S	5-10	Onsite	1,200	3,200	--	11,000	610
MW-102D	13-18	Onsite	--	670	--	7,800	660
MW-103D	19-24	Onsite	--	--	--	220	15
MW-104D	18-23	Onsite	--	--	--	69	16
MW-107S	10-15	Onsite	--	--	--	21	63
MW-107D	22-27	Onsite	--	--	--	380	300
MW-111D	20-25	Onsite	--	--	--	17	4.6J
MW-112D	19-24	Offsite	--	20J	--	760	44J
MW-113S	3-8	Offsite	150J	1,600	--	11,000	380J
MW-113D	11-16	Offsite	250	780	--	2,700	52J

Concentrations in micrograms per liter (µg/L)
(5) – denotes AWQSGV in µg/L
-- – not detected or detected below AWQSGV
J – estimated concentration

In addition to VOCs of concern, methylene chloride and toluene were detected above the NYSDEC AWQSGVs in two wells, and ethylbenzene was detected above the NYSDEC AWQSGV in one piezometer (PZ-5). Five metals (iron, magnesium, manganese, nickel, and sodium) were detected in at least one of all six groundwater samples collected for metals at the Site above the NYSDEC AWQSGVs. There were no other metals, SVOCs, PCBs, or pesticides/herbicides detected above the NYSDEC AWQSGV in groundwater samples collected at the Site.

2.5.5.2 Comparison of Groundwater with SCGs

Section 2.5.5.1 provided a comparison of the groundwater contamination with the NYSDEC AWQSGVs, and tables showing exceedances from GA groundwater standards in monitoring wells prior to the remedy. A spider map that indicates the location(s) of and summarizes exceedances from GA groundwater standards prior to the remedy is shown in Plate 8.

2.5.6 Soil Vapor and Indoor Air Contamination

The following sections summarize the concentrations of contaminants detected in soil vapor and indoor air, and a comparison of the contaminant levels with the SCGs.

2.5.6.1 Description of Soil Vapor and Indoor Air Contamination

With the exception of three samples, a September 2005 detection of PCE in the Dry Cleaner itself, a September 2005 detection of 42 micrograms per cubic meter ($\mu g/m^3$) PCE in the utility room off the Market, and a August 2006 detection of 18 $\mu g/m^3$ PCE in the School's Main Building Room A-6, all of the levels of PCE detected in indoor air fall below the background air concentrations collected concurrently with each sample.

The August 2006 detection of PCE in the School's Main Building Room A-6 (18 $\mu g/m^3$) appeared to be anomalous based on the concentration of PCE in other indoor air samples collected from the School. This is further supported by a December 2006 sampling event, where PCE in a sample collected from the area (AS-304) was 2.7 $\mu g/m^3$ and the concentration of PCE in a sub slab soil vapor from the area (SV-207 Dup) was 3.0 $\mu g/m^3$. During a September 21, 2006 meeting with Church and School representatives, the NYSDEC and NYSDOH indicated

that the levels of PCE detected during the August 2006 sampling event do not represent a health risk to building occupants.

In the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in New York, the NYSDOH provides decision matrices for evaluating indoor air VOC concentrations. The matrices compare sub-slab soil vapor VOC concentrations with indoor air concentrations.

Based on an evaluation of sub-slab, indoor air, and ambient air concentrations; the current use of all spaces (specifically the Dry Cleaner) and the decision matrix for PCE, the utility room off the Market was the only sampling location evaluated for potential vapor intrusion. Based on this evaluation and discussions with the NYSDEC and NYSDOH, an area of broken concrete floor in the utility room (a preferential pathway) was repaired.

Based on an evaluation of sub-slab, indoor air, and ambient air concentrations; the current use of all spaces; and the decision matrix for TCE, the indoor air sample AS-303 (School office) was the only sampling location evaluated for potential vapor intrusion. The NYSDOH guidance for the concentration of 0.83 $\mu g/m^3$ of TCE in air sample AS-303 collected in December 2006 and a correlating soil vapor sample that was non-detect in sample SV-202, suggests that reasonable and practical measures should be taken to identify the sources and reduce the exposure. The Remedial Actions described in this report are the reasonable and practical measures to reduce exposure.

2.5.6.2 Comparison of Soil Vapor and Indoor Air with SCGs

Section 2.5.6.1 provided a comparison of the soil vapor and indoor air contamination to the NYSDOH decision matrices. As discussed above, the Remedial Action described in this report are the reasonable and practical measures to reduce exposure. A spider map that summarizes volatile organic compounds of concern detected in soil vapor is shown in Plate 9.

2.6 Environmental and Public Health Assessments

A qualitative exposure assessment was previously performed for the Site based on pre-remediation conditions to describe how human and environmental receptors may be exposed to Site contaminants based upon the Site-specific conditions, and to assess whether there are any

complete or potentially complete exposure pathways. This exposure assessment was included as part of the February 23, 2007 RI Report.

2.6.1 Qualitative Human Health Exposure Assessment

Contaminant Sources

The probable source of VOC contamination in soil and groundwater at the Site was direct discharges to the ground of PCE associated with dry cleaning operations at the Site. Most likely, this occurred between 1975 and 2000 (the timeframe when a dry cleaner was present onsite and no disposal records are available for review). This resulted in PCE impacts to both onsite and offsite soil, and onsite and offsite groundwater. A compliance audit of the current dry cleaning operation prepared in February 2007 suggests that there are currently no discharges of PCE to the environment. The compliance audit of the facility dated February 23, 2007 was included as an appendix to the RI Report.

Contaminant Release and Transport Mechanisms

The VOCs currently being released at the Site exist in the form of residual material adsorbed to soil particles in the saturated and unsaturated zones, and compounds dissolved in groundwater. The leaching of contaminants from soil serves as an ongoing source of contamination to groundwater beneath portions of the Site. In addition, VOCs are migrating through volatilization of compounds into soil vapor in the vicinity of groundwater contamination.

Receptor Population

The potential onsite receptors include occupational workers, construction workers, visitors, or trespassers. Future onsite receptors could also include residents if the property was rezoned and the Site use changed. The potential offsite receptors include offsite workers, students, parishioners, visitors, and trespassers.

Potential Points and Routes of Exposure

Contaminated soil is limited to specific areas of the Site and at depths below the immediate surface as indicated by subsurface and surficial soil samples collected as part of the RI. However, there is the potential for direct exposure to contaminated soil by anyone digging in the contaminated area.

The Site and surrounding community are supplied by public sources of drinking water that meets all State and Federal standards for drinking water quality. As such, there is no potential for exposure to Site contaminants from the public sources of drinking water. Private non-potable water supply wells are not operated on the Site or by the adjacent Church or School.

In areas where there are Site buildings (or future Site buildings) in the vicinity of groundwater contamination, there is potential for volatilization of VOCs to accumulate beneath the building and migrate into indoor air. If such circumstances occur, Site workers could be exposed to contaminants via the indoor air inhalation route of exposure. PCE was detected in indoor air in the Dry Cleaner, a utility room behind the Market, and in one room of the School at concentrations above outdoor ambient air. During a September 21, 2006 meeting with Church and School representatives, the NYSDEC and NYSDOH indicated that the levels of PCE detected during the August 2006 sampling event do not represent a health risk to building occupants.

2.7 Interim Remedial Action

There were no interim remedial actions ("IRMs") performed at the Site. Prior to preparation of the RAWP, several cracks in the floor of the utility room located off the Market were repaired. However, the NYSDEC and NYSDOH did not consider this an IRM.

2.8 Remedial Action Objectives

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

2.8.1 Groundwater RAOs

The groundwater RAOs are to (1) obtain mass reductions of VOCs in onsite groundwater, and (2) mitigate offsite impacts to NYSDEC Water Quality Standards for Class GA groundwater, to the extent practicable.

2.8.2 Soil RAOs

The soil RAOs include:

- Prevent ingestion/direct contact with contaminated soil.

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota due to ingestion/direct contact with contaminated soil that would cause toxicity or bioaccumulation through the terrestrial food chain.

2.8.3 Soil Vapor RAOs

The soil vapor RAOs are to prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil or groundwater.

3.0 DESCRIPTION OF APPROVED REMEDIAL ACTION PLAN

The Site was remediated in accordance with the scope of work presented in the NYSDEC-approved Remedial Action Work Plan dated August 16, 2007. The factors considered during the analysis of remedial alternatives included:

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

The applicability of the following SCGs to the soil and groundwater was also discussed in Section 2.5.3.

- 6 NYCRR Subpart 375-6 Soil Cleanup Objectives;
- New York State Groundwater Quality Standards – 6 NYCRR Part 703;
- NYSDEC Ambient Water Quality Standards and Guidance Values – TOGS 1.1.1;
- NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation - December 2002 (or later version if available);
- NYSDEC Draft Brownfield Cleanup Program Guide – May 2004;
- New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan;
- NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York;
- NYS Waste Transporter Permits – 6 NYCRR Part 364; and
- NYS Solid Waste Management Requirements – 6 NYCRR Part 360 and Part 364.

3.1 Summary of Proposed Remedial Action

Below is a description of the proposed Remedial Actions as described in the NYSDEC-approved Remedial Action Work Plan.

1. Onsite soils impacted with PCE and degradation products will be excavated from four areas and disposed of at an appropriate offsite facility property licensed to accept the waste offsite. At each area, the upper two to five feet of fill will be excavated. Post-excavation samples will be collected and additional excavation may be conducted until Restricted Commercial Use SCOs are met or to the extent feasible based on the water table and lateral limitations of underground utilities, building foundations, and a nearby transformer. Excavations will be backfilled with clean soil that meets 6 NYCRR Subpart 375-6 Track 1 Unrestricted Use SCOs.

2. Offsite soils impacted with PCE and degradation products will be excavated from one area and disposed of at an appropriate offsite facility property licensed to accept the waste. Initially, the upper five feet of soil will be excavated. Post-excavation samples will be collected and additional excavation will be conducted until Unrestricted Use SCOs are met. Excavations will be backfilled with clean soil that meets 6 NYCRR Subpart 375-6 Track 1 Unrestricted Use SCOs.

3. Prior to backfilling, Enhanced Reductive Dechlorination ("ERD") substrates will be applied to the bottom of the open onsite and offsite excavations created during the removal of impacted soils.

4. One round of offsite ERD injections will be conducted in the area of the leading edge of the 10,000 ug/L total VOC contour as shown in Plate 6. The ERD substrate will be injected every five feet as a row of injections. The depth of ERD injection will extend from approximately 4 ft to 8 feet bls into the groundwater (depth to groundwater is approximately 4 feet bls). The amount of ERD substrate may be altered depending on the field measurements made in the monitoring wells and the analytical results of the baseline round of groundwater sampling.

5. To assess the performance of the ERD injections, periodic groundwater monitoring with associated soil vapor monitoring will be conducted.

4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved RAWP for Coral Island Shopping Center (August, 2007). The approved RAWP is included in Appendix A. All deviations from the RAWP are noted below.

4.1 Governing Documents

The following sections briefly describe the governing documents that were complied with during the implementation of the RAWP.

4.1.1 Site Specific Health & Safety Plan (HASP)

All remedial work performed under this Remedial Action was in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA. The Health and Safety Plan (HASP) was complied with for all remedial and invasive work performed at the Site. Site health and safety tasks were the responsibility of the Field Manager Mr. Wai Kwan with oversight from Roux Associates Office Health and Safety Officer Ms. Indira Rattiram-Klotzer. A copy of Mr. Kwan's and Ms. Rattiram-Klotzer's resumes is included as Appendix F.

4.1.2 Quality Assurance Project Plan (QAPP)

Quality assurance and quality control for all laboratory sampling conducted as part of this Remedial Action was completed in accordance with the Site-specific Quality Assurance Project Plan (QAPP). The QAPP was prepared in accordance with the DER 10 Section 2.2. The QAPP covered quality assurance/quality control methods for post-excavation soil sampling, waste characterization sampling, backfill sampling for soil, and groundwater baseline sampling and monitoring.

4.1.3 Construction Quality Assurance Plan (CQAP)

A Construction Quality Assurance Plan (CQAP) was not prepared for the Remedial Action. Construction quality assurance procedures (e.g., site mobilization and preparation, surveying, stockpiling, transportation and disposal methods, and submittal requirements) were outlined in the RAWP.

4.1.4 Soil/Materials Management Plan (SoMP)

A Soil/Materials Management Plan (SoMP) was not prepared for the Remedial Action. Soils/materials that were disturbed at the Site as a result of the Remedial Action were managed in accordance with the procedures outlined in the RAWP.

4.1.5 Storm-Water Pollution Prevention Plan (SWPPP)

A Storm-Water Pollution Prevention Plan (SWPPP) was not required because the area of disturbance is less than one acre. Nevertheless, measures to temporarily control erosion were employed prior to the implementation of the remediation and were maintained throughout the duration of all remedial construction activities.

4.1.6 Community Air Monitoring Plan (CAMP)

Ambient air at the perimeter of the work area was monitored throughout the course of the work for VOCs in accordance with the CAMP submitted with the NYSDEC-approved RAWP. The CAMP required corrective actions (e.g., abatement, work stoppage) if the ambient air concentration of total organic vapors within the work area exceeded 5 parts per million (ppm) above background for a 15-minute average. Work activities would resume, with continued monitoring, when total organic vapor levels decrease to less than 5 ppm over background. In addition to CAMP requirements, Remedial Engineering monitored particulates at the perimeter of the work area.

4.1.7 Contractors Site Operations Plan (SOP)

The Contractor who performed the Remedial Action submitted a Site Operations Plan (SOP) for review by the Remedial Engineer prior to site mobilization. The SOP included a description of the work, site plan, work schedule, waste characterization sampling methods, subcontractors, the waste transporter's permit, and the waste receiving facility's license. The Remedial Engineer reviewed all plans and submittals for this remedial project (i.e., those listed above plus contractor and sub-contractor document submittals) and confirmed that they were in compliance with the RAWP. The Remediation Engineer ensured that all documents submitted for this remedial project after the RAWP were approved, including contractor and sub-contractor document submittals, were in compliance with the RAWP. All remedial documents were submitted to NYSDEC and NYSDOH in a timely manner and prior to the start of work.

4.1.8 Community Participation Plan

A certification of mailing will be sent by Remedial Engineering to the NYSDEC project manager following the distribution of all remaining Fact Sheets and notices that includes: (1) certification that the Fact Sheets were mailed; (2) the date they were mailed; (3) a copy of the Fact Sheet; (4) a list of recipients (contact list); and (5) a statement that the repository was inspected and that it contained all of applicable project documents.

No changes were made to approved Fact Sheets authorized for release by NYSDEC without written consent of the NYSDEC. The approved Community Participation Plan for this project is attached in Appendix G.

A Document repository has been established at the following location for the duration of the project and contains all applicable project documents:

New York Public Library
Todt Hill-Westerleigh Branch
2550 Victory Boulevard
Staten Island, New York 10314

4.2 Remedial Program Elements

4.2.1 Involved Parties

Metro Environmental Contracting Corp. (Metro) performed the Remedial Action, with oversight provided by staff under the direct supervision of the remedial engineer, Mr. Brian P. Morrissey of Remedial Engineering, P.C. All work was performed in accordance with the Site-specific work plans and applicable Federal, State and Local regulations.

4.2.2 Site Preparation

Metro mobilized to the Site on August 20, 2007. As part of site preparation, Metro rolled back portions of the chain link fence, installed orange safety barrier fencing around the Site perimeter, and approximately 100 feet of silt fence in the brush area west of the Multi-Use Building. Two roll-offs to containerize excavated soils were temporarily staged at the north end of the Church parking lot. A NYSDEC project sign was erected near the northwest corner of the Multi-Use Building, and remained in place during all phases of the Remedial Action.

NAEVA Geophysics Inc. marked out subsurface utilities located in the work area prior to Metro's mobilization. Care was taken to avoid excavating in the vicinity of the subsurface utilities unless necessary, and hand clearing was performed to uncover and identify the locations of the utility lines to facilitate removal of impacted soils.

Aquifer Drilling and Testing, Inc. advanced a total of ten ERD injection points and six monitoring wells on the Church and School properties.

There were no specific permits or agency approvals required beyond approval of the RAWP by the NYSDEC.

4.2.3 General Site Controls

Soil screening was conducted with a MiniRae 2000 Photoionization Detector (PID). The PID was calibrated at the start of each work day with fresh air and a 100 ppm isobutylene standard. The PID was used to screen for impacted soil *in situ* by bringing the PID near the soil inside the excavation to determine VOC concentrations. For soil samples screened *ex situ*, the soil sample was collected from the excavation area and placed into, and homogenized within, a Zip-lock™ bag. VOC concentration in the headspace was measured with the PID after allowing the soil sample to remain in the Zip-lock™ bag for approximately 10 minutes. Based on field experience, a VOC concentration of less than 50 ppm was used to determine the initial endpoints of excavation, with confirmation provided by the analytical results.

Excavated soil and groundwater were stockpiled in 20 cubic yard, lined roll-off containers. The roll-off containers were covered at all times except when wastes were added or removed.

As discussed in the previous section, a silt fence was erected in the brush area west of the Multi-Use Building for erosion control. The silt fence was inspected daily and repaired as necessary.

At the end of each work day, Metro secured the Site with orange safety barrier fencing around the perimeter of the work zone, and covered open excavations with plywood boards.

4.2.4 Nuisance controls

At the end of each work day, Metro performed general housekeeping of the Site. Paved areas were cleaned as needed to minimize tracking materials offsite.

4.2.5 CAMP Results

The action levels stated in the CAMP were not exceeded at any time during the performance of the Remedial Action.

4.2.6 Reporting

The digital photo log required by the RAWP is included in Appendix A.

4.3 Soil Removal

The following sections described the removal activities that were performed during the Remedial Action, including the locations, type of materials removed, and quantities. Post-excavation sidewall and floor soil samples were collected in accordance with the procedures outlined in the RAWP. Post-excavation soil samples were collected only after soil screening using a PID indicated a VOC concentration of less than 50 ppm. Post-excavation soil samples were collected with a bias toward locations within each excavation area that appeared to be more heavily impacted. Samples were placed into pre-cleaned four-ounce VOC sample jars and placed on ice in a cooler at 4 degrees Celsius. The samples were analyzed for the Site specific Contaminants of Concern ("COCs") (i.e., 1,1,1-trichloroethane; 1,2-dichloroethane; cis-1,2-DCE, PCE, trans-1,2-DCE, TCE, and vinyl chloride) via USEPA method 8260.

A summary of post-excavation analytical results is presented as Table 13 and Plate 10. Analytical data is presented as Appendix H.

4.3.1 Excavation

Soil was excavated from Areas 1 to 5, to the horizontal limits as indicated on Plate 10. Soil at excavation Areas 1 to 4 were manually loosened, and then removed using a 6-inch corrugated hose attached to a high vacuum guzzler truck. A portion of Area 5 was also excavated using the 6-inch corrugated hose and the high vacuum guzzler truck. However, to expedite the removal process, further excavation in Area 5 was performed with a mini-excavator.

Area 1

Area 1 was excavated on August 21, 2007, with additional excavations performed on August 29 and August 31, 2007. All post excavation samples were below Unrestricted Use SCOs.

During the remediation of Area 1, a total of 3 cubic yards of material were removed and disposed of offsite. Four post-excavation sidewall soil samples (A1-N, A1-S, A1-E, and A1-W) and one floor sample (A1-B) were collected and analyzed for the COCs.

Since the northern portion of Area 1 is located within the offsite area, the results of the post-excavation soil samples collected from the floor and from the north, east, and west sidewalls were compared to the NYSDEC Unrestricted Use SCOs, pursuant to 6 NYCRR Subpart 375-6. The results of the post-excavation soil sample from the south sidewall, which is located within the onsite area, needed to be compared to the NYSDEC Restricted Use SCOs for Commercial Properties, pursuant to 6 NYCRR Subpart 375-6. However, the results of all post-excavation sidewall soil samples indicated that there were no exceedances of Unrestricted Use SCOs at any sidewall location (Table 13). Therefore, no additional lateral excavation was required.

The results of the post-excavation floor soil sample indicated that the Unrestricted Use SCO for cis-1,2-DCE was exceeded. A second post-excavation floor soil sample (A1-B1) was collected after removing approximately six inches of additional soil from the floor of Area 1. The results indicated that the Unrestricted Use SCO for cis-1,2-DCE, PCE, and TCE were exceeded. A third post-excavation floor soil sample (A1-B) was collected after removing approximately six more inches of soil from the floor of Area 1. The results indicated that the Unrestricted Use SCOs were not exceeded (Table 13). Therefore, no additional excavation was required. The final horizontal limits of excavation are shown on Plate 10.

Area 2

Area 2 was excavated on August 21, 2007. All post excavation samples were below Unrestricted Use SCOs.

During the remediation of Area 2, a total of 4 cubic yards of material were removed and disposed of offsite. Four post-excavation sidewall soil samples (A2-N, A2-S, A2-E, and A2-W) and

one floor sample (A2-B) were collected and analyzed for the COCs. Since the northern portion of Area 2 is located within the offsite area, the results of the post-excavation soil samples collected from the north, east, and west sidewalls, and from the floor, were compared to the Unrestricted Use SCOs. The results of the post-excavation soil sample from the south sidewall, which is located within the onsite area, needed to be compared to the Restricted Commercial Use SCOs. However, the results of all post-excavation samples indicated that there were no exceedances of any Unrestricted Use SCO. Therefore, no additional excavation was required. The final horizontal limits of excavation are shown on Plate 10.

Two monitoring wells located within Area 2 (i.e., MW-102S and MW-102D) were protected during the performance of the Remedial Action.

Area 3

Area 3 was excavated from August 22 to 23, 2007. All post excavation samples were below Unrestricted Use SCOs.

During the remediation of Area 3, four post-excavation sidewall soil samples (A3-N, A3-S, A3-E, and A3-W) and one floor sample (A3-B) were collected and analyzed for the COCs. Since the northern portion of Area 3 is located within the offsite area, the results of the post-excavation soil samples collected from the north, east, and west sidewalls, and from the floor, were compared to the Unrestricted Use SCOs. The results of the post-excavation soil sample from the south sidewall, which is located within the onsite area, were compared to the Restricted Commercial Use SCOs. The results indicated that the Unrestricted Use SCOs were met onsite, along the south wall of the excavation, delineating the vertical extent in that direction. However, applicable SCOs were exceeded at the other three sidewalls and on the bottom sample (Table 13). Additional excavation of Area 3 was required. Area 3 was initially distinct from Area 5. As discussed below, additional excavation performed at Area 5 eventually merged Area 3 and Area 5 into one area. Post excavation samples and soil volume for this one larger excavation are discussed under Area 5, below.

Area 4

Area 4 was excavated on August 22, 2007, with additional excavations performed on August 23 and August 25, 2007. During the remediation of Area 4, a total of 6 cubic yards of material were removed and disposed of offsite. The limits of excavation were advanced from the initial extents indicated on Plate 6 of the RAWP when soil screening conducted with a PID indicated VOC concentrations greater than 50 ppm. Post-excavation soil samples were submitted for laboratory analysis only when the PID reading was less than 50 ppm. Three post-excavation sidewall soil samples (A4-N, A4-E, and A4-W) and one floor sample (A4-B) were collected and analyzed for the COCs. A post-excavation soil sample from the south sidewall was not collected because the limit of excavation was extended to the northern wall of the shopping center building. The results of the post-excavation soil samples from the three sidewalls and from the floor were compared to the Restricted Commercial Use SCOs. The results indicated that the applicable SCOs were not exceeded at any location. Therefore, no additional excavation was required. Two compounds, vinyl chloride in sample A4-E and PCE in sample A4-B did exceeded the Unrestricted Use SCO. The final horizontal limits of excavation are shown on Plate 10.

As indicated on Plate 10, VOC-impacted materials were found underneath the rear steps of the Dry Cleaner (i.e., southeast corner of Area 4). The VOC-impacted materials were able to be removed while protecting the overlying steps.

Brownish-stained material was uncovered during the excavation of the southern sidewall and the southeast corner of Area 4. The contaminant created a sheen upon contact with water. All visually stained material was removed and disposed of offsite with the other soils excavated from Area 4. All water demonstrating a sheen was also removed and disposed of offsite.

Monitoring well MW-101S was not damaged during the performance of the Remedial Action. However, monitoring well MW-101D was damaged during the performance of the Remedial Action. The monitoring well was abandoned by backfilling the remaining well casing with cement. Monitoring well MW-101DR (Plate 7) was installed on October 17, 2007 to replace monitoring well MW-101D. Monitoring well MW-101DR was constructed in a manner similar to MW-101D (i.e., one-inch diameter Schedule 40 PVC well casing, Geoprobe pre-packed screen, well screen from 13 to 18 feet bls).

Area 5

Area 5 was excavated from August 24 to 31, 2007, with additional excavations performed on September 6, 2007. All post excavation samples were below Unrestricted Use SCOs.

During the remediation of Area 5, a total of 53 cubic yards of material were removed and disposed of offsite. The limits of excavation were advanced from the initial extents indicated on Plate 6 of the RAWP when soil screening conducted with a PID indicated VOC concentrations greater than 50 ppm. Post-excavation soil samples were submitted for laboratory analysis only when the PID reading was less than 50 ppm. Four post-excavation sidewall soil samples (A5-N, A5-S, A5-E, and A5-W) and one floor sample (A5-B) were collected and analyzed for the COCs. The results of the post-excavation soil samples were compared to the Unrestricted Use SCOs. The results of the post-excavation soil samples from the floor and from the north and south sidewalls indicated that the SCOs were not exceeded. Therefore, no additional excavation was required to the north or to the south. The results of the post-excavation soil sample from the east sidewall indicated that the SCO for cis-1,2-DCE and vinyl chloride were exceeded (Table 13).

The Area 5 excavation was expanded, eventually incorporating the Area 3 excavation. Additional post-excavation sidewall soil samples were collected on August 29, 2007 (A5-E1, A5-E2, A5-W1, and A5-N1). The results of the post-excavation soil samples from the east sidewall indicated that the SCO for cis-1,2-DCE, PCE, and TCE still exceeded SCOs. After advancing the excavation eastward, the final post-excavation soil sample from the east sidewall (A5-E1) indicated that the SCOs were not exceeded (Table 13). Excavation of Area 5 was considered complete at this point. The final horizontal limits of excavation are shown on Plate 10.

Post-excavation samples were collected as areas of the excavation appeared to be complete. However, as the size of the excavation grew and eventually incorporated Area 3, additional samples from the north and west sidewalls were collected to be conservative. The results of these samples confirmed previous findings that the Unrestricted SCOs were not exceeded.

During the excavation of Area 5, miscellaneous debris (i.e., wooden planks, empty Clorox bottle) and small quantities of grayish-stained soil were uncovered. PID readings of the grayish-stained soil were greater than 500 ppm. These materials were removed and disposed of offsite. In addition to the above, a broken 2-inch diameter clay pipe was discovered at approximately 2.5 feet bls. Based on discussions with Church personnel and tracing the pipe approximately 30 feet to the east, it was concluded that the pipe was a former storm water pipe leading from the exterior corner of the Multi-Use building and was not in use. This pipe was sealed with concrete on both ends of the broken section.

4.3.2 Disposal Details

Approximately 66 cubic yards of excavated soil was transported to, and disposed of, at Stablex Canada Inc. (Stablex), a Canadian treatment, storage, and disposal facility. Stablex is permitted by the Ministry of Environment of Quebec. The excavated soil was hauled by Freehold Cartage, Inc. (Freehold), who is permitted and licensed to transport wastes in New York and all localities, states, and provinces through which the waste was transported. Freehold is permitted in accordance with the Resource Conservation and Recovery Act (RCRA), United States Department of Transportation (USDOT), state, province, and local requirements, and possesses an USEPA identification number. All vehicles used to transport the wastes also conformed with USDOT and USEPA requirements and the requirements of all states and provinces through which the wastes were transported. Applicable transportation requirements were implemented (i.e., manifesting and placarding). The license and permit of the TSDF and the transporter are included in Appendix I. Manifests and bills of lading are included in Appendix J.

4.3.3 Onsite Re-Use

There was no excavated material reused onsite.

4.3.4 Water

During soil excavation, some water was removed from each excavation by the high vacuum guzzler truck.

A total of 1,170 gallons of water was removed from the excavation areas. The water was analyzed per the requirements of the disposal facility. Based on the waste characterization

results, the water was classified as hazardous and was transported by Freehold for disposal to E. I. du Pont, located at Deepwater, New Jersey. Manifests are included in Appendix K.

4.3.5 Backfill

After the excavations were completed and the post-excavation results confirmed that no additional excavation was warranted, ERD substrate was introduced into each excavation. The ERD substrate for the Site was food-grade blackstrap molasses (molasses). A total of 15 gallons of molasses was added to the bottom of Area 1, Area 2, and Area 4. A total of 50 gallons of molasses was added to the bottom of Area 3 / Area 5. After placement of the molasses, each excavation was then backfilled with approximately 6-inches of gravel as a demarcation layer, and then backfilled and compacted with fill material from offsite sources. The volume of gravel plus backfill in each excavation was equal to the *in situ* volume that was removed. All offsite fill materials were placed within each excavation in 6 to 12-inch lifts. Each lift was compacted using the mini-excavator's bucket. Topsoil removed during the excavation was replaced as part of site restoration. Offsite common fill and gravel were from Almasi Contractors, and were free of extraneous debris or solid waste. Topsoil was obtained from Fanelli Topsoil, Inc. The offsite clean fill material certifications are provided in Appendix L.

4.3.6 Residual Soil Contamination Remaining

Residual soil contamination remains onsite below the Restricted Commercial Use SCO, but above the Unrestricted Use SCO at the bottom and along the east wall of excavation Area 4 (Table 13). In addition, residual soil contamination remains onsite below the Restricted Commercial Use SCO, but slightly above the Unrestricted Use SCO in soil boring SB-2 (1-2) located just to the west of the transformer. Soil in these areas is currently covered with gravel.

Post excavation soil samples collected offsite indicate that there is no residual contamination above the Unrestricted Use SCO located offsite (Table 13).

4.4 ERD Injections to Groundwater

The following sections described the injection of ERD substrate to the subsurface that were performed during the Remedial Action. As discussed above, the ERD substrate for the Site was food-grade blackstrap molasses.

4.4.1 Open Excavations

As discussed above, after post-excavation results confirmed that an excavation was complete, food-grade blackstrap molasses was introduced into the open excavation immediately prior to backfilling. The ERD was distributed as evenly as possible to allow equal mixing with groundwater in the excavation footprint. A total of 15 gallons of molasses was added to the bottom of Area 1, Area 2, and Area 4. Approximately 50 gallons of molasses was added to the bottom of Area 3 / Area 5.

4.4.2 Off-Site ERD Injections

Ten ERD injection points (IP-1 to IP-10) were installed offsite in approximate area of the leading edge of the 10,000 ug/L total VOC contour as shown in Plate 6. Five injection points were installed with a screen zone between 3 and 8 feet bls and five injection points were installed with a screen zone between 13 and 18 feet bls. Following installation of the injection points, 5 gallons of ERD was mixed with approximately 20 gallons of water in a holding tank for a total of 25 gallons of ERD solution and then pumped under low pressure to the point. Each point accepted the water/ERD mixture.

4.4.3 Groundwater Monitoring

To assess the performance of the ERD injections, a groundwater monitoring program has been established that includes a baseline sampling event and periodic monitoring. Prior to injection of ERD at the Site, a baseline groundwater sampling round was conducted in accordance with the procedures outlined in the RAWP. A summary of VOCs detected in baseline groundwater samples is presented as Table 14 and Plate 11. A summary of electron acceptors, degradation byproducts and end products detected in baseline groundwater samples is presented in Table 15. The first round of post-injection groundwater sampling was collected in December 2007.

The Fourth Quarter 2008 sampling event indicates that the addition of molasses continues to be successful at enhancing the biodegradation rates at the Site. The concentrations of PCE and associated chlorinated degradation byproducts in MW-101D and MW-101S, located in the source area behind the Dry Cleaner, and MW-205D, located near the Church and School property boundary have decreased compared to baseline conditions. Although the concentrations of PCE and degradation byproducts in MW-101D and MW-101S are significantly less than the baseline

conditions, DCE and VC increased in both wells between the Third Quarter 2008 and Fourth Quarter 2008. The general trend of all volatile organic compounds will continue to be evaluated with future groundwater sampling.

The concentrations of PCE and associated degradation byproducts in MW-205S and MW-113D decreased between the Third Quarter 2008 and Fourth Quarter 2008.

Concentrations of volatile organic compounds at the remaining monitoring wells sampled have remained at fairly steady state conditions and are consistent with expectations. Analytical results of groundwater monitoring are summarized in Table 14 and Table 15 and on Plate 11. Analytical data is presented as Appendix H.

4.4.4 Soil Vapor Monitoring

Two rounds of soil vapor were collected to assess degradation byproduct and end product generation as a result of ERD injection, a baseline round and one post-injection sampling round. For each event, a soil vapor sample was collected from soil vapor point SV-102 inside the utility room behind the market and from a newly installed soil vapor point SV-107 located downgradient from the ERD injection points. An outdoor ambient air sample was also collected. The post-injection sampling round was collected approximately one month following ERD injections. Analytical results of soil vapor samples collected following ERD injections showed that although most compounds were very similar in concentrations, some compounds showed a relative decrease (i.e., PCE in SG-102 decreased from 1300 ug/m3 to 370 ug/m3) and some compounds showed a relative increase (i.e., cis-1,2-dichloroethene in SG-102 increased from 3.1 ug/m3 to 99 ug/m3). Analytical results of the soil vapor monitoring is summarized in Table 16.

4.5 Deviations from the Remedial Action Work Plan

The NYSDEC-approved RAWP called for placement of a visual barrier between unexcavated residual soil and backfill. Three of the four excavations completed were excavated to Unrestricted Use SCOs. With NYSDEC approval, no visual barrier was required in these excavations. However, due to a miscommunication, a visual barrier was also not placed along the eastern sidewall of Area 4. Once compound (vinyl chloride) was detected slightly above the Unrestricted Use SCO in this area , but below the restricted commercial SCO. One compound

(PCE) was detected in the bottom sample of Area 4 above the Unrestricted Use SCO, but below the restricted commercial SCO. However, the bottom of the excavation is separated from the soil backfill with a layer of gravel at least one-foot thick.

Future on-Site excavation into the "Residual Management Zone" are addressed in the Site Management Plan (see Section 5.0)

5.0 SITE MANAGEMENT PLAN

The objective of a Site Management Plan (SMP) is to set guidelines for the management of the Site during future construction/excavation activities that could disturb soil or groundwater with residual contamination. The SMP is presented as Appendix M.

5.1 Institutional and Engineering Control Systems

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved RAWP dated August 16, 2007. The remedial goals included attainment of Track 4 SCOs for on-Site soils for restricted commercial use and Track 1 SCOs for off-Site soils.

Since residual contaminated soil and groundwater exists beneath a portion of the Site, Engineering Controls and Institutional Controls ("EC/ICs") are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the Site.

The purpose of this Plan is to provide:

- A description of all EC/ICs on the Site;
- The basic operation and intended role of each implemented EC/IC;
- A description of the key components of the ICs created as stated in the Environmental Easement;
- A description of the features that should be evaluated during each annual inspection and compliance certification period;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Soil Management Plan for the safe handling of residual contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the Site remedy, as determined by the NYSDEC.

5.1.1 Engineering Control ("EC") Components

The ECs include: (1) a composite cover system and, (2) monitoring enhanced natural attenuation of groundwater on and off the Site.

5.1.1.1 Composite Cover System

Exposure to residual contaminated soil/fill exceeding restricted commercial use SCOs at the Site will be prevented by a cover. The current cover system is comprised of asphalt, building foundations, landscaped areas, and gravel covered landscaped areas. A Soil Management Plan that outlines the procedures required in the event the composite cover system and underlying residual contamination are disturbed is presented as Appendix C to the Site Management Plan. The monitoring and maintenance of this cover are provided in the Monitoring Plan included in Section 3 of this SMP.

5.1.1.2 Monitored Enhanced Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by NYSDOH and NYSDEC, until residual groundwater concentrations are found to be below NYSDEC standards or have become asymptotic over an extended period. Monitoring will continue until permission to discontinue is granted in writing by NYSDEC and NYSDOH. The monitoring activities are outlined in the Monitoring Plan included in Section 3 of the SMP.

5.1.2 Institutional Controls ("ICs") Components

The ICs are required under the RAWP to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to residual contamination by controlling disturbances of the subsurface contamination; and, (3) restrict the use of the Site to restricted commercial uses only. Adherence to these ICs on the Site is required under the Environmental Easement and will be implemented under this SMP. A copy of the Environmental Easement is presented as Appendix N.

The following are the ICs for the Site:

1. The Grantor and the Grantor's successors must comply with the Environmental Easement and with all elements of this SMP.
2. All ECs must be operated and maintained as specified in this SMP.
3. All ECs on the Site must be inspected and certified at a frequency and in a manner defined in the SMP.
4. Groundwater, and other environmental or public health monitoring must be performed as defined in this SMP.

5. On-Site environmental monitoring devices, including but not limited to, groundwater monitor wells must be protected and replaced as necessary to ensure continued functioning in the manner specified in this SMP.

6. ECs may not be discontinued without an amendment or the extinguishment of the Environmental Easement for the Site.

7. The following Site Restrictions apply to the Site:

   - Use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use.

   - Vegetable gardens and farming on the Site are prohibited.

   - All future activities on the Site that will disturb residual contaminated material are prohibited unless they are conducted in accordance with the soil management provisions in this SMP.

   - The Site may be used for restricted commercial use only provided the long-term EC/ICs included in the SMP remain in use. The Site may not be used for a higher level of use, such as restricted residential use without an amendment or the extinguishment of this Environmental Easement.

   - Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

5.1.3 Objectives of Site EC/ICs

The objective of the Site EC/IC are to:

- Prevent ingestion of groundwater with contamination levels that exceed drinking water standards;

- Prevent contact with or inhalation of volatiles from contaminated groundwater;

- Restore groundwater to pre-disposal/pre-release conditions, to the extent practicable;

- Prevent the discharge of contaminants to surface water; and

- Prevent ingestion/direct contact with contaminated soil.

Table 1. Summary of Volatile Organic Compounds Detected in Soil Vapor (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	SG-101	SG-102	SG-103	SV-201	SV-201	SV-202	SV-202	SV-203	SV-204
	Sample Location:	Dry Cleaner	Utility Room Behind Tic-Tac Market	South of Church Gym	School Main Building - Kitchen Closet	School Main Building - Kitchen Closet	School Main Building - Telephone Room	School Main Building - Telephone Room	South of Church Gym	Church -Storage Room off Gym
	Sub-slab/outdoor:	sub-slab	sub-slab	outdoor	sub-slab	sub-slab	sub-slab	sub-slab	outdoor	sub-slab
	Sample Date:	9/21/05	9/21/05	9/21/05	8/14/06	12/16/06	8/14/06	12/16/06	8/15/06	8/15/06
Analyte (concentrations in µg/m^3)	CAS #									
Acetone	67-64-1	8.7	14	48	nr	nr	nr	nr	nr	nr
Benzene	71-43-2	2.4 U	2.8 U	2.5 U	1.3	1.6	1.8	23 U	0.60	0.65
Benzyl chloride	100-44-7	3.8 U	4.6 U	4.1 U	nr	nr	nr	nr	nr	nr
Bromodichloromethane	75-27-4	5.0 U	6.0 U	5.3 U	nr	nr	nr	nr	nr	nr
Bromoform	75-25-2	7.7 U	9.2 U	8.2 U	nr	nr	nr	nr	nr	nr
Bromomethane	74-83-9	2.9 U	3.5 U	3.1 U	nr	nr	nr	nr	nr	nr
1,3-Butadiene	106-99-0	1.6 U	2.0 U	1.7 U	nr	nr	nr	nr	nr	nr
Carbon disulfide	75-15-0	2.8	7.5	6.4	nr	nr	nr	nr	nr	nr
Carbon tetrachloride	56-23-5	4.7 U	5.6 U	5.0 U	nr	nr	nr	nr	nr	nr
Chlorobenzene	108-90-7	3.4 U	4.1 U	3.6 U	nr	nr	nr	nr	nr	nr
Chloroethane	75-00-3	2.1	2.4 U	2.1 U	nr	nr	nr	nr	nr	nr
Chloroform	67-66-3	230	26	3.8 U	nr	nr	nr	nr	nr	nr
Chloromethane	74-87-3	6.2 U	7.4 U	6.5 U	nr	nr	nr	nr	nr	nr
3-Chloropropene	107-05-1	9.3 U	11 U	9.9 U	nr	nr	nr	nr	nr	nr
Cumene	98-82-8	3.7 U	4.4 U	3.9 U	nr	nr	nr	nr	nr	nr
Cyclohexane	110-82-7	5.2	6.0	2.7 U	nr	nr	nr	nr	nr	nr
Dibromochloromethane	124-48-1	6.3 U	7.6 U	6.7 U	nr	nr	nr	nr	nr	nr
1,2-Dibromoethane	106-93-4	5.7 U	6.9 U	6.1 U	nr	nr	nr	nr	nr	nr
1,2-Dichlorobenzene	95-50-1	4.5 U	5.4 U	4.7 U	nr	nr	nr	nr	nr	nr
1,3-Dichlorobenzene	541-73-1	4.5 U	5.4 U	4.8 U	nr	nr	nr	nr	nr	nr
1,4-Dichlorobenzene	106-46-7	4.5 U	5.4 U	4.8 U	nr	nr	nr	nr	nr	nr
Dichlorodifluoromethane	75-71-8	4.6	180	3.9 U	nr	nr	nr	nr	nr	nr
1,1-Dichloroethane	75-34-3	3.0 U	3.6 U	3.2 U	0.13 U	0.13 U	0.26 U	12 U	0.13 U	0.26 U
1,2-Dichloroethane	107-06-2	3.0 U	3.6 U	3.2 U	0.13 U	0.13 U	0.26 U	12 U	0.13 U	0.26 U
1,1-Dichloroethene	75-35-4	3.0 U	3.5 U	3.1 U	0.063 U	0.063 U	0.12 U	5.8 U	0.065 U	0.12 U
cis-1,2-Dichloroethene	156-59-2	260	3.5 U	19	0.12 U	0.12 U	0.25 U	12 U	0.13 U	0.25 U
trans-1,2-Dichloroethene	156-60-5	6.4	3.5 U	9.3	0.63 U	0.63 U	1.2 U	58 U	0.65 U	1.2 U
1,2-Dichloropropane	78-87-5	3.4 U	4.1 U	3.6 U	nr	nr	nr	nr	nr	nr
cis-1,3-Dichloropropene	10061-01-5	3.4 U	4.1 U	3.6 U	nr	nr	nr	nr	nr	nr
trans-1,3-Dichloropropene	10061-02-6	3.4 U	4.1 U	3.6 U	nr	nr	nr	nr	nr	nr
Dichlorotetrafluoroethane	76-14-2	5.2 UJV	6.2 UJV	5.5 UJV	nr	nr	nr	nr	nr	nr
1,4-Dioxane	123-91-1	11 U	13 U	11 U	nr	nr	nr	nr	nr	nr
Ethanol	64-17-5	5.6 U	6.7 U	6.0 U	nr	nr	nr	nr	nr	nr
Ethylbenzene	100-41-2	6.5	6.5	3.4 U	5.2	21	5.3	32	7.1	7.2
4-Ethyltoluene	622-96-8	3.7 U	4.4 U	3.9 U	nr	nr	nr	nr	nr	nr
Heptane	142-82-5	3.0 U	3.7 U	3.2 U	nr	nr	nr	nr	nr	nr
Hexachlorobutadiene	87-68-3	32 UJV	38 UJV	34 UJV	nr	nr	nr	nr	nr	nr
Hexane	110-54-3	7.4	8.4	2.8 U	nr	nr	nr	nr	nr	nr
Isopropyl alcohol	67-63-0	7.3 U	8.8 U	7.8 U	nr	nr	nr	nr	nr	nr
2-Hexanone	591-78-6	12 U	15 U	13 U	nr	nr	nr	nr	nr	nr
2-Butanone (MEK)	78-93-3	4.6	2.6	13	nr	nr	nr	nr	nr	nr

Table 1. Summary of Volatile Organic Compounds Detected in Soil Vapor (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	SG-101	SG-102	SG-103	SV-201	SV-201	SV-202	SV-202	SV-203	SV-204
	Sample Location:	Dry Cleaner	Utility Room Behind Tic-Tac Market	South of Church Gym	School Main Building - Kitchen Closet	School Main Building - Kitchen Closet	School Main Building - Telephone Room	School Main Building - Telephone Room	South of Church Gym	Church -Storage Room off Gym
	Sub-slab/outdoor:	sub-slab	sub-slab	outdoor	sub-slab	sub-slab	sub-slab	sub-slab	outdoor	sub-slab
	Sample Date:	9/21/05	9/21/05	9/21/05	8/14/06	12/16/06	8/14/06	12/16/06	8/15/06	8/15/06
Analyte (concentrations in µg/m^3)	CAS #									
4-Methyl-2-pentanone	108-10-1	3.0 U	3.7 U	3.2 U	nr	nr	nr	nr	nr	nr
Methylene chloride	75-09-2	2.6 U	3.1 U	2.7 U	nr	nr	nr	nr	nr	nr
Methyl-t-butyl ether	1634-04-4	2.7 U	3.2 U	2.8 U	0.57 U	0.57 U	1.1 U	53 U	0.59 U	1.1 U
Propylbenzene	103-65-1	3.7 U	4.4 U	3.9 U	nr	nr	nr	nr	nr	nr
Styrene	100-42-5	17	14	4.9	nr	nr	nr	nr	nr	nr
1,1,2,2-Tetrachloroethane	79-34-5	5.1 U	6.1 U	5.4 U	0.22 U	0.22 U	0.43 U	20 U	0.22 UJ	0.43 UJ
Tetrachloroethene	127-18-4	1,300	790	130	45	11	17	20 U	76	12
Tetrahydrofuran	109-99-9	3.4	5.4	2.3 U	nr	nr	nr	nr	nr	nr
Toluene	108-88-3	40	98	6.0	62	74	170	7,200	35	170
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5.7 U	6.8 U	6.0 U	nr	nr	nr	nr	nr	nr
1,2,4-Trichlorobenzene	120-82-1	22 U	26 U	23 U	nr	nr	nr	nr	nr	nr
1,1,1-Trichloroethane	71-55-6	4.1 U	4.9 U	4.3 U	1.1	0.56	0.34 U	16 U	0.28	0.34 U
1,1,2-Trichloroethane	79-00-5	4.1 U	4.9 U	4.3 U	0.17 U	0.17 U	0.34 U	16 U	0.18 U	0.34 U
Trichloroethene	79-01-6	220	55	49	4.9	1.7	0.72	16 U	2.9	0.39
Trichlorofluoromethane	75-69-4	4.2 U	5.0 U	4.4 U	nr	nr	nr	nr	nr	nr
1,2,4-Trimethylbenzene	95-63-6	4.1	4.4 U	3.9 U	nr	nr	nr	nr	nr	nr
1,3,5-Trimethylbenzene	108-67-8	3.7 U	4.4 U	3.9 U	nr	nr	nr	nr	nr	nr
2,2,4-Trimethylpentane	540-84-1	3.5 U	4.2 U	3.7 U	nr	nr	nr	nr	nr	nr
Vinyl chloride	75-01-04	3.3	2.3 U	2.0 U	0.040 U	0.040 U	0.081 U	3.7 U	0.042 U	0.081 U
M&p-Xylenes	1330-20-7	22	20	7.2	21	72	22	93	27	27
o-Xylene	95-47-6	13	12	4.3	6.0	26	5.9	26	11	10

Notes:

CAS # - Chemical Abstract System Number
DUP - Duplicate sample
J - Estimated concentration
nr - Not reported
U - Not detected above reporting limit shown
µg/m^3 - Micrograms per cubic meter
Samples collected in August 2006 and December 2006 were analyzed using TO-15 SIM that has a shorter analyte list

Table 1. Summary of Volatile Organic Compounds Detected in Soil Vapor (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	SV-204 DUP	SV-204	SV-205	SV-205	SV-206	SV-206 DUP
	Sample Location:	Church -Storage Room off Gym	Church -Storage Room off Gym	Church - Small Boileroom	Church - Small Boileroom	School Main Building - Room A-6	School Main Building - Room A-6
	Sub-slab/outdoor:	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab
	Sample Date:	8/15/06	12/1/06	8/15/06	12/1/06	12/16/06	12/16/06
Analyte (concentrations in µg/m^3)	CAS #						
Acetone	67-64-1	nr	nr	nr	nr	nr	nr
Benzene	71-43-2	0.62	3.3	1.2	4.7	1.1	1.1
Benzyl chloride	100-44-7	nr	nr	nr	nr	nr	nr
Bromodichloromethane	75-27-4	nr	nr	nr	nr	nr	nr
Bromoform	75-25-2	nr	nr	nr	nr	nr	nr
Bromomethane	74-83-9	nr	nr	nr	nr	nr	nr
1,3-Butadiene	106-99-0	nr	nr	nr	nr	nr	nr
Carbon disulfide	75-15-0	nr	nr	nr	nr	nr	nr
Carbon tetrachloride	56-23-5	nr	nr	nr	nr	nr	nr
Chlorobenzene	108-90-7	nr	nr	nr	nr	nr	nr
Chloroethane	75-00-3	nr	nr	nr	nr	nr	nr
Chloroform	67-66-3	nr	nr	nr	nr	nr	nr
Chloromethane	74-87-3	nr	nr	nr	nr	nr	nr
3-Chloropropene	107-05-1	nr	nr	nr	nr	nr	nr
Cumene	98-82-8	nr	nr	nr	nr	nr	nr
Cyclohexane	110-82-7	nr	nr	nr	nr	nr	nr
Dibromochloromethane	124-48-1	nr	nr	nr	nr	nr	nr
1,2-Dibromoethane	106-93-4	nr	nr	nr	nr	nr	nr
1,2-Dichlorobenzene	95-50-1	nr	nr	nr	nr	nr	nr
1,3-Dichlorobenzene	541-73-1	nr	nr	nr	nr	nr	nr
1,4-Dichlorobenzene	106-46-7	nr	nr	nr	nr	nr	nr
Dichlorodifluoromethane	75-71-8	nr	nr	nr	nr	nr	nr
1,1-Dichloroethane	75-34-3	0.25 U	0.50 U	0.19 U	0.13 U	0.12 U	0.11 U
1,2-Dichloroethane	107-06-2	0.25 U	0.50 U	0.26 J V	0.13 U	0.12 U	0.11 U
1,1-Dichloroethene	75-35-4	0.12 U	0.25 U	0.091 U	0.064 U	0.057 U	0.055 U
cis-1,2-Dichloroethene	156-59-2	0.24 U	0.49 U	0.18 U	0.13 U	0.11 U	0.11 U
trans-1,2-Dichloroethene	156-60-5	1.2 U	2.5 U	0.91 U	0.64 U	0.57 U	0.55 U
1,2-Dichloropropane	78-87-5	nr	nr	nr	nr	nr	nr
cis-1,3-Dichloropropene	10061-01-5	nr	nr	nr	nr	nr	nr
trans-1,3-Dichloropropene	10061-02-6	nr	nr	nr	nr	nr	nr
Dichlorotetrafluoroethane	76-14-2	nr	nr	nr	nr	nr	nr
1,4-Dioxane	123-91-1	nr	nr	nr	nr	nr	nr
Ethanol	64-17-5	nr	nr	nr	nr	nr	nr
Ethylbenzene	100-41-2	7.2	10	9.4	21	20	20
4-Ethyltoluene	622-96-8	nr	nr	nr	nr	nr	nr
Heptane	142-82-5	nr	nr	nr	nr	nr	nr
Hexachlorobutadiene	87-68-3	nr	nr	nr	nr	nr	nr
Hexane	110-54-3	nr	nr	nr	nr	nr	nr
Isopropyl alcohol	67-63-0	nr	nr	nr	nr	nr	nr
2-Hexanone	591-78-6	nr	nr	nr	nr	nr	nr
2-Butanone (MEK)	78-93-3	nr	nr	nr	nr	nr	nr

Table 1. Summary of Volatile Organic Compounds Detected in Soil Vapor (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	SV-204 DUP	SV-204	SV-205	SV-205	SV-206	SV-206 DUP
	Sample Location:	Church -Storage Room off Gym	Church -Storage Room off Gym	Church - Small Boileroom	Church - Small Boileroom	School Main Building - Room A-6	School Main Building - Room A-6
	Sub-slab/outdoor:	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab
	Sample Date:	8/15/06	12/1/06	8/15/06	12/1/06	12/16/06	12/16/06
Analyte (concentrations in µg/m^3)	CAS #						
4-Methyl-2-pentanone	108-10-1	nr	nr	nr	nr	nr	nr
Methylene chloride	75-09-2	nr	nr	nr	nr	nr	nr
Methyl-t-butyl ether	1634-04-4	1.1 U	2.2 U	0.83 U	0.58 U	0.52 U	0.50 U
Propylbenzene	103-65-1	nr	nr	nr	nr	nr	nr
Styrene	100-42-5	nr	nr	nr	nr	nr	nr
1,1,2,2-Tetrachloroethane	79-34-5	0.42 UJ	0.85 U	0.32 UJ	0.22 U	0.20 U	0.19 U
Tetrachloroethene	127-18-4	12	9.9	4.2	4.4	2.9	3
Tetrahydrofuran	109-99-9	nr	nr	nr	nr	nr	nr
Toluene	108-88-3	170	300	120	81	34	33
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	nr	nr	nr	nr	nr	nr
1,2,4-Trichlorobenzene	120-82-1	nr	nr	nr	nr	nr	nr
1,1,1-Trichloroethane	71-55-6	0.34 U	0.68 U	0.33	0.18 U	0.16 U	0.15 U
1,1,2-Trichloroethane	79-00-5	0.34 U	0.68 U	0.25 U	0.18 U	0.16 U	0.15 U
Trichloroethene	79-01-6	0.38	1.6	0.70	3	0.15 U	0.15 U
Trichlorofluoromethane	75-69-4	nr	nr	nr	nr	nr	nr
1,2,4-Trimethylbenzene	95-63-6	nr	nr	nr	nr	nr	nr
1,3,5-Trimethylbenzene	108-67-8	nr	nr	nr	nr	nr	nr
2,2,4-Trimethylpentane	540-84-1	nr	nr	nr	nr	nr	nr
Vinyl chloride	75-01-04	0.079 U	0.16 U	0.059 U	0.041 U	0.037 U	0.036 U
M&p-Xylenes	1330-20-7	27	32	32	67	74	73
o-Xylene	95-47-6	11	10	13	23	28	27

Notes:

CAS # - Chemical Abstract System Number

DUP - Duplicate sample

J - Estimated concentration

nr - Not reported

U - Not detected above reporting limit shown

µg/m^3 - Micrograms per cubic meter

Samples collected in August 2006 and December 2006 were analyzed using TO-15 SIM that has a shorter analyte list

Table 2. Summary of Volatile Organic Compounds Detected in Air (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	A-1	A-2	A-3	A-4	AS-101	AS-102	AS-103	AS-103 DUP	AS-104
	Sample Location:	Tic-Tac Market	Dry Cleaner	Stationary	Parking Lot South of Dry Cleaner	Dry Cleaner	Utility Room Behind Tic-Tac Market	South of Church Gym	South of Church Gym	School Modular Unit - Girl's Bathroom
	Indoor / Outdoor:	Indoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Outdoor	Outdoor	Indoor
	Sample Date:	7/27/2004	7/27/2004	7/27/2004	7/27/2004	09/21/05	09/21/05	09/21/05	09/21/05	11/1/2005
Analyte (concentrations in µg/m^3)	CAS #									
Acetone	67-64-1	14	240 U	14	24	12	28	8.0 U	8.0 U	14
Benzene	71-43-2	1.6 U	32 U	1.6 U	2.2	2.3 U	2.4 U	2.7 U	2.7 U	2 U
Benzyl chloride	100-44-7	nr	nr	nr	nr	3.8 U	3.9 U	4.3 U	4.3 U	3 U
Bromodichloromethane	75-27-4	3.4 U	67 U	3.4 U	3.4 U	4.9 U	5.1 U	5.6 U	5.6 U	3 U
Bromoethene	593-60-2	2.2 U	44 U	2.2 U	2.2 U	nr	nr	nr	nr	2 U
Bromoform	75-25-2	5.2 U	100 U	5.2 U	5.2 U	7.5 U	7.8 U	8.7 U	8.7 U	5 U
Bromomethane	74-83-9	1.9 U	39 U	1.9 U	1.9 U	2.8 U	3.0 U	3.3 U	3.3 U	2 U
1,3-Butadiene	106-99-0	1.1 U	22 U	1.1 U	1.1 U	1.6 U	1.7 U	1.8 U	1.8 U	1 U
tert-Butyl alcohol	75-65-0	15 U	300 U	15 U	15 U	nr	nr	nr	nr	2 U
Carbon disulfide	75-15-0	1.6 U	31 U	1.6 U	4.4	2.3 U	2.4 U	2.6 U	2.6 U	2 U
Carbon tetrachloride	56-23-5	3.1 U	63 U	3.1 U	3.1 U	4.6 U	4.8 U	5.3 U	5.3 U	3 U
Chlorobenzene	108-90-7	2.3 U	46 U	2.3 U	2.3 U	3.4 U	3.5 U	3.9 U	3.9 U	2 U
Chloroethane	75-00-3	1.3 U	26 U	1.3 U	1.3 U	1.9 U	2.0 U	2.2 U	2.2 U	1 U
Chloroform	67-66-3	2.4 U	49 U	2.4 U	2.4 U	3.6 U	3.7 U	4.1 U	4.1 U	2 U
Chloromethane	74-87-3	1.1	21 U	1.4	1.1	6.0 U	6.3 U	6.9 U	6.9 U	1 U
3-Chloropropene	107-05-1	1.6 U	31 U	1.6 U	1.6 U	9.1 U	9.5 U	10 U	10 U	2 U
2-Chlorotoluene	95-49-8	2.6 U	52 U	2.6 U	2.6 U	nr	nr	nr	nr	2.7 UV
Cumene	98-82-8	nr	nr	nr	nr	3.6 U	3.7 U	4.1 U	4.1 U	2 U
Cyclohexane	110-82-7	1.7 U	34 U	1.7 U	1.7 U	2.5 U	2.6 U	2.9 U	2.9 U	2 U
Dibromochloromethane	124-48-1	4.3 U	85 U	4.3 U	4.3 U	6.2 U	6.5 U	7.2 U	7.2 U	4 U
1,2-Dibromoethane	106-93-4	3.8 U	77 U	3.8 U	3.8 U	5.6 U	5.8 U	6.4 U	6.4 U	4 U
1,2-Dichlorobenzene	95-50-1	3.0 U	60 U	3.0 U	3.0 U	4.4 U	4.6 U	5.0 U	5.0 U	3 U
1,3-Dichlorobenzene	541-73-1	3.0 U	60 U	3.0 U	3.0 U	4.4 U	4.6 U	5.0 U	5.0 U	3 U
1,4-Dichlorobenzene	106-46-7	3.0 U	60 U	3.0 U	3.0 U	4.4 U	4.6 U	5.0 U	5.0 U	3 U
Dichlorodifluoromethane	75-71-8	11	49 U	2.7	2.8	10	23	4.2 U	4.2 U	2 U
1,1-Dichloroethane	75-34-3	2.0 U	40 U	2.0 U	2.0 U	3.0 U	3.1 U	3.4 U	3.4 U	2 U
1,2-Dichloroethane	107-06-2	2.0 U	40 U	2.0 U	2.0 U	3.0 U	3.1 U	3.4 U	3.4 U	2 U
1,1-Dichloroethene	75-35-4	2.0 U	40 U	2.0 U	2.0 U	2.9 U	3.0 U	3.3 U	3.3 U	2 U
cis-1,2-Dichloroethene	156-59-2	2.0 U	40 U	2.0 U	2.0 U	2.9 U	3.0 U	3.3 U	3.3 U	2 U
trans-1,2-Dichloroethene	156-60-5	2.0 U	40 U	2.0 U	2.0 U	2.9 U	3.0 U	3.3 U	3.3 U	2 U
1,2-Dichloropropane	78-87-5	2.3 U	46 U	2.3 U	2.3 U	3.4 U	3.5 U	3.9 U	3.9 U	2 U
cis-1,3-Dichloropropene	10061-01-5	2.3 U	45 U	2.3 U	2.3 U	3.3 U	3.4 U	3.8 U	3.8 U	2 U
trans-1,3-Dichloropropene	10061-02-6	2.3 U	45 U	2.3 U	2.3 U	3.3 U	3.4 U	3.8 U	3.8 U	2 U
Dichlorotetrafluoroethane	76-14-2	nr	nr	nr	nr	5.1 UJV	5.3 UJV	5.9 UJV	5.9 UJV	3 U
1,4-Dioxane	123-91-1	18 U	360 U	18 U	18 U	10 U	11 U	12 U	12 U	2 UJV
Ethanol	64-17-5	nr	nr	nr	nr	170	80	6.3 U	6.3 U	3.2
Ethyl acetate	141-78-6	nr	nr	nr	nr	nr	nr	nr	nr	2 U
Ethylbenzene	100-41-2	2.2 U	43 U	2.2 U	3.0	3.2 U	3.3 U	3.6 U	3.6 U	2 U
4-Ethyltoluene	622-96-8	2.5 U	49 U	2.5 U	2.5 U	3.6 U	3.7 U	4.1 U	4.1 U	2 U
Heptane	142-82-5	2.0 U	41 U	2.0 U	2.0 U	3.0 U	3.1 U	3.4 U	3.4 U	2 U
Hexachlorobutadiene	87-68-3	5.3 U	110 U	5.3 U	5.3 U	31 UJV	32 UJV	36 UJV	36 UJV	5 U

Table 2. Summary of Volatile Organic Compounds Detected in Air (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	A-1	A-2	A-3	A-4	AS-101	AS-102	AS-103	AS-103 DUP	AS-104
	Sample Location:	Tic-Tac Market	Dry Cleaner	Stationary	Parking Lot South of Dry Cleaner	Dry Cleaner	Utility Room Behind Tic-Tac Market	South of Church Gym	South of Church Gym	School Modular Unit - Girl's Bathroom
	Indoor / Outdoor:	Indoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Outdoor	Outdoor	Indoor
	Sample Date:	7/27/2004	7/27/2004	7/27/2004	7/27/2004	09/21/05	09/21/05	09/21/05	09/21/05	11/1/2005
Analyte (concentrations in µg/m^3)	CAS #									
Hexane	110-54-3	2.2	35 U	2.3	3.5	2.6 U	2.7 U	3.0 U	3.0 U	2 U
Isopropyl alcohol	67-63-0	14	250 U	12 U	12 U	7.2 U	53	8.2 U	8.2 U	1.5
2-Hexanone	591-78-6	2.0 U	41 U	2.0 U	2.0 U	12 U	12 U	14 U	14 U	2 U
2-Butanone (MEK)	78-93-3	1.5 U	29 U	1.5 U	2.6	2.2 U	7.9	2.5 U	2.5 U	1 U
4-Methyl-2-pentanone	108-10-1	2.0 U	41 U	2.0 U	2.0 U	3.0 U	3.1 U	3.4 U	3.4 U	2 U
Methylene chloride	75-09-2	1.7 U	35 U	1.7 U	1.7 U	2.5 U	2.6 U	2.9 U	2.9 U	2 U
Methyl-t-butyl ether	1634-04-4	1.8 U	36 U	1.8 U	1.8 U	2.6 U	2.7 U	3.0 U	3.0 U	2 U
Propene	115-07-1	nr	nr	nr	nr	nr	nr	nr	nr	2.4 NJV
Propylbenzene	103-65-1	nr	nr	nr	nr	3.6 U	3.7 U	4.1 U	4.1 U	nr
Styrene	100-42-5	2.1 U	43 U	2.1 U	2.1 U	3.1 U	3.2 U	3.6 U	3.6 U	2 U
1,1,2,2-Tetrachloroethane	79-34-5	3.4 U	69 U	3.4 U	3.4 U	5.0 U	5.2 U	5.8 U	5.8 U	3 U
Tetrachloroethene	127-18-4	3.4 U	3,900	3.4 U	33	710	42	5.7 U	5.7 U	3 U
Tetrahydrofuran	109-99-9	15 U	290 U	15 U	15 U	2.2 U	2.2 U	2.6 NJV	2.5 U	1 U
Toluene	108-88-3	2.9	38 U	15	15	2.8 U	4.1	3.2 U	3.2 U	12
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	nr	nr	nr	nr	5.6 U	5.8 U	6.4 U	6.4 U	4 U
1,2,4-Trichlorobenzene	120-82-1	3.7 U	74 U	3.7 U	3.7 U	22 U	22 U	25 U	25 U	4 U
1,1,1-Trichloroethane	71-55-6	2.7 U	55 U	2.7 U	2.7 U	4.0 U	4.1 U	4.6 U	4.6 U	3 U
1,1,2-Trichloroethane	79-00-5	2.7 U	55 U	2.7 U	2.7 U	4.0 U	4.1 U	4.6 U	4.6 U	3 U
Trichloroethene	79-01-6	2.7 U	91	2.7 U	2.7 U	8.9	4.1 U	4.5 U	4.5 U	3 U
Trichlorofluoromethane	75-69-4	2.8 U	56 U	2.8 U	2.8 U	4.1 U	4.3 U	4.7 U	4.7 U	3 U
1,2,4-Trimethylbenzene	95-63-6	2.5 U	49 U	2.5 U	2.5 U	3.6 U	3.7 U	4.1 U	4.1 U	2 U
1,3,5-Trimethylbenzene	108-67-8	2.5 U	49 U	2.5 U	2.5 U	3.6 U	3.7 U	4.1 U	4.1 U	2 U
2,2,4-Trimethylpentane	540-84-1	2.3 U	47 U	2.3 U	2.6	3.4 U	3.6 U	3.9 U	3.9 U	2 U
Vinyl acetate	108-05-4	nr	nr	nr	nr	nr	nr	nr	nr	3.9
Vinyl chloride	75-01-04	1.3 U	26 U	1.3 U	1.3 U	1.9 U	1.9 U	2.1 U	2.1 U	1 U
M&p-Xylenes	1330-20-7	2.2 U	43 U	2.2 U	9.1	3.2 U	3.3 U	9.8	9.3	2 U
o-Xylene	95-47-6	2.2 U	43 U	2.2 U	2.7	3.2 U	3.3 U	5.4	5.9	2 U

Notes:

CAS # - Chemical Abstract System Number
DUP - Duplicate sample
J - Estimated concentration
nr - Not reported
U - Not detected above reporting limit shown
µg/m^3 - Micrograms per cubic meter
Samples collected in August 2006 and December 2006 were analyzed using TO-15 SIM that has a shorter analyte list

Table 2. Summary of Volatile Organic Compounds Detected in Air (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	AS-105	AS-106	AS-107	AS-108	AS-109	AS-110	AS-111	AS-112	AS-113
	Sample Location:	School Modular Unit - Room M-7	School Modular Unit - Room M-10	School Outdoor Ambient Air - South of Modular Unit	School Main Building - Cafeteria/ Kitchen	School Administration Building - Room CV-5	Church - Gym	Church - Storage Room off Gym	Church - General Purpose Room	Church Outdoor Ambient Air - South of Gym
	Indoor / Outdoor:	Indoor	Indoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Outdoor
	Sample Date:	11/1/2005	11/1/2005	11/1/2005	11/1/2005	11/1/2005	11/2/2005	11/2/2005	11/2/2005	11/2/2005
Analyte (concentrations in µg/m^3)	CAS #									
Acetone	67-64-1	16	13	3.9 NJV	7.7 NJV	8.3	5.7	8.6	3.4	1.7
Benzene	71-43-2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzyl chloride	100-44-7	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Bromodichloromethane	75-27-4	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Bromoethene	593-60-2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromoform	75-25-2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane	74-83-9	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,3-Butadiene	106-99-0	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butyl alcohol	75-65-0	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Carbon disulfide	75-15-0	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Carbon tetrachloride	56-23-5	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Chlorobenzene	108-90-7	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Chloroethane	75-00-3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	67-66-3	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Chloromethane	74-87-3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
3-Chloropropene	107-05-1	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Chlorotoluene	95-49-8	3.3 UV	2.9 UV	3 U	5.6 UV	4 UV	3 U	4.4 UV	3 U	3 U
Cumene	98-82-8	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Cyclohexane	110-82-7	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibromochloromethane	124-48-1	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
1,2-Dibromoethane	106-93-4	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
1,2-Dichlorobenzene	95-50-1	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,3-Dichlorobenzene	541-73-1	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,4-Dichlorobenzene	106-46-7	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Dichlorodifluoromethane	75-71-8	2 U	2.6 JV	2.5 JV	2.6	2.5	2 U	2.6 UV	2 U	2.5
1,1-Dichloroethane	75-34-3	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloroethane	107-06-2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethene	75-35-4	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene	156-59-2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
trans-1,2-Dichloroethene	156-60-5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichloropropane	78-87-5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,3-Dichloropropene	10061-01-5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
trans-1,3-Dichloropropene	10061-02-6	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dichlorotetrafluoroethane	76-14-2	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,4-Dioxane	123-91-1	2 UJV	2 UJV	2 UJV	2 UJV	2 UJV	2 UJV	2 UJV	2 UJV	2 UJV
Ethanol	64-17-5	5.4	4.2	1 U	15	2.7	5.3	9.6	1.5	1 U
Ethyl acetate	141-78-6	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Ethylbenzene	100-41-2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Ethyltoluene	622-96-8	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Heptane	142-82-5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorobutadiene	87-68-3	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table 2. Summary of Volatile Organic Compounds Detected in Air (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	AS-105	AS-106	AS-107	AS-108	AS-109	AS-110	AS-111	AS-112	AS-113
	Sample Location:	School Modular Unit - Room M-7	School Modular Unit - Room M-10	School Outdoor Ambient Air - South of Modular Unit	School Main Building - Cafeteria/ Kitchen	School Administration Building - Room CV-5	Church - Gym	Church - Storage Room off Gym	Church - General Purpose Room	Church Outdoor Ambient Air - South of Gym
	Indoor / Outdoor:	Indoor	Indoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Outdoor
	Sample Date:	11/1/2005	11/1/2005	11/1/2005	11/1/2005	11/1/2005	11/2/2005	11/2/2005	11/2/2005	11/2/2005
Analyte (concentrations in µg/m^3)	CAS #									
Hexane	110-54-3	2.4	2.3	2 U	2.4	2 U	2 U	2 U	2 U	2 U
Isopropyl alcohol	67-63-0	3.6	2.7	1 U	2	1 U	3.2	4.2	1.6	1 U
2-Hexanone	591-78-6	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Butanone (MEK)	78-93-3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	108-10-1	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methylene chloride	75-09-2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-t-butyl ether	1634-04-4	2.2	2	2 U	1.9	2 U	2 U	2 U	2 U	2 U
Propene	115-07-1	3.4 NJV	3.1 NJV	1.3 NJV	2.7 NJV	2.3 NJV	2.1 NJV	2.4 NJV	1.1 NJV	1 NJV
Propylbenzene	103-65-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
Styrene	100-42-5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	79-34-5	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Tetrachloroethene	127-18-4	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Tetrahydrofuran	109-99-9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	108-88-3	10	9.8	5.5	6.7	14	6.4	3.5	3.7	2.6
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
1,2,4-Trichlorobenzene	120-82-1	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
1,1,1-Trichloroethane	71-55-6	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,1,2-Trichloroethane	79-00-5	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Trichloroethene	79-01-6	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Trichlorofluoromethane	75-69-4	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
1,2,4-Trimethylbenzene	95-63-6	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,3,5-Trimethylbenzene	108-67-8	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2,2,4-Trimethylpentane	540-84-1	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl acetate	108-05-4	4.4 UV	5 UV	2 U	3.6 UV	2.6	2 U	2 U	2 U	2 U
Vinyl chloride	75-01-04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
M&p-Xylenes	1330-20-7	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
o-Xylene	95-47-6	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

Notes:

CAS # - Chemical Abstract System Number
DUP - Duplicate sample
J - Estimated concentration
nr - Not reported
U - Not detected above reporting limit shown
µg/m^3 - Micrograms per cubic meter
Samples collected in August 2006 and December 2006 were analyzed using TO-15 SIM that has a shorter analyte list

Table 2. Summary of Volatile Organic Compounds Detected in Air (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	AS-301	AS-301	AS-302	AS-302 DUP	AS-302	AS-303	AS-303	AS-304	AS-304
	Sample Location:	School Outdoor Ambient Air - South of Cafeteria	School Outdoor Ambient Air - South of Cafeteria	School Main Building - Kitchen	School Main Building - Kitchen	School Main Building - Kitchen	School Main Building - Office	School Main Building - Office	School Main Building - Room A-6	School Main Building - Room A-6
	Indoor / Outdoor:	Outdoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
	Sample Date:	8/14/2006	12/16/2006	8/14/2006	8/14/2006	12/16/2006	8/14/2006	12/16/2006	8/14/2006	12/16/2006
Analyte (concentrations in µg/m^3)	CAS #									
Acetone	67-64-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
Benzene	71-43-2	0.80 JV	0.77	6.7 JV	7.1 JV	1.3	1.3 JV	1.3	1.2 JV	1
Benzyl chloride	100-44-7	nr	nr	nr	nr	nr	nr	nr	nr	nr
Bromodichloromethane	75-27-4	nr	nr	nr	nr	nr	nr	nr	nr	nr
Bromoethene	593-60-2	nr	nr	nr	nr	nr	nr	nr	nr	nr
Bromoform	75-25-2	nr	nr	nr	nr	nr	nr	nr	nr	nr
Bromomethane	74-83-9	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,3-Butadiene	106-99-0	nr	nr	nr	nr	nr	nr	nr	nr	nr
tert-Butyl alcohol	75-65-0	nr	nr	nr	nr	nr	nr	nr	nr	nr
Carbon disulfide	75-15-0	nr	nr	nr	nr	nr	nr	nr	nr	nr
Carbon tetrachloride	56-23-5	nr	nr	nr	nr	nr	nr	nr	nr	nr
Chlorobenzene	108-90-7	nr	nr	nr	nr	nr	nr	nr	nr	nr
Chloroethane	75-00-3	nr	nr	nr	nr	nr	nr	nr	nr	nr
Chloroform	67-66-3	nr	nr	nr	nr	nr	nr	nr	nr	nr
Chloromethane	74-87-3	nr	nr	nr	nr	nr	nr	nr	nr	nr
3-Chloropropene	107-05-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
2-Chlorotoluene	95-49-8	nr	nr	nr	nr	nr	nr	nr	nr	nr
Cumene	98-82-8	nr	nr	nr	nr	nr	nr	nr	nr	nr
Cyclohexane	110-82-7	nr	nr	nr	nr	nr	nr	nr	nr	nr
Dibromochloromethane	124-48-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,2-Dibromoethane	106-93-4	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,2-Dichlorobenzene	95-50-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,3-Dichlorobenzene	541-73-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,4-Dichlorobenzene	106-46-7	nr	nr	nr	nr	nr	nr	nr	nr	nr
Dichlorodifluoromethane	75-71-8	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,1-Dichloroethane	75-34-3	0.13 U	0.12 U	0.13 U	0.14 U	0.12 U	0.12 U	0.13 U	0.13 U	0.12 U
1,2-Dichloroethane	107-06-2	0.13 U	0.12 U	0.13 U	0.14 U	0.12 U	0.12 U	0.13 U	0.13 U	0.12 U
1,1-Dichloroethene	75-35-4	0.064 U	0.061 U	0.065 U	0.069 U	0.058 U	0.058 U	0.064 U	0.064 U	0.058 U
cis-1,2-Dichloroethene	156-59-2	0.13 U	0.12 U	0.13 U	0.14 U	0.12 U	0.12 U	0.13 U	0.13 U	0.12 U
trans-1,2-Dichloroethene	156-60-5	0.64 U	0.61 U	0.65 U	0.69 U	0.58 U	0.58 U	0.64 U	0.64 U	0.58 U
1,2-Dichloropropane	78-87-5	nr	nr	nr	nr	nr	nr	nr	nr	nr
cis-1,3-Dichloropropene	10061-01-5	nr	nr	nr	nr	nr	nr	nr	nr	nr
trans-1,3-Dichloropropene	10061-02-6	nr	nr	nr	nr	nr	nr	nr	nr	nr
Dichlorotetrafluoroethane	76-14-2	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,4-Dioxane	123-91-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
Ethanol	64-17-5	nr	nr	nr	nr	nr	nr	nr	nr	nr
Ethyl acetate	141-78-6	nr	nr	nr	nr	nr	nr	nr	nr	nr
Ethylbenzene	100-41-2	2.7	0.71	5.0	5.7	0.7	1.2	1.2	0.98	0.43
4-Ethyltoluene	622-96-8	nr	nr	nr	nr	nr	nr	nr	nr	nr
Heptane	142-82-5	nr	nr	nr	nr	nr	nr	nr	nr	nr
Hexachlorobutadiene	87-68-3	nr	nr	nr	nr	nr	nr	nr	nr	nr

Table 2. Summary of Volatile Organic Compounds Detected in Air (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	AS-301	AS-301	AS-302	AS-302 DUP	AS-302	AS-303	AS-303	AS-304	AS-304
	Sample Location:	School Outdoor Ambient Air - South of Cafeteria	School Outdoor Ambient Air - South of Cafeteria	School Main Building - Kitchen	School Main Building - Kitchen	School Main Building - Kitchen	School Main Building - Office	School Main Building - Office	School Main Building - Room A-6	School Main Building - Room A-6
	Indoor / Outdoor:	Outdoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
	Sample Date:	8/14/2006	12/16/2006	8/14/2006	8/14/2006	12/16/2006	8/14/2006	12/16/2006	8/14/2006	12/16/2006
Analyte (concentrations in µg/m^3)	CAS #									
Hexane	110-54-3	nr	nr	nr	nr	nr	nr	nr	nr	nr
Isopropyl alcohol	67-63-0	nr	nr	nr	nr	nr	nr	nr	nr	nr
2-Hexanone	591-78-6	nr	nr	nr	nr	nr	nr	nr	nr	nr
2-Butanone (MEK)	78-93-3	nr	nr	nr	nr	nr	nr	nr	nr	nr
4-Methyl-2-pentanone	108-10-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
Methylene chloride	75-09-2	nr	nr	nr	nr	nr	nr	nr	nr	nr
Methyl-t-butyl ether	1634-04-4	0.58 U	0.56 U	0.59 U	0.63 U	0.53 U	0.54	0.58 U	0.86	0.53 U
Propene	115-07-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
Propylbenzene	103-65-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
Styrene	100-42-5	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,1,2,2-Tetrachloroethane	79-34-5	0.22 U	0.21 U	0.22 U	0.24 U	0.20 U	0.20 U	0.22 U	0.22 U	0.20 U
Tetrachloroethene	127-18-4	0.64	0.21 U	0.59	0.54	1.1	0.43	1.6	18	2.7
Tetrahydrofuran	109-99-9	nr	nr	nr	nr	nr	nr	nr	nr	nr
Toluene	108-88-3	17	2.8	25	28	13	7.8	19	31	8.8
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,2,4-Trichlorobenzene	120-82-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,1,1-Trichloroethane	71-55-6	0.18 U	0.17 U	0.18 U	0.19 U	0.16 U	0.16 U	0.18 U	0.18 U	0.16 U
1,1,2-Trichloroethane	79-00-5	0.18 U	0.17 U	0.18 U	0.19 U	0.16 U	0.16 U	0.18 U	0.18 U	0.16 U
Trichloroethene	79-01-6	0.34	0.17 U	0.18 U	0.19 U	0.16 U	0.16 U	0.83	0.17 U	0.16 U
Trichlorofluoromethane	75-69-4	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,2,4-Trimethylbenzene	95-63-6	nr	nr	nr	nr	nr	nr	nr	nr	nr
1,3,5-Trimethylbenzene	108-67-8	nr	nr	nr	nr	nr	nr	nr	nr	nr
2,2,4-Trimethylpentane	540-84-1	nr	nr	nr	nr	nr	nr	nr	nr	nr
Vinyl acetate	108-05-4	nr	nr	nr	nr	nr	nr	nr	nr	nr
Vinyl chloride	75-01-04	0.041 U	0.040 U	0.042 U	0.045 U	0.037 U	0.037 U	0.041 U	0.041 U	0.037 U
M&p-Xylenes	1330-20-7	11	2.4	16	19	2.2	3.5	3.1	2.6	1.3
o-Xylene	95-47-6	3.0	0.86	6.6	7.7	0.85	1.6	1.2	1.0	0.49

Notes:

CAS # - Chemical Abstract System Number
DUP - Duplicate sample
J - Estimated concentration
nr - Not reported
U - Not detected above reporting limit shown
µg/m^3 - Micrograms per cubic meter
Samples collected in August 2006 and December 2006 were analyzed using TO-15 SIM that has a shorter analyte list

Table 2. Summary of Volatile Organic Compounds Detected in Air (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

Analyte (concentrations in µg/m^3)	CAS #	**Sample ID:**	AS-305	AS-305	AS-306	AS-306	AS-306 DUP	AS-307	AS-307
		Sample Location:	Church Outdoor Ambient Air - South of Gym	Church Outdoor Ambient Air - South of Gym	Church - Gym	Church - Gym	Church - Gym	Church - Classroom	Church - Classroom
		Indoor / Outdoor:	Outdoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor
		Sample Date:	8/15/2006	12/1/2006	8/15/2006	12/1/2006	12/1/2006	8/15/2006	12/1/2006
Acetone	67-64-1		nr	nr	nr	nr	nr	nr	nr
Benzene	71-43-2		0.76 JV	4.8	1.8 JV	4.4	4.5	0.78 JV	1.4
Benzyl chloride	100-44-7		nr	nr	nr	nr	nr	nr	nr
Bromodichloromethane	75-27-4		nr	nr	nr	nr	nr	nr	nr
Bromoethene	593-60-2		nr	nr	nr	nr	nr	nr	nr
Bromoform	75-25-2		nr	nr	nr	nr	nr	nr	nr
Bromomethane	74-83-9		nr	nr	nr	nr	nr	nr	nr
1,3-Butadiene	106-99-0		nr	nr	nr	nr	nr	nr	nr
tert-Butyl alcohol	75-65-0		nr	nr	nr	nr	nr	nr	nr
Carbon disulfide	75-15-0		nr	nr	nr	nr	nr	nr	nr
Carbon tetrachloride	56-23-5		nr	nr	nr	nr	nr	nr	nr
Chlorobenzene	108-90-7		nr	nr	nr	nr	nr	nr	nr
Chloroethane	75-00-3		nr	nr	nr	nr	nr	nr	nr
Chloroform	67-66-3		nr	nr	nr	nr	nr	nr	nr
Chloromethane	74-87-3		nr	nr	nr	nr	nr	nr	nr
3-Chloropropene	107-05-1		nr	nr	nr	nr	nr	nr	nr
2-Chlorotoluene	95-49-8		nr	nr	nr	nr	nr	nr	nr
Cumene	98-82-8		nr	nr	nr	nr	nr	nr	nr
Cyclohexane	110-82-7		nr	nr	nr	nr	nr	nr	nr
Dibromochloromethane	124-48-1		nr	nr	nr	nr	nr	nr	nr
1,2-Dibromoethane	106-93-4		nr	nr	nr	nr	nr	nr	nr
1,2-Dichlorobenzene	95-50-1		nr	nr	nr	nr	nr	nr	nr
1,3-Dichlorobenzene	541-73-1		nr	nr	nr	nr	nr	nr	nr
1,4-Dichlorobenzene	106-46-7		nr	nr	nr	nr	nr	nr	nr
Dichlorodifluoromethane	75-71-8		nr	nr	nr	nr	nr	nr	nr
1,1-Dichloroethane	75-34-3		0.13 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.12 U
1,2-Dichloroethane	107-06-2		0.13 U	0.12 U	0.31	0.12 U	0.13 U	0.13 U	0.12 U
1,1-Dichloroethene	75-35-4		0.063 U	0.059 U	0.059 U	0.059 U	0.064 U	0.065 U	0.061 U
cis-1,2-Dichloroethene	156-59-2		0.12 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.12 U
trans-1,2-Dichloroethene	156-60-5		0.63 U	0.59 U	0.59 U	0.59 U	0.64 U	0.65 U	0.61 U
1,2-Dichloropropane	78-87-5		nr	nr	nr	nr	nr	nr	nr
cis-1,3-Dichloropropene	10061-01-5		nr	nr	nr	nr	nr	nr	nr
trans-1,3-Dichloropropene	10061-02-6		nr	nr	nr	nr	nr	nr	nr
Dichlorotetrafluoroethane	76-14-2		nr	nr	nr	nr	nr	nr	nr
1,4-Dioxane	123-91-1		nr	nr	nr	nr	nr	nr	nr
Ethanol	64-17-5		nr	nr	nr	nr	nr	nr	nr
Ethyl acetate	141-78-6		nr	nr	nr	nr	nr	nr	nr
Ethylbenzene	100-41-2		2.2	0.8	1.6	0.91	1	0.92	0.86
4-Ethyltoluene	622-96-8		nr	nr	nr	nr	nr	nr	nr
Heptane	142-82-5		nr	nr	nr	nr	nr	nr	nr
Hexachlorobutadiene	87-68-3		nr	nr	nr	nr	nr	nr	nr

Table 2. Summary of Volatile Organic Compounds Detected in Air (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York.

	Sample ID:	AS-305	AS-305	AS-306	AS-306	AS-306 DUP	AS-307	AS-307
	Sample Location:	Church Outdoor Ambient Air - South of Gym	Church Outdoor Ambient Air - South of Gym	Church - Gym	Church - Gym	Church - Gym	Church - Classroom	Church - Classroom
	Indoor / Outdoor:	Outdoor	Outdoor	Indoor	Indoor	Indoor	Indoor	Indoor
	Sample Date:	8/15/2006	12/1/2006	8/15/2006	12/1/2006	12/1/2006	8/15/2006	12/1/2006
Analyte (concentrations in µg/m^3)	CAS #							
Hexane	110-54-3	nr	nr	nr	nr	nr	nr	nr
Isopropyl alcohol	67-63-0	nr	nr	nr	nr	nr	nr	nr
2-Hexanone	591-78-6	nr	nr	nr	nr	nr	nr	nr
2-Butanone (MEK)	78-93-3	nr	nr	nr	nr	nr	nr	nr
4-Methyl-2-pentanone	108-10-1	nr	nr	nr	nr	nr	nr	nr
Methylene chloride	75-09-2	nr	nr	nr	nr	nr	nr	nr
Methyl-t-butyl ether	1634-04-4	0.57 U	0.54 U	0.54 U	0.54 U	0.58 U	0.59 U	0.56 U
Propene	115-07-1	nr	nr	nr	nr	nr	nr	nr
Propylbenzene	103-65-1	nr	nr	nr	nr	nr	nr	nr
Styrene	100-42-5	nr	nr	nr	nr	nr	nr	nr
1,1,2,2-Tetrachloroethane	79-34-5	0.22 U	0.20 U	0.27 J	0.20 U	0.22 U	0.22 UJ	0.21 U
Tetrachloroethene	127-18-4	3.0	32	1.7	27	27	2.7	2
Tetrahydrofuran	109-99-9	nr	nr	nr	nr	nr	nr	nr
Toluene	108-88-3	16	3.8	3.9	4.6	4.9	4.6	4.2
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	nr	nr	nr	nr	nr	nr	nr
1,2,4-Trichlorobenzene	120-82-1	nr	nr	nr	nr	nr	nr	nr
1,1,1-Trichloroethane	71-55-6	0.17 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.17 U
1,1,2-Trichloroethane	79-00-5	0.17 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.17 U
Trichloroethene	79-01-6	0.42	0.27	0.16 U	0.16 U	0.17 U	0.18 U	0.17 U
Trichlorofluoromethane	75-69-4	nr	nr	nr	nr	nr	nr	nr
1,2,4-Trimethylbenzene	95-63-6	nr	nr	nr	nr	nr	nr	nr
1,3,5-Trimethylbenzene	108-67-8	nr	nr	nr	nr	nr	nr	nr
2,2,4-Trimethylpentane	540-84-1	nr	nr	nr	nr	nr	nr	nr
Vinyl acetate	108-05-4	nr	nr	nr	nr	nr	nr	nr
Vinyl chloride	75-01-04	0.040 U	0.038 U	0.038 U	0.038 U	0.041 U	0.042 U	0.040 U
M&p-Xylenes	1330-20-7	9.4	2.6	4.5	2.9	3.1	2.6	2.5
o-Xylene	95-47-6	2.3	0.77	1.2	0.87	1	0.81	0.97

Notes:

CAS # - Chemical Abstract System Number
DUP - Duplicate sample
J - Estimated concentration
nr - Not reported
U - Not detected above reporting limit shown
µg/m^3 - Micrograms per cubic meter
Samples collected in August 2006 and December 2006 were analyzed using TO-15 SIM that has a shorter analyte list

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-1	SB-1	SB-1	SB-1	SB-2	SB-2	SB-2	SB-3
			Sample Date:	7/29/04	7/29/04	7/29/04	7/29/04	7/29/04	7/29/04	7/29/04	7/29/04
			Sample Depth (ft bls):	1-2	4-5	9-10	18-19	1-2	5-6	9-10	4-5
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	onsite	onsite
Acetone	50	500,000		28 U	240	31 U	30 U	3800 U	29 U	28 U	150 U
Benzene	60	44,000		1.1 U	1.2 U	1.3 U	1.2 U	150 U	1.2 U	1.1 U	6.2 U
Bromodichloromethane	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Bromoform	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Bromomethane	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
2-Butanone (MEK)	120	500,000		28 U	29 U	31 U	30 U	3800 U	29 U	28 U	150 U
Carbon disulfide	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Carbon tetrachloride	760	22,000		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Chlorobenzene	1,100	500,000		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Chloroethane	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Chloroform	370	350,000		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Chloromethane	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Dibromochloromethane	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
1,1-Dichloroethane	270	240,000		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
1,2-Dichloroethane	20	30,000		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
1,1-Dichloroethene	330	500,000		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
cis-1,2-Dichloroethene	250	500,000		5.7 U	5.8 U	6.3 U	1.4 J	3,100	5.9 U	87	87
trans-1,2-Dichloroethene	190	500,000		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
1,2-Dichloropropane	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
cis-1,3-Dichloropropene	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
trans-1,3-Dichloropropene	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Ethylbenzene	1,000	390,000		1.1 U	1.2 U	1.3 U	1.2 U	150 U	1.2 U	1.1 U	6.2 U
2-Hexanone	--	--		23 U	23 U	25 U	24 U	3000 U	24 U	23 U	120 U
4-Methyl-2-pentanone				23 U	23 U	25 U	24 U	3000 U	24 U	23 U	120 U
Methylene chloride	50	500,000		9.5 B	10 B	11 B	11 B	760 U	21 B	9.9 B	110 B
Styrene	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
1,1,2,2-Tetrachloroethane	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Tetrachloroethene	1,300	150,000		5.7 U	5.8 U	6.3 U	6.1 U	2,000	5.9 U	5.7 U	920
Toluene	700	500,000		5	14	7	1.2 U	150 U	1.2 U	1.3	31
1,1,1-Trichloroethane	680	500,000		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
1,1,2-Trichloroethane	--	--		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	5.7 U	31 U
Trichloroethene	470	200,000		5.7 U	5.8 U	6.3 U	6.1 U	1,300	5.9 U	5.7 U	66
Vinyl chloride	20	13,000		5.7 U	5.8 U	6.3 U	6.1 U	760 U	5.9 U	4.1 J	31 U
M&p-Xylenes	260	500,000		2.3 U	2.3 U	2.5 U	2.4 U	300 U	2.4 U	2.3 U	12 U
o-Xylene	260	500,000		1.1 U	1.2 U	1.3 U	1.2 U	150 U	1.2 U	1.1 U	6.2 U
Xylenes (total)	260	500,000		nr	nr	nr	nr	nr	nr	nr	nr

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-1	SB-1	SB-1	SB-1	SB-2	SB-2	SB-2	SB-3
			Sample Date:	7/29/04	7/29/04	7/29/04	7/29/04	7/29/04	7/29/04	7/29/04	7/29/04
			Sample Depth (ft bls):	1-2	4-5	9-10	18-19	1-2	5-6	9-10	4-5
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	onsite	onsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-4	SB-5	SB-6	SB-6	SB-7	SB-8	SB-9	SB-10
			Sample Date:	7/29/04	7/29/04	7/30/04	7/30/04	7/30/04	7/30/04	7/30/04	7/30/04
			Sample Depth (ft bls):	8-9	8-9	4-5	6-8	6-8	7-8	6-7	7-8
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	onsite	onsite
Acetone	50	500,000		31 U	30 U	29 U	29 U	29 U	29 U	30 U	30 U
Benzene	60	44,000		1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Bromodichloromethane	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Bromoform	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Bromomethane	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
2-Butanone (MEK)	120	500,000		31 U	30 U	100	50	46	79	72	81
Carbon disulfide	--	--		6.3 U	6 U	2.1 J	5.8 U	5.8 U	5.8 U	6 U	6 U
Carbon tetrachloride	760	22,000		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Chlorobenzene	1,100	500,000		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Chloroethane	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Chloroform	370	350,000		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Chloromethane	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Dibromochloromethane	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
1,1-Dichloroethane	270	240,000		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
1,2-Dichloroethane	20	30,000		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
1,1-Dichloroethene	330	500,000		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
cis-1,2-Dichloroethene	250	500,000		24	6 U	39	180	98	5.8 U	6 U	6 U
trans-1,2-Dichloroethene	190	500,000		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
1,2-Dichloropropane	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
cis-1,3-Dichloropropene	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
trans-1,3-Dichloropropene	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Ethylbenzene	1,000	390,000		1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
2-Hexanone	--	--		25 U	24 U	24 U	23 U	23 U	23 U	24 U	24 U
4-Methyl-2-pentanone				25 U	24 U	24 U	23 U	23 U	23 U	24 U	24 U
Methylene chloride	50	500,000		11 B	11 B	12 B	13 B	22 B	24 B	27 B	26 B
Styrene	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
1,1,2,2-Tetrachloroethane	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Tetrachloroethene	1,300	150,000		37	6 U	15	23	5.8 U	5.8 U	6 U	6 U
Toluene	700	500,000		1.3 U	1.8	7.4	3.4	2.1	1.3	1.2 U	2.7
1,1,1-Trichloroethane	680	500,000		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
1,1,2-Trichloroethane	--	--		6.3 U	6 U	5.9 U	5.8 U	5.8 U	5.8 U	6 U	6 U
Trichloroethene	470	200,000		12	6 U	3.8 J	16	5.8 U	5.8 U	6 U	6 U
Vinyl chloride	20	13,000		6.3 U	6 U	2.6 J	3.6 J	5.8 U	5.8 U	6 U	6 U
M&p-Xylenes	260	500,000		2.5 U	2.4 U	2.4 U	2.3 U	2.3 U	2.3 U	2.4 U	2.4 U
o-Xylene	260	500,000		1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Xylenes (total)	260	500,000		nr	nr	nr	nr	nr	nr	nr	nr

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-4	SB-5	SB-6	SB-6	SB-7	SB-8	SB-9	SB-10
			Sample Date:	7/29/04	7/29/04	7/30/04	7/30/04	7/30/04	7/30/04	7/30/04	7/30/04
			Sample Depth (ft bls):	8-9	8-9	4-5	6-8	6-8	7-8	6-7	7-8
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	onsite	onsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** **Sample Date:** **Sample Depth (ft bls):** **Onsite/Offsite:**	SB-101 09/06/05 0.5-2 onsite	SB-101 09/06/05 5-7.5 onsite	SB-101 09/06/05 27.5-30 onsite	SB-102X 09/08/05 0.5-2 onsite	SB-102X 09/08/05 2.5-5 onsite	SB-102X 09/08/05 30-32.5 onsite	SB-103X 09/06/05 0.5-2 onsite	SB-103X 09/06/05 7.5-10 onsite
Acetone	50	500,000		79,000 UJV	46	130 J	90 UV	36,000 UJV	24 J	37,000 UJV	26 J
Benzene	60	44,000		3,200 UJV	1.2 U	5.9 U	5.6 U	1,500 UJV	1.1 U	1,500 UJV	1.1 U
Bromodichloromethane	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Bromoform	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Bromomethane	--	--		16,000 UJV	12 U	59 U	28 U	7,300 UJV	5.7 U	7,400 UJV	11 U
2-Butanone (MEK)	120	500,000		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Carbon disulfide	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Carbon tetrachloride	760	22,000		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Chlorobenzene	1,100	500,000		16,000 UJV	1.2 U	5.9 U	28 U	7,300 UJV	5.7 U	7,400 UJV	1.1 U
Chloroethane	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Chloroform	370	350,000		16,000 U	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Chloromethane	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Dibromochloromethane	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
1,1-Dichloroethane	270	240,000		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
1,2-Dichloroethane	20	30,000		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
1,1-Dichloroethene	330	500,000		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
cis-1,2-Dichloroethene	250	500,000		16,000 UJV	34	130	240	7,300 UJV	19	7,400 UJV	1.2 J
trans-1,2-Dichloroethene	190	500,000		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
1,2-Dichloropropane	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
cis-1,3-Dichloropropene	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
trans-1,3-Dichloropropene	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Ethylbenzene	1,000	390,000		3,200 UJV	1.2 U	5.9 U	5.6 U	1,500 UJV	1.1 U	1,500 UJV	1.1 U
2-Hexanone	--	--		16,000 UJV	5.8 UJV	29 UJV	28 UJV	7,300 UJV	5.7 UJV	7,400 UJV	5.7 UJV
4-Methyl-2-pentanone				16,000 UJV	5.8 U	29 UJV	28 UJV	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Methylene chloride	50	500,000		10,000 UJB	41 UV	210 UV	84 UV	2,400 UJV	18 B	7,400 UJV	32 UV
Styrene	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
1,1,2,2-Tetrachloroethane	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Tetrachloroethene	1,300	150,000		**390000 JV**	110	280	1100	**500000 JV**	2.7 J	88000 JV	5.7 U
Toluene	700	500,000		3,200 UJV	1.2 U	5.9 U	5.6 U	1,500 UJV	1.1 U	1,500 UJV	1.1 U
1,1,1-Trichloroethane	680	500,000		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
1,1,2-Trichloroethane	--	--		16,000 UJV	5.8 U	29 U	28 U	7,300 UJV	5.7 U	7,400 UJV	5.7 U
Trichloroethene	470	200,000		18000 JV	22	19 J	50	2,100 JJV	5.7 U	3,500 JV	5.7 U
Vinyl chloride	20	13,000		16,000 UJV	5.8 U	5.9 J	55	7,300 UJV	5.7 U	7,400 UJV	5.7 U
M&p-Xylenes	260	500,000		nr JV	nr	nr	nr	nr JV	nr	nr JV	nr
o-Xylene	260	500,000		3,200 UJV	1.2 U	5.9 U	5.6 U	1,500 UJV	1.1 U	1,500 UJV	1.1 U
Xylenes (total)	260	500,000		6,300 UJV	2.3 U	12 U	11 U	2,900 UJV	2.3 U	3,000 U	2.3 UJV

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-101	SB-101	SB-101	SB-102X	SB-102X	SB-102X	SB-103X	SB-103X
			Sample Date:	09/06/05	09/06/05	09/06/05	09/08/05	09/08/05	09/08/05	09/06/05	09/06/05
			Sample Depth (ft bls):	0.5-2	5-7.5	27.5-30	0.5-2	2.5-5	30-32.5	0.5-2	7.5-10
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	onsite	onsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** / **Sample Date:** / **Sample Depth (ft bls):** / **Onsite/Offsite:**	SB-103X DUP 09/06/05 0.5-2 onsite	SB-104X 09/08/05 0.5-2 onsite	SB-104X 09/08/05 4-6 onsite	SB-104X 09/08/05 7.5-10 onsite	SB-105X 09/07/05 1.5-3 onsite	SB-105X 09/07/05 4.5-6 onsite	SB-107 09/01/05 0.5-2 onsite	SB-107 09/01/05 4-6 onsite
Acetone	50	500,000		38,000 UJV	59	64	29 U	28 U	52	28	19 J
Benzene	60	44,000		1,500 UJV	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Bromodichloromethane	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Bromoform	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Bromomethane	--	--		7,500 UJV	6 U	6.1 U	5.7 U	11 U	11 U	11 U	11 U
2-Butanone (MEK)	120	500,000		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Carbon disulfide	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Carbon tetrachloride	760	22,000		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Chlorobenzene	1,100	500,000		7,500 UJV	6 U	6.1 U	5.7 U	1.1 U	1.1 U	1.1 U	1.1 U
Chloroethane	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Chloroform	370	350,000		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Chloromethane	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Dibromochloromethane	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
1,1-Dichloroethane	270	240,000		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
1,2-Dichloroethane	20	30,000		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
1,1-Dichloroethene	330	500,000		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
cis-1,2-Dichloroethene	250	500,000		3,200 JV	6 U	49	49	5.7 U	5.7 U	5.4 U	5.4 U
trans-1,2-Dichloroethene	190	500,000		7,500 UJV	6 U	3.7 J	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
1,2-Dichloropropane	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
cis-1,3-Dichloropropene	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
trans-1,3-Dichloropropene	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Ethylbenzene	1,000	390,000		1,500 UJV	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2-Hexanone	--	--		7,500 UJV	6 UJV	6.1 UJV	5.7 UJV	5.7 UJV	5.7 UJV	5.4 UJV	5.4 UJV
4-Methyl-2-pentanone				7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Methylene chloride	50	500,000		8,200 UV	20 UV	24 UV	19 UV	27 UV	28 UV	24 UV	25 UV
Styrene	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
1,1,2,2-Tetrachloroethane	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Tetrachloroethene	1,300	150,000		**180000 JV**	3.7 J	6.1 U	5.7 U	1.3 J	5.7 U	1.1 J	5.4 U
Toluene	700	500,000		1500 UJV	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
1,1,1-Trichloroethane	680	500,000		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
1,1,2-Trichloroethane	--	--		7,500 UJV	6 U	6.1 U	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Trichloroethene	470	200,000		4,800 JV	6 U	3.1 J	5.7 U	5.7 U	5.7 U	5.4 U	5.4 U
Vinyl chloride	20	13,000		7,500 UJV	6 U	6.1 U	5.7 U	1.7 J	5.7 U	5.4 U	5.4 U
M&p-Xylenes	260	500,000		nr JV	nr	nr	nr	nr	nr	nr	nr
o-Xylene	260	500,000		1,500 UJV	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Xylenes (total)	260	500,000		3,000 UJV	2.4 U	2.4 U	2.3 U	2.3 U	2.3 U	2.2 U	2.2 U

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-103X DUP	SB-104X	SB-104X	SB-104X	SB-105X	SB-105X	SB-107	SB-107
			Sample Date:	09/06/05	09/08/05	09/08/05	09/08/05	09/07/05	09/07/05	09/01/05	09/01/05
			Sample Depth (ft bls):	0.5-2	0.5-2	4-6	7.5-10	1.5-3	4.5-6	0.5-2	4-6
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	onsite	onsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-107A	SB-107A	SB-108	SB-108	SB-108	SB-109	SB-109	SB-111
			Sample Date:	09/14/05	09/14/05	09/19/05	09/19/05	09/19/05	09/01/05	09/01/05	09/16/05
			Sample Depth (ft bls):	0.5-2	4-6	0.5-2	2-4	4-6	0.5-2	4-6	0.5-2
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	onsite	onsite
Acetone	50	500,000		99	30 U	63	100	52	24 JV	51 JV	35
Benzene	60	44,000		1.1 UJV	1.2 UJV	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U
Bromodichloromethane	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Bromoform	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Bromomethane	--	--		11 U	12 U	11 U	12 U	11 U	11 U	11 U	11 U
2-Butanone (MEK)	120	500,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Carbon disulfide	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Carbon tetrachloride	760	22,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Chlorobenzene	1,100	500,000		1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U
Chloroethane	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Chloroform	370	350,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Chloromethane	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Dibromochloromethane	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
1,1-Dichloroethane	270	240,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
1,2-Dichloroethane	20	30,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
1,1-Dichloroethene	330	500,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
cis-1,2-Dichloroethene	250	500,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
trans-1,2-Dichloroethene	190	500,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
1,2-Dichloropropane	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
cis-1,3-Dichloropropene	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
trans-1,3-Dichloropropene	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Ethylbenzene	1,000	390,000		3.9	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U
2-Hexanone	--	--		5.3 UJV	6 UJV	5.6 UJV	5.8 UJV	5.7 UJV	5.6 UJV	5.7 UJV	5.3 UJV
4-Methyl-2-pentanone				5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Methylene chloride	50	500,000		12 UV	17 UV	30 UV	32 UV	34 UV	23 UV	31 UV	24 UV
Styrene	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
1,1,2,2-Tetrachloroethane	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Tetrachloroethene	1,300	150,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Toluene	700	500,000		1.1 U	1.2 U	1.1 U	2.7	1.1 U	1.1 U	1.1 U	1.3
1,1,1-Trichloroethane	680	500,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
1,1,2-Trichloroethane	--	--		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Trichloroethene	470	200,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
Vinyl chloride	20	13,000		5.3 U	6 U	5.6 U	5.8 U	5.7 U	5.6 U	5.7 U	5.3 U
M&p-Xylenes	260	500,000		nr	nr	nr	nr	nr	nr	nr	nr
o-Xylene	260	500,000		6.4	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U
Xylenes (total)	260	500,000		16	2.4 U	2.2 U	2.3 U	2.3 U	2.2 U	2.3 U	2.1 U

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-107A	SB-107A	SB-108	SB-108	SB-108	SB-109	SB-109	SB-111
			Sample Date:	09/14/05	09/14/05	09/19/05	09/19/05	09/19/05	09/01/05	09/01/05	09/16/05
			Sample Depth (ft bls):	0.5-2	4-6	0.5-2	2-4	4-6	0.5-2	4-6	0.5-2
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	onsite	onsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-111	SB-113	SB-114	SB-115	SB-116	SB-117	SB-127	SB-128
			Sample Date:	09/16/05	09/01/05	09/01/05	09/01/05	09/01/05	09/20/05	09/21/05	09/21/05
			Sample Depth (ft bls):	4-6	0-2	0-2	0-2	6-8	0.5-2	0-0.17	0-0.17
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	offsite	offsite
Acetone	50	500,000		53	28 UJV	27 UJV	27 UJV	20 JV	55	31 U	26 U
Benzene	60	44,000		1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U
Bromodichloromethane	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Bromoform	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Bromomethane	--	--		12 U	11 U	11 U	11 U	12 U	11 U	12 U	11 U
2-Butanone (MEK)	120	500,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Carbon disulfide	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	1.9 J	6.2 U	5.3 U
Carbon tetrachloride	760	22,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Chlorobenzene	1,100	500,000		1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U
Chloroethane	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Chloroform	370	350,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Chloromethane	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Dibromochloromethane	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
1,1-Dichloroethane	270	240,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
1,2-Dichloroethane	20	30,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
1,1-Dichloroethene	330	500,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
cis-1,2-Dichloroethene	250	500,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	3 J	5.3 U
trans-1,2-Dichloroethene	190	500,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
1,2-Dichloropropane	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
cis-1,3-Dichloropropene	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
trans-1,3-Dichloropropene	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Ethylbenzene	1,000	390,000		1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U
2-Hexanone	--	--		6 UJV	5.6 UJV	5.4 UJV	5.5 UJV	5.8 UJV	5.5 UJV	6.2 UJV	5.3 UJV
4-Methyl-2-pentanone				6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Methylene chloride	50	500,000		31 UV	27 UV	25 UV	23 UV	28 UV	30 UV	27 UV	32 UV
Styrene	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
1,1,2,2-Tetrachloroethane	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Tetrachloroethene	1,300	150,000		6 U	1.2 J	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Toluene	700	500,000		2.1	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U
1,1,1-Trichloroethane	680	500,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
1,1,2-Trichloroethane	--	--		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Trichloroethene	470	200,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
Vinyl chloride	20	13,000		6 U	5.6 U	5.4 U	5.5 U	5.8 U	5.5 U	6.2 U	5.3 U
M&p-Xylenes	260	500,000		nr	nr	nr	nr	nr	nr	nr	nr
o-Xylene	260	500,000		1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U
Xylenes (total)	260	500,000		2.4 U	2.2 U	2.2 U	2.2 U	2.3 U	2.2 U	2.5 U	2.1 U

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** / **Sample Date:** / **Sample Depth (ft bls):** / **Onsite/Offsite:**	SB-111 09/16/05 4-6 onsite	SB-113 09/01/05 0-2 onsite	SB-114 09/01/05 0-2 onsite	SB-115 09/01/05 0-2 onsite	SB-116 09/01/05 6-8 onsite	SB-117 09/20/05 0.5-2 onsite	SB-127 09/21/05 0-0.17 offsite	SB-128 09/21/05 0-0.17 offsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** **Sample Date:** **Sample Depth (ft bls):** **Onsite/Offsite:**	SB-201 8/8/2006 3-5 onsite	SB-202 8/4/2006 3-5 onsite	SB-202 DUP 8/4/2006 3-5 onsite	SB-203 8/4/2006 3-5 onsite	SB-204 8/4/2006 3-5 onsite	SB-205 8/2/2006 8-10 onsite	SB-205 8/2/2006 12-14 onsite	SB-206 8/1/2006 0-2 offsite
Acetone	50	500,000		370,000 UJV	30 UJV	30 UJV	29 UJV	30 UJV	29 U	29 U	28 U
Benzene	60	44,000		15,000 UJV	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U
Bromodichloromethane	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Bromoform	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Bromomethane	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
2-Butanone (MEK)	120	500,000		74,000 UJV	6 UJV	6 UJV	5.9 UJV	6 UJV	5.8 U	5.7 U	5.7 UJV
Carbon disulfide	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Carbon tetrachloride	760	22,000		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Chlorobenzene	1,100	500,000		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Chloroethane	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Chloroform	370	350,000		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Chloromethane	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Dibromochloromethane	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
1,1-Dichloroethane	270	240,000		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
1,2-Dichloroethane	20	30,000		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
1,1-Dichloroethene	330	500,000		74,000 UJV	6 UJV	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
cis-1,2-Dichloroethene	250	500,000		74,000 UJV	6 U	6 U	5.9 U	6 U	9.7	5.3 J	5.7 U
trans-1,2-Dichloroethene	190	500,000		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
1,2-Dichloropropane	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
cis-1,3-Dichloropropene	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
trans-1,3-Dichloropropene	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Ethylbenzene	1,000	390,000		15,000 UJV	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U
2-Hexanone	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
4-Methyl-2-pentanone				74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Methylene chloride	50	500,000		74,000 UJV	14 UV	13 UV	19 UV	17 UV	11 UV	9.8 UV	9.6 UV
Styrene	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
1,1,2,2-Tetrachloroethane	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Tetrachloroethene	1,300	150,000		**2200000 JV**	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	8.7
Toluene	700	500,000		15,000 UJV	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U
1,1,1-Trichloroethane	680	500,000		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
1,1,2-Trichloroethane	--	--		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Trichloroethene	470	200,000		65,000 JV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
Vinyl chloride	20	13,000		74,000 UJV	6 U	6 U	5.9 U	6 U	5.8 U	5.7 U	5.7 U
M&p-Xylenes	260	500,000		30000 UJV	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U	2.3 U	2.3 U
o-Xylene	260	500,000		15,000 UJV	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U
Xylenes (total)	260	500,000		nr	nr	nr	nr	nr	nr	nr	nr

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-201	SB-202	SB-202 DUP	SB-203	SB-204	SB-205	SB-205	SB-206
			Sample Date:	8/8/2006	8/4/2006	8/4/2006	8/4/2006	8/4/2006	8/2/2006	8/2/2006	8/1/2006
			Sample Depth (ft bls):	3-5	3-5	3-5	3-5	3-5	8-10	12-14	0-2
			Onsite/Offsite:	onsite	onsite	onsite	onsite	onsite	onsite	onsite	offsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-206	SB-207	SB-207	SB-208	SB-208	SB-209	SB-209	SB-210
			Sample Date:	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006
			Sample Depth (ft bls):	3-5	0-2	3-5	0-2	3-5	0-2	3-5	0-2
			Onsite/Offsite:	offsite	offsite	offsite	offsite	offsite	offsite	offsite	offsite
Acetone	50	500,000		30 U	28 U	29 U	28 U	28 U	29 U	45	33 U
Benzene	60	44,000		1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.3 U
Bromodichloromethane	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Bromoform	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Bromomethane	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
2-Butanone (MEK)	120	500,000		6 UJV	5.7 UJV	5.8 UJV	5.7 UJV	5.7 UJV	5.8 UJV	5.8 UJV	6.6 UJV
Carbon disulfide	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	2.3 J	6.6 U
Carbon tetrachloride	760	22,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Chlorobenzene	1,100	500,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Chloroethane	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Chloroform	370	350,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Chloromethane	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Dibromochloromethane	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
1,1-Dichloroethane	270	240,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
1,2-Dichloroethane	20	30,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
1,1-Dichloroethene	330	500,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
cis-1,2-Dichloroethene	250	500,000		3.6 J	5.7 U	5.8 U	2.2 J	5.7 U	7.5	14	6.9
trans-1,2-Dichloroethene	190	500,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
1,2-Dichloropropane	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
cis-1,3-Dichloropropene	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
trans-1,3-Dichloropropene	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Ethylbenzene	1,000	390,000		1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.3 U
2-Hexanone	--	--		6 UJV	5.7 UJV	5.8 UJV	5.7 UJV	5.7 UJV	5.8 UJV	5.8 UJV	6.6 UJV
4-Methyl-2-pentanone				6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Methylene chloride	50	500,000		19 UV	13 UV	14 UV	16 UV	13 UV	14 UV	14 UV	10 UV
Styrene	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
1,1,2,2-Tetrachloroethane	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Tetrachloroethene	1,300	150,000		6 U	6.6	5.8 U	12	5.7 U	310	55	38
Toluene	700	500,000		1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.3 U
1,1,1-Trichloroethane	680	500,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
1,1,2-Trichloroethane	--	--		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	5.8 U	6.6 U
Trichloroethene	470	200,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	24	25	6.6 U
Vinyl chloride	20	13,000		6 U	5.7 U	5.8 U	5.7 U	5.7 U	5.8 U	1.5 J	6.6 U
M&p-Xylenes	260	500,000		2.4 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.6 U
o-Xylene	260	500,000		1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.3 U
Xylenes (total)	260	500,000		nr	nr	nr	nr	nr	nr	nr	nr

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-206	SB-207	SB-207	SB-208	SB-208	SB-209	SB-209	SB-210
			Sample Date:	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006
			Sample Depth (ft bls):	3-5	0-2	3-5	0-2	3-5	0-2	3-5	0-2
			Onsite/Offsite:	offsite	offsite	offsite	offsite	offsite	offsite	offsite	offsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-210	SB-211	SB-211	SB-212	SB-212	SB-213	SB-213	SB-214
			Sample Date:	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006
			Sample Depth (ft bls):	3-5	0-2	3-5	0-2	3-5	0-2	3-5	0-2
			Onsite/Offsite:	offsite	offsite	offsite	offsite	offsite	offsite	offsite	offsite
Acetone	50	500,000		**90**	28 J	30 U	21 J	29 U	25 J	29 U	30 U
Benzene	60	44,000		1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.2 U
Bromodichloromethane	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Bromoform	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Bromomethane	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
2-Butanone (MEK)	120	500,000		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Carbon disulfide	--	--		1.7 J	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Carbon tetrachloride	760	22,000		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Chlorobenzene	1,100	500,000		10	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Chloroethane	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Chloroform	370	350,000		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Chloromethane	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Dibromochloromethane	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
1,1-Dichloroethane	270	240,000		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
1,2-Dichloroethane	20	30,000		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
1,1-Dichloroethene	330	500,000		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	1.8 J
cis-1,2-Dichloroethene	250	500,000		1.3 J	2.6 J	3.2 J	5.7 U	5.8 U	20	5.7 U	570
trans-1,2-Dichloroethene	190	500,000		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	3.6 J
1,2-Dichloropropane	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
cis-1,3-Dichloropropene	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
trans-1,3-Dichloropropene	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Ethylbenzene	1,000	390,000		1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.2 U
2-Hexanone	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
4-Methyl-2-pentanone				6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Methylene chloride	50	500,000		15 B	13 B	14 B	13 B	14 B	15 B	13 B	12 B
Styrene	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
1,1,2,2-Tetrachloroethane	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Tetrachloroethene	1,300	150,000		6.1 U	20	130	4.9 J	3.4 J	74	5.7 U	**1,600,000**
Toluene	700	500,000		1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.2 U
1,1,1-Trichloroethane	680	500,000		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
1,1,2-Trichloroethane	--	--		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	6.1 U
Trichloroethene	470	200,000		6.1 U	4.1 J	9.3	5.7 U	5.8 U	16	5.7 U	**15,000 J**
Vinyl chloride	20	13,000		6.1 U	6 U	6 U	5.7 U	5.8 U	6 U	5.7 U	1.3 J
M&p-Xylenes	260	500,000		2.4 U	2.4 U	2.4 U	2.3 U	2.3 U	2.4 U	2.3 U	2.4 U
o-Xylene	260	500,000		1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	6.5
Xylenes (total)	260	500,000		nr	nr	nr	nr	nr	nr	nr	nr

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-210	SB-211	SB-211	SB-212	SB-212	SB-213	SB-213	SB-214
			Sample Date:	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006
			Sample Depth (ft bls):	3-5	0-2	3-5	0-2	3-5	0-2	3-5	0-2
			Onsite/Offsite:	offsite	offsite	offsite	offsite	offsite	offsite	offsite	offsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-214	SB-214 DUP	SB-215	SB-215	SB-216	SB-216	SB-217	SB-217
			Sample Date:	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006
			Sample Depth (ft bls):	3-5	3-5	0-2	3-5	0-2	3-5	0-2	3-5
			Onsite/Offsite:	offsite	offsite	offsite	offsite	offsite	offsite	offsite	offsite
Acetone	50	500,000		29 U	150 U	30 U	35	28 U	18 J	29 U	29 J
Benzene	60	44,000		1.2 U	6 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U
Bromodichloromethane	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Bromoform	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Bromomethane	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
2-Butanone (MEK)	120	500,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Carbon disulfide	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Carbon tetrachloride	760	22,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Chlorobenzene	1,100	500,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Chloroethane	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Chloroform	370	350,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Chloromethane	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Dibromochloromethane	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
1,1-Dichloroethane	270	240,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
1,2-Dichloroethane	20	30,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
1,1-Dichloroethene	330	500,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
cis-1,2-Dichloroethene	250	500,000		120	30 U	6 U	6 U	5.7 U	6 U	21	6 U
trans-1,2-Dichloroethene	190	500,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	1.9 J	6 U
1,2-Dichloropropane	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
cis-1,3-Dichloropropene	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
trans-1,3-Dichloropropene	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Ethylbenzene	1,000	390,000		1.2 U	6 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U
2-Hexanone	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
4-Methyl-2-pentanone				5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Methylene chloride	50	500,000		12 B	**79 B**	15 B	16 B	16 B	16 B	13 B	16 B
Styrene	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
1,1,2,2-Tetrachloroethane	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Tetrachloroethene	1,300	150,000		**11,000**	1,300	6 U	6 U	2.5 J	6 U	52	1.6 J
Toluene	700	500,000		1.2 U	6 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	680	500,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
1,1,2-Trichloroethane	--	--		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
Trichloroethene	470	200,000		390	8.8 J	6 U	6 U	5.7 U	6 U	11	6 U
Vinyl chloride	20	13,000		5.8 U	30 U	6 U	6 U	5.7 U	6 U	5.8 U	6 U
M&p-Xylenes	260	500,000		2.3 U	12 U	2.4 U	2.4 U	2.3 U	2.4 U	2.3 U	2.4 U
o-Xylene	260	500,000		1.2 U	6 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U
Xylenes (total)	260	500,000		nr	nr	nr	nr	nr	nr	nr	nr

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-214	SB-214 DUP	SB-215	SB-215	SB-216	SB-216	SB-217	SB-217
			Sample Date:	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/1/2006
			Sample Depth (ft bls):	3-5	3-5	0-2	3-5	0-2	3-5	0-2	3-5
			Onsite/Offsite:	offsite	offsite	offsite	offsite	offsite	offsite	offsite	offsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** **Sample Date:** **Sample Depth (ft bls):** **Onsite/Offsite:**	SB-218 8/1/2006 0-2 offsite	SB-218 8/1/2006 3-5 offsite	SB-219 8/1/2006 0-2 offsite	SB-219 8/1/2006 3-5 offsite
Acetone	50	500,000		31 U	29 U	30 U	29 U
Benzene	60	44,000		1.2 U	1.2 U	1.2 U	1.2 U
Bromodichloromethane	--	--		6.2 U	5.9 U	6 U	5.9 U
Bromoform	--	--		6.2 U	5.9 U	6 U	5.9 U
Bromomethane	--	--		6.2 U	5.9 U	6 U	5.9 U
2-Butanone (MEK)	120	500,000		6.2 U	5.9 U	6 U	5.9 U
Carbon disulfide	--	--		6.2 U	5.9 U	6 U	5.9 U
Carbon tetrachloride	760	22,000		6.2 U	5.9 U	6 U	5.9 U
Chlorobenzene	1,100	500,000		6.2 U	5.9 U	6 U	5.9 U
Chloroethane	--	--		6.2 U	5.9 U	6 U	5.9 U
Chloroform	370	350,000		6.2 U	5.9 U	6 U	5.9 U
Chloromethane	--	--		6.2 U	5.9 U	6 U	5.9 U
Dibromochloromethane	--	--		6.2 U	5.9 U	6 U	5.9 U
1,1-Dichloroethane	270	240,000		6.2 U	5.9 U	6 U	5.9 U
1,2-Dichloroethane	20	30,000		6.2 U	5.9 U	6 U	5.9 U
1,1-Dichloroethene	330	500,000		6.2 U	5.9 U	6 U	5.9 U
cis-1,2-Dichloroethene	250	500,000		6.2 U	5.9 U	6 U	5.9 U
trans-1,2-Dichloroethene	190	500,000		6.2 U	5.9 U	6 U	5.9 U
1,2-Dichloropropane	--	--		6.2 U	5.9 U	6 U	5.9 U
cis-1,3-Dichloropropene	--	--		6.2 U	5.9 U	6 U	5.9 U
trans-1,3-Dichloropropene	--	--		6.2 U	5.9 U	6 U	5.9 U
Ethylbenzene	1,000	390,000		1.2 U	1.2 U	1.2 U	1.2 U
2-Hexanone	--	--		6.2 U	5.9 U	6 U	5.9 U
4-Methyl-2-pentanone				6.2 U	5.9 U	6 U	5.9 U
Methylene chloride	50	500,000		17 B	17 B	19 B	17 B
Styrene	--	--		6.2 U	5.9 U	6 U	5.9 U
1,1,2,2-Tetrachloroethane	--	--		6.2 U	5.9 U	6 U	5.9 U
Tetrachloroethene	1,300	150,000		6.2 U	5.9 U	6 U	5.9 U
Toluene	700	500,000		1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	680	500,000		6.2 U	5.9 U	6 U	5.9 U
1,1,2-Trichloroethane	--	--		6.2 U	5.9 U	6 U	5.9 U
Trichloroethene	470	200,000		6.2 U	5.9 U	6 U	5.9 U
Vinyl chloride	20	13,000		6.2 U	5.9 U	6 U	5.9 U
M&p-Xylenes	260	500,000		2.5 U	2.4 U	2.4 U	2.4 U
o-Xylene	260	500,000		1.2 U	1.2 U	1.2 U	1.2 U
Xylenes (total)	260	500,000		nr	nr	nr	nr

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Table 3. Summary of Volatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-218	SB-218	SB-219	SB-219
			Sample Date:	8/1/2006	8/1/2006	8/1/2006	8/1/2006
			Sample Depth (ft bls):	0-2	3-5	0-2	3-5
			Onsite/Offsite:	offsite	offsite	offsite	offsite

B - Analyte detected in laboratory blank
Bold - analyte was detected above the NYSDEC Standard
DUP - Duplicate
E - Result exceeded calibration range, secondary dilution required
ft bls - Feet below land surface
J - Estimated value
nr - Not reported
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown

Table 4. Summary of Semivolatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Date:** / **Sample Depth (ft bls):** / **Onsite/Offsite:**	SB-101 09/06/05 0.5-2 onsite	SB-107 09/01/05 0.5-2 onsite	SB-107 09/01/05 4-6 onsite	SB-107A 09/14/05 0.5-2 onsite	SB-108 09/19/05 2-4 onsite	SB-109 09/01/05 0.5-2 onsite	SB-113 09/01/05 0-2 onsite	SB-114 09/01/05 0-2 onsite	SB-115 09/01/05 0-2 onsite	SB-116 09/01/05 6-8 onsite
Acenaphthene			120 J	52 J	360 U	52 J	390 U	410	71 J	220 J	370 U	390 U
Acenaphthylene	500,000		93 J	910 U	910 U	350 U	390 U	930 U	930 U	910 U	82 J	390 U
Anthracene	500,000		390 JV	150 J	360 U	120 J	970 U	750	200 J	630	180 J	390 U
Benzo(a)anthracene	5,600		1800 JV	500	88 J	510	390 U	2400 JV	770	1700 JV	1,300	390 U
Benzo(a)pyrene	1,000		1000 JV	520 JV	71 JV	700	390 U	**2100 JV**	750 JV	**1500 JV**	**1300 JV**	390 U
Benzo(b)fluoranthene	5,600		1300 JV	620 JV	110 JV	890	46 J	2700 JV	900 JV	1900 JV	1800 JV	390 U
Benzo(g,h,i)perylene	50,000		770 JV	440 JV	75 JV	780	390 U	1400 JV	550 JV	1100 JV	1000 JV	390 U
Benzo(k)fluoranthene	56,000		490	220 JV	38 JV	230 J	390 U	640 JV	390 JV	610 JV	450 JV	390 U
Bis(2-chloroethoxy)methane	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Bis(2-chloroethyl)ether	--		420 U	910 U	910 U	350 U	390 U	930 U	930 U	910 U	920 U	390 U
Bis(2-ethylhexyl)phthalate	--		250 JV	190 UV	190 UV	110 JV	390 U	520 UBV	5,300 B	390 JV	320 JV	63 UV
4-Bromophenyl phenyl ether	--		420 UJV	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Butyl benzylphthalate	--		420 UJV	360 U	360 U	350 U	390 U	490 JV	370 U	360 UJV	98 J	390 U
Carbazole	--		220 JV	48 J	360 U	55 J	970 U	300 J	87 J	220 J	140 J	390 U
4-Chloroaniline	--		420 U	910 U	910 U	890 U	390 U	930 U	930 U	910 U	920 U	390 U
2-Chloronaphthalene	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
2-Chlorophenol	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
4-Chlorophenyl phenyl ether	--		420 U	910 U	910 U	350 U	970 U	930 U	930 U	910 U	920 U	390 U
2,2-oxybis (1-chloropropane)	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Chrysene	56,000		1700 JV	540	73 J	530	390 U	2100 JV	750	1500 JV	1,400	390 U
Dibenzo(a h)anthracene	560		190 JV	120 JV	360 JV	160 J	390 U	**580 JV**	170 JV	450 JV	380 JV	390 U
Dibenzofuran	--		68 J	360 U	360 U	350 U	390 U	160 J	47 J	120 J	370 U	390 U
1,2-Dichlorobenzene	500,000		420 U	910 U	910 U	350 U	390 U	930 U	930 U	910 U	920 U	390 U
1,3-Dichlorobenzene	280,000		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
1,4-Dichlorobenzene	130,000		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
3,3-Dichlorobenzidine	--		420 UJV	360 U	360 U	350 U	390 U	370 UJV	370 U	360 UJV	370 U	390 U
2,4-Dichlorophenol	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Diethyl phthalate	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Dimethyl phthalate	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
2,4-Dimethylphenol	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Di-n-butyl phthalate	--		46 JV	360 U	360 U	350 U	970 U	58 UV	40 UV	39 UV	370 U	390 U
2,4-Dinitrophenol	--		2,100 U	910 UJV	910 UJV	1,800 U	970 U	930 UJV	930 UJV	910 UJV	920 U JV	970 UJV
2,4-Dinitrotoluene	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
2,6-Dinitrotoluene	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Di-n-octyl phthalate	--		51 JV	360 UJV	360 U	350 U	390 U	370 UJV	370 UJV	360 UJV	370 UJV	390 U
Fluoranthene	500,000		1600 JV	770	120 J	880	47 J	3700	1100	2200	2,000	390 U
Fluorene	500,000		150 J	41 J	910 U	36 J	390 U	290 J	59 J	220 J	59 J	390 U
Hexachlorobenzene	6,000		420 U JV	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Hexachlorobutadiene	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Hexachlorocyclopentadiene	--		420 U	910 UJV	910 U JV	890 UJV	970 U	930 UJV	930 UJV	910 UJV	920 UJV	390 UJV
Hexachloroethane	--		420 U	360 U	360 U	890 U	390 U	370 U	370 U	360 U	370 U	390 U

Table 4. Summary of Semivolatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Date:** / **Sample Depth (ft bls):** / **Onsite/Offsite:**	SB-101 09/06/05 0.5-2 onsite	SB-107 09/01/05 0.5-2 onsite	SB-107 09/01/05 4-6 onsite	SB-107A 09/14/05 0.5-2 onsite	SB-108 09/19/05 2-4 onsite	SB-109 09/01/05 0.5-2 onsite	SB-113 09/01/05 0-2 onsite	SB-114 09/01/05 0-2 onsite	SB-115 09/01/05 0-2 onsite	SB-116 09/01/05 6-8 onsite
Indeno(1,2,3-cd)pyrene	5,000		750 JV	310 JV	46 JV	540	390 U	1200 JV	460 JV	940 JV	790 JV	390 U
Isophorone	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
2-Methylnaphthalene	--		420 U	910 U	910 U	890 U	390 U	82 J	930 U	200 J	920 U	390 U
2-Methylphenol	500,000		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
4,6-Dinitro-2-methylphenol	--		2,100 UJV	910 U	910 U	890 U	970 U	930 U	930 U	910 U	920 U	970 U
4-Chloro-3-methylphenol	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
4-Methylphenol	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Naphthalene	500,000		51 J	360 U	360 U	350 U	390 U	110 J	370 U	130 J	37 J	390 U
2-Nitroaniline	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
3-Nitroaniline	--		420 U	910 U	910 U	350 U	390 U	930 U	930 U	910 U	920 U	390 U
4-Nitroaniline			420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Nitrobenzene	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
2-Nitrophenol	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
4-Nitrophenol			1,100 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
n-Nitroso-di-n-propylamine	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
n-Nitrosodiphenylamine	--		420 UJV	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Pentachlorophenol	6,700		1,100 UJV	910 U	910 U	1,800 U	970 U	930 U	930 U	910 U	920 U	970 U
Phenanthrene	500,000		1,100 JV	560 J	910 U	550	970 U	3000	860 J	2100	940	390 U
Phenol	500,000		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
Pyrene	500,000		2900 JV	1,300	140 J	1,000	46 J	5400 JV	1,900	4200 JV	2,900	390 U
1,2,4-Trichlorobenzene	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
2,4,5-Trichlorophenol	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U
2,4,6-Trichlorophenol	--		420 U	360 U	360 U	350 U	390 U	370 U	370 U	360 U	370 U	390 U

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

B - Analyte detected in laboratory blank

Bold - analyte was detected above the NYSDEC Standard

DUP - Duplicate

E - Result exceeded calibration range, secondary dilution required

ft bls - Feet below land surface

J - Estimated value

nr - Not reported

NYSDEC - New York State Department of Environmental Conservation

U - Analyte not detected at the detection limit shown

Table 4. Summary of Semivolatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Date:** **Sample Depth (ft bls):** **Onsite/Offsite:**	SB-117 09/20/05 0.5-2 onsite
Acenaphthene			490 J
Acenaphthylene	500,000		1,100 U
Anthracene	500,000		870 J
Benzo(a)anthracene	5,600		1800 JV
Benzo(a)pyrene	1,000		1,000 JV
Benzo(b)fluoranthene	5,600		1500 JV
Benzo(g,h,i)perylene	50,000		740 JV
Benzo(k)fluoranthene	56,000		390 JV
Bis(2-chloroethoxy)methane	--		1,100 U
Bis(2-chloroethyl)ether	--		1,100 U
Bis(2-ethylhexyl)phthalate	--		190 JV
4-Bromophenyl phenyl ether	--		1,100 U
Butyl benzylphthalate	--		1,100 UJV
Carbazole	--		2,700 U
4-Chloroaniline	--		1,100 U
2-Chloronaphthalene	--		1,100 U
2-Chlorophenol	--		1,100 U
4-Chlorophenyl phenyl ether	--		2,700 U
2,2-oxybis (1-chloropropane)	--		1,100 U
Chrysene	56,000		1900 JV
Dibenzo(a h)anthracene	560		1,100 UJV
Dibenzofuran	--		270 J
1,2-Dichlorobenzene	500,000		1,100 U
1,3-Dichlorobenzene	280,000		1,100 U
1,4-Dichlorobenzene	130,000		1,100 U
3,3-Dichlorobenzidine	--		1,100 UJV
2,4-Dichlorophenol	--		1,100 U
Diethyl phthalate	--		1,100 U
Dimethyl phthalate	--		1,100 U
2,4-Dimethylphenol	--		1,100 U
Di-n-butyl phthalate	--		2,700 U
2,4-Dinitrophenol	--		2,700 U
2,4-Dinitrotoluene	--		1,100 U
2,6-Dinitrotoluene	--		1,100 U
Di-n-octyl phthalate	--		1,100 U
Fluoranthene	500,000		2,700
Fluorene	500,000		470 J
Hexachlorobenzene	6,000		1,100 U
Hexachlorobutadiene	--		1,100 U
Hexachlorocyclopentadiene	--		2,700 U
Hexachloroethane	--		1,100 U

Table 4. Summary of Semivolatile Organic Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Date:** **Sample Depth (ft bls):** **Onsite/Offsite:**	SB-117 09/20/05 0.5-2 onsite
Indeno(1,2,3-cd)pyrene	5,000		680 JV
Isophorone	--		1,100 U
2-Methylnaphthalene	--		770 J
2-Methylphenol	500,000		1,100 U
4,6-Dinitro-2-methylphenol	--		2,700 U
4-Chloro-3-methylphenol	--		1,100 U
4-Methylphenol	--		1100 U
Naphthalene	500,000		250 NJV
2-Nitroaniline	--		1,100 U
3-Nitroaniline	--		1,100 U
4-Nitroaniline			1,100 U
Nitrobenzene	--		1,100 U
2-Nitrophenol	--		1,100 U
4-Nitrophenol			1,100 U
n-Nitroso-di-n-propylamine	--		1,100 U
n-Nitrosodiphenylamine	--		1,100 U
Pentachlorophenol	6,700		2,700 U
Phenanthrene	500,000		3,000
Phenol	500,000		1,100 U
Pyrene	500,000		5600 JV
1,2,4-Trichlorobenzene	--		1,100 U
2,4,5-Trichlorophenol	--		1,100 U
2,4,6-Trichlorophenol	--		1,100 U

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

B - Analyte detected in laboratory blank

Bold - analyte was detected above the NYSDEC Standard

DUP - Duplicate

E - Result exceeded calibration range, secondary dilution required

ft bls - Feet below land surface

J - Estimated value

nr - Not reported

NYSDEC - New York State Department of Environmental Conservation

U - Analyte not detected at the detection limit shown

Table 5. Summary of Metals Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in mg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** / **Sample Date:** / **Sample Depth (ft bls):** / **Onsite/Offiste:**	SB-101 09/06/05 0.5-2 onsite	SB-107 09/01/05 0.5-2 onsite	SB-107 09/01/05 4-6 onsite	SB-107A 09/14/05 0.5-2 onsite	SB-108 09/19/05 2-4 onsite
Aluminum	--		4,600	4,600	3,700	6000 JV	4,900
Antimony	--		2.5 U	4.9	2.2 U	2.1 U	2.3 UJV
Arsenic	16		6.3	4.5	2.4	2.3	2.6
Barium	400		86	57	22	26	62 JV
Beryllium	590		0.76 U	0.65 U	0.65 U	0.64 U	0.7 U
Cadmium	9.3		0.76 U	0.65 U	0.65 U	0.64 U	0.7 U
Calcium	--		2,300	42,000	2,600	13000 JV	1,200 U
Chromium	1,500		13 JV	18 JV	12 JV	11	10
Cobalt	--		3.7	7.5	3.1	9.7	2.9 U
Copper	270		71 JV	58 JV	16 JV	110	30
Cyanide							
Total	27		0.32 U	0.27 U	0.27 U	0.26 U	0.29 U
Iron	--		8,000	9,100	8,300	19,000	5,000
Lead	1000		91 JV	150 JV	12 JV	29	47 JV
Magnesium	--		1,500	15,000	2,500	6000 JV	2,400
Manganese	10,000		89	150	40	170	76
Mercury	2.8		0.11 U	0.23	0.091 U	0.089 U	0.097 U
Nickel	310		27	20	20	19	34
Potassium	--		630 UJV	820	560	790	580 U
Selenium	1,500		2.6	2 U	2 U	2.9	2.1 U
Silver	1,500		3.2 U	2.7 U	2.7 U	2.7 U	2.9 U
Sodium	--		630 UJV	540 UJV	540 UJV	1,300	580 UJV
Thallium	--		1.5 U	1.3 U	1.3 U	1.3 U	1.4 U
Vanadium	--		24	19	15	38	12 U
Zinc	10,000		41 JV	300 JV	26 JV	54	30

Notes:

-- - No NYSDEC standard available

mg/kg Milligrams per kilogram

Table 5. Summary of Metals Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in mg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-101	SB-107	SB-107	SB-107A	SB-108
		Sample Date:	09/06/05	09/01/05	09/01/05	09/14/05	09/19/05
		Sample Depth (ft bls):	0.5-2	0.5-2	4-6	0.5-2	2-4
		Onsite/Offiste:	onsite	onsite	onsite	onsite	onsite

Bold - analyte was detected above the NYSDEC Standard

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

U - Analyte not detected at the detection limit shown

Table 5. Summary of Metals Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in mg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** / **Sample Date:** / **Sample Depth (ft bls):** / **Onsite/Offiste:**	SB-109 09/01/05 0.5-2 onsite	SB-113 09/01/05 0-2 onsite	SB-114 09/01/05 0-2 onsite	SB-115 09/01/05 0-2 onsite	SB-116 09/01/05 6-8 onsite
Aluminum	--		7,700	6,600	7,300	6,400	5,800
Antimony	--		2.2 U	2.2 U	2.2 U	2.2 U	2.3 U
Arsenic	16		5.3	5.7	5.9	7.6	2.6
Barium	400		89	95	92	140	24
Beryllium	590		0.67 U	0.67 U	0.65 U	0.66 U	0.7 U
Cadmium	9.3		0.67 U	0.67 U	0.65 U	0.66 U	0.7 U
Calcium	--		28,000	33,000	30,000	6,500	1,200 U
Chromium	1,500		20 JV	22 JV	26 JV	17 JV	12 JV
Cobalt	--		7.5	7	7.9	4.8	2.9 U
Copper	270		48 JV	36 JV	40 JV	50 JV	6.5 JV
Cyanide							
Total	27		0.3	0.34	0.72	0.27 U	0.29 U
Iron	--		14,000	13,000	17,000	12,000	8,000
Lead	1000		110 JV	120 JV	140 JV	290 JV	5.8 UJV
Magnesium	--		6,700	6,500	5,900	2,200	1,400
Manganese	10,000		230	280	280	160	43
Mercury	2.8		0.12	0.14	0.24	0.43	0.097 U
Nickel	310		29	37	40	21	9.3
Potassium	--		1,800	1,300	1,800	760	650
Selenium	1,500		2 U	2 U	2.1	2 U	2.1 U
Silver	1,500		2.8 U	2.8 U	2.7 U	2.7 U	2.9 U
Sodium	--		900 JV	560 UJV	540 UJV	550 UJV	580 UJV
Thallium	--		1.3 U	1.3 U	1.3 U	1.3 U	1.4 U
Vanadium	--		27	21	26	20	12
Zinc	10,000		160 JV	120 JV	130 JV	180 JV	22 JV

Notes:

-- - No NYSDEC standard available

mg/kg Milligrams per kilogram

Table 5. Summary of Metals Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in mg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-109	SB-113	SB-114	SB-115	SB-116
		Sample Date:	09/01/05	09/01/05	09/01/05	09/01/05	09/01/05
		Sample Depth (ft bls):	0.5-2	0-2	0-2	0-2	6-8
		Onsite/Offiste:	onsite	onsite	onsite	onsite	onsite

Bold - analyte was detected above the NYSDEC Standard

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

U - Analyte not detected at the detection limit shown

Table 5. Summary of Metals Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in mg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** **Sample Date:** **Sample Depth (ft bls):** **Onsite/Offiste:**	SB-117 09/20/05 0.5-2 onsite
Aluminum	--		5,000
Antimony	--		2.2 UJV
Arsenic	16		3.4
Barium	400		46 JV
Beryllium	590		0.66 U
Cadmium	9.3		0.66 U
Calcium	--		9,800
Chromium	1,500		48
Cobalt	--		22
Copper	270		35
Cyanide			
Total	27		0.27 U
Iron	--		15,000
Lead	1000		38 JV
Magnesium	--		9,200
Manganese	10,000		330
Mercury	2.8		0.092 U
Nickel	310		300
Potassium	--		710
Selenium	1,500		2 U
Silver	1,500		2.7 U
Sodium	--		550 UJV
Thallium	--		1.3 U
Vanadium	--		24
Zinc	10,000		44

Notes:

-- - No NYSDEC standard available

mg/kg Milligrams per kilogram

Table 5. Summary of Metals Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in mg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-117
		Sample Date:	09/20/05
		Sample Depth (ft bls):	0.5-2
		Onsite/Offiste:	onsite

Bold - analyte was detected above the NYSDEC Standard

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

U - Analyte not detected at the detection limit shown

Table 6. Summary of Polychlorinated Biphenyl Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** / **Sample Date:** / **Sample Depth (ft bls):** / **Onsite/Offsite:**	SB-101 09/06/05 0.5-2 onsite	SB-107 09/01/05 0.5-2 onsite	SB-107 09/01/05 4-6 onsite	SB-107A 09/14/05 0.5-2 onsite	SB-108 09/19/05 2-4 onsite
Aroclor-1016	1,000		32 U	27 U	27 U	27 U	29 U
Aroclor-1221	1,000		32 U	27 U	27 U	27 U	29 U
Aroclor-1232	1,000		32 U	27 U	27 U	27 U	29 U
Aroclor-1242	1,000		32 U	27 U	27 U	27 U	29 U
Aroclor-1248	1,000		32 U	27 U	27 U	27 U	29 U
Aroclor-1254	1,000		32 U	100	27 U	27 U	29 U
Aroclor-1260	1,000		32 U	27 U	27 U	27 U	29 U
Total PCBs:	1,000		ND	100	ND	ND	ND

Notes:

µg/kg - Micrograms per kilogram
Bold - analyte was detected above the NYSDEC Standard
ft bls - Feet below land surface
ND - Not detected
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown
PCBs - Polychlorinated Biphenyl Compounds

Table 6. Summary of Polychlorinated Biphenyl Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** / **Sample Date:** / **Sample Depth (ft bls):** / **Onsite/Offsite:**	SB-109 09/01/05 0.5-2 onsite	SB-113 09/01/05 0-2 onsite	SB-114 09/01/05 0-2 onsite	SB-115 09/01/05 0-2 onsite	SB-116 09/01/05 6-8 onsite
Aroclor-1016	1,000		28 U	28 U	27 U	27 U	29 U
Aroclor-1221	1,000		28 U	28 U	27 U	27 U	29 U
Aroclor-1232	1,000		28 U	28 U	27 U	27 U	29 U
Aroclor-1242	1,000		28 U	28 U	27 U	27 U	29 U
Aroclor-1248	1,000		28 U	28 U	27 U	27 U	29 U
Aroclor-1254	1,000		28 U	28 U	27 U	27 U	29 U
Aroclor-1260	1,000		61	130	160	27 U	29 U
Total PCBs:	1,000		61	130	160	ND	ND

Notes:

µg/kg - Micrograms per kilogram
Bold - analyte was detected above the NYSDEC Standard
ft bls - Feet below land surface
ND - Not detected
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown
PCBs - Polychlorinated Biphenyl Compounds

Table 6. Summary of Polychlorinated Biphenyl Compounds Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:** **Sample Date:** **Sample Depth (ft bls):** **Onsite/Offsite:**	SB-117 09/20/05 0.5-2 onsite
Aroclor-1016	1,000		27 U
Aroclor-1221	1,000		27 U
Aroclor-1232	1,000		27 U
Aroclor-1242	1,000		27 U
Aroclor-1248	1,000		27 U
Aroclor-1254	1,000		27 U
Aroclor-1260	1,000		27 U
Total PCBs:	1,000		ND

Notes:

µg/kg - Micrograms per kilogram
Bold - analyte was detected above the NYSDEC Standard
ft bls - Feet below land surface
ND - Not detected
NYSDEC - New York State Department of Environmental Conservation
U - Analyte not detected at the detection limit shown
PCBs - Polychlorinated Biphenyl Compounds

Table 7. Summary of Pesticides and Herbicides Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-101	SB-107	SB-107	SB-107A
		Sample Date:	09/06/05	09/01/05	09/01/05	09/14/05
		Sample Depth (ft bls):	0.5-2	0.5-2	4-6	0.5-2
		Onsite/Offsite:	onsite	onsite	onsite	onsite
2,4,5-T	--		5.1 U	4.3 U	4.3 U	4.3 U
2,4,5-TP (Silvex)	500,000		5.1 U	4.3 U	4.3 U	4.3 U
2,4-D	--		5.1 U	4.3 U	4.3 U	4.3 U
4,4'-DDD	62,000		120	5.4 U	16	5.3 U
4,4'-DDE	47,000		15	11	5.4 U	5.3 U
4,4'-DDT	92,000		6.3 U	5.4 U	5.4 U	5.3 U
Aldrin	680		6.3 U	5.4 U	5.4 U	5.3 U
alpha-BHC	3,400		6.3 U	5.4 U	5.4 U	5.3 U
beta-BHC	3,000		6.3 U	5.4 U	5.4 U	5.3 U
Chlordane	24,000		13 U	44	11 U	11 U
delta-BHC	500,000		6.3 U	5.4 U	5.4 U	5.3 U
Dicamba	--		5.1 U	4.3 U	4.3 U	4.3 U
Dieldrin	1,400		6.3 U	5.4 U	5.4 U	5.3 U
Endosulfan I	200,000		6.3 U	5.4 U	5.4 U	5.3 U
Endosulfan II	200,000		6.3 U	5.4 U	5.4 U	5.3 U
Endosulfan sulfate	200,000		6.3 U	5.4 U	5.4 U	5.3 U
Endrin	89,000		6.3 U	5.4 U	5.4 U	5.3 U
Endrin aldehyde	--		6.3 U	5.4 U	5.4 U	5.3 U
Endrin Ketone	--		6.3 U	5.4 U	5.4 U	5.3 U
gamma-BHC (Lindane)	9,200		6.3 U	5.4 U	5.4 U	5.3 U
Heptachlor	15,000		6.3 U	5.4 U	5.4 U	5.3 U
Heptachlor epoxide	--		6.3 U	5.4 U	5.4 U	5.3 U
Methoxychlor	--		6.3 U	5.4 U	5.4 U	5.3 U
Toxaphene	--		32 U	27 U	27 U	27 U

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Bold - analyte was detected above the NYSDEC Standard

Table 7. Summary of Pesticides and Herbicides Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-101	SB-107	SB-107	SB-107A
		Sample Date:	09/06/05	09/01/05	09/01/05	09/14/05
		Sample Depth (ft bls):	0.5-2	0.5-2	4-6	0.5-2
		Onsite/Offsite:	onsite	onsite	onsite	onsite

E - Result exceeded calibration range, secondary dilution required

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

U - Analyte not detected at the detection limit shown

Table 7. Summary of Pesticides and Herbicides Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-108	SB-109	SB-113	SB-114
		Sample Date:	09/19/05	09/01/05	09/01/05	09/01/05
		Sample Depth (ft bls):	2-4	0.5-2	0-2	0-2
		Onsite/Offsite:	onsite	onsite	onsite	onsite
2,4,5-T	--		4.7 U	4.4 U	4.4 U	4.3 U
2,4,5-TP (Silvex)	500,000		4.7 U	4.4 U	4.4 U	4.3 U
2,4-D	--		4.7 U	4.4 U	4.4 U	4.3 U
4,4'-DDD	62,000		5.8 U	5.6 U	5.6 U	5.4 U
4,4'-DDE	47,000		5.8 U	13	10	9.7
4,4'-DDT	92,000		5.8 U	5.6 U	5.6 U	5.4 U
Aldrin	680		5.8 U	5.6 U	5.6 U	5.4 U
alpha-BHC	3,400		5.8 U	5.6 U	5.6 U	5.4 U
beta-BHC	3,000		5.8 U	5.6 U	5.6 U	5.4 U
Chlordane	24,000		12 U	180	310	240 EJV
delta-BHC	500,000		5.8 U	5.6 U	5.6 U	5.4 U
Dicamba	--		4.7 U	4.4 U	4.4 U	4.3 U
Dieldrin	1,400		5.8 U	5.6 U	19	34
Endosulfan I	200,000		5.8 U	5.6 U	5.6 U	5.4 U
Endosulfan II	200,000		5.8 U	5.6 U	5.6 U	5.4 U
Endosulfan sulfate	200,000		5.8 U	5.6 U	5.6 U	5.4 U
Endrin	89,000		5.8 U	5.6 U	5.6 U	5.4 U
Endrin aldehyde	--		5.8 U	5.6 U	5.6 U	5.4 U
Endrin Ketone	--		5.8 U	5.6 U	5.6 U	5.4 U
gamma-BHC (Lindane)	9,200		5.8 U	5.6 U	5.6 U	5.4 U
Heptachlor	15,000		5.8 U	5.6 U	5.6 U	5.4 U
Heptachlor epoxide	--		5.8 U	5.6 U	5.6 U	5.4 U
Methoxychlor	--		5.8 U	5.6 U	5.6 U	5.4 U
Toxaphene	--		29 U	28 U	28 U	27 U

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Bold - analyte was detected above the NYSDEC Standard

Table 7. Summary of Pesticides and Herbicides Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-108	SB-109	SB-113	SB-114
		Sample Date:	09/19/05	09/01/05	09/01/05	09/01/05
		Sample Depth (ft bls):	2-4	0.5-2	0-2	0-2
		Onsite/Offsite:	onsite	onsite	onsite	onsite

E - Result exceeded calibration range, secondary dilution required

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

U - Analyte not detected at the detection limit shown

Table 7. Summary of Pesticides and Herbicides Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-115	SB-116	SB-117
		Sample Date:	09/01/05	09/01/05	09/20/05
		Sample Depth (ft bls):	0-2	6-8	0.5-2
		Onsite/Offsite:	onsite	onsite	onsite
2,4,5-T	--		4.4 U	4.7 U	4.4 U
2,4,5-TP (Silvex)	500,000		4.4 U	4.7 U	4.4 U
2,4-D	--		4.4 U	4.7 U	4.4 U
4,4'-DDD	62,000		5.5 U	5.8 U	31
4,4'-DDE	47,000		5.5 U	5.8 U	8.8
4,4'-DDT	92,000		5.5 U	5.8 U	5.5 U
Aldrin	680		5.5 U	5.8 U	5.5 U
alpha-BHC	3,400		5.5 U	5.8 U	5.5 U
beta-BHC	3,000		5.5 U	5.8 U	5.5 U
Chlordane	24,000		59	12 U	11 U
delta-BHC	500,000		5.5 U	5.8 U	5.5 U
Dicamba	--		4.4 U	4.7 U	4.4 U
Dieldrin	1,400		5.5 U	5.8 U	5.5 U
Endosulfan I	200,000		5.5 U	5.8 U	5.5 U
Endosulfan II	200,000		5.5 U	5.8 U	5.5 U
Endosulfan sulfate	200,000		5.5 U	5.8 U	5.5 U
Endrin	89,000		5.5 U	5.8 U	5.5 U
Endrin aldehyde	--		5.5 U	5.8 U	5.5 U
Endrin Ketone	--		5.5 U	5.8 U	5.5 U
gamma-BHC (Lindane)	9,200		5.5 U	5.8 U	5.5 U
Heptachlor	15,000		5.5 U	5.8 U	5.5 U
Heptachlor epoxide	--		5.5 U	5.8 U	5.5 U
Methoxychlor	--		5.5 U	5.8 U	5.5 U
Toxaphene	--		27 U	29 U	27 U

Notes:

-- - No NYSDEC standard available

µg/kg - Micrograms per kilogram

Bold - analyte was detected above the NYSDEC Standard

Table 7. Summary of Pesticides and Herbicides Detected in Soil (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/kg)	NYSDEC Restricted Commercial (onsite)	**Sample Location:**	SB-115	SB-116	SB-117
		Sample Date:	09/01/05	09/01/05	09/20/05
		Sample Depth (ft bls):	0-2	6-8	0.5-2
		Onsite/Offsite:	onsite	onsite	onsite

E - Result exceeded calibration range, secondary dilution required

ft bls - Feet below land surface

NYSDEC - New York State Department of Environmental Conservation

U - Analyte not detected at the detection limit shown

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-101D 09/30/05	MW-101S 09/30/05	MW-102D 09/29/05	MW-102S 09/29/05	MW-103D 09/29/05	MW-104D 09/29/05	MW-104D DUP 09/29/05	MW-105D 09/28/05
Acetone	50		2,500 U	2,500 U	2,500 U	2,500 U	25 U	25 U	25 U	25 U
Benzene	1		100 U	100 U	100 U	100 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Bromoform	50		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Bromomethane	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
2-Butanone (MEK)	50		500 U	500 U	500 U	500 U	5 U	5 U	RV	RV
Carbon disulfide	60		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Chlorobenzene	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Chloroethane	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Chloroform	7		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Chloromethane	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Dibromochloromethane	50		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5		500 U	**220**	500 U	500 U	1.3	5 U	5 U	5 U
cis-1,2-Dichloroethene	5		**19,000**	**31,000**	**7,800**	**11,000**	**220**	**69**	**84**	5 U
trans-1,2-Dichloroethene	5		500 U	500 U	500 U	500 U	1.5	5 U	5 U	5 U
1,2-Dichloropropane	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Ethylbenzene	5		100 U	100 U	100 U	100 U	1 U	1 U	1 U	1 U
2-Hexanone	50		500 UJV	500 UJV	500 U	500 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	--		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Methylene chloride	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Styrene	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5		**17,000**	**3,500**	500 U	**1,200**	5 U	5 U	5 U	5 U
Toluene	5		100 U	100 U	100 U	100 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	1		500 U	500 U	500 U	500 U	5 U	5 U	5 U	5 U
Trichloroethene	5		**6,700**	**9,900**	**670**	**3,200**	**9.6**	5 U	5 U	5 U
Vinyl chloride	2		**1,500**	**2,800**	**660**	**610**	**15**	**16**	**26**	1.2
M&p-Xylenes	5		200 U	200 U	200 U	200 U	2 U	2 U	2 U	2 U
o-Xylene	5		100 U	100 U	100 U	100 U	1 U	1 U	1 U	1 U

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-101D 09/30/05	MW-101S 09/30/05	MW-102D 09/29/05	MW-102S 09/29/05	MW-103D 09/29/05	MW-104D 09/29/05	MW-104D DUP 09/29/05	MW-105D 09/28/05

Notes:

New York State Department of Environmental Conservation (NYSDEC)

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

µg/L -Micrograms per liter

B - Analyte detected in laboratory blank

J - Estimated Value

U - Analyte was analyzed for but not detected at the detection limit shown

- - No NYSDEC AWQSGV available

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** **Sample Date:**	MW-106D 09/29/05	MW-107D 09/29/05	MW-107S 09/29/05	MW-108D 09/30/05	MW-109D 09/29/05	MW-111D 09/30/05	MW-112D 09/30/05	MW-112D DUP 09/30/05
Acetone	50		25 U	25 U	25 U	25 U	25 U	25 U	500 U	250 U
Benzene	1		1 U	1 U	1 U	1 U	1 U	1 U	20 U	10 U
Bromodichloromethane	50		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Bromoform	50		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Bromomethane	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
2-Butanone (MEK)	50		R V	R V	R V	5 U	5 U	R V	100 U	50 U
Carbon disulfide	60		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Carbon tetrachloride	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Chlorobenzene	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Chloroethane	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Chloroform	7		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Chloromethane	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Dibromochloromethane	50		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
1,1-Dichloroethane	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
1,2-Dichloroethane	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
1,1-Dichloroethene	5		5 U	1.2	5 U	5 U	5 U	5 U	100 U	50 U
cis-1,2-Dichloroethene	5		5 U	**380**	**21**	5 U	5 U	**17**	**760**	**1,100**
trans-1,2-Dichloroethene	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
1,2-Dichloropropane	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
cis-1,3-Dichloropropene	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
trans-1,3-Dichloropropene	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Ethylbenzene	5		1 U	1 U	1 U	1 U	1 U	1 U	20 U	10 U
2-Hexanone	50		5 U	5 U	5 U	5 UJV	5 U	5 UJV	100 UJV	50 UJV
4-Methyl-2-pentanone	--		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Methylene chloride	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Styrene	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
1,1,2,2-Tetrachloroethane	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Tetrachloroethene	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Toluene	5		1 U	1 U	1 U	1 U	1 U	1 U	20 U	10 U
1,1,1-Trichloroethane	5		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
1,1,2-Trichloroethane	1		5 U	5 U	5 U	5 U	5 U	5 U	100 U	50 U
Trichloroethene	5		5 U	5 U	5 U	5 U	5 U	5 U	**20 JV**	**38**
Vinyl chloride	2		5 U	**300**	**63**	5 U	5 U	**4.6**	**44**	50 U
M&p-Xylenes	5		2 U	2 U	2 U	2 U	2 U	2 U	40 U	20 U
o-Xylene	5		1 U	1 U	1 U	1 U	1 U	1 U	20 U	10 U

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-106D 09/29/05	MW-107D 09/29/05	MW-107S 09/29/05	MW-108D 09/30/05	MW-109D 09/29/05	MW-111D 09/30/05	MW-112D 09/30/05	MW-112D DUP 09/30/05

Notes:

New York State Department of Environmental Conservation (NYSDEC)

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

µg/L -Micrograms per liter

B - Analyte detected in laboratory blank

J - Estimated Value

U - Analyte was analyzed for but not detected at the detection limit shown

- - No NYSDEC AWQSGV available

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-113D 09/30/05	MW-113S 09/30/05	MW-126D 09/28/05	MW-201D 8/14/2006	MW-201S 8/15/2006	MW-202D 8/15/2006	MW-202S 8/15/2006	MW-203D 8/14/2006
Acetone	50		1,200 U	2,500 U	25 U	25 U	25 UJV	25 U	25 U	25 UJV
Benzene	1		50 U	100 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	50		250 U	500 U	5 U	5 UJV	5 U	5 UJV	5 UJV	5 U
Bromomethane	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone (MEK)	50		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	60		250 U	500 U	5 U	5 U	1.5 J	5 U	5 U	5 U
Carbon tetrachloride	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	7		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	50		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	5		**2,700**	**11,000**	5 U	1.9	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5		50 U	100 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	50		250 UJV	500 UJV	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	--		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5		250 U	500 U	5 U	1.2 UV	1 UV	5 U	5 U	1.6 UBV
Styrene	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5		**250**	**150**	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	5		50 U	100 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	1		250 U	500 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5		**780**	**1,600**	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	2		**52**	**380**	5 U	5 U	5 U	5 U	5 U	5 U
M&p-Xylenes	5		100 U	200 U	2 U	2 U	2 U	2 U	2 U	2 U
o-Xylene	5		50 U	100 U	1 U	1 U	1 U	1 U	1 U	1 U

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-113D 09/30/05	MW-113S 09/30/05	MW-126D 09/28/05	MW-201D 8/14/2006	MW-201S 8/15/2006	MW-202D 8/15/2006	MW-202S 8/15/2006	MW-203D 8/14/2006

Notes:

New York State Department of Environmental Conservation (NYSDEC)

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

µg/L -Micrograms per liter

B - Analyte detected in laboratory blank

J - Estimated Value

U - Analyte was analyzed for but not detected at the detection limit shown

- - No NYSDEC AWQSGV available

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-203S 8/14/2006	MW-204D 8/14/2006	MW-204D DUI 8/14/2006	MW-204S 8/14/2006	PZ-2 08/30/04	PZ-3 08/30/04	PZ-4 08/30/04	PZ-5 08/30/04
Acetone	50		25 UJV	25 UJB	25 U	25 U	2.8 U	2.8 U	140 U	280 U
Benzene	1		1 U	1 U	1 U	1 U	0.41 U	0.41 U	21 U	41 U
Bromodichloromethane	50		5 U	5 U	5 U	5 U	0.52 U	0.52 U	26 U	52 U
Bromoform	50		5 U	5 U	5 UJV	5 UJV	0.36 U	0.36 U	18 U	36 U
Bromomethane	5		5 U	5 U	5 U	5 U	0.9 U	0.9 U	45 U	90 U
2-Butanone (MEK)	50		5 U	5 U	5 U	5 U	12 U	12 U	610 U	1,200 U
Carbon disulfide	60		5 U	5 U	5 U	5 U	0.53 U	0.53 U	26 U	53 U
Carbon tetrachloride	5		5 U	5 U	5 U	5 U	0.52 U	0.52 U	26 U	52 U
Chlorobenzene	5		5 U	5 U	5 U	5 U	0.55 U	0.55 U	28 U	55 U
Chloroethane	5		5 U	5 U	5 U	5 U	1.3 U	1.3 U	66 U	130 U
Chloroform	7		5 U	5 U	5 U	5 U	1.2 U	1.2 U	59 U	120 U
Chloromethane	5		5 U	5 U	5 U	5 U	1.1 U	1.1 U	56 U	110 U
Dibromochloromethane	50		5 U	5 U	5 U	5 U	0.49 U	0.49 U	25 U	49 U
1,1-Dichloroethane	5		5 U	5 U	5 U	5 U	0.89 U	0.89 U	44 U	89 U
1,2-Dichloroethane	5		5 U	5 U	5 U	5 U	0.69 U	0.69 U	35 U	69 U
1,1-Dichloroethene	5		5 U	5 U	5 U	5 U	0.69 U	0.69 U	35 U	**150**
cis-1,2-Dichloroethene	5		5 U	5 U	5 U	5 U	**38**	0.69 U	**3,900**	**12,000**
trans-1,2-Dichloroethene	5		5 U	5 U	5 U	5 U	0.69 U	0.69 U	35 U	44 U
1,2-Dichloropropane	5		5 U	5 U	5 U	5 U	0.44 U	0.44 U	22 U	44 U
cis-1,3-Dichloropropene	5		5 U	5 U	5 U	5 U	0.51 U	0.51 U	26 U	51 U
trans-1,3-Dichloropropene	5		5 U	5 U	5 U	5 U	0.62 U	0.62 U	31 U	62 U
Ethylbenzene	5		1 U	1 U	1 U	1 U	0.87 U	0.87 U	44 U	**360**
2-Hexanone	50		5 U	5 U	5 U	5 U	0.45 U	0.45 U	22 U	45 U
4-Methyl-2-pentanone	--		5 U	5 U	5 U	5 U	0.44 U	0.44 U	22 U	44 U
Methylene chloride	5		2 B	1 B	5 U	5 U	3.7	2.6	**390**	**660**
Styrene	5		5 U	5 U	5 U	5 U	0.44 U	0.44 U	22 U	44 U
1,1,2,2-Tetrachloroethane	5		5 U	5 U	5 U	5 U	0.63 U	0.63 U	32 U	63 U
Tetrachloroethene	5		5 U	5 U	5 U	5 U	**46**	0.63 U	**7,500**	**630**
Toluene	5		1 U	1 U	1 U	1 U	2.1	1.5	**110**	**1,900**
1,1,1-Trichloroethane	5		5 U	5 U	5 U	5 U	0.64 U	0.64 U	32 U	64 U
1,1,2-Trichloroethane	1		5 U	5 U	5 U	5 U	0.43 U	0.43 U	21 U	43 U
Trichloroethene	5		5 U	5 U	5 U	5 U	**11**	0.43 U	**2,200**	**680**
Vinyl chloride	2		5 U	5 U	5 U	5 U	1.2	0.43 U	21 U	**2,200**
M&p-Xylenes	5		2 U	2 U	1.1 J	1.3 J	1.1 U	1.1 U	**100**	**1,800**
o-Xylene	5		1 U	1 U	1 U	1 U	0.72 U	0.72 U	36 U	**770**

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-203S 8/14/2006	MW-204D 8/14/2006	MW-204D DUI 8/14/2006	MW-204S 8/14/2006	PZ-2 08/30/04	PZ-3 08/30/04	PZ-4 08/30/04	PZ-5 08/30/04

Notes:

New York State Department of Environmental Conservation (NYSDEC)

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

µg/L -Micrograms per liter

B - Analyte detected in laboratory blank

J - Estimated Value

U - Analyte was analyzed for but not detected at the detection limit shown

- - No NYSDEC AWQSGV available

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	PZ-6 (11-12) 08/30/04	SB-GW-113 09/01/05	SB-GW-114 09/01/05	SB-GW-115 09/01/05	SB-GW-116 09/01/05	SB-GW-117 09/22/05	SB-GW-118 09/22/05	SB-GW-119 09/22/05
Acetone	50		2.8 U	25 U	25 U	25 U	25 U	35	25 U	25 U
Benzene	1		0.41 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50		0.52 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	50		0.36 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane	5		0.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone (MEK)	50		12 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	60		0.53 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	5		0.52 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5		0.55 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	5		1.3 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	7		1.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	5		1.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	50		0.49 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5		0.89 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5		0.69 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5		0.44 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	5		4.9	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	5		0.44 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5		0.44 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5		0.51 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	5		0.62 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5		0.87 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	50		0.45 U	5 U	5 UJV	5 UJV	5 UJV	5 U	5 U	5 U
4-Methyl-2-pentanone	--		0.44 U	5 U	5 UJV	5 UJV	5 UJV	5 U	5 U	5 U
Methylene chloride	5		2.9	2.4 UV	5 U	1.6	5 U	5 U	5 U	5 U
Styrene	5		0.44 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5		0.63 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5		2.3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	5		1.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5		0.64 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	1		0.43 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5		1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	2		0.43 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
M&p-Xylenes	5		1.1 U	2 U	2 U	2 U	2 U	2 U	1.1 J	2 U
o-Xylene	5		0.72 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:**	PZ-6 (11-12)	SB-GW-113	SB-GW-114	SB-GW-115	SB-GW-116	SB-GW-117	SB-GW-118	SB-GW-119
		Sample Date:	08/30/04	09/01/05	09/01/05	09/01/05	09/01/05	09/22/05	09/22/05	09/22/05

Notes:

New York State Department of Environmental Conservation (NYSDEC)

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

µg/L -Micrograms per liter

B - Analyte detected in laboratory blank

J - Estimated Value

U - Analyte was analyzed for but not detected at the detection limit shown

- - No NYSDEC AWQSGV available

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** SB-GW-120 **Sample Date:** 09/22/05	FB-081406 8/14/2006	FB-081506 8/15/2006	TB 8/9/2006	Trip blank 08/30/04
Acetone	50	25 U	25 UJV	25 UJC	25 U	2.8 U
Benzene	1	1 U	1 U	1 U	1 U	0.41 U
Bromodichloromethane	50	5 U	5 U	5 U	5 U	0.52 U
Bromoform	50	5 U	5 U	5 U	5 U	0.36 U
Bromomethane	5	5 U	5 U	5 U	5 U	0.9 U
2-Butanone (MEK)	50	5 U	5 U	5 U	5 U	12 U
Carbon disulfide	60	5 U	5 U	5 U	5 U	0.53 U
Carbon tetrachloride	5	5 U	5 U	5 U	5 U	0.52 U
Chlorobenzene	5	5 U	5 U	5 U	5 U	0.55 U
Chloroethane	5	5 U	5 U	5 U	5 U	1.3 U
Chloroform	7	5 U	5 U	5 U	5 U	1.2 U
Chloromethane	5	5 U	5 U	5 U	5 U	1.1 U
Dibromochloromethane	50	5 U	5 U	5 U	5 U	0.49 U
1,1-Dichloroethane	5	5 U	5 U	5 U	5 U	0.89 U
1,2-Dichloroethane	5	5 U	5 U	5 U	5 U	0.69 U
1,1-Dichloroethene	5	5 U	5 U	5 U	5 U	0.69 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U	5 U	0.69 U
trans-1,2-Dichloroethene	5	5 U	5 U	5 U	5 U	0.69 U
1,2-Dichloropropane	5	5 U	5 U	5 U	5 U	0.44 U
cis-1,3-Dichloropropene	5	5 U	5 U	5 U	5 U	0.51 U
trans-1,3-Dichloropropene	5	5 U	5 U	5 U	5 U	0.62 U
Ethylbenzene	5	1 U	1 U	1 U	1 U	0.87 U
2-Hexanone	50	5 U	5 U	5 U	5 U	0.45 U
4-Methyl-2-pentanone	--	5 U	5 U	5 U	5 U	0.44 U
Methylene chloride	5	5 U	1.9 B	1.9 B	2 B	1 U
Styrene	5	5 U	5 U	5 U	5 U	0.44 U
1,1,2,2-Tetrachloroethane	5	5 U	5 U	5 U	5 U	0.63 U
Tetrachloroethene	5	5 U	5 U	5 U	5 U	0.69 U
Toluene	5	1 U	1 U	1 U	1 U	0.63 U
1,1,1-Trichloroethane	5	5 U	5 U	5 U	5 U	0.64 U
1,1,2-Trichloroethane	1	5 U	5 U	5 U	5 U	0.43 U
Trichloroethene	5	5 U	5 U	5 U	5 U	0.43 U
Vinyl chloride	2	5 U	5 U	5 U	5 U	0.43 U
M&p-Xylenes	5	2.1	2 U	2 U	2 U	1.1 U
o-Xylene	5	1.1	1 U	1 U	1 U	0.72 U

Table 8. Summary of Volatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:**	SB-GW-120	FB-081406	FB-081506	TB	Trip blank
		Sample Date:	09/22/05	8/14/2006	8/15/2006	8/9/2006	08/30/04

Notes:

New York State Department of Environmental Conservation (NYSDEC)

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

µg/L -Micrograms per liter

B - Analyte detected in laboratory blank

J - Estimated Value

U - Analyte was analyzed for but not detected at the detection limit shown

- - No NYSDEC AWQSGV available

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

Table 9. Summary of Semivolatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-101D 10/03/05	MW-101S 10/03/05	MW-104D 09/29/05	MW-104D DUP 09/29/05	MW-107D 09/29/05	MW-107S 09/29/05
Acenaphthene	20		10 U	10 U	11 U	11 U	11 U	14 U
Acenaphthylene	20		10 U	10 U	11 U	11 U	11 U	14 U
Anthracene	50		10 U	10 U	11 U	11 U	11 U	14 U
Benzo(a)anthracene	0.002		10 U	10 U	11 U	11 U	11 U	14 U
Benzo(a)pyrene	ND		10 U	10 U	11 U	11 U	11 U	14 U
Benzo(b)fluoranthene	0.002		10 U	10 U	11 U	11 U	11 U	14 U
Benzo(g,h,i)perylene	--		10 U	10 U	11 U	11 U	11 U	14 U
Benzo(k)fluoranthene	0.002		10 U	10 U	11 U	11 U	11 U	14 U
Bis(2-chloroethoxy)methane	5		10 U	10 U	11 U	11 U	11 U	14 U
Bis(2-chloroethyl)ether	1		10 U	10 U	11 U	11 U	11 U	14 U
Bis(2-ethylhexyl)phthalate	5		10 U	1.3 J	11 U	11 U	11 U	14 U
4-Bromophenyl phenyl ether	--		10 U	10 U	11 U	11 U	11 U	14 U
Butyl benzylphthalate	50		10 U	10 U	11 U	11 U	11 U	14 U
Carbazole	--		10 U	10 U	11 U	11 U	11 U	14 U
4-Chloroaniline	5		10 U	10 U	11 U	11 U	11 U	14 U
2-Chloronaphthalene	10		10 U	10 U	11 U	11 U	11 U	14 U
2-Chlorophenol	--		10 U	10 U	11 U	11 U	11 U	14 U
4-Chlorophenyl phenyl ether	--		10 U	10 U	11 U	11 U	11 U	14 U
2,2-oxybis (1-chloropropane)	0		10 U	10 U	11 U	11 U	11 U	14 U
Chrysene	0.002		10 U	10 U	11 U	11 U	11 U	14 U
Dibenzo(a h)anthracene	--		10 U	10 U	11 U	11 U	11 U	14 U
Dibenzofuran	--		10 U	10 U	11 U	11 U	11 U	14 U
1,2-Dichlorobenzene	3		10 U	10 U	11 U	11 U	11 U	14 U
1,3-Dichlorobenzene	3		10 U	10 U	11 U	11 U	11 U	14 U
1,4-Dichlorobenzene	3		10 U	10 U	11 U	11 U	11 U	14 U
3,3-Dichlorobenzidine	5		10 U	10 U	11 U	11 U	11 U	14 U

Table 9. Summary of Semivolatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-101D 10/03/05	MW-101S 10/03/05	MW-104D 09/29/05	MW-104D DUP 09/29/05	MW-107D 09/29/05	MW-107S 09/29/05
2,4-Dichlorophenol	5		10 U	10 U	11 U	11 U	11 U	14 U
Diethyl phthalate	50		10 U	10 U	11 U	11 U	11 U	14 U
Dimethyl phthalate	50		10 U	10 U	11 U	11 U	11 U	14 U
2,4-Dimethylphenol	50		10 U	10 U	11 U	11 U	11 U	14 U
Di-n-butyl phthalate	--		10 U	10 U	11 U	11 U	11 U	14 U
2,4-Dinitrophenol	10		25 U	25 U	27 U	27 U	29 U	34 U
2,4-Dinitrotoluene	5		10 U	10 U	11 U	11 U	11 U	14 U
2,6-Dinitrotoluene	5		10 U	10 U	11 U	11 U	11 U	14 U
Di-n-octyl phthalate	50		10 U	10 U	11 U	11 U	11 U	14 U
Fluoranthene	50		10 U	10 U	11 U	11 U	11 U	14 U
Fluorene	50		10 U	10 U	11 U	11 U	11 U	14 U
Hexachlorobenzene	0.04		10 U	10 U	11 U	11 U	11 U	14 U
Hexachlorobutadiene	0.5		10 U	10 U	11 U	11 U	11 U	14 U
Hexachlorocyclopentadiene	5		10 U	10 U	11 U	11 U	11 U	14 U
Hexachloroethane	5		10 U	10 U	11 U	11 U	11 U	14 U
Indeno(1,2,3-cd)pyrene	0.002		10 U	10 U	11 U	11 U	11 U	14 U
Isophorone	50		10 U	10 U	11 U	11 U	11 U	14 U
2-Methylnaphthalene	--		10 U	10 U	11 U	11 U	11 U	14 U
2-Methylphenol	--		10 U	10 U	11 U	11 U	11 U	14 U
4,6-Dinitro-2-methylphenol	--		25 U	25 U	27 U	27 U	29 U	34 U
4-Chloro-3-methylphenol	--		10 U	10 U	11 U	11 U	11 U	14 U
4-Methylphenol	--		10 U	10 U	11 U	11 U	11 U	14 U
Naphthalene	10		10 U	10 U	11 U	11 U	11 U	14 U
2-Nitroaniline	5		10 U	10 U	11 U	11 U	11 U	14 U
3-Nitroaniline	5		10 U	10 U	11 U	11 U	11 U	14 U
4-Nitroaniline	5		10 U	10 U	11 U	11 U	11 U	14 U
Nitrobenzene	0.4		10 U	10 U	11 U	11 U	11 U	14 U
2-Nitrophenol	--		10 U	10 U	11 U	11 U	11 U	14 U
4-Nitrophenol	--		25 U	25 U	11 U	11 U	11 U	14 U

Table 9. Summary of Semivolatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-101D 10/03/05	MW-101S 10/03/05	MW-104D 09/29/05	MW-104D DUP 09/29/05	MW-107D 09/29/05	MW-107S 09/29/05
n-Nitroso-di-n-propylamine	--		10 U	10 U	11 U	11 U	11 U	14 U
n-Nitrosodiphenylamine	50		10 U	10 U	11 U	11 U	11 U	14 U
Pentachlorophenol	--		25 U	25 U	27 U	27 U	29 U	34 U
Phenanthrene	50		10 U	10 U	11 U	11 U	11 U	14 U
Phenol	--		10 U	10 U	11 U	11 U	11 U	14 U
Pyrene	50		10 U	10 U	11 U	11 U	11 U	14 U
1,2,4-Trichlorobenzene	5		10 U	10 U	11 U	11 U	11 U	14 U
2,4,5-Trichlorophenol	--		10 U	10 U	11 U	11 U	11 U	14 U
2,4,6-Trichlorophenol	--		10 U	10 U	11 U	11 U	11 U	14 U

Notes:

- - No NYSDEC AWQSGV available

µg/L -Micrograms per liter

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

J - Estimated Value

New York State Department of Environmental Conservation (NYSDEC)

U - Analtye was analyzed for but not detected at the detection limit shown

Table 9. Summary of Semivolatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** MW-108D **Sample Date:** 09/30/05
Acenaphthene	20	10 U
Acenaphthylene	20	10 U
Anthracene	50	10 U
Benzo(a)anthracene	0.002	10 U
Benzo(a)pyrene	ND	10 U
Benzo(b)fluoranthene	0.002	10 U
Benzo(g,h,i)perylene	--	10 U
Benzo(k)fluoranthene	0.002	10 U
Bis(2-chloroethoxy)methane	5	10 U
Bis(2-chloroethyl)ether	1	10 U
Bis(2-ethylhexyl)phthalate	5	10 U
4-Bromophenyl phenyl ether	--	10 U
Butyl benzylphthalate	50	10 U
Carbazole	--	10 U
4-Chloroaniline	5	10 U
2-Chloronaphthalene	10	10 U
2-Chlorophenol	--	10 U
4-Chlorophenyl phenyl ether	--	10 U
2,2-oxybis (1-chloropropane)	0	10 U
Chrysene	0.002	10 U
Dibenzo(a h)anthracene	--	10 U
Dibenzofuran	--	10 U
1,2-Dichlorobenzene	3	10 U
1,3-Dichlorobenzene	3	10 U
1,4-Dichlorobenzene	3	10 U
3,3-Dichlorobenzidine	5	10 U

Table 9. Summary of Semivolatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** MW-108D **Sample Date:** 09/30/05
2,4-Dichlorophenol	5	10 U
Diethyl phthalate	50	10 U
Dimethyl phthalate	50	10 U
2,4-Dimethylphenol	50	10 U
Di-n-butyl phthalate	--	10 U
2,4-Dinitrophenol	10	25 U
2,4-Dinitrotoluene	5	10 U
2,6-Dinitrotoluene	5	10 U
Di-n-octyl phthalate	50	10 U
Fluoranthene	50	10 U
Fluorene	50	10 U
Hexachlorobenzene	0.04	10 U
Hexachlorobutadiene	0.5	10 U
Hexachlorocyclopentadiene	5	10 U
Hexachloroethane	5	10 U
Indeno(1,2,3-cd)pyrene	0.002	10 U
Isophorone	50	10 U
2-Methylnaphthalene	--	10 U
2-Methylphenol	--	10 U
4,6-Dinitro-2-methylphenol	--	25 U
4-Chloro-3-methylphenol	--	10 U
4-Methylphenol	--	10 U
Naphthalene	10	10 U
2-Nitroaniline	5	10 U
3-Nitroaniline	5	10 U
4-Nitroaniline	5	10 U
Nitrobenzene	0.4	10 U
2-Nitrophenol	--	10 U
4-Nitrophenol	--	25 U

Table 9. Summary of Semivolatile Organic Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:**	MW-108D
		Sample Date:	09/30/05
n-Nitroso-di-n-propylamine	--		10 U
n-Nitrosodiphenylamine	50		10 U
Pentachlorophenol	--		25 U
Phenanthrene	50		10 U
Phenol	--		10 U
Pyrene	50		10 U
1,2,4-Trichlorobenzene	5		10 U
2,4,5-Trichlorophenol	--		10 U
2,4,6-Trichlorophenol	--		10 U

Notes:

- - No NYSDEC AWQSGV available

µg/L -Micrograms per liter

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

J - Estimated Value

New York State Department of Environmental Conservation (NYSDEC)

U - Analtye was analyzed for but not detected at the detection limit shown

Table 10. Summary of Metals Detected in Groundwater, Coral Island Shopping Center (Remedial Investigation), Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-101D 10/03/05	MW-101S 10/03/05	MW-104D 09/29/05	MW-104D DUP 09/29/05	MW-107D 09/29/05	MW-107S 09/29/05
Aluminum	--		180 U	180 U	520	180 U	180 U	180 U
Antimony	3		6 U	6 U	6 U	6 U	6 U	6 U
Arsenic	25		7.5 U	7.5 U	7.5 U	7.5 U	8.7	7.5 U
Barium	1,000		150	120	150	130	180	140
Beryllium	3		4 U	4 U	4 U	4 U	4 U	4 U
Cadmium	5		3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
Calcium	--		130,000	57,000	30,000	35,000	79,000	38,000
Chromium	50		50 U	50 U	50 U	50 U	50 U	50 U
Cobalt	--		20 U	20 U	20 U	20 U	20 U	20 U
Copper	200		50 U	50 U	50 U	50 U	50 U	50 U
Cyanide Total	200		10 U	10 U	10 U	10 U	10 U	10 U
Iron	300		280 U	**540**	**31,000**	**34,000**	**87,000**	**7,100**
Lead	25		4 U	4 U	4.3	4 U	4 U	4 U
Magnesium	35,000		22,000	10,000	**37,000**	**39,000**	22,000	19,000
Manganese	300		**3,100**	**940**	**970**	**990**	**2,200**	**1,700**
Mercury	0.7		0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Nickel	100		50 U	**120**	50 U	50 U	50 U	50 U
Potassium	--		5,000 U	10,000	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	10		40 U	40 U	40 U	40 U	40 U	40 U
Silver	50		20 U	20 U	20 U	20 U	20 U	20 U
Sodium	20,000		**26,000**	20,000	**42,000**	**41,000**	**31,000**	17,000
Thallium	12		10 U	10 U	10 U	10 U	10 U	10 U
Vanadium	--		50 U	50 U	50 U	50 U	50 U	50 U
Zinc	2,000		50 U	50 U	50 U	50 U	50 U	50 U

Notes:

New York State Department of Environmental Conservation (NYSDEC)

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

µg/L -Micrograms per liter

U - Analyte was analyzed for but not detected at the detection limit shown

Table 10. Summary of Metals Detected in Groundwater, Coral Island Shopping Center (Remedial Investigation), Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:**	MW-101D	MW-101S	MW-104D	MW-104D DUP	MW-107D	MW-107S
		Sample Date:	10/03/05	10/03/05	09/29/05	09/29/05	09/29/05	09/29/05

- - No NYSDEC AWQSGV available

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

Table 10. Summary of Metals Detected in Groundwater, Coral Island Shopping Center (Remedial Investigation), Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** MW-108D **Sample Date:** 09/30/05
Aluminum	--	180 U
Antimony	3	6 U
Arsenic	25	7.5 U
Barium	1,000	50 U
Beryllium	3	4 U
Cadmium	5	3.5 U
Calcium	--	35,000
Chromium	50	50 U
Cobalt	--	20 U
Copper	200	50 U
Cyanide Total	200	10 U
Iron	300	**4,300**
Lead	25	4 U
Magnesium	35,000	25,000
Manganese	300	**5,100**
Mercury	0.7	0.7 U
Nickel	100	50 U
Potassium	--	5,000 U
Selenium	10	40 U
Silver	50	20 U
Sodium	20,000	**190,000**
Thallium	12	10 U
Vanadium	--	50 U
Zinc	2,000	64

Notes:

New York State Department of Environmental Conservation (NYSDEC)

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

µg/L -Micrograms per liter

U - Analyte was analyzed for but not detected at the detection limit shown

Table 10. Summary of Metals Detected in Groundwater, Coral Island Shopping Center (Remedial Investigation), Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** MW-108D **Sample Date:** 09/30/05

- - No NYSDEC AWQSGV available

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

Table 11. Summary of Polychlorinated Biphenyl Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-101D 10/03/05	MW-104D 09/29/05	MW-104D DUP 09/29/05	MW-107D 09/29/05
Aroclor-1016	(1)		0.3 U	0.28 U	0.31 U	0.32 U
Aroclor-1221			0.3 U	0.28 U	0.31 U	0.32 U
Aroclor-1232			0.3 U	0.28 U	0.31 U	0.32 U
Aroclor-1242			0.3 U	0.28 U	0.31 U	0.32 U
Aroclor-1248			0.3 U	0.28 U	0.31 U	0.32 U
Aroclor-1254			0.3 U	0.28 U	0.31 U	0.32 U
Aroclor-1260			0.3 U	0.28 U	0.31 U	0.32 U
Total PCBs:	0.09		ND	ND	ND	ND

Notes:

(1) The NYSDEC AWQSGV for Total PCBs (sum of the Aroclors) is 0.09 µg/L

µg/L - Micrograms per liter

U - Indicates that the analyte was analyzed for but not detected at the detection limit shown

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water - Quality Standards and Guidance Values

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

PCBs - Polychlorinated Biphenyl Compounds

ND - Non-detectable concetration

Table 11. Summary of Polychlorinated Biphenyl Compounds Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:**	MW-107S 09/29/05	MW-108D 09/30/05
Aroclor-1016	(1)		0.28 U	0.32 U
Aroclor-1221			0.28 U	0.32 U
Aroclor-1232			0.28 U	0.32 U
Aroclor-1242			0.28 U	0.32 U
Aroclor-1248			0.28 U	0.32 U
Aroclor-1254			0.28 U	0.32 U
Aroclor-1260			0.28 U	0.32 U
Total PCBs:	0.09		ND	ND

Notes:

(1) The NYSDEC AWQSGV for Total PCBs (sum of the Aroclors) is 0.09 µg/L

µg/L - Micrograms per liter

U - Indicates that the analyte was analyzed for but not detected at the detection limit shown

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water - Quality Standards and Guidance Values

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

PCBs - Polychlorinated Biphenyl Compounds

ND - Non-detectable concetration

Table 12. Summary of Pesticides and Herbicides Detected in Groundwater (Remedial Investigation), Coral Island Shopping Center, Staten Island, New York

Analyte (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Location:** / **Sample Date:** / **Sample Depth (ft bls):**	MW-101D 10/03/05	MW-104D 09/29/05	MW-104D DUP 09/29/05	MW-107D 09/29/05	MW-107S 09/29/05	MW-108D 09/30/05
2,4,5-T	--		0.24 U	0.22 U	0.25 U	0.24 U	0.22 U	0.22 U
2,4,5-TP (Silvex)	0.26		0.24 U	0.22 U	0.25 U	0.24 U	0.22 U	0.22 U
2,4-D	50		0.24 U	0.22 U	0.25 U	0.24 U	0.22 U	0.22 U
4,4'-DDD	0.3		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
4,4'-DDE	0.2		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
4,4'-DDT	0.2		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Aldrin	0		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
alpha-BHC	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
beta-BHC	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Chlordane	0.05		0.12 U	0.11 U	0.12 U	0.13 U	0.11 U	0.13 U
delta-BHC	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Dicamba	--		0.24 U	0.22 U	0.25 U	0.24 U	0.22 U	0.22 U
Dieldrin	0.004		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Endosulfan I	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Endosulfan II	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Endosulfan sulfate	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Endrin	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Endrin aldehyde	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Endrin Ketone	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
gamma-BHC (Lindane)	--		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Heptachlor	0.04		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Heptachlor epoxide	0.03		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Methoxychlor	35		0.06 U	0.056 U	0.062 U	0.063 U	0.057 U	0.064 U
Toxaphene	0.06		0.3 U	0.28 U	0.31 U	0.32 U	0.28 U	0.32 U

Notes:

New York State Department of Environmental Conservation (NYSDEC)

Ambient Water-Quality Standards and Guidance Values (AWQSGVs)

µg/L -Micrograms per liter

U - Analyte was analyzed for but not detected at the detection limit shown

- - No NYSDEC AWQSGV available

Bold data indicates that analyte was detected above the NYSDEC AWQSGVs

DUP - Duplicate

Table 13. Summary of Volatile Organic Compounds Detected in Post Excavation Samples, Coral Island Shopping Center, Staten Island, New York.

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	Sample ID:	A1-N	A1-S	A1-E	A1-W	A1-B	A1-B1	A1-B'	A2-N
			Location:	*offsite*	**onsite**	*offsite*	*offsite*	*offsite*	*offsite*	*offsite*	*offsite*
			Sample Date:	8/21/07	8/21/07	8/21/07	8/21/07	8/21/07	8/29/07	8/31/07	8/21/07
1,2-Dichloroethane	*20*	**30,000**		6 U	6.3 U	8.8 U	6.9 U	31 U	810 U	6 U	6.2 U
cis-1,2-Dichloroethene	*250*	**500,000**		6.7	55	90	110	*840*	*810*	230	6.2 U
trans-1,2-Dichloroethene	*190*	**500,000**		6 U	2.8 J	4.9 J	7.1	16 J	810 U	2.4 J	6.2 U
Tetrachloroethene	*1,300*	**150,000**		1.2 U	130	1.8 U	33	57	*1,600*	230	2.4
1,1,1-Trichloroethane	*680*	**500,000**		6 U	6.3 U	8.8 U	6.9 U	31 U	810 U	6 U	6.2 U
Trichloroethene	*470*	**200,000**		1.7 J	55	7.8 J	52	170	*730 J*	170	6.2 U
Vinyl chloride	*20*	**13,000**		6 U	6.3 U	5.2 J	3.2 J	18 J	810 U	3.8 J	6.2 U

Notes:

* - Area 3 merged with Area 5 - final post-excavation samples are from Area 5

µg/kg - Micrograms per kilogram

Bold Shade - Exceeds Restricted Commercial Standard

DUP - Duplicate

Italic Shade - Exceeds Unrestricted Residential Standard

J - Estimated value

nc - Not collected (sidewall against foundation)

NYSDEC - New York State Department of Environmental Conservation

offsite - Compared to Unrestricted Residential Standard

onsite - Compared to Restricted Commercial Standard

U - Analyte not detected at the detection limit shown

Table 13. Summary of Volatile Organic Compounds Detected in Post Excavation Samples, Coral Island Shopping Center, Staten Island, New York.

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	Sample ID:	A2-S	A2-E	A2-W	A2-B	A3-N*	A3-S	A3-E*	A3-W*
			Location:	**onsite**	*offsite*	*offsite*	*offsite*	*offsite*	**onsite**	*offsite*	*offsite*
			Sample Date:	8/21/07	8/21/07	8/21/07	8/21/07	8/23/07	8/23/07	8/23/07	8/23/07
1,2-Dichloroethane	*20*	**30,000**		6.2 U	6.2 U	6.3 U	6 U	33 U	6 U	820 U	6.4 U
cis-1,2-Dichloroethene	*250*	**500,000**		180	6.2 U	5.4 J	6 U	35	1.6 J	650 J	2.7 J
trans-1,2-Dichloroethene	*190*	**500,000**		2.4 J	6.2 U	6.3 U	6 U	33 U	6 U	820 U	6.4 U
Tetrachloroethene	*1,300*	**150,000**		9.7	1.2 U	1.3 U	1.2 U	6.7 U	6 U	820 U	6.4 U
1,1,1-Trichloroethane	*680*	**500,000**		6.2 U	6.2 U	6.3 U	6 U	33 U	6 U	820 U	6.4 U
Trichloroethene	*470*	**200,000**		7.3	6.2 U	6.3 U	6 U	33 U	6 U	820 U	6.4 U
Vinyl chloride	*20*	**13,000**		26	6.2 U	6.3 U	6 U	*140*	2.3 J	*880*	*150*

Notes:

* - Area 3 merged with Area 5 - final post-excavation samples are from Area 5

µg/kg - Micrograms per kilogram

Bold Shade - Exceeds Restricted Commercial Standard

DUP - Duplicate

Italic Shade - Exceeds Unrestricted Residential Standard

J - Estimated value

nc - Not collected (sidewall against foundation)

NYSDEC - New York State Department of Environmental Conservation

offsite - Compared to Unrestricted Residential Standard

onsite - Compared to Restricted Commercial Standard

U - Analyte not detected at the detection limit shown

Table 13. Summary of Volatile Organic Compounds Detected in Post Excavation Samples, Coral Island Shopping Center, Staten Island, New York.

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	Sample ID:	A3-B*	A4-N	A4-S	A4-E	A4-W	A4-B	A5-N	A5-N DUP
			Location:	*offsite*	**onsite**	**-**	**onsite**	**onsite**	**onsite**	*offsite*	*offsite*
			Sample Date:	8/23/07	8/22/07	-	8/24/07	8/22/07	8/22/07	8/24/07	8/24/07
1,2-Dichloroethane	*20*	**30,000**		30 U	30 U	nc	6 U	6.1 U	760 U	6 U	6.1 U
cis-1,2-Dichloroethene	*250*	**500,000**		*580*	11 J	nc	120	1.4 J	760 U	21	9.9
trans-1,2-Dichloroethene	*190*	**500,000**		30 U	30 U	nc	6 U	6.1 U	760 U	6 U	6.1 U
Tetrachloroethene	*1,300*	**150,000**		17	170	nc	76	130	*3700*	120	60
1,1,1-Trichloroethane	*680*	**500,000**		30 U	30 U	nc	6 U	6.1 U	760 U	6 U	6.1 U
Trichloroethene	*470*	**200,000**		30 U	30 U	nc	8.5	3 J	760 U	11	5.5 J
Vinyl chloride	*20*	**13,000**		*1200*	30 U	nc	*63*	6.1 U	760 U	1.7 J	6.1 U

Notes:

* - Area 3 merged with Area 5 - final post-excavation samples are from Area 5

µg/kg - Micrograms per kilogram

Bold Shade - Exceeds Restricted Commercial Standard

DUP - Duplicate

Italic Shade - Exceeds Unrestricted Residential Standard

J - Estimated value

nc - Not collected (sidewall against foundation)

NYSDEC - New York State Department of Environmental Conservation

offsite - Compared to Unrestricted Residential Standard

onsite - Compared to Restricted Commercial Standard

U - Analyte not detected at the detection limit shown

Table 13. Summary of Volatile Organic Compounds Detected in Post Excavation Samples, Coral Island Shopping Center, Staten Island, New York.

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	Sample ID:	A5-N1	A5-S	A5-E	A5-E1	A5-E2	A5-E'	A5-E1'	A5-W
			Location:	*offsite*	**onsite**	*offsite*	*offsite*	*offsite*	*offsite*	*offsite*	*offsite*
			Sample Date:	8/29/2007	8/31/07	8/24/07	8/29/07	8/29/07	8/31/07	9/6/2007	8/24/07
1,2-Dichloroethane	*20*	**30,000**		30 U	5.5 U	740 U	760 U	780 U	760 U	5.9 U	6 U
cis-1,2-Dichloroethene	*250*	**500,000**		17 J	8.5	*1500*	*720 J*	*790*	760 U	5.9 U	53
trans-1,2-Dichloroethene	*190*	**500,000**		30 U	5.5 U	740 U	760 U	780 U	760 U	5.9 U	6 U
Tetrachloroethene	*1,300*	**150,000**		320	150	740 U	*18,000*	*56,000*	*4,500*	9.0	40
1,1,1-Trichloroethane	*680*	**500,000**		30 U	5.5 U	740 U	760 U	780 U	760 U	5.9 U	6 U
Trichloroethene	*470*	**200,000**		6.3 J	9.8	190 J	*730 J*	*1,500*	430 J	5.9 U	16
Vinyl chloride	*20*	**13,000**		30 U	5.5 U	*250 J*	760 U	780 U	760 U	5.9 U	6 U

Notes:

* - Area 3 merged with Area 5 - final post-excavation samples are from Area 5

µg/kg - Micrograms per kilogram

Bold Shade - Exceeds Restricted Commercial Standard

DUP - Duplicate

Italic Shade - Exceeds Unrestricted Residential Standard

J - Estimated value

nc - Not collected (sidewall against foundation)

NYSDEC - New York State Department of Environmental Conservation

offsite - Compared to Unrestricted Residential Standard

onsite - Compared to Restricted Commercial Standard

U - Analyte not detected at the detection limit shown

Table 13. Summary of Volatile Organic Compounds Detected in Post Excavation Samples, Coral Island Shopping Center, Staten Island, New York.

Analyte (Concentrations in µg/kg)	NYSDEC Unrestricted Residential (offsite)	NYSDEC Restricted Commercial (onsite)	Sample ID:	A5-W1	A5-B
			Location:	*offsite*	*offsite*
			Sample Date:	8/29/07	8/31/07
1,2-Dichloroethane	*20*	**30,000**		6 U	30 U
cis-1,2-Dichloroethene	*250*	**500,000**		14	110
trans-1,2-Dichloroethene	*190*	**500,000**		6 U	30 U
Tetrachloroethene	*1,300*	**150,000**		23	170
1,1,1-Trichloroethane	*680*	**500,000**		6 U	30 U
Trichloroethene	*470*	**200,000**		1.3 J	9.2 J
Vinyl chloride	*20*	**13,000**		5.5 J	30 U

Notes:

* - Area 3 merged with Area 5 - final post-excavation samples are from Area 5

µg/kg - Micrograms per kilogram

Bold Shade - Exceeds Restricted Commercial Standard

DUP - Duplicate

Italic Shade - Exceeds Unrestricted Residential Standard

J - Estimated value

nc - Not collected (sidewall against foundation)

NYSDEC - New York State Department of Environmental Conservation

offsite - Compared to Unrestricted Residential Standard

onsite - Compared to Restricted Commercial Standard

U - Analyte not detected at the detection limit shown

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-101D 8/9/07	MW-101D 12/11/07	MW-101D 3/11/08	MW-101D 6/30/08	MW-101D 9/29/08	MW-101D 12/18/08
Acetone	50		1,200 U	damaged	5 U	5 U	5 U	25 U
Acrolein	5		1,200 U	damaged	5 U	5 U	5 U	25 U
Acrylonitrile	5		250 U	damaged	5 U	1 U	1 U	5 U
Benzene	1		50 U	damaged	0.5 U	0.5 U	0.5 U	2.5 U
Bromodichloromethane	50		250 U	damaged	1 U	1 U	1 U	5 U
Bromoform	50		250 U	damaged	1 U	1 U	1 U	5 U
Bromomethane	5		250 U	damaged	1 U	1 U	1 U	5 U
2-Butanone (MEK)	--		250 U	damaged	5 U	1 U	1 U	5 U
t-Butyl Alcohol	--		1100 J	damaged	5 U	5 U	5 U	25 U
n-Butylbenzene	5		50 U	damaged	1 U	1 U	1 U	5 U
sec-Butylbenzene	5		50 U	damaged	1 U	1 U	1 U	5 U
tert-Butylbenzene	--		50 U	damaged	1 U	1 U	1 U	5 U
Carbon disulfide	60		250 U	damaged	5.3	1.1	1 U	5 U
Carbon tetrachloride	5		250 U	damaged	1 U	1 U	1 U	5 U
Chlorobenzene	5		250 U	damaged	1 U	1 U	1 U	5 U
Chloroethane	5		250 U	damaged	1 U	1 U	1 U	5 U
2-Chloroethylvinylether	--		250 U	damaged	5 U	1 U	1 U	5 U
Chloroform	7		250 U	damaged	1 U	1.5	1 U	5 U
Chloromethane	--		250 U	damaged	1 U	1 U	1 U	5 U
Dibromochloromethane	50		250 U	damaged	1 U	1 U	1 U	5 U
1,2-Dichlorobenzene	3		250 U	damaged	1 U	1 U	1 U	5 U
1,3-Dichlorobenzene	3		250 U	damaged	1 U	1 U	1 U	5 U
1,4-Dichlorobenzene	3		250 U	damaged	1 U	1 U	1 U	5 U
Dichlorodifluoromethane	5		250 U	damaged	1 U	1 U	1 U	5 U
1,1-Dichloroethane	5		250 U	damaged	1 U	1 U	1 U	5 U
1,2-Dichloroethane	0.6		250 U	damaged	0.5 U	0.5 U	0.5 U	2.5 U
1,1-Dichloroethene	5		**120 J**	damaged	1 U	1 U	1 U	5 U
cis-1,2-Dichloroethene	5		**9,700**	damaged	2.8	**11**	**60**	**490**
trans-1,2-Dichloroethene	5		250 U	damaged	1 U	1 U	1.1	5 U
1,2-Dichloropropane	1		250 U	damaged	1 U	1 U	1 U	5 U
1,3-Dichloropropane	5		250 U	damaged	1 U	1 U	1 U	5 U
cis-1,3-Dichloropropene	--		250 U	damaged	1 U	1 U	1 U	5 U
trans-1,3-Dichloropropene	--		250 U	damaged	1 U	1 U	1 U	5 U
1,4-Dioxane	--		12,000 U	damaged	250 U	50 U	50 U	250 U
Ethylbenzene	5		50 U	damaged	1 U	1 U	1 U	5 U
Freon 113	--		250 U	damaged	1 U	1 U	1 U	5 U
2-Hexanone	50		250 U	damaged	5 U	1 U	1 U	5 U
Isopropylbenzene	--		50 U	damaged	1 U	1 U	1 U	5 U
4-Isopropyltoluene	--		50 U	damaged	1.1	1 U	1 U	5 U
4-Methyl-2-pentanone	--		250 U	damaged	1 U	1 U	1 U	5 U
Methylene chloride	5		250 U	damaged	1 U	1 U	1 U	5 U
MTBE	10		50 U	damaged	1 U	1 U	0.5 U	2.5 U
n-Propylbenzene	5		50 U	damaged	1 U	1 U	1 U	5 U
Styrene	5		250 U	damaged	1 U	1 U	1 U	5 U
1,1,2,2-Tetrachloroethane	5		250 U	damaged	1 U	1 U	1 U	5 U
Tetrachloroethene	5		**17,000**	damaged	1.8	**5.5**	**27**	5 U
Toluene	5		50 U	damaged	5.4	4.3	1 U	5 U
1,1,1-Trichloroethane	5		250 U	damaged	1 U	1 U	1 U	5 U
1,1,2-Trichloroethane	1		250 U	damaged	1 U	1 U	1 U	5 U
Trichloroethene	5		**2,300**	damaged	2.3	4.3	**15**	**43**
Trichlorofluoromethane	5		250 U	damaged	1 U	1 U	1 U	5 U
1,2,3-Trichloropropane	0.04		250 U	damaged	1 U	1 U	1 U	5 U
1,2,4-Trimethylbenzene	5		50 U	damaged	1 U	1 U	1 U	5 U
1,3,5-Trimethylbenzene	5		50 U	damaged	1 U	1 U	1 U	5 U
Vinyl chloride	2		**660**	damaged	1.6	**4.8**	**40**	**140**
o-Xylene	5		50 U	damaged	1 U	1 U	1 U	5 U
M&p-Xylenes	5		nr	damaged	2 U	2 U	2 U	10 U
Xylenes (total)	5		100 U	ns				5 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-101S 8/9/07	MW-101S 12/11/07	MW-101S 3/10/08	MW-101S 6/30/08	MW-101S 9/29/08	MW-101S 12/18/08
Acetone	50		2,500 U	5,000 U	**3,600**	**400**	**120**	50 U
Acrolein	5		2,500 U	5,000 U	500 U	100 U	5 U	50 U
Acrylonitrile	5		500 U	1,000 U	500 U	20 U	1 U	10 U
Benzene	1		100 U	200 U	50 U	10 U	0.5 U	5 U
Bromodichloromethane	50		500 U	1,000 U	100 U	20 U	1 U	10 U
Bromoform	50		500 U	1,000 U	100 U	20 U	1 U	10 U
Bromomethane	5		500 U	1,000 U	100 U	20 U	1 U	10 U
2-Butanone (MEK)	--		500 U	1,000 U	500 U	630	1 U	10 U
t-Butyl Alcohol	--		2,500 U	5,000 U	500 U	100 U	5 U	50 U
n-Butylbenzene	5		100 U	200 U	100 U	20 U	1 U	10 U
sec-Butylbenzene	5		100 U	200 U	100 U	20 U	1 U	10 U
tert-Butylbenzene	--		100 U	200 U	100 U	20 U	1 U	10 U
Carbon disulfide	60		500 U	1,000 U	100 U	20 U	1 U	10 U
Carbon tetrachloride	5		500 U	1,000 U	100 U	20 U	1 U	10 U
Chlorobenzene	5		500 U	1,000 U	100 U	20 U	1 U	10 U
Chloroethane	5		500 U	1,000 U	100 U	20 U	2.2	10 U
2-Chloroethylvinylether	--		500 U	1,000 U	500 U	20 U	1 U	10 U
Chloroform	7		500 U	1,000 U	100 U	20 U	1 U	10 U
Chloromethane	--		500 U	1,000 U	100 U	20 U	1 U	10 U
Dibromochloromethane	50		500 U	1,000 U	100 U	20 U	1 U	10 U
1,2-Dichlorobenzene	3		500 U	1,000 U	100 U	20 U	1 U	10 U
1,3-Dichlorobenzene	3		500 U	1,000 U	100 U	20 U	1 U	10 U
1,4-Dichlorobenzene	3		500 U	1,000 U	100 U	20 U	1 U	10 U
Dichlorodifluoromethane	5		500 U	1,000 U	100 U	20 U	1 U	10 U
1,1-Dichloroethane	5		500 U	1,000 U	100 U	20 U	1 U	10 U
1,2-Dichloroethane	0.6		500 U	1,000 U	50 U	10 U	0.5 U	5 U
1,1-Dichloroethene	5		**350 J**	1,000 U	100 U	20 U	1 U	10 U
cis-1,2-Dichloroethene	5		**13,000**	**27,000**	**22,000**	**1,900**	**390**	**1000**
trans-1,2-Dichloroethene	5		500 U	1,000 U	100 U	20 U	1.7	10 U
1,2-Dichloropropane	1		500 U	1,000 U	100 U	20 U	1 U	10 U
1,3-Dichloropropane	5		500 U	1,000 U	100 U	20 U	1 U	10 U
cis-1,3-Dichloropropene	--		500 U	1,000 U	100 U	20 U	1 U	10 U
trans-1,3-Dichloropropene	--		500 U	1,000 U	100 U	20 U	1 U	10 U
1,4-Dioxane	--		25,000 U	50,000 U	25000 U	1000 U	50 U	500 U
Ethylbenzene	5		100 U	200 U	100 U	20 U	1 U	10 U
Freon 113	--		500 U	nr	500 U	20 U	1 U	10 U
2-Hexanone	50		500 U	1,000 U	500 U	20 U	1 U	10 U
Isopropylbenzene	--		100 U	200 U	100 U	20 U	1 U	10 U
4-Isopropyltoluene	--		100 U	200 U	100 U	20 U	1 U	10 U
4-Methyl-2-pentanone	--		500 U	1,000 U	500 U	20 U	1 U	10 U
Methylene chloride	5		500 U	1,000 U	100 U	20 U	1 U	10 U
MTBE	10		100 U	200 U	100 U	20 U	0.5 U	5 U
n-Propylbenzene	5		100 U	200 U	100 U	20 U	1 U	10 U
Styrene	5		500 U	1,000 U	100 U	20 U	1 U	10 U
1,1,2,2-Tetrachloroethane	5		500 U	1,000 U	100 U	20 U	1 U	10 U
Tetrachloroethene	5		**2,200**	1,000 U	100 U	20 U	1 U	10 U
Toluene	5		100 U	200 U	100 U	20 U	4.9	10 U
1,1,1-Trichloroethane	5		500 U	1,000 U	100 U	20 U	1 U	10 U
1,1,2-Trichloroethane	1		500 U	1,000 U	100 U	20 U	1 U	10 U
Trichloroethene	5		**2,300**	1,000 U	100 U	20 U	1 U	10 U
Trichlorofluoromethane	5		500 U	1,000 U	100 U	20 U	1 U	10 U
1,2,3-Trichloropropane	0.04		500 U	1,000 U	100 U	20 U	1 U	10 U
1,2,4-Trimethylbenzene	5		100 U	200 U	100 U	20 U	1 U	10 U
1,3,5-Trimethylbenzene	5		100 U	200 U	100 U	20 U	1 U	10 U
Vinyl chloride	2		**2,200**	**14,000**	**10,000**	**750**	**170**	**850**
o-Xylene	5		100 U	200 U	100 U	20 U	1 U	10 U
M&p-Xylenes	5		nr	nr	200 U	40 U	2 U	20 U
Xylenes (total)	5		200 U	-				10 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-103D 8/10/07	MW-103D 12/11/07	MW-103D 3/11/08	MW-103D 7/1/08	MW-103D 9/29/08	MW-103D 12/18/08
Acetone	50		25 U	25 U	5 U	5 U	5 U	5 U
Acrolein	5		25 U	25 U	5 U	5 U	5 U	5 U
Acrylonitrile	5		5 U	5 U	5 U	1 U	1 U	1 U
Benzene	1		1 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50		5 U	5 U	1 U	1 U	1 U	1 U
Bromoform	50		5 U	5 U	1 U	1 U	1 U	1 U
Bromomethane	5		5 U	5 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	--		5 U	5 U	5 U	1 U	1 U	1 U
t-Butyl Alcohol	--		25 U	25 U	5 U	5 U	5 U	5 U
n-Butylbenzene	5		1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	5		1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	--		1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	60		5 U	5 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	5		5 U	5 U	1 U	1 U	1 U	1 U
Chlorobenzene	5		5 U	5 U	1 U	1 U	1 U	1 U
Chloroethane	5		5 U	5 U	1 U	1 U	1 U	1 U
2-Chloroethylvinylether	--		5 U	5 U	5 U	1 U	1 U	1 U
Chloroform	7		5 U	5 U	1 U	1 U	1 U	1 U
Chloromethane	--		5 U	5 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50		5 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3		5 U	5 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3		5 U	5 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3		5 U	5 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5		5 U	5 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5		5 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6		5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	5		1.5 J	5 U	1 U	1 U	1	1 U
cis-1,2-Dichloroethene	5		**170**	**170**	**160**	**140**	**130**	**140**
trans-1,2-Dichloroethene	5		1.9 J	1.7 J	1 U	1.9	2.4	1.8
1,2-Dichloropropane	1		5 U	5 U	1 U	1 U	1 U	1 U
1,3-Dichloropropane	5		5 U	5 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	--		5 U	5 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	--		5 U	5 U	1 U	1 U	1 U	1 U
1,4-Dioxane	--		250 U	250 U	250 U	50 U	50 U	50 U
Ethylbenzene	5		1 U	1 U	1 U	1 U	1 U	1 U
Freon 113	--		5 U	5 U	5 U	1 U	1 U	1 U
2-Hexanone	50		5 U	5 U	5 U	1 U	1 U	1 U
Isopropylbenzene	--		1 U	1 U	1 U	1 U	1 U	1 U
4-Isopropyltoluene	--		1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	--		5 U	5 U	5 U	1 U	1 U	1 U
Methylene chloride	5		5 U	5 U	1 U	1 U	1 U	1 U
MTBE	10		1 U	1 U	1 U	1 U	0.5 U	0.5 U
n-Propylbenzene	5		1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5		5 U	5 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5		5 U	5 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5		5 U	1.5 J	1 U	1 U	1 U	1 U
Toluene	5		1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	5		5 U	5 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1		5 U	5 U	1 U	1 U	1 U	1 U
Trichloroethene	5		**6.7**	**5.8**	4.5	4.7	3.9	3.8
Trichlorofluoromethane	5		5 U	5 U	1 U	1 U	1 U	1 U
1,2,3-Trichloropropane	0.04		5 U	5 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	5		1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	5		1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2		**20**	**18**	**17**	**17**	**16**	**16**
o-Xylene	5		1 U	1 U	1 U	1 U	1 U	1 U
M&p-Xylenes	5		nr	2 U	2 U	2 U	2 U	2 U
Xylenes (total)	5		2 U	-				1 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-103S 8/10/07	MW-103S 12/11/07	MW-103S 3/11/08	MW-103S 7/1/08	MW-103S 9/29/08	MW-103S 12/18/08
Acetone	50		25 U	dry	dry	dry	dry	dry
Acrolein	5		25 U	dry	dry	dry	dry	dry
Acrylonitrile	5		5 U	dry	dry	dry	dry	dry
Benzene	1		1 U	dry	dry	dry	dry	dry
Bromodichloromethane	50		5 U	dry	dry	dry	dry	dry
Bromoform	50		5 U	dry	dry	dry	dry	dry
Bromomethane	5		5 U	dry	dry	dry	dry	dry
2-Butanone (MEK)	--		5 U	dry	dry	dry	dry	dry
t-Butyl Alcohol	--		25 U	dry	dry	dry	dry	dry
n-Butylbenzene	5		1 U	dry	dry	dry	dry	dry
sec-Butylbenzene	5		1 U	dry	dry	dry	dry	dry
tert-Butylbenzene	--		1 U	dry	dry	dry	dry	dry
Carbon disulfide	60		5 U	dry	dry	dry	dry	dry
Carbon tetrachloride	5		5 U	dry	dry	dry	dry	dry
Chlorobenzene	5		5 U	dry	dry	dry	dry	dry
Chloroethane	5		5 U	dry	dry	dry	dry	dry
2-Chloroethylvinylether	--		5 U	dry	dry	dry	dry	dry
Chloroform	7		5 U	dry	dry	dry	dry	dry
Chloromethane	--		5 U	dry	dry	dry	dry	dry
Dibromochloromethane	50		5 U	dry	dry	dry	dry	dry
1,2-Dichlorobenzene	3		5 U	dry	dry	dry	dry	dry
1,3-Dichlorobenzene	3		5 U	dry	dry	dry	dry	dry
1,4-Dichlorobenzene	3		5 U	dry	dry	dry	dry	dry
Dichlorodifluoromethane	5		5 U	dry	dry	dry	dry	dry
1,1-Dichloroethane	5		5 U	dry	dry	dry	dry	dry
1,2-Dichloroethane	0.6		5 U	dry	dry	dry	dry	dry
1,1-Dichloroethene	5		5 U	dry	dry	dry	dry	dry
cis-1,2-Dichloroethene	5		**10**	dry	dry	dry	dry	dry
trans-1,2-Dichloroethene	5		5 U	dry	dry	dry	dry	dry
1,2-Dichloropropane	1		5 U	dry	dry	dry	dry	dry
1,3-Dichloropropane	5		5 U	dry	dry	dry	dry	dry
cis-1,3-Dichloropropene	--		5 U	dry	dry	dry	dry	dry
trans-1,3-Dichloropropene	--		5 U	dry	dry	dry	dry	dry
1,4-Dioxane	--		250 U	dry	dry	dry	dry	dry
Ethylbenzene	5		1 U	dry	dry	dry	dry	dry
Freon 113	--		5 U	dry	dry	dry	dry	dry
2-Hexanone	50		5 U	dry	dry	dry	dry	dry
Isopropylbenzene	--		1 U	dry	dry	dry	dry	dry
4-Isopropyltoluene	--		1 U	dry	dry	dry	dry	dry
4-Methyl-2-pentanone	--		5 U	dry	dry	dry	dry	dry
Methylene chloride	5		5 U	dry	dry	dry	dry	dry
MTBE	10		1 U	dry	dry	dry	dry	dry
n-Propylbenzene	5		1 U	dry	dry	dry	dry	dry
Styrene	5		5 U	dry	dry	dry	dry	dry
1,1,2,2-Tetrachloroethane	5		5 U	dry	dry	dry	dry	dry
Tetrachloroethene	5		**10**	dry	dry	dry	dry	dry
Toluene	5		1 U	dry	dry	dry	dry	dry
1,1,1-Trichloroethane	5		5 U	dry	dry	dry	dry	dry
1,1,2-Trichloroethane	1		5 U	dry	dry	dry	dry	dry
Trichloroethene	5		**8**	dry	dry	dry	dry	dry
Trichlorofluoromethane	5		5 U	dry	dry	dry	dry	dry
1,2,3-Trichloropropane	0.04		5 U	dry	dry	dry	dry	dry
1,2,4-Trimethylbenzene	5		1 U	dry	dry	dry	dry	dry
1,3,5-Trimethylbenzene	5		1 U	dry	dry	dry	dry	dry
Vinyl chloride	2		5 U	dry	dry	dry	dry	dry
o-Xylene	5		1 U	dry	dry	dry	dry	dry
M&p-Xylenes	5		nr	dry	dry	dry	dry	dry
Xylenes (total)	5		2 U	ns				

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-112D 8/10/07	MW-112D 12/14/07	MW-112D 3/13/08	MW-112D 6/30/08	MW-112D 9/30/08	MW-112D 12/18/08
Acetone	50		25 U	120 U	25 U	25U	25 U	25 U
Acrolein	5		25 U	120 U	25 U	25U	25 U	25 U
Acrylonitrile	5		5 U	25 U	25 U	5U	5 U	5 U
Benzene	1		1 U	5 U	2.5 U	2.5U	2.5 U	2.5 U
Bromodichloromethane	50		5 U	25 U	5 U	5U	5 U	5 U
Bromoform	50		5 U	25 U	5 U	5U	5 U	5 U
Bromomethane	5		5 U	25 U	5 U	5U	5 U	5 U
2-Butanone (MEK)	--		5 U	25 U	5 U	5U	5 U	5 U
t-Butyl Alcohol	--		25 U	120 U	120 U	25U	25 U	25 U
n-Butylbenzene	5		1 U	5 U	5 U	5U	5 U	5 U
sec-Butylbenzene	5		1 U	5 U	5 U	5U	5 U	5 U
tert-Butylbenzene	--		1 U	5 U	5 U	5U	5 U	5 U
Carbon disulfide	60		5 U	25 U	5 U	5U	5 U	5 U
Carbon tetrachloride	5		5 U	25 U	5 U	5U	5 U	5 U
Chlorobenzene	5		5 U	25 U	5 U	5U	5 U	5 U
Chloroethane	5		5 U	25 U	5 U	5U	5 U	5 U
2-Chloroethylvinylether	--		5 U	25 U	5 U	5U	5 U	5 U
Chloroform	7		5 U	25 U	5 U	5U	5 U	5 U
Chloromethane	--		5 U	25 U	5 U	5U	5 U	5 U
Dibromochloromethane	50		5 U	25 U	5 U	5U	5 U	5 U
1,2-Dichlorobenzene	3		5 U	25 U	5 U	5U	5 U	5 U
1,3-Dichlorobenzene	3		5 U	25 U	5 U	5U	5 U	5 U
1,4-Dichlorobenzene	3		5 U	25 U	5 U	5U	5 U	5 U
Dichlorodifluoromethane	5		5 U	25 U	5 U	5U	5 U	5 U
1,1-Dichloroethane	5		5 U	25 U	5 U	5U	5 U	5 U
1,2-Dichloroethane	0.6		5 U	25 U	2.5 U	2.5U	2.5 U	2.5 U
1,1-Dichloroethene	5		5 U	25 U	5 U	5U	5 U	5 U
cis-1,2-Dichloroethene	5		**12**	**660**	**670**	**580**	**750**	**560**
trans-1,2-Dichloroethene	5		5 U	**5.9 J**	**6.6**	**5.9**	**11**	**6.3**
1,2-Dichloropropane	1		5 U	25 U	5 U	5U	5 U	5 U
1,3-Dichloropropane	5		5 U	25 U	5 U	5U	5 U	5 U
cis-1,3-Dichloropropene	--		5 U	25 U	5 U	5U	5 U	5 U
trans-1,3-Dichloropropene	--		5 U	25 U	5 U	5U	5 U	5 U
1,4-Dioxane	--		250 U	1,200 U	250 U	250U	250 U	250 U
Ethylbenzene	5		1 U	5 U	5 U	5U	5 U	5 U
Freon 113	--		5 U	25 U	5 U	5U	5 U	5 U
2-Hexanone	50		5 U	25 U	5 U	5U	5 U	5 U
Isopropylbenzene	--		1 U	5 U	5 U	5U	5 U	5 U
4-Isopropyltoluene	--		1 U	5 U	5 U	5U	5 U	5 U
4-Methyl-2-pentanone	--		5 U	25 U	5 U	5U	5 U	5 U
Methylene chloride	5		5 U	25 U	5 U	5U	5 U	5 U
MTBE	10		1 U	5 U	5 U	5U	2.5 U	2.5 U
n-Propylbenzene	5		1 U	5 U	5 U	5U	5 U	5 U
Styrene	5		5 U	25 U	5 U	5U	5 U	5 U
1,1,2,2-Tetrachloroethane	5		5 U	25 U	5 U	5U	5 U	5 U
Tetrachloroethene	5		5 U	25 U	5 U	5U	5 U	5 U
Toluene	5		1 U	5 U	5 U	5U	5 U	5 U
1,1,1-Trichloroethane	5		5 U	25 U	5 U	5U	5 U	5 U
1,1,2-Trichloroethane	1		5 U	25 U	5 U	5U	5 U	5 U
Trichloroethene	5		1.4 J	**37**	**38**	**44**	**55**	**55**
Trichlorofluoromethane	5		5 U	25 U	5 U	5U	5 U	5 U
1,2,3-Trichloropropane	0.04		5 U	25 U	5 U	5U	5 U	5 U
1,2,4-Trimethylbenzene	5		1 U	5 U	5 U	5U	5 U	5 U
1,3,5-Trimethylbenzene	5		1 U	5 U	5 U	5U	5 U	5 U
Vinyl chloride	2		5 U	**27**	**26**	**29**	**28**	**20**
o-Xylene	5		1 U	5 U	5 U	5U	5 U	5 U
M&p-Xylenes	5		nr	10 U	10 U	10U	10 U	10 U
Xylenes (total)	5		2 U	-				5 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-113D 8/13/07	MW-113D 12/11/07	MW-113D 3/11/08	MW-113D 7/1/08	MW-113D 9/29/08	MW-113D 12/18/08
Acetone	50		25 U	25 U	5 U	25 U	50 U	25 U
Acrolein	5		25 U	25 U	5 U	25 U	50 U	25 U
Acrylonitrile	5		5 U	5 U	5 U	5 U	10 U	5 U
Benzene	1		1 U	1 U	0.5 U	2.5 U	5 U	2.5 U
Bromodichloromethane	50		5 U	5 U	1 U	5 U	10 U	5 U
Bromoform	50		5 U	5 U	1 U	5 U	10 U	5 U
Bromomethane	5		5 U	5 U	1 U	5 U	10 U	5 U
2-Butanone (MEK)	--		5 U	5 U	5 U	5 U	10 U	**320**
t-Butyl Alcohol	--		25 U	25 U	5 U	25 U	50 U	25 U
n-Butylbenzene	5		1 U	1 U	1 U	5 U	10 U	5 U
sec-Butylbenzene	5		1 U	1 U	1 U	5 U	10 U	5 U
tert-Butylbenzene	--		1 U	1 U	1 U	5 U	10 U	5 U
Carbon disulfide	60		5 U	5 U	1 U	5 U	10 U	5 U
Carbon tetrachloride	5		5 U	5 U	1 U	5 U	10 U	5 U
Chlorobenzene	5		5 U	5 U	1 U	5 U	10 U	5 U
Chloroethane	5		5 U	5 U	1 U	5 U	10 U	5 U
2-Chloroethylvinylether	--		5 U	5 U	5 U	5 U	50 U	5 U
Chloroform	7		5 U	5 U	1 U	5 U	10 U	5 U
Chloromethane	--		5 U	5 U	1 U	5 U	10 U	5 U
Dibromochloromethane	50		5 U	5 U	1 U	5 U	10 U	5 U
1,2-Dichlorobenzene	3		5 U	5 U	1 U	5 U	10 U	5 U
1,3-Dichlorobenzene	3		5 U	5 U	1 U	5 U	10 U	5 U
1,4-Dichlorobenzene	3		5 U	5 U	1 U	5 U	10 U	5 U
Dichlorodifluoromethane	5		5 U	5 U	1 U	5 U	10 U	5 U
1,1-Dichloroethane	5		5 U	5 U	1 U	5 U	10 U	5 U
1,2-Dichloroethane	0.6		5 U	5 U	0.5 U	2.5 U	5 U	2.5 U
1,1-Dichloroethene	5		5 U	5 U	3.2	**6.7**	10 U	5 U
cis-1,2-Dichloroethene	5		**140**	**380**	**320**	**390**	**1,900**	5 U
trans-1,2-Dichloroethene	5		**6.6**	**6.1**	**6.5**	5 U	**21**	5 U
1,2-Dichloropropane	1		5 U	5 U	1 U	5 U	10 U	5 U
1,3-Dichloropropane	5		5 U	5 U	1 U	5 U	10 U	5 U
cis-1,3-Dichloropropene	--		5 U	5 U	1 U	5 U	10 U	5 U
trans-1,3-Dichloropropene	--		5 U	5 U	1 U	5 U	10 U	5 U
1,4-Dioxane	--		250 U	250 U	250 U	250 U	500 U	250 U
Ethylbenzene	5		1 U	1 U	1 U	5 U	10 U	5 U
Freon 113	--		5 U	nr	5 U	5 U	10 U	5 U
2-Hexanone	50		5 U	5 U	5 U	5 U	50 U	5 U
Isopropylbenzene	--		1 U	1 U	1 U	5 U	10 U	5 U
4-Isopropyltoluene	--		1 U	1 U	1 U	5 U	10 U	5 U
4-Methyl-2-pentanone	--		5 U	5 U	5 U	5 U	10 U	5 U
Methylene chloride	5		2 J	5 U	1 U	5 U	10 U	5 U
MTBE	10		1 U	1 U	1 U	5 U	5 U	2.5 U
n-Propylbenzene	5		1 U	1 U	1 U	5 U	10 U	5 U
Styrene	5		5 U	5 U	1 U	5 U	10 U	5 U
1,1,2,2-Tetrachloroethane	5		5 U	5 U	1 U	5 U	10 U	5 U
Tetrachloroethene	5		**250**	**160**	**130**	**39**	**350**	5 U
Toluene	5		1 U	1 U	1 U	5 U	10 U	5 U
1,1,1-Trichloroethane	5		5 U	5 U	1 U	5 U	10 U	5 U
1,1,2-Trichloroethane	1		5 U	5 U	1 U	5 U	10 U	5 U
Trichloroethene	5		**100**	5 U	**170**	**39**	**360**	5 U
Trichlorofluoromethane	5		5 U	5 U	1 U	5 U	10 U	5 U
1,2,3-Trichloropropane	0.04		5 U	5 U	1 U	5 U	10 U	5 U
1,2,4-Trimethylbenzene	5		1 U	1 U	1 U	5 U	10 U	5 U
1,3,5-Trimethylbenzene	5		1 U	1 U	1 U	5 U	10 U	5 U
Vinyl chloride	2		1.5 J	**11**	**9.8**	**44**	**240**	5 U
o-Xylene	5		1 U	1 U	1 U	5 U	10 U	5 U
M&p-Xylenes	5		nr	nr	2 U	10 U	20 U	10 U
Xylenes (total)	5		2 U	-				5 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-113S 8/13/07	MW-113S 12/11/07	MW-113S 3/11/08	MW-113S 7/1/08	MW-113S 9/29/08	MW-113S 12/18/08
Acetone	50		25 U	250 U	5 U	50 U	5 U	5 U
Acrolein	5		25 U	250 U	5 U	50 U	5 U	5 U
Acrylonitrile	5		5 U	50 U	5 U	10 U	1 U	1 U
Benzene	1		1 U	10 U	0.5 U	5 U	0.5 U	0.5 U
Bromodichloromethane	50		5 U	50 U	1 U	10 U	1 U	1 U
Bromoform	50		5 U	50 U	1 U	10 U	1 U	1 U
Bromomethane	5		5 U	50 U	1 U	10 U	1 U	1 U
2-Butanone (MEK)	--		5 U	50 U	5 U	570	1 U	1 U
t-Butyl Alcohol	--		25 U	250 U	5 U	50 U	5 U	5 U
n-Butylbenzene	5		1 U	10 U	1 U	10 U	1 U	1 U
sec-Butylbenzene	5		1 U	10 U	1 U	10 U	1 U	1 U
tert-Butylbenzene	--		1 U	10 U	1 U	10 U	1 U	1 U
Carbon disulfide	60		5 U	50 U	1 U	10 U	1 U	1 U
Carbon tetrachloride	5		5 U	50 U	1 U	10 U	1 U	1 U
Chlorobenzene	5		5 U	50 U	1 U	10 U	1 U	1 U
Chloroethane	5		5 U	50 U	1 U	10 U	1 U	1 U
2-Chloroethylvinylether	--		5 U	50 U	5 U	10 U	5 U	1 U
Chloroform	7		5 U	50 U	1 U	10 U	1 U	1 U
Chloromethane	--		5 U	50 U	1 U	10 U	1 U	1 U
Dibromochloromethane	50		5 U	50 U	1 U	10 U	1 U	1 U
1,2-Dichlorobenzene	3		5 U	50 U	1 U	10 U	1 U	1 U
1,3-Dichlorobenzene	3		5 U	50 U	1 U	10 U	1 U	1 U
1,4-Dichlorobenzene	3		5 U	50 U	1 U	10 U	1 U	1 U
Dichlorodifluoromethane	5		5 U	50 U	1 U	10 U	1 U	1 U
1,1-Dichloroethane	5		5 U	50 U	1 U	10 U	1 U	1 U
1,2-Dichloroethane	0.6		5 U	50 U	0.5 U	5 U	0.5 U	0.5 U
1,1-Dichloroethene	5		5 U	50 U	1 U	**13**	1 U	1 U
cis-1,2-Dichloroethene	5		4 J	**2,800**	1.5	**1,400**	**90**	2.1
trans-1,2-Dichloroethene	5		5 U	**12 J**	1 U	10 U	1.7	1 U
1,2-Dichloropropane	1		5 U	50 U	1 U	10 U	1 U	1 U
1,3-Dichloropropane	5		5 U	50 U	1 U	10 U	1 U	1 U
cis-1,3-Dichloropropene	--		5 U	50 U	1 U	10 U	1 U	1 U
trans-1,3-Dichloropropene	--		5 U	50 U	1 U	10 U	1 U	1 U
1,4-Dioxane	--		250 U	2,500 U	250 U	500 U	50 U	50 U
Ethylbenzene	5		1 U	10 U	1 U	10 U	1 U	1 U
Freon 113	--		5 U	nr	1 U	10 U	1 U	1 U
2-Hexanone	50		5 U	50 U	5 U	10 U	5 U	1 U
Isopropylbenzene	--		1 U	10 U	1 U	10 U	1 U	1 U
4-Isopropyltoluene	--		1 U	10 U	1 U	10 U	1 U	1 U
4-Methyl-2-pentanone	--		5 U	50 U	1 U	10 U	1 U	1 U
Methylene chloride	5		5 U	50 U	1 U	10 U	1 U	1 U
MTBE	10		1 U	10 U	1 U	10 U	0.5 U	0.5 U
n-Propylbenzene	5		1 U	10 U	1 U	10 U	1 U	1 U
Styrene	5		5 U	50 U	1 U	10 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5		5 U	50 U	1 U	10 U	1 U	1 U
Tetrachloroethene	5		5 U	**46 J**	1 U	10 U	**77**	1 U
Toluene	5		1 U	10 U	1 U	10 U	1 U	1 U
1,1,1-Trichloroethane	5		5 U	50 U	1 U	10 U	1 U	1 U
1,1,2-Trichloroethane	1		5 U	50 U	1 U	10 U	1 U	1 U
Trichloroethene	5		2.8 J	**420**	1 U	10 U	**35**	1 U
Trichlorofluoromethane	5		5 U	50 U	1 U	10 U	1 U	1 U
1,2,3-Trichloropropane	0.04		5 U	50 U	1 U	10 U	1 U	1 U
1,2,4-Trimethylbenzene	5		1 U	10 U	1 U	10 U	1 U	1 U
1,3,5-Trimethylbenzene	5		1 U	10 U	1 U	10 U	1 U	1 U
Vinyl chloride	2		5 U	**70**	1 U	**84**	**11**	1 U
o-Xylene	5		1 U	10 U	1 U	10 U	1 U	1 U
M&p-Xylenes	5		nr	nr	2 U	20 U	2 U	2 U
Xylenes (total)	5		2 U	-				1 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-205D 8/30/07	MW-205D 12/11/07	MW-205D 3/12/08	MW-205D 7/1/08	MW-205D 9/30/08	MW-205D 12/18/08
Acetone	50		1,200 U	250 U	25 U	25 U	25 U	25 U
Acrolein	5		1,200 U	250 U	25 U	25 U	25 U	25 U
Acrylonitrile	5		250 U	50 U	25 U	5 U	5 U	5 U
Benzene	1		50 U	10 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50		250 U	50 U	5 U	5 U	5 U	5 U
Bromoform	50		250 U	50 U	5 U	5 U	5 U	5 U
Bromomethane	5		250 U	50 U	5 U	5 U	5 U	5 U
2-Butanone (MEK)	--		250 U	50 U	25 U	5 U	5 U	5 U
t-Butyl Alcohol	--		1,200 U	250 U	25 U	25 U	25 U	25 U
n-Butylbenzene	5		50 U	10 U	5 U	5 U	5 U	5 U
sec-Butylbenzene	5		50 U	10 U	5 U	5 U	5 U	5 U
tert-Butylbenzene	--		50 U	10 U	5 U	5 U	5 U	5 U
Carbon disulfide	60		250 U	50 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	5		250 U	50 U	5 U	5 U	5 U	5 U
Chlorobenzene	5		250 U	50 U	5 U	5 U	5 U	5 U
Chloroethane	5		250 U	50 U	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	--		250 U	50 U	25 U	5 U	5 U	5 U
Chloroform	7		250 U	50 U	5 U	5 U	5 U	5 U
Chloromethane	--		250 U	50 U	5 U	5 U	5 U	5 U
Dibromochloromethane	50		250 U	50 U	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	3		250 U	50 U	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	3		250 U	50 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	3		250 U	50 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5		250 U	50 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5		250 U	50 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	0.6		250 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5		250 U	50 U	5 U	5 U	**5.1**	5 U
cis-1,2-Dichloroethene	5		**7,100**	**1,400**	**800**	**860**	**920**	**690**
trans-1,2-Dichloroethene	5		**64 J**	50 U	**11**	**13**	**19**	**11**
1,2-Dichloropropane	1		250 U	50 U	5 U	5 U	5 U	5 U
1,3-Dichloropropane	5		250 U	50 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	--		250 U	50 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	--		250 U	50 U	5 U	5 U	5 U	5 U
1,4-Dioxane	--		12,000 U	2,500 U	1200 U	250 U	250 U	250 U
Ethylbenzene	5		50 U	10 U	5 U	5 U	5 U	5 U
Freon 113	--		nr	nr	5 U	5 U	5 U	5 U
2-Hexanone	50		250 U	50 U	25 U	5 U	5 U	5 U
Isopropylbenzene	--		50 U	10 U	5 U	5 U	5 U	5 U
4-Isopropyltoluene	--		50 U	10 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	--		250 U	50 U	5 U	5 U	5 U	5 U
Methylene chloride	5		250 U	50 U	5 U	5 U	5 U	5 U
MTBE	10		50 U	10 U	5 U	5 U	2.5 U	2.5 U
n-Propylbenzene	5		50 U	10 U	5 U	5 U	5 U	5 U
Styrene	5		250 U	50 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5		250 U	50 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5		**150 J**	**52**	**31**	**65**	**60**	**50**
Toluene	5		50 U	10 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5		250 U	50 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	1		250 U	50 U	5 U	5 U	5 U	5 U
Trichloroethene	5		**360**	**74**	**47**	**76**	**66**	**59**
Trichlorofluoromethane	5		250 U	50 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	0.04		250 U	50 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	5		50 U	10 U	5 U	5 U	5 U	5 U
1,3,5-Trimethylbenzene	5		50 U	10 U	5 U	5 U	5 U	5 U
Vinyl chloride	2		**570**	**210**	**100**	**64**	**74**	**70**
o-Xylene	5		50 U	10 U	5 U	5 U	5 U	5 U
M&p-Xylenes	5		nr	nr	10 U	10 U	10 U	10 U
Xylenes (total)	5		-	-				5 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-205S 8/31/07	MW-205S 12/12/07	MW-205S 3/12/08	MW-205S 7/1/08	MW-205S 9/30/08	MW-205S 12/18/08
Acetone	50		25 U	25 U	5 U	**720**	50 U	5 U
Acrolein	5		25 U	25 U	5 U	25 U	50 U	5 U
Acrylonitrile	5		5 U	5 U	5 U	5 U	10 U	1 U
Benzene	1		1 U	1 U	0.5 U	2.5 U	5 U	0.5 U
Bromodichloromethane	50		5 U	5 U	1 U	5 U	10 U	1 U
Bromoform	50		5 U	5 U	1 U	5 U	10 U	1 U
Bromomethane	5		5 U	5 U	1 U	5 U	10 U	1 U
2-Butanone (MEK)	--		5 U	5 U	5 U	410	10 U	1 U
t-Butyl Alcohol	--		25 U	25 U	5 U	25 U	50 U	5 U
n-Butylbenzene	5		1 U	1 U	1 U	5 U	10 U	1 U
sec-Butylbenzene	5		1 U	1 U	1 U	5 U	10 U	1 U
tert-Butylbenzene	--		1 U	1 U	1 U	5 U	10 U	1 U
Carbon disulfide	60		5 U	5 U	1 U	5 U	10 U	1 U
Carbon tetrachloride	5		5 U	5 U	1 U	5 U	10 U	1 U
Chlorobenzene	5		5 U	5 U	1 U	5 U	10 U	1 U
Chloroethane	5		5 U	5 U	1 U	5 U	10 U	1 U
2-Chloroethylvinylether	--		5 U	5 U	5 U	5 U	50 U	1 U
Chloroform	7		5 U	5 U	1 U	5 U	10 U	1 U
Chloromethane	--		5 U	5 U	1 U	5 U	10 U	1 U
Dibromochloromethane	50		5 U	5 U	1 U	5 U	10 U	1 U
1,2-Dichlorobenzene	3		5 U	5 U	1 U	5 U	10 U	1 U
1,3-Dichlorobenzene	3		5 U	5 U	1 U	5 U	10 U	1 U
1,4-Dichlorobenzene	3		5 U	5 U	1 U	5 U	10 U	1 U
Dichlorodifluoromethane	5		5 U	5 U	1 U	5 U	10 U	1 U
1,1-Dichloroethane	5		5 U	5 U	1 U	5 U	10 U	1 U
1,2-Dichloroethane	0.6		5 U	5 U	0.5 U	2.5 U	5 U	0.5 U
1,1-Dichloroethene	5		5 U	5 U	1 U	5 U	**15**	1 U
cis-1,2-Dichloroethene	5		**26**	**11**	1 U	**48**	**1,000**	1 U
trans-1,2-Dichloroethene	5		5 U	5 U	1 U	5 U	**11**	1 U
1,2-Dichloropropane	1		5 U	5 U	1 U	5 U	10 U	1 U
1,3-Dichloropropane	5		5 U	5 U	1 U	5 U	10 U	1 U
cis-1,3-Dichloropropene	--		5 U	5 U	1 U	5 U	10 U	1 U
trans-1,3-Dichloropropene	--		5 U	5 U	1 U	5 U	10 U	1 U
1,4-Dioxane	--		250 U	250 U	250 U	250 U	500 U	50 U
Ethylbenzene	5		1 U	1 U	1 U	5 U	10 U	1 U
Freon 113	--		nr	nr	1 U	5 U	10 U	1 U
2-Hexanone	50		5 U	5 U	5 U	5 U	50 U	1 U
Isopropylbenzene	--		1 U	1 U	1 U	5 U	10 U	1 U
4-Isopropyltoluene	--		1 U	1 U	1 U	5 U	10 U	1 U
4-Methyl-2-pentanone	--		5 U	5 U	1 U	5 U	10 U	1 U
Methylene chloride	5		5 U	5 U	1 U	5 U	10 U	1 U
MTBE	10		1 U	1 U	1 U	5 U	5 U	0.5 U
n-Propylbenzene	5		1 U	1 U	1 U	5 U	10 U	1 U
Styrene	5		5 U	5 U	1 U	5 U	10 U	1 U
1,1,2,2-Tetrachloroethane	5		5 U	5 U	1 U	5 U	10 U	1 U
Tetrachloroethene	5		5 U	1.6 J	1 U	5 U	10 U	1 U
Toluene	5		1 U	1 U	1 U	5 U	10 U	1 U
1,1,1-Trichloroethane	5		5 U	5 U	1 U	5 U	10 U	1 U
1,1,2-Trichloroethane	1		5 U	5 U	1 U	5 U	10 U	1 U
Trichloroethene	5		5 U	5 U	1 U	5 U	10 U	1 U
Trichlorofluoromethane	5		5 U	5 U	1 U	5 U	10 U	1 U
1,2,3-Trichloropropane	0.04		5 U	5 U	1 U	5 U	10 U	1 U
1,2,4-Trimethylbenzene	5		1 U	1 U	1 U	5 U	10 U	1 U
1,3,5-Trimethylbenzene	5		1 U	1 U	1 U	5 U	10 U	1 U
Vinyl chloride	2		**31**	**35**	1 U	**23**	**180**	1 U
o-Xylene	5		1 U	1 U	1 U	5 U	10 U	1 U
M&p-Xylenes	5		nr	nr	2 U	10 U	20 U	2 U
Xylenes (total)	5		-	-				1 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-206D 9/6/07	MW-206D 12/13/07	MW-206D 3/12/08	MW-206D 6/30/08	MW-206D 9/30/08	MW-206D 12/18/08
Acetone	50		25 U	25 U	5 U	5U	5 U	5 U
Acrolein	5		25 U	25 U	5 U	5U	5 U	5 U
Acrylonitrile	5		5 U	5 U	5 U	1U	1 U	1 U
Benzene	1		1 U	1 U	0.5 U	0.50U	0.5 U	0.5 U
Bromodichloromethane	50		5 U	5 U	1 U	1U	1 U	1 U
Bromoform	50		5 U	5 U	1 U	1U	1 U	1 U
Bromomethane	5		5 U	5 U	1 U	1U	1 U	1 U
2-Butanone (MEK)	--		5 U	5 U	5 U	1U	1 U	1 U
t-Butyl Alcohol	--		25 U	25 U	5 U	5U	5 U	5 U
n-Butylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
sec-Butylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
tert-Butylbenzene	--		1 U	1 U	1 U	1U	1 U	1 U
Carbon disulfide	60		5 U	5 U	1 U	1U	1 U	1 U
Carbon tetrachloride	5		5 U	5 U	1 U	1U	1 U	1 U
Chlorobenzene	5		5 U	5 U	1 U	1U	1 U	1 U
Chloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
2-Chloroethylvinylether	--		5 U	5 U	5 U	1U	1 U	1 U
Chloroform	7		5 U	5 U	1 U	1U	1 U	1 U
Chloromethane	--		5 U	5 U	1 U	1U	1 U	1 U
Dibromochloromethane	50		5 U	5 U	1 U	1U	1 U	1 U
1,2-Dichlorobenzene	3		5 U	5 U	1 U	1U	1 U	1 U
1,3-Dichlorobenzene	3		5 U	5 U	1 U	1U	1 U	1 U
1,4-Dichlorobenzene	3		5 U	5 U	1 U	1U	1 U	1 U
Dichlorodifluoromethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,1-Dichloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,2-Dichloroethane	0.6		5 U	5 U	0.5 U	0.5U	0.5 U	0.5 U
1,1-Dichloroethene	5		5 U	5 U	1 U	1U	1 U	1 U
cis-1,2-Dichloroethene	5		**29**	**110**	**88**	**76**	**79**	**62**
trans-1,2-Dichloroethene	5		5 U	5 U	1.4	1.1	**1.4**	1 U
1,2-Dichloropropane	1		5 U	5 U	1 U	1U	1 U	1 U
1,3-Dichloropropane	5		5 U	5 U	1 U	1U	1 U	1 U
cis-1,3-Dichloropropene	--		5 U	5 U	1 U	1U	1 U	1 U
trans-1,3-Dichloropropene	--		5 U	5 U	1 U	1U	1 U	1 U
1,4-Dioxane	--		250 U	250 U	250 U	50U	50 U	50 U
Ethylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
Freon 113	--		nr	5 U	1 U	1U	1 U	1 U
2-Hexanone	50		5 U	5 U	5 U	1U	1 U	1 U
Isopropylbenzene	--		1 U	1 U	1 U	1U	1 U	1 U
4-Isopropyltoluene	--		1 U	1 U	1 U	1U	1 U	1 U
4-Methyl-2-pentanone	--		5 U	5 U	1 U	1U	1 U	1 U
Methylene chloride	5		5 U	5 U	1 U	1U	1 U	1 U
MTBE	10		1 U	1 U	1 U	1U	0.5 U	0.5 U
n-Propylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
Styrene	5		5 U	5 U	1 U	1U	1 U	1 U
1,1,2,2-Tetrachloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
Tetrachloroethene	5		5 U	3 J	1.9	1.4	1.8	1.1
Toluene	5		1 U	1 U	1 U	1U	1 U	1 U
1,1,1-Trichloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,1,2-Trichloroethane	1		5 U	5 U	1 U	1U	1 U	1 U
Trichloroethene	5		2 J	**17**	**15**	**13**	**15**	**13**
Trichlorofluoromethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,2,3-Trichloropropane	0.04		5 U	5 U	1 U	1U	1 U	1 U
1,2,4-Trimethylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
1,3,5-Trimethylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
Vinyl chloride	2		**4.5 J**	**19**	**17**	**15**	**17**	**13**
o-Xylene	5		1 U	1 U	1 U	1U	1 U	1 U
M&p-Xylenes	5		nr	2U	2 U	2U	2 U	2 U
Xylenes (total)	5		-	-				1 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-207D 9/4/07	MW-207D 12/14/07	MW-207D 3/13/08	MW-207D 6/30/08	MW-207D 9/30/08	MW-207D 12/18/08
Acetone	50		25 U	25 U	5 U	5U	5 U	5 U
Acrolein	5		25 U	25 U	5 U	5U	5 U	5 U
Acrylonitrile	5		5 U	5 U	5 U	1U	1 U	1 U
Benzene	1		1 U	1 U	0.5 U	0.50U	0.5 U	0.5 U
Bromodichloromethane	50		5 U	5 U	1 U	1U	1 U	1 U
Bromoform	50		5 U	5 U	1 U	1U	1 U	1 U
Bromomethane	5		5 U	5 U	1 U	1U	1 U	1 U
2-Butanone (MEK)	--		5 U	5 U	5 U	1U	1 U	1 U
t-Butyl Alcohol	--		25 U	25 U	5 U	5U	5 U	5 U
n-Butylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
sec-Butylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
tert-Butylbenzene	--		1 U	1 U	1 U	1U	1 U	1 U
Carbon disulfide	60		5 U	5 U	1	1U	1 U	1 U
Carbon tetrachloride	5		5 U	5 U	1 U	1U	1 U	1 U
Chlorobenzene	5		5 U	5 U	1 U	1U	1 U	1 U
Chloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
2-Chloroethylvinylether	--		5 U	5 U	5 U	1U	1 U	1 U
Chloroform	7		5 U	5 U	1 U	1U	1 U	1 U
Chloromethane	--		5 U	5 U	1 U	1U	1 U	1 U
Dibromochloromethane	50		5 U	5 U	1 U	1U	1 U	1 U
1,2-Dichlorobenzene	3		5 U	5 U	1 U	1U	1 U	1 U
1,3-Dichlorobenzene	3		5 U	5 U	1 U	1U	1 U	1 U
1,4-Dichlorobenzene	3		5 U	5 U	1 U	1U	1 U	1 U
Dichlorodifluoromethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,1-Dichloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,2-Dichloroethane	0.6		5 U	5 U	0.5 U	0.50U	0.5 U	0.5 U
1,1-Dichloroethene	5		5 U	5 U	1 U	1U	1 U	1 U
cis-1,2-Dichloroethene	5		**17**	**24**	**29**	**25**	**32**	**28**
trans-1,2-Dichloroethene	5		5 U	5 U	1 U	1U	1 U	1 U
1,2-Dichloropropane	1		5 U	5 U	1 U	1U	1 U	1 U
1,3-Dichloropropane	5		5 U	5 U	1 U	1U	1 U	1 U
cis-1,3-Dichloropropene	--		5 U	5 U	1 U	1U	1 U	1 U
trans-1,3-Dichloropropene	--		5 U	5 U	1 U	1U	1 U	1 U
1,4-Dioxane	--		250 U	250 U	250 U	50U	50 U	50 U
Ethylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
Freon 113	--		nr	5 U	5 U	1U	1 U	1 U
2-Hexanone	50		5 U	5 U	5 U	1U	1 U	1 U
Isopropylbenzene	--		1 U	1 U	1 U	1U	1 U	1 U
4-Isopropyltoluene	--		1 U	1 U	1 U	1U	1 U	1 U
4-Methyl-2-pentanone	--		5 U	5 U	5 U	1U	1 U	1 U
Methylene chloride	5		5 U	**6.8**	1 U	1U	1 U	1 U
MTBE	10		1 U	1 U	1 U	1U	0.5 U	0.5 U
n-Propylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
Styrene	5		5 U	5 U	1 U	1U	1 U	1 U
1,1,2,2-Tetrachloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
Tetrachloroethene	5		5 U	1.7 J	1 U	1U	1 U	1 U
Toluene	5		1 U	1 U	1 U	1U	1 U	1 U
1,1,1-Trichloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,1,2-Trichloroethane	1		5 U	5 U	1 U	1U	1 U	1 U
Trichloroethene	5		5 U	5 U	1 U	1U	1 U	1 U
Trichlorofluoromethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,2,3-Trichloropropane	0.04		5 U	5 U	1 U	1U	1 U	1 U
1,2,4-Trimethylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
1,3,5-Trimethylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
Vinyl chloride	2		**14**	**2.3 J**	**2.8**	**4.1**	**2.8**	1.9
o-Xylene	5		1 U	1 U	1 U	1U	1 U	1 U
M&p-Xylenes	5		nr	2 U	2 U	2U	2 U	2 U
Xylenes (total)	5		-	-				1 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

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U - Compound was analyzed for but not detected

Table 14. Summary of Volatile Organic Compounds Detected in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York.

Parameter (Concentrations in µg/L)	NYSDEC AWQSGVs (µg/L)	**Sample Designation:** **Sample Date:**	MW-207S 9/5/07	MW-207S 12/14/07	MW-207S 3/13/08	MW-207S 6/30/08	MW-207S 9/30/08	MW-207S 12/18/08
Acetone	50		25 U	25 U	5 U	5U	5 U	5 U
Acrolein	5		25 U	25 U	5 U	5U	5 U	5 U
Acrylonitrile	5		5 U	5 U	5 U	1U	1 U	1 U
Benzene	1		1 U	1 U	0.5 U	0.50U	0.5 U	0.5 U
Bromodichloromethane	50		5 U	5 U	1 U	1U	1 U	1 U
Bromoform	50		5 U	5 U	1 U	1U	1 U	1 U
Bromomethane	5		5 U	5 U	1 U	1U	1 U	1 U
2-Butanone (MEK)	--		5 U	5 U	5 U	1U	1 U	1 U
t-Butyl Alcohol	--		25 U	25 U	5 U	5U	5 U	5 U
n-Butylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
sec-Butylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
tert-Butylbenzene	--		1 U	1 U	1 U	1U	1 U	1 U
Carbon disulfide	60		5 U	5 U	1 U	1U	1 U	1 U
Carbon tetrachloride	5		5 U	5 U	1 U	1U	1 U	1 U
Chlorobenzene	5		5 U	5 U	1 U	1U	1 U	1 U
Chloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
2-Chloroethylvinylether	--		5 U	5 U	5 U	1U	5 U	1 U
Chloroform	7		5 U	5 U	1 U	1U	1 U	1 U
Chloromethane	--		5 U	5 U	1 U	1U	1 U	1 U
Dibromochloromethane	50		5 U	5 U	1 U	1U	1 U	1 U
1,2-Dichlorobenzene	3		5 U	5 U	1 U	1U	1 U	1 U
1,3-Dichlorobenzene	3		5 U	5 U	1 U	1U	1 U	1 U
1,4-Dichlorobenzene	3		5 U	5 U	1 U	1U	1 U	1 U
Dichlorodifluoromethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,1-Dichloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,2-Dichloroethane	0.6		5 U	5 U	0.5 U	0.5U	0.5 U	0.5 U
1,1-Dichloroethene	5		5 U	5 U	1 U	1U	1 U	1 U
cis-1,2-Dichloroethene	5		5 U	5 U	1 U	1U	1 U	1 U
trans-1,2-Dichloroethene	5		5 U	5 U	1 U	1U	1 U	1 U
1,2-Dichloropropane	1		5 U	5 U	1 U	1U	1 U	1 U
1,3-Dichloropropane	5		5 U	5 U	1 U	1U	1 U	1 U
cis-1,3-Dichloropropene	--		5 U	5 U	1 U	1U	1 U	1 U
trans-1,3-Dichloropropene	--		5 U	5 U	1 U	1U	1 U	1 U
1,4-Dioxane	--		250 U	250 U	250 U	50U	50 U	50 U
Ethylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
Freon 113	--		nr	5 U	5 U	1U	1 U	1 U
2-Hexanone	50		5 U	5 U	5 U	1U	5 U	1 U
Isopropylbenzene	--		1 U	1 U	1 U	1U	1 U	1 U
4-Isopropyltoluene	--		1 U	1 U	1 U	1U	1 U	1 U
4-Methyl-2-pentanone	--		5 U	5 U	5 U	1U	1 U	1 U
Methylene chloride	5		5 U	2.8 J	1 U	1U	1 U	1 U
MTBE	10		1 U	1 U	1 U	1U	0.5 U	0.5 U
n-Propylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
Styrene	5		5 U	5 U	1 U	1U	1 U	1 U
1,1,2,2-Tetrachloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
Tetrachloroethene	5		5 U	5 U	1 U	1U	1 U	1 U
Toluene	5		1 U	1 U	1 U	1U	1 U	1 U
1,1,1-Trichloroethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,1,2-Trichloroethane	1		5 U	5 U	1 U	1U	1 U	1 U
Trichloroethene	5		5 U	5 U	1 U	1U	1 U	1 U
Trichlorofluoromethane	5		5 U	5 U	1 U	1U	1 U	1 U
1,2,3-Trichloropropane	0.04		5 U	5 U	1 U	1U	1 U	1 U
1,2,4-Trimethylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
1,3,5-Trimethylbenzene	5		1 U	1 U	1 U	1U	1 U	1 U
Vinyl chloride	2		5 U	5 U	1 U	1U	1 U	1 U
o-Xylene	5		1 U	1 U	1 U	1U	1 U	1 U
M&p-Xylenes	5		nr	2 U	2 U	2U	2 U	2 U
Xylenes (total)	5		-	-				1 U

Notes:

-- - No NYSDEC AWQSGV available

µg/L - Micrograms per liter

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

Bold - Indicates that compound was detected above AWQSGV

J - Estimated Value

nr - Not reported

U - Compound was analyzed for but not detected

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	Sample Designation: / Sample Date:	MW-101D 8/9/07	MW-101D 11-8-07	MW-101D Dec 07	MW-101D 3/11/08	MW-101D 6/30/08	MW-101D 9/29/08	MW-101D 12-18-08
Iron Total	ug/L		380	na	damaged	6,100	4700	11,000	na
Iron Filtered	ug/L		280 U	na	damaged	2,000	280 U	830	na
Manganese Total	ug/L		950	na	damaged	4,000	1900	4,100	na
Manganese Filtered	ug/L		1,400	na	damaged	4,100	1800	3,400	na
Acidity	mg CaCO3/L		10 U	na	damaged	10 U	10 U	10 U	na
Chloride	mg/L		45	na	damaged	31	37	35	na
Ethane	ug/L		28	na	damaged	46	250	170	na
Ethene	ug/L		14	na	damaged	18	68	110	na
Methane	ug/L		82	na	damaged	910	4200	1000	na
Nitrate	mg/L		0.27 U	na	damaged	0.27 U	0.27 U	0.27 U	na
Nitrite	mg/L		0.8 U	na	damaged	0.8 U	0.8 U	0.8 U	na
Sulfate	mg/L		45	na	damaged	230	12	620	na
Sulfide	mg/L		2 U	na	damaged	2 U	10	2	na
Total Organic Carbon	mg/L		9.4	35	damaged	10	12	12	na
Field Measuremnts									
pH	pH Units		5.54	8.5	damaged	8.27	7.05	6.94	6.36
ORP	millivolts		167	-262	damaged	-186	-106	-136	-98
Conductivity	mS/cm		1.00	0.652	damaged	0.653	15.7	0.999	1.12
Temperature	celsius		23.7	17.24	damaged	9.07	21.1	19.8	13.47
DO	mg/L		0.03	0.00	damaged	0.00	2.38	1.1	2.41

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** / **Sample Date:**	MW-101S 8/9/07	MW-101S 10-9-07	MW-101S 11-8-07	MW-101S 12/11/07	MW-101S 1-16-08	MW-101S 2-19-08	MW-101S 3/10/08
Iron Total	ug/L		3,800	na	na	130,000	na	na	90,000
Iron Filtered	ug/L		12,000	na	na	29,000	na	na	68,000
Manganese Total	ug/L		470	na	na	7,600	na	na	7,800
Manganese Filtered	ug/L		870	na	na	8,800	na	na	5,000
Acidity	mg CaCO3/L		10 U	na	na	10 U	na	na	80
Chloride	mg/L		66	na	na	140	na	na	110
Ethane	ug/L		230	na	na	210	na	na	85
Ethene	ug/L		240	na	na	990	na	na	1500
Methane	ug/L		470	na	na	960	na	na	1300
Nitrate	mg/L		0.27 U	na	na	0.27 U	na	na	0.27 U
Nitrite	mg/L		0.8 U	na	na	0.8 U	na	na	0.8 U
Sulfate	mg/L		27	na	na	2.3 U	na	na	4.8
Sulfide	mg/L		2 U	na	na	2.8	na	na	2 U
Total Organic Carbon	mg/L		13	1,500	29	550	530	510	430
Field Measuremnts									
pH	pH Units		6.47	8.16	5.89	6.22	6.24	6.25	6.00
ORP	millivolts		-20	-92	-106	-77	-119	-61	-74
Conductivity	mS/cm		0.811	4.14	2.10	2.25	2.08	1.73	1.73
Temperature	celsius		23.7	20.63	17.65	12.51	11.5	11.4	5.5
DO	mg/L		1.16	0.00	0.00	0.85	0.77	2.44	0.00

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** / **Sample Date:**	MW-101S 6/30/08	MW-101S 9/29/08	MW-101S 12-18-08	MW-103D 8/10/07	MW-103D 12/11/07	MW-103D 3/11/08	MW-103D 7/1/08
Iron Total	ug/L		57000	8800	na	59,000	21,000	21,000	28000
Iron Filtered	ug/L		3100	20000	na	16,000	17,000	14,000	18000
Manganese Total	ug/L		3500	1600	na	950	1,000	1,400	1300
Manganese Filtered	ug/L		2100	1600	na	1,000	980	1,300	1400
Acidity	mg CaCO3/L		10 U	10 U	na	10 U	10 U	10 U	10 U
Chloride	mg/L		88	110	na	26	32	36	42
Ethane	ug/L		84	470	na	-	-	0.53	0.69
Ethene	ug/L		1000	2500	na	-	-	1.2	1.7
Methane	ug/L		1300	7000	na	-	-	190	240
Nitrate	mg/L		0.27 U	0.27 U	na	0.28	0.27 U	0.27 U	0.27 U
Nitrite	mg/L		0.8 U	0.8 U	na	0.8 U	0.8 U	0.8 U	0.8 U
Sulfate	mg/L		5.5	2.3 U	na	24	28	27	28
Sulfide	mg/L		2 U	4.8	na	2 U	2 U	2 U	3.2
Total Organic Carbon	mg/L		180	-	na	13	8.5	8.1	8
Field Measuremnts									
pH	pH Units		6.66	6.54	6.26	6.19	5.82	6.32	6.18
ORP	millivolts		-88	-154	-107	-66	-28	-47	-62
Conductivity	mS/cm		5.74	0.903	0.573	0.400	0.540	0.38	0.90
Temperature	celsius		19.1	20.4	12.8	19.6	10.25	8.44	15.5
DO	mg/L		1.16	1.33	0.65	0.00	1.15	0.00	0.43

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** MW-103D **Sample Date:** 9/29/08	MW-103D 12-18-08	MW-103S 8/10/07	MW-103S 12/11/07	MW-103S 3-11-08	MW-103S 7-1-08	MW-103S 9-29-08
Iron Total	ug/L	22,000	na	2,300	dry	dry	dry	dry
Iron Filtered	ug/L	16,000	na	710	dry	dry	dry	dry
Manganese Total	ug/L	1,200	na	350	dry	dry	dry	dry
Manganese Filtered	ug/L	1,200	na	140	dry	dry	dry	dry
Acidity	mg CaCO3/L	10 U	na	10 U	dry	dry	dry	dry
Chloride	mg/L	46	na	10	dry	dry	dry	dry
Ethane	ug/L	1	na	-	dry	dry	dry	dry
Ethene	ug/L	2.9	na	-	dry	dry	dry	dry
Methane	ug/L	290	na	-	dry	dry	dry	dry
Nitrate	mg/L	0.27 U	na	1.2	dry	dry	dry	dry
Nitrite	mg/L	0.8 U	na	0.8 U	dry	dry	dry	dry
Sulfate	mg/L	30	na	25	dry	dry	dry	dry
Sulfide	mg/L	3.2	na	2 U	dry	dry	dry	dry
Total Organic Carbon	mg/L	7.2	na	9	dry	dry	dry	dry
Field Measuremnts								
pH	pH Units	6.23	6.19	6.28	6.14	6.84	dry	6.53
ORP	millivolts	-91	-66	-24	159	22	dry	-151
Conductivity	mS/cm	0.87	0.475	0.416	0.93	0.495	dry	0.95
Temperature	celsius	17.2	15.2	21.6	6.65	6.94	dry	20.4
DO	mg/L	0.79	0.95	0.10	1.69	1.82	dry	1.03

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** MW-103S **Sample Date:** 12-18-08	MW-112S 8/7/08	MW-112S 12/7/08	MW-112D 8/10/07	MW-112D 12/14/07	MW-112D 3/13/08	MW-112D 6-30-08
Iron Total	ug/L	dry	dry	na	20,000	22,000	8,800	10000
Iron Filtered	ug/L	dry	dry	na	56,000	6,200	2,700	4700
Manganese Total	ug/L	dry	dry	na	180	240	100	150
Manganese Filtered	ug/L	dry	dry	na	460	120	93	120
Acidity	mg CaCO3/L	dry	dry	na	46	10 U	10 U	10 U
Chloride	mg/L	dry	dry	na	1.5 U	22	23	21
Ethane	ug/L	dry	dry	na	0.06	0.2	-	0.18
Ethene	ug/L	dry	dry	na	0.11	0.7	-	0.58
Methane	ug/L	dry	dry	na	23	320	-	340
Nitrate	mg/L	dry	dry	na	0.27 U	0.27 U	0.27 U	0.27 U
Nitrite	mg/L	dry	dry	na	0.8 U	0.8 U	0.8 U	0.8 U
Sulfate	mg/L	dry	dry	na	4.2	35	38	32
Sulfide	mg/L	dry	dry	na	2 U	2 U	2 U	2.4
Total Organic Carbon	mg/L	dry	dry	na	13	5.6	5.4	5.7
Field Measuremnts								
pH	pH Units	6.51	dry	dry	5.40	5.95	6.13	5.95
ORP	millivolts	-103	dry	dry	137	-35	7	-25
Conductivity	mS/cm	0.915	dry	dry	0.084	0.442	0.312	0.90
Temperature	celsius	10.3	dry	dry	21.4	12.68	8.57	17.2
DO	mg/L	0.74	dry	dry	3.90	0.72	0.00	0.00

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** MW-112D **Sample Date:** 9/30/08	MW-112D 12-18-08	MW-113D 8/13/07	MW-113D 12/11/07	MW-113D 1-16-08	MW-113D 2-19-08	MW-113D 3/11/08
Iron Total	ug/L	7400	na	-	76,000	na	na	14,000
Iron Filtered	ug/L	6800	na	-	280 U	na	na	280 U
Manganese Total	ug/L	120	na	-	2,200	na	na	300
Manganese Filtered	ug/L	120	na	-	140	na	na	100
Acidity	mg CaCO3/L	10 U	na	-	10 U	na	na	10 U
Chloride	mg/L	24	na	-	12	na	na	14
Ethane	ug/L	0.16	na	-	0.15	na	na	0.086
Ethene	ug/L	0.58	na	-	0.48	na	na	0.12
Methane	ug/L	310	na	-	170	na	na	11
Nitrate	mg/L	0.27 U	na	-	0.27 U	na	na	0.27 U
Nitrite	mg/L	0.8 U	na	-	0.8 U	na	na	0.8 U
Sulfate	mg/L	37	na	-	27	na	na	30
Sulfide	mg/L	2	na	-	2 U	na	na	2 U
Total Organic Carbon	mg/L	4.7	na	-	8.7	5.8	7.6	8.1
Field Measuremnts								
pH	pH Units	5.98	6.12	5.97	6.15	6.03	6.14	6.29
ORP	millivolts	-28	-22	235	168	103	40	127
Conductivity	mS/cm	0.561	0.319	0.52	0.413	0.411	0.475	0.308
Temperature	celsius	18.3	15.40	22.5	8.69	10.6	10.8	9.92
DO	mg/L	0.67	2.39	0.15	0.93	0.67	1.90	0.00

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** / **Sample Date:**	MW-113D 7/1/08	MW-113-D 9/29/08	MW-113D 12-18-08	MW-113S 8/13/07	MW-113S 12/11/07	MW-113S 1-16-08	MW-113S 2-19-08
Iron Total	ug/L		8800	6700	na	-	19,000	na	na
Iron Filtered	ug/L		280 U	1400	na	-	9,900	na	na
Manganese Total	ug/L		180	1300	na	-	210	na	na
Manganese Filtered	ug/L		97	1400	na	-	290	na	na
Acidity	mg CaCO3/L		10 U	10 U	na	-	10 U	na	na
Chloride	mg/L		15	43	na	-	19	na	na
Ethane	ug/L		0.18	15	na	-	0.098	na	na
Ethene	ug/L		0.59	220	na	-	0.77	na	na
Methane	ug/L		28	610	na	-	62	na	na
Nitrate	mg/L		0.27 U	0.27 U	na	-	0.27 U	na	na
Nitrite	mg/L		0.8 U	0.8 U	na	-	0.8 U	na	na
Sulfate	mg/L		16	10	na	-	24	na	na
Sulfide	mg/L		4	2	na	-	2	na	na
Total Organic Carbon	mg/L		8.1	26	na	-	11	7.3	6.6
Field Measuremnts									
pH	pH Units		5.96	6.27	6.36	6.37	5.65	6.51	6.57
ORP	millivolts		115	-193	-106	-16	-84	6	4
Conductivity	mS/cm		2.09	0.666	0.633	0.368	0.677	0.282	0.352
Temperature	celsius		15.6	19.2	14.5	24.2	9.51	8.8	8.3
DO	mg/L		0.35	0.79	0.94	0.00	3.55	0.97	1.57

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** MW-113S **Sample Date:** 3/11/08	MW-113S 7/1/08	MW-113-S 9/29/08	MW-113S 12-18-08	MW-205D 8/30/07	MW-205D 10-9-07	MW-205D 11-8-07
Iron Total	ug/L	1,100	9500	8700	na	26,000	na	na
Iron Filtered	ug/L	280 U	7800	150 U	na	500	na	na
Manganese Total	ug/L	40 U	160	1100	na	2,800	na	na
Manganese Filtered	ug/L	40 U	130	1000	na	2,500	na	na
Acidity	mg CaCO3/L	10 U	10 U	10 U	na	10 U	na	na
Chloride	mg/L	9	41	37	na	23	na	na
Ethane	ug/L	0.025 U	0.28	0.91	na	2.3	na	na
Ethene	ug/L	0.014 J	1.6	12	na	14	na	na
Methane	ug/L	5.9	54	600	na	59	na	na
Nitrate	mg/L	0.27 U	0.27 U	0.27 U	na	0.44	na	na
Nitrite	mg/L	0.8 U	0.8 U	0.8 U	na	0.8 U	na	na
Sulfate	mg/L	15	3.9	26	na	51	na	na
Sulfide	mg/L	2 U	2	2 U	na	2 U	na	na
Total Organic Carbon	mg/L	6.8	36	16	na	7.7	7.6	7.7
Field Measuremnts								
pH	pH Units	6.73	6.09	6.42	6.58	6.11	7.13	5.89
ORP	millivolts	143	-15	-223	53	-95	3	-18
Conductivity	mS/cm	0.231	46.1	0.720	0.187	0.365	0.432	0.344
Temperature	celsius	8.80	17.4	21.1	9.98	17.84	15.51	14.02
DO	mg/L	0.00	2.77	0.70	8.51	8.54	0.00	0.00

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** MW-205D **Sample Date:** 12/11/07	MW-205D 1-16-08	MW-205D 2-19-08	MW-205D 3/12/08	MW-205D 7/1/08	MW-205D 9/30/08	MW-205D 12-18-08
Iron Total	ug/L	28,000	na	na	33,000	57000	29000	na
Iron Filtered	ug/L	12,000	na	na	280 U	9000	8100	na
Manganese Total	ug/L	1,700	na	na	1,800	2300	1900	na
Manganese Filtered	ug/L	1,800	na	na	1,500	2100	1700	na
Acidity	mg CaCO3/L	10 U	na	na	10 U	10 U	10 U	na
Chloride	mg/L	18	na	na	57	17	17	na
Ethane	ug/L	0.44	na	na	0.28	0.23	0.099	na
Ethene	ug/L	4.8	na	na	2	0.84	0.57	na
Methane	ug/L	120	na	na	130	110	59	na
Nitrate	mg/L	0.27 U	na	na	0.27 U	0.27 U	0.27 U	na
Nitrite	mg/L	0.8 U	na	na	0.8 U	0.8 U	0.8 U	na
Sulfate	mg/L	38	na	na	26	36	31	na
Sulfide	mg/L	2	na	na	2 U	3.2	2 U	na
Total Organic Carbon	mg/L	9.9	14	7.9	7.4	8.2	7	na
Field Measuremnts								
pH	pH Units	6.18	6.01	5.97	5.70	6.29	6.01	6.41
ORP	millivolts	7	12	24	89	-32	-51	-38
Conductivity	mS/cm	0.629	0.337	0.410	0.296	89.0	0.364	0.289
Temperature	celsius	8.66	11.8	12.3	9.31	15	15.3	12.76
DO	mg/L	1.67	2.52	1.91	0.00	2.15	1.66	4.17

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** MW-205S **Sample Date:** 8/31/07	MW-205S 10-9-07	MW-205S 11-8-07	MW-205S 12/12/07	MW-205S 1-16-08	MW-205S 2-19-08	MW-205S 3/12/08
Iron Total	ug/L	8,800	na	na	11,000	na	na	1,600
Iron Filtered	ug/L	3,300	na	na	4,000	na	na	280 U
Manganese Total	ug/L	330	na	na	280	na	na	63
Manganese Filtered	ug/L	250	na	na	230	na	na	40 U
Acidity	mg CaCO3/L	10 U	na	na	10 U	na	na	10 U
Chloride	mg/L	17	na	na	13	na	na	20
Ethane	ug/L	0.89	na	na	0.43	na	na	0.013 J
Ethene	ug/L	2.8	na	na	1.4	na	na	0.025 U
Methane	ug/L	240	na	na	610	na	na	0.29
Nitrate	mg/L	0.27 U	na	na	0.27 U	na	na	4.8
Nitrite	mg/L	0.8 U	na	na	0.8 U	na	na	0.8 U
Sulfate	mg/L	27	na	na	18	na	na	45
Sulfide	mg/L	2 U	na	na	2 U	na	na	2 U
Total Organic Carbon	mg/L	9	11	12	11	10	8.7	9.1
Field Measuremnts								
pH	pH Units	5.98	8.00	6.22	6.41	6.82	6.95	7.09
ORP	millivolts	-134	-56	-94	-42	119	72	258
Conductivity	mS/cm	0.300	0.369	0.273	0.426	0.788	0.90	0.400
Temperature	celsius	17.66	17.02	15.28	9.06	9.9	9.3	6.69
DO	mg/L	10.03	0.92	2.25	0.47	9.60	7.96	1.40

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** MW-205S **Sample Date:** 7/1/08	MW-205S 9/30/08	MW-205S 12-18-08	MW-206D 9/6/07	MW-206D 12/13/07	MW-206D 1-16-08	MW-206D 2-19-08
Iron Total	ug/L	13000	5800	na	25,000	21,000	na	na
Iron Filtered	ug/L	10000	3700	na	1,500	22,000	na	na
Manganese Total	ug/L	640	180	na	1,000	1,000	na	na
Manganese Filtered	ug/L	690	170	na	960	1,500	na	na
Acidity	mg CaCO3/L	10 U	10 U	na	10 U	10 U	na	na
Chloride	mg/L	38	34	na	51	53	na	na
Ethane	ug/L	0.57	0.27	na	1.5	0.37	na	na
Ethene	ug/L	0.73	21	na	4.6	2	na	na
Methane	ug/L	5100	3600	na	250	280	na	na
Nitrate	mg/L	0.27 U	0.27 U	na	0.27 U	0.27 U	na	na
Nitrite	mg/L	0.8 U	0.8 U	na	0.8 U	0.8 U	na	na
Sulfate	mg/L	2.1	11	na	27	22	na	na
Sulfide	mg/L	2.8	2 U	na	2 U	2 U	na	na
Total Organic Carbon	mg/L	340	16	na	8.9	7.8	6.5	7.9
Field Measuremnts								
pH	pH Units	5.94	6.20	6.91	6.21	6.20	6.09	6.17
ORP	millivolts	-15	-136	33	-75	-32	-37	-33
Conductivity	mS/cm	1.95	0.636	0.679	0.413	0.552	0.455	0.665
Temperature	celsius	14.6	16.5	9.75	22.84	11.12	12.4	12.8
DO	mg/L	1.16	1.93	7.37	5.90	1.26	0.62	1.86

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** **Sample Date:**	MW-206D 3/12/08	MW-206D 7-1-08	MW-206D 9/30/08	MW-206D 12-18-08	MW-207D 9/4/07	MW-207D 12/14/07	MW-207D 1-16-08
Iron Total	ug/L		26,000	16000	18000	na	27,000	60,000	na
Iron Filtered	ug/L		280 U	8200	15000	na	19,000	31,000	na
Manganese Total	ug/L		1,100	760	1000	na	880	1,200	na
Manganese Filtered	ug/L		1,000	930	960	na	900	1,800	na
Acidity	mg CaCO3/L		10 U	10 U	10 U	na	10 U	23	na
Chloride	mg/L		57	49	43	na	-	72	na
Ethane	ug/L		0.25	0.27	0.27	na	1.7	0.16	na
Ethene	ug/L		0.86	0.85	0.85	na	1.8	0.55	na
Methane	ug/L		250	250	200	na	49	18	na
Nitrate	mg/L		0.27 U	0.27 U	0.27 U	na	-	0.27 U	na
Nitrite	mg/L		0.8 U	0.8 U	0.8 U	na	-	0.8 U	na
Sulfate	mg/L		26	26	23	na	-	26	na
Sulfide	mg/L		2 U	3.6	2 U	na	-	2 U	na
Total Organic Carbon	mg/L		7.4	7.4	6.4	na	1	5.2	4.5
Field Measuremnts									
pH	pH Units		6.27	6.13	6.17	6.18	4.59	6.14	6.21
ORP	millivolts		-19	-60	-88	-63	91	-10	-17
Conductivity	mS/cm		0.407	1.50	0.506	0.472	0.493	0.519	0.441
Temperature	celsius		10.37	16.5	18.6	15.2	20.49	11.30	12.4
DO	mg/L		0.00	0.00	0.63	0.87	9.51	7.47	1.65

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	Sample Designation: MW-207D Sample Date: 2-19-08	MW-207D 3/13/08	MW-207D 6-30-08	MW-207D 9/30/08	MW-207D 12-18-08	MW-207S 9/5/07	MW-207S 12/14/07
Iron Total	ug/L	na	180,000	130000	480000	na	16,000	5,500
Iron Filtered	ug/L	na	280 U	280 U	6700	na	940	280 U
Manganese Total	ug/L	na	2,500	2500	7600	na	1,200	150
Manganese Filtered	ug/L	na	380	600	520	na	1,100	210
Acidity	mg CaCO3/L	na	10 U	10 U	10 U	na	10 U	10 U
Chloride	mg/L	na	75	80	82	na	62	8.6
Ethane	ug/L	na	-	0.041	0.081	na	0.13	0.038
Ethene	ug/L	na	-	0.35	0.48	na	0.059	0.027
Methane	ug/L	na	-	11	9	na	14	3.2
Nitrate	mg/L	na	0.27 U	0.27 U	0.27 U	na	0.27 U	2
Nitrite	mg/L	na	0.8 U	0.8 U	0.8 U	na	0.8 U	0.8 U
Sulfate	mg/L	na	240	25	22	na	960	52
Sulfide	mg/L	na	2 U	2	2 U	na	2 U	2 U
Total Organic Carbon	mg/L	62	6.1	4.2	3.3	na	5.9	5.4
Field Measuremnts								
pH	pH Units	6.07	nr	5.89	5.98	5.83	5.45	5.08
ORP	millivolts	0.580	nr	2	-6	6	126	243
Conductivity	mS/cm	0.580	nr	99.9	0.500	0.416	1.91	0.497
Temperature	celsius	12.7	nr	18	17.2	13.9	19.73	8.84
DO	mg/L	2.09	nr	1.29	2.01	2.67	5.21	1.59

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 15. Summary of Electron Acceptors, Degradation Byproducts, End Products, and Field Parameters in Baseline and Post-Remediation Groundwater Samples, Coral Island Shopping Center, Staten Island, New York

Parameter (Concentrations in µg/L)	Unit	**Sample Designation:** / **Sample Date:**	MW-207S 1-16-08	MW-207S 2-19-08	MW-207S 3/13/08	MW-207S 6-30-08	MW-207S 9/30/08	MW-207S 12-18-08
Iron Total	ug/L		na	na	1,200	41000	3200	na
Iron Filtered	ug/L		na	na	280 U	280 U	150 U	na
Manganese Total	ug/L		na	na	40 U	230	87	na
Manganese Filtered	ug/L		na	na	42	40 U	68	na
Acidity	mg CaCO3/L		na	na	10 U	10 U	10 U	na
Chloride	mg/L		na	na	28	7.5	5.1	na
Ethane	ug/L		na	na	-	0.025 U	0004 J	na
Ethene	ug/L		na	na	-	0.018 J	0.011 J	na
Methane	ug/L		na	na	-	0.31	0.51	na
Nitrate	mg/L		na	na	0.5	0.3	0.27 U	na
Nitrite	mg/L		na	na	0.8 U	0.8 U	0.8 U	na
Sulfate	mg/L		na	na	26	68	48	na
Sulfide	mg/L		na	na	2 U	2 U	2 U	na
Total Organic Carbon	mg/L		4.3	8.8	9.5	11	6.4	na
Field Measuremnts								
pH	pH Units		6.71	6.98	6.95	6.99	6.59	6.44
ORP	millivolts		13	-37	111	11	-86	28
Conductivity	mS/cm		0.492	0.672	0.498	5.34	0.775	0.472
Temperature	celsius		8.4	9.0	9.89	21.0	20.0	11.04
DO	mg/L		3.15	4.18	0.00	6.48	2.25	6.40

Notes:

µg/L - Micrograms per liter
J - Estimated Value
mg CaCO3/L - Milligrams calcium carbonate per liter
mg/L - Milligrams per liter
na - Compound not analyzed per scope
U - Compound was analyzed for but not detected
nr - Measurements not recorded
- - Data not reported
mS/cm - Millisiemens per centimeter

Table 16. Summary of Compounds Detected Soil Vapor and Air (Baseline and Post ERD Injection), Coral Island Shopping Center, Staten Island, New York

Analyte (Conentrations in ug/m3)	**Sample ID:** / **Sample Date:**	SG-102 8/9/2007	SG-102 10/10/2007	SV-107 8/9/2007	SV-107 10/10/2007	AMB 080907 8/9/2007	AMB-101007 10/10/2007
Benzene		1.7	10	6.4 U	11	0.51 U	0.51 U
Bromodichloromethane		1.1 U	3.4 U	13 U	2.0 U	1.1 U	1.1 U
Bromoethene		0.7 U	2.2 U	8.7 U	1.3 U	0.7 U	0.70 U
Bromoform		1.7 U	5.2 U	21 U	3.1 U	1.7 U	1.7 U
Bromomethane		0.62 U	1.9 U	7.8 U	1.2 U	0.62 U	0.62 U
1,3-Butadiene		0.88 U	2.9 U	11 U	1.7 U	0.88 U	0.88 U
Carbon Tetrachloride		1 U	3.1 U	13 U	1.9 U	1 U	1.0 U
Chloroethane		0.42 U	1.3 U	5.3 U	0.79 U	0.42 U	0.42 U
Chloroform		33	32	49	7.3	0.78 U	0.78 U
3-Chloropropene		1.3 U	4.1 U	15 U	2.3 U	1.3 U	1.3 U
Cyclohexane		2100 D	5.5	6.9 U	14	0.55 U	0.55 U
Dibromochloromethane		1.4 U	4.3 U	17 U	2.6 U	1.4 U	1.4 U
1,2-Dibromoethane		1.2 U	3.8 U	15 U	2.3 U	1.2 U	1.2 U
Dichlorodifluoromethane		940 D	6.4 U	24 U	3.7 U	2.5	2.2
1,1-Dichloroethane		0.65 U	2.0 U	8.1 U	1.2 U	0.65 U	0.65 U
1,2-Dichloroethane		0.65 U	2.0 U	8.1 U	1.2 U	0.65 U	0.65 U
1,1-Dichloroethene		0.63 U	2.0 U	7.9 U	1.2 U	0.63 U	0.63 U
cis-1,2-Dichloroethene		3.1	99	7.9 U	1.2 U	0.63 U	0.63 U
trans-1,2-Dichloroethene		4.4	4.0	7.9 U	1.2 U	0.63 U	0.63 U
1,2-Dichloroethene (total)		nr	100	nr	1.2 U	nr	0.63 U
1,2-Dichloropropane		0.74 U	2.3 U	9.2 U	1.4 U	0.74 U	0.74 U
cis-1,3-Dichloropropene		0.73 U	2.3 U	9.1 U	1.4 U	0.73 U	0.73 U
trans-1,3-Dichloropropene		0.73 U	2.3 U	9.1 U	1.4 U	0.73 U	0.73 U
1,2-Dichlorotetrafluoroethane		1.1 U	3.5 U	14 U	2.1 U	1.1 U	1.1 U
Ethylbenzene		20	21	8.7 U	19	0.69 U	0.69 U
4-Ethyltoluene		37	17	9.8 U	14	0.79 U	0.79 U
n-Heptane		0.66 U	16	8.2 U	16	0.66 U	0.66 U
n-Hexane		5.3	20	17 U	35	1.4 U	1.4 U
Methyl tert-Butyl Ether		1.4 U	4.7 U	18 U	2.7 U	1.4 U	1.4 U
1,1,2,2-Tetrachloroethane		1.1 U	3.4 U	14 U	2.1 U	1.1 U	1.1 U
Tetrachloroethene		1300 D	370	14 U	28	20	1.1 U
Toluene		100	120	11	180	1.5	1.5
1,1,1-Trichloroethane		0.87 U	2.7 U	11 U	1.6 U	0.87 U	0.87 U
1,1,2-Trichloroethane		0.87 U	2.7 U	11 U	1.6 U	0.87 U	0.87 U
Trichloroethene		47	110	11 U	1.6 U	0.86 U	0.86 U
Trichlorofluoromethane		4.3	5.1	11 U	1.7 U	1.2	1.1
1,3,5-Trimethylbenzene		11	4.9	9.8 U	4.6	0.79 U	0.79 U
2,2,4-Trimethylpentane		4.2	14	9.3 U	14	0.75 U	0.75 U
Vinyl Chloride		0.41 U	1.3 U	5.1 U	0.77 U	0.41 U	0.41 U
Xylene (m,p)		nr	74	nr	65	nr	1.7 U
Xylene (o)		nr	23	nr	20	nr	0.69 U
Xylene (total)		100	100	30	87	0.69 U	0.69 U
Methane (Concentration in Percent)		0.059 U	0.063 U	0.055 U	0.061 U	0.056 U	0.057 U

Notes:

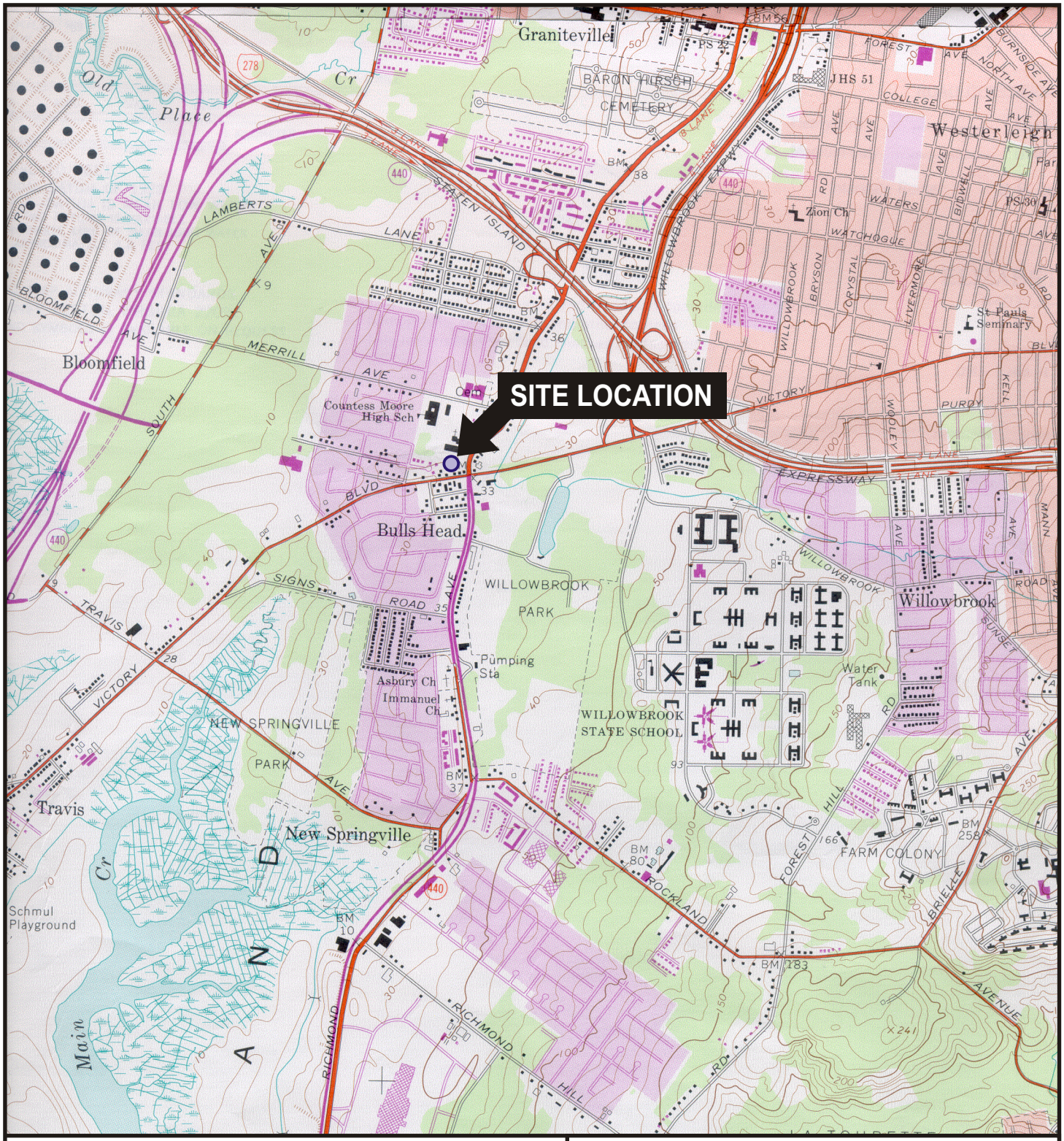
nr - Not reported

U - Compound analyzed but not detected at a concentration above the reporting limit shown.

J - Estimated value.

D - Concentrations identified from analysis of the sample at a secondary dilution.

ug/m3 - Micrograms per cubic meter



QUADRANGLE LOCATION

SOURCE:
USGS; 1981. Arthur Kill, N.Y.-N.J.
7.5 Minute Topographic Quadrangle

N

0 2000'

Title:

SITE LOCATION PLAN

FINAL ENGINEEERING REPORT
CORAL ISLAND SHOPPING CENTER
STATEN ISLAND, NEW YORK

Prepared for:

WWP ASSOCIATES, LLP

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: M.R.		Date: 03JAN08	FIGURE
Prepared by: B.H.C.		Scale: AS SHOWN	1
Project Mgr.: M.R.		Office: NY	
File No.: RRA013802.CDR		Project No.: 125801Y	

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APPENDIX A

Electronic Copy of Project Documents and Digital Photo Log

Photo 1: Soil excavation at Area 1.

Photo 2: Gas pipeline and monitoring wells MW-102S and MW-102D exposed in open excavation of Area 2.

Photo 3: Groundwater in open excavation of Area 1.

Photo 4: Soil excavation at Area 4.

Photo 5: Exposed monitoring well MW-101S in Area 4; MW-101D was destroyed during excavation.

Photo 6: Soil excavation at Area 3.

Photo 7: Exposed gas pipeline in open excavation of Area 3.

Photo 8: Sheen observed in Area 4.

Photo 9: Soil with high PID readings from the southeast corner of Area 4.

Photo 10: Preparation of Area 5 for soil excavation.

Photo 11: Soil excavation at Area 5.

Photo 12: Clorox bottle uncovered in soil removed from Area 5.

Photo 13: Broken 2-inch pipe in Area-5.

Photo 14: Grayish-stained soil with high PID readings from Area 5.

Photo 15: Preparing to dewater Area 5 at start of work day.

Photo 16: Initial extent of Area 5.

Photo 17: Typical secured site at end of work day.

Photo 18: Typical secured site at end of work day.

Photo 19: Additional grayish-stained soil uncovered at Area 5.

Photo 20: Southeast corner of Area 5 prior to Area 5 and Area 3 merging into one excavation area.

Photo 21: Additional excavation of eastern sidewall of Area 5.

Photo 22: Approximate final extents of northern and eastern sidewalls of Area 5.

Photo 23: Approximate final extent of northwestern corner of Area 5.

Photo 24: Approximate final extent of southwestern corner of Area 5.

Photo 25: Area 1 and Area 2 backfilled.

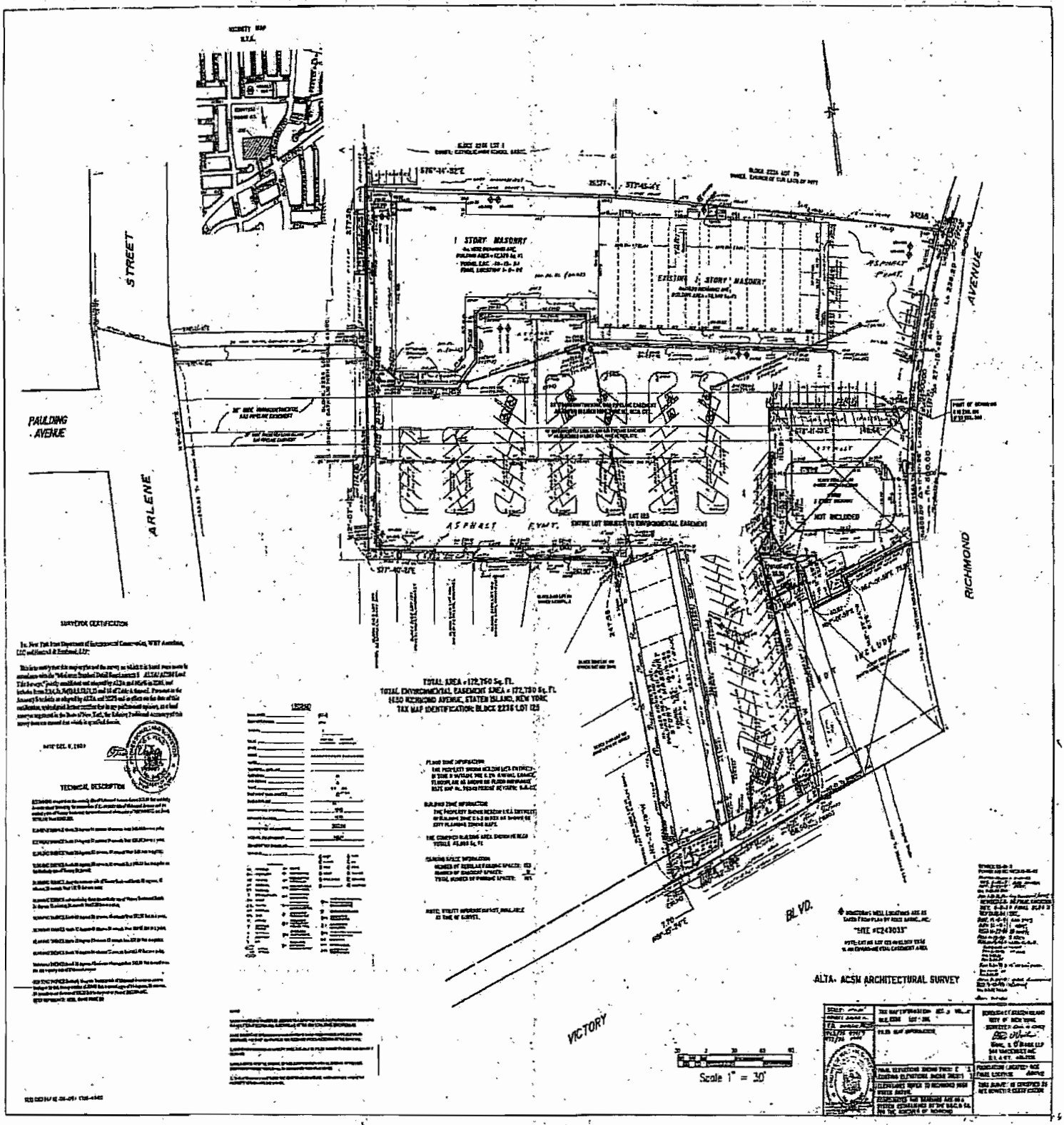
Photo 26: Site restoration.

APPENDIX B

Survey Map

County: Richmond Site No: C 243033 BCA Index No:-W2-1040-05-01

SURVEY



APPENDIX C

Metes and Bounds Description

SCHEDULE "A" PROPERTY DESCRIPTION

Address : 1650 Richmond Avenue, Staten Island
Tax Map: Block : 2236 Lot(s): 125

All that certain plot, piece or parcel of land, situate, lying and being in the Borough of Staten Island, County of Richmond, City and State of New York, bounded and described as follows:

BEGINNING at a point on the westerly side of Richmond Avenue distant 245.56 feet northerly from the corner formed by the intersection of the westerly side of Richmond Avenue and the northerly side of Victory Boulevard: the coordinates of which point of BEGINNING are South 18238.108 West 33253.389:

RUNNING THENCE North 78 degrees 11 minutes 10 seconds West 148.66 feet to a point;

RUNNING THENCE South 11 degrees 57 minutes 53 seconds West 111.39 feet to a point;

RUNNING THENCE North 78 degrees, 02 minutes, 07 seconds West 8.80 feet to a point,

RUNNING THENCE South 06 degrees, 02 minutes, 05 seconds East 190.15 feet to a point on the Northerly side of Victory Boulevard;

RUNNING THENCE along the northerly side of Victory Boulevard South 80 degrees, 42 minutes, 55 seconds West 158.50 feet to a point;

RUNNING THENCE and continuing along the northerly side of Victory Boulevard South 81 degrees, 15 minutes, 24 seconds West7.70 feet to a point;

RUNNING THENCE North 02 degrees 20 minutes, 19 seconds West 247.58 feet to a point;

RUNNING THENCE North 77 degrees 40 minutes 21 seconds West 261.50 feet to a point;

RUNNING THENCE North 12 degrees 07minutes 12 seconds East 277.38 feet to a point;

RUNNING THENCE South 76 degrees 14 minutes 52 seconds East 265.77 feet to a point;

RUNNING THENCE South 73 degrees, 43 minutes 14 seconds East 342.68 feet to a point on the said westerly side of Richmond Avenue;

RUNNING THENCE Southerly along the Westerly side of Richmond Avenue on a curve bearing to the left, having a radius of 500.00 feet, a central angle of 15 degrees, 36 minutes, 54 seconds an arc distance of 136.27 feet to the point or place of BEGINNING.

APPENDIX D

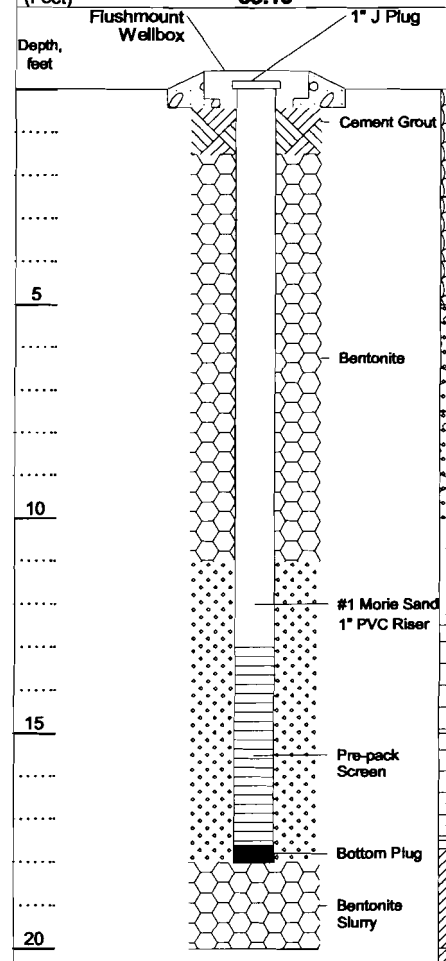
Well Construction Logs

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, New York 11749
Telephone: 631-232-2600
Fax: 631-232-9898

WELL CONSTRUCTION LOG

WELL NO. **MW-101D**	NORTHING **160978.9**	EASTING **938957.8**		
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**		
APPROVED BY **DRAFT**	LOGGED BY **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **8/26/05-8/26/05**
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE **33.16**	TOP OF WELL CASING **32.79**	TOP & BOTTOM SCREEN **20.2 / 15.2**	GRAVEL PACK SIZES **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, coarse to fine SAND, little Gravel, little Silt, trace Brick, trace Glass; moist (fill)		725	Lithology data was obtained from SB-101. Hand excavated to 5ft bls as part of utility clearance.
		Dark brown to black, coarse to fine SAND, little organics (Weeds, Roots); moist (fill)	G	13.3	Sampled 0.5 to 2 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses.
5		Grey, medium to fine SAND, trace Silt, trace Brick; moist/wet (fill)			
		Grey to brown, coarse to fine SAND, some Gravel, trace Silt; wet		248	Sampled groundwater for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses. Sampled 5 to 7.5 ft. interval for VOC analysis.
		Brown, coarse to fine SAND, some Gravel, little Silt; wet		20.7	
10		Brown, SILT, some medium to fine Sand, little Gravel; wet		43.5	
		Brown, SILT, little Clay, trace Gravel; moist/wet		71.1	
15		Brown, SILT, little Clay, trace Gravel; moist/wet		84.5	
		Brown, crushed Rock, little Gravel, little Silt; moist/dry			
		Brown, SILT, some Clay, trace Gravel; moist		208	
20		Brown, SILT, little Clay; moist		42.4	
		Brown, SILT, some Clay; moist		34.7	
25		Brown, SILT, some Clay, little fine Sand; moist		27.3	
		Brown, SILT, some Clay, little fine Sand, little crushed Rock; moist		22.5	Sampled 27.5 to 30 ft. interval for VOC analysis.
30					Bottom of soil boring at 30 ft bls.

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-101S	**160977.3**	**938957.3**

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	**1650 Richmond Avenue**

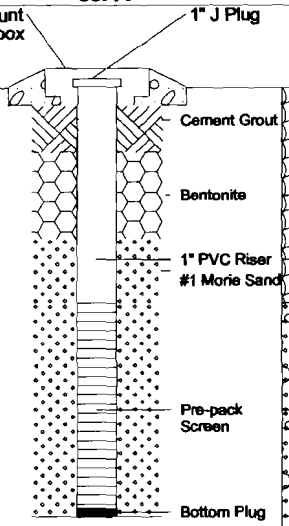
APPROVED BY	LOGGED BY	
DRAFT	**J. Sakellis**	**Staten Island, New York**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**3.25-inches**	**6620 / Geoprobe**	**2" Macro-Core**	**8/26/05-8/26/06**

CASING MAT./DIA. **PVC / 1-inch** | SCREEN: TYPE **Pre-Packed** MAT. **PVC** TOTAL LENGTH **5.0** ft DIA. **1-inch** SLOT SIZE **20-Slot**

ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
(Feet)	**33.44**	**33.25**	**28.4 / 23.4**	**Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, coarse to fine SAND, little Gravel, little Silt, trace Brick, trace Glass; moist (fill)			Lithology data was obtained from SB-101.
				725	Hand excavated to 5ft bls as part of utility clearance
		Dark brown to black, coarse to fine SAND, little organics (Weeds, Roots); moist (fill)	G	13.3	Sampled 0.5 to 2 ft. interval for VOC analysis.
5		Grey, medium to fine SAND, trace Silt, trace Brick; moist/wet (fill)			
		Grey to brown, coarse to fine SAND, some Gravel, trace Silt; wet			Sampled groundwater for VOC, SVOC, TAL Metals, and CN analysis.
				248	Sampled 5 to 7.5 ft. interval for VOC analysis.
		Brown, coarse to fine SAND, some Gravel, little Silt; wet		20.7	
10					Bottom of soil boring at 10 ft bls.
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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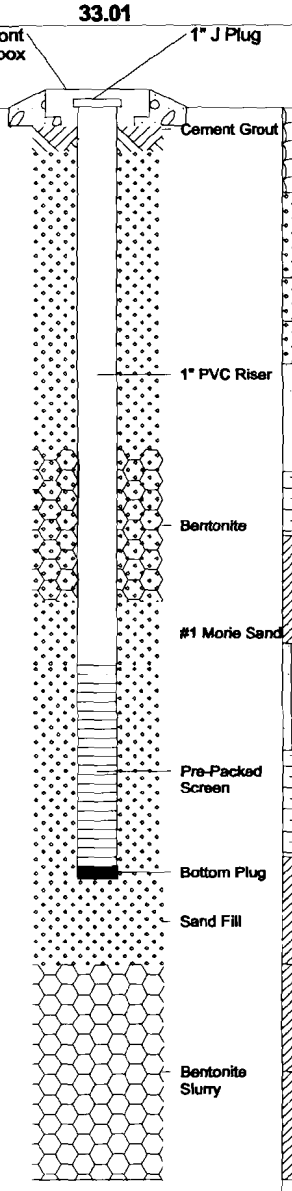
WELL CONSTRUCTION LOG

WELL NO.: **MW-102D**	NORTHING: **160999.8**	EASTING: **938928.6**		
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**		
APPROVED BY: **DRAFT**	LOGGED BY: **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **8/24/05-8/24/05**
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE: **33.01**	TOP OF WELL CASING: **32.60**	TOP & BOTTOM SCREEN: **20.0 / 15.0**	GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to tan, coarse to fine SAND, little Gravel, trace Glass, trace Plastic; dry (fill)	G	0.5	
		Dark brown to black, medium to fine SAND, some organic material, trace Gravel; moist	G	2.2	
		Grey, medium to fine SAND; moist		12.0	
5		Brown, medium to fine SAND, trace Silt; wet	G		Sampled groundwater for VOC analysis.
		Brown, fine SAND, little Silt, trace Gravel; wet		17.9	
		Brown, SILT, little Clay, trace Gravel; moist		6.5	
10		Brown, SILT, some Clay, trace Gravel; moist		2.3	
		Brown, SILT, some fine Sand, trace Gravel; wet		10.4	
15		Brown, SILT, little Clay, trace Gravel; moist		6.6	
		Brown, SILT, some Clay, trace Gravel; moist		17.4	
20		Brown, SILT, some Clay, trace fine Sand; moist		65.5	
		Brown, SILT, some Clay, trace fine Sand; moist		77.9	
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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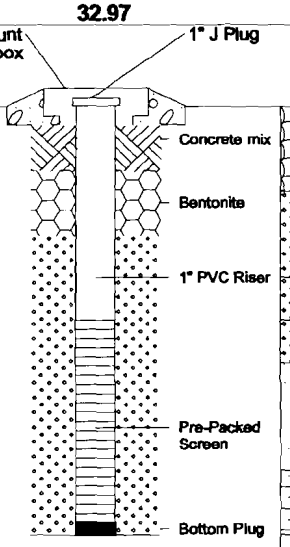
WELL CONSTRUCTION LOG

WELL NO.: **MW-102S**	NORTHING: **160922.5**	EASTING: **938927.9**		
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**		
APPROVED BY: **DRAFT**	LOGGED BY: **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **8/24/05-8/24/05**
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE: **32.97**	TOP OF WELL CASING: **32.49**	TOP & BOTTOM SCREEN: **28.0 / 23.0**	GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown to tan, coarse to fine SAND, little Gravel, trace Glass, trace Plastic; dry (fill)			
		Dark brown to black, medium to fine SAND, some organic material, trace Gravel; moist			Sampled 0.5 to 2 ft. interval for VOC analysis. Sampled 2.5 to 5 ft. interval for VOC analysis.
5		Grey, medium to fine SAND; moist			
		Brown, medium to fine SAND, trace Silt; wet			Sampled groundwater for VOC analysis.
		Brown, fine SAND, little Silt, trace Gravel; wet			
10		Brown, SILT, little Clay, trace Gravel; moist			
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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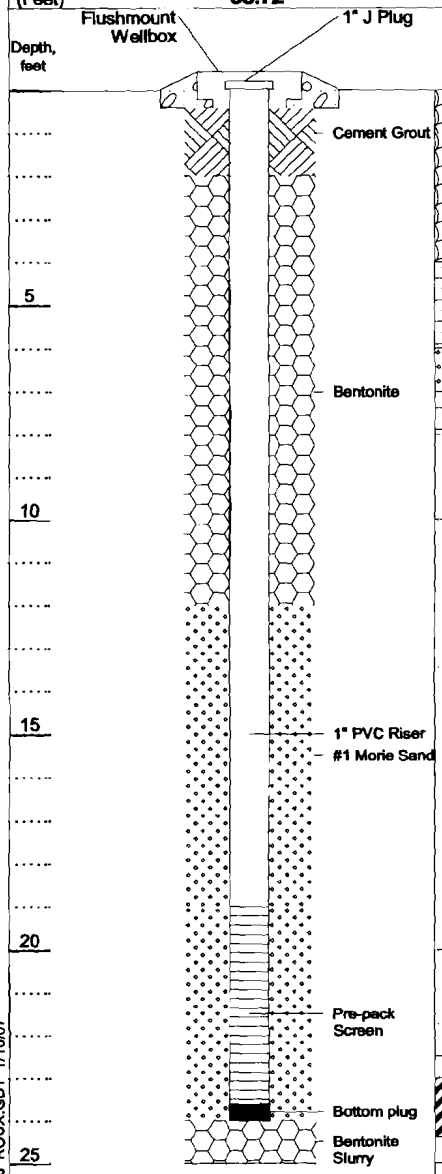
WELL CONSTRUCTION LOG

WELL NO. **MW-103D**	NORTHING **161040.8**	EASTING **938716**			
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**			
APPROVED BY **DRAFT**	LOGGED BY **J. Sakellis**	**Staten Island, New York**			
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA			
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **8/25/05-8/25/05**	
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed**	MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE **33.72**	TOP OF WELL CASING **33.45**	TOP & BOTTOM SCREEN **14.7 / 9.7**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, medium to fine SAND, some Gravel, little cobbles, trace plactic, metal wire and brick, dry.	G	0.6	
				0.3	Sampled 0.5 to 2 ft. interval for VOC analysis.
		Dark Brown, course to fine SAND, some Gravel, trace silt, trace brick, organic material, moist.	G		
		Grey SILT, little fine sand, moist.	G	0.5	
5					5
		Dark Brown to black, medium to fine SAND, some Silt, little organic material, moist.		0.4	Sampled groundwater for VOC analysis.
		Gray SILT, little clay, little fine sand, moist/wet.		0.6	Sampled 7.5 to 10 ft. interval for VOC analysis.
		Brown, fine SAND, little silt, wet.			
10					10
		Brown, fine SAND, trace silt, wet.		1.0	
				1.2	
15					15
		Brown, fine sand, trace silt, wet		1.6	
				1.7	
20					20
		Brown, fine SAND, little silt, wet.		1.6	
		Brown, fine SAND, some Silt, wet.		0.9	
		Brown, medium to high plasticity clay, wet.			
25		Brown, medium to fine SAND, some Silt, some Gravel, wet.			25
30					30

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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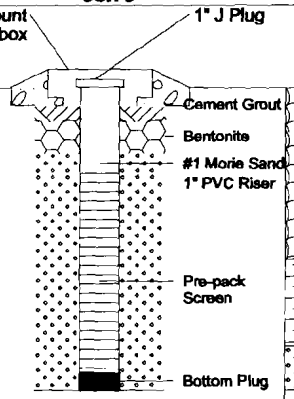
Page 1 of 1

WELL CONSTRUCTION LOG

WELL NO. **MW-103S**	NORTHING **161041**	EASTING **938714.4**		
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**		
APPROVED BY **DRAFT**	LOGGED BY **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **8/25/05-8/25/05**
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE **33.73**	TOP OF WELL CASING **33.39**	TOP & BOTTOM SCREEN **31.7 / 26.7**	GRAVEL PACK SIZES **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, medium to fine SAND, some Gravel, little cobbles, trace plactic, metal wire and brick, dry.			Sampled 0.5 to 2 ft. interval for VOC analysis.
		Dark Brown, course to fine SAND, some Gravel, trace silt, trace brick, organic material, moist.			
5		Grey SILT, little fine sand, moist.			
		Dark Brown to black, medium to fine SAND, some Silt, little organic material, moist.			Sampled 7.5 to 10 ft. interval for VOC analysis.
10					
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-104D	161053.6	938600.7

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	1650 Richmond Avenue

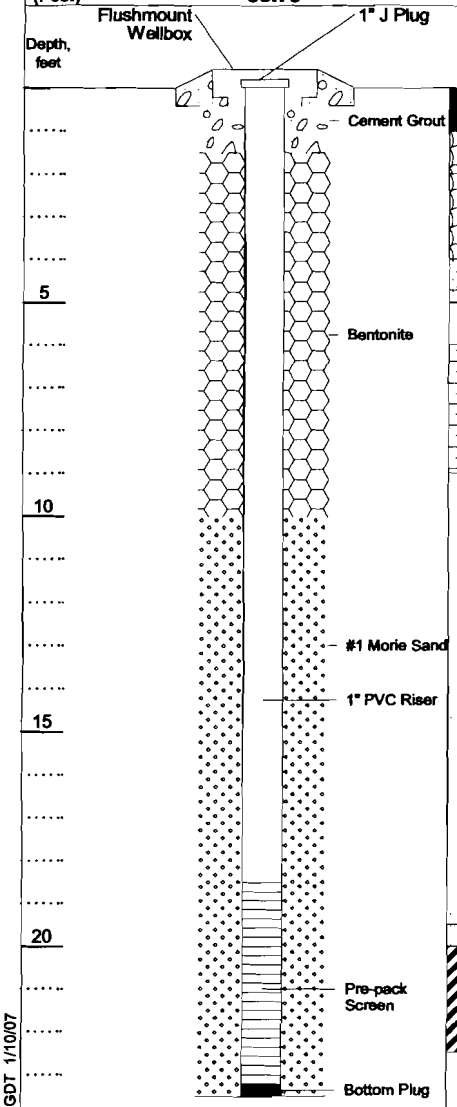
APPROVED BY	LOGGED BY	
DRAFT	J. Sakellis	Staten Island, New York

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	3.25-inches	6620 / Geoprobe	2" Macro-Core	8/30/05-9/9/05

CASING MAT./DIA.	SCREEN:				
PVC / 1-inch	TYPE Pre-Packed	MAT. PVC	TOTAL LENGTH -5.0 ft	DIA. 1-inch	SLOT SIZE 20-Slot

ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
	33.75	33.56	10.3 / 15.3	Morie #1



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			
		Brown, course to fine SAND, some Gravel, trace Brick, trace Concrete, trace organic material (Lumber), moist. (fill)		0.3	Sampled 0.5 to 2 ft. interval for VOC analysis.
		Brown, course to fine SAND, little gravel, little organic material (Lumber), trace Brick trace Concrete, moist. (fill)		9.3	
		Grey, fine SAND, little silt, moist.			
5		Brown to black, fine SAND, little Silt, little organic material (Roots, Weeds), moist.		0.1	Sampled 4 to 6 ft. interval for VOC analysis. 5
		Grey to black, fine SAND, some Silt, little black organic material, moist.			Sampled groundwater for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses.
		Grey SILT, little clay, moist.		0.2	
		Grey SILT, little clay, moist/wet			Sampled 7.5 to 10 ft. interval for VOC analysis.
				0.3	
10		Brown, fine SAND, trace silt, wet.			10
		Brown, fine SAND, trace silt, wet.			
				0.2	
		Brown fine SAND, trace silt, wet.			
				0.1	
15		Brown, fine SAND, trace silt, wet.			15
				0.4	
		Brown, fine SAND, some Silt, wet.			
				0.9	
20		Brown, fine SAND, some Silt, wet.			20
		Brown CLAY, little silt, wet.		0.1	
					Bottom of soil boring at 22.5 ft bls.
25					25
30					30

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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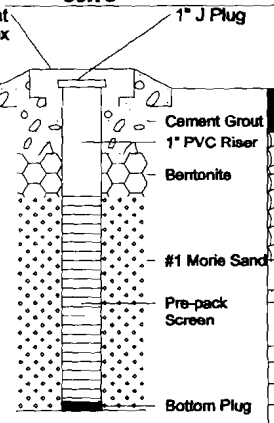
WELL CONSTRUCTION LOG

WELL NO. **MW-104S**	NORTHING **161053.3**	EASTING **938602.2**		
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**		
APPROVED BY **DRAFT**	LOGGED BY **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **9/9/05-9/9/05**
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **-5.0 ft**	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE **33.78**	TOP OF WELL CASING **33.53**	TOP & BOTTOM SCREEN **26.3 / 31.3**	GRAVEL PACK SIZES **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			
		Brown, course to fine SAND, some Gravel, trace Brick, trace Concrete, trace organic material (Lumber), moist. (fill)		0.3	Sampled 0.5 to 2 ft. interval for VOC analysis.
		Brown, course to fine SAND, little gravel, little organic material (Lumber), trace Brick trace Concrete, moist. (fill)		9.3	
		Grey, fine SAND, little silt, moist.			
5		Brown to black, fine SAND, little Silt, little organic material (Roots, Weeds), moist.		0.1	Sampled 4 to 6 ft. interval for VOC analysis.
		Grey to black, fine SAND, some Silt, little black organic material, moist.			
		Grey SILT, little clay, moist.		0.2	
					Bottom of well at 7.5 ft bls.
10					
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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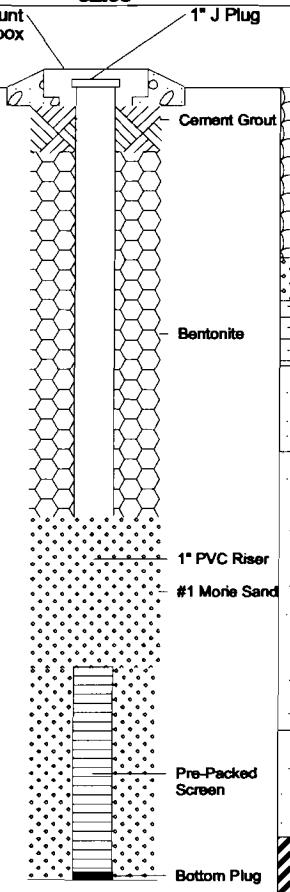
WELL CONSTRUCTION LOG

WELL NO.: **MW-105D**	NORTHING: **160931.7**	EASTING: **938567**			
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**			
APPROVED BY: **DRAFT**	LOGGED BY: **J. Sakellis**	**Staten Island, New York**			
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA			
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **8/29/05-8/29/05**	
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **-5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**	
ELEVATION OF: (Feet)	GROUND SURFACE: **32.85**	TOP OF WELL CASING: **32.56**	TOP & BOTTOM SCREEN: **14.4 / 19.4**	GRAVEL PACK SIZES: **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Grey to brown, course to fine SAND, some Gravel, some Concrete, little brick and silt, dry/moist	G	0.4	Sampled 1.5 to 3 ft. interval for VOC analysis.
5		Brown to grey, medium to fine SAND, some Silt, little organic material, trace gravel, moist.	G	0.4	Sampled 4.5 to 6 ft. interval for VOC analysis.
		Grey SILT, little clay, trace fine sand, dry/moist.		0.5	Sampled groundwater for VOC analysis.
		Grey, fine SAND, some Silt, moist/wet.			
		Grey, fine SAND, some Silt, wet		0.6	
10		Brown, fine SAND, little silt, wet.		0.6	
		Brown, fine SAND, little silt, wet.		1.1	
15		Brown, fine SAND, some Silt, wet		0.9	
		Brown, high plasticity CLAY, little silt, wet.		0.6	
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-105S	160933.4	938567.5

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	1650 Richmond Avenue

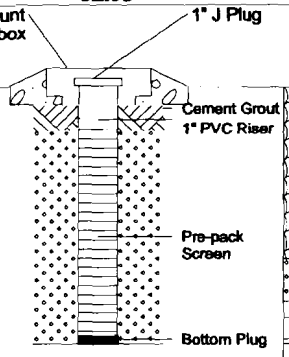
APPROVED BY	LOGGED BY	
DRAFT	J. Sakellis	Staten Island, New York

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	3.25-inches	6620 / Geoprobe	2" Macro-Core	8/29/05-8/29/05

CASING MAT./DIA.	SCREEN:				
PVC / 1-inch	TYPE Pre-Packed	MAT. PVC	TOTAL LENGTH 5.0 ft	DIA. 1-inch	SLOT SIZE 20-Slot

ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
(Feet)	32.85	32.61	31.9 / 26.9	Morie #1



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Grey to brown, course to fine SAND, some Gravel, some Concrete, little brick and silt, dry/moist			Sampled 1.5 to 3 ft. interval for VOC analysis.
5		Brown to grey, medium to fine SAND, some Silt, little organic material, trace gravel, moist.			Sampled 4.5 to 6 ft. interval for VOC analysis.
		Grey SILT, little clay, trace fine sand, dry/moist.			
10					
15					
20					
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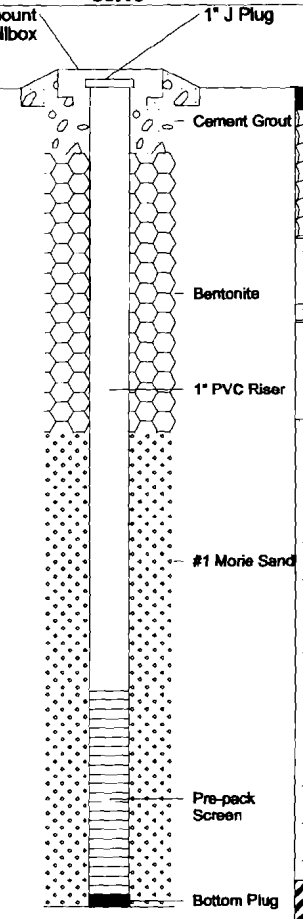
BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, New York 11749
Telephone: 631-232-2600
Fax: 631-232-9898

WELL CONSTRUCTION LOG

WELL NO. **MW-106D**	NORTHING **160942.2**	EASTING **938703.2**		
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**		
APPROVED BY **DRAFT**	LOGGED BY **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **9/12/05-9/12/05**
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **-5.0 ft**	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE **33.13**	TOP OF WELL CASING **32.80**	TOP & BOTTOM SCREEN **14.1 / 19.1**	GRAVEL PACK SIZES **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt		0.6	
		Brown, course to fine SAND, some Gravel, little silt, trace brick, dry/moist.			Sampled 0.5 to 2 ft. interval for VOC analysis.
		Grey to dark grey, fine SAND, some Silt, trace black organic material.			
5		Grey SILT, little fine sand, little clay, moist.		0.0	Sampled 4 to 6 ft. interval for VOC analysis.
		Grey, fine SAND, trace silt, moist/wet.			Upper silt/clay unit begins at approximately 5.5 ft. bls.
		Brown, fine SAND, trace silt, wet.		0.2	Sampled groundwater for VOC analysis.
10				0.4	
		Brown, fine SAND, trace silt, wet.		0.5	
15				0.9	
				1.2	
		Brown CLAY, little silt, moist/wet.			Lower silt/clay unit begins at approximately 18 ft. bls.
20					Bottom of well at 19 ft bls.
25					
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BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-106S	**160942.2**	**938705.2**

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	**1650 Richmond Avenue**

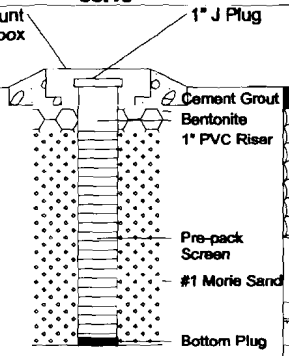
APPROVED BY	LOGGED BY	
DRAFT	**J. Sakellis**	**Staten Island, New York**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**3.25-inches**	**6620 / Geoprobe**	**2" Macro-Core**	**9/12/05-9/12/05**

CASING MAT./DIA.	SCREEN:				
PVC / 1-inch	TYPE **Pre-Packed**	MAT. **PVC**	TOTAL LENGTH **-5.0 ft**	DIA. **1-inch**	SLOT SIZE **20-Slot**

ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
(Feet)	**33.15**	**32.94**	**27.2 / 32.2**	**Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt		0.6	
		Brown, course to fine SAND, some Gravel, little silt, trace brick, dry/moist.			Sampled 0.5 to 2 ft. interval for VOC analysis.
		Grey to dark grey, fine SAND, some Silt, trace black organic material.			
5		Grey SILT, little fine sand, little clay, moist.		0.0	Sampled 4 to 6 ft. interval for VOC analysis.
		Grey, fine SAND, trace silt, moist/wet.			Upper silt/clay unit begins at approximately 5.5 ft. bls.
					Bottom of well is at 6 ft bls.
10					
15					
20					
25					
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BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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Fax: 631-232-9898

WELL CONSTRUCTION LOG

WELL NO.: **MW-107AD**	NORTHING: **160912.4**	EASTING: **938787.8**		
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**		
APPROVED BY: **DRAFT**	LOGGED BY: **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Velss**		GEOGRAPHIC AREA: **In Front of Jeweler**		
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **9/14/05-9/14/05**
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **-5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE: **32.61**	TOP OF WELL CASING: **32.40**	TOP & BOTTOM SCREEN: **5.6 / 10.6**	GRAVEL PACK SIZES: **Morie #1**

Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			
		Brown, coarse to fine SAND, some Gravel, little Asphalt, trace Silt, Glass, and Brick, (fill); dry.		18.2	Sampled 0.5 to 2 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses.
		Brown to grey, fine SAND, little Silt, trace Gravel, trace organic materials (i.e. weeds and roots); moist.		3.0	Hand excavated to 4ft bls as part of utility clearance
5		Brown, medium to fine SAND; moist.		4.8	
		Grey to brown, medium to fine SAND, trace Silt; moist/wet.		1.9	
		Brown, medium to fine SAND, trace Silt; wet		4.6	Sampled 4 to 6 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses.
		Brown, medium to fine SAND; wet.		4.2	
10		Brown, medium to fine SAND, trace Silt; wet		3.6	
		Brown SILT, little fine SAND; wet.		4.1	
		Brown Clay, trace Silt; moist/wet			
15		Brown SILT, little Gravel, trace fine Sand; moist/wet.		6.3	
				5.8	
20		Brown, fine SAND, trace Gravel and Silt; wet.		4.9	
		Brown, coarse to fine SAND, trace Silt and Gravel; wet.		4.2	
25		Brown, fine SAND, some Silt, trace Clay and Gravel; wet.		5.3	Lithology data was obtained from SB-107A, performed 9/14/2005
		Brown SILT, little Clay, trace fine Sand; moist/wet.		5.1	
30					

Flushmount Wellbox; 1" J Plug; Cement Grout; Bentonite; 1" PVC Riser; #1 Morie Sand; Pre-pack Screen; Bottom Plug; GROUND WATER LEVEL

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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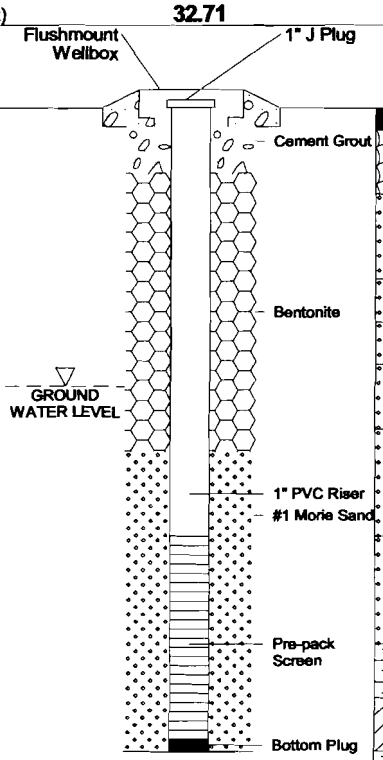
WELL CONSTRUCTION LOG

WELL NO.: **MW-107AS**	NORTHING: **160913.2**	EASTING: **938785.8**		
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**		
APPROVED BY: **DRAFT**	LOGGED BY: **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA: **In Front of Jeweler**		
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **9/14/05-9/15/05**
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **-5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE: **32.71**	TOP OF WELL CASING: **32.42**	TOP & BOTTOM SCREEN: **17.7 / 22.7**	GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			Hand excavated to 4ft bls as part of utility clearance
		Brown, coarse to fine SAND, some Gravel, little Asphalt, trace Silt, Glass, and Brick, (fill); dry.		18.2	Sampled 0.5 to 2 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses.
		Brown to grey, fine SAND, little Silt, trace Gravel, trace organic materials (i.e. weeds and roots); moist.	G	3.0	Lithology data was obtained from SB-107A, performed 9/14/2005
5		Brown, medium to fine SAND; moist.		4.8	Sampled 4 to 6 ft. interval for VOC analysis.
		Grey to brown, medium to fine SAND, trace Silt; moist/wet.		1.9	
		Brown, medium to fine SAND, trace Silt; wet		4.6	Sampled 4 to 6 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses.
		Brown, medium to fine SAND; wet.			
				4.2	
10		Brown, medium to fine SAND, trace Silt; wet			
				3.6	
		Brown SILT, little fine SAND; wet.			
		Brown Clay, trace Silt; moist/wet		4.1	
15		Brown SILT, little Gravel, trace fine Sand; moist/wet.			
20		Brown, fine SAND, trace Gravel and Silt; wet.			
		Brown, coarse to fine SAND, trace Silt and Gravel; wet.			
25		Brown, fine SAND, some Silt, trace Clay, trace Gravel; wet.			
		Brown, SILT, little Clay, trace fine Sand; moist/wet.			
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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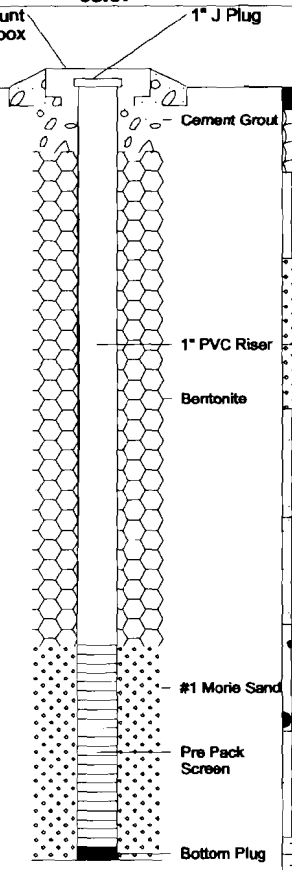
Page 1 of 1

WELL CONSTRUCTION LOG

WELL NO. **MW-108D**	NORTHING **160910.9**	EASTING **939137.4**			
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**			
APPROVED BY **DRAFT**	LOGGED BY **J. Sakellis**	**Staten Island, New York**			
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA			
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **9/19/05-9/19/05**	
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed**	MAT. **PVC**	TOTAL LENGTH **-5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE **35.07**	TOP OF WELL CASING **34.85**	TOP & BOTTOM SCREEN **17.1 / 22.1**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			
		Brown, fine SAND, some Silt, little Gravel, trace asphalt, trace Brick; dry (fill)		0.9	Hand excavated to 4ft bls as part of utility clearance
		Black to grey, SILT, little fine Sand, trace organic materials (Weeds, Roots, Grasses); moist		1.0	Sampled 0.5 to 2 ft. interval for VOC analysis.
5		Grey, fine SAND, some Silt, trace Clay; moist		0.7	Sampled 2 to 4 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses.
		Brown to grey, fine SAND, some Silt, little Clay; moist/wet		1.5	Sampled 4 to 6 ft. interval for VOC analysis.
		Brown, SILT, some fine Sand, little Clay; moist		1.0	Sampled groundwater for VOC, SVOC, Pesticide, and TAL Metals analyses.
10		Brown, SILT, some fine SAND, little Gravel, trace Clay; wet		0.8	
		Brown to grey, crushed rock (Sandstone), some Silt, little fine Sand, trace Gravel; moist		0.6	
15		Brown SILT, little fine Sand, trace Gravel, trace Clay; wet		0.7	
		Brown, SILT, little Clay, trace Gravel, trace fine Sand, wet		0.6	Bottom of well at 18 ft bls.
20		Brown, medium to fine SAND, some Silt, little Gravel, little Clay; wet		0.2	
		Brown, coarse to fine SAND, little Gravel, trace Silt; wet		0.2	Lithology data was obtained from SB-108, performed 9/19/2005
25					Bottom of soil boring at 25 ft bls.
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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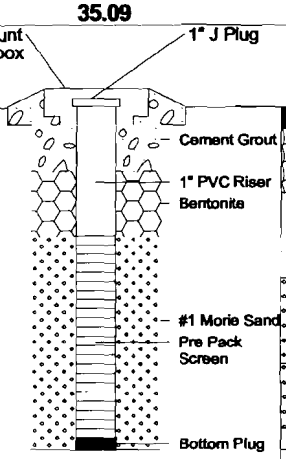
WELL CONSTRUCTION LOG

WELL NO.: **MW-108S**	NORTHING: **160912.9**	EASTING: **939137.9**		
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**		
APPROVED BY: **DRAFT**	LOGGED BY: **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **9/19/05-9/19/05**
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **-5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE: **35.09**	TOP OF WELL CASING: **34.83**	TOP & BOTTOM SCREEN: **27.1 / 32.1**	GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			Hand excavated to 4ft bls as part of utility clearance
		Brown, fine SAND, some Silt, little Gravel, trace asphalt, trace Brick; dry (fill)		0.9	Sampled 0.5 to 2 ft. interval for VOC analysis.
		Black to grey, SILT, little fine Sand, trace organic materials (Weeds, Roots, Grasses); moist		1.0	Lithology data was obtained from SB-108, performed 9/19/2005
5		Grey, fine SAND, some Silt, trace Clay; moist		0.7	Sampled 2 to 4 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses. Sampled 4 to 6 ft. interval for VOC analysis.
		Brown to grey, fine SAND, some Silt, little Clay; moist/wet		1.5	
		Brown, SILT, some fine Sand, little Clay; moist			Bottom of well at 8 ft bls.
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BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-109D	160676.5	938885.4

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	1650 Richmond Avenue

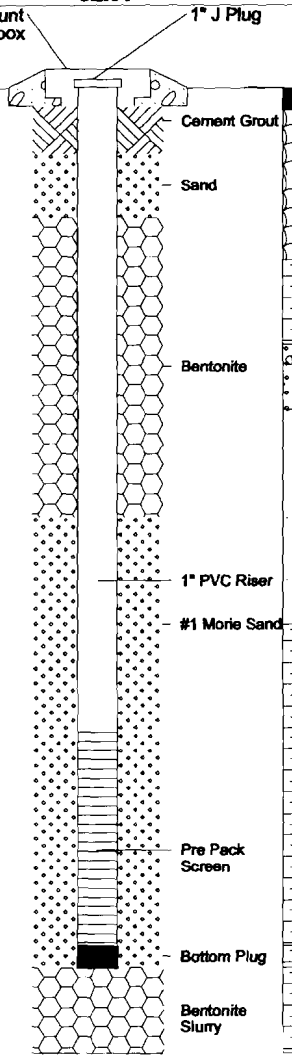
APPROVED BY	LOGGED BY	
DRAFT	J. Sakellis	Staten Island, New York

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	3.25-inches	6620 / Geoprobe	2" Macro-Core	9/1/05-9/1/05

CASING MAT./DIA.	SCREEN:				
PVC / 1-inch	TYPE Prepacked	MAT. PVC	TOTAL LENGTH -5.0 ft	DIA. 1-inch	SLOT SIZE 20-Slot

ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
(Feet)	32.61	32.25	12.6 / 17.6	Morie #1



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			
		Brown to grey, course to fine SAND, little gravel, little silt, trace brick, trace concrete, trace glass, dry/moist.	G	2.6	Sampled 0.5 to 2 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicides, TAL Metals and Cyanide analyses.
		Brown to grey, course to fine SAND, little gravel, little silt, trace brick, trace concrete, trace glass, dry/moist.	G	2.0	
5		Grey to brown SILT, little clay, little fine sand, moist.	G	1.9	Sampled 4 to 6 ft interval for VOC analysis. Sampled groundwater for VOC analysis.
		Brown, course to fine SAND, some Gravel, little silt, moist.		0.7	
		Brown, fine SAND, little silt, little gravel, moist.		1.2	
10		Brown, fine SAND, little silt, little gravel, wet.		1.0	
		Brown SILT, little fine sand, little clay, trace gravel, wet.		0.8	
15		Brown SILT, little fine sand, little clay, wet.		1.5	
				1.0	
20		Brown SILT, little clay, moist.		1.0	
		Brown SILT, little clay, little fine sand, wet.			
25					
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BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-109S	160677.4	938883.8

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	1650 Richmond Avenue

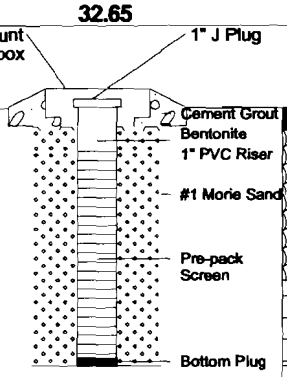
APPROVED BY	LOGGED BY	
DRAFT	J. Sakellis	Staten Island, New York

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	3.25-inches	6620 / Geoprobe	2" Macro-Core	9/9/05-9/9/05

CASING MAT./DIA.	SCREEN:				
PVC / 1-inch	TYPE Pre-Packed	MAT. PVC	TOTAL LENGTH -5.0 ft	DIA. 1-inch	SLOT SIZE 20-Slot

ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
(Feet)	32.65	32.38	26.7 / 31.7	Morie #1



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"		PID Values (ppm)	REMARKS
		Asphalt				
		Brown to grey, course to fine SAND, little gravel, little silt, trace brick, trace concrete, trace glass, dry/moist.		G	2.6	Sampled 0.5 to 2 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicides, TAL Metals and Cyanide analyses.
		Brown to grey, course to fine SAND, little gravel, little silt, trace brick, trace concrete, trace glass, dry/moist.		G	2.0	
5		Grey to brown SILT, little clay, little fine sand, moist.		G	1.9	Sampled 4 to 6 ft interval for VOC analysis. Soil boring shown here is from Pilot boring MW-109D, less than 3 ft away.
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25						
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BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-111D	160873.8	938947.4

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	1650 Richmond Avenue

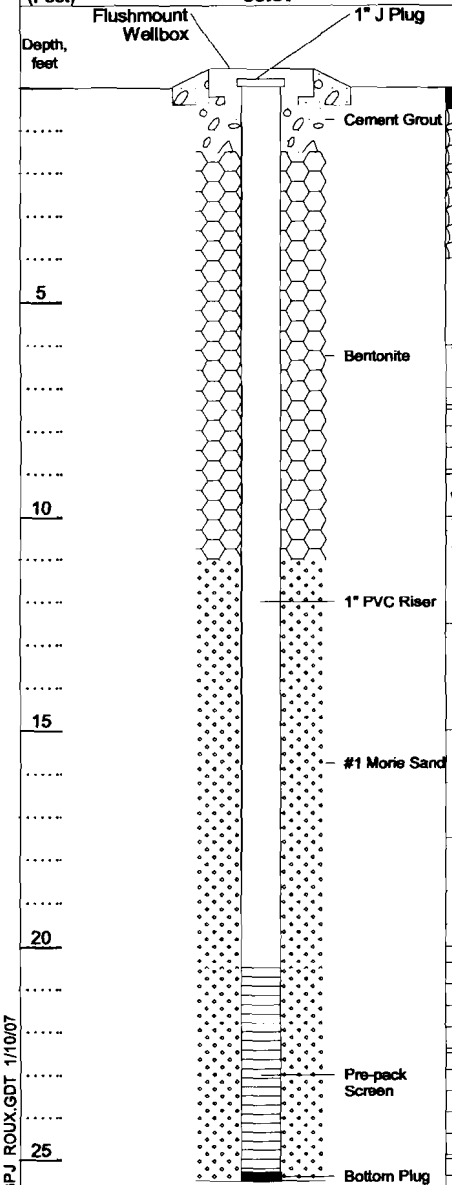
APPROVED BY	LOGGED BY	
DRAFT	J. Sakellis	Staten Island, New York

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	3.25-inches	6620 / Geoprobe	2" Macro-Core	9/16/05-9/16/05

CASING MAT./DIA.	SCREEN:				
PVC / 1-inch	TYPE Pre-Packed	MAT. PVC	TOTAL LENGTH -5.0 ft	DIA. 1-inch	SLOT SIZE 20-Slot

ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
	33.87	33.60	8.4 / 13.4	Morie #1



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			
		Brown to grey, coarse to fine SAND, little Asphalt little Gravel; dry/moist		7.8	Sampled 0.5 to 2 ft. interval for VOC analysis.
		Brown, coarse to fine SAND, little Silt, little Gravel; dry/moist	G	2.4	
		Brown, coarse to fine SAND, little Silt, little Gravel, trace organic material (Lumber); dry/moist (fill)		2.8	
5		Brown to grey, SILT, little fine Sand, trace organic material (Weeds, Roots); moist/wet			Sampled 4 to 6 ft. interval for VOC analysis.
		Grey, fine SAND, little Silt; wet		2.3	Sampled groundwater for VOC analysis.
		Grey, SILT, trace Clay; moist		1.6	
		Brown, SILT, trace Clay, trace Gravel; moist		1.8	
10		Brown SILT, little Gravel, trace Clay; moist			
		Brown, SILT, little fine Sand, trace Gravel; moist/wet		3.9	
		Brown, SILT, little fine Sand, trace Gravel; moist/wet		4.3	
15		Brown SILT, little fine Sand, trace Gravel; moist/wet		3.7	
		Brown SILT, little fine Sand, trace Gravel; moist/wet		4.1	
20		Brown, SILT, trace fine Sand, trace Clay, trace Gravel; wet		0.8	
		Brown, SILT, little fine Sand, little Clay; moist/wet.		0.5	
25		Brown, SILT, little Clay, little Gravel; moist/wet		2.8	Bottom of well at 25.5 ft bls.
		Brown SILT, little Gravel, little medium to fine Sand, trace Clay; wet		3.1	Bottom of soil boring at 30 ft bls.
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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Environmental Consulting & Management

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Fax: 631-232-9898

WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-111S	**160873.2**	**938949.7**

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	**1650 Richmond Avenue**

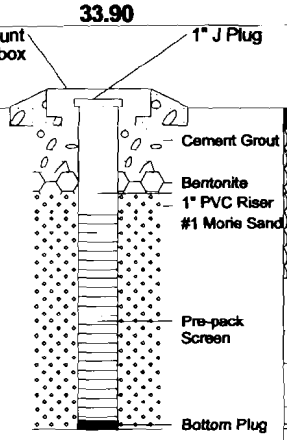
APPROVED BY	LOGGED BY	
DRAFT	**J. Sakellis**	**Staten Island, New York**

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	**3.25-inches**	**6620 / Geoprobe**	**2" Macro-Core**	**9/16/05-9/16/05**

CASING MAT./DIA. **PVC / 1-inch** | SCREEN: TYPE **Pre-Packed** MAT. **PVC** TOTAL LENGTH **-5.0** ft DIA. **1-inch** SLOT SIZE **20-Slot**

ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
(Feet)	**33.90**	**33.63**	**26.4 / 31.4**	**Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			Hand excavated to 4ft bls as part of utility clearance
		Brown to grey, coarse to fine SAND, little Asphalt little Gravel; dry/moist		7.8	Sampled 0.5 to 2 ft. interval for VOC analysis.
		Brown, coarse to fine SAND, little Silt, little Gravel; dry/moist	G	2.4	
		Brown, coarse to fine SAND, little Silt, little Gravel, trace organic material (Lumber); dry/moist (fill)		2.8	Lithology data was obtained from SB-111, performed 9/16/2005
5		Brown to grey, SILT, little fine Sand, trace organic material (Weeds, Roots); moist/wet		2.3	Sampled 4 to 6 ft. interval for VOC analysis.
		Grey, fine SAND, little Silt; wet			
		Grey, SILT, trace Clay; moist		1.6	Bottom of well at 7.5 ft bls.
10					
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-112D	161125.5	938699.4

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	1650 Richmond Avenue

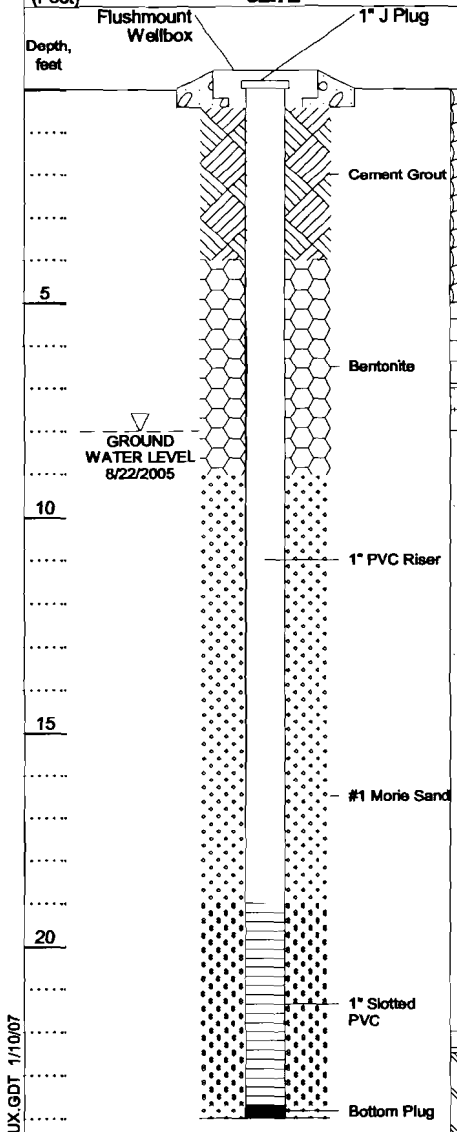
APPROVED BY	LOGGED BY	
DRAFT	J. Sakellis	Staten Island, New York

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	School Yard

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	3.25-inches	6620 / Geoprobe	2" Macro-Core	8/22/05-8/22/05

CASING MAT./DIA.	SCREEN:				
PVC / 1-inch	TYPE Pre-Packed	MAT. PVC	TOTAL LENGTH -5.0 ft	DIA. 1-inch	SLOT SIZE 20-Slot

ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
	32.72	32.53	8.7 / 13.7	Morie #1



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, course to fine SAND, some Gravel, little silt, trace brick, glass, concrete, dry/moist.		0.3	
		Brown to dark brown, course to fine SAND, some Gravel, little silt, trace, brick, glass, asphalt, dry/moist.		0.1	
5		Grey to brown SILT, little clay, dry		0.1	Top clayey-silt layer begins at 5 ft. bls.
		Grey, fine SAND, little silt, moist.			
		Grey, fine SAND, trace silt, wet.		0.5	Sampled groundwater for VOC analysis.
		Brown, fine SAND, trace silt, wet.			Top clayey-silt layer ends at approximately 9 ft. bls.
10				0.9	
				0.8	
15		Brown fine SAND, trace silt, wet.		2.2	
				3.3	
20				3.0	
		Brown SILT, little fine sand, wet.			
		Brown, medium to high plasticity CLAY, wet.		3.0	
					Bottom clay layer begins at 23.5 ft. bls.
25					Bottom of boring at 25 ft. bls.
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-112S	161125.9	938698

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	1650 Richmond Avenue

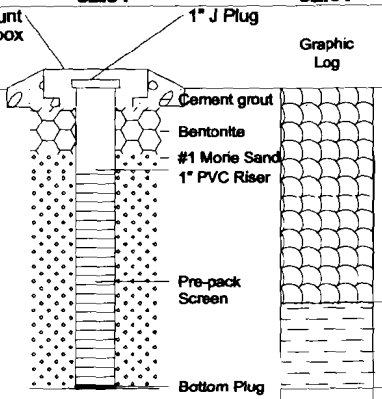
APPROVED BY	LOGGED BY	
DRAFT	J. Sakellis	Staten Island, New York

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	3.25-inches	6620 / Geoprobe	2" Macro-Core	8/22/05-8/22/05

CASING MAT./DIA. PVC / 1-inch
SCREEN: TYPE Pre-Packed MAT. PVC TOTAL LENGTH -5.0 ft DIA. 1-inch SLOT SIZE 20-Slot

ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
(Feet)	32.81	32.61	25.8 / 30.8	Morie #1



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Brown, course to fine SAND, some Gravel, little silt, trace brick, glass, concrete, dry/moist.			
		Brown to dark brown, course to fine SAND, some Gravel, little silt, trace, brick, glass, asphalt, dry/moist.			
5		Grey to brown SILT, little clay, dry			
10					
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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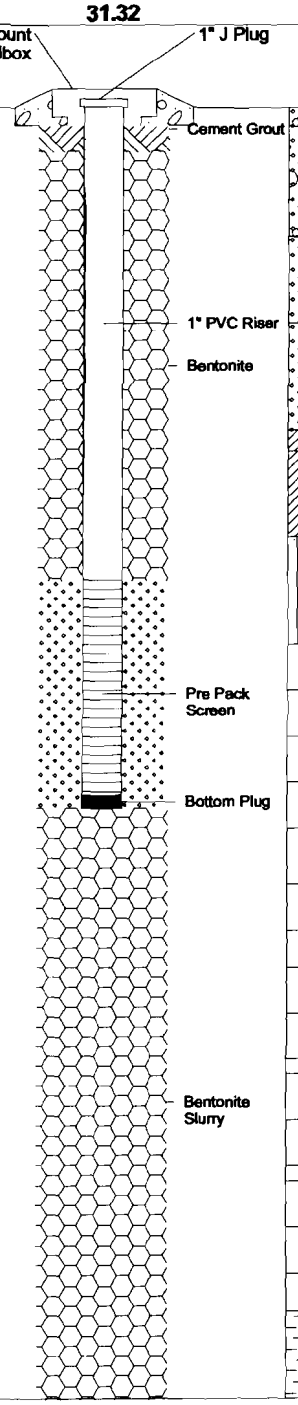
WELL CONSTRUCTION LOG

WELL NO.: MW-113D	NORTHING: 161022	EASTING: 938907.6		
PROJECT NO./NAME: 125801Y / Coral Island Shopping Center		LOCATION: 1650 Richmond Avenue		
APPROVED BY: DRAFT	LOGGED BY: J. Sakellis	Staten Island, New York		
DRILLING CONTRACTOR/DRILLER: Roux Associates / J. Veiss		GEOGRAPHIC AREA: Church backyard		
DRILL BIT DIAMETER/TYPE: 2-in. / Drive Sampler	BOREHOLE DIAMETER: 3.25-inches	DRILLING EQUIPMENT/METHOD: 6620 / Geoprobe	SAMPLING METHOD: 2" Macro-Core	START-FINISH DATE: 8/23/05-8/23/05
CASING MAT./DIA.: PVC / 1-inch	SCREEN: TYPE Pre-Packed	MAT. PVC	TOTAL LENGTH -5.0 ft	DIA. 1-inch SLOT SIZE 20-Slot
ELEVATION OF: (Feet)	GROUND SURFACE: 31.32	TOP OF WELL CASING: 31.04	TOP & BOTTOM SCREEN: 15.3 / 20.3	GRAVEL PACK SIZES: Morie #1



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, course to fine SAND, some Gravel, trace silt, moist.	G	0.8	Sampled 0-2 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses.
		Brown to grey, medium to fine SAND, little silt, wet.	G	2.1	
5		Grey to brown, medium to fine SAND, some Silt, wet.		2.8	
		Brown CLAY, some Silt, moist/wet.		1.5	Sampled groundwater for VOC analysis.
		Brown CLAY, some Silt, little gravel, moist.			
10		Brown SILT, some fine Sand, some Gravel, wet.		1.5	
		Brown SILT, some Clay, little gravel, moist.		1.3	
15				2.9	
		Brown SILT, some Clay, little gravel, moist		10.1	
20		Brown SILT, some Clay, trace gravel, moist		16.5	
		Brown SILT, some Clay, trace fine sand, moist.		40.7	
25		Brown SILT, some Clay, moist		36.7	
		Brown SILT, little clay, little gravel, moist.		44	
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-113S	161020.4	938907.1

PROJECT NO./NAME	LOCATION
125801Y / Coral Island Shopping Center	1650 Richmond Avenue

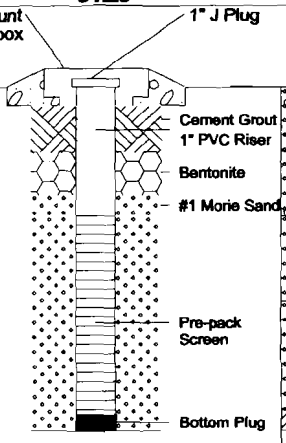
APPROVED BY	LOGGED BY	
DRAFT	J. Sakellis	Staten Island, New York

DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA
Roux Associates / J. Veiss	

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
2-in. / Drive Sampler	3.25-inches	6620 / Geoprobe	2" Macro-Core	8/23/05-8/23/05

CASING MAT./DIA. PVC / 1-inch
SCREEN: TYPE Pre-Packed MAT. PVC TOTAL LENGTH 5.0 ft DIA. 1-inch SLOT SIZE 20-Slot

ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GRAVEL PACK SIZES
(Feet)	31.23	30.89	28.2 / 23.2	Morie #1



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Brown, course to fine SAND, some Gravel, trace silt, moist.			Sampled 0-2 ft. interval for VOC, SVOC, Pesticide, PCB, Herbicide, TAL Metals and Cyanide analyses.
		Brown to grey, medium to fine SAND, little silt, wet.			
5		Grey to brown, medium to fine SAND, some Silt, wet.			
		Brown CLAY, some Silt, moist/wet.			Sampled groundwater for VOC analysis.
10					
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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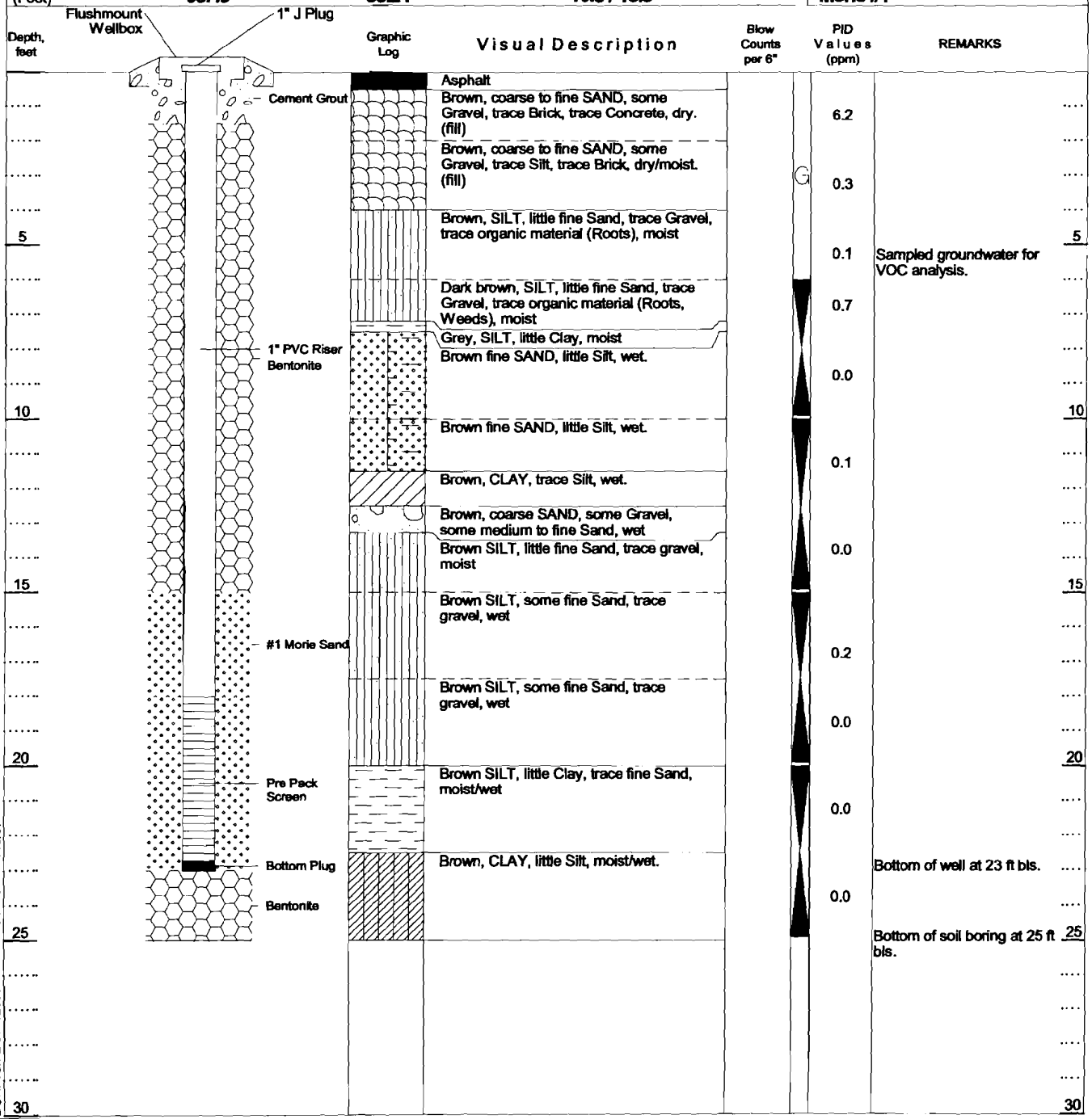
WELL CONSTRUCTION LOG

WELL NO. **MW-126D**	NORTHING **160818.1**	EASTING **938544.5**			
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**			
APPROVED BY **DRAFT**	LOGGED BY **J. Sakellis**	**Staten Island, New York**			
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA			
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **9/13/05-9/13/05**	
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed**	MAT. **PVC**	TOTAL LENGTH **-5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE **33.49**	TOP OF WELL CASING **33.24**	TOP & BOTTOM SCREEN **10.5 / 15.5**	GRAVEL PACK SIZES **Morie #1**	



BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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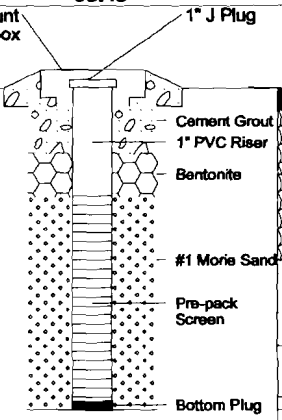
WELL CONSTRUCTION LOG

WELL NO.: **MW-126S**	NORTHING: **160819.7**	EASTING: **938544.9**		
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**		
APPROVED BY: **DRAFT**	LOGGED BY: **J. Sakellis**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **9/13/05-9/13/05**
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **-5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE: **33.48**	TOP OF WELL CASING: **33.26**	TOP & BOTTOM SCREEN: **26.0 / 31.0**	GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Asphalt			
		Brown, coarse to fine SAND, some Gravel, trace Brick, trace Concrete, dry. (fill)		6.2	
		Brown, coarse to fine SAND, some Gravel, trace Silt, trace Brick, dry/moist. (fill)	G	0.3	
5		Brown, SILT, little fine Sand, trace Gravel, trace organic material (Roots), moist		0.1	
		Dark brown, SILT, little fine Sand, trace Gravel, trace organic material (Roots, Weeds), moist		0.7	
		Grey, SILT, little Clay, moist			Bottom of well at 7.5 ft bls.
10					
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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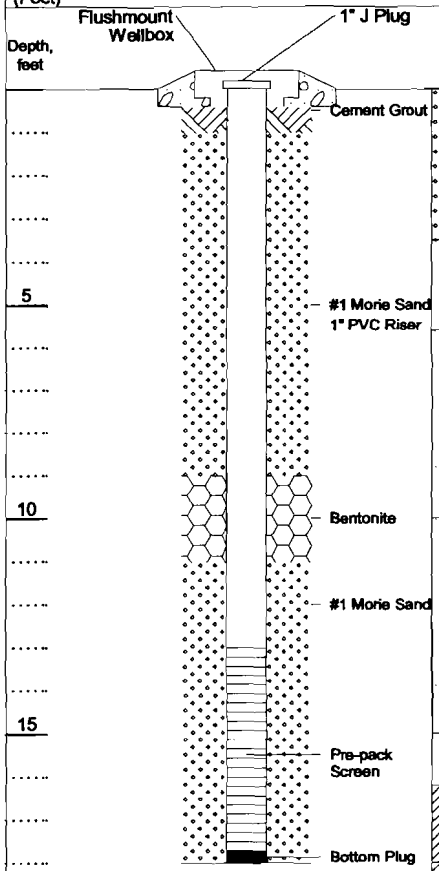
WELL CONSTRUCTION LOG

WELL NO.: **MW-201D**	NORTHING: **Not Measured**	EASTING: **Not Measured**		
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**		
APPROVED BY: **DRAFT**	LOGGED BY: **L. Derrendinger**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **8/3/06-8/3/06**
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN /	GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown fine SAND, some Silt, little fine Gravel; some roots and natural organic matter in top 3 inches; moist; soft; cemented red sand at 2.5 and 3.5 feet.		1.0	No samples collected; PID monitoring only.
				1.2	
5		Light Grey fine(-) SAND, some Silt; Brown staining in top 2 inches; moist; firm.		1.4	
		Reddish fine SAND; wet at bottom 4 feet; soft.		0.7	
10		Reddish fine SAND; wet; firm.		1.6	
				1.5	
15		Reddish fine(-) SAND, some Silt; wet; very soft.		1.3	
		Reddish CLAY, some Silt; wet; very firm; cemented red sand at bottom 3 inches.			
		Reddish CLAY, little Silt; wet; very firm; cemented red sand at bottom 3 inches.		1.3	
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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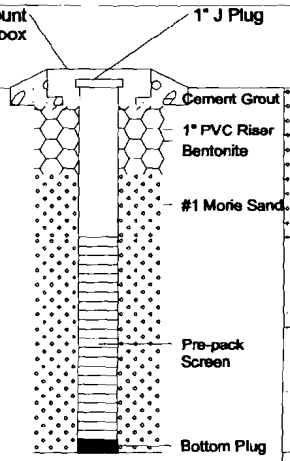
Page 1 of 1

WELL CONSTRUCTION LOG

WELL NO.: **MW-201S**	NORTHING: **Not Measured**	EASTING: **Not Measured**		
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**		
APPROVED BY: **DRAFT**	LOGGED BY: **L. Derrendinger**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **8/3/06-8/3/06**
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN: **/**	GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown fine SAND, some Silt, little fine Gravel; some roots and natural organic matter in top 3 inches; moist; soft; cemented red sand at 2.5 and 3.5 feet.			No samples collected; See MW-201D for PID monitoring results.
5		Light Grey fine(-) SAND, some Silt; Brown staining in top 2 inches; moist; firm.			
		Reddish fine SAND; wet at bottom 2.5 feet; soft.			
10					
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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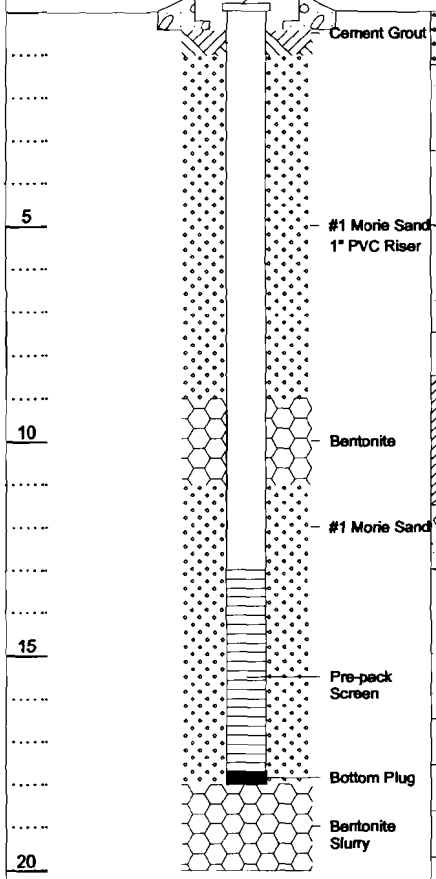
WELL CONSTRUCTION LOG

WELL NO. **MW-202D**	NORTHING **Not Measured**	EASTING **Not Measured**		
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**		
APPROVED BY **DRAFT**	LOGGED BY **L. Derrendinger**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **8/2/06-8/2/06**
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN /	GRAVEL PACK SIZES **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark Brown to Black fine SAND, and Silt, some roots and natural organic matter; moist; soft.	G	0.3	No samples collected; PID monitoring only.
		Light Grey fine(-) SAND, some Silt; Dark Brown staining in top 3 inches; moist; firm.	G	0.3	
		Light Brown fine(+) to medium(-) SAND; wet; firm.	G		
5		Reddish fine(+) to medium(-) SAND; wet; firm.	G	0.5	
		Reddish fine SAND; wet; firm.		0.6	
		Reddish CLAY, and Silt, trace fine Sand; very firm; wet.	G		
10			G	1.2	
		Reddish fine(-) SAND, and layers and pockets of cemented red sand; wet; firm;	G		
		Reddish SILT, and fine(-) Sand, little fine(-) Gravel of cemented Sand; wet; firm.	G	1.1	
15			G	08	
		Reddish SILT, some Clay, little fine Gravel of cemented sand; very firm; moist; increase in cemented sand content in bottom foot.	G	0.7	
20			G		
25					
30					

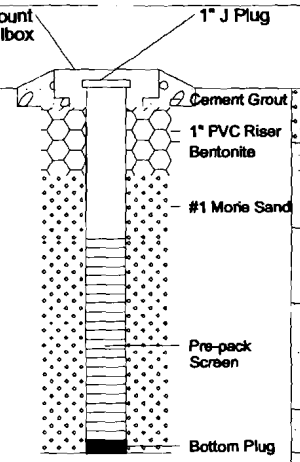
BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, New York 11749
Telephone: 631-232-2600
Fax: 631-232-9898

WELL CONSTRUCTION LOG

WELL NO. **MW-202S**	NORTHING **Not Measured**	EASTING **Not Measured**		
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**		
APPROVED BY **DRAFT**	LOGGED BY **L. Derrendinger**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **8/2/06-8/2/06**
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN /	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Dark Brown to Black SAND, and Silt, some roots and natural organic matter; moist; soft.			No samples collected; See MW-202D for PID monitoring results.
		Light Grey fine(-) SAND, some Silt; Dark Brown staining in top 3 inches; moist; firm.			
		Light Brown fine(+) to medium(-) SAND; wet; firm.			
5		Reddish fine(+) to medium(-) SAND; wet; firm.			
		Reddish fine SAND; wet; firm.			
10					
15					
20					
25					
30					

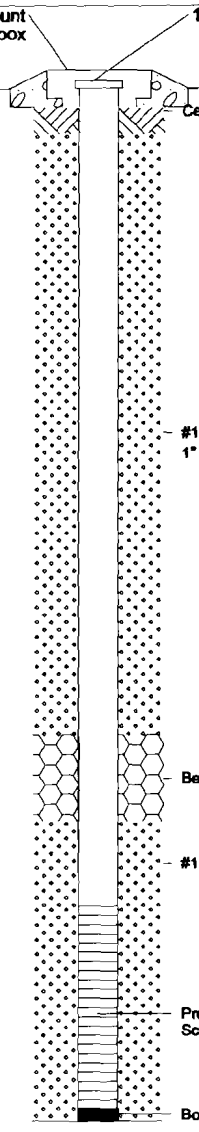
BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, New York 11749
Telephone: 631-232-2600
Fax: 631-232-9898

WELL CONSTRUCTION LOG

WELL NO.: **MW-203D**	NORTHING: **Not Measured**	EASTING: **Not Measured**			
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**			
APPROVED BY: **DRAFT**	LOGGED BY: **L. Derrendinger**	**Staten Island, New York**			
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA			
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **8/5/06-8/5/06**	
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**	
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN /	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Brown fine SAND, some Silt; some roots and natural organic matter in top 3 inches; moist; soft;		0.5	No samples collected; PID monitoring only.
		Tan fine to medium SAND, trace Silt; moist; soft.		0.5	
5		Light Grey fine(-) SAND, some Silt; wet at bottom 10 inches; firm.		0.7	
		Reddish fine(+) to medium(-) SAND; wet; soft.		0.6	
10		Reddish fine SAND; wet; soft.		0.5	
				0.5	
15				0.5	
				0.6	
20				0.6	
				0.5	
25		Reddish CLAY, some Silt; wet; firm;			
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

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Environmental Consulting & Management

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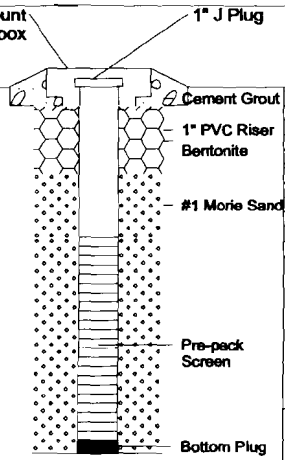
Fax: 631-232-9898

WELL CONSTRUCTION LOG

WELL NO. **MW-203S**	NORTHING **Not Measured**	EASTING **Not Measured**		
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**		
APPROVED BY **DRAFT**	LOGGED BY **L. Derrendinger**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **8/5/06-8/5/06**
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN /	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Brown fine SAND, some Silt; some roots and natural organic matter in top 3 inches; moist; soft;			No samples collected; See MW-203D for PID monitoring results.
		Tan fine to medium SAND, trace Silt; moist; soft.			
5		Light Grey fine(-) SAND, some Silt; wet at bottom 10 inches; firm.			
		Reddish fine(+) to medium(-) SAND; wet; soft.			
10					
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, New York 11749
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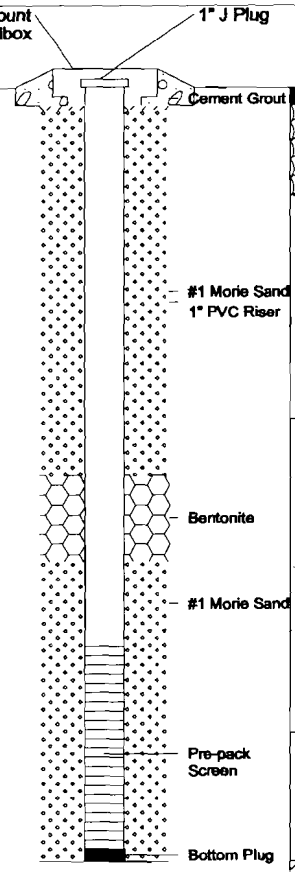
Fax: 631-232-9898

WELL CONSTRUCTION LOG

WELL NO. **MW-204D**	NORTHING **Not Measured**	EASTING **Not Measured**		
PROJECT NO./NAME **125801Y / Coral Island Shopping Center**		LOCATION **1650 Richmond Avenue**		
APPROVED BY **DRAFT**	LOGGED BY **L. Derrendinger**	**Staten Island, New York**		
DRILLING CONTRACTOR/DRILLER **Roux Associates / J. Veiss**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **3.25-inches**	DRILLING EQUIPMENT/METHOD **6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **8/4/06-8/4/06**
CASING MAT./DIA. **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN /	GRAVEL PACK SIZES **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Asphalt paving and gravel base.		1.7	
		Black medium to coarse SAND, and fine Gravel, (fill); moist; soft; mostly asphalt-like material in fine Gravel size fraction.			No samples collected; PID monitoring only.
		Light Grey fine(-) SAND, some Silt; Black staining in top 2 inches; wet in bottom 1.2 feet; very firm.		1.1	
5				1.5	
		Reddish fine SAND; wet; soft.		1.1	
10				1.8	
				1.9	
15		Reddish fine SAND; wet; firm.		1.3	
					No recovery from 15 feet to 18 feet (Driller)
		Reddish CLAY, little Silt; wet; firm; cemented red sand at bottom of section.			
20					
25					
30					

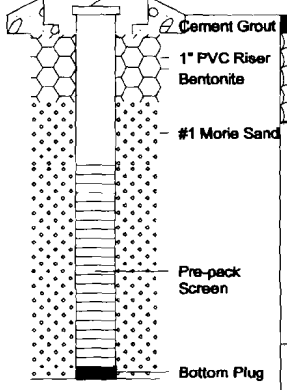
BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, New York 11749
Telephone: 631-232-2600
Fax: 631-232-9898

WELL CONSTRUCTION LOG

WELL NO.: **MW-204S**	NORTHING: **Not Measured**	EASTING: **Not Measured**			
PROJECT NO./NAME: **125801Y / Coral Island Shopping Center**		LOCATION: **1650 Richmond Avenue**			
APPROVED BY: **DRAFT**	LOGGED BY: **L. Derrendinger**	**Staten Island, New York**			
DRILLING CONTRACTOR/DRILLER: **Roux Associates / J. Veiss**		GEOGRAPHIC AREA			
DRILL BIT DIAMETER/TYPE: **2-in. / Drive Sampler**	BOREHOLE DIAMETER: **3.25-inches**	DRILLING EQUIPMENT/METHOD: **6620 / Geoprobe**	SAMPLING METHOD: **2" Macro-Core**	START-FINISH DATE: **8/5/06-8/5/06**	
CASING MAT./DIA.: **PVC / 1-inch**	SCREEN: TYPE **Pre-Packed** MAT. **PVC**	TOTAL LENGTH **5.0** ft	DIA. **1-inch**	SLOT SIZE **20-Slot**	
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN: **/**	GRAVEL PACK SIZES: **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Asphalt paving and gravel base.			
		Black medium to coarse SAND, and fine Gravel, (fill); moist; soft; mostly asphalt-like material in fine Gravel size fraction.			No samples collected; See MW-204D for PID monitoring results.
		Light Grey fine(-) SAND, some Silt; Black staining in top 2 inches; wet in bottom 1.2 feet; very firm.			
5					
		Reddish fine SAND; wet; soft.			
10					
15					
20					
25					
30					

BORING/FEET 125801Y.GPJ ROUX.GDT 1/10/07

APPENDIX E

Significant Threat Determination

NEW YORK STATE DEPARTMENT OF

ENVIRONMENTAL CONSERVATION

Public Comment Period:
May 9, 2007
to
June 23, 2007

Document Repository

New York Public Library
Todt Hill-Westerleigh Branch
2550 Victory Boulevard
Staten Island, NY 10314
(718) 494-1642

Hours:
Monday: 10 am to 6 pm
Tuesday: 10 am to 6 pm
Wednesday: 1 pm to 8 pm
Thursday: 10 am to 6 pm
Friday: 1 pm to 6 pm
Saturday: 10 am to 5 pm

Project Contacts

Josslyn Shapiro, Ph.D.
NYSDEC, Region 2 Office
47-40 21st Street
Long Island City, New York 11101
(718) 482-6446
jbshapir@gw.dec.state.ny.us

For public health related questions:

Christopher Doroski
NYSDOH
547 River Street
Troy, New York 12180-2216
1 (800) 458-1158 ext 27860

FACT SHEET #3

MAY 2007

Coral Island Shopping Center **C243033**
1650 Richmond Avenue, Staten Island, NY

Public Comment Period Announcement

Draft Remedial Investigation Report, Significant Threat Determination, and Draft Alternatives Analysis Report/ Remedial Action Work Plan

This fact sheet is being provided to you pursuant to New York State Environmental Conservation Law and the New York State Department of Environmental Conservation's ("NYSDEC") Brownfield Cleanup Program ("BCP"). You have been sent this fact sheet because you own or live on the property near the Coral Island Shopping Center ("Site") or because the NYSDEC believes you may otherwise be interested in activities at the Site. Please contact the NYSDEC's project manger if you do not want to receive any future updates on this project (see the lower-left hand side of this page).

The NYSDEC, working in conjunction with the New York State Department of Health ("NYSDOH"), is currently reviewing for approval a draft Remedial Investigation Report ("RIR") regarding the environmental conditions at the Site as well as a draft Alternative Analysis Report/Remedial Action Work Plan (AAR/RAWP) that outlines the proposed remedy for site contamination. The draft reports were submitted by the Site owner, WWP Associates, LLC ("the Participant"), pursuant to a Brownfield Cleanup Agreement entered between the Participant and the NYSDEC.

Opportunity to Comment on the Draft Documents and Significant Threat Determination

The draft RIR, Significant Threat Determination and draft AAR/RAWP are summarized in this Fact Sheet. Complete documents are available for your review at the document repository listed on the left-hand side of this page. *Your comments are important and strongly encouraged.* Comments can be made at any time during the 45-day comment period, which ends on June 23, 2007. Please direct comments to the NYSDEC contact on the left-hand side of this page.

Background: The Site is located at 1650 Richmond Avenue near the intersection of Victory Boulevard. The Site is owned by the Participant and is in use as a commercial retail shopping center with two detached buildings and a large parking area. The entire Site is approximately 3.9 acres in area. The surrounding parcels to the south, east, and west are primarily commercial and residential. A private school and a church are located north of the Site.

Summary of the Remedial Investigation Report (RIR): The draft RIR describes the investigation activities completed, presents analytical data, and discusses the nature and extent of contamination. The draft RIR identifies the following Site conditions:

- On-site and off-site soil samples were collected and analyzed for volatile organic compounds ("VOCs"). A subset of samples collected was also analyzed for semi-volatile organic compounds ("SVOCs"), metals, pesticides, herbicides, and polychlorinated biphenyls ("PCBs"). Contaminants found include VOCs, specifically tetrachloroethene, commonly called "PCE" or "perc" and its associated degradation compound trichloroethene ("TCE"). PCE is a solvent commonly used by dry cleaning businesses for cleaning clothing.
- On-site and off-site groundwater samples were collected and analyzed for VOCs. A subset of samples collected was also analyzed for SVOCs, metals, pesticides, herbicides, and PCBs. Contaminants found include VOCs, specifically PCE and associated degradation compounds of TCE, cis-1,2-dichloroethene ("DCE"), and vinyl chloride ("VC").
- On-site and off-site soil vapor samples and indoor air samples were collected and analyzed for VOCs. Contaminants found include PCE and TCE.

Significant Threat Determination: As part of every BCP project, NYSDEC is required to make a determination whether the conditions at the Site pose a significant threat to human health or the environment, as defined in the NYSDEC's regulations (6 NYCRR Part 375). Based on the types and levels of contaminants on the Site and the current and planned land uses in the area, NYSDEC, in conjunction with NYSDOH, has determined that the Site does not represent a significant threat to public health and/or the environment. For sites where a significant threat has been determined, eligible community groups may obtain Technical Assistant Grants ("TAGs") of up to $50,000 to obtain independent technical assistance to increase public awareness and understanding of remedial activities. TAG funding will not be available for this project. This significant threat determination is subject to a 30-day public comment period ending June 9, 2007.

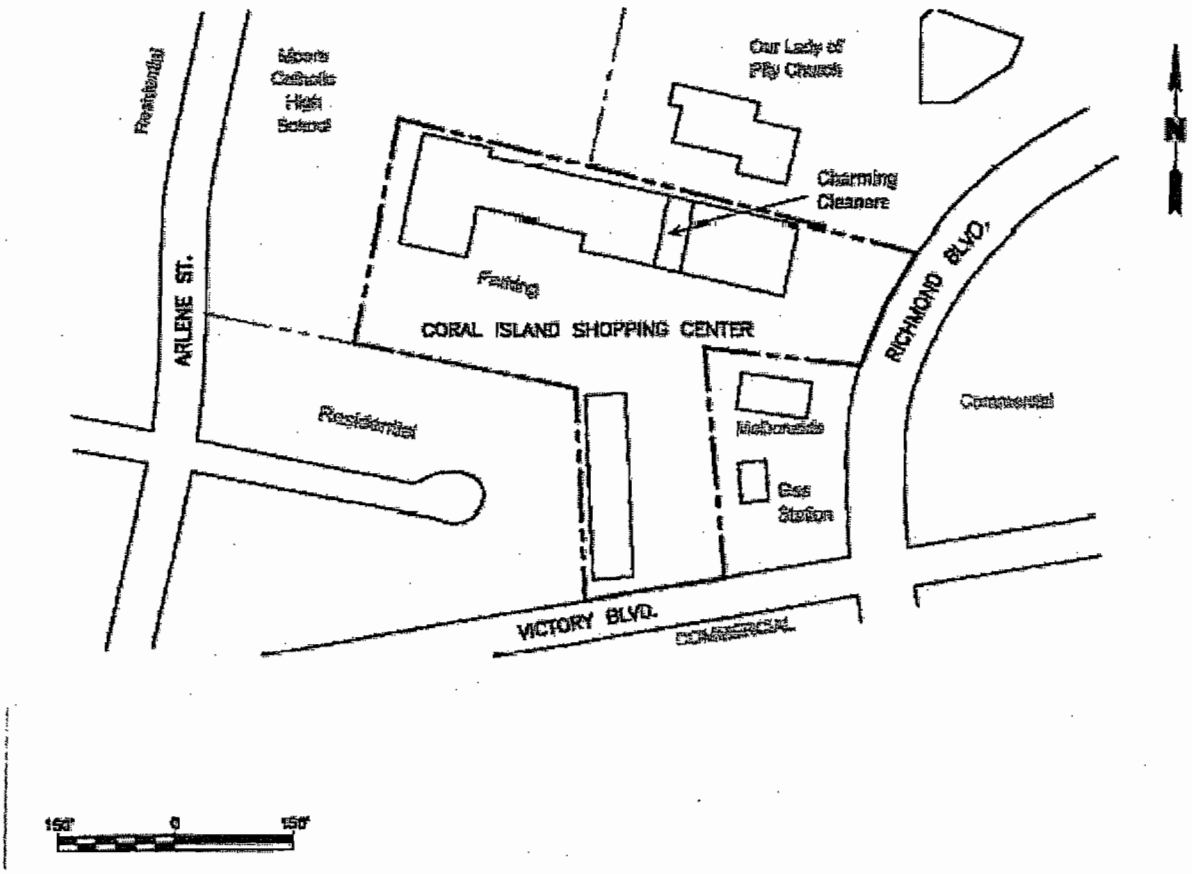
Summary of the Alternatives Analysis Report/Remedial Action Work Plan (AAR/RAWP): The draft AAR/RAWP provides a detailed description of the remedial action objectives, the proposed remedy to address Site contamination, and how the proposed remedy will be protective of public health and the environment. The AAR/RAWP submitted by the Participant is currently being reviewed by the NYSDEC and NYSDOH. The proposed remedy includes:

- Removal of VOC-impacted soil hot-spots.
    - Limited quantities of VOC-impacted soil may be left in place due to site-specific physical limitations;
- Subsurface injection of enhanced reductive dechlorination substrates to reduce VOCs in groundwater and to enhance the existing natural breakdown of those VOCs; and
- Imposition of Institutional Controls that include use restrictions on the land and groundwater.

Next Steps: NYSDEC will consider public comments when it completes its review of the RIR and AAR/RAWP and will consider all comments on the Significant Threat Determination. NYSDEC and NYSDOH will work with the Participant to address all comments on the draft documents. Once all comments are satisfactorily addressed, NYSDEC and NYSDOH will approve the RIR and AAR/RAWP. A future fact sheet will announce when remedial work will begin at the site.

You are encouraged to review the project documents located at the repository noted on the front page of this fact sheet, and to contact representatives of NYSDEC or NYSDOH at any time with questions, comments, or concerns. If you know anyone who would like to be added to the mailing list for this project, please have them contact the NYSDEC representative identified on the front page of this fact sheet.

Coral Island Shopping Center
Site Location Map



APPENDIX F

Health and Safety Manager Resume

ROUX

Professional Profile

Indira Klotzer

Staff Environmental Scientist and Health and Safety Officer

Technical Specialties:
Air Quality and Noise Impacts; Product Safety and Hazard Communication; Hazardous Waste Operations and Emergency Response; Regulatory Compliance Programs; Pollution Prevention; Solid and Hazardous Waste Management; Due Diligence /Compliance Audits; Internal Responsibility System (IRS); Environmental assessments for property transfer and due diligence; Environmental, Health and Safety Audits; Asbestos investigation; Asbestos Project Monitor, VOCs and SVOCs assessment; Soil Vapor investigation and sampling; Lead-based paint; Microbial Testing and Evaluation; and Industrial Hygiene surveys.

Experience Summary:
Three years as Staff Environmental Scientist and Health and Safety Officer at Roux Associates, Inc. Summer intern as Health and Safety Officer at Educational Testing Services (ETS), a private educational testing and measurement organization which develops curriculum assets and test preparation products.

Credentials:
M.S. – Environmental Science, Pace University, May 2008
B.A.S. – Occupational Health and Safety,
Ryerson University, 2003
B.S. – Biology, University of Scranton, 2000
40-Hour OSHA HAZWOPER Training
40-Hour Asbestos Project Monitor
Excavation Safety for Competent person training
New Jersey Transit Training and Train the Trainer Certificate
ExxonMobil Loss Prevention Systems (LPS) Training and Train the Trainer certificate
Smith Driving Train the Trainer Certificate

Professional Affiliations:
American Industrial Hygiene Association (AIHA)

Key Projects:

- Conducted a study evaluating mold, the health effects of mold and its metabolites. This study compared the available Canadian guidelines with the New York guidelines.
- An extensive Environmental, Health and Safety study was performed at a Bakery Plant located in Ontario, Canada. A Systems Management Audit (similar to the WorkWell audit) and Risk Assessment of the facility, its programs and policies were used as a template for suggesting improvements to the facility and the management structure.
- Performed a study of the health effects of radiation during the process of Nuclear Fuel Fabrication at a Radiation company.
- A risk assessment of occupational health and safety workers involved in elevating and moving objects of Ski Lifts. Research is being used by the TSSA for further development of a Job Health and Safety Analysis Program.
- Conducted several site surveys during the construction phase of various facilities; in order to address issues such as: lockout/tagout, confined spaces, safe forklift operation, housekeeping, emergency preparedness, ladder safety, etc.
- Health and Safety Specialist, assisting in the completion of Indoor Air Quality, mold investigation and remediation program for a manufacturing company. Evaluated and mapped water intrusion pathways. Tasks also included sampling with various media with proper documentation.
- Health and Safety Specialist at a manufacturing company responsible for the review of facility risk management plans to ensure compliance. Prepared Facility Inventory Forms for hazardous substances and regulated toxics.
- Health and Safety Specialist at a manufacturing company responsible for reviewing and updating existing Standard Operating Procedures (SOPs) to ensure completeness and full compliance with OSHA and non-OSHA regulations.
- Provided routine monitoring of facility compliance by conducting daily visits to interview personnel and review files at a manufacturing company. Facility compliance issues included: lockout/tagout, confined spaces, safe forklift operation, housekeeping, emergency preparedness, noise, VOCs, ladder safety, guarding, fire safety, etc.
- Environmental Scientist responsible for particulate monitoring for various projects supporting EH&S.
- Health and Safety Specialist responsible for numerous projects for several national insurance companies addressing microbial contamination, formaldehyde exposures, mercury spills, volatile organic compound exposures, lead dust exposure; respirable dust exposure, and lead based paint.
- Researched and complied data necessary to perform Phase I and Phase II site assessments for projects in New York and New Jersey. Assisted in writing a Phase I and Phase II report.
- Assisted in the collection of groundwater samples from existing monitoring wells and temporary wells for several groundwater investigation programs.
- Assisted in the collection and classification of soil samples from footprint of various tank removal sites in New York and New Jersey.
- Assisted in the collection and classification of soil samples, storm water sediment samples, storm drain sediment samples for the purpose of conducting supplemental sampling for a Phase II investigation of a Site.
- Responsible for collecting Soil Vapor samples, sub-slab vapor samples, and indoor air samples for various sites in New York, New Jersey, and Maryland. Tasks also included the completion of the New York State Department of Health Indoor Air Quality survey.
- Performing various indoor air quality measurements and studies for various sites in New York, New Jersey, and Maryland.
- Assisted in researching and analyzing data for Noise Surveys and assisted in writing the Noise survey report.
- Assisted in the Tier II reporting for various fuel farms located in New York and New Jersey.
- Health and Safety Specialist responsible in conducting compliance audits for a large pigment manufacturer. The audits included a review of facility records, a site inspection and interviews with personnel. The audits involved environmental, health, safety, and industrial hygiene compliance.

Indira Klotzer

Staff Environmental Scientist and Health and Safety Officer

- Responsible for the training and implementation of the Loss Prevention System for ExxonMobil Tier 1 Consulting firm. Responsible for the maintenance and analysis of various documents for the Loss Prevention System, ExxonMobil.
- Responsible for collecting and analyzing accident/incident, loss, and near loss information for Roux Associates, Inc. Responsible for tracking the trends associated with the accident data collected. These trends are used to determine other methods for improving the health and safety of our workers, subcontractors, as well as, the general public.
- Health and Safety Specialist involved in conducting health and safety audits for various Roux Sites. This also includes reviewing the Site-Specific Health and Safety Plans for various Sites.
- Office Health and Safety Specialist responsible for managing the health and safety issues and training requirements for the employees of the Roux New York office.

ROUX

Professional Profile

Wai Kwan, E.I.T., Ph.D.
Project Engineer

Technical Specialties:
Remedial engineering, environmental chemistry, engineered natural systems, and design of soil and groundwater remediation systems utilizing innovative techniques.

Experience Summary:
Four years of experience as a Project Engineer with Roux Associates, Inc.

Credentials:
B.S., Engineering & Applied Science and Chemistry, California Institute of Technology, 1997.
M.S., Environmental Engineering, Massachusetts Institute of Technology, 1999.
Ph.D., Environmental Engineering, Massachusetts Institute of Technology, 2003.
E.I.T. (Engineer-In-Training) Certification

Professional Affiliations:
American Chemical Society

Publications:
Predicting Oxidation Rates of Dissolved Contaminants During *In Situ* Remediation Using Fenton's Reaction, Kwan, W. P. and B. M. Voelker, *Abstracts of Papers of the American Chemical Society*, 228(352-ENVR), 2004.

Influence of Electrostatics on the Oxidation Rates of Organic Compounds in Heterogeneous Fenton Systems, Kwan, W. P. and B. M. Voelker, *Environmental Science & Technology*, 38(12), 2004.

Rates of Hydroxyl Radical Generation and Organic Compound Oxidation in Mineral-Catalyzed Fenton-Like Systems, Kwan, W. P. and B. M. Voelker, *Environmental Science & Technology*, 37(6), 2003.

Decomposition of Hydrogen Peroxide and Organic Compounds in the Presence of Dissolved Iron and Ferrihydrite, Kwan, W. P. and B. M. Voelker, *Environmental Science & Technology*, 36(7), 2002.

Heterogeneous Fenton-Like Chain Reactions Initiated by Iron Oxides, Kwan, W. P. and B. M. Voelker, *Abstracts of Papers of the American Chemical Society*, 200(283-ENVR), 2000.

Key Projects:
- Project Manager and Engineer for a soil vapor extraction (SVE) and air sparge (AS) system to treat groundwater contaminated with volatile organic compounds (VOCs) and chlorinated VOCs at a 0.8-acre NYSDEC Voluntary Cleanup Site in Brooklyn, New York. Designed and performed two SVE/AS pilot studies. Designed the full-scale SVE/AS system. Provided oversight during installation of the full-scale SVE/AS system. Managing daily operations of the SVE/AS system.
- Project Manager and Engineer for the design of two stormwater storage basins (0.4 MM and 1.8 MM gallons), two natural media filtration (NMF) cells (0.15- and 0.25-acres), and the retrofit of two NMF cells into two aboveground 114,000-gallon stormwater storage tanks at an active aluminum manufacturing facility in Lafayette, Indiana. The NMF cells treat up to 1,500 GPM of stormwater runoff and process water impacted by polychlorinated biphenyls (PCBs), dissolved and particulate aluminum, and suspended solids. Researched the fate and transport of PCBs, and assessed the treatability of PCBs in wetlands. Evaluated a compost treatability bench-scale experiment. Designed and coordinated groundwater percolation tests.
- Project Manager and Engineer for a feasibility study to mitigate land subsidence at a golf course in Northport, New York. Completed a data review of existing reports from USGS and local municipality, previous soil investigation, and current stormwater drainage design. Directed a field investigation to obtain data in support of the conceptual model for land movement. Concluded that existing stormwater management measures accelerated the rate of land movement. Evaluated potential engineering remedies.
- Designed a full-scale *in situ* enhanced bioremediation treatment system for groundwater impacted with chlorinated VOCs at a 19-acre former electronics manufacturing facility in Taiwan. The technology has decreased chlorinated VOC concentrations of up to 5 milligrams per liter by 80 to 98 percent. Evaluated the effectiveness of different substrates for *in situ* treatment from the results of two concurrent 6-month pilot studies.
- Designed a passive stormwater management system for a 3,500-acre aluminum manufacturing facility in Point Comfort, Texas. The passive stormwater management system uses sedimentation trenches and swales to manage and convey bauxite-laden runoff. Completed a hydrologic analysis using USACE HEC-HMS modeling software. Prepared bid specifications and provided bid support.
- Project Engineer for a multi-element remedial design of a USEPA Superfund Site in Nassau County, New York. Prepared response letters, technical drawings, and 95% and 100% remedial design documents in accordance with the Record of Decision and Consent Judgment.
- Field Engineer for the remediation of a NYSDEC Brownfield Site in Staten Island, New York. Supervised the removal of soil and groundwater contaminated with hazardous levels of tetrachloroethene (PCE) and trichloroethene (TCE). Evaluated the performance of molasses injections to enhance *in situ* bioremediation of impacted groundwater. Prepared the Final Engineering Report to document the remedial action.

Wai Kwan, E.I.T., Ph.D.
Project Engineer

- Field Engineer for the remediation of two 6.25-million gallon process lagoons at a former dye manufacturing facility in Rensselaer, New York. Supervised the excavation, staging, screening, and transport of riprap and soil contaminated with hazardous concentrations of arsenic. Interacted daily with the client and regulatory agency representatives during implementation of the remedial action.
- Evaluated the feasibility of using phytoremediation and constructed treatment wetlands to treat metals and VOCs at a closed landfill in Rensselaer, New York. Provided conceptual design of a constructed treatment wetland.
- Analyzed the impacts of hybrid poplar trees on mercury fluxes at a site in Wyandotte, Michigan. A thorough review of available research information and reports on atmospheric mercury concentrations in Michigan supported the conclusion that mercury emissions from the hybrid poplar trees were similar to the ambient atmospheric concentrations in the Detroit area.

APPENDIX G

Citizen Participation Plan

August 18, 2010

CITIZEN PARTICIPATION PLAN

Coral Island Shopping Center
1650 Richmond Avenue
Staten Island, New York 10314

ROUX ASSOCIATES, INC.

Environmental Consulting & Management

209 Shafter Street, Islandia, New York 11749 ♦ 631-232-2600

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FIGURES

APPENDICES

1.0 INTRODUCTION

On behalf of WWP Associates, LLC (WWP), Roux Associates, Inc. (Roux Associates) has prepared this Citizen Participation Plan (CPP) for the Coral Island Shopping Center (Site) located at 1650 Richmond Avenue, Staten Island, New York (Figure 1). The CPP was developed to provide a site-specific outline and guidance for citizen participation as required by provisions of the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP). The CPP was prepared in accordance with ECL 27-1417 and the NYSDEC guidance document Draft Brownfield Cleanup Program Guide (May 2004).

WWP and the NYSDEC are committed to a citizen participation program as a part of the Brownfield Cleanup Program (BCP) process at the Site. Citizen participation promotes public understanding of the responsibilities and remedial activities associated with this process. Citizen participation provides WWP and the NYSDEC with an opportunity to gain public input to support a comprehensive investigation and remedial program that is protective of both public health and the environment. Consequently, the public's suggestions about this CPP and the CPP program for the Site are always welcome. Interested parties are encouraged to discuss their ideas and suggestions with project contacts listed in Appendix A.

2.0 SITE DESCRIPTION AND HISTORY

The following section provides a physical description and a brief history of the Site.

2.1 Physical Description

The Coral Island Shopping Center is located at 1650 Richmond Avenue in Staten Island, New York (Figure 1). The Site consists of two single story buildings, each with multiple tenants, and a parking lot. The building at the north end of the Site includes the Charming Cleaners dry cleaning facility.

2.2 Site History

Complete Site operational history and Site investigation history are presented in the Remedial Investigation Work Plan. There was a residential house located on the Site in 1917. Between 1937 and 1950, the Site was vacant. The property was used as a parking lot as early as 1949 and a bowling alley was constructed at the north end of the Site sometime between 1955 and 1958. Two pipeline easements (one liquefied natural gas and one jet fuel) were granted in 1958 that cross the Site in a east/west direction approximately 30 feet south of the building at the north end of the Site.

In 1974, the bowling alley was converted into a strip-mall type shopping center. This building was enlarged in 1995 and a separate building was constructed in the southern portion of the Site. A dry cleaning operation commenced in the building at the north end of the Site in 1975. Soil and groundwater samples collected behind the dry cleaner in 2004 by EBI Consultants, Inc. and Roux Associates discovered volatile organic compounds (VOCs) in both the shallow soil and groundwater that were the result of discharges during operation of the dry cleaner.

In September 2004, WWP submitted a BCP Application to the NYSDEC. In March 2005, WWP and the NYSDEC entered into a Brownfield Cleanup Agreement to implement a Remedial Response Program for the Site. This CPP was prepared as required by the BCP.

3.0 PROJECT DESCRIPTION

The current scope of work for the Site is to perform a Remedial Investigation to determine the nature and extent of VOCs previously discovered in shallow soil and groundwater. A Remedial Investigation Work Plan is being prepared and will be placed in the repository for the public to review, as soon as the final version is available.

4.0 CITIZEN PARTICIPATION ACTIVITIES

Citizen participation activities are planned to promote communication between the community surrounding the Site, the NYSDEC, and WWP. The citizen participation activities are intended to address the following questions:

- Who is interested in or affected by the Site?
- What issues of public concern relate to the Site?
- What information can the public contribute about the Site?

4.1 Site Contact List

As required by the BCP, a comprehensive contact list has been established that includes local and state officials, adjacent property owners, occupants and residents, local news media, the public water supplier and additionally requested contacts. The Site Contact List, including contact information, is provided in Appendix A.

4.2 Document Repositories

Local document repositories have been established at the Region 2 office of the NYSDEC, and at the Victory Boulevard branch of the New York Public Library. At this time the following document has been submitted to the document repositories:

- September 29, 2004, Coral Island Shopping Center Brownfield Cleanup Program Application.

All future documents pertaining to citizen participation activities and related notifications will be placed at the document repositories for public review. Site repository locations and hours are included in Appendix B.

4.3 Issues of Public Concern

Issues of public concern at the Site include procedures for protection of public health and safety during investigation activities. During subsurface remedial investigation activities, worker and community health and safety activities will be conducted, including:

- Onsite air monitoring for worker protection; and
- Perimeter air monitoring for community protection.

Odor, vapor, and dust controls such as water or foam sprays will be used as required. Details on the Site Health and Safety Plan and the Community Air Monitoring Plan will be part of the Remedial Investigation Work Plan that will be placed in the document repositories once complete.

4.4 Summary of Required Citizen Participation Activities

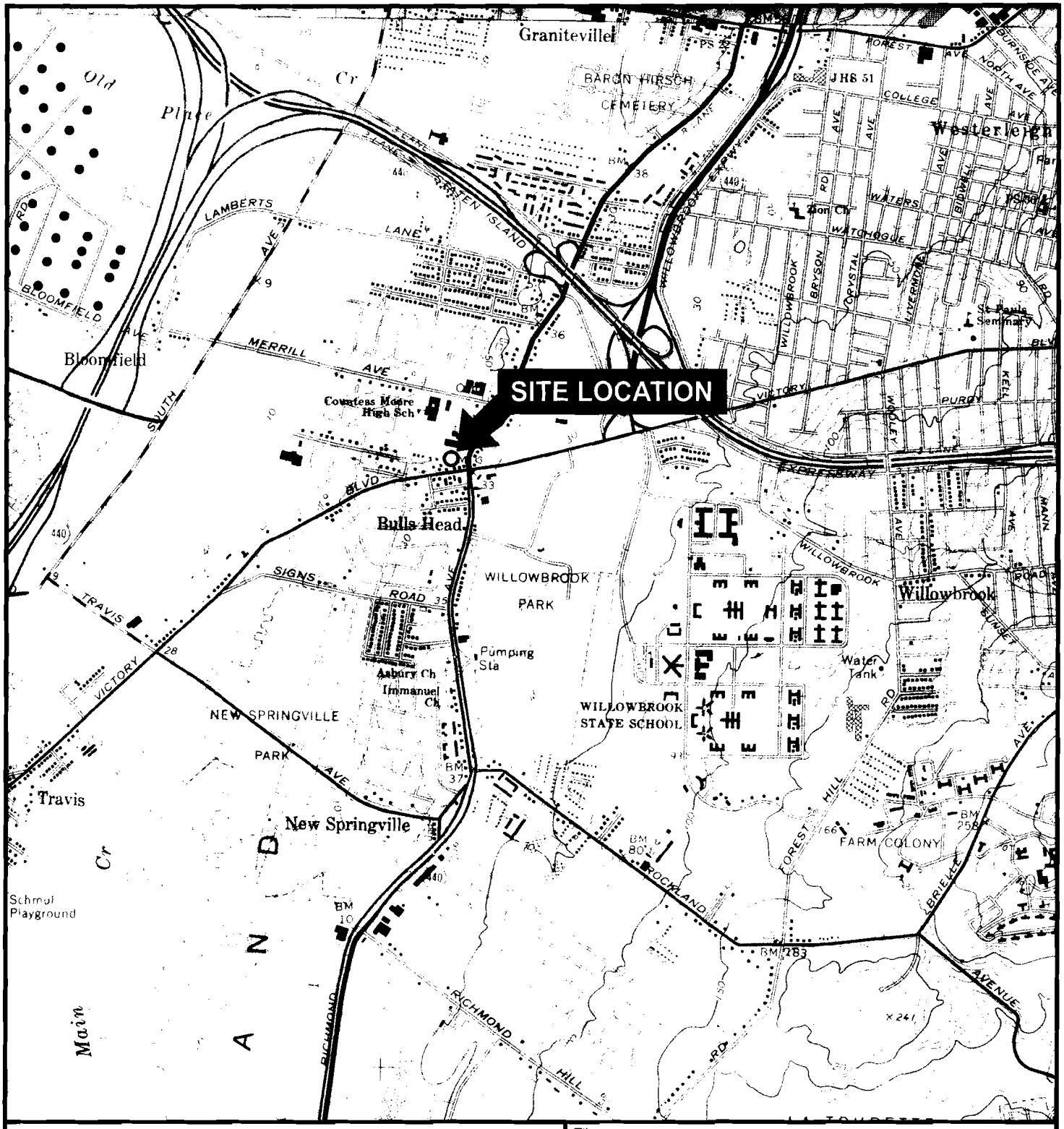
The following outlines the citizen notification program, as required by the BCP, which has been implemented for this project.

4.4.1 Application Notification

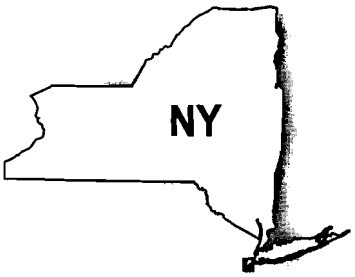
Upon determination by the NYSDEC that the BCP application was complete, WWP provided formal notification to all entities on the initial application contact list, including local media outlets, prior to the public comment period, which was from October 20, 2004 though November 19, 2004.

4.4.2 Remedial Investigation Work Plan

WWP will provide a Remedial Investigation Work Plan to the NYSDEC in April 2005. Once the Remedial Investigation Work Plan is acceptable, the NYSDEC will prepare a fact sheet to be distributed to the Contact List (Appendix A). This fact sheet will announce the availability of the final draft of the Remedial Investigation Work Plan for public comment.



QUADRANGLE LOCATION



0 2000'

SOURCE:
USGS; 1981. Arthur Kill, N.Y.-N.J.
7.5 Minute Topographic Quadrangle

Title:

SITE LOCATION PLAN

CORAL ISLAND SHOPPING CENTER
STATEN ISLAND, NEW YORK

Prepared for:

WWP ASSOCIATES, LLP

ROUX

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: M.R.		Date: 17DEC04	FIGURE
Prepared by: M.R.		Scale: AS SHOWN	1
Project Mgr.: M.R.		Office: NY	
File No.: RRA0110001.CDR		Project No.: 125801Y	

N:\PROJECTS\RRA1258\YR\RRA01Y100\RRA0110001.CDR

APPENDIX A

Site Contact List

APPENDIX A

Contact List Information

1. Borough of Staten Island

Staten Island Borough President:

James P. Molinaro
Office of Borough President
Borough Hall
10 Richmond Terrace
Staten Island, New York 10301

Director, Staten Island Department of City Planning:
Leonard Garcia-Duran
130 Stuyvesant Place, 6th Floor
Staten Island, New York 10301

Dana Magee, Chair
Ms. Debra Derrico, District Manager
Community Board 2
460 Brielle Avenue
Staten Island, New York 10314

2. Elected Officials

Hon. Michael Bloomberg
NYC Mayor
City Hall
New York, NY 10007

Hon. John Liu
NYC City Comptroller
1 Centre Street
New York, NY 10007

Hon. Bill de Blasio
Public Advocate
1 Centre Street
New York, NY 10007

Hon. James Oddo
NYC City Councilmember
94 Lincoln Avenue
Staten Island, NY 10306

2. Elected Officials (Continued)

Hon. Charles Schumer
U.S. Senator
757 Third Avenue, Suite 1702
New York, NY 10017

Hon. Kirsten Gillibrand
U.S. Senator
780 Third Avenue, Suite 2601
New York, NY 10017

Hon. Andrew Lanza
NYS Senator
3845 Richmond Avenue, Suite 2A
Staten Island, NY 10312

Hon. Michael Cusick
NYS Assemblymember
1911 Richmond Avenue
Staten Island, NY 10314

Hon. Michael E. McMahon
U.S. House or Representatives
265 New Dorp Lane, 2nd Floor
Staten Island, NY 10306

3. Government Officials

Stephen J. Fiala
Staten Island County Clerk
130 Stuyvesant Place, 2nd Floor
Staten Island, NY 10301

Hon. Amanda Burden
Commissioner
NYC Department of City Planning
22 Reade Street
New York, NY 10007

Dr. Robert Kulikowski
Director
NYC Office of Environmental Coordination
253 Broadway – 14th Floor
New York, NY 10007

3. Government Officials (Continued)

John Wuthenow
Office of Environmental Assessment & Planning
NYC Dept. of Environmental Protection
96-05 Horace Harding Expressway
Flushing, NY 11373

4. Residents, Owners, and Occupants of the Site and Properties Adjacent to the Site

a. Occupants of the Site

Dunkin Donuts
1650 Richmond Avenue
Staten Island, New York 10314

Carvel Store
1650 Richmond Avenue
Staten Island, New York 10314

Gepetto's Sandwich Factory
1650 Richmond Avenue
Staten Island, New York 10314

Wine & Liquor Boutique
1650 Richmond Avenue
Staten Island, New York 10314

KSK Video
1650 Richmond Avenue
Staten Island, New York 10314

Tony's Pizzeria
1650 Richmond Avenue
Staten Island, New York 10314

Cel-Tel Wireless
1650 Richmond Avenue
Staten Island, New York 10314

J&J Page and General
1650 Richmond Avenue
Staten Island, New York 10314

Charming Cleaners
1650 Richmond Avenue
Staten Island, New York 10314

4. Residents, Owners, and Occupants of the Site and Properties Adjacent to the Site

a. Occupants of the Site (Continued)

Tic Tac, Inc.
1650 Richmond Avenue
Staten Island, New York 10314

Chinese Kitchen
1650 Richmond Avenue
Staten Island, New York 10314

Oriental Grocery
1650 Richmond Avenue
Staten Island, New York 10314

Sapporo Sushi
1650 Richmond Avenue
Staten Island, New York 10314

Coral Laundromat
1650 Richmond Avenue
Staten Island, New York 10314

Jimmy's Fine Jewelry
1650 Richmond Avenue
Staten Island, New York 10314

Empress Travel
1652 Richmond Avenue
Staten Island, New York 10314

Salon Sogno
1652 Richmond Avenue
Staten Island, New York 10314

Richmond Check Cashing
1652 Richmond Avenue
Staten Island, New York 10314

Miami Tan
1652 Richmond Avenue
Store B-7
Staten Island, New York 10314

CVS
1 CVS Drive
Woonsocket, Rhode Island 02895

Blockbuster Video
3000 Rebud Boulevard
McKinney, Texas 75069

4. Residents, Owners, and Occupants of the Site and Properties Adjacent to the Site

a. Occupants of the Site (Continued)

Rose Nails
3135 Victory Boulevard
Staten Island, New York 10314

Java Den
3135 Victor Boulevard #D3
Staten Island, New York 10314

Dr. Maliha
3135 Victory Boulevard #D4
Staten Island, New York 10314

State Farm Insurance
3135 Victory Boulevard
Staten Island, New York 10314

Curves
3135 Victory Boulevard #D-06
Staten Island, New York 10314

Edible Arrangements
1652 Richmond Avenue
Staten Island, New York 10314

The UPS Store
1652 Richmond Avenue
Staten Island, New York 10314

b. Owners of the Properties Adjacent to the Site

Section: 2160
Block: 18
Owner: Papp Building and Realty (of 3139 Victory Boulevard)
Address: 120 Grymes Hill Road
Staten Island, New York 10301

Occupant
3139 Victory Boulevard
Staten Island, New York 10314

Section: 2160
Block: 99
Owner: Nikola Kvasic
Address: 41 Sommer Avenue
Staten Island, New York 10314

4. Residents, Owners, and Occupants of the Site and Properties Adjacent to the Site

b. Owners of the Properties Adjacent to the Site (Continued)

Section: 2160
Block: 100
Owner: Dae Duk Sung
Address: 45 Sommer Avenue
Staten Island, New York 10314

Section: 2160
Block: 101
Owner: J. Lichota
Address: 49 Sommer Avenue
Staten Island, New York 10314

Section: 2160
Block: 103
Owner: A. Sessa
Address: 53 Sommer Avenue
Staten Island, New York 10314

Section: 2160
Block: 105
Owner: Michael Ferraro
Address: 57 Sommer Avenue
Staten Island, New York 10314

Section: 2160
Block: 107
Owner: Valerie Chilli
Address: 61 Sommer Avenue
Staten Island, New York 10314

Section: 2160
Block: 109
Owner: Marie Rose & Mary Ann Azzarello
Address: 65 Sommer Avenue
Staten Island, New York 10314-3313

Section: 2160
Block: 1
Owner: Exxon Mobil Oil Corporation
Address: Post Office Box 53
Houston, Texas 77001-0053

4. Residents, Owners, and Occupants of the Site and Properties Adjacent to the Site

b. Owners of the Properties Adjacent to the Site (Continued)

Occupant
1680 Richmond Avenue
Staten Island, New York 10314

Section: 2236
Block: 133
Owner: Joseph Palermo III
Address: 4740 Glenn Pine Lane
Boynton Beach, Florida 33436-6154

McDonalds
1660 Richmond Avenue
Staten Island, New York 10314

Section: 2160
Block: 7
Owner: Dorios
Address: 3115 Victory Boulevard
Staten Island, New York 10314-6719

Section: 2236
Block: 79
Owner: Church of Our Lady of Pity
Address: 1634 Richmond Avenue
Staten Island, New York 10314

Section: 2236
Block: 1
Owner: Catholic H.S. Association
Address: 100 Merrill Avenue
Staten Island, New York 10314

Section: 2159
Block: 10
Owner: Victory Auto Spa
Address: 3118 Clifton Street
Staten Island, New York 10314

Section: 2159
Block: 13
Owner: C&A Realty Holding, LLC
Address: 3130 Clifton Street
Staten Island, New York 10314

4. Residents, Owners, and Occupants of the Site and Properties Adjacent to the Site

b. Owners of the Properties Adjacent to the Site (Continued)

Section: 2159
Block: 15
Owner: Victory Auto Ltd.
Address: 3118 Victory Boulevard
Staten Island, New York 10314

5. Local News Media from which the Community Typically Obtains Information

Local Newspaper – Staten Island Advance

Regional Newspaper – New York Post, Daily News

6. Public Water Supplier

Hon. Caswell Holloway
Commissioner
NYC Dept. of Environmental Protection
59-17 Junction Boulevard
Flushing, NY 11373

7. Persons Requesting to be on Contact List

No persons have requested to be on the contact list.

8. School/Day Care Administrators Near the Site

Douglas McManus, Principal
Moore Catholic High School
100 Merrill Avenue
Staten Island, New York 10314

Bonnie Ferretti, Principal
PS 60 Alice Austin School
55 Merrill Avenue
Staten Island, New York 10314

Children at Play Early Center
40 Merrill Avenue
Staten Island, NY 10314

Bishop Ahern High School
315 Arlene Street
Staten Island, NY 10314

9. Community, Civic, Religious and other Educational Institutions

Holy Trinity Greek Orthodox
1641 Richmond Avenue
Staten Island, NY 10314

North Shore Waterfront Conservancy of Staten Island
P.O. Box 140502
Staten Island, NY 10314
Attn: Beryl Thurman, Executive Director
Email: info@nswcsi.org
Website: http://www.nswcsi.org/

Dick Buegler
Staten Island Protectors
80 Mann Avenue
Staten Island, NY 10314

Staten Island Economic Development Corporation
900 South Avenue, Suite 402
Staten Island, NY 10314
Tel: (718) 477-1400
Fax: (718) 477-0681
Email: info@siedc.net
Attn: Cesar J. Claro, President & CEO

Staten Island Chamber of Commerce
130 Bay Street
Staten Island, NY 10301
Tel: (718) 727-1900
Fax: (718) 727-2295
Attn: Linda Baran, President & CEO
Email: lbaran@sichamber.com
Website: http://www.sichamber.com/

10. Project Contacts

Mandy Yau, Project Manager
NYSDEC
47-40 21st Street
Long Island City, NY 11101
(718) 482-4897
mxyau@gw.dec.state.ny.us

10. Project Contacts (Continued)

Chris Doroski, Project Manager
NYSDOH
547 River Street
Troy, NY 12180-22161
(800) 458-1158 ext. 27880
beei@health.state.ny.us

APPENDIX B

Document Repositories

APPENDIX B

Document Repositories

Documents relevant to the environmental activities at the Site will be stored at the following document repositories:

NYSDEC
Region 2 Office, New York City
Hunters Point Plaza
47-40 21st Street
Long Island City, New York 11101-5401
Contact: Mandy Yau
Phone: (718) 482-4900
Hours: 8:30 a.m. to 4:45 p.m., Monday to Friday

New York Public Library
Todt Hill-Westerleigh Branch
2550 Victory Boulevard
Staten Island, New York 10314
Phone: (718) 494-1642
Hours: 10:00 a.m. to 8:00 p.m., Monday, Tuesday, Wednesday and Thursday
10:00 a.m. to 5:00 p.m., Friday and Saturday
Closed Sunday

APPENDIX H

Laboratory Analytical Data

APPENDIX I

License and Permit of TSDF and Transporter

Ministère de l'Environnement
Québec

Saint-Eustache, September 14, 2004

MODIFICATION
(Section 70.16)

Stablex Canada Inc.
760 Industriel Blvd.
Blainville, QC
J7C 3V4

O/Ref.: 7610-15-01-00804 71
200067152

Subject: Inorganic industrial waste treatment centre

Dear Sir or Madam:

This modification concerns the operating license issued on October 9, 2003 by virtue of section 70.11 of the Environment Quality Act (R.S.Q., Chap. Q-2), and amended on March 19 and July 5, 2004, with respect to the project described below:

> Inorganic industrial waste treatment centre located on Lots 1,907,676 and 2,274,255 of the Cadastre of Quebec, City of Blainville, Thérèse-De-Blainville RCM.

Pursuant to your application dated August 11, 2003, received August 12, 2003, and completed September 1, 2004, I authorize the following modifications by virtue of section 70.16 of the aforesaid Act:

- Implementation of a multipurpose warehouse;
- Implementation of treatment ponds;
- Modifications to several eligibility criteria;
- Modifications to operational elements.

The project is located as follows:

On Lots 1,907,676, 2,274,255 and 2,272,801 of the Cadastre of Quebec, City of Blainville, Thérèse-De-Blainville RCM.

The following documents are integral parts of this modification:

- Letter dated August 11, 2003, signed by Roger S. Gibb and addressed to the Ministère de l'Environnement, 1 page;
- Letter dated September 19, 2003, signed by Roger S. Gibb and addressed to the Ministère de l'Environnement, 1 page;
- Letter dated September 26, 2003, signed by Roger S. Gibb and addressed to the Ministère de l'Environnement, 2 pages;
- Letter dated June 21, 2004, signed by Roger S. Gibb and addressed to the Ministère de l'Environnement, 1 page with 1 appendix "Application for Modification of the Operating License and Certificate of Authorization", 53 pages;
- Letter dated August 31, 2004, signed by Roger S. Gibb and addressed to the Ministère de l'Environnement, 1 page and 1 appendix "Summary and Justifications", 24 pages;

In the event of a discrepancy between these documents, the information contained in the most recent document shall prevail.

The modification shall be carried out in accordance with these documents.

Moreover, said modification of the license does not exempt the holder from obtaining any other authorization that may be required by law or regulation, as applicable.

For the Minister,

YD/JR

(Signed)
Jean Rivet
Regional Director, Analysis and Expertise for Montréal, Laval, Lanaudière and Laurentians

Ministère de l'Environnement
Québec

Saint-Eustache, October 9, 2003

OPERATING LICENCE
(Sections 70.11
and 70.14)

Stablex Canada Inc.
760, boulevard Industriel
Blainville, (Québec)
J7C 3V4

O/Ref.: 7610-15-01-00804 71
400109112

Subject: Inorganic industrial waste treatment centre

Dear Sir or Madam:

Further to your licence renewal application dated August 11, 2003, received on August 12, 2003 and completed on October 2, 2003, in accordance with Sections 70.11 and 70.13 of the Environment Quality Act (R.S.Q., Chap. Q-2), I hereby grant the above-named party an operating licence for the following activity:

- Inorganic industrial waste treatment centre

This project is located on:

Lots 1,907,676 and 2,274,255 of the Cadastre of Quebec, City of Blainville, Thérèse-De Blainville RCM.

The following documents are integral parts of this licence:

- Operating licence renewal application document dated August 11, 2003 and signed by Roger S. Gibb (letterhead cover page and pages 5 to 7);

- Letter dated August 11, 2003, signed by Roger S. Gibb and addressed to the Ministère de l'Environnement concerning the licence renewal application (page 1 and 2 appendices);

- Letter dated August 15, 2003, signed by Serge St-Laurent, and addressed to Ministère de l'Environnement du Québec concerning the transmission of an additional document pertaining to the renewal application;

- Letter dated September 26, 2003, signed by Roger S. Gibb and addressed to the Ministère de l'Environnement du Québec concerning additional information pertaining to the application for renewal (2 pages and 1 appendix);

- Letter dated October 2, 2003, signed by Mr. Serge St-Laurent and addressed to Ministère de l'Environnement du Québec concerning additional details with regard to the application.

In the event of a discrepancy between these documents, the information contained in the most recent one shall prevail.

The project shall be carried out in accordance with these documents.

This licence is valid for five years commencing on October 13, 2003.

This licence does not exempt the holder from obtaining any other authorization that may be required by law or regulation.

(Signed)
Brigitte Bérubé
Regional Director, Laurentians

BB/JP/jp

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

PART 364
WASTE TRANSPORTER PERMIT NO. NJ-113

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

FREEHOLD CARTAGE, INC.
P.O. BOX 5010
FREEHOLD, NJ 07728

PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

CONTACT NAME: JACK FITZSIMMONS
COUNTY: OUT OF STATE
TELEPHONE NO: (732)462-1001

EFFECTIVE DATE: 07/12/2007
EXPIRATION DATE: **06/30/2008**
US EPA ID NUMBER: NJD054126164

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)
ADVANCED CHEMICAL COMPANY	WARWICK , RI	Non-Hazardous Industrial/Commercial
AERC COM, INC.	ALLENTOWN , PA	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
AGMET METALS, INC.	OAKWOOD VILLAGE , OH	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
AMERICAN ENVIRONMENTAL	MORGANTOWN , WV	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
AMERICAN REF-FUEL (COVANTA) OF HEMPSTEAD	WESTBURY , NY	Non-Hazardous Industrial/Commercial
ASHLAND CHEMICAL COMPANY	BINGHAMTON , NY	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
BATH LANDFILL	BATH , NY	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Sludge from Sewage or Water Supply Treatment Plant
BETHLEHEM APPARATUS	HELLERTOWN , PA	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NOTE: By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS: New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7253

AUTHORIZED SIGNATURE: Antoinette Bonfiglio Date: 7/10/07

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

PART 364
WASTE TRANSPORTER PERMIT NO. NJ-113

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

FREEHOLD CARTAGE, INC.
P.O. BOX 5010
FREEHOLD, NJ 07728

CONTACT NAME: JACK FITZSIMMONS
COUNTY: OUT OF STATE
TELEPHONE NO: (732)462-1001

PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

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AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)
BETHLEHEM APPARATUS COMP.	BETHLEHEM , PA	Hazardous Industrial/Commercial
C.R.I. ENVIRONMENT, INC.	COTEAU DU LAC , QC	Petroleum Contaminated Soil Grease Trap Waste Hazardous Industrial/Commercial Waste Oil Medical
CASIE ECOLOGY OIL SALVAGE INC	VINELAND , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
CHEMICAL POLLUTION CONTROL INC	BAY SHORE , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
CHEMICAL WASTE MANAGEMENT, INC.	SULPHUR , LA	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
CHEMREC INC	COWANSVILLE , QC	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
CHEMTRON CORPORATION	AVON , OH	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Grease Trap Waste Hazardous Industrial/Commercial Waste Oil
CLEAN EARTH - LINDEN AVE	JERSEY CITY , NJ	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

PART 364
WASTE TRANSPORTER PERMIT NO. NJ-113

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

FREEHOLD CARTAGE, INC.
P.O. BOX 5010
FREEHOLD, NJ 07728

CONTACT NAME: JACK FITZSIMMONS
COUNTY: OUT OF STATE
TELEPHONE NO: (732)462-1001

PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

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AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)
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Destination Facility	Location	Waste Type(s)
CLEAN EARTH OF CARTERET	CARTERET , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil
CLEAN EARTH OF NEW CASTLE, INC.	NEW CASTLE , DE	Petroleum Contaminated Soil Sludge from Sewage or Water Supply Treatment Plant
CLEAN EARTH OF NORTH JERSEY	SOUTH KEARNY , NJ	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
CLEAN EARTH OF PHILADELPHIA	PHILADELPHIA , PA	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil
CLEAN HARBORS	CINCINNATI , OH	Non-Hazardous Industrial/Commercial
CLEAN HARBORS	BARTOW , FL	Non-Hazardous Industrial/Commercial
CLEAN HARBORS	CINCINNATI , OH	Asbestos Petroleum Contaminated Soil
CLEAN HARBORS	BARTOW , FL	Petroleum Contaminated Soil
CLEAN HARBORS	CINCINNATI , OH	Hazardous Industrial/Commercial
CLEAN HARBORS	BARTOW , FL	Hazardous Industrial/Commercial
CLEAN HARBORS	CINCINNATI , OH	Waste Oil
CLEAN HARBORS	BARTOW , FL	Waste Oil
CLEAN HARBORS DEER PARK	LAPORTE , TX	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial
CLEAN HARBORS ENV. SERVICES, INC.	CLEVELAND , OH	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
CLEAN HARBORS PPM, LLC.	ASHTABULA , OH	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
CLEAN WATER OF NEW YORK, INC.	STATEN ISLAND , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Waste Oil

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

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The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)
CMEG, INC.	WALTERBORO , SC	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Waste Oil
COVANTA ENERGY	EAST NORTHPORT , NY	Non-Hazardous Industrial/Commercial
COVANTA ESSEX	NEWARK , NJ	Non-Hazardous Industrial/Commercial
COVANTA HAVERHILL	HAVERHILL , MA	Non-Hazardous Industrial/Commercial
COVANTA UNION INC	RAHWAY , NJ	Non-Hazardous Industrial/Commercial
Covanta/American Ref-Fuel	Niagra Falls , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Grease Trap Waste Waste Oil
CWM CHEMICAL SERVICES LLC	MODEL CITY , NY	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
CYANO CORP OF MICHIGAN	DETROIT , MI	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
CYCLE CHEM (NJ)	ELIZABETH , NJ	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
DYNECOL, INC.	DETROIT , MI	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
E. I. DUPONT DENEMOURS AND COMPANY	DEEPWATER , NJ	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
ECOFLO	GREENSBORO , NC	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
ENVIRITE OF OHIO	CANTON , OH	Non-Hazardous Industrial/Commercial

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

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Destination Facility	Location	Waste Type(s)
ENVIRITE OF OHIO	CANTON , OH	Asbestos Sludge from Sewage or Water Supply Treatment Plant Hazardous Industrial/Commercial Waste Oil
ENVIRITE OF PENNSYLVANIA	YORK , PA	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
ENVIRONMENTAL WASTE TREATMENT PLANT	BABYLON , NY	Non-Hazardous Industrial/Commercial
EQ OF DETROIT	DETROIT , MI	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
EQ RESOURCE RECOVERY INC	ROMULUS , MI	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
EQIS	INDIANAPOLIS , IN	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
EQIS ATLANTA TRANSFER & PROCESSING	ATLANTA , GA	Non-Hazardous Industrial/Commercial Waste Tires Petroleum Contaminated Soil Grease Trap Waste Waste Oil
EVERCLEAR	AUSTINTOWN , OH	Non-Hazardous Industrial/Commercial Waste Oil
EXIDE CORPORATION	READING , PA	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
FALCONBRIDGE LIMITED-HORNE SMELTER DIVISION	ROUYN NORANDA , QC	Non-Hazardous Industrial/Commercial

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

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Destination Facility	Location	Waste Type(s)
FALCONBRIDGE LIMITED-HORNE SMELTER DIVISION	ROUYN NORANDA , QC	Petroleum Contaminated Soil Hazardous Industrial/Commercial
FREEHOLD RECYCLING CENTER	FREEHOLD , NJ	Non-Hazardous Industrial/Commercial
GENERAL ENVIRONMENTAL MANAGEMENT	CLEVELAND , OH	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Grease Trap Waste Hazardous Industrial/Commercial Waste Oil
GIANT CEMENT COMPANY	HARLEYVILLE , SC	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
Giant Resource Recovery	Sumter , SC	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
GIANT RESOURCE RECOVERY - SUMTER	ARVONIA , VA	Hazardous Industrial/Commercial
GLINES & RHODES, INC.	ATTLEBORO , MA	Hazardous Industrial/Commercial
GROWS LANDFILL(WASTE MGT.)	MORRISVILLE , PA	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil
HERAEUS	WARTBURG , TN	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
HERAEUS METAL PROCESSING INC	COALFIELD , TN	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
HERITAGE CRYSTAL CLEAN	ELGIN , IL	Non-Hazardous Industrial/Commercial
HERITAGE ENVIRONMENTAL SERVICES, LLC	INDIANAPOLIS , IN	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Grease Trap Waste Hazardous Industrial/Commercial Waste Oil
HESSTECH	EDISON , NJ	Non-Hazardous Industrial/Commercial

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Destination Facility	Location	Waste Type(s)
HI-BRETT / PURATEX	PENNSAUKEN , NJ	Non-Hazardous Industrial/Commercial
HIGH ACRE WEST EXP. LF	FAIRPORT , NY	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Sludge from Sewage or Water Supply Treatment Plant
HUBBARD HALL	SYRACUSE , NY	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
HUKILL CHEMICAL CORPORATION	BEDFORD , OH	Non-Hazardous Industrial/Commercial Waste Oil
INMETCO	ELLWOOD CITY , PA	Hazardous Industrial/Commercial
INTERNATIONAL PETROLEUM CORPORATION	WILMINGTON , DE	Non-Hazardous Industrial/Commercial Waste Oil
J.P. MASCARO & SONS/WHITE PINES LANDFILL	AUDUBON , PA	Non-Hazardous Industrial/Commercial Waste Tires Asbestos Petroleum Contaminated Soil
KEYSTONE CEMENT CO.	BATH , PA	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
LANCASTER COUNTY SWMA	MARIETTA , PA	Non-Hazardous Industrial/Commercial
LANCASTER OIL COMPANY	LANCASTER , PA	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Waste Oil
LANGELOTH METALS	LANGELOTH , PA	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
LONE STAR ALTERNATE FUELS	GREENCASTLE , IN	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
Lone Star Industries	Cape Girardeau , MO	Hazardous Industrial/Commercial Waste Oil
LORCO PETROLEUM SERVICES	ELIZABETH , NJ	Waste Oil
MARISOL INC	MIDDLESEX , NJ	Non-Hazardous Industrial/Commercial

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Destination Facility	Location	Waste Type(s)
MARISOL INC	MIDDLESEX , NJ	Hazardous Industrial/Commercial Waste Oil
MAX ENVIRO	YUKON , PA	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
MEADOWFILL LANDFILL	BRIDGEPORT , WV	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Septage only (residential) Sludge from Sewage or Water Supply Treatment Plant
MERCURY WASTE SOLUTIONS	UNION GROVE , WI	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
METALLIX, INC.	GREENVILLE , NC	Non-Hazardous Industrial/Commercial
MICHIGAN DISPOSAL WTP	BELLEVILLE , MI	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Sludge from Sewage or Water Supply Treatment Plant Hazardous Industrial/Commercial Waste Oil
MICRONUTRIENTS	INDIANAPOLIS , IN	Hazardous Industrial/Commercial
MODERN LANDFILL	YORK , PA	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Sludge from Sewage or Water Supply Treatment Plant
MODERN LANDFILL, INC.	MODEL CITY , NY	Non-Hazardous Industrial/Commercial Waste Tires Asbestos Petroleum Contaminated Soil Non-Residential Raw Sewage or Sewage-Contaminated Wastes Sludge from Sewage or Water Supply Treatment Plant
MXI ENVIRONMENTAL SERVICES	ABINGDON , VA	Non-Hazardous Industrial/Commercial
NORLITE CORPORATION	COHOES , NY	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

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Destination Facility	Location	Waste Type(s)
NORLITE CORPORATION	COHOES , NY	Waste Oil
NOVA PB INC	VILLE STE CATHERINE , QC	Non-Hazardous Industrial/Commercial Waste Tires Sludge from Sewage or Water Supply Treatment Plant Hazardous Industrial/Commercial
OGDEN MARTIN	HAVERVILLE , MA	Non-Hazardous Industrial/Commercial
ONYX ENVIRONMENTAL SERVICES LLC	WEST CARROLTON , OH	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
ONYX ENVIRONMENTAL SERVICES,	PORT ARTHUR , TX	Non-Hazardous Industrial/Commercial
ONYX ENVIRONMENTL SERVICES	CREEDMOOR , NC	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
ONYX GREENTREE LANDFILL	KERSEY , PA	Non-Hazardous Industrial/Commercial Waste Tires Asbestos Petroleum Contaminated Soil Grease Trap Waste Septage only (residential) Residential Raw Sewage including Portable Toilet Waste Non-Residential Raw Sewage or Sewage-Contaminated Wastes Sludge from Sewage or Water Supply Treatment Plant
ONYX SPECIAL SERVICES, INC.	PHOENIX , AZ	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
Op-Tech Environmental Services, Inc.	Waverly , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Grease Trap Waste Waste Oil

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Destination Facility	Location	Waste Type(s)
ORTEK	MCCOOK , IL	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
PASSAIC VALLEY SEWERAGE	NEWARK , NJ	Non-Hazardous Industrial/Commercial Non-Residential Raw Sewage or Sewage-Contaminated Wastes Sludge from Sewage or Water Supply Treatment Plant
PCI	EAST CHICAGO , IN	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
PHIBRO-TECH INC.	SUMTER , SC	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
PIONEER CROSSING LANDFILL	BIRDSBORO , PA	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Sludge from Sewage or Water Supply Treatment Plant
POLLUTION CONTROL INDUSTRIES	MILLINGTON , TN	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
RECYCLING COORDINATORS	AKRON , OH	Non-Hazardous Industrial/Commercial
RELDAN METALS REFINING & MANUFACTURING	PHILADELPHIA , PA	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
REPUBLIC ENVIRONMENTAL SYSTEMS (PA) INC.	HATFIELD , PA	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Grease Trap Waste Hazardous Industrial/Commercial Waste Oil
RESIDUAL MANAGEMENT SERVICES, INC.	DEER PARK , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil

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Destination Facility	Location	Waste Type(s)
RESIDUAL MANAGEMENT SERVICES, INC.	DEER PARK , NY	Grease Trap Waste Residential Raw Sewage including Portable Toilet Waste Non-Residential Raw Sewage or Sewage-Contaminated Wastes Sludge from Sewage or Water Supply Treatment Plant
REVERE SMELTING & REFINING CORPORATION	MIDDLETOWN , NY	Hazardous Industrial/Commercial
RINECO CHEMICAL	BENTON , AR	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
ROHM & HAAS ELECTRONIC MAT	FREEPORT , NY	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
ROSS INCINERATION SERVICES, INC.	GRAFTON , OH	Non-Hazardous Industrial/Commercial
SAFETY-KLEEN SYSTEMS, INC	LINDEN , NJ	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
SAFETY-KLEEN SYSTEMS, INC..	SMITHFIELD , KY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Grease Trap Waste Hazardous Industrial/Commercial Waste Oil
SENECA MEADOWS LANDFILL	WATERLOO , NY	Non-Hazardous Industrial/Commercial Waste Tires Petroleum Contaminated Soil Sludge from Sewage or Water Supply Treatment Plant
Seneca Meadows LF	Waterloo , NY	Non-Hazardous Industrial/Commercial Waste Tires Petroleum Contaminated Soil Sludge from Sewage or Water Supply Treatment Plant
SOIL SAFE, INC.	LOGAN TOWNSHIP , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil
SPECIALTY WASTE SOLUTIONS	CONSHOHOCKEN , PA	Non-Hazardous Industrial/Commercial
Stablex Canada Inc.	Blainville , QC	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil

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Destination Facility	Location	Waste Type(s)
Stablex Canada Inc.	Blainville , QC	Hazardous Industrial/Commercial
SUBURBAN SOUTH RECYCLING	GLENFORD , OH	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Grease Trap Waste Septage only (residential) Residential Raw Sewage including Portable Toilet Waste Non-Residential Raw Sewage or Sewage-Contaminated Wastes Sludge from Sewage or Water Supply Treatment Plant
SYSTECH ENVIRONMENTAL	PAULDING , OH	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
TECHNIC, INC.	CRANSTON , RI	Hazardous Industrial/Commercial
TERIS LLC	EL DORADO , AR	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil
THE PENNOHIO CORPORATION	ASHTABULA , OH	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Waste Oil
Transflo	Elizabeth , NJ	Non-Hazardous Industrial/Commercial
TYREE BROTHERS ENVIRONMENTAL SERVICES	FARMINGDALE , NY	Non-Hazardous Industrial/Commercial
UNITED OIL RECOVERY	MERIDAN , CT	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial Waste Oil
VEOLIA ENVIRONMENTAL SERVICES	FLANDERS , NJ	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Hazardous Industrial/Commercial Waste Oil Medical
VEOLIA ES TECHNICAL SOLUTIONS, LLC	LATHAM , NY	Non-Hazardous Industrial/Commercial

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The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)
VEOLIA ES TECHNICAL SOLUTIONS, LLC	LATHAM , NY	Asbestos Petroleum Contaminated Soil Grease Trap Waste Hazardous Industrial/Commercial Waste Oil
VEXOR TECHNOLOGY, INC	MEDINA , OH	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Grease Trap Waste Waste Oil
VEXOR TECHNOLOGY, INC.	DORCHESTER , SC	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil
VICKERY ENVIRONMENTAL, INC.	VICKERY , OH	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
VON ROLL AMERICA	EAST LIVERPOOL , OH	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial
WASTE RECOVERY SOLUTIONS	MYERSTOWN , PA	Non-Hazardous Industrial/Commercial Waste Tires Asbestos Petroleum Contaminated Soil Grease Trap Waste Hazardous Industrial/Commercial Waste Oil
WHEELABRATOR FALLS INC	MORRISVILLE , PA	Non-Hazardous Industrial/Commercial
World resources company	Pottsville , PA	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

PART 364
WASTE TRANSPORTER PERMIT NO. NJ-113

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

FREEHOLD CARTAGE, INC.
P.O. BOX 5010
FREEHOLD, NJ 07728

CONTACT NAME: JACK FITZSIMMONS
COUNTY: OUT OF STATE
TELEPHONE NO: (732)462-1001

PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 07/12/2007
EXPIRATION DATE: **06/30/2008**
US EPA ID NUMBER: NJD054126164

AUTHORIZED VEHICLES:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:
(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

453 (Four Hundred and Fifty Three) Permitted Vehicle(s)

ME 1523283	ME 1637847	ME 1637898	ME 1637956	ME 1638009
ME 1637796	ME 1637848	ME 1637899	ME 1637957	ME 1638011
ME 1637797	ME 1637849	ME 1637900	ME 1637958	ME 1638012
ME 1637798	ME 1637850	ME 1637904	ME 1637959	ME 1638013
ME 1637799	ME 1637851	ME 1637905	ME 1637960	ME 1638016
ME 1637800	ME 1637852	ME 1637906	ME 1637961	ME 1638020
ME 1637801	ME 1637853	ME 1637907	ME 1637962	ME 1638021
ME 1637802	ME 1637857	ME 1637908	ME 1637963	ME 1638022
ME 1637803	ME 1637858	ME 1637909	ME 1637964	ME 1638023
ME 1637806	ME 1637859	ME 1637910	ME 1637965	ME 1638024
ME 1637809	ME 1637860	ME 1637911	ME 1637966	ME 1638026
ME 1637810	ME 1637861	ME 1637913	ME 1637968	ME 1638028
ME 1637811	ME 1637862	ME 1637914	ME 1637969	ME 1638029
ME 1637812	ME 1637863	ME 1637915	ME 1637971	ME 1638030
ME 1637813	ME 1637864	ME 1637916	ME 1637972	ME 1638032
ME 1637814	ME 1637865	ME 1637917	ME 1637974	ME 1638033
ME 1637815	ME 1637866	ME 1637918	ME 1637976	ME 1638034
ME 1637816	ME 1637867	ME 1637919	ME 1637977	ME 1638036
ME 1637817	ME 1637868	ME 1637920	ME 1637978	ME 1638037
ME 1637819	ME 1637869	ME 1637921	ME 1637980	ME 1638038
ME 1637820	ME 1637870	ME 1637922	ME 1637981	ME 1638039
ME 1637821	ME 1637871	ME 1637923	ME 1637982	ME 1638041
ME 1637822	ME 1637872	ME 1637924	ME 1637983	ME 1638042
ME 1637823	ME 1637873	ME 1637925	ME 1637984	ME 1638043
ME 1637824	ME 1637874	ME 1637926	ME 1637985	ME 1638044
ME 1637825	ME 1637875	ME 1637927	ME 1637986	ME 1638046
ME 1637826	ME 1637876	ME 1637928	ME 1637987	ME 1638047
ME 1637827	ME 1637877	ME 1637929	ME 1637988	ME 1638052
ME 1637828	ME 1637878	ME 1637930	ME 1637989	ME 1638053
ME 1637831	ME 1637879	ME 1637931	ME 1637990	ME 1638054
ME 1637832	ME 1637880	ME 1637932	ME 1637991	ME 1638055
ME 1637833	ME 1637882	ME 1637933	ME 1637992	ME 1638056
ME 1637834	ME 1637883	ME 1637936	ME 1637993	ME 1638057
ME 1637835	ME 1637884	ME 1637937	ME 1637994	ME 1638058
ME 1637836	ME 1637885	ME 1637942	ME 1637996	ME 1638059
ME 1637837	ME 1637886	ME 1637943	ME 1637997	ME 1638060
ME 1637838	ME 1637887	ME 1637944	ME 1637998	ME 1638061
ME 1637839	ME 1637888	ME 1637945	ME 1637999	ME 1638062
ME 1637840	ME 1637889	ME 1637946	ME 1638000	ME 1638063
ME 1637841	ME 1637892	ME 1637947	ME 1638001	ME 1638064
ME 1637842	ME 1637893	ME 1637949	ME 1638003	ME 1638065
ME 1637843	ME 1637894	ME 1637951	ME 1638005	ME 1638066
ME 1637844	ME 1637895	ME 1637952	ME 1638006	ME 1638067
ME 1637845	ME 1637896	ME 1637953	ME 1638007	ME 1638068
ME 1637846	ME 1637897	ME 1637954	ME 1638008	ME 1638069

*** AUTHORIZED VEHICLES LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

PART 364
WASTE TRANSPORTER PERMIT NO. NJ-113

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

FREEHOLD CARTAGE, INC.
P.O. BOX 5010
FREEHOLD, NJ 07728

CONTACT NAME: JACK FITZSIMMONS
COUNTY: OUT OF STATE
TELEPHONE NO: (732)462-1001

PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 07/12/2007
EXPIRATION DATE: **06/30/2008**
US EPA ID NUMBER: NJD054126164

AUTHORIZED VEHICLES:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:
(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

453 (Four Hundred and Fifty Three) Permitted Vehicle(s)

ME 1638070	ME 1638127	ME 1638184	ME 1645198	ME 1653937
ME 1638071	ME 1638129	ME 1638185	ME 1645199	ME 1653938
ME 1638072	ME 1638130	ME 1638186	ME 1645200	ME 1653939
ME 1638073	ME 1638131	ME 1638187	ME 1646705	ME 1653940
ME 1638076	ME 1638132	ME 1638188	ME 1646706	ME 1654330
ME 1638077	ME 1638133	ME 1638189	ME 1646839	ME 1655517
ME 1638078	ME 1638134	ME 1638190	ME 1646840	ME 1655567
ME 1638079	ME 1638135	ME 1638191	ME 1646841	ME 1655568
ME 1638080	ME 1638137	ME 1638192	ME 1646842	ME 1655569
ME 1638081	ME 1638138	ME 1638193	ME 1646843	ME 1655570
ME 1638082	ME 1638139	ME 1638194	ME 1646848	ME 1655723
ME 1638083	ME 1638140	ME 1638195	ME 1647090	ME 1656668
ME 1638087	ME 1638141	ME 1638196	ME 1647092	ME 1658151
ME 1638088	ME 1638142	ME 1638197	ME 1647094	ME 1658154
ME 1638089	ME 1638143	ME 1638198	ME 1647095	ME 1658305
ME 1638090	ME 1638144	ME 1638199	ME 1647145	ME 1658306
ME 1638091	ME 1638145	ME 1638200	ME 1647146	ME 1658326
ME 1638092	ME 1638146	ME 1638201	ME 1647148	ME 1658340
ME 1638093	ME 1638148	ME 1638202	ME 1647149	ME 1658378
ME 1638094	ME 1638149	ME 1638211	ME 1647211	ME 1658417
ME 1638096	ME 1638150	ME 1638212	ME 1647213	ME 1658418
ME 1638097	ME 1638151	ME 1638213	ME 1647217	ME 1735910
ME 1638098	ME 1638160	ME 1638214	ME 1647218	ME 1739469
ME 1638099	ME 1638162	ME 1639694	ME 1647464	ME 1739470
ME 1638100	ME 1638163	ME 1640396	ME 1647465	ME 1739471
ME 1638102	ME 1638164	ME 1640949	ME 1647466	ME 1739472
ME 1638103	ME 1638165	ME 1641305	ME 1648151	ME 1739473
ME 1638104	ME 1638166	ME 1641306	ME 1649360	ME 1739474
ME 1638105	ME 1638167	ME 1642321	ME 1649364	NJ AA193S
ME 1638106	ME 1638168	ME 1642474	ME 1649531	NJ AA216G
ME 1638107	ME 1638169	ME 1642475	ME 1649930	NJ AA221G
ME 1638108	ME 1638170	ME 1642477	ME 1650584	NJ AA392E
ME 1638109	ME 1638171	ME 1642751	ME 1650585	NJ AA393E
ME 1638110	ME 1638172	ME 1642752	ME 1651059	NJ AA394E
ME 1638111	ME 1638173	ME 1642771	ME 1652265	NJ AA395E
ME 1638112	ME 1638174	ME 1643004	ME 1652266	NJ AA396E
ME 1638113	ME 1638175	ME 1643005	ME 1652267	NJ AA402E
ME 1638114	ME 1638176	ME 1643006	ME 1652268	NJ AA403E
ME 1638115	ME 1638177	ME 1643007	ME 1652378	NJ AA410E
ME 1638117	ME 1638178	ME 1643045	ME 1652744	NJ AD134R
ME 1638118	ME 1638179	ME 1643536	ME 1652745	NJ AE383N
ME 1638119	ME 1638180	ME 1644148	ME 1652746	NJ AE497Y
ME 1638120	ME 1638181	ME 1644149	ME 1652747	NJ AF805B
ME 1638121	ME 1638182	ME 1644150	ME 1652748	NJ AG267R
ME 1638126	ME 1638183	ME 1644151	ME 1653268	NJ AG398G

*** AUTHORIZED VEHICLES LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

PART 364
WASTE TRANSPORTER PERMIT NO. NJ-113

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

FREEHOLD CARTAGE, INC.
P.O. BOX 5010
FREEHOLD, NJ 07728

PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

CONTACT NAME:	JACK FITZSIMMONS	EFFECTIVE DATE:	07/12/2007
COUNTY:	OUT OF STATE	EXPIRATION DATE:	**06/30/2008**
TELEPHONE NO:	(732)462-1001	US EPA ID NUMBER:	NJD054126164

AUTHORIZED VEHICLES:

The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

453 (Four Hundred and Fifty Three) Permitted Vehicle(s)

NJ AH218M
NJ AJ522C
NJ XY49MF
End of List

APPENDIX J

Soil Disposal Manifests and Bills of Lading

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NYR000146916	2. Page 1 of 1	3. Emergency Response Phone 516-816-4788	4. Manifest Tracking Number 003109665 JJK

GENERATOR

5. Generator's Name and Mailing Address: WWP Associates, LLC, 8816 Six Forks Road, Suite 201, Raleigh, NC 27615 — Coral Island Shopping Ctr.
Generator's Site Address (if different than mailing address): Coral Island Shopping Ctr. - 1852 Richmond Ave. Staten Island, NY
Generator's Phone: 919-846-4066

6. Transporter 1 Company Name: Freehold Cartage, Inc. — U.S. EPA ID Number: NJD054126164

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Stablex Canada, Inc., 760, boul. Industriel, Blainville Quebec, J7C 3V4 — U.S. EPA ID Number: NYD980756415 — 11 — 245
Facility's Phone: 450-430-9230

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, Hazardous Waste Solid, N.O.S., 9, NA3077, PGIII (Tetrachloroethylene)(F002), ERG#171 — 071977	01	CM	20	Y	F001 T
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Freehold Cartage, Inc. acting as an intermediary arranging for export.
Approval:
NT AE4437 (M)

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Gary J. Hughes Agent — Signature: [signature] — Month 09 Day 27 Year 07

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): [signature] Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Curtis Savage — Signature: [signature] — Month 09 Day 24 Year 07
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
N = 34971 P.
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132 T			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: MARCEL DeNOTS — Signature: [signature] — Month 10 Day 04 Year 07

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. TRANSPORTER'S COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NYR000148916	2. Page 1 of 1	3. Emergency Response Phone 516-816-4785	4. Manifest Tracking Number 00310966 6 JJK

5. Generator's Name and Mailing Address: WWP Associates, LLC / Coral Island Shopping Ctr.
8818 Six Forks Road, Suite 201
Raleigh, NC 27615
Generator's Phone: 919-846-4040

Generator's Site Address (if different than mailing address): Coral Island Shopping Ctr.-1652 Richmond Ave. Staten Island, NY

6. Transporter 1 Company Name: Freehold Cartage, Inc. — U.S. EPA ID Number: NJD054126184

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Stablex Canada, Inc.
780, boul. Industriel
Blainville Quebec, J7C 3V4
Facility's Phone: 450-430-8230 — U.S. EPA ID Number: NYD980758415

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, Hazardous Waste Solid, N.O.S., 9, NA3077, PGIII, (Tetrachloroethylene) (F001) ERG#171	01	CM	20	Y	F001		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
Freehold Cartage, Inc. acting as an intermediary arranging for export.
Approval: NY-N113
Plate # AA394E NJ

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Gtt'l J. Hughes Agent — Signature: [signature] — Month 09 Day 24 Year 07

16. International Shipments: ☐ Import to U.S. ☒ Export from U.S. — Port of entry/exit: LaColle/Champlin
Transporter signature (for exports only): [signature] — Date leaving U.S.: 10-2-07

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: DENNIS J. HIGGINS — Signature: [signature] — Month 09 Day 24 Year 07

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
NC 36097 P
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132 +			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: FRANCE TREPANIER — Signature: [signature] — Month 10 Day 02 Year 07

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NYR000148916	1	516-816-4765	003109667 JJK

GENERATOR

5. Generator's Name and Mailing Address
WWP Associates, LLC Coral Island Shopping Ctr
8816 Six Forks Road, Suite 201
Raleigh, NC 27615
Generator's Phone: 919-846-4046

Generator's Site Address (if different than mailing address)
Coral Island Shopping Ctr.-1652 Richmond Ave.
Staten Island, NY

6. Transporter 1 Company Name: Freehold Cartage, Inc. — U.S. EPA ID Number: NJD054126164

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Stablex Canada, Inc.
780, boul. Industriel
Blainville-Quebec, J7C 3V4
Facility's Phone: 450-430-8230
U.S. EPA ID Number: NYD980758415

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, Hazardous Waste Solid, N.O.S., 9, NA3077, PGIII, (Tetrachloroethylene)(F001) ERG#171	01	CM	20	Y	F001		T
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
Freehold Cartage, Inc. acting as an intermediary arranging for export.
Approval:

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b)(if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Gary J. Hughes Agent — Signature: [signature] — Month 09 Day 24 Year 07

INT'L

16. International Shipments: ☐ Import to U.S. ☒ Export from U.S. — Port of entry/exit: Lacolle PQ
Transporter signature (for exports only): Charles Sokaluk — Date leaving U.S.: 10-4-07

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials — Box # 9984

Transporter 1 Printed/Typed Name: Robert Daldos — Signature: [signature] — Month 09 Day 24 Year 07

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
N- 33604 P
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132-T			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: FRANK TRELEVICH — Signature: [signature] — Month 10 Day 04 Year 07

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

APPENDIX K

Water Disposal Manifests

4 of 2 - 2

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NYR000148916	2. Page 1 of 1	3. Emergency Response Phone 315-315-4788	4. Manifest Tracking Number 002771239 JJK

5. Generator's Name and Mailing Address: Coral Island Shopping Center, 1650 Richmond Avenue, Staten Island, NY
Generator's Site Address (if different than mailing address)
Generator's Phone: 631-884-1880

6. Transporter 1 Company Name: Freehold Cartage, Inc. — U.S. EPA ID Number: NJD054126164

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: DuPont Chambers Works, Route 130 Chambers Works, Deepwater, NJ 08023 — U.S. EPA ID Number: NJD002385730
Facility's Phone: 856-540-2773

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, Hazardous Waste Liquid, N.O.S., 9, NA3082, PGIII, (Tetrachloroethylene)(F001) ERG#171	001	TT	1170	G	F001
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
9b. 1)X094502

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: for W Passannante Helen Vitaliano — Signature: [signature] — Month 9 Day 7 Year 07

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: TERRY E. LAMEO II — Signature: [signature] II — Month 09 Day 07 Year 07
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H124	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: JOE COLONE — Signature: [signature] — Month Day Year 9/10/07

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

TRANSPORTER'S COPY

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

FREEHOLD CARTAGE INC.

P.O. BOX 5010 • FREEHOLD, NJ 07728-5010
(732) 462-1001 • FAX (732) 308-0924

BILL OF LADING

FCI EPA ID NO. NJD054126164

S 092011

114 Schoolground Rd. Branford, CT 06405 Phone: (203) 483-5964 Fax: (203) 483-5984	350 Pigeon Point Road New Castle, DE 19720 Phone: (302) 658-2005 Fax: (302) 658-6229	175 Barlow Mun. Airport Barlow, FL 33830 Phone: (863) 533-4599 Fax: (863) 533-1613	6535 Dunham Road Maple Heights, OH 44137 Phone: (330) 835-3473 Fax: (330) 835-3732	108 Monahan Avenue Dunmore, PA 18512 Phone: (570) 342-7232 Fax: (570) 342-7367	132 Myrtle Beach Hwy. Sumter, SC 29153 Phone: (803) 773-2611 Fax: (803) 773-2942

SHIPPER NAME/ADDRESS Coral Island 1650 Richmond Ave Staten Island NY	PHONE (AREA CODE)	TRACTOR 654	TRAILER 181	APPOINTMENT TIME 8:00
FCI REP. LOADING (PRINT) Lamar	PROCEDURE Vac	EQUIP. SPOTTED —	EQUIP. REMOVED —	TIME AT SHIPPER ARRIVAL TIME: 8:00 (MILITARY TIME ONLY) DEPARTURE TIME: 12:50
COMMENTS OR DELAYS AT SHIPPER 4002 Rel 002 2265				EQUIPMENT USED 25.75 32551
BROKER: PO#:	WO#:	MANIFEST / DOCUMENT NO.		

(X) HM	PROPER U.S. D.O.T. SHIPPING NAME	U.S. D.O.T. HAZARDOUS CLASS	NA/UN/NO.	PACKING GROUP	NO. CONT.	CONT. TYPE	NET QUANTITY	UNIT MEASURE	WASTE NO.	FORM
X	1 RQ Hazardous Waste Liquid (1,1,2-Trichloroethylene)	9	3082	III	1	TT	1170	G	F001	C
	2									
	3									

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION NUMBER.

SHIPPER'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The materials described above were consigned to the Transporter named. The consignee can and will accept the shipment and has a valid permit to do so if required. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the shipper is obligated to pay the agreed rate offered to the contractor.

PLEASE PRINT NAME/TITLE Matthew S. Copeland	SHIPPER'S SIGNATURE X I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT.	DATE LOADED 9 / 7 / 07 MO. DAY YR.

CONSIGNEE NAME/ADDRESS Dupont Rt 130 Deepwater NJ	PHONE (AREA CODE)	TRACTOR 654	TRAILER 181	APPOINTMENT TIME :
FCI REP. UNLOADING (PRINT) Lamar	PROCEDURE	EQUIP. SPOTTED —	EQUIP. REMOVED —	TIME AT CONSIGNEE ARRIVAL TIME: 14:30 (MILITARY TIME ONLY) DEPARTURE TIME: 16:00
COMMENTS OR DELAYS AT CONSIGNEE				EQUIPMENT USED

PLEASE PRINT NAME/TITLE J Colone	CONSIGNEE SIGNATURE X	DATE UNLOADED 9 / 10 / 07 MO. DAY YR.

AR H-0257 CT CT-HW-307 DE DE-HW-203 DE-SW-203 IL UPW-0190713-OH MA MA-296	MD HWH-167 2001-OPV-2335 ME ME-HWT-47 ME-WOT-47 MI UPW-0190713-OH MN UPW-0190713-OH	MO H-1490 ND WH-429 NH TNH-0047 NJ S-2265 15939 NY NJ-113	OH UPW-0190713-OH OK UPW-0190713-OH ONTARIO, CANADA A 840943 PA PA-AH-0067 QUEBEC, CANADA QC-6ML-047 RI RI-535	TX 40705 WI 1.1692 WV UPW-0190713-OH

White - FCI Original
Yellow - FCI Billing
Blue - FCI Office/Customer
Green - Retained by TSDF
Gold - Retained by Generator

S 092011

APPENDIX L

Offiste Clean Fill Material Certifications

ALMASI CONTRACTORS A Civil Construction Company

63 Metuchen Avenue, Woodbridge, New Jersey 07095 Phone: (732)634-0741 Fax: (732)634-0604

Aug. 29, 2007

Metro Environmental
690-A N. Queens Ave.
Lyndenhurst, NY 11757

Fax: 631-884-1884
Phone: 631-884-1880

To Whom It May Concern:

Please be advised the 2 loads of certified clean fill delivered to 650 Richmond Ave. Staten Island, NY on Aug. 28, 2007 came from a virgin site. The site is located at Block #390C and Lot #1, King George Road South, Town of Edison, County of Middlesex, State of New Jersey.

To the best of our knowledge, this material is clean, virgin material and is free of any known contaminants.

If any further information is needed, it can be furnished at your request.

Sincerely,

William E. Almasi Jr.
President

PHONE 718-761-5693

FANELLI TOPSOIL, INC.

Excavating and Site Work

2059 RICHMOND AVENUE - STATEN ISLAND, NY 10314

M Pick-up Cust. Phone

MATERIAL	CUBIC YDS.	PRICE	DATE
UNSCREENED TOPSOIL			9/10/07
SCREENED TOPSOIL	240.00		
FILL DIRT	Tax 20.10		
	260.10		
HEAVY EQUIP. RENTAL			
DUMP TRUCK RENTAL			
MACHINE RENTAL			

INSTRUCTIONS CC

PAY FROM THIS INVOICE, A SERVICE CHARGE OF 1½% PER MONTH (ANNUAL RATE OF 18%) WILL BE CHARGED ON PAST DUE ACCOUNTS. THE CUSTOMER IS RESPONSIBLE FOR ANY AND ALL COLLECTION COSTS, INCLUDING ATTORNEY FEES.

WHEN ORDERED TO USE DRIVEWAY OR TO ENTER PRIVATE PROPERTY, WE DO SO AT YOUR RISK AND WE WILL NOT BE RESPONSIBLE FOR BROKEN WALKS, DRIVEWAYS OR OTHER DAMAGE RESULTING THEREFROM. BY SIGNING, CUSTOMER AGREES TO ABOVE CONDITIONS.

SIGN _____

PRINT CLEARLY _____

APPENDIX M

Site Managment Plan
(submitted under separate cover)

APPENDIX N

Environmental Easement

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this _____day of , 2010, between Owner(s) WWP Associates, LLC, a New York Limited Liability Corporation, having an office at C/O Rivercrest Realty Associates, LLC, 8816 Six Forks Road, Suite 201, Raleigh, North Carolina, (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and of ensuring the potential restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 1650 Richmond Avenue, Staten Island, in the Borough of Staten Island, County of Richmond, City and State of New York, known and designated on the tax map of the Richmond County Clerk as tax map parcel numbers: Block 2236 Lot 125, being the same as that property conveyed to Grantor by bargain and Sale Deed dated October 25, 2004 and recorded on October 25, 2004 in Book 19240 at page 29 of deeds, comprising of approximately 172,750 Sq. Ft., and hereinafter more fully described in the ALTA/ACSM Land Title Survey dated February 1, 2010, prepared by Otis V. Voils, Wohl & O'Mara, LLP ., and corresponding Schedule "A" property description, both documents are attached hereto and made a part hereof (the "Controlled Property"); and

WHEREAS, the Commissioner does hereby acknowledge that the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established at this Controlled Property until such

time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the covenants and mutual promises contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: W2-1040-05-01, Grantor grants, conveys and releases to Grantee a permanent Environmental Easement pursuant to Article 71, Title 36 of the ECL in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the potential restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The following controls apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property:

A. The Controlled Property may be used for commercial use as described within 6 NYCRR Part 375- 1.8 (g) (2) (iii), as long as the following long-term engineering controls are employed and the land use restrictions specified below are adhered to:

The Controlled Property has two primary Engineering Controls as follows:

(i) Composite Cover System

(ii) Monitored Enhanced Natural Attenuation

Institutional Controls consist of the following:

- All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

- All Engineering Controls must be inspected and certified at a frequency and in a manner as specified in the SMP;

- Groundwater, soil vapor, and other environmental or public health monitoring must be performed as defined in the SMP;

- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP.

- ☐ On-Site environmental monitoring devices, including but not limited to, groundwater monitor wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in a manner specified in the SMP;

- ☐ The use of the groundwater underlying the property is prohibited without treatment rendering it safe for its intended use;

B. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the Site Management Plan ("SMP") that the Department has approved for the Controlled Property and all Department-approved amendments to that SMP.

The Grantor hereby acknowledges receipt of a copy of the NYSDEC-approved Site Management Plan, dated November, 2009. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system on the Controlled Property, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. Upon notice of not less than thirty (30) days the Department in exercise of its discretion and consistent with applicable law may revise the SMP. The notice shall be a final agency determination. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Regional Hazardous Waste
NYSDEC - Region 2
Division of Environmental Remediation
One Hunter's Point Plaza
47-40 21st Street
Long Island City, NY 11101-5407
Phone: (718) 482-4995 fax: (718) 482-6358

or

Site Control Section
Division of Environmental Remediation
NYS DEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553 fax: (518) 402-9595

C. The Controlled Property may not be used for a higher level of use such as unrestricted or restricted residential use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

D. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant of Title 36 to Article 71 of the Environmental Conservation Law.

E. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

F. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Controlled Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer the underlying fee interest to the Controlled Property by operation of law, by deed, or by indenture, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person intentionally violates this Environmental Easement, the Grantee may revoke the Certificate of Completion provided under ECL Article 56, Title 5 or ECL Article 27 Title 14 with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or

suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach. Grantor shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, Grantee may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement in accordance with applicable law to require compliance with the terms of this Environmental Easement.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Environmental Easement.

6. Notice. Whenever notice to the State (other than the annual certification) or approval from the State is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:
County, NYSDEC Site Number, NYSDEC Contract or Order Number, and the
County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to: Site Number: C 243033
Department of Environmental Enforcement
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

Such correspondence shall be delivered by hand, or by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. This Environmental Easement may be amended only by an amendment executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Grantor's Name: WWP Associates, LLC

By: _____
Stanley Werb - Manager

Title: Manager Date: 5·20·2010

Grantor's Acknowledgment

NORTH CAROLINA
STATE OF ~~NEW YORK~~)
) ss:
COUNTY OF Wake)

On the 20 day of May, in the year 2010, before me, the undersigned, personally appeared Stanley Werb, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public - State of ~~New York~~
NORTH CAROLINA

CHRISTINE L. COGAR NOTARY PUBLIC CHATHAM COUNTY, NC My Comm. Expires May 9, 2014

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By:_____
Dale A. Desnoyers, Director
Division of Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the _____ day of _____, in the year 20__, before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

SCHEDULE "A" PROPERTY DESCRIPTION

Address : 1650 Richmond Avenue, Staten Island
Tax Map: Block : 2236 Lot(s): 125

All that certain plot, piece or parcel of land, situate, lying and being in the Borough of Staten Island, County of Richmond, City and State of New York, bounded and described as follows:

BEGINNING at a point on the westerly side of Richmond Avenue distant 245.56 feet northerly from the corner formed by the intersection of the westerly side of Richmond Avenue and the northerly side of Victory Boulevard: the coordinates of which point of BEGINNING are South 18238.108 West 33253.389:

RUNNING THENCE North 78 degrees 11 minutes 10 seconds West 148.66 feet to a point;

RUNNING THENCE South 11 degrees 57 minutes 53 seconds West 111.39 feet to a point;

RUNNING THENCE North 78 degrees, 02 minutes, 07 seconds West 8.80 feet to a point,

RUNNING THENCE South 06 degrees, 02 minutes, 05 seconds East 190.15 feet to a point on the Northerly side of Victory Boulevard;

RUNNING THENCE along the northerly side of Victory Boulevard South 80 degrees, 42 minutes, 55 seconds West 158.50 feet to a point;

RUNNING THENCE and continuing along the northerly side of Victory Boulevard South 81 degrees, 15 minutes, 24 seconds West7.70 feet to a point;

RUNNING THENCE North 02 degrees 20 minutes, 19 seconds West 247.58 feet to a point;

RUNNING THENCE North 77 degrees 40 minutes 21 seconds West 261.50 feet to a point;

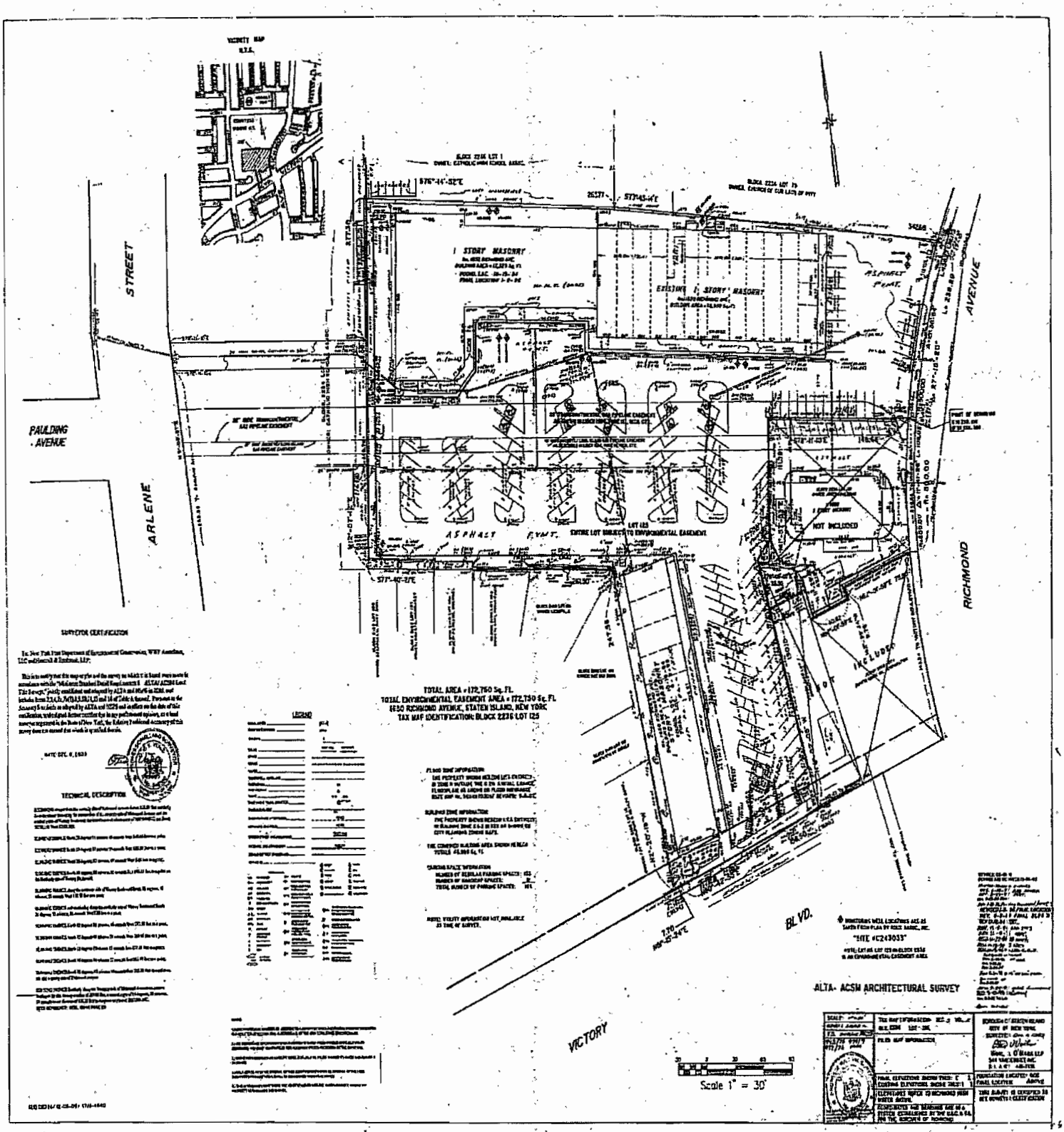
RUNNING THENCE North 12 degrees 07minutes 12 seconds East 277.38 feet to a point;

RUNNING THENCE South 76 degrees 14 minutes 52 seconds East 265.77 feet to a point;

RUNNING THENCE South 73 degrees, 43 minutes 14 seconds East 342.68 feet to a point on the said westerly side of Richmond Avenue;

RUNNING THENCE Southerly along the Westerly side of Richmond Avenue on a curve bearing to the left, having a radius of 500.00 feet, a central angle of 15 degrees, 36 minutes, 54 seconds an arc distance of 136.27 feet to the point or place of BEGINNING.

SURVEY


VICINITY MAP
N.T.S.
STREET
PAULDING AVENUE
ARLENE
1 STORY MASONRY
EXISTING 1 STORY MASONRY
ASPHALT PVMT.
AVENUE
RICHMOND
NOT INCLUDED
ENTIRE LOT SUBJECT TO ENVIRONMENTAL EASEMENT
INCLUDES
BLVD.
VICTORY
TOTAL AREA = 172,750 Sq. Ft.
TOTAL ENVIRONMENTAL EASEMENT AREA = 172,750 Sq. Ft.
8530 RICHMOND AVENUE, STATEN ISLAND, NEW YORK
TAX MAP IDENTIFICATION: BLOCK 2236 LOT 125
SURVEYOR CERTIFICATION
TECHNICAL DESCRIPTION
LEGEND
"SITE #C243033"
ALTA- ACSM ARCHITECTURAL SURVEY
Scale 1" = 30'