Hunts Point Food Distribution Center

Community Air Monitoring Plan for the Food Center Drive Greenway

Hunts Point, Bronx, New York

May 2013

Prepared for:

New York City Economic Development Corporation

110 William Street
New York, New York 10038

Prepared by:

HDR | ONE COMPANY *Many Solutions*℠

Henningson, Durham & Richardson
Architecture and Engineering, P.C.
One Blue Hill Plaza - 12th Floor, P.O. Box 1509
Pearl River, New York 10965

1.0 Introduction

Food Center Drive (FCD) is an artery through the commercial/industrial sector of Hunts Point. It is a circuit that provides truck access to the many food distribution facilities around its perimeter. As part of the Phase 1 projects of the South Bronx Greenway, FCD will provide direct access to the Hunts Point Landing Park as well as to the new pedestrian waterfront connection adjacent to Anheuser Busch. In future phases, a second pedestrian waterfront connection, a greenway connection along Ryawa (leading to Barretto Point Park) and a continuation of the Class 2 bikeway on Hunts Point Avenue are proposed. This project is seen by both the residential and business community as a vital link for residents and workers to access recreational opportunities and jobs. It is also envisioned as part of the larger interborough greenway system throughout the City.

In accordance with the New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program (VCP), HDR on behalf of NYCEDC is submitting this Community Air Monitoring Plan (CAMP) for review. It is the intent of this CAMP to adequately provide a measure of protection for the downwind community from potential airborne releases associated with construction activities associated with the construction of the FCD Greenway project. #

1.1 Site Location and Boundaries

The proposed FCD Greenway Construction will impact two NYSDEC Voluntary Cleanup Program (VCP) Sites both located along FCD in the Hunts Point Food Distribution Center (HPFDC) of the Bronx, New York (refer to Figure 1). These two VCP sites are the Perimeter Site portion of FCD and the Consolidated Edison of New York, Inc. (Con Edison) areas.

The Perimeter Site portion of FCD (Site No. V00641) is part of a Voluntary Cleanup Agreement (VCA) entered into by the City of New York and NYSDEC. The Perimeter Site is a portion of a mapped right-of-way owned by the City of New York and currently managed by New York City Economic Development Corporation (NYCEDC). The portion of the Perimeter Site that underlies FCD is approximately 3,940 feet in length (0.75 mile) and has an approximate area of 0.86 acres. The Site Management Plan for the Perimeter Site (included as Attachment A) documents engineering controls and institutional controls as part of the NYSDEC-approved remedy and is applicable to the entirety of FCD. This includes the paved surfaces of FCD and surface cover in the islands. The remainder of FCD is enrolled in the VCP (Site No. V00554) as part of a VCA entered into by Con Edison and NYSDEC.

1.2 Site History and Conditions

The Site was historically part of a Con Edison manufactured gas plant (MGP) which included several structures, material storage, and numerous below ground utilities. Figure 2 shows historic MGP structures located on the peninsula.

In 2002 and 2003 the Iroquois Gas Transmission System Pipeline was constructed in FCD. The Hunts Point portion of the project was specifically referred to as the Eastchester Extension Project. During construction a gas pipeline was brought on shore from the East River at Site C using horizontal directional drilling. The remaining 3,800 feet of pipeline was constructed in a trench extending northward through FCD. FCD contains an extensive network of underground utilities including gas and electric conduits that bordered the proposed eastern wall of the trench and multiple identified and unidentified utility lines that bordered the proposed western side of the trench. Many of these utilities additionally continued west across FCD. As a result the location of the trench and pipeline was limited to a narrow corridor on the eastern side of the roadway, approximately 20 feet from the eastern most curb. The northern extent of the pipeline makes a 90 degree turn into Site E OU 2 and terminates at the Con Edison compressor facility. The area of the installation is now the Iroquois Easement.

FCD was previously a private street, integral to the HPFDC, under NYC Dept of Small Business jurisdiction and NYCEDC's management. In April 2007, an application was filed to map FCD as a public street per the Uniform Land Use Review Procedure (ULURP). As part of this process, utility companies with subsurface interests and relevant municipal departments of Transportation, City Planning and Environmental Protection participated in the mandated agency mapping conference and commented on the application. In accordance with ULURP requirements, public hearings were held by the community, Bronx Borough President, City Planning and City Council. The Bronx Borough President approved the changes and the ULURP process was completed in early 2009. FCD is now mapped as a one way public street with counterclockwise circulation.

The Perimeter site has been characterized during several previous investigations. Additionally, the Interim Remedial Engineering Report for the Perimeter Site Bronx, NY (January 2005) documents the remedy in place (Attachment B).

Investigative activities across the HPFDC have shown that contamination exists in three (3) dominant forms: coal tar, purifier waste and petroleum contaminated soil.

Coal tar is a product of the destructive distillation of bituminous coal. It is a dark reddish brown to black, oily, viscous liquid that does not readily mix with water. It has a very strong odor, which many people find similar to mothballs or driveway sealant. Coal tars, derived from both coal carbonization and carbureted water gas processes, are complex mixtures of organic chemicals. The following two major classes of chemical compounds found in coal tar are:

- Volatile organic compounds (VOCs) characterized by benzene, toluene, ethylbenzene and xylene, which are identified by their initials as the BTEX compounds, and
- Semi-volatile organic compounds (SVOCs) known as polycyclic aromatic hydrocarbons or PAHs.

Purifier waste is typically found as a mixture of wood chips with a very strong, unpleasant burnt odor. Once exposed at the ground surface, the waste will often develop an iridescent blue color known as "Prussian blue". It contains significant quantities of chemically complex cyanide compounds. In addition to containing chemically complex cyanide, water which comes into contact with purifier waste is often acidic.

2.0 Proposed Construction Activities

The proposed greenway construction along FCD is a component of the South Bronx Greenway Master Plan, released in November 2006. The plan proposed improved pedestrian and bicycle access and significant additions to the vegetation throughout the Hunts Point neighborhood. A key goal of this project is to provide a Class 1 shared pedestrian and bicycle linkage between the residential community and a new park (Hunts Point Landing) as well as future waterfront access. The greenway is also intended to encourage non-motorized commuting for some of the 16,000 employees within the HPFDC. In addition to the shared travel route, new planting and pedestrian scale lighting will be incorporated.

The Greenway construction project is 1.3 miles long with an average depth of excavation of approximately 2 feet below the existing ground surface. The construction of the 19 foot wide greenway is enabled by conversion of the street to one-way circulation, thereby gaining a vehicular lane and allowing the outer most lane and adjacent sidewalk (next to the Iroquois Easement) to be converted for use as the shared bicycle and pedestrian route, with planting. Due to varying utilities and land use conditions, the greenway will have three different cross-sections (shown on Figures 3, 4 and 5):

- Condition 1: The greenway is a 19 foot wide shared path separated from the roadway by a sloped planting strip with a 16 inch high curb.
- Condition 2: The greenway remains a 19 foot wide shared path separated from the roadway by a flush planting strip on the roadway side, protected by a 6 inch high curb.
- Condition 3: This condition occurs when the right-of way narrows from 100 foot to 80 foot at the north end of the project area, near the Produce Market entrance. The greenway is a 12 foot wide shared path adjacent to the road, without planting, with a 6 inch high curb.

In addition, the greenway will upgrade four public bus stops to include bus shelters, provide for safe crossings at truck entrances and railroad crossings, and include standard NYC Greenway signage. The existing median, with its trees and street lights, will be maintained except as required to allow trucks to cross over from one side of the one-way road to the other to access dedicated turning lanes.

In addition to the Greenway, construction activities will include the installation of approximately 1,800 linear feet of water line with an approximate excavation depth of 9 feet and 30 new catch basins and associated piping with an approximate excavation depth for the basins of 12 feet. The water line installation will begin at the southern intersection of Halleck Street and FCD (adjacent to the New Fulton Fish Market) and continue east along FCD to a termination point immediately west of the Hunts Point Landing Park (the former Farragut Street alignment).

3.0 Community Air Monitoring Plan

In an effort to protect the surrounding community from impacts due to construction a CAMP will be implemented. This plan requires real-time monitoring for VOCs and particulates (i.e., dust) downwind of the designated work area when intrusive activities are in progress. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Action levels and worker protection levels have been addressed in the Site Specific Health and Safety Plan. The intent of this plan is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Due to the potential to encounter MGP waste, real-time air monitoring for VOCs and particulate levels at the downwind perimeter of the work area will be conducted.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities.

3.1 Volatile Organic Compound Monitoring, Response, and Actions

VOCs must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a **continuous** basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the

nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (NYSDEC and New York State Department of Health [NYSDOH]) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

3.2 Particulate Monitoring, Response Levels, and Actions

Due to the limited size of the work area, particulate concentrations will be monitored **continuously** at the upwind and downwind perimeter of the exclusion zone. These locations will be adjusted as the work area is shifted to new boring locations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (NYSDEC and NYSDOH) personnel to review.

Figures

HDR

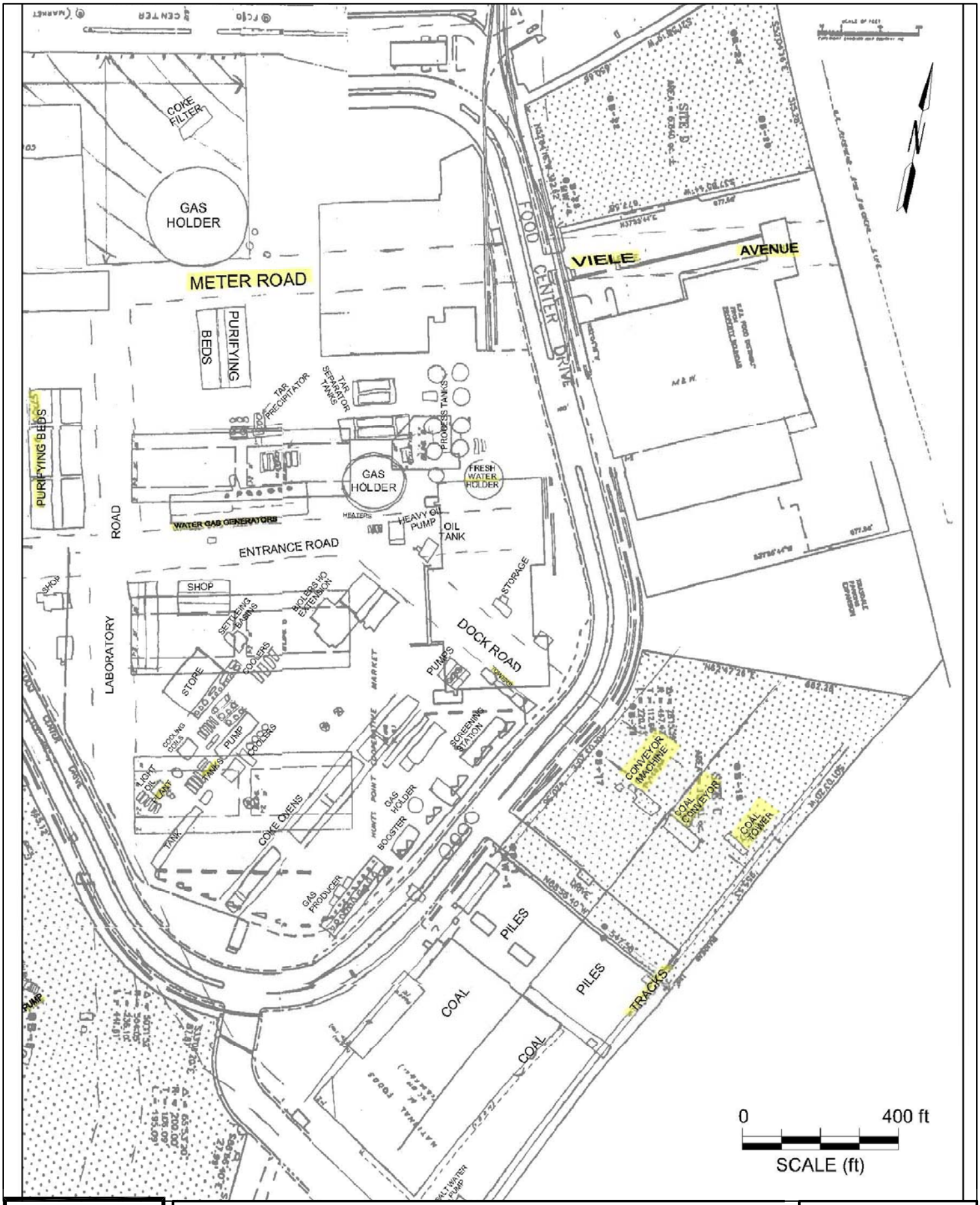
Hennlngson, Durham & Rlchardson Architecture and Engineering, P.C.
In association with HDR Engineering, Inc.

Food Center Drive - Site Location

Construction Work Plan for the Food Center Drive Greenway
Hunts Point, New York

DATE
3/12/2012

FIGURE
1



HDR

Hennlngson, Durham & Richardson Architecture and Engineering, P.C.
In association with HDR Engineering, Inc.

Historic MGP Structures

Construction Work Plan for the Food Center Drive Greenway
Hunts Point, New York

DATE
3/12/2012

FIGURE
2

SOURCE: MATHEWS NIELSON LANDSCAPE ARCHITECTS, GREENWAY SECTION A, SLOPED PLANTING STRIP

(NOT TO SCALE)

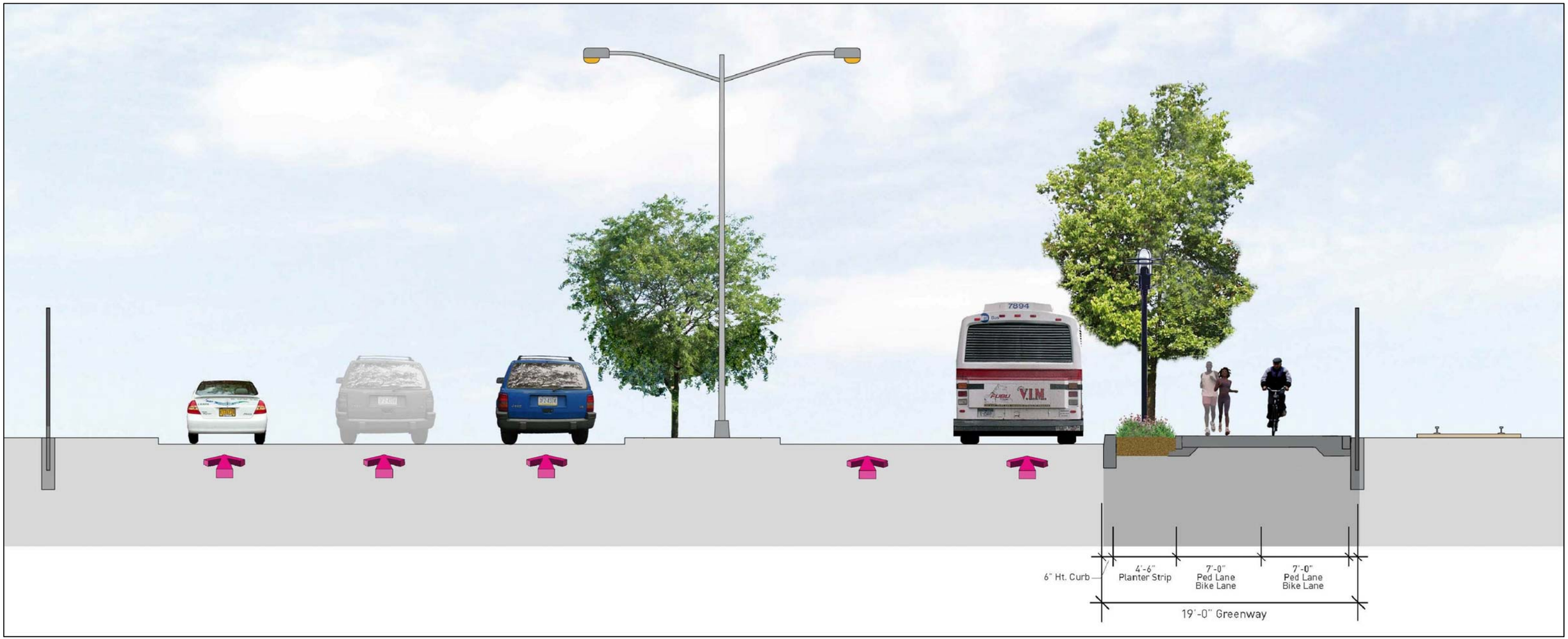
HDR
Henningson, Durham & Richardson Architecture and Engineering, P.C.
In association with HDR Engineering, Inc.

Greenway Construction - Condition 1

Construction Work Plan for the Food Center Drive Greenway
Hunts Point, New York

DATE
3/12/2012

FIGURE
3



SOURCE: MATHEWS NIELSON LANDSCAPE ARCHITECTS, GREENWAY SECTION B, FLUSH PLANTING STRIP

(NOT TO SCALE)

HDR
Henningson, Durham & Richardson Architecture and Engineering, P.C.
In association with HDR Engineering, Inc.

Greenway Construction - Condition 2

Construction Work Plan for the Food Center Drive Greenway
Hunts Point, New York

DATE
3/12/2012

FIGURE
4

SOURCE: MATHEWS NIELSON LANDSCAPE ARCHITECTS, GREENWAY SECTION C, NO PLANTING STRIP

(NOT TO SCALE)

HDR

Henningson, Durham & Richardson Architecture and Engineering, P.C.
In association with HDR Engineering, Inc.

Greenway Construction - Condition 3

Construction Work Plan for the Food Center Drive Greenway
Hunts Point, New York

DATE
3/12/2012

FIGURE
5

Attachments

Hunts Point Food Distribution Center Redevelopment Plan

Site Management Plan for Iroquois Gas Pipeline / Perimeter Site, Bronx, New York

- Final -

Prepared for:

New York City Economic Development Corporation

110 William Street, New York, New York 10038

Prepared by:

HDR | LMS

One Blue Hill Plaza- 12th Floor, Pearl River New York 10965

December 2006

SITE MANAGEMENT PLAN

Final Iroquois Gas Pipeline/Perimeter Site (December 2006)

1.0 Overview and Objectives

The Iroquois Gas Pipeline/Perimeter Site is a right of way approximately 20 feet from eastern most curb of the roadway running northward up Food Center Drive (FCD), approximately 3,800 feet, to a point on East Bay Avenue where it makes a 90 degree turn south across East Bay Avenue into a parcel immediately adjacent to the Hunts Point Voluntary Cleanup Site known as Operable Unit 2 of Parcel E (Site E OU-2). The property currently owned by City of New York is being utilized as the main thorough fare around the Hunts Point Cooperative Market Area. The location and alignment of the site is shown on Figures 1 and 2.The site has been characterized during several previous investigations. The user of this Site Management Plan (SMP) should refer to the Interim Remedial Engineering Report for the Perimeter Site Bronx, NY (January 2005).

The objective of this SMP is to set guidelines for the management of soil/fill material during any activities which would breach the surficial cap (engineering control or cover system) at the Site. This SMP addresses environmental concerns related to soil management and has been reviewed and approved by the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH).

2.0 Nature and Extent of Contamination

Based on data obtained from previous investigations and remediation conducted at the site, an Interim Remedial Engineering Report, dated January 2005 was developed by Henningson, Durham and Richardson Architecture & Engineering LLC | Lawler Matusky and Skelly Engineers, LLP (HDR|LMS). Three types of material of potential concern were observed during the excavation activities. The following categories were assigned to the material based on visual observation and are as follows: Coal Tar; Purifier Waste, and; a mixture of both Coal Tar and Purifier Waste.

Coal tar is a product of the destructive distillation of bituminous coal. It is a dark reddish brown to black, oily, viscous liquid that does not readily mix with water. It has a very strong odor, which many people find similar to mothballs or driveway sealant. Coal tars, derived from both coal carbonization and carbureted water gas processes, are complex mixtures of organic chemicals. The following two major classes of chemical compounds found in coal tar are:

- Volatile organic compounds (VOCs) characterized by benzene, toluene, ethylbenzene and xylene, which are identified by their initials as the BTEX compounds, and
- Semi-volatile organic compounds (SVOCs) known as polycyclic aromatic hydrocarbons or PAHs.

Purifier Waste is typically found as a mixture of wood chips with a very strong, unpleasant burnt odor. Once exposed at the ground surface, the waste will often develop an iridescent blue color known as "prussian blue". It contains significant quantities of chemically complexed Cyanide compounds. In addition to containing complexed Cyanide, water which comes into contact with purifier waste is often acidic. If the acidic water discharges to a stream or other surface water body, it may cause harm to fish and wildlife.

There are three major means by which a toxic substance can come into contact with or enter the body. These are called routes of exposure and are as follows:

1. Inhalation (breathing) of gases, vapors, dusts or mists is a common route of exposure. Chemicals can enter and irritate the nose, air passages and lungs. They can become deposited in the airways or can be absorbed through the lungs into the bloodstream. The blood can then carry these substances to the rest of the body.

2. Direct contact (touching) with the skin or eyes is also a route of exposure. Some substances are absorbed through the skin and enter the bloodstream. Broken, cut or cracked skin will allow substances to enter the body more easily.

3. Ingestion (swallowing) of food, drink, or other substances is the third route of exposure. Chemicals that get in or on food, cigarettes, utensils or hands can be swallowed. Substances can be absorbed into the blood and then transported to the rest of the body.

The constituents of potential concern (COPCs) for soil consist primarily of VOCs (BTEX compounds), SVOCs (PAHs), Metals, and complexed Cyanide compounds.

Results of ground water sampling indicate that constituents in the soil/fill material have impacted ground water quality above applicable NYSDEC Technical Operational Guidance Series 1.1.1 (TOGS 1.1.1) standards for ground water, requiring treatment prior to use.

3.0 Contemplated Use

The principal use of the Site prior to any investigation and remediation was as a paved multi-lane roadway servicing the Hunts Point peninsula. The construction and remediation also included the installation of an underground high pressure gas pipeline along the route described below. Any work performed in or near this area should not be performed without properly identifying all underground utilities.

As part of the redevelopment project, the Site has been and continues to be identified for restricted industrial use as a major roadway within the Hunts Point Cooperative Market Area. There is a median to the west with a significant number of underground utilities. A number of commercial enterprises and municipally operated facilities are located in the area including; the Hunts Point Produce Market, Fulton Fish Market, Hunts Point Meat Market, and NYCDEP Sewage Treatment Plant. The roadway itself is approximately 6 lanes wide (including a central median) with the Site portion being the outer 2 lanes from a point approximately six hundred feet north of Farragut Avenue to a point approximately 200 feet beyond the entrance of the Atlantic & Pacific Tea Co. At this point, the site crosses the roadway to the south where it enters a gated roadway east of the Consolidated Edison compressor station.

4.0 Purpose and Description of Surface Cover System

The purpose of the surface cover system is to eliminate the potential for human contact with fill material, eliminate the potential for contaminated runoff from the property, and prevent infiltration of surface water through the fill and replacement of the roadway surface. The cover system consists of an asphalt layer over the traffic portion of the route with a minimum of 6 inches of asphalt and sub base material, concrete sidewalks where the pipeline crossed these areas, and in one location a railroad track.

The cover also consists of approximately 2 feet of fill material followed by concrete slabs to protect

the underground gas line that was placed below it. The remainder of the excavation below the slabs was backfilled around the gas pipeline with "flowable" fill (wet concrete).

5.0 Management of Soils/Fill and Long-Term Maintenance of Cover System

The purpose of this section is to provide environmental guidelines for the management of subsurface soils/fill and the long-term maintenance/replacement of the cover system during and after any future intrusive work which breaches the cover system.

The SMP includes, but is not limited to, the following conditions:

- Any breach of the cover system, including for the purposes of construction or utility work, requires that upon completion of the effort, the cover be replaced as it was originally installed. Backfill material used must be from an acceptable source, free of potential industrial sources of chemical or petroleum contamination (refer to Sections 5.1 through 5.3 for additional excavation/backfill-specific requirements). The repaired area must be covered with a similar layering of material comparable to that which was removed, and the repairs carried out in accordance with applicable City specifications for the surface removed.
- During construction activities, control of surface erosion and run-off of the entire area must be maintained at all times.
- Site soil/fill that is excavated and is intended to be removed from the property must be managed, stockpiled, characterized, and properly disposed of in accordance with NYSDEC regulations.
- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed. Invasive work performed at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety. A general Health & Safety Plan (HASP) to be reviewed by any contractor involved in subsurface work and used by that contractor as a base for preparing an individual HASP has been prepared and is attached with this SMP. The contractor will have in their possession a HASP that has been reviewed by workers involved in intrusive work where the site cover materials will be disturbed.
- The Owner (City of New York) shall annually, or such time as NYSDEC may allow, complete and submit to the NYSDEC Certification Report beginning in the year 2007. The Certification Report shall contain a statement certifying that the institutional controls put in place, pursuant to the, Voluntary Cleanup Agreement Index No. D2-0023-00-04 (VCA) and the Declaration of Covenants and Restrictions imposed upon the fee title to the site and recorded in the Office of the New York City Register, as specified in the VCA, are still in place, have not been altered and are still effective. Additionally, the Certification Report shall specify that the remedy and protective cover have been maintained, and that the conditions at the site are fully protective of public health and the environment.

If the cover system has been breached during the period covered by that Certification Report, the owner of the property shall include the following in that certification report:

a certification that all work was performed in conformance with this SMP.

In addition, a deed restriction will be implemented in accordance with the requirements of the New York State Voluntary Cleanup Program (VCP) limiting the future use of the property identified in the metes and bounds description in the NYSDEC Voluntary Cleanup Agreement (VCA) for this Site (excluding the area used as staging for the Iroquois project which is now Operable Unit 3 of Parcel E, or Site E OU-3) to use as a roadway. The property that is subject to this deed restriction is

shown on Figure 1. The deed restriction will be identified by adjacent parcel lot and block numbers due to the current site not being identified as a specific lot and block number. In the event that in the future the City of New York identifies this Site as a specific tax lot and block number, that designation will be made. However, at this time, it is intended by the City of New York to place a deed restriction on the properties located within the Hunts Point Food Distribution Center Meat Market and the Iroquois Pipeline / Perimeter Site.

5.1 Excavated and Stockpiled Soil/Fill Disposal

Soil/fill that is excavated as part of development that includes waste material as described in Section 2.0 of this document that cannot be used as fill below the cover system will be further characterized prior to transportation off-site for disposal at a properly permitted facility. All fill will be segregated according to the contractor's chosen disposal facility requirements. Prior to any fill material being removed from the Site, each disposal facility will provide to the contractor the maximum concentrations allowed for compounds and analytes listed in Table 2 as well as the minimum sampling frequency and analytical requirements. The analytical requirements and limits will be in accordance with the facilities most current operating permit for its destination State. The Contractor will review all analytical results in comparison to the allowable facility concentrations and will determine if the material is permissible at the subject facility. No material will be removed to a NYSDEC-registered recycling facility with the exception of road base material (asphalt) or existing above grade structures (concrete). Following disposal of material, the records associated with the disposal will be made available for review should they be requested.

5.2 Sub-grade Material for Reuse

On-Site excavated sub-grade material used to backfill excavations or placed to increase grades or elevation shall meet the following criteria:

1. Excavated on-Site soil/fill which appears to be visually impacted with either coal tar or purifier waste materials as described in Section 2.0 of this SMP shall be segregated from material proposed to be used as backfill, sampled, and analyzed for proper off-Site disposal (as described in Section 5.1 of this SMP).

2. The remaining material can be used as backfill in accordance with NYCRR Solid Waste Management Facilities Part 360 1-15(b)(8), which allows for the re-use of non-hazardous, contaminated soil which has been excavated as part of a construction project, other than a department-approved or undertaken inactive hazardous waste disposal site remediation program, and which is used as backfill for the same excavation or excavations containing similar contaminants at the same site.

5.3 Imported Material for Use as Backfill

Imported material for use of backfill on the Site must adhere to the following conditions. Off-Site soils intended for use as site backfill cannot otherwise be defined as solid waste in accordance with 6 NYCRR Part 360-1.2(a).

1. Registered Facility Source:

   Any off-Site material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. For example, uncontaminated C&D as defined in 6 NYCRR Part 360-16.2 (c) that has been processed by a NYSDEC-registered C&D recycling

HDR | LMS Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. One Blue Hill Plaza Pearl River, NY 10965	**Iroquois Permanent Easement** **HUNTS POINT**	**Figure 1**

Henningson, Durham & Richardson
Architecture and Engineering, P.C.
in association with HDR Engineering, Inc.
One Blue Hill Plaza
Pearl River, NY 10965

Site Layout

HUNTS POINT • MEAT MARKET

Figure 2

facility may be used provided it meets the existing New York State Department of Transportation (NYSDOT) Standard Specification as described below in Section 5.3.2.

This material is not acceptable to be used in the upper (top) foot of fill and must be placed beneath the approved engineered surface cover, unless it is sampled as described in 3a and meets the criteria in 3c or 3d.

2. Recycled Portland Cement Concrete Aggregate (RCA):

   If Recycled Portland Cement Concrete Aggregate (RCA) is used beneath the top foot or approved engineering surface and it comes from other than a New York State Department of Transportation project, documentation showing that the material comes from a NYSDEC permitted or registered facility is required. Off-site material imported for filling and grading purposes shall conform to Section 304 of New York State Department of Transportation Standard Specifications Construction and Materials Volume 1 (2002). Section 304 option B, "single layer of Type I Sub-base Course" provides 3 alternate types of material suitable for backfill material. Material originating as RCA from a registered facility with less than 10% fine-grained sediments by weight passing through a 200 sieve does not require analytical testing.

   a. Alternate A: at least 95% by weight, of (RCA) and free from organic and other deleterious material. This material may contain up to 5% by weight asphalt and/or brick;

   b. Alternate B: a mixture of RCA conforming to Alternate A above mixed with stone, sand, gravel, or blast furnace slag. This material may contain up to 5% by weight asphalt and/or brick; and/or

   c. Alternate C: bituminous material that is reclaimed from bituminous pavement and/or shoulders (Reclaimed Asphalt Pavement, or RAP) on a project constructed by the Department of Transportation and is well-graded from coarse to fine and free from organic or other deleterious material, including tar. This material is at least 95%, by weight, reclaimed bituminous material and has a maximum top size, at time of placement, of 50mm." If Alternate C is used, documentation of its being from a Department of Transportation source must be provided (This is similar to the reference for RCA).

Table 1: NYSDOT Gradation Table 304-1

Sieve Size No.	Sieve Size Designation	Percent Passing by Weight (%)
N/A	100 mm	-
N/A	75 mm	100
N/A	50 mm	90 - 100
N/A	6.3 mm	30 - 65
40	425 µm	5 - 40
200	75 µm	0 - 10

3. Non-Regulated Soil and Sand:

   If the contractor designates a source of soil to be used as fill, it shall be further documented in writing to only contain soil and no man-made materials (such as construction and demolition (C&D) debris). Sand from an operating gravel pit or similar facility operating under a mining permit must contain less than 7% fine-grained sediments by weight passing through a 200 sieve. Also covered under this section is material from non-commercial locations where there is no information available. These materials as described in this section (Section 5.3.3), shall be subject to the following acceptance criteria:

   a. Soils will be subject to the collection of one (1) representative composite sample per source per 1000 cubic yards. The sample(s) should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, arsenic, barium, beryllium, cadmium, chromium (Hexavalent and trivalent), copper, lead, manganese, total mercury, nickel, selenium, silver, zinc, and total cyanide in accordance with the quality assurance standards set forth in 40 CFR Part 136 and the most current NYSDEC Analytical Services Protocol (ASP). Soil analyses shall be reported as Category A deliverables specified in the most current NYSDEC ASP. The soil will be acceptable for use as backfill for depths below the one foot surface cover if analytical results indicate that the contaminants, if any, are present at concentrations below those described in Table 2: Backfill Analytical Parameters. Table 2 was created through collaboration between the NYSDEC, NYSDOH, NYCEDC and HDR|LMS.

   b. If any of the parameters exceed the thresholds set in Table 2, and there is still a desire to use the soil below the top foot, a written request will be made to the NYSDEC which will include a full description of the soil, its source, volume and analytical data. The NYSDEC will review the data and provide a written response within a reasonable time of the request.

   c. If the results of the analyses indicate the soil meets or is below the concentrations listed in Table 2, then it will be acceptable for use within the upper foot if open soil is desired. A Geotextile fabric of permeable membrane shall be placed on the surface of the material below the top foot to prevent mixing from frost heave or other settling related actions.

   d. If any of the parameters exceed Table 2, and there is still a desire to use the soil in the upper foot, a written request will be made to the NYSDEC which will include a full description of the material, its source, volume and analytical data. The NYSDEC will review the data and provide a written response within a reasonable time of the request.

4. Non-Regulated Gravel and Rock:

   If the contractor designates a source of soil to be used as fill, it shall be further documented in writing to only contain soil and no man made materials (such as construction and demolition (C&D) debris). Crushed gravel or rock from an operating gravel pit or similar facility operating under a mining permit does not require analytical testing. Sand from an operating gravel pit or similar facility operating under a mining permit is not included in this section (refer to Section 5.3.3).

Table 2: Backfill Analytical Parameters

Contaminant	CAS Number	Backfill Limit
Metals		
Arsenic	7440-38-2	16
Barium	7440-39-3	400
Beryllium	7440-41-7	47
Cadmium	7440-43-9	7.5
Chromium, hexavalent [1]	18540-29-9	19
Chromium, trivalent [1]	16065-83-1	1500
Copper	7440-50-8	270
Total Cyanide	57-12-5	27
Lead	7439-92-1	450
Manganese	7439-96-5	2000
Total Mercury		0.73
Nickel	7440-02-0	130
Selenium	7782-49-2	4
Silver	7440-22-4	8.3
Zinc	7440-66-6	2480
PCBs / Pesticides		
2,4,5-TP Acid (Silvex)	93-72-1	3.8
4,4'-DDE	72-55-9	17
4,4'-DDT	50-29-3	47
4,4'-DDD	72-54-8	14
Aldrin	309-00-2	0.19
Alpha-BHC	319-84-6	0.02
Beta-BHC	319-85-7	0.09
Chlordane (alpha)	5103-71-9	2.9
Delta-BHC	319-86-8	0.25
Dibenzofuran	132-64-9	210
Dieldrin	60-57-1	0.1
Endosulfan I	959-98-8	102
Endosulfan II	33213-65-9	102
Endosulfan sulfate	1031-07-8	200
Endrin	72-20-8	0.06
Heptachlor	76-44-8	0.38
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	1

Table 2: Backfill Analytical Parameters (continued)

Contaminant	CAS Number	Backfill Limit
Volatile organic compounds [2]		
1,1,1-Trichloroethane	71-55-6	0.68
1,1-Dichloroethane	75-34-3	0.27
1,1-Dichloroethene	75-35-4	0.33
1,2-Dichlorobenzene	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02
cis-1,2-Dichloroethene	156-59-2	0.25
trans-1,2-Dichloroethene	156-60-5	0.19
1,3-Dichlorobenzene	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12
Carbon tetrachloride	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene	100-41-4	1
Hexachlorobenzene	118-74-1	3.2
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether	1634-04-4	0.93
Methylene chloride [3]	75-09-2	0.05 [3]
n-Propylbenzene	103-65-1	3.9
sec-Butylbenzene	135-98-8	11
tert-Butylbenzene	98-06-6	5.9
Tetrachloroethene [3]	127-18-4	1.3 [3]
Toluene	108-88-3	0.7
Trichloroethene [3]	79-01-6	0.47 [3]
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Vinyl chloride	75-01-4	0.02
Xylene (mixed)	1330-20-7	1.6

Table 2: Backfill Analytical Parameters (continued)

Contaminant	CAS Number	Backfill Limit
Semi-Volatile Organic Compounds		
Acenaphthene	83-32-9	98
Acenapthylene	208-96-8	107
Anthracene	120-12-7	500
Benz(a)anthracene	56-55-3	1
Benzo(a)pyrene	50-32-8	1
Benzo(b)fluoranthene	205-99-2	1.7
Benzo(g,h,i)perylene	191-24-2	500
Benzo(k)fluoranthene	207-08-9	1.7
Chrysene	218-01-9	1
Dibenz(a,h)anthracene	53-70-3	0.56
Fluoranthene	206-44-0	500
Fluorene	86-73-7	386
Indeno(1,2,3-cd)pyrene	193-39-5	5.6
m-Cresol	108-39-4	0.33
Naphthalene	91-20-3	12
o-Cresol	95-48-7	0.33
p-Cresol	106-44-5	0.33
Pentachlorophenol	87-86-5	0.8
Phenanthrene	85-01-8	500
Phenol	108-95-2	0.33
Pyrene	129-00-0	500

Footnotes:
All backfill limits are in parts per million (ppm)
ND = Non-Detect
[1] = The backfill limit for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific backfill limit for hexavalent chromium.
[2] = Any VOCs present that require a dilution to be performed for the analysis will cause the material to be considered not acceptable for use as fill beneath or within a 10-foot radius of a building, foundation or structure that is not open to the air for free ventilation on the Site.
[3] = Any material to be considered for use as fill beneath or within a 10-foot radius of a building, foundation or structure that is not open to the air for free ventilation on the Site, with specific VOC air guideline values prescribed by the most current NYSDEC/NYSDOH soil vapor intrusion guidance, may not have concentrations exceeding the method detection limit (MDL) (i.e. being detectable) as defined by the most current NYSDEC Analytical Services Protocol (ASP).

Notes:
- Allowable values for imported soils are determined by comparing either the Track 1 or the Track 2 use-based Protection of Public Health value (based on the site's achieved cleanup track) with the Protection of Groundwater value and selecting the lower of the two (for sites with no ecological resources). If the site was cleaned up to protect ecological resources, then the ecological resource value would be used, where it is lower than both the groundwater protection and public health protection values.
- The following material may be imported, without chemical testing, to be used as backfill beneath pavement or the final soil cover (i.e. the uppermost 1 or 2 feet, depending on the site's use restriction):
  a. Rock or stone, consisting of virgin material from a permitted mine or quarry;
  b. Recycled concrete, brick or asphalt from a NYSDEC-registered C&D processing facility which conforms to Section 304 of the New York State Department of Transportation Standard Specifications Construction and Materials Volume 1 (2002). This material must contain less than 10% (by weight) material which would pass through a size 200 sieve.

When any soil or material from an off-site source is proposed to be used for backfilling an excavation, the following procedure will be instituted for approval of the material:

The designated NYC representative will be contacted when the source has been chosen and before any material is imported. As long as the property remains under NYC ownership, the City will be responsible for then having a qualified Environmental Professional (EP) review the backfill information and present at the site to document the process for the annual certification. The EP will have the following qualifications;

- He/she will have a working familiarity of the site conditions, remedy, and conditions of the approved Engineering Report, Site Management Plan or final Report that outlines the redevelopment conditions and the recertification requirements that must be met.
- Be familiar with NYSDEC Part 360 and the definitions of C&D, recycling facility operating criteria, and the types and analytical criteria for acceptable backfill material and for a facility accepting excess material.
- Have the experience on previous projects to understand and be able to visually identify material that would not be acceptable immediately upon inspection. Such material includes; petroleum impacted material, material mixed with industrial waste, and material that does not qualify as uncontaminated C&D even after processing.
- Be able to review documents from the source facility/location to determine the applicability of the material proposed for backfill and in comparison to the registration, in addition to the validity of the facility documents as they are presented.
- The EP will have the ability to request any additional applicable information to assist in making the determination for the acceptance of the fill material.

Following approval of backfill material, the EP will document the specific information that is relevant to the Periodic Recertification including:

1. Facility providing material
2. Copy of facility Registration (current if applicable)
3. Volume of material imported for fill.
4. Pertinent sampling data that applies to the acceptance of the material (Table 2).
5. Volume of material that was disposed of off site and all pertinent sampling data.
6. Disposal Facility accepting excess material.
7. Map of the site showing dimensions and locations of where work was performed.
8. A statement relating to the recapping of those areas where work has taken place that they maintain the approved conditions.
9. The imported fill material was physically inspected and physically meets all of the criteria for unregulated material such as: no odors of petroleum or other chemicals, staining or discoloration.

The Periodic Certification will also include the signature and stamp of a New York State P.E. that states the original conditions of the approved closure are being maintained and that any areas that have been opened have been backfilled with proper material and properly recapped.

Interim Remedial Engineering Report for the Perimeter Site Bronx, NY

Prepared by: Lawler, Matusky & Skelly Engineers LLP January 2005

Table of Contents

LIST OF FIGURES

LIST OF TABLES

LIST OF PHOTOGRAPHS

LIST OF AERIAL PHOTOGRAPHS

LIST OF ATTACHMENTS

EXECUTIVE SUMMARY

Lawler, Matusky & Skelly Engineers LLP (LMS), under subcontract to New York City Economic Development Corporation (NYCEDC), performed a subsurface investigation along the northbound (east) lanes of Food Center Drive (FCD) starting within Site C to Site E OU2 just outside of the gas transmission system of Consolidated Edison (Con Ed), located in Hunts Point. The subsurface investigation was completed under a Voluntary Cleanup Agreement (VCA) with New York State Department of Environmental Conservation (NYSDEC) prior to the completion of the final design and routing of the Iroquois Gas Transmission System (IGTS) pipeline. Once the design and routing of the pipeline was finalized, the actual construction of the pipeline was incorporated as part of this project. The construction of the IGTS pipeline would result in a 24-inch diameter, natural gas pipeline extension from Northport, Long Island to Hunts Point, Bronx County, New York. The project was named by IGTS as the Eastchester Extension Project (EEP) (Figure 1).

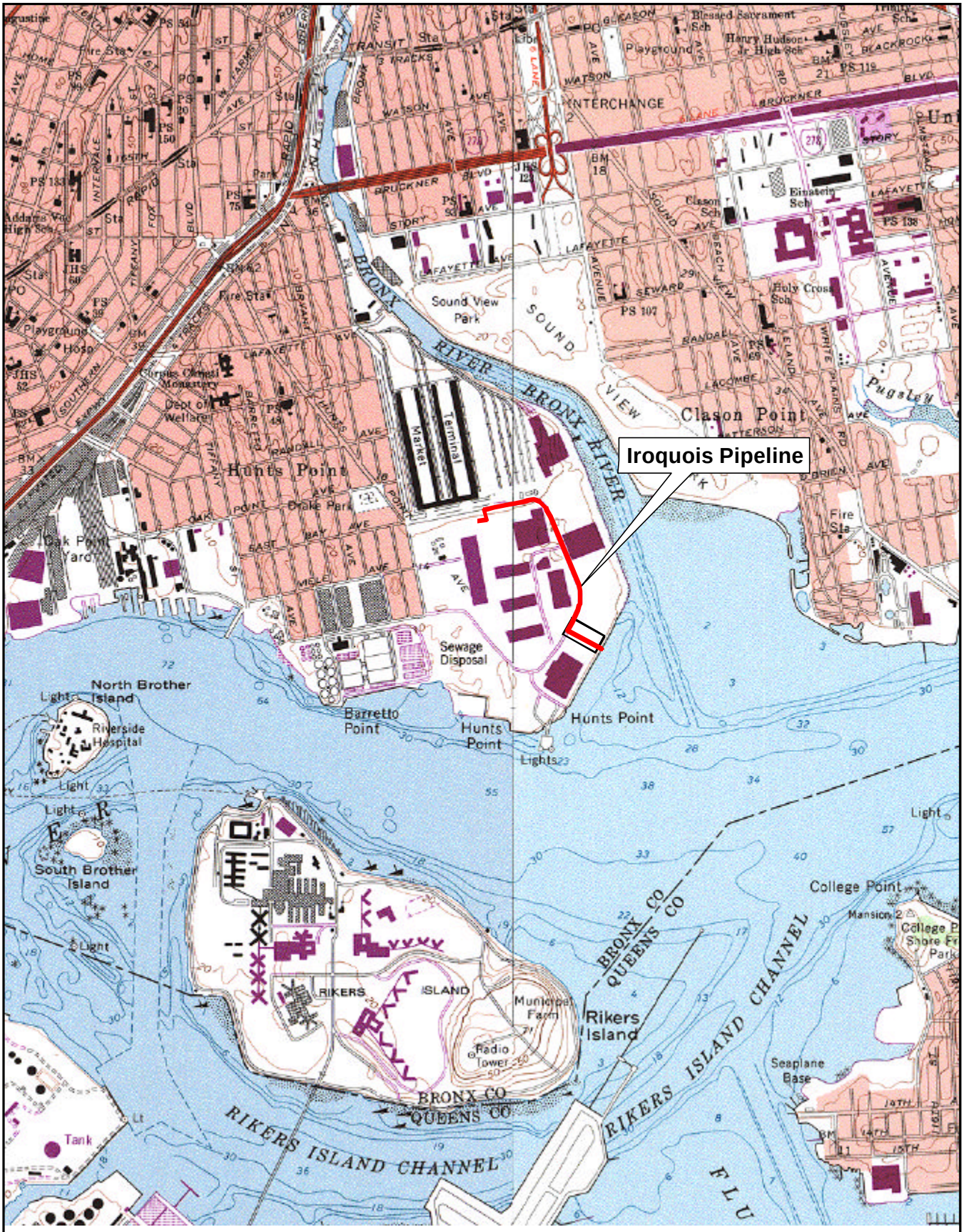
Historically, the Hunts Point Peninsula, including the strip of land for the pipeline path was part of a Con Ed coal gasification plant that was constructed between 1924 and 1932 and operated until the early 1960s. The plant was constructed to manufacture both oven gas and carbureted water gas as major products and coke, ammonium sulphate, coal tar, water gas tar, and light oil as by products. A total of approximately 46 buildings or structures, which existed on the former facility site, were actively involved in gas production. Figure 2 details the historic aerial view of the pipeline route during the operation of the former Con Ed facility with respect to the current location of FCD.

A review of Site conditions and history of the area were performed by IGTS and ENSR International using the following documents:

1. *Investigative Report for the Food Center Drive Perimeter, Bronx, NY* (LMS, April 2001;

2. *Hunts Point Food Distribution Center Development Plan Investigative Report for the Operating Unit Portion of Parcel A Bronx, NY*, (LMS, July 1999 (also revised in July 1999));

3. *Hunts Point Food Distribution Center Redevelopment Plan, Draft Investigative Report for the Operating Unit Portion of Parcel C, Bronx, NY* (LMS, November 1999); and



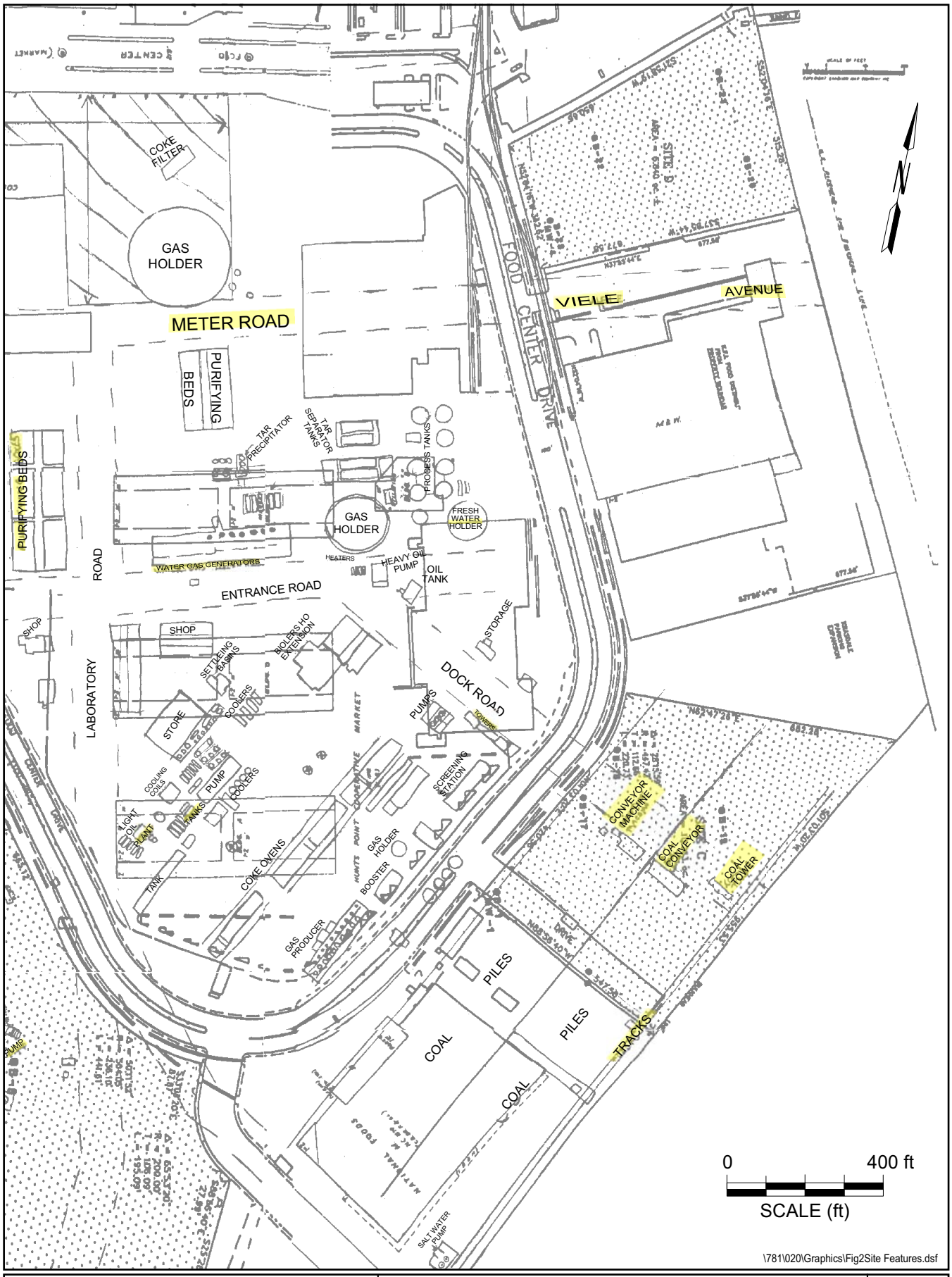
0 2000 ft

~SCALE: 2000' = 1"

Map source: USGS 7.5 minute quadrangle series, Central Park, NY-NJ, 1966, photorevised 1988.

\\781020\\graphics\ReportFigures\Fig1SiteLocation.dsf

Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Eastchester Extension Site Location** **Hunts Point**	**Figure 1**



Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Site Features** **HUNTS POINT**	**Figure 2**

4. *Hunts Point Food Distribution Center Redevelopment Plan, Response Plan for the Operating Unit Portion of Parcel E, Bronx, NY* (LMS, November 2000).

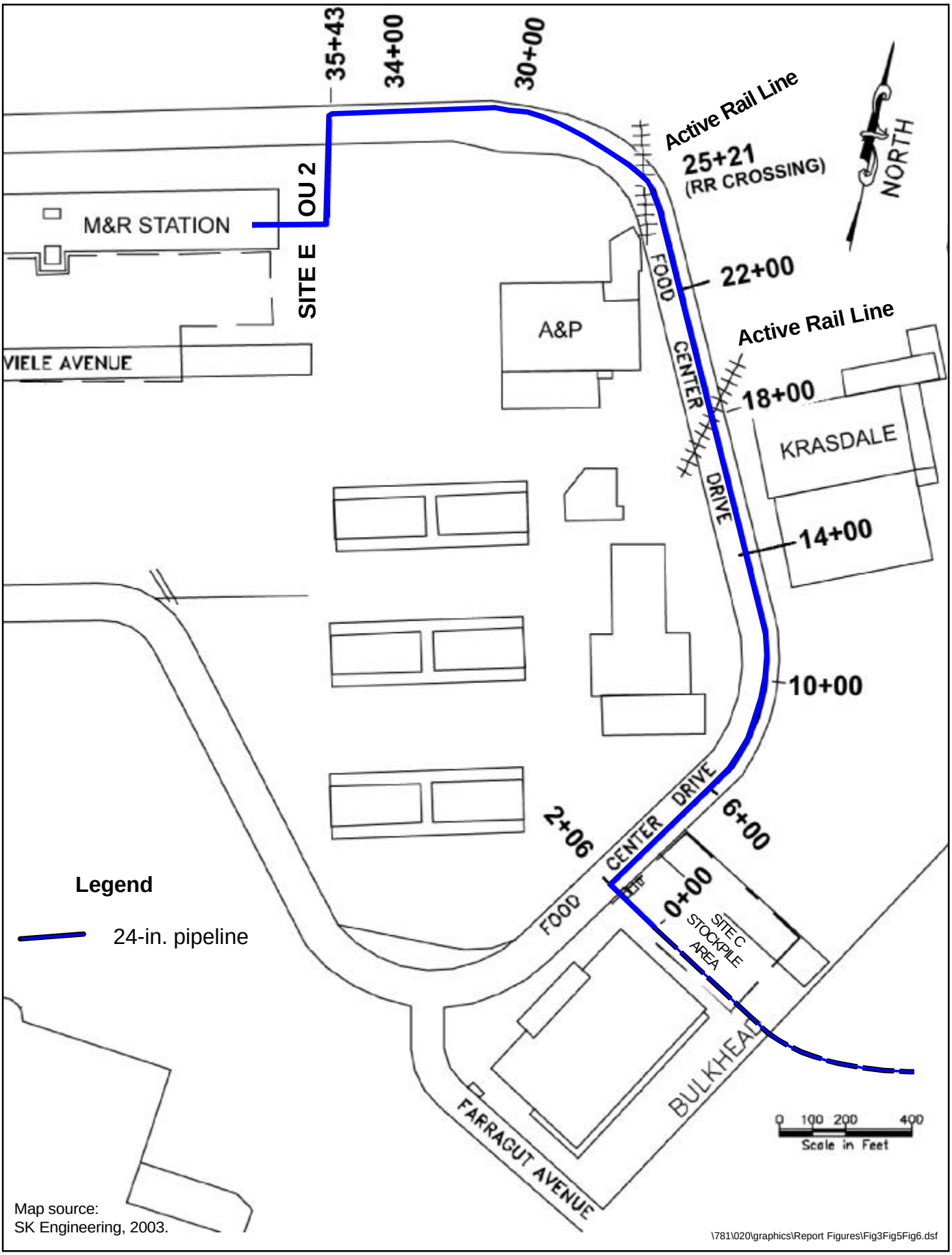
IGTS also conducted additional preconstruction investigations of the soil and groundwater to determine the conditions that would be found along the pipeline route during the excavation and to identify any to which the workers would be exposed hazards.

The actual construction of the IGTS EEP includes a stretch of 3800 feet of underground pipeline that extends from the bulkhead adjacent to the Bronx River at Site C, travels northward under Food Center Drive and then follows East Bay Avenue in a westerly direction until it turns south and west into the IGTS metering and regulatory facility (M&R station) and on to the existing Con Edison gas facility (Figure 3). This construction required extensive excavation and removal of fill material along the pipeline route as well as backfilling around the pipeline with flowable concrete fill. The entire project required the excavation and disposal of approximately 17,500 tons of varying types of fill material, as all of the material removed during excavation was determined to be unacceptable for use as backfill. Excavated fill material was segregated into three different categories: materials containing purifier waste, materials containing coal tar, and non-suspect materials. All of the waste was shipped to one of two pre-approved facilities for thermal treatment.

During the construction portion of the project, monitoring was performed to document existing conditions and content of fill material that was encountered. A community Air Monitoring Program Report was prepared by the consultant and is attached as Attachment G. Personnel closely examined the excavation to identify areas of potential waste consistent with manufactured gas plant (MGP) wastes (i.e. coal tar and purifier bed wastes). Where this material was encountered, depths, thicknesses and conditions were noted by the onsite LMS geologist. This suspect MGP material was removed from the excavation and treated separately for disposal. This Report serves to document the results of LMS' initial Investigation Report (April 2001) and the construction of the pipeline as a remedy or Interim Remedial Measure (IRM) in order to provide the necessary information for a no further action determination (NFA) from the NYSDEC and the New York State Department of Health (NYSDOH). The groundwater testing data from initial and subsequent sampling events is discussed in this report. The Investigation Report has not been formally approved by NYSDEC pending additional analysis of monitoring wells MW-1, MW-3, and MW-5.

INTRODUCTION

This Response Plan/Interim Remedial Measure Report presents the findings of the subsurface investigation conducted by LMS in conjunction with the construction of the Eastchester Extension Project, specifically the Hunts Point section of the pipeline as shown on Figure 3. The pipeline was brought on shore from the East River at Site C using horizontal directional drilling (HDD) methods. The remainder of the pipeline was constructed by open cut method, running a trench northward up Food Center Drive (FCD) within a right of way approximately 20 feet from eastern most curb of the



Map source:
SK Engineering, 2003.

\781\020\graphics\Report Figures\Fig3Fig5Fig6.dsf

LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Eastchester Extension Pipeline Path** **HUNTS POINT**	**Figure 3**

roadway. The entire pipeline extended approximately 3800 feet to a point on East Bay Avenue where it made a 90 degree turn south across East Bay Avenue into a parcel immediately adjacent to the Hunts Point Voluntary Cleanup Site known as Site E OU 2. The pipeline was extended into this adjacent parcel approximately 120 ft where it then made a westerly turn into the IGTS M&R station and ended at the Con Edison compressor facility (Figure 3). Both FCD and East Bay Avenue contain numerous underground utilities, and as a result, the IGTS EEP pipeline trench location was limited to a narrow corridor on the eastern side of the roadway. Underground gas and electric conduits border the east wall of the trench and various other identified and unidentified utility lines are contained within the west side of the trench wall and continue westward across FCD. The trench width averaged 6.5 ft with a planned depth of 7 ft to the bottom of pipe but varied between 6.5 and 12 feet in order to obtain the proper clearance around existing utilities.

Prior to the construction work, a very thorough utility survey was conducted in order to determine locations of known utilities. Notification of the utility clearance hotline, as well as a review of available utility maps and historical Site maps was performed prior to the commencement of any subsurface investigation. A review of Site conditions and history via recent soil and groundwater investigations was also conducted prior to construction. Other references that were reviewed to determine Site history and physical setting included; historic Sanborn fire insurance maps, historic topographic maps, Consolidated Edison Company of New York (Con Ed) Site maps, and historic aerial photographs (Aerial Photos 1, 2, 3, 4 and 5). Aerial Photo 6 (August 2001) shows the entire project work area required by IGTS to complete the pipeline installation.

Firms and personnel present during each phase of the pipeline installation were LMS Engineers, Warren George, Inc. (Drilling Services), Stone & Webster / Shaw E&I (Geotechnical and Engineering Services), Horizon Offshore, Inc. (Offshore and Onshore Drill Oversight), Tom Allan Construction Company (Drilling Company), Field Safety Corporation (Health and Safety), Abbas Family (Permitting and PE on Site), Pegasus International (Construction Oversight), Hallen Construction Company (Construction Contractor for IGTS), Miller Environmental (Water Management and Health and Safety for Hallen), ENSR Environmental (Soil and Water Management for IGTS), Essex Environmental, Inc. (Environmental Inspection Team for IGTS), Field Safety Corporation (Health and Safety for IGTS) and Hatch Mott MacDonald (Construction Inspectors for IGTS).

During the construction activities, LMS was on-Site to observe and document the following conditions and concerns:

- Compliance with City and State regulations as required by the Voluntary Cleanup Program (VCP)

- Soil and water management as performed by ENSR

0 750 ft

SCALE IN FEET

\781_NYCEDC\781020IroquoisPipeline\graphics\PerimeterRoadInvestigation\781020aerialPipelineLocation.dsf

Lawler, Matusky & Skelly Engineers LLP
One Blue Hill Plaza • Pearl River, New York 10965
ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS

Hunts Point
1954 Aerial Photograph

Aerial Photo 1

0 750 ft

SCALE IN FEET

\781_NYCEDC\781020IroquoisPipeline\graphics\PerimeterRoadInvestigation\781020aerialPipelineLocation.dsf

Lawler, Matusky & Skelly Engineers LLP
One Blue Hill Plaza • Pearl River, New York 10965
ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS

Hunts Point
1966 Aerial Photograph

Aerial Photo 2

0 750 ft

SCALE IN FEET

\781_NYCEDC\781020IroquoisPipeline\graphics\PerimeterRoadInvestigation\781020aerialPipelineLocation.dsf

Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Hunts Point** **1975 Aerial Photograph**	**Aerial Photo 3**

\781_NYCEDC\781020IroquoisPipeline\graphics\PerimeterRoadInvestigation\781020aerialPipelineLocation.dsf

LMS Lawler, Matusky & Skelly Engineers LLP
One Blue Hill Plaza • Pearl River, New York 10965
ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS

Hunts Point
1984 Aerial Photograph

Aerial Photo 4

\781_NYCEDC\781020IroquoisPipeline\graphics\PerimeterRoadInvestigation\781020aerialPipelineLocation.dsf

LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Hunts Point - Iroquois Pipeline Location** **1994 Aerial Photograph**	**Aerial Photo 5**

Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Hunts Point** **2001 Aerial Photograph with the Iroquois Project Site Outlined** \781\Aerial6huntspt-aerial2001.dsf	**Aerial Photo 6**

- Excavation procedures in accordance with NYSDEC and NYSDOH approved plans

- CAMP monitoring as performed by ENSR and Field Safety

- Noise monitoring as performed by Abbas Family

- Traffic flow in accordance with New York City Department of Transportation (NYCDOT) approved plan

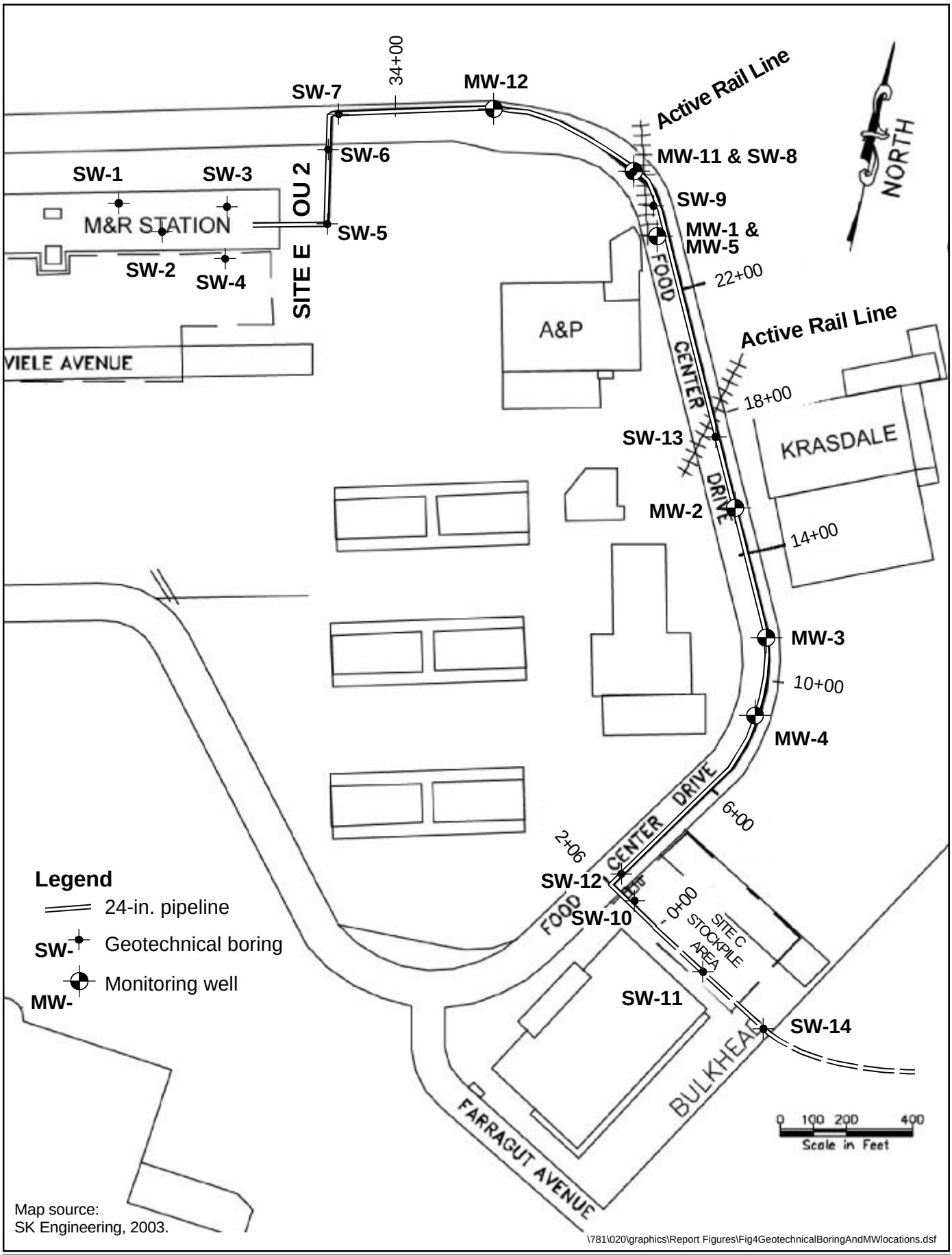
LMS also conducted post-construction groundwater sampling of a number of monitoring wells (MW-1, MW-3, and MW-5) located along the pipeline route.

PRECONSTRUCTION FIELD ACTIVITIES

Below is an overview of the sampling activities and general field activities which took place at Hunts Point prior to the construction of the pipeline. LMS was present for all preconstruction field activities and sampling events. ENSR was responsible for collecting and submitting all samples for this project. ENSR prepared two reports titled Soil Investigation of Food Center Drive and Site C, Hunts Point, Bronx, New York, dated May 2003 and Supplemental Soil Investigation of Site E, Hunts Point, Bronx, New York, dated April 2003 for IGTS which provide a detailed description of their investigation and from which their data has been included in Attachments C, D, E and F of this report.

Geotechnical Borings

A total of 14 geotechnical borings (SW-1 thru SW-14) were installed along the route of the IGTS EEP pipeline path (Figure 4). The work was performed by a licensed well driller from Warren George, Inc. (WGI) of Jersey City, New Jersey. Stone & Webster / Shaw E&I personnel were on Site to log the geotechnical borings, conduct permeability tests, obtain 3" galvanized undisturbed tube samples at specified depths and to collect cores from bedrock at specified locations. An ENSR environmental scientist was on Site for environmental monitoring and soil management. Soil descriptions were also logged by the onsite LMS geologist and are included as Attachment A. Split spoon samples were inspected for physical characteristics including: color, material type and composition, relative grain size and distribution, presence of free moisture, potential confining characteristics. Samples were also screened for obvious contamination including: staining, free petroleum, odor type, and fill description. ENSR took work space air readings using a MiniRae 2000 photo ionization detector (PID) during the drilling process. Where possible, a portion/composite of each split spoon sample was bagged to obtain a head space reading. These readings were documented and can also be found on the boring logs.



\781\020\graphics\Report Figures\Fig4GeotechnicalBoringAndMWlocations.dsf

LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Geotechnical Borings and Monitoring Well Locations** **HUNTS POINT**	**Figure 4**

Drilling for the geotechnical borings commenced on 7 August 2002 and was completed on 16 September 2002. At each geotechnical boring, a stainless steel 2-inch diameter split spoon sampler was advanced to the required depth, as indicated by the Stone & Webster representative, using a 150 or 300 lb hammer. After the split spoon sample was recovered and logged, steel casing was either spun or hammered to just above the next sampling depth. The steel casing was advanced until a confining clay layer was encountered, and then set into the top of that layer. The steel casing served as a barrier to prevent any downward migration of contamination from shallow fill into the water table. Blow counts were logged to determine density of soil and falling head tests were conducted to measure permeability of the soil. Where possible, an undisturbed Shelby tube sample was also collected in the silt/clay layer for geotechnical lab analysis.

Once the steel casing was in place, the soil was then augered out and soil cuttings drummed. A mud bath was then set up to condition the hole while drilling, this fluid was also drummed at the completion of the boring. Split spoons were decontaminated between sampling intervals using cold wash techniques. Depth of borings extended to bedrock, refusal or as requested by the Stone & Webster representative. If bedrock was encountered, a 2 in. diameter core for lab analysis was collected as deep as could be recovered. Once the appropriate depth was met, each boring was backfilled with grout to 3 feet (ft) below surface grade (bgs) then filled to surface with bentonite pellets. All drums containing either soil or fluids were sealed, labeled non hazardous and stored in a fenced drum staging area at Site C. Cuttings from each boring were handled separately until they could be sampled at a later date for disposal. Code Environmental was contracted by ENSR to manage the offsite disposal of waste generated during the installation of the geotechnical borings. The waste materials were removed from the site on January 3, 2003 for appropriate offsite disposal.

Following is a brief description of the conditions encountered in the geotechnical borings. These descriptions can also be found on the boring logs included as Attachment A. (reference Figure 4 for boring locations).

Boring SW-14 was located on the bulkhead approximately 15 ft from the edge of the East River bulkhead (Figure 4). The purpose of this boring was to determine depth to bedrock and if it might hinder the Horizontal Directional Drilling (HDD) portion of the project. Fill was encountered to 30 ft bgs. The first 13 ft consisted of concrete and a very fine black ash-like material extended to 30 ft bgs. The next 50 ft consisted of dark gray sands with some iron staining and reoccurring areas of black clay. Bedrock, a weathered medium-grained gneiss, was encountered 80 ft bgs. PID readings remained at or below background for the entire boring with only a slight petroleum type odor in areas of black ash.

Boring SW-11 was located approximately halfway between the HDD entrance point at Site C and the location for the main line valve at Site C. Like boring SW-14, the purpose of this boring was to determine depth to bedrock and if it might hinder the HDD portion of the project. Fill was encountered to 23 ft bgs consisting of asphalt,

sands, gravel, brick, coal ash, cinder, glass and wood. Gray, silty and micaceous clay was encountered from 23 to 35 ft bgs where it transitioned into highly weathered material consisting of iron-stained, micaceous silty sand with pieces of weathered gneiss. An undisturbed Shelby tube sample was taken from 27 to 29 ft bgs. SW-11 was sampled to 92 ft bgs and consisted of very dense sands but bedrock was not encountered at this location. PID readings remained below background throughout the boring with only a slight petroleum type odor in areas of black ash.

Boring SW-10 was located in the area where the main line valve for the pipeline would be constructed. Fill was encountered to a depth of approximately 10 ft bgs and consisted of brick, wood, clay, glass, gravel and sand. Gray silt/clay was encountered below the fill and an undisturbed Shelby tube sample was taken from 14 to16 ft bgs. At 23 ft drilling became difficult, hitting dense iron-stained sands. Refusal was called at 44 ft where the tip of the sampling spoon was lost. PID readings reached 1.4 parts per million (ppm) at the 18 to 20 ft interval while the remainder of the readings for the boring were below background levels.

Boring SW-12 was located just outside the Site C area 45 ft north of the 90 degree pipeline elbow on FCD. Fill was encountered to a depth of approximately 9 ft bgs and consisted of asphalt, gravel, coarse sand, brick, coal cinder, ash and glass. Gray silt/clay was then encountered from 9 to 19 ft bgs. Hard drilling started at 19 ft where dense iron stained sands were encountered and boring was terminated at 32 ft bgs. PID readings were below background throughout the boring.

Boring SW-13 was located south of the 18+00 rail crossing at 17+60. Fill was encountered to approximately 5 ft bgs consisting of dark brown sands, brick, wood, ash, gravel and stones. Below the fill was tan, orange silty sand with pea sized gravel. Gray silt/clay was not encountered. Hard drilling started at 15 ft bgs and boring was ended at 26 ft bgs. PID readings were below background throughout the boring.

Boring SW-9 was located south of the 25+00 rail crossing at approximately 24+50. Fill was encountered to approximately 5 ft bgs consisting of dark brown sands, brick, wood, ash, gravel and stones. Below the fill was road base material consisting of micaceous sands, silt, some clay and gravel. The boring was ended at 31 ft bgs. PID readings were below background throughout the boring.

Boring SW-8 was located north of the 25+00 rail crossing at approximately 25+65. PID readings for samples to 7 ft ranged from 57 to 73 ppm above background and contained a strong petroleum odor, with pieces of wood and black ash present throughout these samples.

Boring SW-7 was located in the vicinity of 35+40. Two attempts were made to complete this boring but driller was not able to advance the drill bit beyond 15 ft bgs either time. About 5 ft of casing was lost in hole along with the drill bit. PID readings were below background throughout the boring.

Boring SW-6 was located at approximately 36+50 inside of Site E OU 2. Gray silt/clay was encountered at 8 ft bgs. Bedrock, a weathered gneissic rock with iron, was encountered at 25 ft bgs. PID readings were below background throughout the boring.

Boring SW-5 was located in the vicinity of 38+50 where the pig receiver would be placed. Surveyors were not able to locate SW-5 to find the elevation. Gray silt/clay was encountered at 11 ft bgs. A Shelby tube sample was taken from 17 to 19 ft bgs. Driller encountered bedrock at 26 ft, and drilled down to 30 ft bgs to take core. Bedrock was slightly metamorphosed, fractured orthoclase granite with milky quartz. Driller then proceeded to drill down to 39 ft bgs and recovered 2.7 ft of core. Bedrock was highly fractured, medium-grained, poorly foliated gneiss with remnant orthoclase and plagioclase minerals. PID readings were below background throughout the boring.

Boring SW-4 was located on the western side of the Con Ed facility. A highly organic, gray silt/clay was encountered at 6 ft bgs. A Shelby tube sample was taken from 14 to 16 ft bgs. Bedrock was encountered at 40 ft bgs, but a sample could not be recovered. PID readings were below background throughout the boring.

Borings SW-3, 2 and 1 were all located within the Con Ed Facility where water was encountered at approximately 5 ft bgs. SW-3 was sampled and drilled to 8.5 ft bgs where a falling head test was conducted. SW-2 was terminated at 38 ft bgs where refusal was encountered. SW-1 was sampled and drilled to 7 ft bgs where a falling head test was conducted. PID readings were below background for all borings on Con Ed property. Soil generated from these borings was drummed, labeled, staged to be disposed of by Con Ed.

Groundwater Monitoring Well Installation and Sampling

Three monitoring wells (MW-11, 12 and 13) were installed along East Bay Avenue beginning at the intersection of East Bay Avenue and FCD, and continuing west along East Bay Avenue to obtain water data on the northern end of the proposed pipeline route (Figure 4) (see Attachment B for well construction diagrams and soil boring logs). The monitoring well installation was performed by a licensed well driller who was under direct supervision of a Stone & Webster geologist. Drilling for the monitoring well installation commenced on 11 September 2002 and was completed on 14 September 2002. All soil and purge water generated from the installation, development and sampling was drummed separately, labeled and staged in the Site C drum cage where it was later sampled and disposed of by Cycle Chem. Existing monitoring wells (MW-1, 2, 3, 4 and 5) installed by LMS as part of the NYCEDC VCP investigation along FCD were also sampled to acquire additional groundwater data.

The monitoring wells were developed and/or purged and sampled by ENSR and samples were analyzed by Veritech for NYCDEP sewer discharge criteria parameters, which included VOCs, naphthalene, PCBs, metals and physical

parameters including temperature, pH, flashpoint, total suspended solids and non-polar materials. Sample results are briefly discussed in the trenching section of this report. The ENSR purge and sample logs are included in Attachment C.

MW-11 was installed approximately 5 ft south of boring SW-8 at 25+60 (Figure 4). Coal tar and wood chips were found in fill to a depth of approximately 5 ft bgs. PID readings ranged between 9.4 and 56 ppm above background for the 1 to 9 ft interval. Water was encountered at 7 ft bgs during drilling. The boring was terminated at 15 ft bgs and the well was set with 13 ft of 10-slot PVC screen and 2 ft of schedule 40 PVC riser. ENSR developed MW-11 on 24 September 2002 using a 2 in. surge block and pneumatic pump and sampled on 1 October 2002. Depth to water at the time of sampling was 6.65 ft bgs.

MW-12 was installed north of MW-11 on FCD at approximately 31+30 (Figure 4). Fill, consisting mainly of construction and demolition (C&D) material, was encountered to 9 ft bgs where gray silt/clay was encountered. PID readings were 26 ppm above background for the interval from 2 to 4 feet but remained below background for the remainder of the boring. Water was encountered at 7 ft bgs during drilling. The boring was ended at 13 ft bgs and the well was set at 10 ft bgs with 8 ft of 10-slot PVC screen and 2 ft of schedule 40 PVC riser. ENSR developed MW-12 on 24 September 2002 using a 2 in. surge block and pneumatic pump and sampled on 1 October 2002. Depth to water at the time of sampling was 6 ft bgs.

MW-13 was installed within the boundaries of Site E OU 2 at approximately 36+00 (Figure 4). Fill containing coal tar and purifier waste was encountered to approximately 4 ft bgs. PID readings were 9.2 ppm above background for the interval from ground surface to 2 ft bgs and were below background for the remainder of the boring. Water was not encountered during drilling but came in as well was set. The boring was ended at 12 ft bgs and the well was set as a stick up well with 10 ft of 10-slot PVC screen and 5 ft of schedule 40 PVC riser, including 3 ft of riser above ground. ENSR developed MW-13 on 24 September 2002 using a 2 in. surge block and pneumatic pump and sampled on 1 October 2002. Depth to water at the time of sampling was 6.3 ft bgs.

MW-1 and MW-5 were purged and sampled on 3 October 2002. Free product (fluid coal tar) was present in the bottom of both wells. Approximately 10 inches of coal tar was present at the bottom of MW-5. The wells were sampled following removal of much of the coal tar from the well casings. Each sample was analyzed for VOCs, Semi-volatile organics, PCBs, and metals. The results are shown on Table 3 and basically indicate that compounds very typical to coal tar were present in the samples (benzene, toluene, ethlybenzene, and naphthalene. Concentrations of BTEX compounds were very similar in both wells (7.8 and 10.6 mg/l total VOCs). Water quality parameters were not collected for either well due to the presence of coal tar. These wells are located in close proximity of each other at approximately 23+80 along the pipeline (Figure 4).

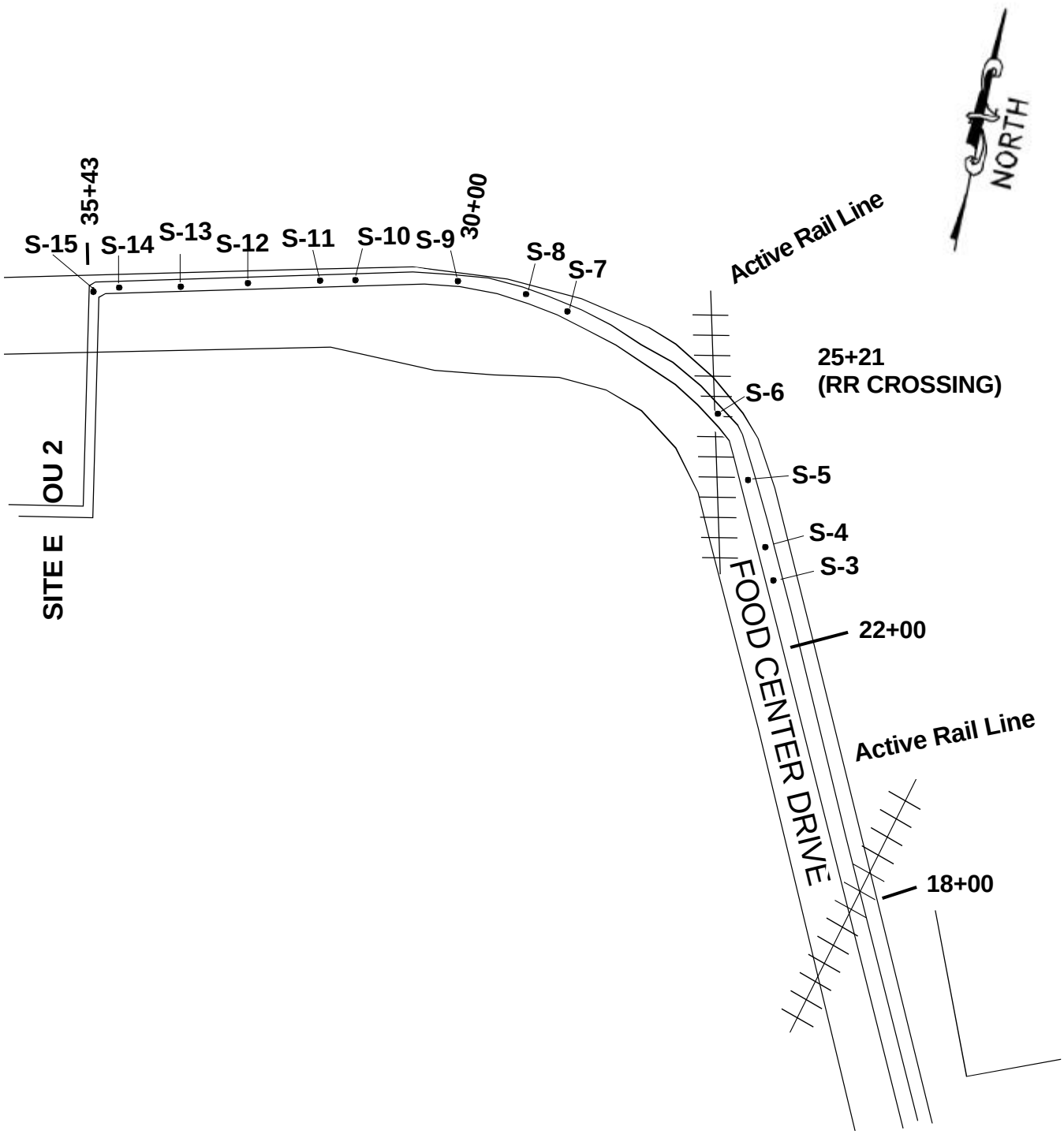
MW-2, 3 and 4 (which were located at 15+40, 11+35 and 8+85 respectively) were abandoned and actually removed during the pipeline installation. Prior to abandonment, MW-2 and MW-3 were purged and sampled on 4 October 2002. MW-4 was purged and sampled on 2 October 2002. MW-2 and MW-4 were found to be virtually free of contaminants typical of the MGP type waste (BTEX, Naphthalene). Whereas MW-3 was found to contain concentrations above the Class GA DWS but well below those in MWs 1 and 5.

On 22 December 2003, under the supervision of LMS, replacement wells for MW-2, 3 and 4 were drilled and installed in close vicinity to their original locations by a licensed driller. All wells were drilled and set at a depth of 15 ft bgs with 10 ft of 10-slot PVC screen and 5 ft of schedule 40 PVC riser.

On July 9, 2004, LMS and their subcontractor American Environmental Assessment Corp. mobilized to the site with a Vac-truck and a steam cleaner to remove tar that had infiltrated into monitoring wells MW-1 and MW-5. The steam cleaner was set to an operating temperature of 220° F and hot water was injected into the well near the bottom of the well through a thin pipe. The pipe was then removed and the vac-truck was used to vacuum out the water and tar. This was performed repeatedly on both wells in an attempt to remove the tar. Although some tar was recovered from MW-5, the flushing of the well was not successful in that the well screen was not cleared of tar and some tar remained in the well. The flushing of MW-1 appeared to be much more successful in that the majority of the tar in the base of the well was removed. Each well was allowed to recover for a one week period before they were purged and resampled. MW-5 still had residual tar when sampled but MW-1 appeared to have remained clear of tar. The wells were sampled and analyzed for BTEX, Naphthalene, and Cyanide. Table 3 shows the comparison between the two sampling events for BTEX and Naphthalene (cyanide was not analyzed for in the earlier samples and was added at the request of NYSDEC). The results of the 2002 and 2004 VOC samples indicates that the earlier concentrations were much higher (up to an order of magnitude) than the current conditions. This could be related to several factors including the fact that the wells were initially sampled and found to contain some coal tar in the casing, or that the actual construction of the pipeline and associated excavation of waste material has contributed to the improvement of the groundwater condition. Both MW-1 and 5 were installed in a relatively small area where coal tar was encountered and although material within the trench was excavated there is residual waste along the edges of the area. The current conditions nonetheless are still evident of the conditions related to fill material in the surrounding area. Cyanide concentrations were found above the NYS Class GA drinking water standard of 220 ug/l at two locations (MW-1 and MW-3) at concentrations of 306 and 258 ug/l respectively. This is believed to be associated with thin layers of residual purifier waste.

SOIL SAMPLING

FCD and Site C



Legend

S-8 Geoprobe Sample

Trench

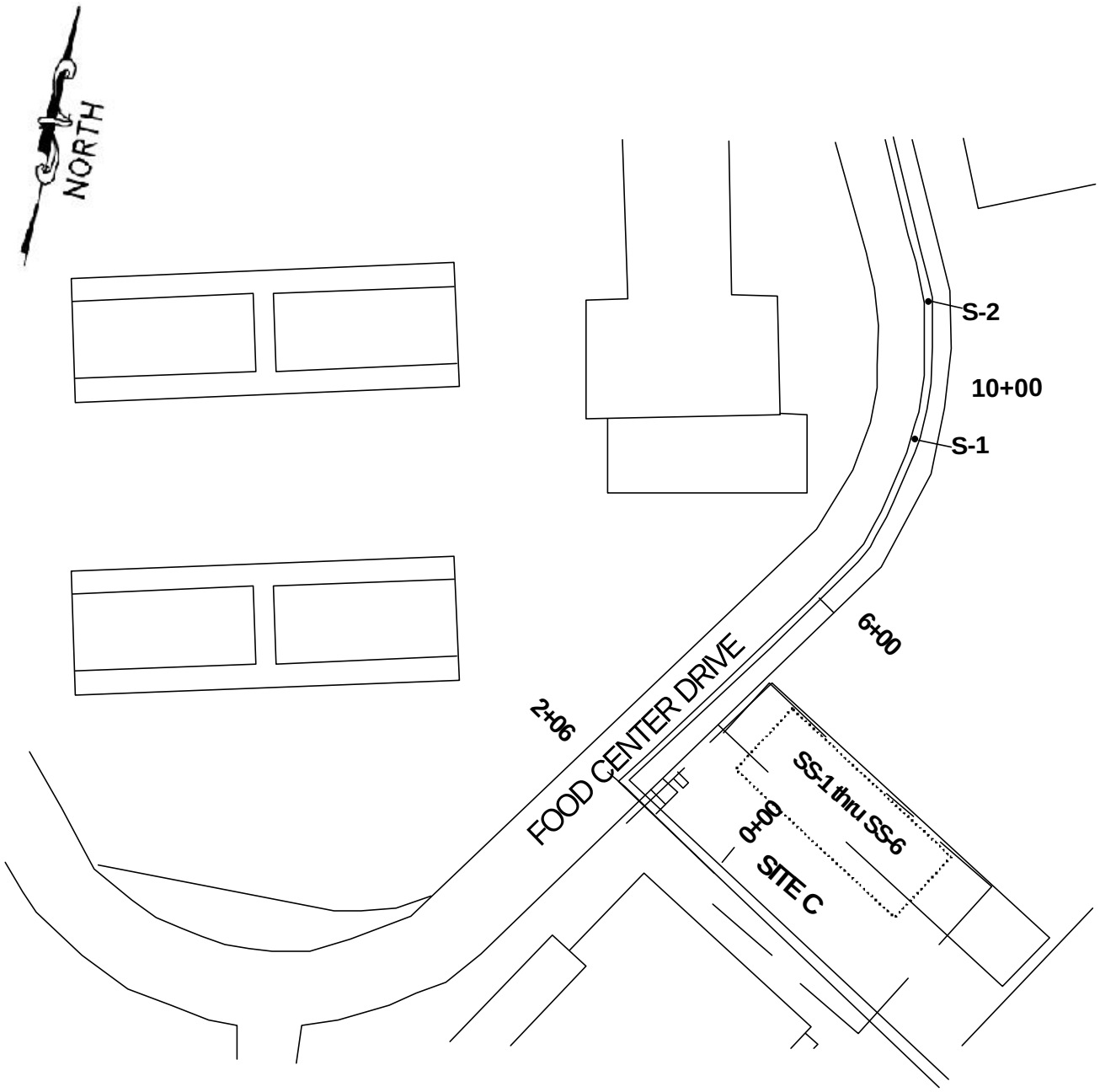
0 100 200 400

Scale in Feet

Map source:
SK Engineering, 2003.

\781\020\graphics\Report Figures\Fig3Fig5Fig6.dsf

Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**ENSR Geoprobe Sampling Locations along Trench Excavation Path (North End)** **HUNTS POINT**	**Figure 5**



Legend

S-8 Geoprobe Sample

SS-1 Shallow Geoprobe Sample

Trench

0 100 200 400
Scale in Feet

Map source:
SK Engineering, 2003.

\781\020\graphics\Report Figures\Fig3Fig5Fig6.dsf

Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**ENSR Geoprobe Sampling Locations along Trench Excavation Path (South End)** **HUNTS POINT**	**Figure 6**

Environmental Probing Investigations, Inc was contracted by ENSR to advance fifteen soil borings (S-1 thru S-15) along FCD and five shallow surface soil borings (SS-1 thru SS-5) at Site C (Figures 5 and 6). Work commenced on 18 December 2002 and continued through 23 December 2002 and 2 January 2003 using a Geoprobe® direct-push split-spoon sampler. Samples were collected in dedicated acetate liners and upon removal from the sampling tube, each sample was closely inspected for physical characteristics including: color, material type and composition, relative grain size and distribution, presence of free moisture, potential confining characteristics, evidence of contamination, and degree and orientation of contaminated bedding.

For the FCD samples an environmental scientist from ENSR logged each boring noting the depth at which groundwater and/or bedrock was encountered, if visual evidence of contamination was identified, and if a confining layer was located. In the event that a confining layer was encountered, it was not penetrated. Two samples were collected per boring. The first soil sample was collected from a depth where visual or olfactory signs of contamination were observed and/or from a depth just above the water table. The second soil sample was taken from approximately one foot away from the original sample and a composite was then collected to represent the material that would be excavated and disposed. Figures 5 and 6 show the approximate location of each soil boring advanced as part of this sampling effort. A copy of the ENSR soil boring logs is included in Attachment D and a copy of the ENSR soil boring sample results are included in Attachment E. The sample results are briefly discussed and used for comparison to pile sampling data discussed later in this report.

The Site C soil samples were collected from each boring to a maximum depth of 40 inches. The samples were collected east of the HDD line at Site C through the asphalt.

Soils that were generated at each boring were placed back into the hole, which was then grouted and patched with asphalt.

CONSTRUCTION FIELD ACTIVITIES

PIPELINE CONSTRUCTION, Horizontal Directional Drilling Segment

This section is a chronological description of the Horizontal Directional Drilling (HDD) segment of the project. Although this does not necessarily relate to the onshore remediation, it is noteworthy to include this documentation in the report as it was a significant effort with many obstacles and the time required to complete this portion of the project impacted the overall schedule.

Drilling activities started at Site C for HDD on 1 November 2002. This leg of work consisted of the installation of approximately 4500 feet of 24 in. pipeline by HDD at

the shore approach at Hunts Point to the pipeline which was placed earlier along the bottom of the East River, then up to North Port, Long Island.

Firms and personnel present during the HDD segment were LMS Engineers, Horizon Offshore, Inc. (Offshore and Onshore Drill Oversight), Tom Allan Construction Company (Drilling Company), Miller Environmental (Water Management), ENSR International (Soil Management), Essex Environmental, Inc. (Environmental Inspection Team), Field Safety Corporation (Health and Safety), Abbas Family (Permitting and PE on Site) and Pegasus International (Construction Oversight). The pipe work on the East River was completed by the Horizon Lay Barge (Photo 1) and all onshore work at Hunts Point Site C was completed by the HDD Rig (Photo 2).

Photo 1. Horizon Lay Barge

Photo 2. HDD Drilling Rig

Environmental inspectors (Essex) were on Site 24-hours per day to maintain Site conditions by monitoring for litter, incidental machinery spills and overall environmental compliance.

A noise barrier was constructed around the drilling Site to keep noise levels down for the surrounding property owners. Noise level measurements were taken and recorded by Abbas Family. It was found that levels were not exceeded even when drilling rig was at maximum pulling strength to pull in the product pipe.

At the start of the HDD activities, a 42 inch diameter steel casing approximately 70 ft long was hammered into the HDD entrance point at Site C aimed towards the East River at an eleven degree angle (Photos 3 and 4). In the first attempt to hammer the casing into the ground, the casing split where the large piston hammer was attached. The casing was repaired and successfully hammered into the subsurface on 2 November 2002. On 5 November 2002, the augers were advanced into the casing to remove soil from inside the casing. All cuttings from the casing were pulled back and placed into roll-off containers on Site. The purpose of installing the casing was to help prevent returning drilling fluids from coming into direct contact with possible contaminants in the shallow surface soils. The casing was also used to minimize undercutting and erosion around the drill pipe. In February 2003, five roll-off containers containing cuttings from inside the casing and the area excavated for the mud pit were loaded and hauled for disposal at Casie Protank in Vineland, NJ.

Photo 3. Casing

Photo 4. Piston Hammer

A drilling mud system was set up to maintain down-hole conditions throughout the drilling and reaming process. The drilling mud was mixed at the ground surface, pumped down through the drill string and pumped out through the jet bit or mud motor. Bulk-bagged bentonite and a silica gel were used to weight the mud mixture. The mud returns were pumped out of the mud sled (Photo 5), then run through a shaker where solids were separated and placed in a roll-off container. When each roll-off container was full, it was loaded and hauled by Miller Environmental to Clean Waters of New York in Staten Island for disposal and replaced with a new lined container. Containers were covered when loaded to prevent any spills or dust from leaving the container during hauling.

On 6 November 2002, drillers started the pilot-hole by pushing the bottom hole assembly (BHA) out past the casing and into the formation towards the East River (Photo 6). The BHA cut through rock formations, provided survey data, and was used to steer the drill string. The direction path was tracked by a "TruTracker" System which followed a surveyed magnetic line that was placed from the bulkhead at Site C out along the river bed floor to the exit pit. Drill pipe joints, averaging 30 ft in length and 8 inches in diameter each followed the BHA. Additional surveys on land and in shallow water were taken to assure the pilot hole was on path. When the BHA was approximately 300 ft past the bulkhead, it began hitting some difficult areas that were steering the BHA off line.

Photo 5. Mud Pit

Photo 6. Pushing in BHA

On 7 November 2002, the drill head had made it approximately 1100 ft past the bulkhead but a joint had twisted off so the drill pipe had to be removed from the hole. Drilling resumed on 8 November 2002 with the broken joints remaining in hole.

The BHA reached the exit pit in the East River on 14 November 2002 with approximately 4545 ft of pipe in the hole over 4376 ft of straight line distance from the bulkhead at Site C.

On 15 November 2002, reaming of the pilot hole commenced with running an 18 in. diameter reamer from land out to the support barge. Once the 18 in. ream was complete, a 26 in. diameter reamer was placed on the drill string. The 34 in. diameter ream (Photo 7) was started on 21 November 2002 and removed at the offshore barge on 22 November 2002. The 44 in. diameter reamer was launched on 23 November 2002 but was halted on 25 November 2002 by Essex and had to be pulled back onto land due to mud loss on the barge. When the 44 in. diameter reamer was pulled out on 26 November 2002, the reamer was virtually destroyed (Photo 8).

Photo 7. 34 inch Reamer

Photo 8. Stripped 44 inch Reamer

On 27 November 2002, a new 42 in. diameter reamer (Photo 9) was delivered to the support barge (Photo 10) and launched towards land. This ream was unsuccessful due to down-hole obstructions so the reamer was pulled back and a fly cutter launched to clear the path. On 29 November 2002, the presence of the obstructions was still evident so it was decided to drive through again until the cutter moved freely. From 1 December 2002 through 4 December 2002, several passes with several sized reamers and cutters cleared the hole from land to the barge and back. On 4 December 2002, the 42 in. reamer reached the exit pit and the barrel reamer was launched. On 9 December 2002, the product pipe was hooked to the pulling head and the contractors started pulling in the pipeline. On 10 December 2002, the pipeline encountered the hard rock area previously encountered by the reamers and could not be pulled in towards the shore. On 18 December 2002, in an attempt to free up the product pipe, the contractors had the barge pull out away from the shore, which resulted in breaking the drill string in two.

Photo 9. 42 inch Reamer

Photo 10. Boating Reamer to Barge

On 20 December 2002, a new pilot hole was started. On 21 December 2002, HDD work was shut down for the holiday season and drilling resumed at Site C on 24 January 2003. After several passes with reamers and swabs, on 14 February 2002, the contractors once again hooked to the product pipe and started pulling in at approximately 130,000 lbs. Pipe was successfully pulled to the surface at Site C on 14 February 2002 (Photo 11).

Photo 11. HDD Entry Point

PIPELINE CONSTRUCTION, Land Segment

Firms and personnel present during pipeline excavation were LMS (Environmental consultant for NYCEDC), Hallen Construction Company (Construction Contractor for IGTS), Miller Environmental (Health and Safety for Hallen), ENSR Environmental (Soil and Water Management for IGTS), Essex Environmental, Inc. (Environmental Inspection Team for IGTS), Field Safety Corporation (Health and Safety for IGTS) and Hatch Mott MacDonald (Construction Inspectors for IGTS).

Stockpile Area at Site C

The Site C concrete lot was initially covered with trash, stripped cars, abandoned buildings and overgrown vegetation. Subcontractors for IGTS were hired to clean out the area and to demolish all but one of the abandoned buildings on Site. Some of the building foundations were also broken up and removed to assure they did not interfere with the installation of the facilities.

One of the first efforts on the land side of the project included the construction of the soil staging area. This was located in the southern corner of the lot. Hay bales and high density polyethylene (HDPE) liners were used to create separate cells where excavated soil would be placed.

Air monitoring stations to monitor dust from piles were set up by ENSR inside of the fenced staging area, up and downwind of the piles. Data was collected at each measuring point using a Data RAM and a PID. Soil piles at Site C were covered at the end of each work day and dust control equipment was on Site for any time period when piles were not covered.

Test Pits

Prior to the start of trenching activities, a Vac-Hoe (Photo 12) was used to confirm the locations and depths of all known utilities that would cross the pipeline path and to plot the depth of ground water along the route. Once a known utility was found, all soil cuttings were placed back into the pit and asphalt patch applied to the surface (Photo 13).

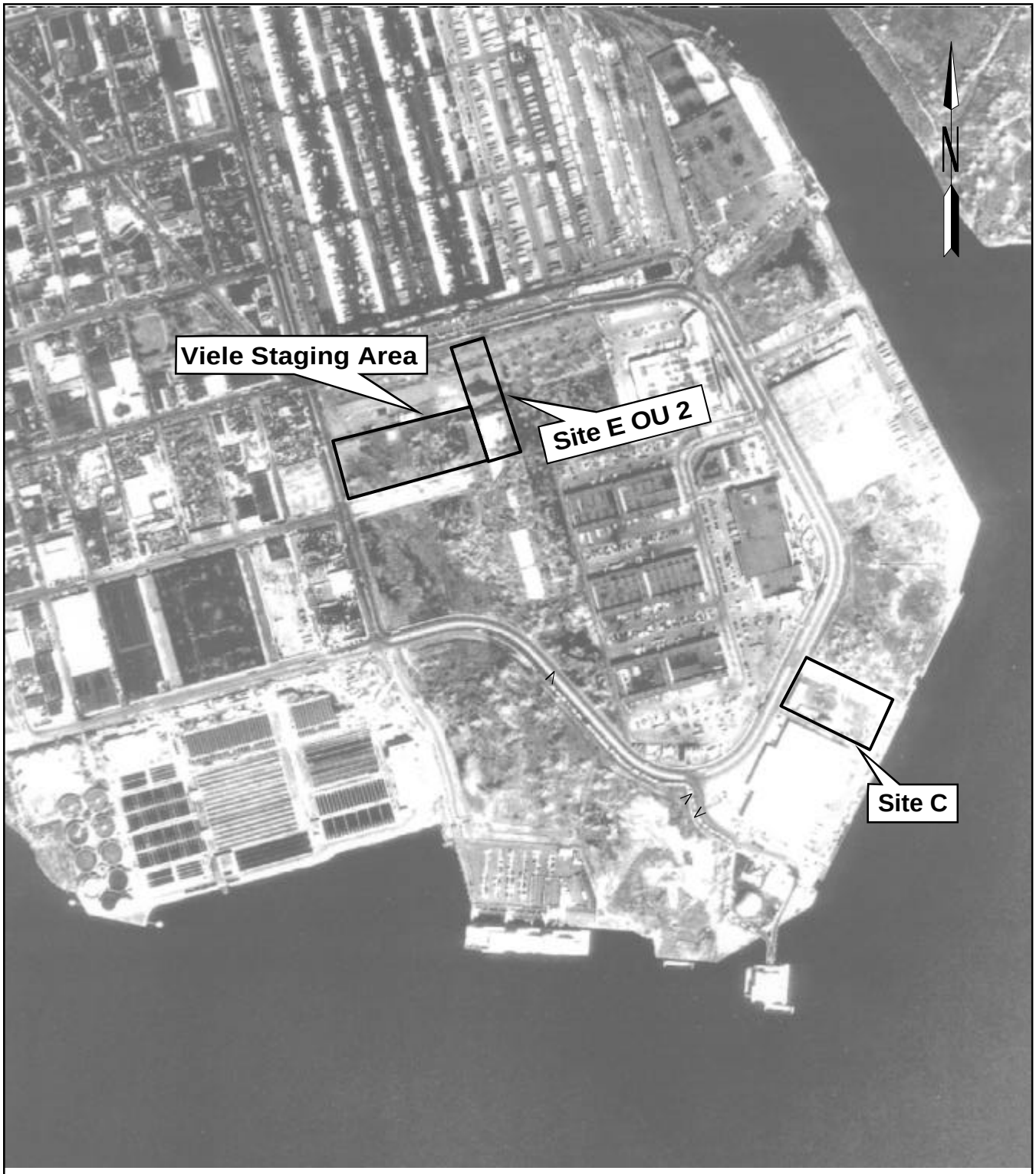
Photo 12. Vac-Hoe

Photo 13. Test Pit

Test pit work commenced on FCD on 25 February 2003. Air was monitored by Miller Environmental and ENSR International both companies using a Data RAM and a PID. The last of the twenty six test pits were completed on 12 March 2003.

Viele Avenue Staging Area

The Viele Avenue area is 6.82 acres in size and approximately 840 ft by 400 ft, bordered on the north by Con Ed, on the east by Site E OU 2, on the south by Site A OU1 and Site A OU2 and on the west by Halleck Street (Figure 7). A 200 ft by 160 ft area located at the south eastern corner containing a large debris pile was fenced off and not included in the staging area work space. Site preparation consisted of tree cutting and vegetation removal followed by surface grading necessary to provide a consistent sub-base in order to lay down a geo-textile fabric and 6 inches of crushed stone. Grading commenced on 26 February 2003. Grading was not conducted in the vegetated low area which was covered in water found on the eastern side of the Site adjacent to the concrete slab. Fill from Bronx City Recycling was brought in to



\0781\020\graphics\ReportFigures\Fig7Viele.dsf

LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**Hunts Point Viele Staging Area - 1994 Aerial Photograph**	**Figure 7**

construct a temporary access ramp to the existing concrete slab. Wood mats were also brought in to support the fill and prevent sinking in very soft soils. The concrete slab on the northeastern side of the Site was used as a fabrication and equipment staging surface. A chain link fence was installed in areas required to enclose work areas and repairs were made to the existing fence as necessary. The exposed rebar in the concrete foundations within the work space limits was cut flush with surface so as not to pose a safety risk.

LMS was present on Site to inspect areas that were exposed during grading and small trenching activities. A trench, approximately one foot wide and 2 to 3 ft in depth, was advanced for the electric and telephone conduits on 28 February 2003. During Site preparation, no visible contamination was unearthed or identified. A fence across the east side of the Site was built to separate the Site E OU 2 property from the staging area. No soil was removed during these activities.

Surface sampling by ENSR personnel began on 3 March 2003 and was completed on 10 March 2003 at Viele Avenue staging area, once the staging area was cleared and graded. The samples were initially intended to be collected using a hand auger but due to the frozen ground the samples were collected with the assistance of a back hoe. Twelve surface samples (SS-6 thru SS-19, omitting SS-9 and SS-13) were collected from depths of 0 to 6 inches. The results are consistent with data from fill at other VCP Sites within Hunts Point and data tables from ENSR's report titled *Supplemental Soil Investigation of Site E, Hunts Point, Bronx, NY* (ENSR Corporation, April 2003) are provided in Attachment E. A copy of the ENSR soil boring logs is also included in Attachment D.

Bore Pit Excavations

Excavation for the jack pit and exit pit at Site C to bore under the first railroad crossing for the pipeline (location 1+80, Figure 3), commenced on 17 March 2003. Jack Pit #1 (includes both bore pit and exit pit) dimensions were approximately 10 ft wide by 42 ft long and 9 ft deep. The exit pit excavation started on 19 March 2003. The dimensions of the exit pit were 10 ft wide by 21 ft long and 7 ft deep. Soils in both pits were considered non-suspect and contained a very coarse and permeable gravel layer that allowed water to easily flow into both pits. Due to the high flow of water in this area, Hallen did not attempt to bore this crossing.

Excavation of the second jack pit located at the 18+00 railroad crossing was started on 26 March 2003 with dimensions of 10 ft wide by 40 ft long and 11 ft deep. Excavation for the exit pit at 18+00 started on 28 March 2003 with the same dimensions as the second jack pit. Due to refusal in this area, Hallen did not complete boring at this crossing.

TRENCHING

Trenching commenced on 7 April 2003 at the south edge (17+10) of the second jack pit moving south on FCD using a 710D Rubber Tired Back-hoe and/or the M320

Excavator (Figure 3). The trench width was 6.5 ft with a planned depth of 7 ft unless proper clearance warranted the trench to be deeper around existing utilities. During all excavation activities, LMS was on Site and documented any occurrences of contaminated soil such as coal tar, purifier waste or petroleum saturated soils. Prior to excavation activities, it was decided between IGTS, NYSDEC and LMS that if purifier type waste and /or coal tar was encountered below the intended trench bottom, excavation would continue to a depth of 8.5 ft bgs. If contamination was found to extend beyond 8.5 ft, it would be allowed to remain in place provided the following two conditions were met:

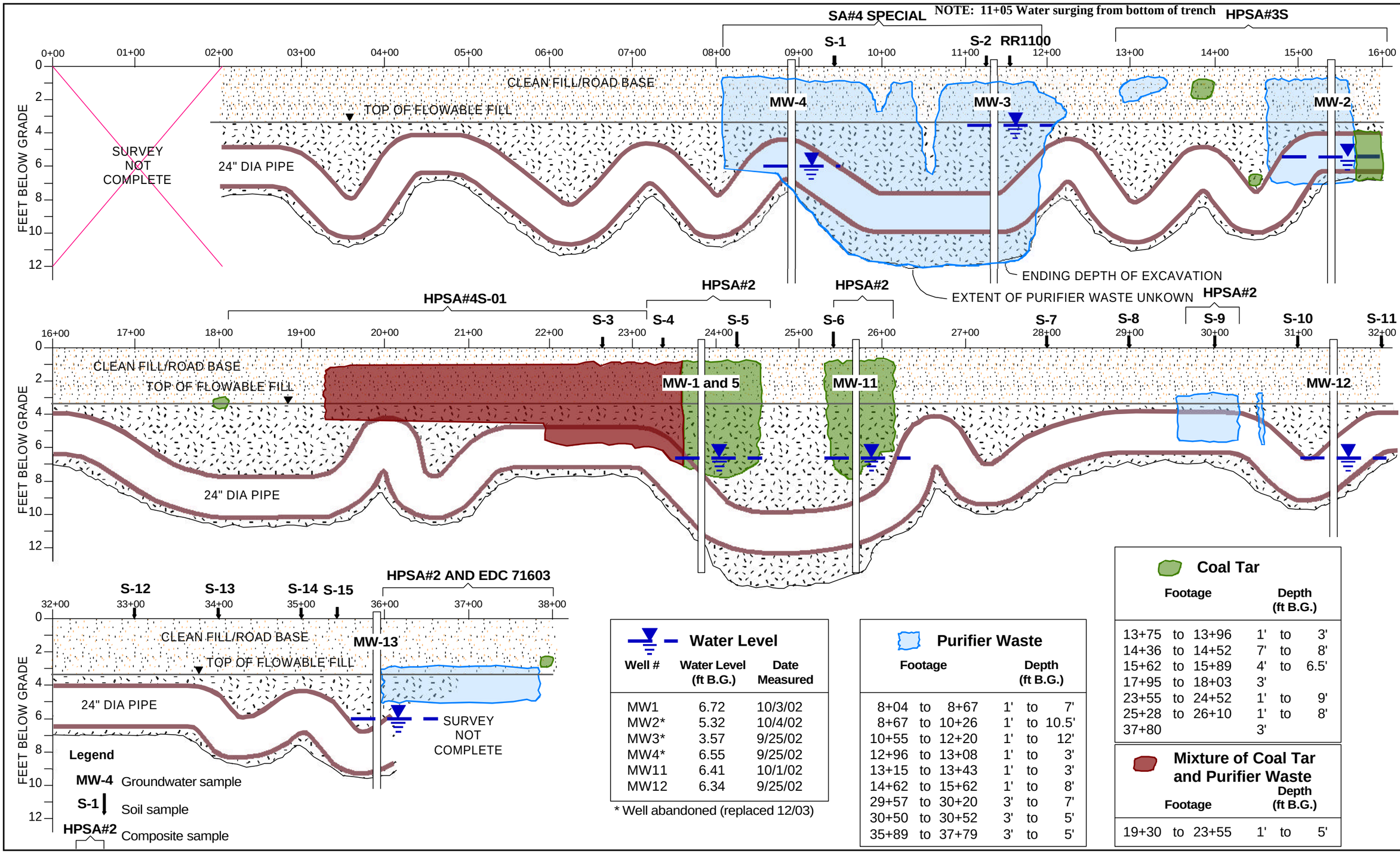
1. Documentation is provided on historical or current sampling data that the groundwater at this location is not significantly impacted by the purifier waste.
2. The remaining purifier waste is covered with flowable fill prior to backfilling the pipeline trench.

The excavation between 10+50 and 12+20 was extended well below the saturated zone in an area where purifier waste was encountered in the trench from just below the road bed (±1) to 12 ft below grade. The water table in this area was variable and a significant problem was encountered in the dewatering as water was found to enter the excavation in significant quantities from depths that were believed to be well above the water table.

Samples of the groundwater from this area were collected in order to determine the source of the large volume of water entering the excavation. This same issue was encountered in at least one other area of the trench but this was the only area where it created a situation that prevented removal of all of the waste material.

In this area, the increased excavation depth (performed as per the agreement with NYSDEC to remove waste deposits) coupled with the huge influx of groundwater/surface water created an undercutting condition. It was determined that additional excavation causing voids in the adjacent soils. This threatened the roadway and sidewalk stability and it was determined that the hole would be back filled with flowable fill to stabilize the bottom and sidewalks. Figure 8 shows an area between MW-4 and MW-3 where the depth to groundwater was noted to change substantially. This is the area where groundwater infiltration was a construction issue. An investigation into the water flowing into the excavation was narrowed to potential open fire hydrants that were leaking into the soil or water lines that were in need of repair. This assumption was based on testing of one buildings water supply by shutting it off temporarily and noting that after a period of time the flow into one excavation slowed.

Although figure 8 shows that the bottom of the purifier waste was not known in the area between 10+00 and 12+00, it is however believed that the vast majority of this material was actually excavated and disposed of. Visual confirmation was not possible due to the water condition.



Water Level

Well #	Water Level (ft B.G.)	Date Measured
MW1	6.72	10/3/02
MW2*	5.32	10/4/02
MW3*	3.57	9/25/02
MW4*	6.55	9/25/02
MW11	6.41	10/1/02
MW12	6.34	9/25/02

* Well abandoned (replaced 12/03)

Purifier Waste

Footage	Depth (ft B.G.)
8+04 to 8+67	1' to 7'
8+67 to 10+26	1' to 10.5'
10+55 to 12+20	1' to 12'
12+96 to 13+08	1' to 3'
13+15 to 13+43	1' to 3'
14+62 to 15+62	1' to 8'
29+57 to 30+20	3' to 7'
30+50 to 30+52	3' to 5'
35+89 to 37+79	3' to 5'

Coal Tar

Footage	Depth (ft B.G.)
13+75 to 13+96	1' to 3'
14+36 to 14+52	7' to 8'
15+62 to 15+89	4' to 6.5'
17+95 to 18+03	3'
23+55 to 24+52	1' to 9'
25+28 to 26+10	1' to 8'
37+80	3'

Mixture of Coal Tar and Purifier Waste

Footage	Depth (ft B.G.)
19+30 to 23+55	1' to 5'

Lawler, Matusky & Skelly Engineers LLP
One Blue Hill Plaza • Pearl River, New York 10965
ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS

0 100 200 ft
Horizontal Scale (ft)

\781\020\graphics\Report Figures\Fig8ExcavationCrossSection.dsf

NOTES: - Depth of contaminants fluctuates in each area.
- Top of flowable fill = 3.3 ft B.G., bottom is 0.5 ft below bottom of pipe

Excavation Cross-Section

IROQUIOS PIPELINE • HUNTS POINT

Figure 8

During the time that this condition was noted, LMS contacted NYSDEC to describe the problem and present the engineering control that was previously approved (flowable fill).

Trenching activities were planned as a one crew effort but due to the dewatering activity along the pipeline path, a second excavation crew was brought on the job in May 2003. Combined, these crews generated approximately 300 cubic yards of soil per day that was staged at Site C.

The Community Air Monitoring Program (CAMP) was conducted by Field Safety Corporation upwind and downwind of both trench excavations using a Data RAM particulate monitor and a PID. Air monitoring was also conducted in the trench and workspace area by Miller Environmental.

For trench excavation, asphalt and concrete was stripped back, loaded and delivered to the Bronx City Recycling facility. Soil and fill were then excavated using a Caterpillar M320 Wheel Excavator (Photos 14 and 15). Trenches were opened in 24 foot sections pulling back soil/fill in lifts. As the material was removed, any changes were noted and screening was performed by ENSR using a PID. Soils were visually inspected by LMS for previously described signs of waste material. As the excavation was advanced and the initial screening at the trench was completed, the soils were trucked to the Site C soil staging area and placed in the appropriate pile. LMS documented where each load was staged to help correlate sample results to the excavated areas. Before the truck departed, each load was visually inspected for loose material and/or saturated soils in order to prevent littering of the roadway.

Photo 14. Trench Excavation

Photo 15. (Right) Open Trench

Measurements were taken each day by working off of mapped landmarks or measuring from a known reference point. Areas that contained waste materials (i.e. coal tar or purifier waste) were logged and mapped, and depth to ground water was noted. A new trench alignment was started on 28 June 2003 due to a previously unidentified sanitary sewer line running parallel with the pipeline path. The new alignment started at approximately 30+65 and measured 23 ft from the north curb to the north edge of trench. This new pipeline alignment continued until the 90 degree turn across East Bay Avenue into Site E OU 2.

A cross section of the pipeline path and materials encountered as well as sampling locations is illustrated in Figure 8 and will be discussed in detail later in this report.

The HDD entry point (location 0+00) at Site C was the last area of excavation work to be completed for the pipeline. Once this area was excavated and in order for the HDD line to be brought to the correct elevation for the tie into the land line (Photo 16), the steel casing had to be excavated and cut back. Approximately 43.5 feet of the original 70 feet of HDD casing that was hammered into the subsurface was cut and removed (Photo 17).

Photo 16. Tie In Area at Site C

Photo 17. Cutting Casing

On 19 August 2003, the final tie in weld at Site C was completed (Photo 18) and on 20 August 2003, the final tie in weld from the Iroquois line to the Con Ed line was completed at the M&R station. The casing opening was sandbagged (Photo 19) and later flowable fill was poured around the head of the casing to prevent slumping or migration of soils back towards the river as requested by the NYCEDC.

Photo 18. Final Tie In

Photo 19. Sand bag Entry Point

Pile Sampling

All soil that was excavated was placed in the appropriate pile at Site C as determined by ENSR. ENSR gained approval from two disposal facilities including Casie Protank and Clean Earth of New Castle Inc. for all material generated during the pipeline installation. In total, Casie Protank agreed to accept 15,500 tons of material

and Clean Earth agreed to accept 4,000 tons of material. The following descriptions explain the five composite sampling events performed by ENSR at the soil piles located at Sites C and E as wells as trench sampling procedures. A copy of the ENSR pile sample results can be found in Attachment F. ENSR analyzed soils as requested by the specific disposal facility and the results are summarized in Tables 1 and 2.

ENSR Sample ID HPSA#1-01 was sampled on 14 April 2003. This pile was designated for "Non-suspect" soils as there was no indication during excavation of the presence of coal tar or other waste type material. Sample results showed however, that semi-volatiles and volatile organics were present but, since the disposal method would be the same for non-suspect and suspect material, this did not create any disposal issues or delays. As a general practice, any soil that did not show visible signs of contamination and did not register on the PID was sent to this pile. This pile was sampled by obtaining 3 samples with 15 aliquots each (Photo 20). The 45 points were hand augered to 3 ft and a sample was taken. The VOC portion of the sample was taken immediately from the auger at each point and remaining samples were combined and mixed in a stainless steel bowl to create a composite sample of the pile (Photo 21). Analyses performed by ENSR included Full toxicity characteristic leaching procedure (TCLP) (organics and inorganics), poly chlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), Resource Recovery Conservation and Recover Act (RCRA) Characteristics, Asbestos, Base neutral/acid extractables and Total volatile organic compounds (VOCs).

Photo 20. Pile Sampling Points

Photo 21. VOC Sampling

ENSR Sample ID HPSA#2-01 was sampled on 11 June 2003 and encompassed soils excavated from the area from approximately 23+55 to 30+52 and Site E OU 2. This pile was sampled by obtaining 3 samples with 15 aliquots each using the same method as sampling for HPSA#1-01. Analyses performed by ENSR included Full TCLP, PCBs, TPH, polyaromatic hydrocarbons (PAH), Toxicity, benzene toluene ethylbenzene and xylenes (BTEX), and RCRA Characteristics.

ENSR Sample ID HPSA#3S was sampled on 14 May 2003. This pile covered soils from the project excavation from approximately 13+00 to 16+00. This pile was sampled by obtaining 2 samples with 15 aliquots each using the same method as

sampling for HPSA#1-01. Analyses performed by ENSR included Full TCLP, PCB, TPH, PAH and RCRA Characteristics.

ENSR Sample ID HPSA#4S-01 was sampled on 21 May 2003 and covered soils excavated from approximately 19+30 to 23+55. This pile was sampled by obtaining 3 samples with 15 aliquots each using the same method as sampling for HPSA#1-01. Analyses performed by ENSR included Full TCLP, PCB, TPH, PAH and RCRA Characteristics.

ENSR Sample ID SA#4 Special was sampled on 23 June 2003 and covered soils excavated from the footage from approximately 08+00 to 11+80. This pile was sampled by obtaining one sample with 15 aliquots each using the same method as sampling for HPSA#1-01. Analyses performed by ENSR included Full TCLP, PCB, TPH, PAH and RCRA Characteristics.

ENSR Sample ID RR1100 was sampled on 23 June 2003 and collected directly from the west trench wall at approximately 11+60. Analyses performed by ENSR included Full TCLP, PCB, TPH, PAH and RCRA Characteristics.

ENSR Sample ID EDC71603 was sampled on 16 July 2003 and encompasses material within Site E OU 2. Analyses performed by ENSR included Full TCLP, PCB, TPH, PAH, RCRA Characteristics and BTEX.

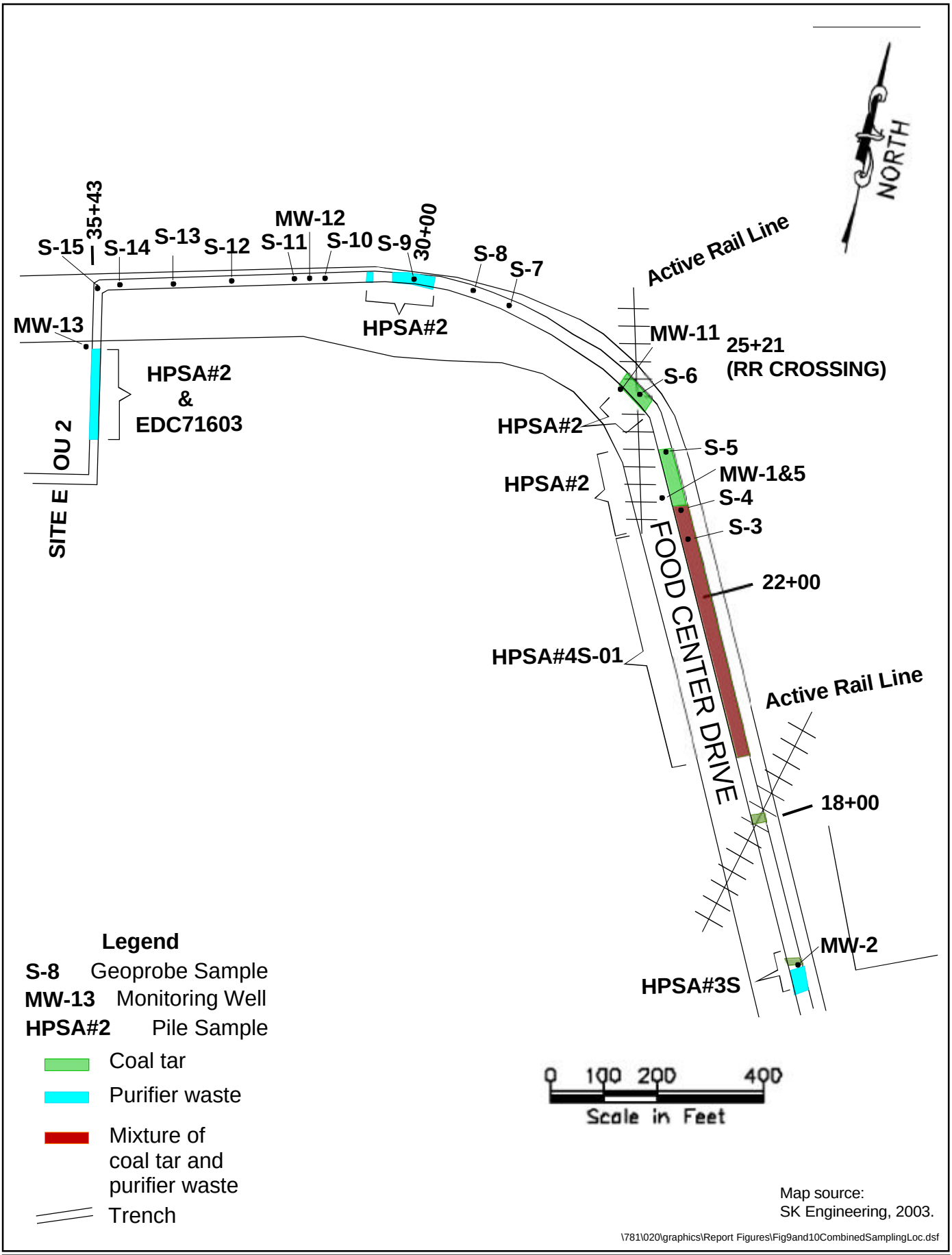
Contaminated Areas

The excavation cross-section displays the depth, area where varying types of fill material were encountered, and the location of the combined sampling points along the pipeline path including geoprobe, monitoring well, and soil pile sampling (Figure 8). A map view of the cross-section and sampling points is shown in Figures 9 and 10. The following section will further describe each area encountered and includes a representative sample number for the pile sampled by ENSR. The ENSR pile sample results which were provided to LMS in the field are provided in Attachment F. The sample results for pile sampling and preconstruction monitoring well sampling are also summarized in Tables 1, 2 and 3.

Three types of suspect material were recognized during the excavation activities. The categories were assigned to the material based on physical description alone:

1. Coal Tar

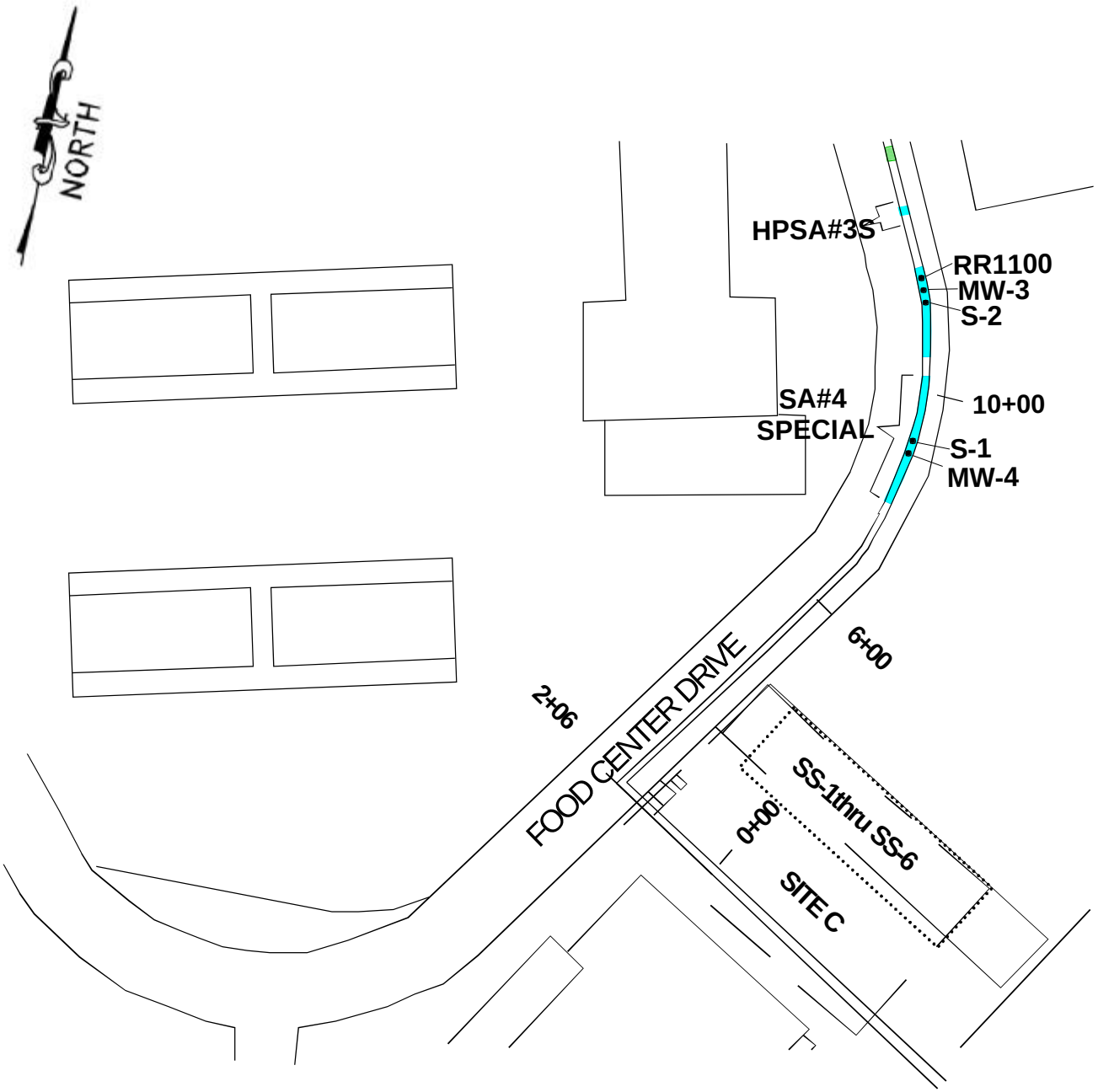
2. Purifier Waste



Map source:
SK Engineering, 2003.

\781\020\graphics\Report Figures\Fig9and10CombinedSamplingLoc.dsf

LMS Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**ENSR Combined Sampling Locations in Trench Excavation Path (North End)** **HUNTS POINT**	**Figure 9**



Legend

SS-1 Shallow Geoprobe Sample
S-8 Geoprobe Sample
MW-13 Monitoring Well
HPSA#2 Pile Sample

Coal tar

Purifier waste

Mixture of coal tar and purifier waste

Trench

0 100 200 400
Scale in Feet

Map source:
SK Engineering, 2003.

\781\020\graphics\Report Figures\Fig9and10CombinedSamplingLoc.dsf

Lawler, Matusky & Skelly Engineers LLP One Blue Hill Plaza • Pearl River, New York 10965 ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS	**ENSR Combined Sampling Locations inTrench Excavation Path (South End)** **HUNTS POINT**	**Figure 10**

Table 1 (Page 1 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April- July 2003)

ENSR Sample Number	HPSA#1-01A	HPSA#1-01B	HPSA#1-01C	HPSA#3S-01A	HPSA#3S-01B	HPSA#4S-01A	HPSA#4S-01B	
Lab Sample Number	231771.01	231771.02	231771.03	232391.01	232391.02	232494.01	232494.02	TCLP Extraction
Sampling Date	4/15/2003	4/15/2003	4/15/2003	5/14/2003	5/14/2003	5/21/2003	5/21/2003	Guidance Value[(2)]
Matrix	Extract	Extract	Extract	Extract	Extract	Extract	Extract	C_w (mg/L)
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
TCLP VOLATILE ORGANIC COMPOUNDS (mg/L)								
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	0.5
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	100
1,4 Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	7.5
1,2 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.5
1,1 Dichloroethene	ND	ND	ND	ND	ND	ND	ND	0.7
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND	ND	200
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	0.7
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	0.5
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	0.2
Benzene	0.003	ND	ND	ND	ND	ND	ND	0.5

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 1 (Page 2 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April- July 2003)

ENSR Sample Number	HPSA#4S-01C	HPSA#2-01A	HPSA#2-01B	HPSA#2-01C	SA#4 Special	RR1100	EDC71603	
Lab Sample Number	232494.03	232892.01	232892.02	232892.03	233095.01	233095.02	233522.00	TCLP Extraction
Sampling Date	5/21/2003	6/11/2003	6/11/2003	6/11/2003	6/23/2003	6/23/2003	7/16/2003	Guidance Value[2]
Matrix	Extract	Extract	Extract	Extract	Extract	Extract	Extract	C_w (mg/L)
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
TCLP VOLATILE ORGANIC COMPOUNDS (mg/L)								
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	0.5
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	100
1,4 Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	7.5
1,2 Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.5
1,1 Dichloroethene	ND	ND	ND	ND	ND	ND	ND	0.7
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND	ND	200
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	0.7
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	0.5
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	0.2
Benzene	ND	ND	ND	ND	ND	ND	ND	0.5

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 1 (Page 3 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April- July 2003)

ENSR Sample Number	HPSA#1-01A	HPSA#1-01B	HPSA#1-01C	HPSA#3S-01A	HPSA#3S-01B	HPSA#4S-01A	HPSA#4S-01B	
Lab Sample Number	231771.01	231771.02	231771.03	232391.01	232391.02	232494.01	232494.02	TCLP Extraction
Sampling Date	4/15/2003	4/15/2003	4/15/2003	5/14/2003	5/14/2003	5/21/2003	5/21/2003	Guidance Value[2]
Matrix	Extract	Extract	Extract	Extract	Extract	Extract	Extract	C_w (mg/L)
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
TCLP SEMIVOLATILE ORGANIC COMPOUNDS (mg/L)								
2-Methylphenol (o-cresol)	ND	ND	ND	0.016	0.011	ND	ND	200
3-Methylphenol (m-cresol)	ND	ND	ND	0.034	0.011	ND	ND	200
4-Methylphenol (p-cresol)	ND	ND	ND	0.034	0.011	ND	ND	200
Pentachlorophenol (ms)	ND	ND	ND	ND	ND	ND	ND	100
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	400
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	2
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	0.13
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	0.13
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	0.5
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	3
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND	2
Pyridine	ND	ND	ND	0.013	0.018	ND	ND	5

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 1 (Page 4 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April- July 2003)

ENSR Sample Number Lab Sample Number Sampling Date Matrix Units	HPSA#4S-01C 232494.03 5/21/2003 Extract mg/L	HPSA#2-01A 232892.01 6/11/2003 Extract mg/L	HPSA#2-01B 232892.02 6/11/2003 Extract mg/L	HPSA#2-01C 232892.03 6/11/2003 Extract mg/L	SA#4 Special 233095.01 6/23/2003 Extract mg/L	RR1100 233095.02 6/23/2003 Extract mg/L	EDC71603 233522.00 7/16/2003 Extract mg/L	TCLP Extraction Guidance Value[(2)] C_w (mg/L)
TCLP SEMIVOLATILE ORGANIC COMPOUNDS (mg/L)								
2-Methylphenol (o-cresol)	ND	ND	ND	ND	ND	ND	ND	200
3-Methylphenol (m-cresol)	ND	ND	ND	ND	ND	ND	ND	200
4-Methylphenol (p-cresol)	ND	ND	ND	ND	ND	ND	ND	200
Pentachlorophenol (ms)	ND	ND	ND	ND	ND	ND	ND	100
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	400
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	2
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	0.13
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	0.13
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	0.5
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	3
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND	2
Pyridine	ND	ND	ND	ND	0.14	0.041	ND	5

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 1 (Page 5 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April- July 2003)

ENSR Sample Number	HPSA#1-01A	HPSA#1-01B	HPSA#1-01C	HPSA#3S-01A	HPSA#3S-01B	HPSA#4S-01A	HPSA#4S-01B	
Lab Sample Number	**231771.01**	**231771.02**	**231771.03**	**232391.01**	**232391.02**	**232494.01**	**232494.02**	**TCLP Extraction**
Sampling Date	**4/15/2003**	**4/15/2003**	**4/15/2003**	**5/14/2003**	**5/14/2003**	**5/21/2003**	**5/21/2003**	**Guidance Value[(2)]**
Matrix	**Extract**	**Extract**	**Extract**	**Extract**	**Extract**	**Extract**	**Extract**	**C_w (mg/L)**
Units	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	
TCLP PESTICIDE (mg/L)								
Lindane	ND	ND	ND	ND	ND	ND	ND	0.4
Endrin	ND	ND	ND	ND	ND	ND	ND	0.02
Methoxychlor	ND	ND	ND	ND	ND	ND	ND	10
Toxaphene	ND	ND	ND	ND	ND	ND	ND	0.5
Chlordane	ND	ND	ND	ND	ND	ND	ND	0.03
Heptachlor	ND	ND	ND	ND	ND	ND	ND	0.008
Heptachlor Epoxide	ND	ND	ND	ND	ND	ND	ND	0.008

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 1 (Page 6 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April- July 2003)

ENSR Sample Number	HPSA#4S-01C	HPSA#2-01A	HPSA#2-01B	HPSA#2-01C	SA#4 Special	RR1100	EDC71603	
Lab Sample Number	232494.03	232892.01	232892.02	232892.03	233095.01	233095.02	233522.00	TCLP Extraction
Sampling Date	5/21/2003	6/11/2003	6/11/2003	6/11/2003	6/23/2003	6/23/2003	7/16/2003	Guidance Value[(2)]
Matrix	Extract	Extract	Extract	Extract	Extract	Extract	Extract	C_w (mg/L)
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
TCLP PESTICIDE (mg/L)								
Lindane	ND	ND	ND	ND	ND	ND	ND	0.4
Endrin	ND	ND	ND	ND	ND	ND	ND	0.02
Methoxychlor	ND	ND	ND	ND	ND	ND	ND	10
Toxaphene	ND	ND	ND	ND	ND	ND	ND	0.5
Chlordane	ND	ND	ND	ND	ND	ND	ND	0.03
Heptachlor	ND	ND	ND	ND	ND	ND	ND	0.008
Heptachlor Epoxide	ND	ND	ND	ND	ND	ND	ND	0.008

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 1 (Page 7 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April- July 2003)

ENSR Sample Number	HPSA#1-01A	HPSA#1-01B	HPSA#1-01C	HPSA#3S-01A	HPSA#3S-01B	HPSA#4S-01A	HPSA#4S-01B	
Lab Sample Number	**231771.01**	**231771.02**	**231771.03**	**232391.01**	**232391.02**	**232494.01**	**232494.02**	**TCLP Extraction**
Sampling Date	**4/15/2003**	**4/15/2003**	**4/15/2003**	**5/14/2003**	**5/14/2003**	**5/21/2003**	**5/21/2003**	**Guidance Value[2]**
Matrix	**Extract**	**Extract**	**Extract**	**Extract**	**Extract**	**Extract**	**Extract**	**C_w (mg/L)**
Units	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	
TCLP HERBICIDES (mg/L)								
2,4-D	ND	ND	ND	ND	ND	ND	ND	10
2,4,5-TP	ND	ND	ND	ND	ND	ND	ND	1

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 1 (Page 8 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April- July 2003)

ENSR Sample Number Lab Sample Number Sampling Date Matrix Units	HPSA#4S-01C 232494.03 5/21/2003 Extract mg/L	HPSA#2-01A 232892.01 6/11/2003 Extract mg/L	HPSA#2-01B 232892.02 6/11/2003 Extract mg/L	HPSA#2-01C 232892.03 6/11/2003 Extract mg/L	SA#4 Special 233095.01 6/23/2003 Extract mg/L	RR1100 233095.02 6/23/2003 Extract mg/L	EDC71603 233522.00 7/16/2003 Extract mg/L	TCLP Extraction Guidance Value[(2)] C_w (mg/L)
TCLP HERBICIDES (mg/L)								
2,4-D	ND	ND	ND	ND	ND	ND	ND	10
2,4,5-TP	ND	ND	ND	ND	ND	ND	ND	1

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 1 (Page 9 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April-July 2003)

ENSR Sample Number	HPSA#1-01A	HPSA#1-01B	HPSA#1-01C	HPSA#3S-01A	HPSA#3S-01B	HPSA#4S-01A	HPSA#4S-01B	
Lab Sample Number	231771.01	231771.02	231771.03	232391.01	232391.02	232494.01	232494.02	TCLP Extraction
Sampling Date	4/15/2003	4/15/2003	4/15/2003	5/14/2003	5/14/2003	5/21/2003	5/21/2003	Guidance Value[(2)]
Matrix	Extract	Extract	Extract	Extract	Extract	Extract	Extract	C_w (mg/L)
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
TCLP METALS (mg/L)								
Arsenic	ND	ND	ND	ND	ND	ND	ND	5.0
Barium	0.35	0.62	0.53	0.33	0.31	0.29	0.18	100
Cadmium	ND	ND	ND	ND	ND	ND	ND	1.0
Chromium	ND	ND	ND	ND	ND	ND	ND	5.0
Lead	0.44	0.15	0.37	0.061	0.086	0.66	0.46	5.0
Mercury	ND	ND	ND	ND	ND	ND	ND	0.2
Selenium	ND	ND	ND	ND	ND	ND	ND	1.0
Silver	ND	ND	ND	ND	ND	ND	ND	5.0

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 1 (Page 10 of 10)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April-July 2003)

ENSR Sample Number	HPSA#4S-01C	HPSA#2-01A	HPSA#2-01B	HPSA#2-01C	SA#4 Special	RR1100	EDC71603	TCLP Extraction
Lab Sample Number	232494.03	232892.01	232892.02	232892.03	233095.01	233095.02	233522.00	Guidance Value[2]
Sampling Date	5/21/2003	6/11/2003	6/11/2003	6/11/2003	6/23/2003	6/23/2003	7/16/2003	C_w (mg/L)
Matrix	Extract	Extract	Extract	Extract	Extract	Extract	Extract	
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
TCLP METALS (mg/L)								
Arsenic	ND	0.052	0.14	ND	ND	ND	0.32	5.0
Barium	0.36	0.25	0.2	0.25	ND	0.14	0.37	100
Cadmium	ND	ND	ND	ND	ND	ND	ND	1.0
Chromium	ND	ND	ND	ND	0.36	ND	ND	5.0
Lead	1.2	1.3	0.28	0.45	ND	ND	ND	5.0
Mercury	ND	ND	ND	ND	ND	ND	ND	0.2
Selenium	ND	ND	ND	ND	ND	ND	ND	1.0
Silver	ND	ND	ND	ND	ND	ND	ND	5.0

ND - Not detected at analytical detection limit.

(2) - The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

Table 2 (Page 1 of 6)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April - July 2003)

LMS Sample ID	HPSA#1-01A	HPSA#1-01B	HPSA#1-01C	
Lab Sample Number	231771.01	231771.02	231771.03	RECOMMENDED
Sampling Date	37726	37726	37726	SOIL CLEANUP
Matrix	SOIL	SOIL	SOIL	OBJECTIVE (a)
Units	mg/kg	mg/kg	mg/kg	mg/kg
VOLATILE ORGANIC COMPOUNDS (mg/kg)				
Vinyl Chloride	ND	ND	ND	0.2
Chloroethane	ND	ND	ND	1.9
1,1 Dichloroethene	ND	ND	ND	0.4
Methylene Chloride	ND	ND	ND	0.1
t-1,2-Dichloroethene	ND	ND	ND	0.3
1,1 Dichloroethane	ND	ND	ND	0.2
Chloroform	ND	ND	ND	0.3
111 Trichloroethane	ND	ND	ND	0.8
Carbon Tetrachloride	ND	ND	ND	0.6
Benzene	0.22	0.33	ND	0.06
1,2 Dichloroethane	ND	ND	ND	0.1
Trichloroethylene	ND	ND	ND	0.7
Toluene	0.31	0.28	ND	1.5
Tetrachloroethene	ND	ND	ND	1.4
1,3-Dichloropropane	ND	ND	ND	0.3
Chlorobenzene	ND	ND	ND	1.7
Ethyl Benzene	0.26	ND	0.19	5.5
m + p Xylene	0.82	0.74	0.37	1.2**
o Xylene	0.26	0.45	0.48	1.2**
Styrene	ND	ND	ND	1
Bromoform	ND	ND	ND	1
1122Tetrachloroethane	ND	ND	ND	0.6
123-Trichloropropane	ND	ND	ND	0.4
1,3 Dichlorobenzene	ND	ND	ND	1.6
1,4 Dichlorobenzene	ND	ND	ND	8.5
1,2 Dichlorobenzene	ND	ND	ND	7.9
124-Trichlorobenzene	ND	ND	ND	3.4
Naphthalene	53	68	19	13
Freon 113	ND	ND	ND	6.0
Acetone	ND	ND	ND	0.2

1 - As per TAGM #4046, total VOCs < 10 ppm, total SVOCs < 500 ppm, total pesticides < 10 ppm.

(a) - NYSDEC Technical Administrative Guidance Memorandum, January 1994.

ND - Not detected at analytical detection limit

** - Value is for total Xylenes

Table 2 (Page 2 of 6)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April- July 2003)

ENSR Sample Number Lab Sample Number Sampling Date Matrix Units	HPSA#2-01A 232892.01 6/11/2003 SOIL mg/kg	HPSA#2-01B 232892.02 6/11/2003 SOIL mg/kg	HPSA#2-01C 232892.03 6/11/2003 SOIL mg/kg	EDC71603 233522.00 7/16/2003 SOIL mg/kg	RECOMMENDED SOIL CLEANUP OBJECTIVE (a) mg/kg
VOLATILE ORGANIC COMPOUNDS (mg/kg)					
Benzene	0.020	0.030	0.027	ND	0.06
Toluene	0.029	0.049	0.049	ND	1.5
Ethyl Benzene	ND	0.040	0.024	ND	5.5
m + p Xylene	0.092	0.150	0.150	ND	1.2**
o Xylene	0.220	0.260	0.270	ND	1.2**
Petoleum Hydrocarbons	900	730	950	330	

ND - Not detected at analytical detection limit.

Table 2 (Page 3 of 6)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April - July 2003)

LMS Sample ID	HPSA#1-01A	HPSA#1-01B	HPSA#1-01C	HPSA#3S-01A	HPSA#3S-01B	HPSA#4S-01A	HPSA#4S-01B	
Lab Sample Number	231771.01	231771.02	231771.03	232391.01	232391.02	232494.01	232494.02	RECOMMENDED
Sampling Date	4/15/2003	4/15/2003	4/15/2003	5/14/2003	5/14/2003	5/21/2003	5/21/2003	SOIL CLEANUP
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	OBJECTIVE (a)
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SEMIVOLATILE ORGANIC COMPOUNDS (mg/kg)								
Naphthalene	18	20	11	5.1	49	11	8.8	13
2-Methylnaphthalene	7.1	6.6	3.7	ND	18	4.2	3.1	36.4
Acenaphthylene	9.3	8.3	4.7	ND	21	4.2	4	41
Acenaphthene	1.8	16	3.2	ND	8.9	7.4	5.7	50
Fluorene	17	30	10	10	39	20	17	50
Phenanthrene	62	110	32	36	100	71	64	50
Anthracene	13	25	8.4	11	36	25	21	50
Fluoranthene	46	72	21	31	85	64	59	50
Pyrene	45	66	23	22	57	53	51	50
Benzo(a)anthracene	19	31	10	10	28	22	22	0.224 or MDL
Chrysene	17	26	9.4	9.5	25	21	21	0.4
Benzo(b)fluoranthene	15	19	7.2	6.9	18	15	14	1.1
Benzo(k)fluoranthene	15	19	7.2	6.9	10	15	14	1.1
Benzo(a)pyrene	18	22	8.2	7.9	22	19	20	0.061 or MDL
Indeno(1,2,3-cd)pyrene	7.3	9.9	3	4	9	7.6	7.7	3.2
Dibenzo(a,h)anthracene	3.4	4.9	1.7	ND	ND	2.6	2.3	0.0143 or MDL
Benzo(ghi)perylene	6.5	9.7	2.7	4.8	9	8.1	8.5	50

ND - Not detected at analytical detection limi
1 - As per TAGM #4046, total VOCs < 10 ppm, total SVOCs < 500 ppm, total pesticides < 10 ppm.
(a) - NYSDEC Technical Administrative Guidance Memorandum, January 1994
MDL - Method detection limit.

Table 2 (Page 4 of 6)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April - July 2003)

LMS Sample ID	HPSA#4S-01C	HPSA#2-01A	HPSA#2-01B	HPSA#2-01C	SA#4 Special	RR1100	EDC71603	RECOMMENDED
Lab Sample Number	232494.03	232892.01	232892.02	232892.03	233095.01	233095.02	233522.00	SOIL CLEANUP
Sampling Date	5/21/2003	6/11/2003	6/11/2003	6/11/2003	6/23/2003	6/23/2003	7/16/2003	OBJECTIVE (a)
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SEMIVOLATILE ORGANIC COMPOUNDS (mg/kg)								
Naphthalene	11	16	13	94	0.74	0.71	7.1	13
2-Methylnaphthalene	4.6	62	60	240	0.96	ND	1.5	36.4
Acenaphthylene	4.4	6	4.4	14	0.89	1.5	4.8	41
Acenaphthene	6.9	6.2	5.9	15	ND	ND	2.5	50
Fluorene	19	22	20	49	3.2	4.1	5.2	50
Phenanthrene	62	120	120	330	14	13	23	50
Anthracene	20	11	9.7	31	3.8	3.6	6.7	50
Fluoranthene	55	59	56	130	6.5	3.6	27	50
Pyrene	45	71	67	160	6.5	3.2	34	50
Benzo(a)anthracene	20	24	23	59	3.5	1.9	16	0.224 or MDL
Chrysene	19	25	24	65	3.2	1.8	15	0.4
Benzo(b)fluoranthene	14	17	16	52	2.2	1.4	15	1.1
Benzo(k)fluoranthene	14	17	16	52	2.2	1.4	15	1.1
Benzo(a)pyrene	18	18	17	45	2.5	1.6	19	0.061 or MDL
Indeno(1,2,3-cd)pyrene	7	8.9	7.9	16	1.1	0.64	6.7	3.2
Dibenzo(a,h)anthracene	2.2	ND	ND	5.8	0.49	ND	3.4	0.0143 or MDL
Benzo(ghi)perylene	7.9	9.2	8.3	15	1.1	0.6	6.8	50

ND - Not detected at analytical detection limi
1 - As per TAGM #4046, total VOCs < 10 ppm, total SVOCs < 500 ppm, total pesticides < 10 ppm.
(a) - NYSDEC Technical Administrative Guidance Memorandum, January 1994
MDL - Method detection limit.

Table 2 (Page 5 of 6)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April - July 2003)

LMS Sample ID	HPSA#1-01A	HPSA#1-01B	HPSA#1-01C	HPSA#3S-01A	HPSA#3S-01B	HPSA#4S-01A	HPSA#4S-01B	RECOMMENDED
Lab Sample Number	231771.01	231771.02	231771.03	232391.01	232391.02	232494.01	232494.02	SOIL CLEANUP
Sampling Date	4/15/2003	4/15/2003	4/15/2003	5/14/2003	5/14/2003	5/21/2003	5/21/2003	OBJECTIVE (a)
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PCBs								
Aroclor-1016	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1221	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1232	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1242	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1248	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1254	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1260	ND	ND	0.053	ND	ND	0.099	0.22	1.0/10*

* - Suface/Sub-surface
(a) - NYSDEC Technical Administrative Guidance Memorandum, January 199
ND - Not detected at analytical detection limit.

Table 2 (Page 6 of 6)
SOIL DATA SUMMARY
NYCEDC Iroquois Pipeline
Pile Samples
(April - July 2003)

LMS Sample ID	HPSA#4S-01C	HPSA#2-01A	HPSA#2-01B	HPSA#2-01C	SA#4 Special	RR1100	EDC71603	RECOMMENDED
Lab Sample Number	232494.03	232892.01	232892.02	232892.03	233095.01	233095.02	233522.00	SOIL CLEANUP
Sampling Date	5/21/2003	6/11/2003	6/11/2003	6/11/2003	6/23/2003	6/23/2003	7/16/2003	OBJECTIVE (a)
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PCBs								
Aroclor-1016	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1221	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1232	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1242	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1248	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1254	ND	ND	ND	ND	ND	ND	ND	1.0/10*
Aroclor-1260	0.19	ND	ND	ND	ND	ND	ND	1.0/10*

* - Suface/Sub-surface
(a) - NYSDEC Technical Administrative Guidance Memorandum, January 199
ND - Not detected at analytical detection limit.

Table 3 (Page 1 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
BTEX (µg/l)									
Benzene	5800	4.3	610	ND	5800	7.8	ND	ND	1
Toluene	710	ND	280	ND	1500	2.6	ND	ND	5
Ethyl Benzene	490	ND	100	ND	1700	4.7	ND	ND	5
Xylenes (Total)	810	ND	600	ND	1660	14	ND	ND	5

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

Table 3 (Page 2 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/l)									
Naphthalene	6800	ND	1400	ND	5900	180	3.7	ND	10

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

Table 3 (Page 3 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
PCBs (µg/l)									
PCBs (Total)	ND	ND	ND	ND	ND	ND	ND	ND	0.09

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

Table 3 (Page 4 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
VOLATILE ORGANIC COMPOUNDS (µg/l)									
Tetracloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	5

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

Table 3 (Page 5 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
METALS (µg/l)									
Cadmium	ND	66	2.2	ND	6	ND	2.3	ND	5
Chromium (VI)	R	R	R	R	R	R	NA	R	50
Copper	ND	ND	ND	ND	ND	59	180	ND	200
Lead	5.3	ND	6.3	11	11	30	330	7.3	25
Mercury	ND	ND	ND	ND	ND	ND	0.29	ND	0.7
Nickel	ND	ND	ND	ND	ND	36	110	ND	100
Zinc	ND	120	29	ND	62	74	520	ND	2000

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

Table 3 (Page 1 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
BTEX (µg/l)									
Benzene	5800	4.3	610	ND	5800	7.8	ND	ND	1
Toluene	710	ND	280	ND	1500	2.6	ND	ND	5
Ethyl Benzene	490	ND	100	ND	1700	4.7	ND	ND	5
Xylenes (Total)	810	ND	600	ND	1660	14	ND	ND	5

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

Table 3 (Page 2 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/l)									
Naphthalene	6800	ND	1400	ND	5900	180	3.7	ND	10

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

Table 3 (Page 3 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
PCBs (µg/l)									
PCBs (Total)	ND	ND	ND	ND	ND	ND	ND	ND	0.09

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

Table 3 (Page 4 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
VOLATILE ORGANIC COMPOUNDS (µg/l)									
Tetracloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	5

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

Table 3 (Page 5 of 5)
GROUNDWATER DATA
NYCEDC Iroquois Pipeline
Preconstruction Sampling
(October 2002)

ENSR Sample Number Sampling Date Units	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2003 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l	MW-13 10/1/2002 µg/l	NYSDEC CLASS GA STANDARDS (b)
METALS (µg/l)									
Cadmium	ND	66	2.2	ND	6	ND	2.3	ND	5
Chromium (VI)	R	R	R	R	R	R	NA	R	50
Copper	ND	ND	ND	ND	ND	59	180	ND	200
Lead	5.3	ND	6.3	11	11	30	330	7.3	25
Mercury	ND	ND	ND	ND	ND	ND	0.29	ND	0.7
Nickel	ND	ND	ND	ND	ND	36	110	ND	100
Zinc	ND	120	29	ND	62	74	520	ND	2000

ND - Not detected at analytical detection limit

(a) - NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

R - Rejected during data validation

3. Mixture of Coal Tar and Purifier Waste

Coal Tar

There was no area along the pipeline path where the coal tar extended past the bottom of the trench. All measurements are in feet and are taken from the ninety degree turn of the pipeline as it exits Site C and starts following the east lane heading north on FCD at footage mark 2+06.

- 13+75 to 13+96

  Soils identified had a strong petroleum odor, contained coal tar pieces, ash and clay and were generally black in color. The length of the area was approximately 21 ft long, 1 foot bgs, approximately 1 to 2 ft thick, and extending into both walls of the trench. Depth to water table in this area was approximately 6 ft bgs.

- 14+36 to 14+52

  A thin and soft area of coal tar approximately 16 ft long was found running underneath and along the water chute along the east wall of the trench in a large gravel area at approximately 7 ft bgs (approximately 1 ft below the water table in that area). The seam was up to one foot thick in places and was sporadic within the 16 ft zone. A small amount of coal tar was noted seeping into the trench from a very isolated area directly under the water chute (approximately several inches wide). Coal tar did not extend below the bottom of the trench and was only found on the eastern wall. The west wall contained ash and no visible coal tar. The water level in the area was approximately 6 ft bgs.

- 15+62 to 15+82

  An area with large amounts of ash containing some sporadic coal tar and fibrous wood fluctuated between 4.5 and 6.5 ft bgs but was not found below the bottom of the trench. The material extended into both walls and below the water table which was found at approximately 6 ft bgs.

  This suspect material was removed and stored in the pile represented by sample HPSA#3S. Pile sample results reflect elevated levels of semi-volatile organic compounds (SVOCs).

- 15+82 to 15+89

  A very isolated area of coal tar was encountered within the trench itself between 5 to 6 ft bgs. This area did not extend beyond the actual trench excavation and was completely removed. This suspect material was placed

and sampled from pile HPSA3#S. Pile sample results reflect elevated levels of SVOCs.

- 17+95 to 18+03

  Another isolated area of coal tar was encountered within the trench itself between 3 and 4 ft bgs. This area did not extend beyond the actual trench excavation and was completely removed.

- 23+55 to 24+52

  Fill with coal tar throughout, ash, cinder, very strong petroleum odor extended from 1 ft to 9 ft bgs. Brown clay was encountered at 9 ft bgs. From 23+20 to 23+58 there was a 12 in. thick seam of coal tar found at 4 ft bgs which extended into both walls. At 23+98, a coal tar boil that measured 8 ft long and approximately 4 ft thick was encountered on the west wall. Groundwater was measured on top of the clay in this area approximately 7 ft bgs.

  All of this suspect material was placed in a single pile and was represented by sample HPSA#2. Soil sample S-5 and monitoring well samples MW-1 and MW-5 were also taken from this vicinity. Pile samples reflect an elevated level of SVOCs while soil sample results reflect elevated levels of VOCs, SVOCs, and metals. Water sample results reflect elevated levels in VOCs and the SVOC naphthalene.

- 25+28 to 26+10

  Fill encountered containing mixed coal tar blocks that extends on both sides of the trench beginning at a shallow depth of 1 ft bgs and extending from 5 to 8 ft bgs. Brown clay was encountered immediately beneath the fill (5 to 8 ft bgs). The water level was encountered generally right on top of the clay but the static surface was measured at approximately 7ft bgs.

  This suspect material was removed and stockpiled in pile HPSA#2. Soil sample S-6 and monitoring well sample MW-11 were also collected from this vicinity as representative of this area. Pile samples typically reflected elevated SVOCs while the shallow soil sample results contained elevated VOCs and metals, in addition to SVOCs. The water sample results from MW-11 contained levels of VOCs that were just above the drinking water standard and naphthalene that detected at an elevated concentration of 18µg/l.

- 37+80

A very small area of coal tar was visible in the east wall of the trench after the trench box was removed, however during the actual trench excavation, no coal tar was noted.

Purifier Waste

The largest area of purifier was encountered at the southern end of FCD from approximately 8+00 to 12+00. The layer ranged from 5 to 12 ft in thickness. These areas are measured in feet from the ninety degree elbow of the pipeline with a footage mark of 2+06 as it exits Site C and turns onto FCD. Purifier waste material was identified by the physical presence of wood chips which in some instances exhibited a distinct naphthalene odor.

Excavation (moving south towards Site C) in the 12+00 area started in early May 2003 but had to be halted due to the high volume of water that was continually flowing into the trench from what was believed to be a leaking potable source. Steel plates were placed over the 80 feet of open trench until the water problem could be addressed. In late June 2003, excavation resumed when the contractor deepened the open trench from 11+80 to 11+60. Very strong naphthalene odors filled the workspace. While excavating, Miller Environmental took a Drager tube sample for hydrogen cyanide levels which reached 4 ppm. The level of hydrogen cyanide was monitored in addition to the initiation of engineering controls for removal of vapors (blower system for positive pressure venting of the workspace). On specific occasions when conditions warranted, workers used Level B respiratory protection to perform work in the trench. There was one area of mixed material where it was difficult to determine which of the two types of material, purifier or coal tar wastes, was the major component of the fill. This material is noted on Figure 9 as a mixture of both purifier and coal tar wastes.

- 8+67 to 10+26

  Soils consisted of black ash containing wood chips, metal, rock, tire pieces, brick, and other debris with a naphthalene type odor which extended from 1 ft bgs to 10.5 ft bgs (deepened towards the south) and into both walls of the trench. The waste was mixed in with other material and was not noted as an individual layer. Water level in this area was approximately 6 ft bgs. This was the only area (approximately 9+00 to 12+20) within the project where waste material extended to a depth that was beneath the excavation. Figure 8 shows that there was a significant over excavation performed in order to reach the bottom, however the depth of groundwater prevented further removal of material.

  Material removed from this area was considered suspect and was taken to pile SA#4. Soil sample S-1 and monitoring well sample MW-4 were also collected from this vicinity. Pile samples and soil samples both reflect elevated levels of SVOCs and metals. The groundwater in MW-4 had a measured pH of 4.

- 10+55 to 12+20

  Purifier type material extended into the east and west walls of the trench starting approximately at 1 ft bgs and extending to a depth beyond the bottom of the trench excavation (12ft). As the excavation was deepened, a high volume of water was noted entering from the sidewalls, this flow of water caused slumping of material that made deepening the excavation extremely difficult. The water level in this general area was as high as 3.5 ft bgs.

  This material was categorized as suspect and was taken to SA#4. Soil sample S-2 and monitoring well sample MW-3 were also collected from this vicinity. Pile samples in this area contained somewhat elevated SVOCs and metals. Monitoring well data reflect elevated BTEX levels and a pH of 4.

- 12+96 to 13+08

  A relatively small pocket of material that contained black ash mixed with purifier material that began at 1 to 3 feet bgs and thinned out in a southerly direction. Soil changed at 3 ft bgs to tan/orange sandy clay and groundwater in this area is present at approximately 5 to 6 ft bgs. This material was characterized as suspect and was placed in pile HPSA#3S. Sample results indicated elevated SVOC levels were present.

- 13+15 to 13+43

  Black wood chips were encountered in this small area from 2-4 ft bgs. When allowed to air dry, the material color changed to a more definite blue-green. This suspect material was stockpiled and sampled from pile HPSA#3S. Results from this pile indicated elevated SVOCs were present.

- 14+62 to 15+62

  Soil contained black ash with purifier waste and extended into both walls of the trench. Waste and ash varied in thickness over the length of the trench but was present at 1 ft bgs and remained between 2 and 5 ft thick. In this area purifier waste did not extend beyond the trench bottom. Groundwater was encountered at approximately 6 ft bgs. This material was taken to pile HPSA#3S. Monitoring well sample MW-2 was also collected from this vicinity. Pile samples in this area indicated elevated levels of SVOCs.

- 19+30 to 23+55

  Fill material contained ash, brick, concrete, dark brown sand/clay with coal tar seams and pieces of coal tar along with wood chips. A petroleum odor was present throughout the fill. This layer was noted at 1 ft bgs and extended to a depth of 6 ft. Groundwater was encountered at approximately 7 feet bgs.

This suspect material was taken to pile HPSA#4S-01. Soil samples S-3 and S-4 were taken from this vicinity. Pile samples in this area contained elevated concentrations of SVOCs.

- 29+57 to 30+20

  Brown wood chips with a distinct naphthalene type odor were encountered between 3 ft and 7 ft bgs and the material was noted to extend into both walls of the trench.

  This material was taken to suspect pile HPSA#2. Samples from this pile contained elevated concentrations of SVOCs and metals.

- 35+89 to 37+79

  Dark brown sands with purifier waste material were found between 3 to 5 ft bgs.

Trench Dewatering

On 7 March 2003 Hallen started laying a 6" high density polyethylene (HDPE) pipe parallel to the trench along the curb line to be used as a header to pump all trench water to the staging area at Site C. The water was pumped from the trench with a portable pump and placed into one of eight stabilization frac tanks before entering the water treatment system. The water treatment system consisted of several sock filters, an oil/water separator and a carbon filter tank. After water ran through the treatment system, it was pumped to another frac tank on Site where it was gravity fed to the sanitary sewer drain on FCD. Before the treatment system was put online, water from MW-4 was pumped and then run through the treatment system in order to determine its effectiveness. Samples of the treated water were collected and analyzed to provide documentation of discharge parameters. Sample results were sent to the NYSDEC for approval to proceed with long term discharge to the sanitary sewer.

According to their discharge permit, the maximum that ENSR was allowed to discharge to the sanitary sewer was 70,000 gallons/8hr or 120,000 gallons/24hr day. The reported typical rate of water treatment was 150 gallons/minute. On 14 May 2003, a second water treatment system was delivered to Site C but the system was not needed as thought and was never utilized. According to ENSR, the amount of water treated from the pipeline project totaled 5,392,000 gallons and water treated from the M&R station portion of the project totaled 1,300,500 gallons.

POST CONSTRUCTION FIELD ACTIVITES

The depth of the pipeline can be viewed on the cross section (Figure 8). The pipeline was supported by a 6" layer of sand that originated from a virgin source area free of fill, debris and contamination from a known, man-made source. Flowable fill that consisted of a lighter duty concrete mixture was poured on top of and around the pipeline to provide a stable and protective barrier for the entire system. This was poured in the excavation up to a level of approximately 8" above the top of the actual pipe. In areas where it was necessary to use more than 4 ft of additional cover above the pipeline, additional flowable fill was placed in the excavation and it was brought up to an elevation that would be approximately 3.33 ft below the finished grade. The flowable fill was allowed to set and then protective concrete slabs that were identifiable with a yellow warning color were placed in the excavation. Other warning and protective systems were also placed in the excavation to help prevent anyone from inadvertently damaging the pipeline and to protect the pipeline itself from corrosion, these included; warning tape, a flexible sacrificial anode, four fiber optic cables that were each connected to an operating warning system, and street markers set above ground. A layer of select fill was then placed and compacted followed by the final asphalt pavement layer.

The cross section (Figure 8) shows that in basically all areas of the pipeline excavation with the exception of one area (15+82 to 15+89), the sand backfill material was placed below the water table and the flowable fill would actually straddle the groundwater table to act as an impermeable barrier preventing the downward movement of any LNAPL.

CONCLUSIONS AND RECOMMENDATIONS

Approximately 17,500 tons of soil were excavated and thermally treated as a result of this project and in addition, approximately 6.7 million gallons of groundwater were treated and discharged to the sanitary sewer system. Soil and groundwater analyses showed that none of the material that was removed and treated was classified as hazardous waste. The trench created by the pipeline project cut through several areas of relatively shallow apparent MGP waste material. The majority of this material was found above or just into the water table and only in one distinct area was waste found to extend a minimum of several feet into the water table. In most areas the material that was encountered extended into both the eastern and western walls of the excavation. Based on the maximum depths that the waste material was found to extend to (generally 4-6 ft) and the fact that the entire interior portion of FCD contains numerous underground utilities, it is assumed that if waste extended in either direction, it would have been removed when those utilities were installed.

The entire area within the confines of FCD itself is capped with a substantial layer of asphalt roadway designed for extremely heavy traffic use and the roadway has and continues to act as an effective barrier preventing any waste from coming into contact with vehicles, the general population, and the elements including rain and other forms of precipitation.

A concrete median containing trees exists, separating the 6 lanes of FCD. A narrow green space of grass and trees exists along the western edge of FCD within the Hunts Point Cooperative Meat Market. There is currently no green area or median adjacent to the roadway along East Bay Avenue. A comparison of Figure 2 to Aerial Photo 6 shows the relationship of the existing buildings and parking areas to the former MGP facility. The historical aerial photographs and Sanborn maps indicate that much of the area inside the loop of FCD was occupied by the operating MGP Facility. The area currently occupied by FCD and East Bay Avenue did not historically contain any buildings or equipment related to the facility. Based on the results of this investigation and investigations performed in other areas of the former facility within Hunts Point by LMS and others, it appears that handling and or potential filling of areas with waste typical of MGP facilities (coal tar and purifier waste) took place principally on outer parcels (such as Sites A OU-2, B and D) and those areas not containing any buildings or equipment essential to manufacture. Areas inclusive of Sites A OU-1, E and C where actual operations took place were not found to contain typical waste as fill material.

Based on the results of this investigation, excavation and removal of material, the presence of an extensive network of underground utilities in the roadway, and the lack of any distinctive product plume throughout the entire project area, this construction and remedy inclusive of the concrete backfill and new roadway cap should be considered complete and a no further action designation be provided by the Agencies.

Groundwater data from monitoring wells MW-1, 3, and 5 indicate petroleum contamination as present in these locations. Although the fill was removed from the trench excavation, there may be some residual in the adjacent fill material. In order to evaluate this from the perspective of migration, this information will be addressed and accounted for in Investigation Reports for the two sites adjacent to these wells. These sites are identified as Site D and Site F. Both are adjacent to the rail line and immediately east of the wells in question. It is believed that they are in a down gradient location between the Bronx River and these monitoring wells.

Standards, Criteria, and Guidance:

Soil data was compared to the existing NYSDEC Technical and Administrative Guidance Memorandum (TAGM) for the TCLP compounds and although several criteria are several parts per million above the recommended soil cleanup criteria, these compounds are relatively immobile and were believed to have been encountered in general fill material across the Site. Other concentrations are relatively ubiquitous across the entire Hunts Point peninsula and are consistent with fill including timbers and coal waste, a number of these compounds are also typically found in road base materials.

Groundwater standards that are above the criteria are located in shallow fill areas that are not or never will be intended for any use (potable or non-potable). The area

is immediately under the roadway and is choked with underground utilities and has a consistent roadway cap that has very high usage. The gas pipeline and flowable fill that has been placed into the excavation acts as a shallow groundwater barrier (as shown on the cross section by all three monitoring wells. This will reduce further any movement in an area already stagnant.

Overall Protectiveness of Public Health and the Environment:

The current condition of the entire Site allows no infiltration of precipitation through the soil to percolate to the groundwater since the entire surface area is covered with a substantial layer of asphalt. Currently the groundwater is in a condition that exists in a fill layer and due to its proximity to the East and Bronx Rivers may also be considered saline and unusable in any form as a potable water source. The asphalt cap which was reinstalled across the entire construction Site is composed of similar compounds that are found in much of the fill material. All runoff is directed and channeled into storm drains.

The entire content of fill material from within the construction area has been removed and replaced with other approved materials. The remaining portion of the roadway where there are no utilities remains capped with the roadway and is totally isolated from the ground surface. This will continue to prevent future contact with the subsurface by workers or anyone present at or on the Site.

Although the concentrations of contaminant compounds would be considered low level, care should be taken and notice given to any workers during any post-construction activities. It would be during this period that the only real potential for direct exposure would be evident. Prior to initializing construction below grade, the contractor should review the data and incorporate potential exposure routes into a plan that should be presented to workers. A Soil Management Plan (SMP) and Project specific Health & Safety Plan will be prepared and submitted to NYSDEC and NYSDOH for approval prior to the commencement of any construction activities.

Short-term and Long-term Effectiveness:

The construction and use is effective both for the short and long term effectiveness because the capping material that seals the Site is composed of a group of compounds similar and in some cases identical in nature to what is present in the fill material. In addition, there is no suspect fill remaining within the footprint of the project as it was all excavated and replaced with engineered fill. The Site is not being redeveloped but will continue to serve as the main thoroughfare in the Hunts Point Food Distribution Center Cooperative Market area. This use is considered a very long term and there are currently no known plans for changing the use of the Site.

In order to affect the long-term portion of the remedy, the Site will have specific restrictions which require notification of the Owner (City of New York maintenance and construction office) for any intrusive work (utility, drainage or emergency repairs).

The property within the metes and bounds of the perimeter site has a prepared deed restriction that provides instructions and requires specific protections be put in place for any intrusive work that is performed. An additional area identified as the “Meat Market” is located within the loop of Food Center Drive and is also included in this restriction. The Meat Market includes land within the Food Center Drive roadway loop except specific VIP sites or properties identified as: Site A ou-1, Site A ou-2, Viele Avenue, Con Edison compressor station (corner of East Bay Avenue and Halleck Street), Site E ou-1, Site E ou-2, and the Atlantic and Pacific Tea Company.

Any future intrusive work or repair of existing facilities will require the contractor to review and adhere to a health and safety plan and soil management plan that is being submitted as an addendum to this report.

In addition to adherence to the soil management and safety plans, the entire site (perimeter/Iroquois and meat market) will be annually certified that the institutional or engineering controls are still in place and remain effective.

Reduction of Toxicity, Mobility, Volume with Treatment:

The asphalt roadway will serve as a cap and will physically reduce potential for exposure to any residual material including any levels of compounds that are considered toxic. The contaminants found in the soil were primarily semi-volatiles and metals. Since all suspect material was removed for treatment, the actual volume of impacted material that remains in-place is negligible.

The Site Use Plan outlined on Aerial Photo 6 indicates the Site, its limits, and past and current use (main roadway for the Hunts Point Terminal Market area). The presence of this roadway as a single unit across the entire Site has and will continue to act will effectively remove any potential for infiltration in comparison to the existing conditions. The removal of percolating water will render immobile any residual metals and semivolatiles that may remain adjacent to the excavation Site, as these compounds require a source to facilitate their migration. Precipitation will and has always been contained and directed into an engineered storm drainage system, rather than infiltrating through the ground.

The existing use with the roadway capping is an effective remedy for the Site. No additional engineering controls will be recommended within the Site as a result of the total removal of fill material and the lack of either a recoverable plume of NAPL or source of groundwater contamination. Monitoring wells that were removed during the construction were replaced and have been reinspected to find that conditions on the groundwater table are similar if not noticeably improved. Based on this, LMS would recommend that the wells not be closed, as they can be used in the future as water level measurement points and potential up-gradient locations for an adjacent VCP property known as Site D.

A review of the analytical data for soils and fill clearly indicates that even in areas where the fill contains small amounts of residual solidified coal tar, and purifier waste,

no PCBs or pesticides were found that would require further review. Metals concentrations were also consistent with concentrations that may be found in urban fill material.

After a thorough examination, groundwater was found to be free of either a light or dense Non Aqueous Phase Petroleum Layer. Some minor semivolatile contamination was presented in the laboratory data. The data also indicated that the water was rather high in analytes indicative of saline groundwater. Although groundwater fluctuations were not measured, it may be tidally influenced as well.

The Perimeter Site does not contain areas of vegetation (with the exception of several small trees planted in the median within the island traffic divider).

The meat market does have areas along the perimeter that are grass covered and have trees growing in them. There is currently no plan for reconstructing these areas for facilities. They constitute less than 1% of the area of both perimeter site and meat market.

In the event that future work is performed in these areas that require excavation or removal of material, the previously described plans will be used and followed. In the event that backfill material is required, any area that is not covered with solid structures (sidewalks, roadways, parking lots, buildings, or other structures) will have a minimum 1 ft layer of soil placed over a “demarcation” barrier. The soil itself must meet the following criteria: either be from a virgin source of backfill, an example being “bark run” sand, gravel and/or clay or be from some other source of non-regulated material (i.e. recycled C + D from a registered facility) and must meet TAGM 4046 or the approval of NYSDEC.

The future use of the Site will require notification to the Owner for any intrusive repairs or modifications that may result in the contact or disturbance of the material under the cap. Understanding that this area is a roadway and that emergency repairs may need to be performed that would not allow normal notification and review time, NYC is currently developing a plan to address the notification for this and any other work. In any event, a Soil Management Plan (SMP) will be prepared that will address the work that has been performed as an emergency or work that is proposed to be performed. The SMP will describe basic procedures for handling and properly disposing of material and how the engineered cap will be repaired following the completion of the work. The plan will include another document that addresses Health & Safety of workers. These documents will be supplied to NYSDEC and NYSDOH for review. It is understood that upon approval of this document, both Agencies will provide the name and contact information for a person or Department that will be responsible for accepting and reviewing of these documents and in the event that this procedure changes in the future, that NYC will be notified.

This Report is signed and sealed (inside of front cover) by a NYS professional Engineer (Dr. Thomas Pease). The stamp certifies that the IRM was implemented

and that all construction activities were completed substantially in accordance with the Department approved Work Plan, except as noted in this report.

ATTACHMENT A
LMS GEOTECHNICAL SOIL BORING LOGS

LMS Test Boring Log

Boring No.: SW-4

Sheet 1 **of** 2

Project Name: IROQUOIS GAS
Project No.: 0781-020
Client: NYCEDC
Date: Start 9-4-02
Driller: WARREN GEORGE, INC.
Finish 9-4-02
Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert
Total Depth: 40'
Boring Location: Area to the east of Con Ed facility adjacent to Site E
Depth To Water:
Location for: Crane Pad Location M&R Station
Surf. Elevation:
Logged By: Beronica Lee
Hole Diameter: 3-7/8"
Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0	6	19	14	14	1	0	Y	SS1	Black c-f sand, trace silt	
1										
2	9	5	7	27	0.8	0	Y	SS2	Black, brown c-f sand trace silt and clay, gravel, glass	
3										
4	4	3	2	1	NR	-	-	SS3		
5										
6	1	2	4	4	1.3	0	Y	SS4	Gray silty clay, organic, slightly micaceous, mod plasticity	PP= 0 tsf
7										
8	2	1	2	3	0.4	0	Y	SS5	Same as above	
9										
10	-	-	-	-	NR	-	N	ST		
11										(ST) Shelby Tube
12	WOH	WOH	WOH	WOH	1.3	0	Y	SS6		
13									Gray, black silty organic clay, mod plasticity, very soft, slightly micaceous	
14	-	-	-	-	2	-	Y	ST		
15										
16	WOH	WOH	WOH	WOH	2	0	Y	SS7		
17										(WOH) Weight of hammer
18	WOH	WOH	2	2	2	0	Y	SS8	Gray clay, trace silt with reed grass, organic odor	
19										
20									Gray clay with reed grass, organic odor	
21										
22										
23										
24										
25	2	5	9	14	2	0	Y	SS9		
26										
27										
28									Top 4"-Gray, organic clay, micaceous	
29									Rest-Gray m-f sand with clay and silt	
30	11	16	30	32	0.7	0	Y	SS10	with areas of weathered shcistand high mica content and rootlets	
31										
32										
33									Gray brown fine sand with little clay, weathered schist	
34										
35	21	18	21	36	1.3	0	Y	SS11		
36										
37									Rig chatter at 33'	Stone & Webster

LMS Test Boring Log

Boring No.: SW-4

Sheet 2 **of** 2

Project No.: 0781-020

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material	Remarks
38										
39										
40	100/-	-	-	-	NR	-	-	SS12	Bedrock/Refusal	
41									End of Boring 40'	
42										
43										
44										
45										
46										
47										
48										
49										
50										
51										
52										
53										
54										
55										
56										
57										
58										
59										
60										
61										
62										
63										
64										
65										
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										

f - fine
m - medium
c - coarse

and - 35-50%
some - 20-35%
little - 10-20%
trace - 0-10%

LMS Test Boring Log

Boring No.: SW-5

Sheet 1 **of** 1

Project Name: IROQUOIS GAS
Project No.: 0781-020
Client: NYCEDC
Date: Start 9-3-02
Driller: WARREN GEORGE, INC.
Finish 9-3-02
Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert
Total Depth: 40'
Boring Location: Area between A&P parking lot and Con Ed facility
Depth To Water:
Location for: Pig Receiver
Surf. Elevation:
Logged By: Beronica Lee
Hole Diameter: 3-7/8"
Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0									Black, c-f gravel with some silts and f-sand, brick, coal ash, micaceous, odor (Fill)	
1	2	12	12	20	1	0	Y	SS1		
2										
3	14	16	25	30	0.7	0	Y	SS2	Same as above (Fill)	
4										
5	27	57	32	43	0.8	0	Y	SS3	Same as above but c-f sands increase, brick, concrete, shell frag	
6										
7	2	3	3	4	0.1	0	Y	SS4	Black, silty, micaceous sand, coal waste, cinder (Fill)	
8										
9	2	2	1/12"	-	0.5	0	Y	SS5	Gray, micaceous silty clay	
10										
11	2	2	4	4	1.2	0	Y	SS6		
12									Gray, micaceous clay, mod-high plasticity, very soft	PP=0 tsf
13	WOH	WOH	WOH	WOH	2	0	Y	SS7		
14										(WOH) Weight of hammer
15									Gray, micaceous clay, very soft	
16										
17	-	-	-	-	2	-	Y	ST		
18										(ST) Shelby Tube
19	4	2	3	6	2	0	Y	SS8		
20										
21										
22									Gray, tan micaceous m-f sand with some silt and clay, bottom of spoon weathered rock	
23										
24										
25	22	29	100/4.5"	-	1	0	Y	SS9		
26										
27										
28									Gray, tan micaceous m-f sand with some c-f gravel and weathered rock, little clay and silt	
29										Drilled to 30'
30	-	-	-	-	1.9	0	Y	CS		
31										
32										
33									Slightly metamorphosed orthoclase granite with milky quartz, some evident foliation into gneiss, fractures appeared somewhat iron stained	Cored 30' - 35'
34										
35	-	-	-	-	2.7	0	Y	CS		Stone & Webster held all samples
36										
37										

LMS Test Boring Log

Boring No.: SW-6

Sheet 1 **of** 1

Project Name: IROQUOIS GAS
Project No.: 0781-020
Client: NYCEDC
Date: Start 8-28-02
Driller: WARREN GEORGE, INC.
Finish 8-30-02
Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert
Total Depth: 27'
Boring Location: Area between A&P parking lot and Con Ed facility
Depth To Water:
Location for: Food Center Drive Crossing
Surf. Elevation:
Logged By: Beronica Lee
Hole Diameter: 3-7/8"
Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material	Remarks
0	12	13	15	20	1	0	Y	SS1	Coal cinder, slag, ash, tar, pavement, glass, gravel, sand, silt (Fill)	
1										
2	25	17	31	36	1.5	0	Y	SS2	Black, orange, tan, silty m-f sand with brick, coal ash, cinder (Fill)	
3										
4	17	21	21	52	0.8	0	Y	SS3	Brown silty f-m gravel with black coal ash, cinder, sheen around black, odor	
5										
6	52	24	10	14	1.5	0	Y	SS4	Top 10"-Dark gray silty micaceous f-gravel with little sand (Fill)	
7										
8	WOH	WOH	1	1	1.8	0	Y	SS5	Bot8" Gray, green micaceous silt with little vf-sand	(WOH) Weight of hammer
9										
10	WOH	WOH	WOH	WOH	NR	-	-	SS6	At 8' Gray silt and vf-sand, shell fragments, micaceous, very soft	
11										
12										
13										
14										
15	2	2	8	13	1	0	Y	SS7		
16									Gray, brown silt and vf-sand with mica, shell fragments, wood and black fine sand lenses~1" diameter	
17										
18										
19										
20	81	44	25	23	0.8	0	Y	SS8		
21										
22										
23									Highly weathered muscovite schist	
24										
25	100/1"	-	-	-	0.1	0	Y	SS9		
26										
27										
28									Weathered gneissic rock with iron staining, Bedrock called @ 25' after drilling to 27' with no advance of spoon	
29										
30										
31									End of Boring @ 27'	
32										
33										
34										
35										
36										
37										

f - fine
m - medium
c - coarse

and - 35-50%
some - 20-35%
little - 10-20%
trace - 0-10%

LMS Test Boring Log

Boring No.: SW-7(A)

Sheet 1 **of** 1

Project Name: IROQUOIS GAS | **Project No.:** 0781-020

Client: NYCEDC | **Date:** Start 8-26-02

Driller: WARREN GEORGE, INC. | Finish 8-26-02

Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert | **Total Depth:** 16'

Boring Location: Food Center Dr. across from the A&P Lot | **Depth To Water:**

Location for: Food Center Drive Crossing | **Surf. Elevation:**

Logged By: Beronica Lee | **Hole Diameter:** 3-7/8"

Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0									Drilled through asphalt to one foot.	
1	25	119	33	14	1	0	Y	SS1	Micaceous c-f sand and c-f gravel, shells, brick	
2										
3	26	26	100/3"	-	0.6	0	Y	SS2	Micaceous, m-f gravel with little f-sand	
4										
5	100/2"	-	-	-	0.8	0	Y	SS3	C-f gravel with silt and c-f sand mostly fine, tire pieces, very dense	
6										
7	100/3"	-	-	-	0.3	0	Y	SS4	Same as above, concrete pieces, very dense	Slow drilling, very hard
8										
9										
10	16	73	14	4	0.7	0	Y	SS5	Gray, black, tan silty c-f sand with little c-f gravel, micaceous	SS6 was second sample from 10' - 12', not representative
11										
12	15	10	11	20	0.8	0	Y	SS7	Top7"-Gray, micaceous silty sand	
13										
14	2	1	12	15	0.7	0	Y	SS8	Bot3"-Brown silty clay with trace gravel, roots	
15										
16									At 14'-Brown, very soft silty clay with trace m-f gravel, roots	PP= 0.5 tsf
17										
18										
19									Casing was advanced to 16', pipe hung up in casing, had to abandon hole with approximately 10 feet of casing and drill bit left in the hole.	
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										Stone & Webster

LMS Test Boring Log

Boring No.: SW-7(B)

Sheet 1 **of** 1

Project Name: IROQUOIS GAS
Project No.: 0781-020
Client: NYCEDC
Date: Start 8-27-02
Driller: WARREN GEORGE, INC.
Finish 8-28-02
Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert
Total Depth: 17'
Boring Location: Food Center Dr. across from the A&P Lot
Depth To Water:
Location for: Food Center Drive Crossing
Surf. Elevation:
Logged By: Beronica Lee
Hole Diameter: 3-7/8"
Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0									Drilled down to 15' to obtain sample at the last sampling depth of 7(a)	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15	100	10	12	23	1	0	Y	SS1		
16									Green, brown silty clay with weathered schist, micaceous, roots, trace gravel	
17										
18										
19									Driller was unable to advance casing past 15', sheared off leaving approximately 4 ft of casing in the hole	
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										Stone & Webster

LMS Test Boring Log

Boring No.: SW-8

Sheet 1 **of** 1

Project Name: IROQUOIS GAS | **Project No.:** 0781-020

Client: NYCEDC | **Date:** Start 8-22-02

Driller: WARREN GEORGE, INC. | Finish 8-22-02

Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert | **Total Depth:** 32'

Boring Location: Food Center Dr. @ intersect of East Bay Ave north of rail | **Depth To Water:**

Location for: Food Center Drive Rail Spur Crossing | **Surf. Elevation:**

Logged By: Beronica Lee | **Hole Diameter:** 3-7/8"

Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0									Drilled through asphalt to one foot.	
1	22	16	13	10	1.3	73	Y	SS1	Asphalt, gravelly c-f sand, wood, black coal ash, strong odor (Fill)	
2										
3	19	31	33	33	1.3	57	Y	SS2	Asphalt, black coal ash, c-f sand with little gravel, increase in fines at bottom of spoon, odor (Fill)	
4										
5	7	6	9	6	1.3	73	Y	SS3		
6										
7									At 5' Black, silty c-f sand with little gravel up to 1" diameter, coal ash (Fill)	
8	1	2	2	11	0.4	0.2	Y	SS4	Top 2"-gravel	
9										
10	WOH	/1'	20	24	NR	-	-	SS5	Bot 3"-Brown, silty micaceous clay, soft, non-slightly plastic	(WOH) Weight of hammer
11										
12	15	22	44	36	1	0	Y	SS6		
13									Brown, orange, micaceous, well graded c-f sand with little gravel and trace silt (Till)	
14										
15	27	39	44	100/4"	1	0	Y	SS7		
16									Tan, orange, micaceous, c-f sand mostly fine with some angular gravel up to 1" diameter, very dense (Till)	
17										
18										
19										
20	36	52	100/4"	-	0.3	0	Y	SS8		
21										
22									Gray-tan with orange gravel with c-f sand mostly fine, very dense (Till)	
23										
24										
25	85	110	100/3"	-	0.8	0	Y	SS9		
26										
27									Gray gravelly silty c-f sand mostly fine (Till)	
28										
29										
30	100/2"	-	-	-	0.3	0	Y	SS10		
31										
32										
33									Gray gravelly silty c-f sand mostly fine (Till)	
34										
35									End of Boring @ 32'	
36										
37										Stone & Webster

LMS Test Boring Log

	Boring No.: SW-9
	Sheet 1 **of** 1
Project Name: IROQUOIS GAS	**Project No.:** 0781-020
Client: NYCEDC	**Date:** Start 8-23-02
Driller: WARREN GEORGE, INC.	Finish 8-23-02
Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert	**Total Depth:** 31'
Boring Location: Food Center Dr. @ intersect of East Bay Ave south of rail	**Depth To Water:**
Location for: Food Center Drive Rail Spur Crossing	**Surf. Elevation:**
Logged By: Beronica Lee	**Hole Diameter:** 3-7/8"
Monitoring Instrument(s): MiniRAE 2000	

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0									Drilled through asphalt to one foot.	
1	100/2"	-	-	-	0.3	0	Y	SS1	Olive green gravelly c-f sand, m-f gravel, wood, coal cinder, some coal ash, slight odor, micaceous (Fill)	
2										
3	39	47	35	27	1	0.7	Y	SS2		
4									At 3'-black, gravelly c-f sand, trace fines, very dense	
5	13	7	6	13	1.2	0	Y	SS3		
6									At 5'-black, gray clay with some green silt and c-f sand, glass, micaceous, med-high plasticity, no odor	
7	10	6	7	13	1.5	0	Y	SS4		
8										
9	5	7	14	25	0.5	0	Y	SS5	At 7'-Brown, tan, micaceous silty clay, wood,med-high plasticity	Rig chatter while drilling to 9'
10										
11	16	31	35	35	0.3	0	Y	SS6		
12									At 9'-Gray-brown clay with some c-f sand and little m-f gravel, med-high plasticity, micaceous	
13	25	16	45	41	0.7	0	Y	SS7		
14										
15	26	34	92	56	1.3	0	Y	SS8	At 11'-Gray, brown clayey c-f sand with large gravel	
16										
17	18	37	37	60	0.7	0	Y	SS9	At 13'-Iron-stained, black and tan c-f sand with trace f-gravel, micaceous	
18										
19	54	50	37	50	0.8	0	Y	SS10	15'-19' c-f sand with some c-m gravel, trace fines, gneiss gravel, highly micaceous, igneous gravel	
20										
21										
22										
23									At 19'-Gray silty c-f sand with little m-f gravel, micaceous	
24	6	13	73	100/3"	1.7	0	Y	SS11		
25										
26										
27									Gray very coarse sand with little gravel, iron staining, weather gneiss	
28										
29	100/4"	-	-	-	NR	-	-	SS12	Bottom of spoon silty m-f sand, micaceous	
30										
31										
32									Gray silty m-f sand with little gravel	
33									End of Boring @ 31'	
34										
35										
36										
37										

LMS Test Boring Log

Boring No.: SW-10

Sheet 1 **of** 2

Project Name: IROQUOIS GAS | **Project No.:** 0781-020

Client: NYCEDC | **Date:** Start 8-15-02

Driller: WARREN GEORGE, INC. | Finish 8-16-02

Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert | **Total Depth:** 45'

Boring Location: Site C Hunts Point at Main Line Valve Location | **Depth To Water:**

Location for: Main Line Valve | **Surf. Elevation:**

Logged By: Beronica Lee | **Hole Diameter:** 3-7/8"

Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0									Drilled through concrete/asphalt	
1									Iron-stained, brown, micaceous silty f-c	
2	21	6	8	14	1.2	0	Y	SS1	sand, mostly fine, with some gravel,	
3									brick (Fill)	
4	28	25	20	19	1.3	0	Y	SS2	Brown, very micaceous gravelly, clayey	
5									sand, brick, asphalt (Fill)	
6	7	4	5	4	0.6	0	Y	SS3	Brown, micaceous f-m sand with trace	
7									f-c gravel, brick, loose (Fill)	
8	6	11	7	7	1	0	Y	SS4	Top 6"-Gray to black silty f-c sand with	
9									trace gravel, wood; Bot 6"-Black silty	
10	5	2	2	2	1.3	0	Y	SS5	clay, high plasticity (Fill)	PP<0.5 tsf
11										TORV=1.25
12	3	3	8	5	1.8	0	Y	SS6	Gray to black silty, micaceous clay,	PP=0 tsf
13									high plasticity, very soft (10'-12')	TORV=1.25
14									Gray to black silty, micaceous clay,	PP=0 tsf
15									somewhat high plasticity (12'-14')	TORV =1.25
16										
17										
18	WOH	WOH	WOH	WOH	2	1.4	Y	SS7		
19										
20									Top6"-Black coal ash	(WOH) Weight of
21									Mid12"-Gray, micaceous silty clay	hammer
22									Bot6"-Black coal ash and organic silt	
23										
24										
25	22	41	42	24	0.9	0	Y	SS8		
26									Hard drilling 23' - 24'	
27										
28									Brown, tan, micaceous, f-m sand,	
29									mostly fine, <5% N.P.F.	
30	35	45	91	-	0.6	0	Y	SS9		
31										
32										
33									Gray-brown, micaceous sandy clay,15-	
34									25% f-sand, w/ trace gravel, slight to	
35	30	42	42	44	1.2	0	Y	SS10	mod-plasticity	
36										
37										

LMS Test Boring Log

Boring No.: SW-10
Sheet 2 **of** 2
Project No.: 0781-020

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material	Remarks
38										
39										
40	23	34	21	23	0.8	0	Y	SS11	Brown with iron staining, f-m sand w/ little silt and trace f-gravel	
41										
42										
43										
44	100/4.5"	-	-	-	0.3	0	Y	SS12	Brown and black gravel with some f-c sand, gravel to 1", possible weathered bedrock	Lost tip of spoon in hole, unable to retrieve or advance
45									End of boring at 45'	
46										
47										
48										
49										
50										
51										
52										
53										
54										
55										
56										
57										
58										
59										
60										
61										
62										
63										
64										
65										
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										

Classification Of Material
f - fine
m - medium
c - coarse
and - 35-50%
some - 20-35%
little - 10-20%
trace - 0-10%

LMS Test Boring Log

Boring No.: SW-11
Sheet 1 **of** 3

Project Name: IROQUOIS GAS
Project No.: 0781-020
Client: NYCEDC
Date: Start 8-7-02
Driller: WARREN GEORGE, INC.
Finish 8-9-02
Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert
Total Depth: 92'
Boring Location: Site C Hunts Point
Depth To Water: 9'
Location for: HDD Entry
Surf. Elevation:
Logged By: Beronica Lee and Mike Pantliano
Hole Diameter: 3-7/8"
Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0	38	26	12	18	1	11	Y	SS1	Asphalt, organics, silty sand with little gravel, f-c sand, dense (Fill)	
1										
2										
3										
4										
5	19	16	19	18	0.6	0	Y	SS2	Angular gravels with brick, dense (Fill)	
6										
7										
8	12	6	6	6	0.3	0	Y	SS3	Gravel up to an inch in diameter, medium dense (Fill)	
9										
10	8	4	2	8	NR	-	-	SS4		
11										
12	5	3	3	3	1.8	0	Y	SS5	Coal ash, cinder, wood and fine gravel, loose (Fill)	
13										
14										
15	3	2	3	4	0.7	0	Y	SS6		
16									Coal ash, cinder, wood and fine gravel, loose (Fill)	
17										
18										
19										
20	6	5	5	5	0.5	0	Y	SS7		
21									Coal ash, wood, glass, loose (Fill)	
22										
23										
24										Driller called clay @ 23'
25	WOH	WOH	2	2	1.5	0	Y	SS8		
26										
27	-	-	-	-	2	-	Y	ST	Gray silty micaceous clay, reduced organics, very soft, some plasticity	(WOH) Weight of hammer
28										
29	WOH	27	44	37	1.5	0	Y	SS9		
30									27'-29'-Took 3" undisturbed sample in galvanized shelby tube for lab analysis	(ST) Shelby Tube
31										
32										
33									Gray clayey, silty micaceous f-c sand with trace gravel, shell fragments, dense	
34										
35	26	30	41	33	0.7	0	Y	SS10		
36										
37										

LMS Test Boring Log

Boring No.: SW-11
Sheet 2 **of** 3
Project No.: 0781-020

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
38										
39										
40	31	33	28	47	1	0	Y	SS11	Alternating 2" layers of dense gray silty clay to orange clayey, silty sand with mica throughout sample	
41										
42										
43	50	77	91	100/4	1	0		SS12	Iron-stained micaceous c-vc sand with chert gravels >2", very dense	
44										
45	100/5	-	-	-	NR	-	-	SS13		
46										
47										
48										
49										
50	24	30	36	38	1.5	0	Y	SS14		
51									Iron-stained, orange-tan micaceous silty sand, poorly graded, very dense	
52										
53										
54										
55	22	36	38	71	1.5	0	Y	SS15		
56									Iron-stained, orange-tan micaceous silty sand, poorly graded, very dense	
57										
58	25	57	47	51	2	0	Y	SS16		
59									Iron-stained, orange-tan micaceous silty sand with granite pebble and weathered gneiss, very dense	
60	100/5	-	-	-	NR	-	-	SS17		
61										
62										
63										
64										
65	42	34	43	59	1.3	0	Y	SS18		
66										
67										
68									Iron-stained, micaceous c-sand, very dense	
69										
70	53	79	100/1	-	1.3	0	Y	SS19		
71										
72										
73										
74	41	44	51	62	1	0	Y	SS20	Top 12"-Iron-stained, c-sand, very dense	
75										
76									Bottom 3"-Weathered gneiss	
77										
78									Iron-stained, micaceous c-sand, very dense	
79										
80	51	41	41	61		0	Y	SS21		
81										
82										
83										

LMS Test Boring Log

Boring No.: SW-11

Sheet 3 **of** 3

Project No.: 0781-020

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material	Remarks
84										
85	43	56	57	61	1	0	Y	SS22	0-6"-Brown orange c-sand little silt	
86									6-12"-Gray brown clay	
87										
88										
89										
90	41	46	50	42	1.5	0	Y	SS23	Gray sand little silt, micaceous, m-c sand	
91										
92									End of boring @ 92'	
93										
94										
95										
96										
97										
98										
99										
100										

f - fine
m - medium
c - coarse

and - 35-50%
some - 20-35%
little - 10-20%
trace - 0-10%

LMS Test Boring Log

Boring No.: SW-12

Sheet 1 **of** 1

Project Name: IROQUOIS GAS | **Project No.:** 0781-020

Client: NYCEDC | **Date:** Start 8-19-02

Driller: WARREN GEORGE, INC. | Finish 8-19-02

Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert | **Total Depth:** 32'

Boring Location: Along Food Center Drive, NW of SW-10 on first lane stripe | **Depth To Water:** 10.5

Location for: Food Center Drive Rail Spur Crossing | **Surf. Elevation:**

Logged By: Beronica Lee | **Hole Diameter:** 3-7/8"

Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0									Drilled through asphalt to one foot.	
1	43	58	56	61/5"	1.5	0	Y	SS1	Asphalt, gravel and c-sand with some silt, very dense (Fill)	
2										
3	60	45	71	20	0.3	0	Y	SS2	Well graded sand with little gravel and trace clay, brick lodged in tip (Fill)	
4										
5	22	8	5	4	0.7	0	Y	SS3	Brown and black, micaceous silty f-m sand with little gravel (Fill)	
6										
7	6	3	3	3	0.5	0	Y	SS4	Black silty gravel with c-f sand, coal cinder, ash, glass, brick, Bottom of spoon gray/black micaceous clay	
8										
9										
10	6	5	13	10	NR	-	-	SS5		
11										
12	4	3	2	2	2	0	Y	SS6		
13									Gray/black soft micaceous silty clay, bordering on clayey silt	
14										
15	9	10	13	18	1.5	0	Y	SS7		
16									Top 8"-Silty clay with wood	
17									Bot 10"-Brown, micaceous, stiff silty c-f sand with trace gravel	
18										
19										
20	16	17	24	31	1.3	0	Y	SS8		
21									Hard drilling @ 19'	
22									Gray brown, tan and orange, iron-stained, clayey to silty gravel and c-m sand with little weathered bedrock, very micaceous and dense	
23										
24										
25	34	32	38	25	1.4	0	Y	SS9		
26										
27										
28									Tan, gray, orange and black grains of silty c-f sand with trace angular gravel, micaceous, dense, probably weathered rock	
29										
30	43	100/4"	-	-	0.4	0	Y	SS10		
31										
32										
33									Brown-gray,micaceous, sandy clay, 30% c-f sand, very stiff, (Till?)	
34										
35									End of Boring 32'	
36										
37										Stone & Webster

LMS Test Boring Log

Boring No.: SW-13

Sheet 1 **of** 1

Project Name: IROQUOIS GAS

Project No.: 0781-020

Client: NYCEDC

Date: Start 8-20-02

Driller: WARREN GEORGE, INC.

Finish 8-20-02

Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert

Total Depth: 26'

Boring Location: Food Center Drive in front of Hunts Point Coop Market Entrance

Depth To Water:

Location for: Food Center Drive Rail Spur Crossing

Surf. Elevation:

Logged By: Beronica Lee

Hole Diameter: 3-7/8"

Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample and Type #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0									Drilled through asphalt to one foot.	
1	75	31	33	33	1	0	Y	SS1	Asphalt, brick, gravel, ceramic, black silty m-f sand, micaceous, dense (Fill)	
2										
3	19	17	31	21	1.1	0	Y	SS2	Top 3"-Black silty clay with brick	
4									Tan,orange silty c-f sand with little pea-sized gravel and weathered rock, micaceous, dense	
5	18	17	24	19	0.3	0	Y	SS3		
6										
7	15	14	30	33	1.4	0	Y	SS4	Brown, orange, iron-stained, micaceous clayey c-f sand with little gravel up to 1" in diameter, dense	
8										
9	36	39	33	36	0.2	0	Y	SS5		
10									At 9', brown, orange micaceous gravelly silty with trace m-f sand, dense	
11										
12										
13										
14										
15	62	100/5"	-	-	0.6	0	Y	SS6	Gray, orange mottles, sandy silt, non to slightly plastic, c-f sand mostly fine, little gravel, very dense, till-like	
16										
17										
18										
19										
20	58	50	63	85	1.4	0	Y	SS7	Gray, orange mottles, clayey silt with c-f sand mostly fine, micaceous, till-like	
21										
22									Hard drilling from 23' to 25'	
23										
24										
25	93	100/3.5"	-	-	1	0	Y	SS8	Gray, sandy silt with some gravel, c-f sand, micaceous, till-like	
26										
27									End of Boring @ 26'	
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										Stone & Webster

LMS Test Boring Log

Boring No.: SW-14

Sheet 1 **of** 2

Project Name: IROQUOIS GAS
Project No.: 0781-020
Client: NYCEDC
Date: Start 8-12-02
Driller: WARREN GEORGE, INC.
Finish 8-14-02
Drilling Method: Rotary wash w/ 4" casing to 50' open hole w/ revert
Total Depth: 86.5'
Boring Location: Site C Hunts Point
Depth To Water:
Location for: HDD Entry
Surf. Elevation:
Logged By: Beronica Lee and Victor Nyarko
Hole Diameter: 3-7/8"
Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0	36	56	43	46	1.3	0	Y	SS1	Asphalt, Black clay, f-c sands and little gravel	
1										
2										
3										
4										
5	2	1	3	2	NR	-	-	SS2		
6										
7										
8										
9										
10	-	-	-	-	-	-	-			
11									Drilled through concrete 10'-12.5'	Victor N. start log
12										
13	1	2	3	5	NR	-	-	SS3		
14										
15	11	0	1	1	0.3	0.2	Y	SS4		
16									Black, very fine unknown material	
17										
18										
19										
20	WOH	WOH	WOH	WOH	0.3	0	Y	SS5		
21										
22									Black, very fine unknown material, gives silver sheen in water and looks like coal tar waste	(WOH) Weight of hammer
23										
24										
25	WOH	WOH	WOH	14			Y	SS6		
26										
27									Black fill material, very fine, gives silver sheen in water, coal tar waste product with hydrocarbon odor	
28										
29										
30	22	24	20	19			Y	SS7		
31										
32									Dark gray, weathered rock rich in mica with fragments of quartz	
33										
34										
35	43	32	18	14	0.6		Y	SS8		
36										
37										Stone & Webster

LMS Test Boring Log

Boring No.: SW-14
Sheet 2 **of** 2
Project No.: 0781-020

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material	Remarks
38										
39										
40	100/0.1	-	-	-	NR	-	-	SS9		
41										
42										
43										
44										
45	18	8	6	7	0.4	-	Y	SS10	Peat, dark gray to black with strong petroleum odor mixed with rock fragments	
46										
47										
48										
49										
50	74	85	100/5	-	0.7	-	Y	SS11	Gray to dark gray f-m sand with little clay	
51										
52										
53										
54										
55	30	32	47	37	0.6	0	Y	SS12	Gray, m-c sand with reddish-brown stains	
56										
57										
58										
59										
60	12	22	16	25	0.6	-	Y	SS13	Dark gray to black clay, highly plastic with slight petroleum odor	
61										
62										
63										
64										
65	25	41	3	63	0.7	-	Y	SS14		
66									Gray, turning to reddish-brown micaceous silt, muscovite rich with no odor	
67										
68										
69										
70	67	80	100/4	-	1.5	-	Y	SS15		
71									Mixed patches of gray and reddish-brown sand, traces of rounded pebbles	
72										
73										
74										
75	44	51	63	88	1.3	-	Y	SS16		
76										
77										
78									Reddish-brown m-f sand with angular to sub-angular pebbles	
79										
80	100/1	-	-	-	0.08	-	Y	SS17		
Bedrock-Mafic rock most probably Muscovite-Biotite Gneiss with traces of garnet. Rock is medium grained with a high percentage of milky quartz									Slightly weathered mafic rock, sandy	Bedrock @ 80', cored 85'-86.5

f - fine
m - medium
c - coarse

and - 35-50%
some - 20-35%
little - 10-20%
trace - 0-10%

ATTACHMENT B
LMS MONITORING WELL LOGS AND WELL CONSTRUCTION LOGS

LMS Test Boring Log

Boring No.: MW-11

Sheet 1 **of** 1

Project Name: IROQUOIS GAS | **Project No.:** 0781-020

Client: NYCEDC | **Date:** Start 9-11-02

Driller: WARREN GEORGE, INC. | Finish 9-11-02

Drilling Method: 6- inch hollow stem augers | **Total Depth:** 15'

Boring Location: Food Center Dr. @ intersect of East Bay Ave south of rail | **Depth To Water:** 6.65'

Coordinates: | **Surf. Elevation:**

Logged By: Beronica Lee | **Hole Diameter:** 8"

Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0	-	-	-	-	-	-	-	CR	Asphalt, m-f gravel with c-f sand	
1	28	14	30	40	1.2	56	Y	SS1	Black coal ash, cinder w/ silts and sands, little gravel, wood, slag, pieces of coal tar, odor	
2										
3	3	3.5	-	-	-	-	-	SS2		
4										
5	10	6	4	6	1.7	35	Y	SS3	Coal ash, Black silty c-f sand w/ little gravel	Bottom of spoon wet
6										
7	15	11	16	13	0.5	9.4	Y	SS4	m-f gravel and coarse sand, coal tar, wet, shoe had brown, micaceous silty clay	
8										
9	6	10	22	31	2	0	Y	SS5		
10										
11	4	16	29	100/6"	2	0	Y	SS6	9'-13' Gray, brown, orange mottles, micaceous silty clay with f-sand increasing towards bottom of spoon	
12										
13	76	100/6"	-	-	0.4	0	Y	SS7	Same as above w/ little m-f gravel	
14										
15										
16									End of boring @ 15', set flush mount well with 13' screen	
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										

MONITORING WELL COMPLETION LOG

PROJECT NUMBER: 0781-020

PROJECT NAME: Iroquois Gas Pipeline

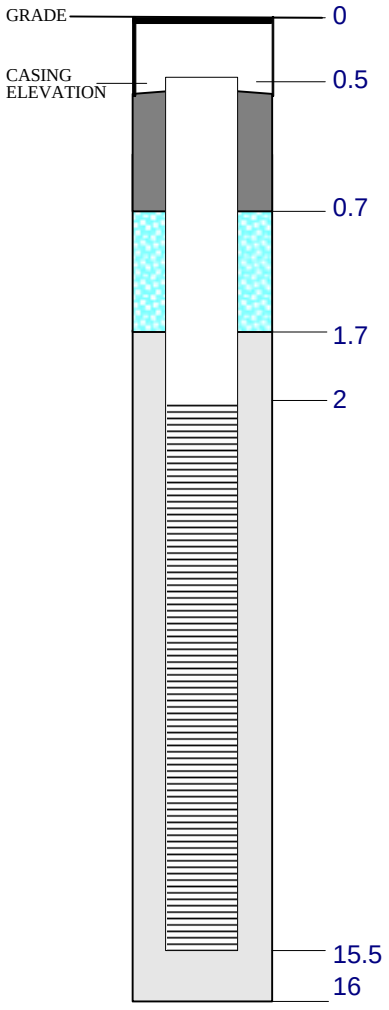
WELL No.: MW-11

CLIENT: NYC EDC

LOCATION: Food Center Drive at intersect of Bay Street Ave. south of rail way

DATE DRILLED:	DATE DEVELOPED:	WELL CONSTRUCTION COMPLETED:
11-Sep-02	24-Sep-02	11-Sep-02

DEVELOPING METHOD: Surged, bailed and pumped with submersible whale pump



NOT TO SCALE

INSPECTOR: Beronica Lee

DRILLING CONTRACTOR: Warren George Inc.

TYPE OF WELL: 2"

STATIC WATER LEVEL: 6.65 DATE: 9/16/2002

MEASURING POINT: TOC TOTAL DEPTH OF WELL: 15.03 TOTAL DEPTH OF BORING: 16

DRILLING METHOD TYPE: Hollow Stem Auger

DIAMETER: 6" CASING: 2"

SAMPLING METHOD TYPE: Split Spoon

DIAMETER: 2" WEIGHT: 135 lb

FALL: 2' INTERVAL: 6"

RISER PIPE LEFT IN PLACE MATERIAL: PVC

DIAMETER: 2" LENGTH: 2' JOINT TYPE: Threaded

SCREEN MATERIAL: PVC

INTERVAL: 2'-15.5' DIAMETER: 2"

STRATIGRAPHIC UNITS SCREENED: SLOT SIZE: 0.010"

FILTER PACK GRADE: #1

SAND: Quartz GRAVEL: NATURAL:

AMOUNT: 3 bags INTERVAL:

SEAL(s)

Portland Cement	INTERVAL:	0.7'-0.5'	AMOUNT:	
Bentonite Slurry	INTERVAL:		AMOUNT:	
Bentonite Pellets	INTERVAL:	0.7'-1.7'	AMOUNT:	
Other:	INTERVAL:		AMOUNT:	

NOTES:
Oversight well installed by ENSR
Set as flushmount.

LOCKING CASING: [X] YES [ ] NO KEY NO:

LMS LAWLER, MATUSKY & SKELLY ENGINEERS LLP

J:\07xx-xxx\0781_New York City Economic Development Corp\0781-020_Iroquios Pipeline\Boring Logs\MW-11MW11 Completion Log

LMS Test Boring Log

Boring No.: MW-12

Sheet 1 **of** 1

Project Name: IROQUOIS GAS
Project No.: 0781-020
Client: NYCEDC
Date: Start 9-16-02
Driller: WARREN GEORGE, INC.
Finish 9-16-02
Drilling Method: 6- inch hollow stem augers
Total Depth: 10'
Boring Location: 1400 Food Center Dr. across from A&P
Depth To Water: 6.06'
Coordinates:
Surf. Elevation:
Logged By: Beronica Lee
Hole Diameter: 8"
Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0	100/3"								Asphalt, gravel w/ black c-f sand	
1	-	-	-	-	0.5	0	N	SS1	1'-2' Tan, vc-gravel and c-f sand	
2	27	40	52	78	1.7	26	Y	SS2	Brown/black some silt and some sand	
3									w/ little m-f gravel, brick, shells (Fill)	
4	50/0"	-	-	-	NR	-	-	SS3	Brick in shoe	
5	50/0"	-	-	-	NR	-	-	SS4	Hard drilling	
6										
7	5	3	1	2	0.3	0	Y	SS5		
8									Black, silty fine sand w/ trace f-gravel,	
9	2	3	4	3	1	0	Y	SS6	micaceous, wet	
10									Gray, very soft silt w/ little vf-sand,	
11	WOH	WOH	25	21	1.5	0	Y	SS7	shells, micaceous, trace clay, wet	
12									Top 6"-Gray silty clay, shells	
13									Bot12"-Gray silty very fine sand w/ 3" f-	
14									m sand, black, all w/ trace clay	
15										
16									End of boring @ 13', well will be flush	
17									mount and set @ 10' with 8' screen	
18									and 2' riser	
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										

MONITORING WELL COMPLETION LOG

PROJECT NUMBER: 0781-020

PROJECT NAME: Iroquois Gas Pipeline

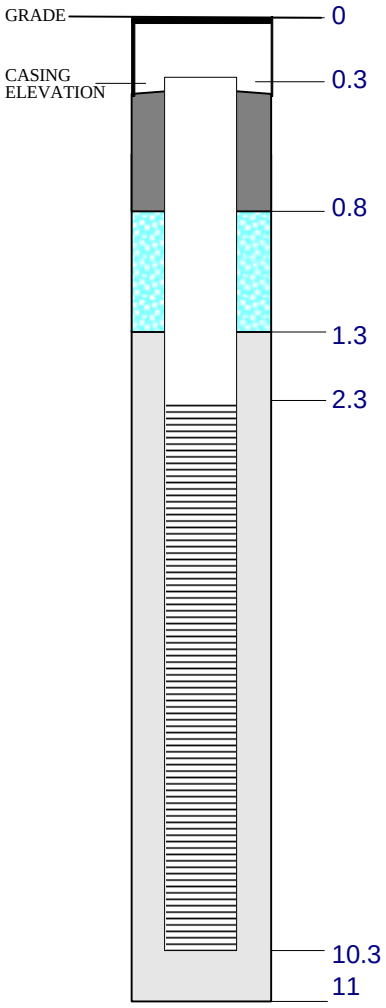
WELL No.: MW-12

CLIENT: NYC EDC

LOCATION: 1400 Food Center Dr. across from A&P

DATE DRILLED:	DATE DEVELOPED:	WELL CONSTRUCTION COMPLETED:
16-Sep-02	24-Sep-02	16-Sep-02

DEVELOPING METHOD: Surged, bailed and pumped with submersible whale pump



NOT TO SCALE

INSPECTOR: Beronica Lee

DRILLING CONTRACTOR: Warren George Inc.

TYPE OF WELL: 2"

STATIC WATER LEVEL: 6.06 DATE: 9/16/2002

MEASURING POINT: TOC TOTAL DEPTH OF WELL: 10 TOTAL DEPTH OF BORING: 11

DRILLING METHOD TYPE: Hollow Stem Auger

DIAMETER: 6" CASING: 2"

SAMPLING METHOD TYPE: Split Spoon

DIAMETER: 2" WEIGHT: 135 lb

FALL: 2' INTERVAL: 6"

RISER PIPE LEFT IN PLACE MATERIAL: PVC

DIAMETER: 2" LENGTH: 2' JOINT TYPE: Threaded

SCREEN MATERIAL: PVC

INTERVAL: 2'-10' DIAMETER: 2"

STRATIGRAPHIC UNITS SCREENED: SLOT SIZE: 0.010"

FILTER PACK GRADE: #1

SAND: Quartz GRAVEL: NATURAL:

AMOUNT: 4 bags INTERVAL: 1.3'-11'

SEAL(s)

Portland Cement	INTERVAL:	0.3'-0.8'	AMOUNT:	
Bentonite Slurry	INTERVAL:		AMOUNT:	
Bentonite Pellets	INTERVAL:	0.8'-1.3'	AMOUNT:	
Other:	INTERVAL:		AMOUNT:	

LOCKING CASING: [X] YES [ ] NO KEY NO:

NOTES:
Oversight well installed by ENSR
Set as flushmount.

LMS LAWLER, MATUSKY & SKELLY ENGINEERS LLP

J:\07xx-xxx\0781_New York City Economic Development Corp\0781-020_Iroquios Pipeline\Boring Logs\MW-12MW 12 Completion Log

LMS Test Boring Log

Boring No.: MW-13
Sheet 1 **of** 1

Project Name: IROQUOIS GAS
Project No.: 0781-020
Client: NYCEDC
Date: Start 9-13-02
Driller: WARREN GEORGE, INC.
Finish 9-13-02
Drilling Method: 6- inch hollow stem augers
Total Depth:
Boring Location: Area near Site E between Con Ed and A&P
Depth To Water:
Coordinates:
Surf. Elevation:
Logged By: Beronica Lee
Hole Diameter: 8"
Monitoring Instrument(s): MiniRAE 2000

Depth (ft)	Blows On Sampler 0"-6"	6"-12"	12"-18"	18"-24"	Recovery (ft)	Instrument Reading	Sample Retained	Sample Type and #	Classification Of Material (f - fine, m - medium, c - coarse; and - 35-50%, some - 20-35%, little - 10-20%, trace - 0-10%)	Remarks
0	8	8	25	20	1	9.2	Y	SS1	c-f gravel with some c-f sand, brown, brick, wood, coal product, micaceous	
1										
2	10	4	2	4	0.3	0	Y	SS2	Same as above	
3										
4	2	3	2	2	1	0	Y	SS3	Black, micaceous, sandy silt w/ little gravel	
5										
6	5	5	5	4	0.5	0	Y	SS4	Black, micaceous, glass, silty clay trace sand	
7										
8	1	1	-	-	1.3	0	Y	SS5	(8'-9')Top8"-Brown, micaceous clayey	
9	WOH	-	-	-	0.5	0	Y	SS6	sand, Bot8"-Gray silt, vf sand w/ shells,	
10	1	1	1	8	2	0	Y	SS7	high silt content, micaceous	
11									(9'-10')Gray silt w/ vf sand, micaceous,	
12									shells	
13									(10'-12')Top16"-Same as above	
14									Bot8"-Gray, silty clay w/ black mottles,	
15									organics	
16										
17										
18									End of boring 12', Stick up well set @	
19									15', riser 5.1' with 2.8' above ground	
20									and screen length of 10'	
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										

MONITORING WELL COMPLETION LOG

PROJECT NUMBER: 0781-020

PROJECT NAME: Iroquois Gas Pipeline

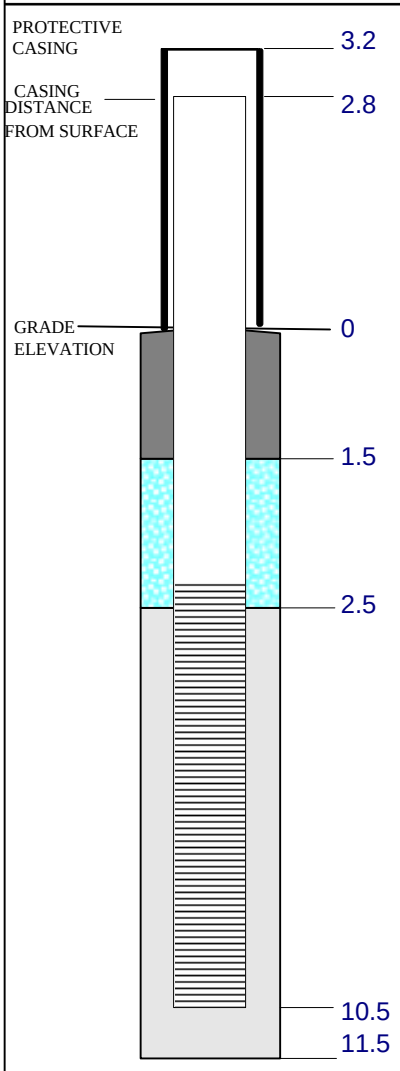
WELL No.: MW-13

CLIENT: NYC EDC

LOCATION: Food Center Drive at intersect of Bay Street Ave. south of rail way

DATE DRILLED:	DATE DEVELOPED:	WELL CONSTRUCTION COMPLETED:
13-Sep-02	24-Sep-02	13-Sep-02

DEVELOPING METHOD: Bailed and submersible whale pump



NOT TO SCALE

INSPECTOR: Beronica Lee

DRILLING CONTRACTOR: Warren George Inc.

TYPE OF WELL: 2"

STATIC WATER LEVEL: 6.65 DATE: 9/16/2002

MEASURING POINT: TOC TOTAL DEPTH OF WELL: 15.1 TOTAL DEPTH OF BORING:

DRILLING METHOD TYPE: Hollow Stem Auger

DIAMETER: 6" CASING: 2"

SAMPLING METHOD TYPE: Split Spoon

DIAMETER: 2" WEIGHT: 135 lb.

FALL: 2' INTERVAL: 6"

RISER PIPE LEFT IN PLACE MATERIAL: PVC

DIAMETER: LENGTH: JOINT TYPE: Threaded

SCREEN MATERIAL: PVC

INTERVAL: 5.5'-10.5' DIAMETER: 2"

STRATIGRAPHIC UNITS SCREENED: SLOT SIZE: 0.010"

FILTER PACK GRADE: #1

SAND: Quartz GRAVEL: NATURAL:

AMOUNT: INTERVAL:

SEAL(s)

Portland Cement	INTERVAL:	AMOUNT:
Bentonite Slurry	INTERVAL:	AMOUNT:
Bentonite Pellets	INTERVAL:	AMOUNT:
Other:	INTERVAL:	AMOUNT:

NOTES:
Oversight well installed by ENSR.
Set as stick-up well.
0.6' at top of casing included in seal.

LOCKING CASING: ☐ YES ☐ NO KEY NO:

LMS LAWLER, MATUSKY & SKELLY ENGINEERS LLP

J:\07xx-xxx\0781_New York City Economic Development Corp\0781-020_Iroquios Pipeline\Boring Logs\MW-13MW13 Completion Log

ATTACHMENT C
ENSR PURGE AND SAMPLE LOGS

Groundwater Purging and Sampling Field Log

ENSR

Well ID #: MW-11
Sample Date: 10/01/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? Yes No

2) Was structural integrity good? Yes No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes (No)

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		

Was recalibration conducted? Yes No

	Before Purge	During Purge							Before Sampling
Time	1201	1204	1207	1210	1213	1218	1228	1238	
Depth to Water (ft.)	6.41	6.41	6.41	6.41	6.41	6.41	6.41	6.41	See Page 2
DO (g/l)	3.45	1.06	1.16	1.11	6.03	0.88	1.25	4.04	
Temp. (°C)	21.28	21.9	22.96	24.12	23.97	23.66	23.75	22.77	
pH (SU)	6.49	6.4	6.3	6.34	6.33	6.35	6.34	6.36	
Cond. (mS/cm)	2.6	2.6	2.6	2.59	2.55	2.6	2.6	2.55	
Turb. (NTU)	999.0	999	999	999	999	999	999	806	
ORP (mV)	-62	-62	-59	-55	-52	-55	-59	-61	
Est. Purge Vol. (gal.)		0.24	0.48	0.72	0.96	1.36	2.16	2.96	
Purge Rate (gpm)		0.08	0.08	0.08	0.08	0.08	0.08	0.08	
Water Quality/Clarity									
Notes:									

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-11 Sample Date: 10/01/02	Page 2 of 3

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? Yes No

2) Was structural integrity good? Yes No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes (No)

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		
Was recalibration conducted? Yes No		

	Before Purge	During Purge						Before Sampling
Time	1201	1243	1248	1253	1258	1303	1308	1313	
Depth to Water (ft.)	See Page 1	6.41	6.41	6.41	6.41	6.41	6.41	6.41	See Page 2
DO (g/l)		0.8	0.7	0.7	0.85	1.4	2.88	3.75	
Temp. (°C)		22.89	23.05	23.18	23.12	23.12	23.25	23.24	
pH (SU)		6.36	6.35	6.35	6.36	6.38	6.39	6.41	
Cond. (mS/cm)		2.59	2.6	2.6	2.61	2.61	2.61	2.62	
Turb. (NTU)		674	556	496	532	485	468	362	
ORP (mV)		-72	-76	-81	-85	-91	-99	-104	
Est. Purge Vol. (gal.)		3.36	3.76	4.16	4.56	4.96	5.36	5.76	
Purge Rate (gpm)		0.08	0.08	0.08	0.08	0.08	0.08	0.08	
Quality/Clarity									
Notes:									

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-11
Sample Date: 10/01/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? Yes No

2) Was structural integrity good? Yes No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes (No)

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		
Was recalibration conducted? Yes No		

	Before Purge	During Purge							Before Sampling
Time		1318	1323						1328
Depth to Water (ft.)	See Page 1	6.41	6.41						6.45
DO (g/l)		4.2	4.93						5.10
Temp. (°C)		23.31	26.53						26.88
pH (SU)		6.42	6.41						6.41
Cond. (mS/cm)		2.62	2.62						2.62
Turb. (NTU)		457	392						378.0
ORP (mV)		-107	-108						-108
Est. Purge Vol. (gal.)		6.16	6.56						~7
Purge Rate (gpm)		0.08	0.08						0.08
Quality/Clarity									
Notes:									

Groundwater Purging and Sampling Field Log

ENSR

Well ID #: MW-12
Sample Date: 10/03/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: J. Senchisen, G. Mattes

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? (Yes) No

2) Was structural integrity good? (Yes) No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

(Yes) No

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		
Was recalibration conducted? Yes No		

	Before Purge	During Purge							Before Sampling
Time	11:25								
Depth to Water (ft.)	6.34	No water quality parameters collected due to the minimal amount of flow and water present in the well.							
DO (g/l)									
Temp. (°C)									
pH (SU)									
Cond. (mS/cm)									
Turb. (NTU)									
ORP (mV)									
Est. Purge Vol. (gal.)									2
Purge Rate (gpm)									NM
Water Quality/Clarity	Purge water was contained visible silt particales.								
Notes:									

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-13
Sample Date: 10/01/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? Yes No

2) Was structural integrity good? Yes No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes (No)

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every **20** sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between **6.8** and **7.2**, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		
Was recalibration conducted? Yes No		

	Before Purge	During Purge							Before Sampling
Time	1030	1033	1036	1039	1042	1045	1048	1051	
Depth to Water (ft.)	8.85	8.85	8.85	8.85	8.85	8.85	8.85	8.85	
DO (g/l)	1.21	0.64	0.58	0.54	0.53	0.51	0.5	0.52	
Temp. (°C)	23.5	23.08	23.0	23.15	23.08	23.15	23.03	23.08	
pH (SU)	5.66	6.13	6.26	6.38	6.42	6.47	6.51	6.51	
Cond. (mS/cm)	0.935	0.927	0.909	0.901	0.902	0.901	0.9	0.9	
Turb. (NTU)	92	177	98.1	45.9	50.1	12.3	0.0	0.0	
ORP (mV)	NA	NA	NA	NA	NA	NA	NA	NA	
Est. Purge Vol. (gal.)	-	0.630	0.790	1.260	1.890	2.520	3.150	3.78	
Purge Rate (gpm)	-	0.210	0.210	0.210	0.210	0.210	0.210	0.210	
Water Quality/Clarity									
Notes:									

See Page 2

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-13
Sample Date: 10/02/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? Yes No

2) Was structural integrity good? Yes No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes No

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		
Was recalibration conducted? Yes No		

	Before Purge	During Purge							Before Sampling
Time	1026	1054	1057	1100					1103
Depth to Water (ft.)	See Page 1	8.85	8.85	8.85					8.9
DO (g/l)		0.49	0.47	0.47					0.48
Temp. (°C)		23.13	23.14	23.13					23.15
pH (SU)		6.52	6.53	6.54					6.55
Cond. (mS/cm)		0.900	0.899	0.899					0.899
Turb. (NTU)		0.0	0.0	0.0					0
ORP (mV)		NA	NA	NA					NA
Est. Purge Vol. (gal.)		4.41	5.04	5.67					6.3
Purge Rate (gpm)		0.210	0.210	0.210					0.210
Quality/Clarity									
Notes:									

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-1
Sample Date: 10/03/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: J. Senchisen, G. Mattes

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? (Yes) No

2) Was structural integrity good? (Yes) No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

(Yes) No

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		
Was recalibration conducted? Yes No		

	Before Purge	During Purge						Before Sampling
Time	9:15							
Depth to Water (ft.)	6.72	No water quality parameters collected due to the presence of coal tar in the well.						
DO (g/l)								
Temp. (°C)								
pH (SU)								
Cond. (mS/cm)								
Turb. (NTU)								
ORP (mV)								
Est. Purge Vol. (gal.)								3.8
Purge Rate (gpm)								used a Baller
Water Quality/Clarity	Purge water was contained visible silt particales, low turbidity							
Notes:								

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-2
Sample Date: 10/04/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? Yes No

2) Was structural integrity good? Yes No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes No

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		

Was recalibration conducted? Yes No

	Before Purge	During Purge							Before Sampling
Time	0850	0855	0900	0905	0910	0915	0920	0925	
Depth to Water (ft.)	5.32	5.32	5.32	6.72	6.72	6.72	6.72	6.72	
DO (g/l)	8.41	1.49	0.84	0.63	0.59	0.57	0.58	0.61	
Temp. (°C)	20.4	21.02	21.2	21.2	21.54	21.47	21.21	21.11	
pH (SU)	5.39	5.64	5.58	5.55	5.65	5.7	5.68	5.77	
Cond. (mS/cm)	0.392	0.373	0.406	0.467	0.51	0.607	0.699	0.811	
Turb. (NTU)	41	347	456	316.0	250.0	132.0	119.0	92.5	
ORP (mV)	184142	119	100	91	79	73	61	52	
Est. Purge Vol. (gal.)		0.13	0.26	0.39	0.52	0.65	0.78	0.91	
Purge Rate (gpm)		0.26	.026	.026	.026	.026	.026	.026	
Water Quality/Clarity	grey color	grey color	grey color	grey color	grey color	grey color	grey color	grey color	

See Page 2

Notes:

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-2
Sample Date: 10/02/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? (Yes) No

2) Was structural integrity good? (Yes) No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes (No)

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every **20** sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between **6.8 and 7.2**, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		
Was recalibration conducted? Yes No		

Time	Before Purge	During Purge							Before Sampling
		0930	0935	0940	0945	0950	0955	1000	
Depth to Water (ft.)	See Page 1	6.72	6.72	6.72	6.72	6.72	6.72	6.72	See Page 3
DO (g/l)		0.82	2.23	6.75	8.74	8.88	9.15	9.21	
Temp. (°C)		21.33	21.21	20.81	20.61	20.71	21	21	
pH (SU)		5.85	5.86	5.94	5.97	5.96	5.96	5.96	
Cond. (mS/cm)		0.882	1.040	1.03	1.11	1.12	1.11	1.1	
Turb. (NTU)		92.4	66.7	55.7	51.9	64.8	46.3	45	
ORP (mV)		38	35	33	32	30	31	35	
Est. Purge Vol. (gal.)		1.04	1.17	1.3	1.43	1.56	1.69	1.82	
Purge Rate (gpm)		.026	.026	.026	.026	.026	.026	.026	
Water Quality/Clarity		grey color	grey color	grey color	grey color	grey color	grey color	grey color	
Notes:									

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-2
Sample Date: 10/02/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? (Yes) No

2) Was structural integrity good? (Yes) No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes (No)

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		
Was recalibration conducted? Yes No		

	Before Purge	During Purge							Before Sampling
Time		1005	1010	1015					1020
Depth to Water (ft.)	See Page 1	6.72	6.72	6.72					6.12
DO (g/l)		9.34	9.19	9.4					9.61
Temp. (°C)		20.94	20.91	20.71					20.77
pH (SU)		5.97	5.97	5.97					5.97
Cond. (mS/cm)		1.030	1.020	1.1					1.12
Turb. (NTU)		49.3	49.0	37.2					37.2
ORP (mV)		35	34	32					30
Est. Purge Vol. (gal.)		1.95	2.08	2.21					2.34
Purge Rate (gpm)		.026	.026	.026					0.026
Quality/Clarity		grey color	grey color	grey color					grey color

Notes:

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-3
Sample Date: 10/04/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? (Yes) No

2) Was structural integrity good? (Yes) No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes (No)

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		

Was recalibration conducted? Yes (No)

	Before Purge	During Purge							Before Sampling
Time	1325	1330	1335	1340	1345	1350	1400	1405	
Depth to Water (ft.)	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	
DO (g/l)	1.19	2.74	0.56	0.62	1.71	3.54	5.5	7.51	
Temp. (°C)	23.0	22.44	22.22	21.92	21.24	21.75	21.45	21.52	
pH (SU)	4	3.96	3.96	3.99	4.00	4.02	4.05	4.06	
Cond. (mS/cm)	2.41	2.76	2.82	2.82	2.85	2.97	2.89	2.92	
Turb. (NTU)	999	432	244	149.0	99.8	69.5	36.1	21.6	
ORP (mV)	21	-36	-45	-53	-57	-55	-58	-63	
Est. Purge Vol. (gal.)	-	0.75	1.50	2.25	3.00	3.75	4.50	5.25	
Purge Rate (gpm)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
Water Quality/Clarity	light grey color	light grey color	light grey color	light grey color	light grey color	light grey color	light grey color	light grey color	

See Page 2

Notes:

ENSR Groundwater Purging and Sampling Field Log

Well ID #: MW-3
Sample Date: 10/02/02

Site Location: Food Center Drive, Site C

Street Address: 600 Food Center Drive City: Hunts Point State: NY

Client Name: Iroquois Project Number: 03757-010

Personnel: P. Kies, J. Senchisen

SITE OBSERVATIONS (circle)

1) Was well locked upon arrival? Yes No

2) Was structural integrity good? Yes No

3) Were any unusual conditions observed?

(i.e. odors, staining, unusual site activities, etc.)

Yes No

REMINDERS:

1) A Duplicate Set of Samples must be collected for pH, DO, Temperature, and Conductivity after every 20 sets of readings. Please indicate duplicate readings on this Field Log.

2) The pH Check Standard must be taken every 3 hours using the 7.0 buffer. If reading is not between 6.8 and 7.2, the meter must be recalibrated.

Time	pH Reading	Time
3rd Hour		
6th Hour		
9th Hour		
Was recalibration conducted? Yes No		

	Before Purge	During Purge							Before Sampling
Time		1410	1415	1420					1425
Depth to Water (ft.)	See Page 1	3.27	3.27	3.27					3.26
DO (g/l)		8.22	9.18	9.54					9.59
Temp. (°C)		21.47	21.46	21.48					21.32
pH (SU)		4.08	4.09	4.09					4.09
Cond. (mS/cm)		2.920	2.940	2.95					2.92
Turb. (NTU)		15.4	9.7	7.6					5.7
ORP (mV)		-67	-68	-63					-67
Est. Purge Vol. (gal.)		6.00	6.75	7.50					~ 8.50
Purge Rate (gpm)		0.15	0.15	0.15					0.15
Water Quality/Clarity		light grey color	light grey color	light grey color					light grey color
Notes:									

ATTACHMENT D
ENSR SOIL BORING LOGS

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: S-1
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/19/2002	Date Complete: 12/19/2002	Completion Depth: 8 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 4.0-4.5' and a composite sample from 0-8'		

LOG OF BORING S-1

SPLIT SPOON SAMPLES			Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
No.	Rec.	Blows			
			0-9"	Fill: Asphalt and Concrete	No PID reading
	36"		9"-4.0'	Fill: Black Ash and Cinders,	Petro-like odor
	24"		4'-8'	Fill: Black Ash and Cinders, some tar, glass, and rubber fragments.	Petro-like odor
				End of Boring at 8' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: S-2
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/19/2002	Date Complete: 12/19/2002	Completion Depth: 8 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 3.5-4.0' and a composite sample from 0-8'		

LOG OF BORING S-2

SPLIT SPOON SAMPLES			Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
No.	Rec.	Blows			
			0-9"	Fill: Asphalt and Concrete	No PID reading
	36"		9"-4.0'	Fill: Black Ash and Cinders, some crushed silttone;	No PID reading, wet
	36"		4.0'-7.0'	Fill: Black Ash and Cinders, some crushed siltstone;	No PID reading, wet
			7.0'-8.0'	Black Peat and Wood fragments, slight sheen	No PID reading, wet
				End of Boring at 8' blg	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A		Boring#: S-3
Project: Iroquois Pipeline	Location: Hunts Point, NY		
Geologist: Coley Campbell			License #: N/A
Drilling Contractor: Environmental Probing Inc.			License #: N/A
Drilling Equipment: Geoprobe Direct Push			
Date Start: 12/20/2002	Date Complete: 12/20/2002		Completion Depth: 12 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.		Fall: N/A
Well Casing: N/A	Length: N/A		Slot Size: N/A N/A
Screen: N/A	Length: N/A		Water: N/A
Ground Elevation: N/A	Top of Casing: N/A		Top of Screen: N/A
Remarks: Sample collected from 8.0'-8.5' and a composite sample from 0-8.5'			

LOG OF BORING S-3

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
			0-0.5	Fill: Asphalt and Concrete	No PID reading
			0.5-1.75'	Fill: Black Ash and Cinders	No PID reading
	18"		1.75'-2.0'	Fill: GRAVEL (angular)	No PID reading
			2.0'-3.0'	Fill: Red SILT	No PID reading
			3.0'-4.0'	Fill: Black Ash and Cinders	No PID reading
			4.0'-6.0'	Fill: Black Ash and Cinders	No PID reading
	18"		6.0'-7.0	GRAVEL	No PID reading
			7.0'-8.0'	Olive-green SILT, trace red Brick fragments	No PID reading
			8.0' 12.0'	Olive-green SILT, little Sand, trace Clay	No PID reading
				End of Boring at 12' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: S-4
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/20/2002	Date Complete: 12/20/2002	Completion Depth: 12 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 8.5'-9.0' and a composite sample from 0-9.0'		

LOG OF BORING S-4

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
			0-0.5	Fill: Asphalt and Concrete	No PID reading
			0.5-2.0'	Fill: Black Ash and Cinders	No PID reading
	18"		2.0'-2.5'	Fill: GRAVEL (angular)	No PID reading
			2.5'-4.0'	Black Ash and Cinders, trace of Olive-green Silty CLAY	No PID reading
			3.0'-4.0'	Fill: Black Ash and Cinders	No PID reading
	24"		4.0'-6.0'	Fill: Black Ash and Cinders	No PID reading
			6.0'-8.0'	Fill: Black Ash and Cinders	No PID reading
			7.0'-8.0'	Olive-green SILT, trace red brick fragments	No PID reading
	48"		8.0'-9.0'	Black Ash and Cinders, trace Gravel	No PID reading
			9.0'-10.0'	Olive-brown SILT, some Clay; wet	No PID reading
			10.0'-12.0'	Olive-brown Sandy SILT, trace Clay	No PID reading
				End of Boring at 12' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A		Boring#: S-5
Project: Iroquois Pipeline	Location: Hunts Point, NY		
Geologist: Coley Campbell			License #: N/A
Drilling Contractor: Environmental Probing Inc.			License #: N/A
Drilling Equipment: Geoprobe Direct Push			
Date Start: 12/19/2002	Date Complete: 12/19/2002		Completion Depth: 11 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.		Fall: N/A
Well Casing: N/A	Length: N/A		Slot Size: N/A
Screen: N/A	Length: N/A		Water: N/A
Ground Elevation: N/A	Top of Casing: N/A		Top of Screen: N/A
Remarks: Sample collected from 10.5'-11.0' and a composite sample from 0-11.0'			

LOG OF BORING S-5

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
			0-0.75	Fill: Asphalt and Concrete	No PID reading
	48"		0.75"-4.0'	Fill: Black Ash and Cinders, slight sheen petro-like odor	No PID reading, slight sheen petro-like odor
	48"		4.0'-6.0'	Fill: Black Ash and Cinders	No PID reading
			6.0'-8.0'	Fill: Black Ash and Cinders, some Black SILT	60 ppm on PID
	24"		8.0'-9.0'	Fill: Black Ash and Cinders, some Black SILT	107 ppm on PID
			9.0'-11.0'	Olive-green SILT, slight sheen and petro-like odor	223 ppm on PID, slight sheen petro-like odor
				Refusal @ 11.0'	
				End of Boring at 11' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: S-6
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/19/2002	Date Complete: 12/19/2002	Completion Depth: 16 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: approx. N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 1.5'-2.0' and a composite sample from 0-12.0'		

LOG OF BORING S-6

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
			0.0-14.0"	Fill: Asphalt and Concrete	No PID reading
			14.0"-3.5'	Fill: Black Ash and Cinders	20 ppm on PID
	48" (0-4.0')		3.5'- 5.5'	Olive-green Sandy SILT; bottom 2-inches Black/Olive Silty CLAY with rock Fragments	No PID reading
	48" (4.0'-8.0')		5.5'-9.0'	Olive-green Silty SAND with Clay lenses; Olive-green Silty Clay at 7.0'	No PID reading
			9.0'-10.0'	Olive-green Silty SAND, soft	8 ppm on PID
	24" (8.0'-12.0')		10.0'-12.0'	Olive-brown SILT	No PID reading
			12.0'-13.0'	Olive-brown Silty CLAY	No PID reading, wet
	24" (12'-16.0')		13.0'-16.0'	Olive-brown fine grained Silty SAND, trace Gravel	No PID reading
				End of boring @ 16.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A		Boring#: S-7
Project: Iroquois Pipeline	Location: Hunts Point, NY		
Geologist: Jon Senchisen			License #: N/A
Drilling Contractor: Environmental Probing Inc.			License #: N/A
Drilling Equipment: Geoprobe Direct Push			
Date Start: 1/2/2003	Date Complete: 1/2/2003		Completion Depth: 12 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.		Fall: N/A
Well Casing: N/A		Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A		Water: approx. N/A
Ground Elevation: N/A	Top of Casing: N/A		Top of Screen: N/A
Remarks: Sample collected from 11.0'-11.5' and a composite sample from 0-12.0'			

LOG OF BORING S-7

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	48" (0-4.0')		0.0-6.0"	Fill: Asphalt and Concrete	No PID reading
			6.0"-2.0'	Fill: Dark Brown Sandy SILT, some Rock Fragments, Brick, and Mica.	No PID reading
			2.0'-2.5'	Fill: Dark Brown Silty CLAY with mottling, trace Red Brick	No PID reading
			2.5'-4.0'	Light Brown to Dark Gray Sandy SILT	No PID reading
	30" (4.0-8.0')		4.0'-4.8'	Light Gray to Light Brown Sandy SILT, trace fine rock fragments (angular).	No PID reading
			4.8'-4.11'	Fill: Red Brick	No PID reading
			4.11'-5.8'	SAND with weathered Rock	No PID reading
			5.8'-5.11'	Red brick, some black rock fragments (angular)	No PID reading, moist
			5.11'-8.0'	Fill material: some Red Brick and Stone Fragments	No PID reading, moist
	42" (8.0-12.0')		8.0'-8.5'	Fill material: some Red Brick and Stone Fragments	No PID reading, moist
			8.5'-10.0'	Light Brown to Gray CLAY	No PID reading, moist
			10.0'-12.0'	Light Brown to Gray Sandy CLAY, some Light Brown Sand	No PID reading, moist
				End of Boring ~ 12.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: S-8
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Jon Senchisen		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 1/2/2003	Date Complete: 1/2/2003	Completion Depth: 12 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: approx. N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 7.5'-8.0' and a composite sample from 0-12.0'		

LOG OF BORING S-8

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
			0.0-6.0"	Fill: Brown Sandy SILT, some large Gravel	No PID reading, water observed
	32" (0-4.0')		6.0"-1.0'	Fill: Medium to fine SAND	No PID reading
			1.0'-1.3'	Fill: Brown Sandy SILT, some red Brick	No PID reading
			1.3'-1.6'	Fill Material: large GRAVEL (angular), brick, glass	No PID reading
			1.6'-4.0'	Brown to gray Sandy SILT, some glass and mica.	No PID reading, slight odor
	48" (4.0-8.0')		4.0'-6.0'	Fill: Medium to fine SAND	No PID reading, moist
			6.0'-7.0'	Sandy CLAY, trace Wood, Glass, and Gravel	No PID reading, moist
			7.0'-7.1'	Fill: Crushed red brick	No PID reading
			7.1'-8.0'	Dark Brown to Dark Gray CLAY, trace Wood, Glass, and Gravel	No PID reading,strong petro-like odor
				End of Boring ~ 8.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A		Boring#: S-9
Project: Iroquois Pipeline	Location: Hunts Point, NY		
Geologist: Coley Campbell			License #: N/A
Drilling Contractor: Environmental Probing Inc.			License #: N/A
Drilling Equipment: Geoprobe Direct Push			
Date Start: 1/2/2003	Date Complete: 1/2/2003		Completion Depth: 16 feet
Sampler: Jon Senchisen	Hammer Weight: 140 lbs.		Fall: N/A
Well Casing: N/A		Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A		Water: N/A
Ground Elevation: N/A	Top of Casing: N/A		Top of Screen: N/A
Remarks: Sample collected from 11.0'-11.5' and a composite sample from 0-12.0'			

LOG OF BORING S-9

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
			0-1.0'	Fill: Asphalt and Concrete	No PID reading
	48"		1.0'-1.6'	Fill: Light brown to brown Sandy SILT	No PID reading
			1.6'-2.0'	Fill: SAND with fine Gravel	No PID reading
			2.0'-3.4'	Fill: Dark Gray CLAY, trace Red Brick, Glass	No PID reading
			3.4'-4.0'	Fill: Brown Sandy SILT, some Concrete, fine Gravel (angular)	No PID reading
	24"		4.0'-4.6'	Fill: SAND with some Mica fragments	No PID reading, moist
			4.6'-4.9'	Fill: Coal Ash, crushed concrete	No PID reading, moist
			4.9'-8.0'	Fill: Light Gray to Brown Sandy SILT	No PID reading, moist
	12"		8.0'-12.0'	Fill: Silty CLAY	No PID reading, slight odor, Wet
	18"		12.0'-16.0'	Sandy CLAY	
				End of Boring ~ 16.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A		Boring#: S-10
Project: Iroquois Pipeline	Location: Hunts Point, NY		
Geologist: Coley Campbell			License #: N/A
Drilling Contractor: Environmental Probing Inc.			License #: N/A
Drilling Equipment: Geoprobe Direct Push			
Date Start: 1/2/2003	Date Complete: 1/2/2003		Completion Depth: 16 feet
Sampler: Jon Senchisen	Hammer Weight: 140 lbs.		Fall: N/A
Well Casing: N/A		Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A		Water: N/A
Ground Elevation: N/A	Top of Casing: N/A		Top of Screen: N/A
Remarks: Sample collected from 11.0'-11.5' and a composite sample from 0-12.0'			

LOG OF BORING S-10

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
			0-0.8'	Fill: Asphalt and Concrete	No PID reading
	48"		0.8'-1.0	Fill: Light Brown to Brown Sandy SILT	No PID reading
			1.0'-1.3'	Fill: Gray CLAY (compact) with fine Gravel	No PID reading
			1.3'-1.4'	Fill: Crushed red brick	No PID reading
			1.4'-2.0'	Fill: Brown Silty SAND	No PID reading
			2.0'-3.0'	Fill: Coal Ash, weathered rock	No PID reading
			3.0'-4.0'	Fill: Brown Silty SAND with iron oxidation	No PID reading
	12"		4.0'-4.6'	Fill: Coal Ash, crushed concrete	No PID reading
			4.6'-8.0'	Fill: Reddish-brown Silty SAND with aggregates and evidence of ground water	No PID reading, moist
	30"		8.0'-9.0'	Fill material, large aggregates, stone chips and fine Gravel	No PID reading, moist
			9.0'-10.0'	Dark brown gray Silty CLAY, some fill material	No PID reading, slight odor, moist
			10.0'-12.0'	Light brown ro brown Sandy SILT, some fill material	No PID reading, slight odor, moist
				End of Boring ~ 12.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A		Boring#: S-11
Project: Iroquois Pipeline	Location: Hunts Point, NY		
Geologist: Coley Campbell			License #: N/A
Drilling Contractor: Environmental Probing Inc.			License #: N/A
Drilling Equipment: Geoprobe Direct Push			
Date Start: 12/23/2002	Date Complete: 12/23/2002		Completion Depth: 12 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.		Fall: N/A
Well Casing: N/A	Length: N/A		Slot Size: N/A
Screen: N/A	Length: N/A		Water: N/A
Ground Elevation: N/A	Top of Casing: N/A		Top of Screen: N/A
Remarks: Sample collected from 7.5'-8.0' and a composite sample from 0-12.0'			

LOG OF BORING S-11

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	48"		0.0-1.0'	Fill: Asphalt	No PID readings
			1.0'-2.0'	Fill: Light brown (medium to fine) SAND	No PID readings
			2.0'-4.0'	Fill: Brown Silty SAND, some brick, and fine angular gravel	No PID readings
	12"		4.0'-8.0'	Fill: Brown Silty SAND, some brick, and fine angular gravel	No PID readings, wet at 8.0'
	48"		8.0'-10.0'	Fill: Brown Silty SAND, some brick, and fine (angular) gravel	No PID readings; wet
			10.0-12.0'	Dark gray (dense) Clay with shell fragments	No PID readings
				End of boring @ 12.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: S-12
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/23/2002	Date Complete: 12/23/2002	Completion Depth: 12 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: approx. N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 4.0'-4.5' and a composite sample from 0-12.0'		

LOG OF BORING S-12

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	48"		0.0-1.0'	Fill: Asphalt	No PID readings
			1.0'-1.5'	Fill: Light brown Silty SAND	No PID readings
			1.5'-2.0'	Fill: Dark gray Silty SAND, some Clay, brick, and fine Gravel	No PID readings 0.7 ppm on PID
			2.0'-4.0'	Light brown Silty SAND, some ash and (angular) gravel	
	36"		4.0'-6.0'	Light brown Silty SAND, some Ash, and (angular) gravel	0.7 ppm on PID No PID readings; Wet at 8.0'
			6.0'-8.0'	Light brown Silty SAND, trace Clay with trace (angular) gravel (Medium to fine) Yellow-brown SAND	No PID readings
	24"		8.0'10.5'	Medium to fine Yellow-brown SAND	No PID readings, wet
			10.5'-12.0'	Medium to fine yellow-brown SAND Dark gray dense wet CLAY with shell fragments	No PID readings
				End of boring @ 12.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: S-13
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/23/2002	Date Complete: 12/23/2002	Completion Depth: 8 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 7.0'-7.5' and a composite sample from 0-8.0'		

LOG OF BORING S-13

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	36"		0.0-1.0'	Fill: Asphalt	No PID readings
			12"-30"	Fill: Light gray Silty SAND, with some bricks and fine gravel	No PID readings
			30"-4.0'	Fill: Dark gray Silty SAND, with some Ash and Cinders, tra fine Gravel	No PID readings
	18"		4.0'-6.5'	Fill: Dark gray Silty SAND, with some Ash and Cinders, tra fine Gravel	No PID readings, wet at 7.5'
			6.5'-7.5'	Fill: Dark gray Silty SAND, with some Ash and Cinders, tra fine Gravel	No PID readings, very wet
			7.5'-8.0'	Gray silty medium to fine SAND with fine Gravel; weathered rock in bottom of drill shoe. Refusal	
				End of boring @ 8.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: S-14
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/23/2002	Date Complete: 12/23/2002	Completion Depth: 12 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 7.0'-7.5' and a composite sample from 0-12.0'		

LOG OF BORING S-14

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	36"		0.0-1.0'	Fill: Asphalt	No PID readings
			1.0'-2.0'	Fill: Light brown (medium to fine) SAND	No PID readings
			2.0'-4.0'	Fill: black brown Sandy SILT, some Ash, Cinders, Mica, Grick and Fine Gravel	No PID readings
	24"		4.0'-7.0'	Fill: black brown Sandy SILT, some Ash, Cinders, Mica, Grick and Fine Gravel	No PID readings
			7.0'-7.5'	Black Cinders	No PID readings, wet at 7.5'
			7.5'-8.0'	Light brown (medium to fine) SAND with trace fine Angular gravel	No PID readings
	12"		8.0'-11.0'	Light brown (medium to fine) SAND with small fine Angular gravel	No PID readings
			11.0'-12.0'	Gray Mica fragments, trace Clay	No PID readings, very wet
				End of boring at 12.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: S-15
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/23/2002	Date Complete: 12/23/2002	Completion Depth: 8 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks:		

LOG OF BORING S-15

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	36"		0.0-1.0'	Fill: Asphalt	No PID readings
			1.0'-2.0'	Fill: Tan SAND and SILT, Some Ash	No PID readings
			2.0'-4.0'	Fill: Sandy SILT, Some Ash, Cinders, Mica, Brick and Gravel	No PID readings
	36"		4.0'-5.0'	Fill: Sandy SILT, Some Ash, Cinders, Mica, Brick and Gravel	No PID readings
			5.0'-6.0'	Light gray Ash Some Mica fragments sand; Schist in the last 2 inches of Acetate Liner	No PID readings
			6.0'-8.0'	Dark Gray clay some shells	No PID readings, very moist
	12"		8.0'-11.0'	Light brown (medium to fine) grained SAND, Trace small angular gravel	No PID readings
			11.0'-12.0'	GRAY Mica fragments, trace of Clay	No PID readings, very wet
				End of boring at 12.0' bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-1
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/18/2002	Date Complete: 12/18/2002	Completion Depth: 33 inches
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 1.0-1.5'		

LOG OF BORING SS-1

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	24"		0-9"	Fill: Asphalt and Concrete	No PID reading
			9-15"	Fill: Light brown Sandy SILT, trace fine Gravel	8671 ppm from the PID
			15-21"	Fill: dark gray Sandy SILT, trace fine Gravel,	7482 ppm from the PID
			21-33"	Fill: Black Coal Ash, Sandy SILT with Gravel	Petro-like odor
				End of Boring at 33" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-2
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/18/2002	Date Complete: 12/18/2002	Completion Depth: 2 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.5-1.0'		

LOG OF BORING SS-2

SPLIT SPOON SAMPLES			Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
No.	Rec.	Blows			
	18"		0-1"	Fill: Asphalt and Concrete	No PID reading
			1-24"	Fill: Gray medium to fine SAND and SILT, trace slag, fine gravel, brick, glass, ash, and wood	No PID reading
				End of Boring at 24" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A		Boring#: SS-3
Project: Iroquois Pipeline	Location: Hunts Point, NY		
Geologist: Coley Campbell			License #: N/A
Drilling Contractor: Environmental Probing Inc.			License #: N/A
Drilling Equipment: Geoprobe Direct Push			
Date Start: 12/18/2002	Date Complete: 12/18/2002	Completion Depth: 40 inches	
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A	
Well Casing: N/A	Length: N/A	Slot Size: N/A	
Screen: N/A	Length: N/A	Water: N/A	
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A	
Remarks: Sample collected from 0.5-1.0'			

LOG OF BORING SS-3

SPLIT SPOON SAMPLES			Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
No.	Rec.	Blows			
	22"		0-9"	Fill: Asphalt and Concrete	No PID reading
			9"-40"	Fill: Black SLAG and (medium to fine) SAND and SILT, Trace fine Gravel and Sand conglomerites. Moist at 31" below concrete.	No PID reading
				End of Boring at 40"blg	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-4
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/18/2002	Date Complete: 12/18/2002	Completion Depth: 3 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A N/A
Screen: N/A	Length: N/A	Water: approx. N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.5-1.0'		

LOG OF BORING SS-4

SPLIT SPOON SAMPLES			Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
No.	Rec.	Blows			
	24"		0-1'	Fill: Asphalt and Concrete	No PID reading
			1'-3'	Fill: Gray (medium to fine) SAND and SILT, trace slag brick, ash, and glass	No PID reading
				End of Boring at 36"bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-5
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: Environmental Probing Inc.		License #: N/A
Drilling Equipment: Geoprobe Direct Push		
Date Start: 12/18/2002	Date Complete: 12/18/2002	Completion Depth: 3 feet
Sampler: 4' dia. Macro core	Hammer Weight: 140 lbs.	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.5-1.0'		

LOG OF BORING SS-5

SPLIT SPOON SAMPLES			Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
No.	Rec.	Blows			
	24"		0-9"	Fill: Asphalt and Concrete	No PID reading
			9"-24"	Fill: Black SLAG, Sandy Silt, Some glass, brick. Light-yellow Schist and Sand that formed a conglomerite 31" below concrete	slight petro-like odor
				End of Boring at 33" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-6
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: 3/3/2003	Date Complet 3/3/2003	Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-6

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	6"		0.0 - 0.5'	Fill: SILT with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-7
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: 3/3/2003	Date Complete 3/3/2003	Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-7

SPLIT SPOON SAMPLES			Depth	SOIL BORING DESCRIPTION	REMARKS
No.	Rec.	Blows	(feet)	(Classification System: Burmeister)	
	6"		0.0 - 0.5'	Fill: SILT with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-8
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: #######	Date Complete ########	Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-8

SPLIT SPOON SAMPLES			Depth	SOIL BORING DESCRIPTION	
No.	Rec.	Blows	(feet)	(Classification System: Burmeister)	REMARKS
	6"		0.0 - 0.5'	Fill: SILT with some Glass, Brick, and small angular stone	No PID reading, wet
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A		Boring#: SS-10
Project: Iroquois Pipeline	Location: Hunts Point, NY		
Geologist: Coley Campbell			License #: N/A
Drilling Contractor: N/A			License #: N/A
Drilling Equipment: Hand Auger			
Date Start: #######	Date Complete ########		Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A		Fall: N/A
Well Casing: N/A	Length: N/A		Slot Size: N/A
Screen: N/A	Length: N/A		Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A	
Remarks: Sample collected from 0.0 - 0.5'			

LOG OF BORING SS-10

SPLIT SPOON SAMPLES			Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
No.	Rec.	Blows			
	6"		0.0 - 0.5'	Fill: Brown gray SILT with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-11
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: 3/3/2003	Date Complete 3/3/2003	Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-11

SPLIT SPOON SAMPLES			Depth	SOIL BORING DESCRIPTION	REMARKS
No.	Rec.	Blows	(feet)	(Classification System: Burmeister)	
	6"		0.0 - 0.5'	Fill: SILT with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-12
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: #######	Date Complete ########	Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-12

SPLIT SPOON SAMPLES			Depth	SOIL BORING DESCRIPTION	REMARKS
No.	Rec.	Blows	(feet)	(Classification System: Burmeister)	
	6"		0.0 - 0.5'	Fill: SILTY SAND with some Glass, Brick, and small angular stone	No PID reading, wet
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-14
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: #######	Date Complete ########	Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-14

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	6"		0.0 - 0.5'	Fill: Brown gray SILT with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-15
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: #######	Date Complete ########	Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-15

SPLIT SPOON SAMPLES No.	Rec.	Blows	Depth (feet)	SOIL BORING DESCRIPTION (Classification System: Burmeister)	REMARKS
	6"		0.0 - 0.5'	Fill: Brown gray SILT with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-16
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: 3/3/2003	Date Complete 3/3/2003	Completion Depth: 6 Inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-16

SPLIT SPOON SAMPLES			Depth	SOIL BORING DESCRIPTION	REMARKS
No.	Rec.	Blows	(feet)	(Classification System: Burmeister)	
	6"		0.0 - 0.5'	Fill: SILT with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-17
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: 3/3/2003	Date Complete 3/3/2003	Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-17

SPLIT SPOON SAMPLES			Depth	SOIL BORING DESCRIPTION	
No.	Rec.	Blows	(feet)	(Classification System: Burmeister)	REMARKS
	6"		0.0 - 0.5'	Fill: SILT with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-18
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: #######	Date Complete ########	Completion Depth: 6 inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-18

SPLIT SPOON SAMPLES			Depth	SOIL BORING DESCRIPTION	
No.	Rec.	Blows	(feet)	(Classification System: Burmeister)	REMARKS
	6"		0.0 - 0.5'	Fill: SILTY SAND with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ENSR INTERNATIONAL
20 New England Avenue
PISCATAWAY, NEW JERSEY

Job#: 03757-010-GTB	NJDEP Permit #: N/A	Boring#: SS-19
Project: Iroquois Pipeline	Location: Hunts Point, NY	
Geologist: Coley Campbell		License #: N/A
Drilling Contractor: N/A		License #: N/A
Drilling Equipment: Hand Auger		
Date Start: #######	Date Complete ########	Completion Depth: 6 Inches
Sampler: Hand Auger	Hammer Weight: N/A	Fall: N/A
Well Casing: N/A	Length: N/A	Slot Size: N/A
Screen: N/A	Length: N/A	Water: N/A
Ground Elevation: N/A	Top of Casing: N/A	Top of Screen: N/A
Remarks: Sample collected from 0.0 - 0.5'		

LOG OF BORING SS-19

SPLIT SPOON SAMPLES			Depth	SOIL BORING DESCRIPTION	REMARKS
No.	Rec.	Blows	(feet)	(Classification System: Burmeister)	
	6"		0.0 - 0.5'	Fill: Brown gray SILT with some Glass, Brick, and small angular stone	No PID reading
				End of Boring at 6" bgs	

Note: N/A- Not Applicable or Not Available

ATTACHMENT E
ENSR DATA TABLES

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site C"
Hunts Point, Bronx, New York

Sample Designation / Sample Depth (ft) / Sample Date / Laboratory ID Number	SS-1		SS-2		SS-3		SS-4		SS-5		BW-10		Trip Blank		TAGM 4046 Soil Cleanup Objectives [illegible] Background
	[illegible] 12/18/2002 [illegible]		0.5-1 12/18/2002 [illegible]		0.5-1 [illegible] 12/18/2002 [illegible]		0.5-1 12/18/2002 75395		0.5-1 [illegible] 12/18/2002 [illegible]		[illegible] 12/18/2002 [illegible] ug/L		[illegible] 12/18/2002 [illegible] ug/L		(March 6, 2002)
PARAMETERS (ppm)															
VOLATILE ORGANIC COMPOUNDS*															
1,1,1-Trichloroethane	0.0057	UJ	0.0053	UJ	0.0054	UJ	0.0056	UJ	0.0056	UJ	5.0	U	5.0	U	0.8
1,1,2,2-Tetrachloroethane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	0.6
1,1,2-Trichloroethane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	N/A
1,1-Dichloroethane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	0.2
1,1-Dichloroethene	0.0057	U	0.0053	U	0.0054	U	0.0056	UJ	0.0056	U	5.0	U	5.0	U	0.4
1,2,4-Trichlorobenzene	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	1.0	U	1.0	U	3.4
1,2-Dibromo-3-chloropropane	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	1.0	U	1.0	U	N/A
1,2-Dibromoethane	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	1.0	U	1.0	U	N/A
1,2-Dichlorobenzene	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	7.9
1,2-Dichloroethane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	0.1
1,2-Dichloropropane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	N/A
1,3-Dichlorobenzene	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	1.6
1,4-Dichlorobenzene	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	8.5
2-Butanone	0.029	UJ	0.027	UJ	0.027	UJ	0.028	UJ	0.028	UJ	25.0	UJ	25.0	UJ	0.3
2-Hexanone	0.023	U	0.021	U	0.022	U	0.022	U	0.022	U	20.0	U	20.0	U	N/A
4-Methyl-2-Pentanone	0.023	U	0.021	U	0.022	U	0.022	U	0.022	U	20.0	U	20.0	U	1
Acetone	0.037	J		R		R		R	0.049	J	20.0	U	20.0	U	0.2
Benzene	0.0011	U	0.0011	U	0.0011	U	0.0011	UJ	0.0011	U	1.0	U	1.0	U	0.06
Bromodichloromethane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	N/A
Bromoform	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	N/A
Bromomethane	0.0057	UJ	0.0053	UJ	0.0054	UJ	0.0056	UJ	0.0056	UJ	5.0	U	5.0	U	N/A
Carbon Disulfide	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	2.7
Carbon Tetrachloride	0.0057	UJ	0.0053	UJ	0.0054	UJ	0.0056	UJ	0.0056	UJ	5.0	U	5.0	U	0.6
Chlorobenzene	0.0057	U	0.0053	U	0.0054	U	0.0056	UJ	0.0056	U	5.0	U	5.0	U	1.7
Chloroethane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	1.9
Chloroform	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	0.3
Chloromethane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	N/A
cis-1,2-Dichloroethene	0.0057	UJ	0.0053	UJ	0.0054	UJ	0.0056	UJ	0.0056	UJ	5.0	UJ	5.0	UJ	N/A
cis-1,3-Dichloropropene	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	N/A
Dibromochloromethane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	N/A
Dichlorodifluoromethane	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	N/A
Ethylbenzene	0.0011	U	0.0054		0.0011	U	0.0011	U	0.0011	U	1.0	U	1.0	U	5.5
Isopropylbenzene	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	1.0	U	1.0	U	N/A
p&m-Xylenes	0.0023	U	0.017		0.0022	U	0.0022	U	0.0022	U	2.0	U	2.0	U	1.2**
Methylene Chloride	0.0071	UJ	0.0059	UJ	0.0075	UJ	0.006	UJ	0.0062	UJ	5.0	U	5.0	U	0.1
Methyl-t-butyl ether	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	1.0	U	1.0	U	N/A
o-Xylene	0.0011	U	0.0046		0.0011	U	0.0011	U	0.0011	U	1.0	U	1.0	U	1.2**
Styrene	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	1.0	U	1.0	U	N/A
Tetrachloroethene	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	1.4
Toluene	0.0027		0.0042		0.0039		0.0011	UJ	0.0035		1.0	U	1.0	U	1.5
trans-1,2-Dichloroethene	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	0.3
trans-1,3-Dichloropropene	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	N/A
Trichloroethene	0.0057	U	0.0053	U	0.0054	U	0.0056	UJ	0.0056	U	5.0	U	5.0	U	0.7
Trichlorofluoromethane	0.0057	UJ	0.0053	UJ	0.0054	UJ	0.0056	UJ	0.0056	UJ	5.0	U	5.0	U	N/A
Vinyl Chloride	0.0057	U	0.0053	U	0.0054	U	0.0056	U	0.0056	U	5.0	U	5.0	U	0.2
TICs	0.0037	J	0.0042	J	0.52	J	0.0041	J	0.0039	J	ND		ND		< 10
Total VOCs	0.3030		0.2717		0.7711		0.2577		0.3091		-		-		

NA = Not analyzed
* = As per TAGM #4046, total VOCs <10ppm, total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
** = Value is for total Xylenes
A = Composite sample
U = Not detected
J = Estimated
R = Rejected during data validation

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site C"
Hunts Point, Bronx, New York

Sample Designation Sample Depth (ft.) Sample Date Laboratory ID number	SS-1 1.0-1.5 12/18/2002 75391		SS-2 0.5-1 12/18/2002 75394		SS-3 0.5-1 12/18/2002 75392		SS-4 0.5-1 12/18/2002 75395		SS-5 0.5-1 12/18/2002 75393		BW-10 Equip. Blank 12/18/2002 [illegible] ug/L		Trip Blank 12/18/2002 75397 ug/L	TAGM 4046 Soil Cleanup Objectives / Eastern USA Background (March 6, 2002)
PARAMETERS (ppm)														
BASE NEUTRAL COMPOUNDS*														
2,4,5-Trichlorophenol	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	0.1
2,4,6-Trichlorophenol	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
2,4-Dichlorophenol	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	0.4
2,4-Dimethylphenol	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
2,4-Dinitrophenol	1.9	UJ	0.35	UJ	3.6	UJ	0.37	UJ	3.7	UJ	10	U	N/A	0.200 or MDL
2,4-Dinitrotoluene	1.9	U	0.35	UJ	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
2,6-Dinitrotoluene	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	1.0
2-Chloronaphthalene	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
2-Chlorophenol	1.9	U	0.35	UJ	3.6	U	0.37	U	3.7	U	10	U	N/A	0.8
2-Methylnaphthalene	1.2	J	0.35	U	0.71	J	0.38		2.4	J	10	U	N/A	36.4
2-Methylphenol	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	0.100 or MDL
2-Nitroaniline	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	0.430 or MDL
2-Nitrophenol	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	0.330 or MDL
3&4-Methylphenol	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	
3,3'-Dichlorobenzidine	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
3-Nitroaniline	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	0.500 or MDL
4,6-Dinitro-2-methylphenol	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
4-Bromophenyl-phenyl ether	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
4-Chloro-3-methylphenol	1.9	U	0.35	UJ	3.6	U	0.37	U	3.7	U	10	U	N/A	0.240 or MDL
4-Chloroaniline	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	0.220 or MDL
4-Chlorophenyl-phenylether	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
4-Nitroaniline	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
4-Nitrophenol	1.9	U	0.35	UJ	3.6	U	0.37	U	3.7	U	10	U	N/A	0.100 or MDL
Acenaphthene	0.54	J	0.059	J	0.62	J	0.37	J	1.0	J	10	U	N/A	50
Acenaphthylene	1.6	J	0.35	U	2.1	J	0.39		2.6	J	10	U	N/A	41
Anthracene	2.9		0.091	J	3.6	J	1.2		3.7		10	U	N/A	50
Benzo(a)Anthracene	5.8		0.33	J	6.9		3.7		12		10	U	N/A	0.224 or MDL
Benzo(a)Pyrene	5.0		0.31	J	5.0		3.2		9.6		10	U	N/A	0.061 or MDL
Benzo(b)fluoranthene	5.7		0.5		7.0		4.6		11		10	U	N/A	1.1
Benzo(g,h,i)perylene	2.5		0.079	J	1.7	J	1.0		3.8		10	U	N/A	50
Benzo(k)fluoranthene	2.4		0.24	J	2.7	J	1.5		4.5		10	U	N/A	1.1
Bis(2-chloroethoxy)methane	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
Bis(2-chloroethyl)ether	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
Bis(2-chloroisopropyl)ether	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
Bis(2-ethylhexyl)phthalate	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	50
Butylbenzylphthalate	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	50
Carbazole	0.35	J	0.048	J	1.1	J	0.27	J	0.43	J	10	U	N/A	N/A
Chrysene	5.4		0.41		5.7		3.6		12		10	U	N/A	0.4
Dibenzo(a,h)Anthracene	0.31	J	0.35	U	3.6	U	0.14	J	0.52	J	10	U	N/A	0.014 or MDL
Dibenzofuran	1.5	J	0.078	J	2.1	J	0.37		0.70	J	10	U	N/A	6.2
Diethylphthalate	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	7.1
Dimethylphthalate	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	2.0
Di-n-butylphthalate	1.9	U	0.057	J	3.6	U	0.37	U	3.7	U	10	U	N/A	8.1
Di-n-octylphthalate	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	50
Fluoranthene	11.0		0.61		13.0		6.8		19		10	U	N/A	50
Fluorene	2.3		0.041	J	3.8		0.62		3.3	J	10	U	N/A	50

NA = Not analyzed
* = As per TAGM #4046, total VOCs <10ppm, total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
** = Value is for total Xylenes
A = Composite sample
U = Not detected
J = Estimated

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site C"
Hunts Point, Bronx, New York

Sample Designation	SS-1		SS-2		SS-3		SS-4		SS-5		BW-10		Trip Blank	TAGM 4046 Soil Cleanup Objectives (Eastern USA Background (March 6, 2002)
Sample Depth (ft.)	0.0-1		0.0-1		0.5-1		0.5-1		0.5-1					
Sample Date	12/18/2002		12/18/2002		12/18/2002		12/18/2002		12/18/2002					
Laboratory ID Number	78391		78392		78393		78394		78395					
Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Water	
PARAMETERS (ppm)														
BASE NEUTRAL COMPOUNDS* (Cont.)														
Hexachlorobenzene	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	0.41
Hexachlorobutadiene	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
Hexachlorocyclopentadiene	1.9	UJ	0.35	UJ	4.0	UJ	0.37	UJ	3.7	UJ	10	UJ	N/A	N/A
Hexachloroethane	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
Indeno(1,2,3-cd)pyrene	2.4		0.066	J	1.9	J	1.1		3.7	J	10	U	N/A	3.2
Isophorone	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	4.40
Naphthalene	2.0		0.35	U	0.91	J	0.55		3.0	J	10	U	N/A	13.0
Nitrobenzene	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	0.200 or MDL
N-Nitroso-Di-N-propylamine	1.9	U	0.35	UJ	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
N-Nitrosodiphenylamine	1.9	U	0.35	U	3.6	U	0.37	U	3.7	U	10	U	N/A	N/A
Pentachlorophenol	1.9	U	0.35	UJ	3.6	U	0.37	U	3.7	U	10	U	N/A	1.0 or MDL
Phenanthrene	7.9		0.45		13.0		5.8		18		10	U	N/A	50.0
Phenol	1.9	U	0.35	UJ	3.6	U	0.37	U	3.7	U	10	U	N/A	0.03 or MDL
Pyrene	11.0		0.71	J	11.0		7.1		25		10	U	N/A	50.0
TICs	66.2	J	40.14	J	83.9	J	43.06	J	144.3	J	33	J		
Total Semi-VOCs	215.9		59.639		318.34		100.92		432.25		-			< 500
PESTICIDES														
Aldrin	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.022	J	0.10	UJ	N/A	0.041
Alpha-BHC	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	0.11
Beta-BHC	0.0038	U	0.0035	U	0.0072	U	0.0037	U	0.0037	U	0.10	U	N/A	0.2
Chlordane	0.0077	U	0.0071	U	0.014	U	0.0074	U	0.0075	U	0.20	U	N/A	0.54
Delta-BHC	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	0.3
Dieldrin	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	0.044
Endosulfan I	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	0.9
Endosulfan II	0.0038	U	0.0035	U	0.0072	U	0.0037	U	0.0083	J	0.10	UJ	N/A	0.9
Endosulfan Sulfate	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	1.0
Endrin	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	0.10
Endrin Aldehyde	0.0072	J	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.018	J	0.10	UJ	N/A	N/A
Endrin Ketone	0.0056	J	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	N/A
Gamma-BHC	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	0.06
Heptachlor	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	0.10
Heptachlor Epoxide	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	0.02
Methoxychlor	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.0037	UJ	0.10	UJ	N/A	**
P,P'-DDD	0.0038	U	0.0035	U	0.0072	U	0.0037	U	0.014	J	0.10	U	N/A	2.9
P,P'-DDE	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.027	J	0.10	UJ	N/A	2.1
P,P'-DDT	0.0038	UJ	0.0035	UJ	0.0072	UJ	0.0037	UJ	0.028	J	0.10	UJ	N/A	2.1
Toxaphene	0.038	U	0.035	U	0.072	U	0.037	U	0.037	U	1.0	U	N/A	N/A
PCB														
Arochlor-1016	0.019	U	0.018	U	0.018	U	0.019	U	0.019	U	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1221	0.019	U	0.018	U	0.018	U	0.019	U	0.019	U	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1232	0.019	U	0.018	U	0.018	U	0.019	U	0.019	U	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1242	0.019	U	0.018	U	0.018	U	0.019	U	0.019	U	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1248	0.019	U	0.018	U	0.018	U	0.019	U	0.019	U	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1254	0.019	U	0.018	U	0.018	U	0.019	U	0.081	J	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1260	0.019	U	0.018	U	0.018	U	0.019	U	0.081	J	0.50	U	N/A	1 (surface)/10(subsurface)

NA = Not analyzed
* = As per TAGM #4046, total VOCs <10ppm, total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
** = Value is for total Xylenes
A = Composite sample
U = Not detected
J = Estimated
R = Rejected during data validation

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site C"
Hunts Point, Bronx, New York

Sample Designation	SS-1		SS-2		SS-3		SS-4		SS-5		SW-10		Trip Blank		TAGM #4046 Soil Cleanup Objectives / Eastern USA Background
Sample Depth (ft.)	0-0.5		0-0.5		0.5-1		0.5-1		0.5-1		Equip. Blank				
Sample Date	12/18/2002		12/18/2002		12/18/2002		12/18/2002		12/18/2002		12/18/2002		12/18/2002		
Laboratory ID Number	75391		75390		75392		75396		75395		75394		75397		
PARAMETERS (ppm)											(ppb)		(ppb)		(March 6, 2002)
METALS															
Aluminum	6,500		10,000		4,200		11,000		11,000		180	U	N/A		SB / 33000
Antimony	2.3	UJ	2.1	UJ	2.2	UJ	2.2	UJ	2.2	UJ	15	U	N/A		SB / NA
Arsenic	5.3		2.1	U	3.3		7.0		6.5		7.5	U	N/A		7.5 or SB / 3-12
Barium	130	J	57	J	47	J	240	J	160	J	50	U	N/A		300 or SB / 15-600
Beryllium	0.69	U	0.76		0.65	U	1.0		0.88		4.0	U	N/A		0.16 or SB / 0-1.75
Cadmium	0.69	U	0.64	U	0.65	U	0.67	U	0.67	U	3.5	U	N/A		1 or SB / 0.1-1
Calcium	10,000	J	16000	J	95,000	J	3,800	J	10,000	J	2,000	U	N/A		SB / 130-35000
Chromium	16	J	7.8	J	16	J	30	J	33	J	50	U	N/A		10 or SB / 1.5-40
Cobalt	6.4		12		3.5		9.1		8.7		20	U	N/A		30 or SB / 2.5-60
Copper	58	J	84	J	20	J	120	J	69	J	50	U	N/A		25 or SB / 1-50
Iron	15,000		26,000		8,400		23,000		23,000		280	U	N/A		2000 or SB / 2000-550000
Lead		R		R		R		R		R	5.0	U	N/A		SB / 200-500
Magnesium	4,400	J	7,100	J	42,000	J	4,400	J	5,800	J	2,000	U	N/A		SB / 100-5000
Manganese	270		280		170		340		190		40	U	N/A		SB / 50-5000
Mercury	0.32		0.15	U	0.15	U	0.73		0.31		0.70	U	N/A		0.1 / 0.001-0.2
Nickel	30	J	13	J	13	J	24	J	23	J	50	U	N/A		13 or SB / 0.5-25
Potassium	1,700		1,800		1,200		3,600		3,800		5,000	U	N/A		SB / 8500-43000
Selenium	2.3	U	2.1	U	2.2	U	2.8		2.5		40	U	N/A		2 or SB / 0.1-3.9
Silver	2.9	U	2.7	U	2.7	U	2.8	U	2.8	U	20	U	N/A		SB / NA
Sodium	570	U	940		540	U	560	U	560	U	5,000	U	N/A		SB / 6000-8000
Thallium	1.4	U	1.3	U	1.3	U	1.3	U	1.3	U	10	U	N/A		SB / NA
Vanadium	28		91		27		36		49		50	U	N/A		150 or SB / 1-300
Zinc	280	J	46	J	42	J	360	J	120	J	50	U	N/A		20 or SB / 9-50
CYANIDE	9		0.26	U	4.90		1.20		20		10	U	N/A		N/A

NA = Not analyzed
* = As per TAGM #4046, total VOCs <10ppm, total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
** = Value is for total Xylenes
A = Composite sample
U = Not detected
J = Estimated
R = Rejected during data validation

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation / Sample Depth (ft.) / Sample Date / Laboratory ID Number / PARAMETERS (ppm)	S-1 4.5-4.6 12/19/2002 76396	S-1 (A) A 12/19/2002 76391	S-2 4.5-4.7 12/19/2002 75400	S-2 (A) A 12/19/2002 75401	S-3 5.5-5.6 12/20/2002 75679	S-3 A 12/20/2002 75680	S-4 8.5-9 12/20/2002 75681	S-4 A 12/20/2002 75682	S-4 B 12/20/2002 75683	S-4 C 12/20/2002 75684	S-5 10.5-11 12/19/2002 76404	S-5 (A) A 12/19/2002 76405	S-5 (B) B 12/19/2002 76406	S-6 4.5-5.2 12/19/2002 76402	S-6 A 12/19/2002 76403	S-7 (8.0-8.5) 1/2/2003 76186	S-7 (A) A 1/2/2003 76185	S-8 (7.5-8.0) 1/2/2003 76184
VOLATILE ORGANIC COMPOUNDS*																		
1,1,1-Trichloroethane	0.0057 U	0.0066 UJ	0.0068 U	0.0071 U	0.0057 UJ	0.0057 UJ	0.0058 UJ	0.0060 UJ	0.0060 UJ	0.0056 UJ	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 UJ	0.0076 U
1,1,2,2-Tetrachloroethane	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 UJ	0.0057 UJ	0.0058 U	0.0060 UJ	0.0060 UJ	0.0056 UJ	0.73 UJ	0.75 UJ	0.70 UJ	0.0060 U	0.0062 UJ	0.0063 U	0.0076 UJ
1,1,2-Trichloroethane	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
1,1-Dichloroethane	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
1,1-Dichloroethene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
1,2,4-Trichlorobenzene	0.0011 U	0.0013 U	0.0014 U	0.0014 U	0.0011 U	0.0011 U	0.0012 U	0.0012 UJ	0.0012 UJ	0.0011 UJ	0.15 U	0.15 UJ	0.14 UJ	0.0012 UJ	0.0012 UJ	0.0013 UJ	0.0015 UJ
1,2-Dibromo-3-chloropropane	0.0011 UJ	0.0013 UJ	0.0014 UJ	0.0014 UJ	0.0011 UJ	0.0011 UJ	0.0012 UJ	0.0012 UJ	0.0012 UJ	0.0011 UJ	0.15 UJ	0.15 UJ	0.14 UJ	0.0012 UJ	0.0012 UJ	0.0013 UJ	0.0015 UJ
1,2-Dibromoethane	0.0011 U	0.0013 U	0.0014 U	0.0014 U	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	0.15 U	0.15 U	0.14 U	0.0012 U	0.0012 U	0.0013 U	0.0015 U
1,2-Dichlorobenzene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
1,2-Dichloroethane	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
1,2-Dichloropropane	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	1.1	0.0060 U	0.0062 U	0.0063 U	0.0076 U
1,3-Dichlorobenzene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	4.1	0.0060 U	0.0062 U	0.0063 UJ	0.038 UJ
1,4-Dichlorobenzene	0.029 UJ	0.025 J	0.034 UJ	0.036 UJ	R	R	R	R	R	R	3.6 UJ	3.8 UJ	3.5 UJ	0.030 UJ	0.023 J	0.032 UJ	0.030 UJ
2-Butanone	0.023 U	0.026 U	0.027 U	0.029 U	0.023 U	0.023 U	0.023 U	0.024 U	0.024 U	0.022 U	2.9 U	3.0 U	2.8 U	0.024 U	0.025 UJ	0.025 UJ	0.030 UJ
2-Hexanone	0.023 U	0.026 U	0.027 U	0.029 U	0.023 U	0.023 U	0.023 U	0.024 U	0.024 U	0.022 U	2.9 UJ	3.0 U	2.8 UJ	0.024 U	0.025 U	0.025 U	0.030 U
4-Methyl-2-Pentanone	0.023 U	0.026 U	0.027 U	0.029 U	R	0.046 UJ	0.064 UJ	R	R	0.029 UJ	2.9 UJ	3.0 U	2.8 UJ	0.024 U	0.12 J	0.063 J	0.26 J
Acetone	0.040	0.12 J	0.037	0.029 U		R	R		R	R							
Benzene	0.0011 U	0.0013 U	0.0014 U	0.0014 U	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	37.0	0.45	0.55	0.0012 U	0.0012 U	0.0017	0.0015 U
Bromodichloromethane	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
Bromoform	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 UJ	0.75 UJ	0.70 UJ	0.0060 UJ	0.0062 UJ	0.0063 UJ	0.0076 UJ
Bromomethane	0.0057 UJ	0.0066 UJ	0.0068 UJ	0.0071 UJ	0.0057 UJ	0.0057 UJ	0.0058 UJ	0.0060 UJ	0.0060 UJ	0.0056 UJ	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 UJ	0.0063 U	0.0053 J
Carbon Disulfide	0.0057 U	0.0027 J	0.0068 U	0.0023 J	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0058 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 UJ	0.0076 UJ
Carbon Tetrachloride	0.0057 U	0.0066 UJ	0.0068 U	0.0071 U	0.0057 UJ	0.0057 UJ	0.0058 UJ	0.0060 UJ	0.0060 UJ	0.0056 UJ	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
Chlorobenzene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
Chloroethane	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
Chloroform	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
Chloromethane	0.0057 UJ	0.0066 UJ	0.0068 UJ	0.0071 UJ	0.0057 UJ	0.0057 UJ	0.0058 UJ	0.0060 UJ	0.0060 UJ	0.0056 UJ	0.73 UJ	0.75 UJ	0.70 UJ	0.0060 UJ	0.0062 UJ	0.0063 UJ	0.0076 UJ
cis-1,2-Dichloroethene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
cis-1,3-Dichloropropene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 UJ	0.0063 UJ	0.0076 UJ
Dibromochloromethane	0.0057 U	0.0066 UJ	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
Dichlorodifluoromethane	0.0011 U	0.0069	0.0014 U	0.0014 U	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	25.0	1.2	5.8	0.0012 U	0.0012 U	0.0013 U	0.0015 U
Ethylbenzene	0.0011 U	0.0024	0.0014 U	0.0014 U	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	0.96	0.15 U	0.78	0.0012 U	0.0012 U	0.0013 U	0.003 U
Isopropylbenzene	0.0023 U	0.013	0.0027 U	0.0029 U	0.0023 U	0.0023 U	0.0023 U	0.0024 U	0.0024 U	0.0022 U	39.0	1.2	5.20	0.0024 U	0.0025 U	0.0025 U	0.0076 UJ
p&m-Xylenes	0.0057 U	0.0099 UJ	0.0074 UJ	0.0071 UJ	0.0057 UJ	0.007 UJ	0.0071 UJ	0.0068 UJ	0.0072 UJ	0.0075 UJ	0.30 J	0.75 U	0.70 UJ	0.0060 UJ	0.0062 UJ	0.0067 UJ	0.0015 U
Methylene Chloride	0.0011 U	0.0013 U	0.0014 U	0.0014 U	0.0011 UJ	0.0011 UJ	0.0012 UJ	0.0012 UJ	0.0012 UJ	0.0011 UJ	0.15 U	0.15 U	0.14 U	0.0012 U	0.0012 U	0.0013 U	0.0015 U
Methyl-t-butyl ether	0.0011 U	0.01	0.0014 U	0.0014 U	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	16.0	0.73	3.60	0.0012 U	0.0012 U	0.0013 U	0.0015 U
o-Xylene	0.0011 U	0.0013 U	0.0014 U	0.0014 U	0.0011 U	0.0011 U	0.0012 U	0.0012 U	0.0012 U	0.0011 U	7.9	0.15 U	0.14 U	0.0012 U	0.0012 U	0.0013 U	0.0015 U
Styrene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
Tetrachloroethene	0.0023	0.0039	0.0039	0.0017	0.0011 U	0.0013	0.0012 U	0.0012 U	0.0012 U	0.0014	43.0	0.49	0.48	0.0016	0.0023	0.0013 U	0.0017
Toluene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 UJ	0.75 UJ	0.70 UJ	0.0060 U	0.0062 U	0.0063 U	0.0076 U
trans-1,2-Dichloroethene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
trans-1,3-Dichloropropene	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
Trichloroethene	0.0057 U	0.0066 UJ	0.0068 U	0.0071 U	0.0057 UJ	0.0057 UJ	0.0058 UJ	0.0060 UJ	0.0060 UJ	0.0056 UJ	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 UJ	0.0076 U
Trichlorofluoromethane	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
Vinyl Chloride	0.0057 U	0.0066 U	0.0068 U	0.0071 U	0.0057 U	0.0057 U	0.0058 U	0.0060 U	0.0060 U	0.0056 U	0.73 U	0.75 U	0.70 U	0.0060 U	0.0062 U	0.0063 U	0.0076 U
TICs	0.0057 J	0.999 J	0.0111 J	0.021 J	0.021 J	0.0266 J	0.0612 J	0.0199 J	0.0478 J	0.0949 J	232.6 J	51.52 J	136.6 J	0.0215 J	0.0162 J	0.0084 J	0.013 J
Total VOCs	0.3062	1.4374	0.3599	0.3694	0.2513	0.3044	0.3608	0.2631	0.2916	0.3517	435.83	91.79	190.21	0.3183	0.4108	0.3587	0.6149

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
** =Value is for total Xylenes
A =Composite sample
R=Rejected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation / Sample Depth (ft.) / Date / Laboratory ID number / PARAMETERS (ppm)	S-1 4.0-4.5 12/19/2002		S-1 A 12/19/2002		S-2 3.5-4.0 12/19/2002		S-2 A 12/19/2002		S-3 3-3.5 12/20/2002		S-3 A 12/20/2002		S-4 8.5-9 12/20/2002		S-4 A 12/20/2002		S-4 B 12/20/2002		S-4 C 12/20/2002		S-5 8.5-9 12/19/2002		S-5 A 12/19/2002		S-6 1.5-2 12/19/2002		S-6 A 12/19/2002		S-7 (8.0-8.5) 1/2/2003		S-7 A 1/2/2003		S-8 (7.5-8.0) 1/2/2003	
BASE NEUTRAL COMPOUNDS*																																		
2,4,5-Trichlorophenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
2,4,6-Trichlorophenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
2,4-Dichlorophenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
2,4-Dimethylphenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
2,4-Dinitrophenol	0.38	UJ	8.8	UJ	0.46	UJ	0.48	UJ	0.38	UJ	0.38	UJ	3.9	UJ	9.9	UJ	0.40	UJ	1.9	UJ	290	UJ	12	UJ	75	UJ	0.40	UJ	0.42	UJ	0.42	UJ	0.51	UJ
2,4-Dinitrotoluene	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
2,6-Dinitrotoluene	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
2-Chloronaphthalene	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
2-Chlorophenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.07	J
2-Methylnaphthalene	2.5		42		0.46	UJ	0.11	J	0.38	UJ	0.061	J	5.7	J	15	J	0.40	UJ	1.9	UJ	1,400		4.1	J	150	J	0.40	UJ	0.42	U	0.42	U	0.51	U
2-Methylphenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	UJ	0.38	UJ	3.9	UJ	9.9	UJ	0.40	UJ	1.9	UJ	290	U	12	U	75	UJ	0.40	U	0.42	U	0.42	U	0.51	U
2-Nitroaniline	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
2-Nitrophenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
3&4-Methylphenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	UJ	0.38	UJ	3.9	UJ	9.9	UJ	0.40	UJ	1.9	UJ	290	U	12	U	75	UJ	0.40	U	0.42	U	0.42	U	0.51	U
3,3'-Dichlorobenzidine	0.38	U	8.8	U	0.46	U	0.48	U	0.38	UJ	0.38	UJ	3.9	UJ	9.9	UJ	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
3-Nitroaniline	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
4,6-Dinitro-2-methylphenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	UJ	0.38	UJ	3.9	UJ	9.9	UJ	0.40	UJ	1.9	UJ	290	U	12	U	75	UJ	0.40	U	0.42	U	0.42	U	0.51	U
4-Bromophenyl-phenyl ether	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
4-Chloro-3-methylphenol	0.38	U	8.8	U	0.46	U	0.48	U	0.38	UJ	0.38	UJ	3.9	UJ	9.9	UJ	0.40	UJ	1.9	UJ	290	U	12	U	75	UJ	0.40	U	0.42	U	0.42	U	0.51	U
4-Chloroaniline	0.38	U	8.8	U	0.46	U	0.48	U	0.38	UJ	0.38	UJ	3.9	UJ	9.9	UJ	0.40	UJ	1.9	UJ	290	U	12	U	75	UJ	0.40	UJ	0.42	U	0.42	U	0.51	U
4-Chlorophenyl-phenylether	0.38	U	8.8	U	0.46	UJ	0.48	UJ	0.38	UJ	0.38	UJ	3.9	UJ	9.9	UJ	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
4-Nitroaniline	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	UJ	0.42	U	0.42	U	0.098	J
4-Nitrophenol	0.38	U	8.8	U	0.46	UJ	0.48	UJ	0.38	U	0.38	UJ	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
Acenaphthene	0.58		5.7	J	0.46	U	0.48	U	0.077	J	0.12	J	13		43		0.14	J	3.6		200	J	34		210		0.40	U	0.42	U	0.42	U	0.13	J
Acenaphthylene	0.34	J	12		0.46	U	0.48	U	0.052	J	0.29	J	11		18		0.058	J	1.1	J	1,100		13		66	J	0.40	U	0.42	U	0.42	U	0.26	J
Anthracene	0.65		10		0.46	U	0.089	J	0.24	J	0.77	J	27		56		0.28	J	6.2	J	890		35		270	J	0.40	U	0.42	U	0.12	J	0.74	
Benzo(a)Anthracene	1.7		19		0.46	U	0.064	J	0.88		1.6		38		59		0.33	J	14		830		46		240		0.40	U	0.42	U	0.11	J	0.64	
Benzo(a)Pyrene	1.7		15		0.46	U	0.48	U	0.82		1.4		25		46		0.28	J	11		660		39		180		0.40	U	0.42	U	0.14	J	0.74	
Benzo(b)fluoranthene	2.4		14		0.46	U	0.48	U	1.3		2.1		48		57		0.37	J	18		700		44		200		0.40	U	0.42	U	0.074	J	0.17	J
Benzo(g,h,i)perylene	0.68		5	J	0.46	U	0.48	U	0.18	J	0.32	J	4.9		14		0.054	J	2.0		200	J	12		86		0.40	U	0.42	U	0.053	J	0.32	J
Benzo(k)fluoranthene	0.75		4.7	J	0.46	U	0.48	U	0.42	J	1.0	J	16	J	22	J	0.16	J	5.8	J	310		19		72	J	0.40	U	0.42	U	0.42	U	0.51	U
Bis(2-chloroethoxy)methane	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
Bis(2-chloroethyl)ether	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
Bis(2-chloroisopropyl)ether	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
Bis(2-ethylhexyl)phthalate	0.38	U	8.8	U	0.16	J	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	UJ
Butylbenzylphthalate	0.38	U	8.8	U	0.46	U	0.48	U	0.08	J	0.14	J	11	J	15	J	0.12	J	0.67	J	320		9.8	J	92	J	0.40	U	0.42	U	0.12	J	0.69	
Carbazole	0.26	J	1.1	J	0.46	U	0.48	U	0.08	J	0.14	J	11	J	15	J	0.12	J	0.67	J	320		9.8	J	92	J	0.40	U	0.42	U	0.12	J	0.69	
Chrysene	1.7		22		0.46	U	0.062	J	0.73		1.3		32		50		0.31	J	12		730		42		180		0.40	U	0.42	U	0.42	U	0.51	U
Dibenzo(a,h)Anthracene	0.098	J	8.8	U	0.46	U	0.48	U	0.38	U	0.055	J	0.92	J	2	J	0.40	U	0.36	J	290	U	1.8	J	14	J	0.40	U	0.42	U	0.42	U	0.052	J
Dibenzofuran	0.23	J	2.4	J	0.46	U	0.066	J	0.38	U	0.19	J	13		22		0.094	J	1.20	J	640		24		160		0.40	U	0.42	U	0.42	U	0.51	U
Diethylphthalate	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
Dimethylphthalate	0.38	U	8.8	U	0.46	U	0.48	U	0.38	U	0.38	U	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.51	U
Di-n-butylphthalate	0.058	J	8.8	U	0.08	J	0.48	U	0.046	J	0.039	J	3.9	UJ	9.9	U	0.40	U	1.9	UJ	290	U	12	U	75	U	0.400	U	0.046	J	0.42	U	0.092	J
Di-n-octylphthalate	0.38	U	8.8	U	0.46	U	0.48	U	0.085	J	0.072	J	3.9	U	9.9	U	0.40	U	1.9	U	290	U	12	U	75	U	0.40	U	0.42	U	0.42	U	0.058	J
Fluoranthene	2.8		27		0.46	U	0.25	J	1.6		2.8		69		110		0.78		24		1,900		94		490		0.40	U	0.42	U	0.17	J	1.40	
Fluorene	0.57		23		0.46	UJ	0.17	J	0.094	J	0.37	J	30	J	53	J	0.24	J	3.7	J	1,200		35		300	J	0.40	UJ	0.42	U	0.42	U	0.065	J

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
**=Value is for total Xylenes
A =Composite sample
R=Rejected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation	S-1	S-1	S-2	S-2	S-3	S-3	S-4	S-4	S-4	S-4	S-4	S-5	S-5	S-6	S-6	S-7	S-7	S-8
Sample Depth (ft.)	4.0-4.5	A	3.5-4	A	8-8.6	A	8.6-9	A	B	C	D	(10.5-11)	A	(1.5-2)	A	(8.0-9.6)	A	(7.5-8.0)
Sample Date	12/19/2002	12/19/2002	12/19/2002	12/19/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/19/2002	12/19/2002	12/19/2002	12/19/2002	1/2/2003	1/2/2003	1/2/2003
Laboratory ID Number	75396	75396	75400	75400	75479	75480	75481	75482	75483	75484	75485	75404	75404	75405	75405	76166	76166	76184
PARAMETERS (ppm)																		
BASE NEUTRAL COMPOUNDS* (Cont.)																		
Hexachlorobenzene	0.38 U	8.8 U	0.46 U	0.48 U	0.38 U	0.38 U	3.9 U	9.9 U	0.40 U	1.9 U	290 U	12 U	75 U	0.40 U	0.42 U	0.42 U	0.42 U	0.51 U
Hexachlorobutadiene	0.38 U	8.8 U	0.46 U	0.48 U	0.38 U	0.38 U	3.9 U	9.9 U	0.40 U	1.9 U	290 U	12 U	75 U	0.40 U	0.42 U	0.42 U	0.42 U	0.51 U
Hexachlorocyclopentadiene	0.42 UJ	8.8 UJ	0.50 UJ	0.52 UJ	0.38 UJ	0.38 UJ	3.9 UJ	9.9 UJ	0.40 UJ	1.9 UJ	290 UJ	12 UJ	75 UJ	0.44 UJ	0.42 UJ	0.42 UJ	0.42 UJ	0.51 UJ
Hexachloroethane	0.38 U	8.8 U	0.46 U	0.48 U	0.38 UJ	0.38 UJ	3.9 UJ	9.9 UJ	0.40 UJ	1.9 UJ	290 U	12 U	75 UJ	0.40 U	0.42 U	0.42 U	0.42 U	0.51 UJ
Indeno(1,2,3-cd)pyrene	0.72	4.6 J	0.46 U	0.48 U	0.20 J	0.38 J	5.7	14	0.065 J	2.3	218 J	13	78	0.40 U	0.42 U	0.061 J	0.14 J	
Isophorone	0.38 U	8.8 U	0.46 U	0.48 U	0.38 U	0.38 U	3.9 U	9.9 U	0.40 U	1.9 U	290 U	12 U	75 U	0.40 U	0.42 U	0.42 U	0.51 U	
Naphthalene	3.9	42	0.46 U	1.4	0.048 J	0.21 J	15 J	46 J	0.40 UJ	1.9 UJ	4,900	65	660 J	0.40 U	0.42 U	0.42 U	0.52 J	
Nitrobenzene	0.38 U	8.8 U	0.46 U	0.48 U	0.38 U	0.38 U	3.9 U	9.9 U	0.40 U	1.9 U	290 U	12 U	75 U	0.40 U	0.42 U	0.42 U	0.51 U	
N-Nitroso-Di-N-propylamine	0.38 U	8.8 U	0.46 U	0.48 U	0.38 UJ	0.38 UJ	3.9 UJ	9.9 UJ	0.40 UJ	1.9 UJ	290 U	12 U	75 UJ	0.40 U	0.42 U	0.42 U	0.51 UJ	
N-Nitrosodiphenylamine	0.38 U	8.8 U	0.46 U	0.48 U	0.38 U	0.38 U	3.9 U	9.9 U	0.40 U	1.9 U	290 U	12 U	75 U	0.40 U	0.42 U	0.42 U	0.51 U	
Pentachlorophenol	0.38 U	8.8 U	0.46 U	0.48 U	0.38 U	0.38 U	3.9 U	9.9 U	0.40 U	1.9 U	290 U	12 U	75 U	0.40 U	0.42 U	0.42 U	0.51 U	
Phenanthrene	2.7	59	0.46 U	0.35 J	0.93 J	1.4 J	78 J	150 J	0.79 J	14 J	3,200	98	760 J	0.044 J	0.42 U	0.42 U	0.43 J	
Phenol	0.38 U	8.8 U	0.46 U	0.48 U	0.38 U	0.38 U	3.9 U	9.9 U	0.40 U	1.9 U	290 U	12 U	75 U	0.40 U	0.42 U	0.42 U	0.51 U	
Pyrene	2.9	43	0.46 U	0.24 J	1.9	3.0	65	110	0.71	30	1,700	90	420	0.047 J	0.42 U	0.22 J	3.2	
TICs	38.99 J	444.1 J	29.54 J	46.17 J	37.12 J	39.8 J	161.9 J	316.2 J	29.29 J	88.5 J	7,640 J	291.9 J	1,279 J	25.67 J	38.4 J	49.82 J	59.78 J	
Total Semi-VOCs	81.466	1165.2	56.5	73.011	62.762	72.257	822.02	1624.1	51.691	319.93	40910	1502.90	8982	49.001	63.226	72.308	90.505	
PESTICIDES																		
Aldrin	0.0038 U	0.0440 U	0.0046 U	0.0048 U	0.0038 U	0.0038 U	0.078 U	0.2000 U	0.004 U	0.0190 U	0.0039 UJ	0.0800 U	0.3700 U	0.0040 U	0.0042 U	0.0042 U	0.0051 U	
Alpha-BHC	0.0038 UJ	0.0440 UJ	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 UJ	0.004 UJ	0.0190 UJ	0.22 J	0.0800 UJ	0.3700 UJ	0.0040 UJ	0.0042 UJ	0.0042 UJ	0.0051 UJ	
Beta-BHC	0.0038 U	0.0440 U	0.0046 U	0.0048 U	0.0038 U	0.0038 U	0.078 U	0.2000 U	0.004 U	0.0190 U	0.0039 UJ	0.0800 UJ	0.3700 U	0.0040 U	0.0042 UJ	0.0042 UJ	0.0051 UJ	
Chlordane	0.0077 U	0.35 J	0.0091 U	0.0095 U	0.0077 U	0.0077 U	0.92 J	0.87 J	0.0079 U	0.19 J	0.0078 U	1.60 J	0.8 U	0.0079 U	0.0083 U	0.0084 U	0.010 U	
Delta-BHC	0.0038 UJ	0.0440 UJ	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 UJ	0.004 UJ	0.0190 UJ	0.14 J	0.0800 UJ	0.3700 UJ	0.0040 UJ	0.0042 UJ	0.0042 UJ	0.0051 UJ	
Dieldrin	0.0038 UJ	0.0440 U	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 U	0.004 UJ	0.0190 U	0.18 J	0.0800 U	0.3700 UJ	0.0040 UJ	0.0042 U	0.0042 U	0.0051 U	
Endosulfan I	0.0038 UJ	0.0440 U	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 U	0.004 UJ	0.0190 U	0.0039 U	0.0800 U	0.3700 UJ	0.0040 UJ	0.0042 U	0.0042 U	0.0051 U	
Endosulfan II	0.0038 UJ	0.0440 U	0.0046 UJ	0.025 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 U	0.004 UJ	0.0190 UJ	0.0039 UJ	0.0800 UJ	0.3700 UJ	0.0040 UJ	0.0042 UJ	0.0042 UJ	0.0051 UJ	
Endosulfan Sulfate	0.0038 UJ	0.0440 UJ	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 U	0.004 UJ	0.0190 UJ	0.0039 UJ	0.0800 U	0.3700 UJ	0.0040 UJ	0.0042 U	0.0042 U	0.0051 U	
Endrin	0.0038 UJ	0.0440 UJ	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 U	0.004 UJ	0.0190 UJ	0.0039 UJ	0.0800 U	0.3700 UJ	0.0040 UJ	0.0042 U	0.0042 U	0.0051 U	
Endrin Aldehyde	0.0038 UJ	0.0440 UJ	0.0046 UJ	0.016 J	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 U	0.004 UJ	0.0190 UJ	0.0039 UJ	0.0800 U	0.3700 UJ	0.0040 UJ	0.0042 U	0.0042 U	0.0051 U	
Endrin Ketone	0.0038 UJ	0.0440 UJ	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 U	0.004 UJ	0.0190 UJ	0.0039 UJ	0.0800 U	0.3700 UJ	0.0040 UJ	0.0042 U	0.0042 UJ	0.0051 UJ	
Gamma-BHC	0.0038 U	0.0440 U	0.0046 U	0.0048 U	0.0038 U	0.0038 U	0.078 U	0.2000 U	0.004 U	0.0190 U	0.0039 U	0.0800 UJ	0.3700 U	0.0040 U	0.0042 UJ	0.0042 UJ	0.0051 U	
Heptachlor	0.0038 U	0.0440 U	0.0046 U	0.0048 U	0.0038 U	0.0038 U	0.078 U	0.2000 U	0.004 U	0.0190 U	0.0039 U	0.0800 U	0.3700 U	0.0040 U	0.0042 U	0.0042 U	0.0051 U	
Heptachlor Epoxide	0.0038 UJ	0.0440 U	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 UJ	0.004 UJ	0.0190 U	0.0039 UJ	0.0800 U	0.3700 UJ	0.0040 U	0.0042 UJ	0.0042 UJ	0.0051 UJ	
Methoxychlor	0.0038 U	0.0440 U	0.0046 U	0.0048 U	0.0038 U	0.0038 U	0.078 U	0.2000 U	0.004 U	0.0190 U	0.0039 U	0.0800 UJ	0.3700 U	0.0040 U	0.0042 U	0.0042 U	0.0051 U	
P,P'-DDD	0.0038 UJ	0.0440 U	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 U	0.004 UJ	0.0190 U	0.0039 U	0.0800 U	0.3700 UJ	0.0040 UJ	0.0042 U	0.0042 UJ	0.0051 UJ	
P,P'-DDE	0.0038 UJ	0.0440 UJ	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 UJ	0.004 UJ	0.0190 UJ	0.0039 UJ	0.0800 UJ	3.0 J	0.0040 UJ	0.0042 UJ	0.0042 UJ	0.0051 UJ	
P,P'-DDT	0.0038 UJ	0.0440 UJ	0.0046 UJ	0.0048 UJ	0.0038 UJ	0.0038 UJ	0.078 UJ	0.2000 UJ	0.004 UJ	0.1900 U	0.039 U	0.800 U	3.700 U	0.040 U	0.042 U	0.042 U	0.051 U	
Toxaphene	0.038 U	0.440 U	0.046 U	0.048 U	0.038 U	0.038 U	0.78 U	2.000 U	0.040 U	0.1900 U	0.039 U	0.800 U	3.700 U	0.040 U	0.042 U	0.042 U	0.051 U	
PCB																		
Arochlor-1016	0.019 U	0.022 U	0.023 U	0.024 U	0.019 U	0.019 U	0.019 U	0.020 U	0.020 U	0.019 U	0.019 U	0.020 U	0.94 U	0.020 U	0.021 U	0.021 U	0.025 U	
Arochlor-1221	0.019 U	0.022 U	0.023 U	0.024 U	0.019 U	0.019 U	0.019 U	0.020 U	0.020 U	0.019 U	0.019 U	0.020 U	0.94 U	0.020 U	0.021 U	0.021 U	0.025 U	
Arochlor-1232	0.019 U	0.022 U	0.023 U	0.024 U	0.019 U	0.019 U	0.019 U	0.020 U	0.020 U	0.019 U	0.019 U	0.020 U	0.94 U	0.020 U	0.021 U	0.021 U	0.025 U	
Arochlor-1242	0.019 U	0.022 U	0.023 U	0.024 U	0.019 U	0.019 U	0.019 U	0.020 U	0.020 U	0.019 U	0.019 U	0.020 U	0.94 U	0.020 U	0.021 U	0.021 U	0.025 U	
Arochlor-1248	0.019 U	0.022 U	0.023 U	0.024 U	0.019 U	0.019 U	0.019 U	0.020 U	0.020 U	0.019 U	0.019 U	0.020 U	0.94 U	0.020 U	0.021 U	0.021 U	0.025 U	
Arochlor-1254	0.019 U	0.022 U	0.023 U	0.024 U	0.019 U	0.019 U	0.180 J	0.390 J	0.020 U	0.019 U	6.3 J	0.22 J	28 J	0.020 U	0.021 UJ	0.021 UJ	0.025 UJ	
Arochlor-1260	0.019 U	0.022 U	0.023 U	0.024 U	0.019 U	0.019 U												

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
** =Value is for total Xylenes
A =Composite sample
R=Rejected
U=Not detected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation / Sample Depth (ft.) / Sample Date / Laboratory ID Number / PARAMETERS (ppm)	S-1 4.0-4.5 12/19/2002		S-1 A 12/19/2002		S-2 4.5-5.0 12/19/2002		S-2 A 12/19/2002		S-3 5-5.5 12/20/2002		S-3 A 12/20/2002		S-4 5.5-6 12/20/2002		S-4 A 12/20/2002		S-4 B 12/20/2002		S-4 C 12/20/2002		S-5 10.5-11 12/19/2002		S-5 A 12/19/2002		S-6 1.5-2 12/19/2002		S-6 A 12/20/2002		S-7 (9.0-9.5) 12/2/2003		S-7 A 12/2/2003		S-8 (7.5-8.0) 12/2/2003	
METALS																																		
Aluminum	5,700		6,600		1,400		1,300		13,000		11,000		7,100		8,600		15,000		9,600		12,000		7,300		7,200		18,000		18,000		18,000		12,000	
Antimony	2.3	U	2.6	U	2.7	U	2.9	U	2.3	UJ	2.3	UJ	2.3	UJ	2.4	UJ	2.4	UJ	2.20	UJ	2.3	U	2.4	U	2.2	U	2.4	U	2.5	UJ	2.5	UJ	3.0	UJ
Arsenic	12		19		3.2		2.9	U	2.3	U	5.8		5.6		8.4		2.4	U	2.20	U	5.6		9.6		4.2		2.4		3.4		3.8		5.0	
Barium	70		250		37		79		160		160		110		130		90		98		77		130		89		65		70	J	78	J	87	J
Beryllium	0.97		3.3		0.82	U	0.86	U	0.73		0.69	U	0.70	U	0.71	U	0.71	U	0.67	U	0.78		0.72	U	0.8		0.94		0.75	U	0.76	U	0.91	U
Cadmium	0.69	U	4.3		0.82	U	0.86	U	3.4		0.69	U	0.70	U	0.71	U	0.71	U	0.67	U	0.70	U	0.72	U	0.67	U	0.71	U	0.75	U	0.76	U	0.91	U
Calcium	1,100	U	2,500		1,400	U	1,400	U	22,000		4,000		40,000		6,100		1,500		4,500		4,200		13,000		4,900		1,200	U		R		R		R
Chromium	15		83		9.2		11		30		29		48		22		36		23		25		18		17		36		32		32		40	
Cobalt	4.6		25		3.4	U	3.6	U	12		7.9		5.3		7.1		12		6.3		7.3		5.9		14		9.5		9.8		9.8		5.7	
Copper	110		270		40		44		52		100		62		79		30		36		35		59		36		21		21	J	28	J	40	J
Iron	14,000		70,000		3,300		1,400		24,000		24,000		18,000		19,000		27,000		18,000		19,000		18,000		15,000		23,000		23,000	J	22,000	J	20,000	J
Lead	77		2,100		6.8	U	15		130		160		140		190		8.7		49		49		180		80		7.8		22	J	32	J	87	J
Magnesium	1,100		1,400		680	U	710	U	7,800		5,000		12,000		3,300		4,900		3,500		3,200		4,100		2,400		4,200		4,300	J	6,300	J	7,600	J
Manganese	72		620		14	U	14	U	310		280		240		260		470		210		290		280		240		340		270		330		200	
Mercury	0.16	U	1.6		0.19	U	0.2	U	0.16	U	0.52		0.40		0.84		0.17	U	0.16	U	0.21		0.9		0.27		0.17	U	0.18	U	0.18	U	0.50	
Nickel	17		130		6.8	U	7.1	U	32		20		17		18		26		18		16		17		35		18		19		20		17	
Potassium	840		660	U	680	U	710	U	6,300		3,100		1,800		1,500		2,400		2,600		1,500		2,000		2,100		1,600		1,100	J	1,800	J	3,300	J
Selenium	2.3	U	6.9		2.7	U	2.9	U	2.3	U	2.3	U	2.3	U	2.4	U	2.4	U	2.2	U	2.5		2.4	U	2.2	U	2.4	U	2.5	U	2.5	U	3	U
Silver	2.9	U	3.3	U	3.4	U	3.6	U	2.9	U	2.9	U	2.9	U	3.0	U	3.0	U	2.8	U	2.9	U	3.0	U	2.8	U	3	U	3.1	U	3.2	U	3.8	U
Sodium	800		660	U	680	U	710	U	570	U	570	U	580	U	600	U	600	U	560	U	580	U	600	U	560	U	600	U	620	U	630	U	760	
Thallium	1.4	U	1.6	U	1.6	U	1.7	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.3	U	1.4	U	1.4	U	1.3	U	1.4	U	1.5	U	1.5	U	1.8	U
Vanadium	25		25		14	U	14	U	42		36		32		31		42		33		37		33		51		45		39		39		42	
Zinc	290		1,700		14	U	14	U	150		170		120		160		51		65		68		150		84		37		150	J	140	J	69	J
CYANIDE	0.39		1.4		2.1		4.6		2.2		2.9		4.4		5.8		0.61		0.29		4.1		6.3		9.1		0.3	U	0.38		0.32	U	0.61	

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and Individual Semi-VOCs <50 ppm
**=Value is for total Xylenes
A =Composite sample
R=Rejected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation	S-8		S-9		S-9		S-10		S-10		S-11		S-11		S-12		S-12		S-13		S-13		S-14		S-14		S-15		S-15		S-16		S-30		S-30		FB121902	
Sample Depth (ft.)	A		(11-11.5)		A		(11-11.5)		A		7.5-8		A		4-4.5		A		7-7.5		A		7-7.5		A		7-7.5		A		7-7.5		A		12/19/2002	
Sample Date	12/2/2002		12/2/2002		12/2/2002		12/2/2002		12/2/2002		12/23/2002		12/23/2002		12/23/2002		12/23/2002		12/23/2002		12/23/2002		12/23/2002		12/23/2002		12/23/2002		12/23/2002		12/23/2002		12/23/2002		12/19/2002	
Laboratory ID Number	76169		76170		76171		76176		76176D		76777		76778		76776		76774		76773		76772		76771		76770		76769		76768		76775		76775D		74406	
Duplicate																																	Duplicate			
PARAMETERS (ppm)																																				
VOLATILE ORGANIC COMPOUNDS*																																				
1,1,1-Trichloroethane	0.0057	U	0.0068	U	0.0057	U	0.0060	UJ	0.0057	UJ	0.0056	UJ	0.0057	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0057	UJ	0.0055	UJ	0.0051	UJ	0.0054	UJ	0.0054	UJ	0.0052	UJ	5.0	U
1,1,2,2-Tetrachloroethane	0.0057	UJ	0.0068	UJ	0.0057	UJ	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
1,1,2-Trichloroethane	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
1,1-Dichloroethane	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
1,1-Dichloroethene	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
1,2,4-Trichlorobenzene	0.0011	U	0.0014	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0010	UJ	1.0	U
1,2-Dibromo-3-chloropropane	0.0011	UJ	0.0014	UJ	0.0011	UJ	0.0012	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0011	UJ	0.0010	UJ	0.0011	UJ	0.0011	UJ	0.0010	UJ	1.0	U
1,2-Dibromoethane	0.0011	U	0.0014	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0011	U	0.0010	U	1.0	U
1,2-Dichlorobenzene	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
1,2-Dichloroethane	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
1,2-Dichloropropane	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
1,3-Dichlorobenzene	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
1,4-Dichlorobenzene	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
2-Butanone	0.028	UJ	0.034	UJ	0.028	UJ	0.030	UJ	0.029	UJ	0.028	UJ	0.028	UJ	0.027	UJ	0.027	UJ	0.027	UJ	0.027	UJ	0.028	UJ	0.027	UJ	0.026	UJ	0.027	UJ	0.027	UJ	0.026	UJ	25	U
2-Hexanone	0.023	U	0.027	U	0.023	U	0.024	UJ	0.023	UJ	0.022	U	0.023	U	0.022	U	0.022	U	0.022	U	0.022	U	0.023	U	0.022	U	0.020	U	0.022	U	0.022	U	0.021	U	20	U
4-Methyl-2-Pentanone	0.023	U	0.027	U	0.023	U	0.024	U	0.023	U	0.022	U	0.023	U	0.022	U	0.022	U	0.022	U	0.022	U	0.023	U	0.022	U	0.020	U	0.022	U	0.022	U	0.021	U	20	U
Acetone	0.065	J	0.048	J	0.033	J		R		R		R		R	0.083	J	0.037	J	0.032	J	0.026	J	0.14	J	0.045	J		R		R		R	0.028	J	20	U
Benzene	0.0011	U	0.0014	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0011	U	0.0010	U	1.0	U
Bromodichloromethane	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
Bromoform	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
Bromomethane	0.0057	UJ	0.0068	UJ	0.0057	UJ	0.0060	UJ	0.0057	UJ	0.0056	UJ	0.0057	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0057	UJ	0.0055	UJ	0.0051	UJ	0.0054	UJ	0.0054	UJ	0.0052	UJ	5.0	U
Carbon Disulfide	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
Carbon Tetrachloride	0.0057	UJ	0.0068	UJ	0.0057	UJ	0.0060	UJ	0.0057	UJ	0.0056	UJ	0.0057	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0057	UJ	0.0055	UJ	0.0051	UJ	0.0054	UJ	0.0054	UJ	0.0052	UJ	5.0	U
Chlorobenzene	0.0022	J	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
Chloroethane	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
Chloroform	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
Chloromethane	0.0057	UJ	0.0068	UJ	0.0057	UJ	0.0060	UJ	0.0057	UJ	0.0056	UJ	0.0057	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0057	UJ	0.0055	UJ	0.0051	UJ	0.0054	UJ	0.0054	UJ	0.0052	UJ	5.0	U
cis-1,2-Dichloroethene	0.0057	UJ	0.0068	UJ	0.0057	UJ	0.0060	UJ	0.0057	UJ	0.0056	UJ	0.0057	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0057	UJ	0.0055	UJ	0.0051	UJ	0.0054	UJ	0.0054	UJ	0.0052	UJ	5.0	U
cis-1,3-Dichloropropene	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
Dibromochloromethane	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	UJ	5.0	U
Dichlorodifluoromethane	0.0057	U	0.0068	U	0.0057	U	0.0060	UJ	0.0057	UJ	0.0056	UJ	0.0057	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0057	UJ	0.0055	UJ	0.0051	UJ	0.0054	UJ	0.0054	UJ	0.0052	UJ	5.0	U
Ethylbenzene	0.0011	U	0.0014	U	0.0011	U	0.0082		0.0042		0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0011	U	0.0010	U	1.0	U
Isopropylbenzene	0.0011	U	0.0014	U	0.0011	U	0.0012		0.0013		0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0011	U	0.0010	U	1.0	U
p&m-Xylenes	0.0023	U	0.0027	U	0.0023	U	0.0015	J	0.0023	U	0.0022	U	0.0023	U	0.0022	U	0.0022	U	0.0022	U	0.0022	U	0.0023	U	0.0022	U	0.0020	U	0.0022	U	0.0022	U	0.0021	U	2.0	U
Methylene Chloride	0.0059	UJ	0.0073	UJ	0.0057	UJ	0.0081	UJ	0.0066	UJ	0.015	UJ	0.011	UJ	0.011	UJ	0.011	UJ	0.010	UJ	0.010	UJ	0.012	UJ	0.012	UJ	0.011	UJ	0.011	UJ	0.0092	UJ	0.0062	UJ	1.2	J
Methyl-t-butyl ether	0.0011	U	0.0014	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0011	U	0.0010	U	1.0	U
o-Xylene	0.0011	U	0.0014	U	0.0011	U	0.0041		0.002		0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0011	U	0.0010	U	1.0	U
Styrene	0.0011	U	0.0014	U	0.0011	U	0.0012	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0011	U	0.0010	U	1.0	U
Tetrachloroethene	0.0018	J	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
Toluene	0.0011	U	0.0024		0.0011	U	0.0012	U	0.0011	U	0.016		0.019		0.0011	U	0.011	J	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0011	U	0.0097	U	0.018		1.0	U
trans-1,2-Dichloroethene	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
trans-1,3-Dichloropropene	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
Trichloroethene	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	UJ	5.0	U
Trichlorofluoromethane	0.0057	U	0.0068	U	0.0057	U	0.0060	UJ	0.0057	UJ	0.0056	UJ	0.0057	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0054	UJ	0.0057	UJ	0.0055	UJ	0.0051	UJ	0.0054	UJ	0.0054	UJ	0.0052	UJ	5.0	U
Vinyl Chloride	0.0057	U	0.0068	U	0.0057	U	0.0060	U	0.0057	U	0.0056	U	0.0057	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0054	U	0.0057	U	0.0055	U	0.0051	U	0.0054	U	0.0054	U	0.0052	U	5.0	U
TICs	0.0036	J	ND		ND		0.0736	J	0.1488	J	ND		0.0043	J	0.0043	J	0.0038	J	0.0095	J	0.004	J	0.0043	J	0.0048	J	0.0074	J	ND		0.0086	J	0.0032	J	ND	
Total VOCs	0.3197		0.3582		0.2913		0.3571		0.4132		0.2775		0.2858		0.3391		0.3025		0.2923		0.2808		0.4089		0.3055		0.2444		0.2518		0.2672		0.2853		-	

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
**=Value is for total Xylenes
A =Composite sample
R=Rejected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation / Sample Depth (ft) / Sample Date / Laboratory ID Number / PARAMETERS (ppm)	S-8 A 1/2/2003		S-9 (11-11.5) 1/2/2003		S-9 A 1/2/2003		S-10 (11-11.5) 1/2/2003		S-10 A 1/2/2003		S-11 12/23/2002		S-11 A 12/23/2002		S-12 4-4.5 12/23/2002	
BASE NEUTRAL COMPOUNDS*																
2,4,5-Trichlorophenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
2,4,6-Trichlorophenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
2,4-Dichlorophenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
2,4-Dimethylphenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
2,4-Dinitrophenol	0.38	UJ	0.45	UJ	0.38	U	0.40	U	0.38	UJ	0.37	U	0.38	UJ	0.36	UJ
2,4-Dinitrotoluene	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
2,6-Dinitrotoluene	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
2-Chloronaphthalene	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
2-Chlorophenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
2-Methylnaphthalene	0.38	UJ	0.45	UJ	0.38	U	0.40	U	0.85	J	0.37	U	0.058	J	0.043	J
2-Methylphenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	UJ	0.36	UJ
2-Nitroaniline	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
2-Nitrophenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
3&4-Methylphenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
3,3'-Dichlorobenzidine	0.38	UJ	0.45	UJ	0.38	U	0.40	U	0.38	UJ	0.37	U	0.38	UJ	0.36	UJ
3-Nitroaniline	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
4,6-Dinitro-2-methylphenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	UJ	0.36	UJ
4-Bromophenyl-phenyl ether	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
4-Chloro-3-methylphenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
4-Chloroaniline	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	UJ	0.36	UJ
4-Chlorophenyl-phenylether	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	UJ	0.36	UJ
4-Nitroaniline	0.38	U	0.45	UJ	0.38	U	0.40	U	0.38	UJ	0.37	U	0.38	U	0.36	U
4-Nitrophenol	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
Acenaphthene	0.092	J	0.051	J	0.38	U	0.40	U	0.33	J	0.37	U	0.11	J	0.36	U
Acenaphthylene	0.1	J	0.45	UJ	0.38	U	0.40	U	0.16	J	0.37	U	0.17	J	0.11	J
Anthracene	0.36	J	0.14	J	0.38	U	0.40	U	0.71	J	0.37	U	0.49	J	0.26	J
Benzo(a)Anthracene	1.1		0.39	J	0.38	U	0.11	J	1.7		0.10	J	3.0		1.1	
Benzo(a)Pyrene	0.93		0.39	J	0.38	U	0.15	J	1.8		0.091	J	2.4		0.94	
Benzo(b)fluoranthene	1.2		0.43	J	0.38	U	0.21	J	2.7		0.12	J	4.1		1.4	
Benzo(g,h,i)perylene	0.28	J	0.12	J	0.38	U	0.17	J	0.74		0.086	J	0.60		0.26	J
Benzo(k)fluoranthene	0.54		0.29	J	0.38	U	0.069	J	1.5		0.047	J	0.89	J	0.39	J
Bis(2-chloroethoxy)methane	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
Bis(2-chloroethyl)ether	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
Bis(2-chloroisopropyl)ether	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
Bis(2-ethylhexyl)phthalate	0.38	U	0.75	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
Butylbenzylphthalate	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
Carbazole	0.054	J	0.45	UJ	0.38	U	0.40	U	0.19	J	0.37	U	0.13	J	0.36	UJ
Chrysene	0.94		0.48		0.38	U	0.14	J	1.7		0.12	J	2.5		1.0	
Dibenzo(a,h)Anthracene	0.38	U	0.45	U	0.38	U	0.40	U	0.27	J	0.37	U	0.088	J	0.044	J
Dibenzofuran	0.084	J	0.45	UJ	0.38	U	0.40	U	0.21	J	0.37	U	0.064	J	0.36	U
Diethylphthalate	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
Dimethylphthalate	0.38	U	0.45	U	0.38	U	0.40	U	0.38	U	0.37	U	0.38	U	0.36	U
Di-n-butylphthalate	0.062	J	0.059	J	0.38	U	0.054	J	0.074	J	0.37	U	0.064	J	0.043	J
Di-n-octylphthalate	0.38	U	0.45	U	0.38	U	0.40	U	0.051	J	0.37	U	0.060	J	0.36	U
Fluoranthene	1.4		0.55		0.38	U	0.16	J	3.0		0.14	J	3.4		1.5	
Fluorene	0.12	J	0.046	J	0.38	U	0.40	U	0.39	J	0.37	U	0.13	J	0.085	J

Sample Designation / Sample Depth (ft) / Sample Date / Laboratory ID Number / PARAMETERS (ppm)	S-12 A 12/23/2002		S-13 7-7.5 12/23/2002		S-13 A 12/23/2002		S-14 7-7.5 12/23/2002		S-14 A 12/23/2002		S-15 7-7.5 12/23/2002		S-15 A 12/23/2002		S-30 7-7.5 12/23/2002 Duplicate S-13		S-30 A 12/23/2002 Duplicate S-13		FB121902 12/19/2002	
BASE NEUTRAL COMPOUNDS*																				
2,4,5-Trichlorophenol	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
2,4,6-Trichlorophenol	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
2,4-Dichlorophenol	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
2,4-Dimethylphenol	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
2,4-Dinitrophenol	0.36	UJ	0.36	UJ	0.36	UJ	0.38	UJ	0.37	UJ	0.34	U	0.36	UJ	0.36	UJ	0.35	UJ	10	U
2,4-Dinitrotoluene	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
2,6-Dinitrotoluene	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
2-Chloronaphthalene	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
2-Chlorophenol	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
2-Methylnaphthalene	0.36	UJ	0.052	J	0.36	UJ	0.38	UJ	0.37	UJ	0.34	U	0.36	UJ	0.058	J	0.35	UJ	10	U
2-Methylphenol	0.36	UJ	0.36	UJ	0.36	UJ	0.38	UJ	0.37	UJ	0.34	U	0.36	UJ	0.36	UJ	0.35	UJ	10	U
2-Nitroaniline	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
2-Nitrophenol	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
3&4-Methylphenol	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
3,3'-Dichlorobenzidine	0.36	UJ	0.36	UJ	0.36	UJ	0.38	UJ	0.37	UJ	0.34	U	0.36	UJ	0.36	UJ	0.35	UJ	10	U
3-Nitroaniline	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
4,6-Dinitro-2-methylphenol	0.36	UJ	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
4-Bromophenyl-phenyl ether	0.36	U	0.36	UJ	0.36	UJ	0.38	UJ	0.37	UJ	0.34	U	0.36	UJ	0.36	UJ	0.35	UJ	10	U
4-Chloro-3-methylphenol	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
4-Chloroaniline	0.36	UJ	0.36	UJ	0.36	UJ	0.38	UJ	0.37	UJ	0.34	U	0.36	UJ	0.36	UJ	0.35	UJ	10	U
4-Chlorophenyl-phenylether	0.36	UJ	0.36	UJ	0.36	UJ	0.38	UJ	0.37	UJ	0.34	U	0.36	UJ	0.36	UJ	0.35	UJ	10	U
4-Nitroaniline	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
4-Nitrophenol	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
Acenaphthene	0.36	U	0.096	J	0.043	J	0.041	J	0.17	J	0.34	U	0.36	U	0.15	J	0.35	U	10	U
Acenaphthylene	0.36	U	0.11	J	0.039	J	0.38	U	0.050	J	0.34	U	0.36	U	0.15	J	0.35	U	10	U
Anthracene	0.089	J	0.30	J	0.27	J	0.16	J	0.57	J	0.34	U	0.36	UJ	0.59	J	0.35	UJ	10	U
Benzo(a)Anthracene	0.20	J	0.93	J	0.88	J	0.69		1.7		0.34	U	0.12	J	2.6	J	0.092	J	10	U
Benzo(a)Pyrene	0.21	J	0.82	J	0.86	J	0.65		1.8		0.34	U	0.12	J	2.1	J	0.091	J	10	U
Benzo(b)fluoranthene	0.26	J	1.3	J	0.88	J	1.0		2.6		0.34	U	0.14	J	3.5	J	0.11	J	10	U
Benzo(g,h,i)perylene	0.084	J	0.29	J	0.35	J	0.43		0.62		0.34	U	0.053	J	0.64		0.35	U	10	U
Benzo(k)fluoranthene	0.088	J	0.58	J	0.47	J	0.43	J	1.3	J	0.34	U	0.080	J	1.1	J	0.065	J	10	U
Bis(2-chloroethoxy)methane	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
Bis(2-chloroethyl)ether	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
Bis(2-chloroisopropyl)ether	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
Bis(2-ethylhexyl)phthalate	0.36	U	0.52		0.36	U	0.38	U	0.37	U	0.340	U	0.36	U	0.36	U	0.35	U	10	U
Butylbenzylphthalate	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
Carbazole	0.36	UJ	0.087	J	0.36	UJ	0.042	J	0.14	J	0.34	U	0.36	UJ	0.1	J	0.35	UJ	10	U
Chrysene	0.20	J	0.89		0.84	J	0.53		1.5		0.34	U	0.14	J	2.1		0.081	J	10	U
Dibenzo(a,h)Anthracene	0.36	U	0.056	J	0.053	J	0.38	U	0.069	J	0.34	U	0.36	U	0.077	J	0.35	U	10	U
Dibenzofuran	0.36	U	0.071	J	0.36	U	0.38	U	0.066	J	0.34	U	0.36	U	0.075	J	0.35	U	10	U
Diethylphthalate	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
Dimethylphthalate	0.36	U	0.36	U	0.36	U	0.38	U	0.37	U	0.34	U	0.36	U	0.36	U	0.35	U	10	U
Di-n-butylphthalate	0.050	J	0.041	J	0.057	J	0.044	J	0.058	J	0.34	U	0.074	J	0.043	J	0.35	UJ	10	U
Di-n-octylphthalate	0.36	U	0.36	U	0.36	U	0.38	U	0.12	J	0.34	U	0.36	U	0.049	J	0.35	U	10	U
Fluoranthene	0.40		1.4	J	1.6	J	0.84		2.9		0.34	U	0.18	J	3.6	J	0.14	J	10	U
Fluorene	0.36	UJ	0.16	J	0.063	J	0.38	UJ	0.12	J	0.34	U	0.36	UJ	0.25	J	0.35	UJ	10	U

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
**=Value is for total Xylenes
A =Composite sample
R=Rejected
U=Not detected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation Sample Depth (ft) Sample Date Laboratory ID number PARAMETERS (ppm)	S-8 A 1/2/2003 76183	S-9 (11-11.8) 1/2/2003 76178	S-9 A 1/2/2003 76177	S-10 (11-11.8) 1/2/2003 76176	S-10 A 1/2/2003 76175	S-11 7.5-8 12/23/2002 75777	S-11 A 12/23/2002 75776	S-12 4-4.5 12/23/2002 75775	S-12 A 12/23/2002 75774	S-13 7-7.5 12/23/2002 75773	S-13 A 12/23/2002 75772	S-14 7-7.5 12/23/2002 75771	S-14 A 12/23/2002 75770	S-15 7-7.5 12/23/2002 [illegible]	S-15 A 12/23/2002 [illegible]	S-30 7-7.5 12/23/2002 75779 Duplicate S-15	S-30 A 12/23/2002 75778 Duplicate S-13	FB121902 12/19/2002 [illegible]
BASE NEUTRAL COMPOUNDS* (Cont.)																		
Hexachlorobenzene	0.38 U	0.45 U	0.38 U	0.40 U	0.38 U	0.37 U	0.38 U	0.36 U	0.36 U	0.36 U	0.36 U	0.38 U	0.37 U	0.34 U	0.36 U	0.36 U	0.35 U	10 U
Hexachlorobutadiene	0.38 U	0.45 U	0.38 U	0.40 U	0.38 U	0.37 U	0.38 U	0.36 U	0.36 U	0.36 U	0.36 U	0.38 U	0.37 U	0.34 U	0.36 U	0.36 U	0.35 U	10 U
Hexachlorocyclopentadiene	0.38 UJ	0.45 UJ	0.38 UJ	0.40 UJ	0.38 UJ	0.37 UJ	0.38 UJ	0.36 UJ	0.36 UJ	0.36 UJ	0.36 UJ	0.38 UJ	0.37 UJ	0.34 UJ	0.36 UJ	0.36 UJ	0.35 UJ	10 UJ
Hexachloroethane	0.38 UJ	0.45 UJ	0.38 U	0.40 U	0.38 UJ	0.37 U	0.38 UJ	0.36 UJ	0.36 UJ	0.36 UJ	0.36 UJ	0.38 UJ	0.37 UJ	0.34 U	0.36 UJ	0.36 UJ	0.35 UJ	10 U
Indeno(1,2,3-cd)pyrene	0.28 J	0.10 J	0.38 U	0.12 J	0.71	0.059 J	0.65	0.24 J	0.079 J	0.31 J	0.34 J	0.24 J	0.6	0.34 U	0.061 J	0.61	0.35 U	10 U
Isophorone	0.38 U	0.45 U	0.38 U	0.40 U	0.38 U	0.37 U	0.38 U	0.36 U	0.36 U	0.36 U	0.36 U	0.38 U	0.37 U	0.34 U	0.36 U	0.36 U	0.35 U	10 U
Naphthalene	0.05 J	0.45 UJ	0.38 U	0.095 J	3.1 J	0.37 U	0.098 J	0.058 J	0.36 UJ	0.075 J	0.04 J	0.38 UJ	0.37 UJ	0.34 U	0.36 UJ	0.1 J	0.35 UJ	10 U
Nitrobenzene	0.38 U	0.45 U	0.38 U	0.40 U	0.38 U	0.37 U	0.38 U	0.36 U	0.36 U	0.36 U	0.36 U	0.38 U	0.37 U	0.34 U	0.36 U	0.36 U	0.35 U	10 U
N-Nitroso-Di-N-propylamine	0.38 UJ	0.45 UJ	0.38 U	0.40 U	0.38 UJ	0.37 U	0.38 UJ	0.36 UJ	0.36 UJ	0.36 UJ	0.36 UJ	0.38 UJ	0.37 UJ	0.34 U	0.36 UJ	0.36 UJ	0.35 UJ	10 U
N-Nitrosodiphenylamine	0.38 U	0.45 U	0.38 U	0.40 U	0.38 U	0.37 U	0.38 U	0.36 U	0.36 U	0.36 U	0.36 U	0.38 U	0.37 U	0.34 U	0.36 U	0.36 U	0.35 U	10 U
Pentachlorophenol	0.38 U	0.45 U	0.38 U	0.40 U	0.38 U	0.37 U	0.38 U	0.36 U	0.36 U	0.36 U	0.36 U	0.38 U	0.37 U	0.34 U	0.36 U	0.36 U	0.35 U	10 U
Phenanthrene	0.87 J	0.44 J	0.38 U	0.12 J	2.5 J	0.061 J	1.5 J	0.90 J	0.30 J	1.3 J	0.87 J	0.60 J	2.1 J	0.34 U	0.096 J	2.3 J	0.07 J	10 U
Phenol	0.38 U	0.45 U	0.38 U	0.40 U	0.38 U	0.37 U	0.38 U	0.36 U	0.36 U	0.36 U	0.36 U	0.38 U	0.37 U	0.34 U	0.36 U	0.36 U	0.35 U	10 U
Pyrene	3.1	1.1	0.38 U	0.26 J	4.3	0.20 J	4.3	2.1	0.41	2.7 J	1.6 J	2.2	5.6	0.34 U	0.21 J	4.9 J	0.16 J	10 U
TICs	38.24 J	41.08 J	37 J	53.35 J	45.94 J	44.8 J	38.55 J	47.44 J	26.02 J	35.72 J	36.71 J	56.27 J	35.02 J	38.05 J	32.67 J	38.52 J	30.93 J	30.3 J
Total Semi-VOCs	65.762	66.666	59.8	74.208	87.745	64.324	78.172	73.393	45.67	61.848	61.445	81.647	72.273	58.45	51.584	77.652	49.939	-
PESTICIDES																		
Aldrin	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0034 U	0.0036 U	0.036 U	0.0035 U	0.10 UJ
Alpha-BHC	0.0038 UJ	0.0045 UJ	0.0038 UJ	0.0040 UJ	0.0038 UJ	0.0037 UJ	0.0038 U	0.0036 U	0.0036 U	0.0036 U	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 UJ	0.036 UJ	0.0035 UJ	0.10 UJ
Beta-BHC	0.0038 UJ	0.0045 UJ	0.0038 UJ	0.0040 UJ	0.0038 UJ	0.0037 U	0.0038 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0034 U	0.0036 U	0.036 U	0.0035 U	0.10 U
Chlordane	0.0076 U	0.0090 U	0.0076 U	0.0079 U	0.0077 U	0.0074 U	0.0076 U	0.0072 U	0.0072 U	0.0072 U	0.0072 U	0.0076 U	0.0073 U	0.0068 U	0.0072 U	0.072 U	0.0069 U	0.20 U
Delta-BHC	0.0038 UJ	0.0045 UJ	0.0038 UJ	0.0040 UJ	0.0038 UJ	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 UJ	0.036 UJ	0.0035 UJ	0.10 UJ
Dieldrin	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0038 U	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 U	0.036 UJ	0.0035 UJ	0.10 UJ
Endosulfan I	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0038 U	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 U	0.036 UJ	0.0035 UJ	0.10 UJ
Endosulfan II	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0038 U	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 U	0.036 UJ	0.0035 UJ	0.10 U
Endosulfan Sulfate	0.0038 UJ	0.0045 UJ	0.0038 U	0.0040 U	0.010 J	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 UJ	0.036 UJ	0.0035 UJ	0.10 UJ
Endrin	0.0038 U	0.0045 U	0.0038 UJ	0.0040 UJ	0.0038 U	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 UJ	0.036 UJ	0.0035 UJ	0.10 UJ
Endrin Aldehyde	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0067 J	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 UJ	0.036 UJ	0.0035 UJ	0.10 UJ
Endrin Ketone	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0038 U	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 UJ	0.036 UJ	0.0035 UJ	0.10 UJ
Gamma-BHC	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0038 U	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 UJ	0.036 UJ	0.0035 UJ	0.10 UJ
Heptachlor	0.0038 UJ	0.0045 UJ	0.0038 U	0.0040 U	0.0038 UJ	0.0037 U	0.0038 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0034 U	0.0036 U	0.036 U	0.0035 U	0.10 UJ
Heptachlor Epoxide	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0038 U	0.0037 U	0.0034 U	0.0036 U	0.036 U	0.0035 U	0.10 UJ
Methoxychlor	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0038 U	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 U	0.036 UJ	0.0035 UJ	0.10 UJ
P,P'-DDD	0.0038 UJ	0.0045 UJ	0.0038 UJ	0.0040 UJ	0.0038 UJ	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 U	0.38 J	0.0035 UJ	0.10 U
P,P'-DDE	0.0038 U	0.0045 U	0.0038 U	0.0040 U	0.0038 U	0.0037 UJ	0.0038 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 U	0.036 UJ	0.0035 UJ	0.10 UJ
P,P'-DDT	0.0038 UJ	0.0045 UJ	0.0038 UJ	0.0040 UJ	0.0038 UJ	0.0037 UJ	0.0038 UJ	0.0092 J	0.0036 UJ	0.0036 UJ	0.0036 UJ	0.0038 UJ	0.0037 UJ	0.0034 UJ	0.0036 UJ	0.95 J	0.0035 UJ	0.10 UJ
Toxaphene	0.038 U	0.045 U	0.038 U	0.040 U	0.038 U	0.037 U	0.038 U	0.036 U	0.036 U	0.036 U	0.036 U	0.038 U	0.037 U	0.034 U	0.036 U	0.36 U	0.035 U	1.0 U
PCB																		
Arochlor-1016	0.019 U	0.023 U	0.019 U	0.020 U	0.019 U	0.019 U	0.019 U	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.50 U
Arochlor-1221	0.019 U	0.023 U	0.019 U	0.020 U	0.019 U	0.019 U	0.019 U	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.50 U
Arochlor-1232	0.019 U	0.023 U	0.019 U	0.020 U	0.019 U	0.019 U	0.019 U	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.50 U
Arochlor-1242	0.019 U	0.023 U	0.019 U	0.020 U	0.019 U	0.019 U	0.019 U	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.50 U
Arochlor-1248	0.019 U	0.023 U	0.019 U	0.020 U	0.019 U	0.019 U	0.019 U	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.50 U
Arochlor-1254	0.019 U	0.023 U	0.019 U	0.020 U	0.019 U	0.019 U	0.019 U	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.50 U
Arochlor-1260	0.019 UJ	0.023 UJ	0.019 UJ	0.020 UJ	0.019 UJ	0.019 U	0.038 J	0.018 U	0.018 U	0.018 U	0.018 U	0.019 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.50 U

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
** =Value is for total Xylenes
A =Composite sample
R=Rejected
U=Not detected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation	S-8	S-9	S-9	S-10	S-10	S-11	S-11	S-12	S-12
Sample Depth (ft.)	A	(11-11.5)	A	(11-11.5)	A	7.5-8	A	4-4.5	A
Sample Date	1/2/2003	1/2/2003	1/2/2003	1/2/2003	1/2/2003	12/23/2002	12/23/2002	12/23/2002	12/23/2002
Laboratory ID Number	76183	76176	76177	76178	76175	76777	76778	76775	76774
PARAMETERS (ppm)									
METALS									
Aluminum	11,000	17,000	15,000	21,000	10,000	9,900	9,800	8,900	9,400
Antimony	2.3 UJ	2.7 UJ	2.3 UJ	2.4 UJ	2.3 UJ	2.2 UJ	2.3 UJ	2.2 UJ	2.2 UJ
Arsenic	9.2	6.7	2.3 U	2.4 U	11	2.2 U	5.5	2.4	2.7
Barium	990 J	160 J	140 J	160 J	180 J	79	400	110	85
Beryllium	0.68 U	0.86	0.88	1.3	0.69 U	0.67 U	0.68 U	0.65 U	0.65 U
Cadmium	7.5	0.81 U	0.68 U	0.71 U	1.1	0.67 U	2.5	0.65 U	0.76
Calcium	R	R	R	R	R	8,700	18,000	42,000	12,000
Chromium	39	40	33	39	27	25	32	27	28
Cobalt	8.8	8.3	12	14	8.1	7.6	8.3	7.2	6.9
Copper	94 J	43 J	44 J	53 J	110 J	20	83	62	35
Iron	32,000 J	26,000 J	25,000 J	29,000 J	40,000 J	16,000	23,000	20,000	16,000
Lead	1,500 J	140 J	11 J	110 J	500 J	21 J	370 J	160 J	100 J
Magnesium	5,900 J	5,900 J	5,400 J	6,600 J	8,300 J	6,600 J	5,500 J	5,600 J	5,400 J
Manganese	330	300	360	380	370	280 J	340 J	310 J	270 J
Mercury	0.48	0.20	0.16 U	0.17 U	0.17	0.16 U	0.46	0.15 U	0.15 U
Nickel	38	21	25	31	22	14	22	17	24
Potassium	3,000 J	2,500 J	5,600 J	6,400 J	3,700 J	3,100 J	2,850 J	2,100 J	2,400 J
Selenium	2.8	2.7 U	2.3 U	2.4 U	3.0	2.2 U	2.3 U	2.2 U	2.2 U
Silver	2.8 U	3.4 U	2.8 U	3.0 U	2.9 U	2.8 U	2.8 U	2.7 U	2.7 U
Sodium	1,000	920	570 U	600 U	570 U	560 U	570 U	540 U	540 U
Thallium	1.4 U	1.6 U	1.4 U	1.4 U	1.4 U	1.3 U	1.4 U	1.3 U	1.3 U
Vanadium	43	46	43	48	34	30 J	40 J	37 J	29 J
Zinc	710 J	110 J	52 J	79 J	300 J	54 J	370 J	110 J	84 J
CYANIDE	0.33	0.67	0.38	4.10	5.80	0.28 U	0.28 U	1.1	0.42

Sample Designation	S-13	S-13	S-14	S-14	S-15	S-15	S-30	S-30	FB121902
Sample Depth (ft.)	7-7.5	A	7-7.5	A	7-7.5	A	7-7.5	A	
Sample Date	12/23/2002	12/23/2002	12/23/2002	12/23/2002	12/23/2002	12/23/2002	12/23/2002	12/23/2002	12/19/2002
Laboratory ID Number	75773	76772	75771	75770	76769	76768	75779 Duplicate S-13	75776 Duplicate S-13	75406 ug/L
PARAMETERS (ppm)									
METALS									
Aluminum	6,700	9,700	7,300	8,200	19,000	13,000	9,300	5,500	2,000 U
Antimony	2.2 UJ	2.2 UJ	2.3 UJ	16 J	2.0 UJ	2.2 UJ	2.2 UJ	2.1 UJ	20 U
Arsenic	2.8	2.7	3.5	3.9	2.0 U	4.5	2.9	2.1 U	20 U
Barium	100	86	180	110	210	140	120	46	100 U
Beryllium	0.65 U	0.65 U	0.68 U	0.66 U	0.90	0.66	0.65 U	0.62 U	6 U
Cadmium	0.65 U	0.65 U	0.68 U	0.66 U	0.61 U	0.65 U	0.65 U	0.62 U	6 U
Calcium	17,000	5,500	21,000	21,000	1,600	12,000	13,000	5,200	10,000 U
Chromium	20	29	16	25	37	29	25	16	50 U
Cobalt	6.4	7.0	5.1	6.2	18	9.7	7.5	4.6	25 U
Copper	25	28	22	39	6.4	51	29	13	50 U
Iron	15,000	19,000	15,000	17,000	41,000	23,000	18,000	12,000	2,000 U
Lead	89 J	50 J	59 J	170 J	5.1 UJ	130 J	110 J	15 J	50 U
Magnesium	9,500 J	3,000 J	6,200 J	7,400 J	9,300 J	5,300 J	5,200 J	2,300 J	5,000 U
Manganese	230 J	280 J	390 J	220 J	160 J	350 J	510 J	230 J	100 U
Mercury	0.15 U	0.29	0.16 U	0.26	0.14 U	0.15 U	0.17	0.15 U	0.85 U
Nickel	18	14	14	16	36	27	21	13	50 U
Potassium	1,800 J	2,600 J	1,600 J	2,700 J	15,000 J	5,600 J	3,200 J	1,500 J	5,000 U
Selenium	2.2 U	2.2 U	2.3 U	2.2 U	2.0 U	2.2 U	2.2 U	2.1 U	20 U
Silver	2.7 U	2.7 U	2.8 U	2.7 U	5.8	2.7 U	2.7 U	2.6 U	25 U
Sodium	540 U	540 U	570 U	550 U	510 U	540 U	540 U	520 U	5,000 U
Thallium	1.3 U	1.3 U	1.4 U	1.3 U	2.2	1.3 U	1.3 U	1.2 U	12 U
Vanadium	36 J	41 J	31 J	34 J	61 J	33 J	32 J	19 J	100 U
Zinc	79 J	74 J	56 J	110 J	110 J	220 J	94 J	34 J	100 U
CYANIDE	0.45	0.35	0.33	0.44	0.25 U	0.27 U	0.3	0.27	10 U

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and Individual Semi-VOCs <50 ppm
**=Value is for total Xylenes
A =Composite sample
R=Rejected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation / Sample Depth (ft.) / Sample Date / Laboratory ID number / PARAMETERS (ppm)	TB 12/19/2002 76407 µg/L		FB122002 12/20/2002 76686 µg/L		TB 12/20/2002 76686 µg/L		FB122302 12/23/2002 76781 µg/L		TB 12/23/2002 76782 µg/L		FB10203 1/2/2003 76187 µg/L		TB 1/2/2003 76188 µg/L		TAGM 4046 Soil Cleanup Objectives / Eastern USA Background (March 6, 2002)
VOLATILE ORGANIC COMPOUNDS*															
1,1,1-Trichloroethane	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.8
1,1,2,2-Tetrachloroethane	5.0	U	5.0	UJ	5.0	U	5.0	UJ	5.0	UJ	5.0	U	5.0	U	0.6
1,1,2-Trichloroethane	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
1,1-Dichloroethane	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.2
1,1-Dichloroethene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.4
1,2,4-Trichlorobenzene	1.0	U	1.0	UJ	1.0	UJ	1.0	U	1.0	U	1.0	UJ	1.0	U	3.4
1,2-Dibromo-3-chloropropane	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	N/A
1,2-Dibromoethane	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	N/A
1,2-Dichlorobenzene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	7.9
1,2-Dichloroethane	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.1
1,2-Dichloropropane	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
1,3-Dichlorobenzene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	1.6
1,4-Dichlorobenzene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	8.5
2-Butanone	25	UJ	25	UJ	25	U	25	UJ	25	UJ	25	U	25	U	0.3
2-Hexanone	20	U	20	UJ	20	U	20	UJ	20	UJ	20	U	20	U	N/A
4-Methyl-2-Pentanone	20	U	20	UJ	20	U	20	U	20	U	20	U	20	U	1
Acetone	20	U	20	UJ	20	UJ		R		R	20	U	20	UJ	0.2
Benzene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.06
Bromodichloromethane	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Bromoform	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U	5.0	U	5.0	UJ	5.0	UJ	N/A
Bromomethane	5.0	U	5.0	UJ	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Carbon Disulfide	5.0	U	5.0	UJ	5.0	U	5.0	UJ	5.0	UJ	5.0	U	5.0	U	2.7
Carbon Tetrachloride	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.6
Chlorobenzene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	1.7
Chloroethane	5.0	U	5.0	UJ	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	1.9
Chloroform	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.3
Chloromethane	5.0	UJ	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
cis-1,2-Dichloroethene	5.0	UJ	5.0	UJ	5.0	U	5.0	UJ	5.0	UJ	5.0	U	5.0	U	N/A
cis-1,3-Dichloropropene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Dibromochloromethane	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Dichlorodifluoromethane	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Ethylbenzene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.5
Isopropylbenzene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	N/A
p&m-Xylenes	2.0	U	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	1.2**
Methylene Chloride	1.4	J	1.6	J	5.0	U	5.0	U	5.0	U	1.8	J	1.5	J	0.1
Methyl-t-butyl ether	1.0	U	1.0	UJ	1.0	U	1.0	UJ	1.0	UJ	1.0	U	1.0	U	N/A
o-Xylene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2**
Styrene	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	N/A
Tetrachloroethene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	1.4
Toluene	1.0	U	1.0	UJ	1.0	U	3.4		2.2		3.4	U	1.0	U	1.5
trans-1,2-Dichloroethene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.3
trans-1,3-Dichloropropene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Trichloroethene	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.7
Trichlorofluoromethane	5.0	U	5.0	UJ	5.0	U	5.0	UJ	5.0	UJ	5.0	U	5.0	U	N/A
Vinyl Chloride	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.2
TICs	ND		ND		ND		ND		ND		ND		ND		
Total VOCs	-		-		-		-		-		-		-		< 10

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
**=Value is for total Xylenes
A =Composite sample
R=Rejected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation / Sample Depth (ft.) / Sample Date / Laboratory ID number / PARAMETERS (ppm)	TB 12/19/2002 278407 µg/L		FB122002 12/20/2002 278408 µg/L		TB 12/20/2002 75656 µg/L		FB122302 12/23/2002 75761 µg/L		TB 12/23/2002 75792 µg/L		FB10203 1/2/2003 76187 µg/L		TB 1/2/2003 76186 µg/L		TAGM 4046 Soil Cleanup Objectives Eastern USA Background (March 6, 2002)
BASE NEUTRAL COMPOUNDS*															
2,4,5-Trichlorophenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.1
2,4,6-Trichlorophenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
2,4-Dichlorophenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.4
2,4-Dimethylphenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
2,4-Dinitrophenol	N/A		10	U	N/A		10	UJ	N/A		10	U	N/A		0.200 or MDL
2,4-Dinitrotoluene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
2,6-Dinitrotoluene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		1.0
2-Chloronaphthalene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
2-Chlorophenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.8
2-Methylnaphthalene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		36.4
2-Methylphenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.100 or MDL
2-Nitroaniline	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.430 or MDL
2-Nitrophenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.330 or MDL
3&4-Methylphenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		
3,3'-Dichlorobenzidine	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
3-Nitroaniline	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.500 or MDL
4,6-Dinitro-2-methylphenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
4-Bromophenyl-phenyl ether	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
4-Chloro-3-methylphenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.240 or MDL
4-Chloroaniline	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.220 or MDL
4-Chlorophenyl-phenylether	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
4-Nitroaniline	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
4-Nitrophenol	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.100 or MDL
Acenaphthene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		50
Acenaphthylene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		41
Anthracene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		50
Benzo(a)Anthracene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.224 or MDL
Benzo(a)Pyrene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.061 or MDL
Benzo(b)fluoranthene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		1.1
Benzo(g,h,i)perylene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		50
Benzo(k)fluoranthene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		1.1
Bis(2-chloroethoxy)methane	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
Bis(2-chloroethyl)ether	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
Bis(2-chloroisopropyl)ether	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
Bis(2-ethylhexyl)phthalate	N/A		1.4	J	N/A		10	U	N/A		10	U	N/A		50
Butylbenzylphthalate	N/A		10	U	N/A		10	U	N/A		10	U	N/A		50
Carbazole	N/A		10	U	N/A		10	U	N/A		10	U	N/A		N/A
Chrysene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.4
Dibenzo(a,h)Anthracene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		0.014 or MDL
Dibenzofuran	N/A		10	U	N/A		10	U	N/A		10	U	N/A		6.2
Diethylphthalate	N/A		10	U	N/A		10	U	N/A		10	U	N/A		7.1
Dimethylphthalate	N/A		10	U	N/A		10	U	N/A		10	U	N/A		2.0
Di-n-butylphthalate	N/A		10	U	N/A		10	U	N/A		10	U	N/A		8.1
Di-n-octylphthalate	N/A		10	U	N/A		10	U	N/A		10	U	N/A		50
Fluoranthene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		50
Fluorene	N/A		10	U	N/A		10	U	N/A		10	U	N/A		50

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
**=Value is for total Xylenes
A =Composite sample
R=Rejected
U=Not detected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation / Sample Depth (ft) / Sample Date / Laboratory ID Number / PARAMETERS (ppm)	TB 12/19/2002 E754072 µg/L	FB122002 12/20/2002 E75688 µg/L	TB 12/20/2002 75688 µg/L	FB122302 12/23/2002 75781 µg/L	TB 12/23/2002 76752 µg/L	FB10203 1/2/2003 E76187 µg/L	TB 1/2/2003 E76188 µg/L	TAGM 4046 Soil Cleanup Objectives (1/93) Eastern USA Background (March 6, 2002)
BASE NEUTRAL COMPOUNDS* (Cont.)								
Hexachlorobenzene	N/A	10 U	N/A	10 U	N/A	10 U	N/A	0.41
Hexachlorobutadiene	N/A	10 U	N/A	10 U	N/A	10 U	N/A	N/A
Hexachlorocyclopentadiene	N/A	10 UJ	N/A	11 UJ	N/A	11 UJ	N/A	N/A
Hexachloroethane	N/A	10 U	N/A	10 U	N/A	10 U	N/A	N/A
Indeno(1,2,3-cd)pyrene	N/A	10 U	N/A	10 U	N/A	10 U	N/A	3.2
Isophorone	N/A	10 U	N/A	10 U	N/A	10 U	N/A	4.40
Naphthalene	N/A	10 U	N/A	10 U	N/A	10 U	N/A	13.0
Nitrobenzene	N/A	10 U	N/A	10 U	N/A	10 U	N/A	0.200 or MDL
N-Nitroso-Di-N-propylamine	N/A	10 U	N/A	10 U	N/A	10 U	N/A	N/A
N-Nitrosodiphenylamine	N/A	10 U	N/A	10 U	N/A	10 U	N/A	N/A
Pentachlorophenol	N/A	10 U	N/A	10 U	N/A	10 U	N/A	1.0 or MDL
Phenanthrene	N/A	10 U	N/A	10 U	N/A	10 U	N/A	50.0
Phenol	N/A	10 U	N/A	10 U	N/A	10 U	N/A	0.03 or MDL
Pyrene	N/A	10 U	N/A	10 U	N/A	10 U	N/A	50.0
TICs	-	45.8 J	-	196.4 J	-	85.7 J	-	< 500
Total Semi-VOCs		-		-		-		
PESTICIDES								
Aldrin	N/A	0.10 U	N/A	0.10 UJ	N/A	0.10 U	N/A	0.041
Alpha-BHC	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.11
Beta-BHC	N/A	0.10 U	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.2
Chlordane	N/A	0.20 U	N/A	0.20 UJ	N/A	0.20 U	N/A	0.54
Delta-BHC	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.3
Dieldrin	N/A	0.10 U	N/A	0.10 UJ	N/A	0.10 U	N/A	0.044
Endosulfan I	N/A	0.10 U	N/A	0.10 UJ	N/A	0.10 U	N/A	0.9
Endosulfan II	N/A	0.10 U	N/A	0.10 UJ	N/A	0.10 U	N/A	0.9
Endosulfan Sulfate	N/A	0.10 U	N/A	0.10 UJ	N/A	0.10 U	N/A	1.0
Endrin	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10
Endrin Aldehyde	N/A	0.10 U	N/A	0.10 UJ	N/A	0.10 U	N/A	N/A
Endrin Ketone	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10 U	N/A	N/A
Gamma-BHC	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10 U	N/A	0.06
Heptachlor	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10 U	N/A	0.10
Heptachlor Epoxide	N/A	0.10 U	N/A	0.10 UJ	N/A	0.10 U	N/A	0.02
Methoxychlor	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10 U	N/A	**
P,P'-DDD	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10 UJ	N/A	2.9
P,P'-DDE	N/A	0.10 U	N/A	0.10 UJ	N/A	0.10 U	N/A	2.1
P,P'-DDT	N/A	0.10 UJ	N/A	0.10 UJ	N/A	0.10 UJ	N/A	2.1
Toxaphene	N/A	1.0 U	N/A	1.0 UJ	N/A	1.0 U	N/A	N/A
PCB								
Arochlor-1016	N/A	0.50 U	N/A	0.50 UJ	N/A	0.050 U	N/A	1 (surface)/10(subsurface)
Arochlor-1221	N/A	0.50 U	N/A	0.50 UJ	N/A	0.050 U	N/A	1 (surface)/10(subsurface)
Arochlor-1232	N/A	0.50 U	N/A	0.50 UJ	N/A	0.050 U	N/A	1 (surface)/10(subsurface)
Arochlor-1242	N/A	0.50 U	N/A	0.50 UJ	N/A	0.050 U	N/A	1 (surface)/10(subsurface)
Arochlor-1248	N/A	0.50 U	N/A	0.50 UJ	N/A	0.050 U	N/A	1 (surface)/10(subsurface)
Arochlor-1254	N/A	0.50 U	N/A	0.50 UJ	N/A	0.050 U	N/A	1 (surface)/10(subsurface)
Arochlor-1260	N/A	0.50 U	N/A	0.50 UJ	N/A	0.050 U	N/A	1 (surface)/10(subsurface)

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and individual Semi-VOCs <50 ppm
**=Value is for total Xylenes
A =Composite sample
R=Rejected
U=Not detected

Table 2
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Street"
Hunts Point, Bronx, New York

Sample Designation / Sample Depth (ft.) / Sample Date / Laboratory ID Number / PARAMETERS (ppm)	TB 12/19/2002 75407 ug/L	FB122002 12/20/2002 75685 ug/L	TB 12/20/2002 75686 ug/L	FB122302 12/23/2002 75781 ug/L	TB 12/23/2002 75782 ug/L	FB10203 1/2/2003 76187 ug/L	TB 1/2/20031 76188 ug/L	TAGM 4046 Soil Cleanup Objectives / Eastern USA Background (March 6, 2002)
METALS								
Aluminum	N/A	2,000 U	N/A	180 U	N/A	2,000 U	N/A	SB / 33000
Antimony	N/A	20 U	N/A	15 U	N/A	20 U	N/A	SB / NA
Arsenic	N/A	20 U	N/A	7.5 U	N/A	20 U	N/A	7.5 or SB / 3-12
Barium	N/A	100 U	N/A	50 U	N/A	100 U	N/A	300 or SB / 15-600
Beryllium	N/A	6.0 U	N/A	4.0 U	N/A	6.0 U	N/A	0.16 or SB / 0-1.75
Cadmium	N/A	6.0 U	N/A	3.5 U	N/A	6.0 U	N/A	1 or SB / 0.1-1
Calcium	N/A	10,000 U	N/A	2,000 U	N/A	10,000 U	N/A	SB / 130-35000
Chromium	N/A	50 U	N/A	50 U	N/A	50 U	N/A	10 or SB / 1.5-40
Cobalt	N/A	25 U	N/A	20 U	N/A	25 U	N/A	30 or SB / 2.5-60
Copper	N/A	50 U	N/A	50 U	N/A	50 U	N/A	25 or SB / 1-50
Iron	N/A	2,000 U	N/A	280 U	N/A	2,000 U	N/A	2000 or SB / 2000-550000
Lead	N/A	50 U	N/A	5.0 U	N/A	50.0 U	N/A	SB / 200-500
Magnesium	N/A	5,000 U	N/A	2,000 U	N/A	5,000 U	N/A	SB / 100-5000
Manganese	N/A	100 U	N/A	40 U	N/A	100 U	N/A	SB / 50-5000
Mercury	N/A	0.85 U	N/A	0.70 U	N/A	0.85 U	N/A	0.1 / 0.001-0.2
Nickel	N/A	50 U	N/A	50 U	N/A	50 U	N/A	13 or SB / 0.5-25
Potassium	N/A	5,000 U	N/A	5,000 U	N/A	5,000 U	N/A	SB / 8500-43000
Selenium	N/A	20 U	N/A	40 U	N/A	20 U	N/A	2 or SB / 0.1-3.9
Silver	N/A	25 U	N/A	20 U	N/A	25 U	N/A	SB / NA
Sodium	N/A	5,000 U	N/A	5,000 U	N/A	5,000 U	N/A	SB / 6000-8000
Thallium	N/A	12 U	N/A	10 U	N/A	12 U	N/A	SB / NA
Vanadium	N/A	100 U	N/A	50 U	N/A	100 U	N/A	150 or SB / 1-300
Zinc	N/A	100 U	N/A	50 U	N/A	100 U	N/A	20 or SB / 9-50
CYANIDE	N/A	10 U	N/A	10 U	N/A	10 U	N/A	N/A

NA=Not analyzed
* =As per TAGM #4046, total VOCs <10 ppm, Total Semi-VOCs <500 ppm, and Individual Semi-VOCs <50 ppm
**=Value is for total Xylenes
A =Composite sample
R=Rejected
U=Not detected

Table 3
Groundwater Analytical Data - Comparison to Limitations for Effluent to Sanitary or Combined Sewers
October 2002
Iroquois Pipeline - Hunt's Point
Bronx, NY

Sample Number / Sample Date / Units	Daily Limit	Units	Monthly Limit	Groundwater Effluent Limitations µg/l	MW-A 10/2/2002 µg/l	MW-1 10/3/2002 µg/l	MW-2 10/4/2002 µg/l	MW-3 10/2/2002 µg/l	MW-4 10/2/2002 µg/l	MW-5 10/3/2002 µg/l	MW-11 10/1/2002 µg/l	MW-12 10/4/2002 µg/l
Non-polar material	50	mg/l	NA	NC	NA	NA	NA	NA	NA	NA	NA	NA
pH (range)	5-11	SU's	NA	6.5-8.5*,**	R	R	R	R	R	R	R	R
Benzene	134	ppb	57	1	0.49 U	5800	4.3	610	0.49 U	5800	7.8	0.49 U
Ethylbenzene	380	ppb	142	5***	0.63 U	710	0.63 U	280	0.63 U	1500	2.6	0.63 U
Toluene	74	ppb	28	5***	0.79 U	490	0.79 U	100	0.79 U	1700	4.7	0.79 U
Xylenes (Total)	74	ppb	28	5*,****	1.69 U	810	1.69 U	600	1.69 U	1660	14	1.69 U
Temperature	<150	°F	NA	NC	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.69□	mg/l	NA	10	2 U	2 U	66	2.2	2 U	6	2 U	2.3
Chromium (VI)	5	mg/l	NA	100	R	R	R	R	R	R	R	NA
Copper	5	mg/l	NA	1000	25 U	25 U	25 U	25 U	25 U	25 U	59	180
Lead	2	mg/l	NA	50	5 U	5.3	5 U	6.3	11	11	30	330
Mercury	0.05	mg/l	NA	1.4	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.29
Nickel	3	mg/l	NA	200	25 U	25 U	25 U	25 U	25 U	25 U	38	110
Zinc	5	mg/l	NA	5000	25 U	25 U	120	29	25 U	62	74	520
Flash Point	>140	degrees F	NA	NC	>141	>141	>141	>141	>141	>141	>141	NA
Total Suspended Solids	No Limit	mg/l	NA	NC	6000 J	72,000 J	59,000 J	8,800 J	84,000 J	150,000 J	370,000 J	NA
PCB's (Total)	1□	ppb	NA	0.09	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
Perc (Tetrachloroethylene)	20	ppb	NA	5***	0.6 U	12 U	0.6 U	12 U	0.6 U	12 U	0.6 U	0.6 U
MTBE (Methyl-Tert-Butyl-Ether)	10	ppb	10	NC	0.59 U	12 U	6.2	12 U	0.59 U	12 U	0.59 U	0.59 U
Naphthalene	47□	ppb	19	NC	0.47 U	6800	0.47 U	1400	0.47 U	5900	180	3.7

Notes:
"1" - Unless otherwise noted
"U" = Compound was analyzed but not detected
"NA" = Compound was not analyzed
"NC" = No criteria established for that compound
"J" = Indicates an estimated value
"R" = Rejected during data validation
"□ " = Composite sample type
"*" = pH in Standard Units
"**" = pH shall not be lower than 6.5 or the pH of the natural groundwater, whichever is lower, nor shall be greater than 8.5 or the pH of the natural groundwater, whichever is greater
"***" = Groundwater Effluent Limitation not available for compound; Groundwater Quality Standard was used
"****" = 5 µg/l standard for each Xylene isomer
Samples collected were grab samples.
"PCB" = Polychlorinated Biphenyl
"µg/l" = micrograms per liter
"mg/l" = milligrams per liter
"SU" = Standard Units
"ppb" = parts per billion
"°F" = Degrees in Fahrenheit
BOLD indicates an exceedance of the Daily Effluent Limit or Monthly Effluent Limit
Refer to groundwater sample collection logs (Appendix C) for pH and temperature measurements
Results for PCBs represent the detection limits of individual arochlors.

5/15/2003

Table 3
Groundwater Analytical Data - Comparison to Limitations for Effluent to Sanitary or Combined Sewers
October 2002
Iroquois Pipeline - Hunt's Point
Bronx, NY

Sample Number / Sample Date / Units	Daily Limit	Units	Monthly Limit	Groundwater Effluent Limitations "pg/l"	MW-13 10/1/2002 ug/l	FB 100102 10/1/2002 ug/l	TB 100102 10/1/2002 ug/l	FB 100202 10/2/2002 ug/l	TB 100202 10/2/2002 ug/l	FB 100305 10/3/2002 ug/l	Trip Blk 10/3/2002 ug/l	FB 100402 10/4/2002 ug/l
Non-polar material	50	mg/l	NA	NC	NA	NA	NA	NA	NA	NA	NA	NA
pH (range)	5-11	SU's	NA	6.5-8.5*,**	R	R	NA	R	NA	R	NA	R
Benzene	134	ppb	57	1	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
Ethylbenzene	380	ppb	142	5***	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Toluene	74	ppb	28	5***	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Xylenes (Total)	74	ppb	28	5*,*****	1.69 U	1.69 U	1.69 U	1.69 U	1.69 U	1.69 U	1.69 U	1.69 U
Temperature	<150	°F	NA	NC	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.69□	mg/l	NA	10	2 U	2 U	NA	2 U	NA	2 U	NA	2 U
Chromium (VI)	5	mg/l	NA	100	R	R	NA	R	NA	R	NA	R
Copper	5	mg/l	NA	1000	25 U	25 U	NA	25 U	NA	25 U	NA	25 U
Lead	2	mg/l	NA	50	7.3	5 U	NA	5 U	NA	5 U	NA	5 U
Mercury	0.05	mg/l	NA	1.4	0.2 U	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U
Nickel	3	mg/l	NA	200	25 U	25 U	NA	25 U	NA	25 U	NA	25 U
Zinc	5	mg/l	NA	5000	25 U	25 U	NA	25 U	NA	25 U	NA	25 U
Flash Point	>140	degrees F	NA	NC	>141	>141	NA	>141	NA	>141	NA	>141
Total Suspended Solids	No Limit	mg/l	NA	NC	28,000	4,000 UJ	NA	4,000 UJ	NA	4,000 UJ	NA	4,000 UJ
PCB's (Total)	1□	ppb	NA	0.09	0.05U	0.05U	NA	0.05U	NA	0.05U	NA	0.05U
Perc (Tetrachloroethylene)	20	ppb	NA	5***	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
MTBE (Methyl-Tert-Butyl-Ether)	10	ppb	10	NC	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
Naphthalene	47□	ppb	19	NC	0.47 U	0.47 U	NA	0.47 U	NA	1.4	NA	0.47 U

Notes:
"1" - Unless otherwise noted
"U" = Compound was analyzed but not detected
"NA" = Compound was not analyzed
"NC" = No criteria established for that compound
"J" = Indicates an estimated value
"R" = Rejected during data validation
"□ " = Composite sample type
"**" = pH in Standard Units
"***" = pH shall not be lower than 6.5 or the pH of the natural groundwater, whichever is lower, nor shall be greater than 8.5 or the pH of the natural groundwater, whichever is greater
"****" = Groundwater Effluent Limitation not available for compound; Groundwater Quality Standard was used
"*****" = 5 µg/l standard for each Xylene isomer
Samples collected were grab samples.
"PCB" = Polychlorinated Biphenyl
"µg/l" = micrograms per liter
"mg/l" = milligrams per liter
"SU" = Standard Units
"ppb" = parts per billion
"°F" = Degrees in Fahrenheit
BOLD indicates an exceedance of the Daily Effluent Limit or Monthly Effluent Limit
Refer to groundwater sample collection logs (Appendix C) for pH and temperature measurements
Results for PCBs represent the detection limits of individual arochlors.

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation	SS-6		SS-7		SS-8		SS-10		SS-11		SS-12		SS-12B(D)		SS-14		SS-14B		SS-14C		SS-15		SS-16		SS-17		SS-18	
Sample Depth (ft.)	0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5	
Sample Date	3/3/2003		3/3/2003		3/10/2003		3/10/2003		3/3/2003		3/10/2003		3/10/2003		3/10/2003		3/10/2003		3/10/2003		3/10/2003		3/3/2003		3/3/2003		3/10/2003	
Laboratory ID number	79532		79534		79956		79958		79535		79955		79954 (Duplicate)		79960		79961 (MS)		79962 (MSD)		79959		79533		79536		79957	
PARAMETERS (ppm)																												
VOLATILE ORGANIC COMPOUNDS*																												
1,1,1-Trichloroethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
1,1,2,2-Tetrachloroethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
1,1,2-Trichloroethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
1,1-Dichloroethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
1,1-Dichloroethene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
1,2,4-Trichlorobenzene	0.0014	U	0.0013	U	0.0016	U	0.0011	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0014	U	0.0011	U	0.0013	U	0.0016	U	0.0011	U
1,2-Dibromo-3-chloropropane	0.0014	U	0.0013	U	0.0016	U	0.0011	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0014	U	0.0011	U	0.0013	U	0.0016	U	0.0011	U
1,2-Dibromoethane	0.0014	U	0.0013	U	0.0016	U	0.0011	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0014	U	0.0011	U	0.0013	U	0.0016	U	0.0011	U
1,2-Dichlorobenzene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
1,2-Dichloroethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
1,2-Dichloropropane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
1,3-Dichlorobenzene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
1,4-Dichlorobenzene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
2-Butanone	0.036	U	0.032	U	0.041	U	0.028	U	0.029	U	0.031	U	0.030	U	0.030	U	0.030	U	0.035	U	0.028	U	0.032	U	0.040	U	0.028	U
2-Hexanone	0.029	U	0.026	U	0.033	U	0.022	U	0.023	U	0.025	U	0.024	U	0.024	U	0.024	U	0.028	U	0.022	U	0.025	U	0.032	U	0.022	U
4-Methyl-2-Pentanone	0.029	U	0.026	U	0.033	U	0.022	U	0.023	U	0.025	U	0.024	U	0.024	U	0.024	U	0.028	U	0.022	U	0.025	U	0.032	U	0.022	U
Acetone	0.029	U	0.026	U	0.057		0.053		0.023	U	0.025	U	0.024	U	0.024	U	0.024	U	0.028	U	0.022	U	0.025	U	0.032	U	0.022	U
Benzene	0.0014	U	0.0013	U	0.0016	U	0.0011	U	0.0012	U	0.0012	U	0.0017		0.0012	U	0.0012	U	0.0014	U	0.0011	U	0.0013	U	0.0016	U	0.0011	U
Bromodichloromethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Bromoform	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Bromomethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Carbon Disulfide	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Carbon Tetrachloride	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Chlorobenzene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Chloroethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Chloroform	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Chloromethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
cis-1,2-Dichloroethene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
cis-1,3-Dichloropropene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Dibromochloromethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Dichlorodifluoromethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Ethylbenzene	0.0014	U	0.0013	U	0.0016	U	0.0011	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0017		0.0011	U	0.0013	U	0.0016	U	0.0011	U
Isopropylbenzene	0.0014	U	0.0013	U	0.0016	U	0.0011	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0014	U	0.0011	U	0.0013	U	0.0016	U	0.0011	U
p&m-Xylenes	0.0029	U	0.0026	U	0.0033	U	0.0022	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U	0.0024	U	0.0026	J	0.0022	U	0.0025	U	0.0032	U	0.0022	U
Methylene Chloride	0.011	B	0.013	B	0.0088	B	0.0058	B	0.012	B	0.0070	B	0.0073	B	0.0065	B	0.0062	B	0.0077	B	0.0047	B	0.013	B	0.013	B	0.0057	B
Methyl-t-butyl ether	0.0014	U	0.0013	U	0.0016	U	0.0011	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0014	U	0.0011	U	0.0013	U	0.0016	U	0.0011	U
o-Xylene	0.0014	U	0.0013	U	0.0016	U	0.0011	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0014	U	0.0011	U	0.0013	U	0.0016	U	0.0011	U
Styrene	0.0014	U	0.0013	U	0.0016	U	0.0011	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0014	U	0.0011	U	0.0013	U	0.0016	U	0.0011	U
Tetrachloroethene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Toluene	0.0014	U	0.0013	U	0.0022		0.0011	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.0023		0.0011	U	0.0013	U	0.0016	U	0.0011	U
trans-1,2-Dichloroethene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
trans-1,3-Dichloropropene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Trichloroethene	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Trichlorofluoromethane	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
Vinyl Chloride	0.0072	U	0.0065	U	0.0082	U	0.0056	U	0.0058	U	0.0062	U	0.0061	U	0.0061	U	0.0060	U	0.0069	U	0.0056	U	0.0063	U	0.0079	U	0.0056	U
TICs	0.0124	J	0.0088	JB	0.0166	JB	0.0202	JB	0.011	JB	0.0052	JB	0		0		0		0.0578	J	0		0.0135	J	0.0253	JB	0.0047	J
Total VOCs	0.011		0.013		0.068		0.0588		0.012		0.007		0.009		0.0065		0.0062		0.0143		0.0047		0.013		0.013		0.0057	

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation	SS-6		SS-7		SS-8		SS-10		SS-11		SS-12		SS-12B(D)		SS-14		SS-14B		SS-14C		SS-15		SS-16		SS-17		SS-18	
Sample Depth (ft.)	0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5		0-0.5	
Sample Date	3/3/2003		3/3/2003		3/10/2003		3/10/2003		3/3/2003		3/10/2003		3/10/2003		3/10/2003		3/10/2003		3/10/2003		3/10/2003		3/3/2003		3/3/2003		3/10/2003	
Laboratory ID number	79532		79534		79956		79958		79535		79955		79954 (Duplicate)		79960		79961 (MS)		79962 (MSD)		79959		79533		79536		79957	
PARAMETERS (ppm)																												
BASE NEUTRAL COMPOUNDS*																												
2,4,5-Trichlorophenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2,4,6-Trichlorophenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2,4-Dichlorophenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2,4-Dimethylphenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2,4-Dinitrophenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2,4-Dinitrotoluene	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2,6-Dinitrotoluene	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2-Chloronaphthalene	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2-Chlorophenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2-Methylnaphthalene	0.17	J	0.95	J	0.18	J	0.28	J	0.39	U	0.82	J	0.46	J	2.8	J	3.0	J	3.7	J	0.67	J	0.17	J	0.60	J	0.34	J
2-Methylphenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2-Nitroaniline	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
2-Nitrophenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
3&4-Methylphenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
3,3'-Dichlorobenzidine	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
3-Nitroaniline	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
4,6-Dinitro-2-methylphenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
4-Bromophenyl-phenyl ether	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
4-Chloro-3-methylphenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
4-Chloroaniline	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
4-Chlorophenyl-phenylether	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
4-Nitroaniline	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
4-Nitrophenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Acenaphthene	0.25	J	6.9	J	0.70	J	0.59	J	0.39	U	0.84	J	0.26	J	1.4	J	1.7	J	1.9	J	0.36	J	0.64	J	0.42	J	0.23	J
Acenaphthylene	0.41	J	1.8	J	0.95	J	0.96	J	0.071	J	1.8		1.7		4.9		5.1		5.8		3.1		0.20	J	1.9	J	3.8	J
Anthracene	0.70		14		2.2		1.4	J	0.39	U	3.6		1.8		5.8		6.8		6.9		2.4		1.5		1.8	J	3.2	
Benzo(a)Anthracene	2.7		39		6.7		3.8		0.22	J	9.9		6.9		11		14		12		8.1		2.9		7.6		13	
Benzo(a)Pyrene	2.9		32		5.3		3.3		0.26	J	8.5		6.8		10		11		11		8.8		2.4		8.3		13	
Benzo(b)fluoranthene	4.3		42		8		5.7		0.39		13		11		13		14		14		13		3.7		9.8		20	
Benzo(g,h,i)perylene	1.3		13		1.3	J	0.95	J	0.19	J	2.4		2.1		2.9	J	4.8	J	4.9	J	2.6		0.84	J	3.0		3.9	
Benzo(k)fluoranthene	2.3		15		3.4		1.6	J	0.14	J	4.9		3.2		5.3		4.7		4.3	J	3.7		0.96	J	3.3		7.8	
Bis(2-chloroethoxy)methane	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Bis(2-chloroethyl)ether	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Bis(2-chloroisopropyl)ether	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Bis(2-ethylhexyl)phthalate	1.4	B	8.7	U	1.6	U	1.9	U	0.11	JB	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	0.47	JB	0.36	JB	1.9	U
Butylbenzylphthalate	0.37	J	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	0.36	J	2.6	U	1.9	U
Carbazole	0.29	J	5.7	J	0.71	J	0.51	J	0.39	U	0.53	J	0.37	J	1.3	J	1.6	J	1.8	J	0.49	J	0.58	J	0.37	J	0.51	J
Chrysene	2.6		37		6.3		3.8		0.22	J	9.6		7.5		12		13		12		8.8		2.6		8.0		13	
Dibenzo(a,h)Anthracene	0.36	J	4.6	J	0.52	J	0.33	J	0.060	J	0.97	J	0.82	J	1.1	J	1.8	J	1.8	J	0.96	J	0.33	J	1.1	J	1.6	J
Dibenzofuran	0.13	J	3.3	J	0.33	J	0.42	J	0.39	U	0.64	J	0.22	J	2.2	J	2.9	J	3.3	J	0.51	J	0.37	J	2.6	U	0.41	J
Diethylphthalate	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Dimethylphthalate	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Di-n-butylphthalate	0.25	JB	8.7	U	1.6	U	1.9	U	0.061	JB	1.2	U	0.14	JB	4.1	U	4.0	U	4.6	U	0.24	J	1.3	U	2.6	U	1.9	U
Di-n-octylphthalate	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Fluoranthene	4.6		72		12		7.1		0.31	J	15		10		21		26		24		13		5.9		10		18	
Fluorene	0.27	J	5.7	J	0.9	J	0.94	J	0.39	U	2.0	J	0.93	J	5.8		6.6		7.5		1.4	J	0.69	J	0.87	J	1.2	J
Hexachlorobenzene	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Hexachlorobutadiene	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Hexachlorocyclopentadiene	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Hexachloroethane	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Indeno(1,2,3-cd)pyrene	0.99		12	J	1.4	J	0.99	J	0.16	J	2.6		2.2		3.1	J	5.0	J	4.9		2.8		0.87	J	2.8		4.2	
Isophorone	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Naphthalene	0.25	J	2.3	J	0.31	J	0.41	J	0.39	U	0.76	J	0.58	J	4.2		5.2		4.9		1.4	J	0.25	J	0.91	J	0.78	J
Nitrobenzene	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
N-Nitroso-Di-N-propylamine	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
N-Nitrosodiphenylamine	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Pentachlorophenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Phenanthrene	2.6		51		7.6		5.5		0.12	J	12		6.9		21		25		27		7.2		6.0		7.4		8.7	
Phenol	0.48	U	8.7	U	1.6	U	1.9	U	0.39	U	1.2	U	1.2	U	4.1	U	4.0	U	4.6	U	1.9	U	1.3	U	2.6	U	1.9	U
Pyrene	7.3		77		12		7.9		0.33	J	18		13		25		26		24		16		6.2		13		20	

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation	SS-6	SS-7	SS-8	SS-10	SS-11	SS-12	SS-12B(D)	SS-14	SS-14B	SS-14C	SS-15	SS-16	SS-17	SS-18
Sample Depth (ft.)	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date	3/3/2003	3/3/2003	3/10/2003	3/10/2003	3/3/2003	3/10/2003	3/10/2003	3/10/2003	3/10/2003	3/10/2003	3/10/2003	3/3/2003	3/3/2003	3/10/2003
Laboratory ID number	79532	79534	79956	79958	79535	79955	79954 (Duplicate)	79960	79961 (MS)	79962 (MSD)	79959	79533	79536	79957
PARAMETERS (ppm)														
Total	36.44	435.25	70.80	46.48	2.64	108.06	76.88	153.80	179.20	175.70	95.53	37.93	81.53	133.67

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation	SS-6	SS-7	SS-8	SS-10	SS-11	SS-12	SS-12B(D)	SS-14	SS-14B	SS-14C	SS-15	SS-16	SS-17	SS-18
Sample Depth (ft.)	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date	3/3/2003	3/3/2003	3/10/2003	3/10/2003	3/3/2003	3/10/2003	3/10/2003	3/10/2003	3/10/2003	3/10/2003	3/10/2003	3/3/2003	3/3/2003	3/10/2003
Laboratory ID number	79532	79534	79956	79958	79535	79955	79954 (Duplicate)	79960	79961 (MS)	79962 (MSD)	79959	79533	79536	79957
PARAMETERS (ppm)														
METALS														
Aluminum	12,000	8,900	7,800	10,000	3,700	9,500	9,300	9,700	11,000	12,000	10,000	8,100	12,000	8,100
Antimony	2.9 U	2.6 U	3.3 U	2.2 U	2.3 U	2.5 U	2.4 U	2.4 U	2.4 U	2.8 U	2.2 U	2.5 U	3.2 U	2.2 U
Arsenic	9.9	13	7.6	3.4	5.5	7.4	6.1	4.6	6.1	6.1	3.7	7.3	11	6.7
Barium	230	160	98	190	65	130	140	130	220	190	160	270	220	150
Beryllium	0.87 U	0.78 U	0.98 U	0.67 U	0.70 U	0.74 U	0.73 U	0.73 U	0.72 U	0.83 U	0.67 U	0.76 U	0.95 U	0.67 U
Cadmium	2.3	0.93	0.98 U	0.67 U	0.70 U	0.74 U	0.73 U	0.73 U	0.75	0.83 U	0.67 U	1.2	0.95 U	0.67 U
Calcium	11,000	46,000	6,700	8,200	26,000	7,100	3,300	10,000	13,000	9,400	5,400	22,000	6,300	8,500
Chromium	37	27	21	26	5.8 U	30	26	23	29	31	27	27	30	29
Cobalt	10	7.5	6.5	9.0	4.7	8.5	9.3	8.9	9.6	11	9.6	6.9	9.1	21
Copper	120	64	52	40	29	60	78	45	59	57	46	72	61	74
Iron	29,000	59,000	19,000	21,000	8,000	20,000	22,000	20,000	24,000	25,000	21,000	24,000	24,000	24,000
Lead	650	250	160	230	66	190	160	260	760	480	310	320	220	200
Magnesium	5,300	3,700	3,000	5,100	13,000	4,200	3,500	4,700	5,100	5,500	4,600	7,300	5,200	5,900
Manganese	360	360	270	280	99	290	340	300	370	400	320	250	370	270
Mercury	1.2	1.4	0.51	0.18	0.097 U	0.82	0.94	0.33	0.35	0.43	0.39	0.3	1.3	0.53
Nickel	46	23	25	23	11	25	29	22	25	26	24	25	30	100
Potassium	2,700	1,700	2,100	3,300	740	2,500	2,600	2,700	3,100	3,200	3,300	1,600	3,600	2,000
Selenium	2.6 U	2.3 U	3.0 U	2.0 U	2.1 U	2.2 U	2.2 U	2.2 U	2.2 U	2.5 U	2.0 U	2.3 U	2.9 U	2.0 U
Silver	3.6 U	3.2 U	4.1 U	2.8 U	2.9 U	3.1 U	3.0 U	3.0 U	3.0 U	3.5 U	2.8 U	3.2 U	4.0 U	2.8 U
Sodium	720 U	650 U	820 U	560 U	580 U	620 U	610 U	610 U	600 U	690 U	560 U	630 U	790 U	560 U
Thallium	1.7 U	1.6 U	2.0 U	1.3 U	1.4 U	1.5 U	1.5 U	1.5 U	1.4 U	1.7 U	1.3 U	1.5 U	1.9 U	1.3 U
Vanadium	100	38	34	35	15	41	40	37	38	42	37	32	45	72
Zinc	760	200	160	190	76	230	200	210	320	320	250	590	290	150
CYANIDE	12	3.7	1.4	1.4	0.4	12.0	16.0	8.3	8.5	8	2.0	0.36	5.3	9.9
PESTICIDES														
Aldrin	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Alpha-BHC	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Beta-BHC	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.015	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0060
Chlordane	0.014 U	0.013 U	0.011 U	0.0057	0.012 U	0.0082 U	0.0081 U	0.0081 U	0.0080 U	0.0093 U	0.0075 U	0.013 U	0.016 U	0.0074 U
Delta-BHC	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Dieldrin	0.0075	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.013	0.0041 U	0.017	0.0076	0.031	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Endosulfan I	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.017	0.0041 U	0.0040 U	0.0092	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Endosulfan II	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Endosulfan Sulfate	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Endrin	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.13	0.0079 U	0.0037 U
Endrin Aldehyde	0.075	0.0065 U	0.0055 U	0.0088	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Endrin Ketone	0.0072 U	0.044	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Gamma-BHC	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Heptachlor	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0064	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Heptachlor Epoxide	0.0072 U	0.0098	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
Methoxychlor	0.0072 U	0.0065 U	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.0046 U	0.0037 U	0.0063 U	0.0079 U	0.0037 U
P,P'-DDD	0.0072 U	0.0065 U	0.0055 U	0.015	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.014	0.0037 U	0.0063 U	0.0079 U	0.0037 U
P,P'-DDE	0.0072 U	0.0079	0.0055 U	0.0037 U	0.0058 U	0.0041 U	0.0041 U	0.0041 U	0.0040 U	0.049	0.059	0.038	0.049	0.045
P,P'-DDT	0.028	0.052	0.054	0.023	0.078	0.059	0.057	0.041	0.014	0.049	0.059	0.038	0.049	0.045
Toxaphene	0.036 U	0.032 U	0.027 U	0.019 U	0.029 U	0.021 U	0.0041 U	0.020 U	0.020 U	0.023 U	0.019 U	0.032 U	0.040 U	0.019 U
PCB														
Arochlor-1016	0.0036 U	0.0032 U	0.027 U	0.019 U	0.0029 U	0.021 U	0.020 U	0.020 U	0.020 U	0.023 U	0.019 U	0.0032 U	0.0040 U	0.019 U
Arochlor-1221	0.0036 U	0.0032 U	0.027 U	0.019 U	0.0029 U	0.021 U	0.020 U	0.020 U	0.020 U	0.023 U	0.019 U	0.0032 U	0.0040 U	0.019 U
Arochlor-1232	0.0036 U	0.0032 U	0.027 U	0.019 U	0.0029 U	0.021 U	0.020 U	0.020 U	0.020 U	0.023 U	0.019 U	0.0032 U	0.0040 U	0.019 U
Arochlor-1242	0.0036 U	0.0032 U	0.027 U	0.019 U	0.0029 U	0.021 U	0.020 U	0.020 U	0.020 U	0.023 U	0.019 U	0.025	0.023	0.019 U
Arochlor-1248	0.033	0.0051	0.027 U	0.019 U	0.0029 U	0.021 U	0.020 U	0.020 U	0.020 U	0.023 U	0.019 U	0.0032 U	0.0040 U	0.019 U
Arochlor-1254	0.0036 U	0.0032 U	0.027 U	0.019 U	0.0029 U	0.021 U	0.020 U	0.020 U	0.020 U	0.023 U	0.019 U	0.0032 U	0.0040 U	0.019 U
Arochlor-1260	0.066	0.024	0.11	0.019 U	0.0029 U	0.29	0.21	0.64	0.35	1.4	0.090	0.057	0.020	0.087

Notes:

1. NA = Not analyzed.
2. ND = Not detected.
3. D = Analytical result taken from secondary sample dilution.
4. B = Found in blank as well as the sample.
6. U = Indicates compound was analyzed but not detected.
7. RE = Reanalyzed due to surrogate recoveries outside QC limits.
8. MS/MSD = Matrix Spike/Matrix Spike Duplicate.

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation	SS-6	SS-7	SS-8	SS-10	SS-11	SS-12	SS-12B(D)	SS-14	SS-14B	SS-14C	SS-15	SS-16	SS-17	SS-18
Sample Depth (ft.)	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date	3/3/2003	3/3/2003	3/10/2003	3/10/2003	3/3/2003	3/10/2003	3/10/2003	3/10/2003	3/10/2003	3/10/2003	3/10/2003	3/3/2003	3/3/2003	3/10/2003
Laboratory ID number	79532	79534	79956	79958	79535	79955	79954 (Duplicate)	79960	79961 (MS)	79962 (MSD)	79959	79533	79536	79957
PARAMETERS (ppm)														

** = Value is for total Xylenes.

* = As per TAGM #4046, total VOCs < 10 ppm, Total Semi-VOCs < 500 ppm, and Individual Semi-VOCs < 50 ppm.

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation	SS-19		FB030303		TB		FB031003		TB		TAGM 4046
Sample Depth (ft.)	0-0.5		-		-		-		-		Soil Cleanup
Sample Date	3/10/2003		3/3/2003		3/3/2003		3/10/2003		3/10/2003		Objectives /
Laboratory ID number	79964		79537		79536		79537		79953		Eastern USA
											Background
PARAMETERS (ppm)											(March 6, 2002)
VOLATILE ORGANIC COMPOUNDS*											
1,1,1-Trichloroethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.8
1,1,2,2-Tetrachloroethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.6
1,1,2-Trichloroethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
1,1-Dichloroethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.2
1,1-Dichloroethene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.4
1,2,4-Trichlorobenzene	0.0011	U	1.0	U	1.0	U	1.0	U	1.0	U	3.4
1,2-Dibromo-3-chloropropane	0.0011	U	1.0	U	1.0	U	1.0	U	1.0	U	N/A
1,2-Dibromoethane	0.0011	U	1.0	U	1.0	U	1.0	U	1.0	U	N/A
1,2-Dichlorobenzene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	7.9
1,2-Dichloroethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.1
1,2-Dichloropropane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
1,3-Dichlorobenzene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	1.6
1,4-Dichlorobenzene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	8.5
2-Butanone	0.028	U	25.0	U	25.0	U	25.0	U	25.0	U	0.3
2-Hexanone	0.022	U	20.0	U	20.0	U	20.0	U	20.0	U	N/A
4-Methyl-2-Pentanone	0.022	U	20.0	U	20.0	U	20.0	U	20.0	U	1
Acetone	0.022	U	20.0	U	20.0	U	20.0	U	20.0	U	0.2
Benzene	0.0011	U	1.0	U	1.0	U	1.0	U	1.0	U	0.06
Bromodichloromethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Bromoform	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Bromomethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Carbon Disulfide	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	2.7
Carbon Tetrachloride	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.6
Chlorobenzene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	1.7
Chloroethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	1.9
Chloroform	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.3
Chloromethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
cis-1,2-Dichloroethene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
cis-1,3-Dichloropropene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Dibromochloromethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Dichlorodifluoromethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Ethylbenzene	0.0011	U	1.0	U	1.0	U	1.0	U	1.0	U	5.5
Isopropylbenzene	0.0011	U	1.0	U	1.0	U	1.0	U	1.0	U	N/A
p&m-Xylenes	0.0022	U	2.0	U	2.0	U	2.0	U	2.0	U	1.2**
Methylene Chloride	0.0071	B	1.5	J	1.8	J	1.4	J	1.2	J	0.1
Methyl-t-butyl ether	0.0011	U	1.0	U	1.0	U	1.0	U	1.0	U	N/A
o-Xylene	0.0011	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2**
Styrene	0.0011	U	1.0	U	1.0	U	1.0	U	1.0	U	N/A
Tetrachloroethene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	1.4
Toluene	0.0011	U	1.0	U	2.2		1.0	U	1.0	U	1.5
trans-1,2-Dichloroethene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.3
trans-1,3-Dichloropropene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Trichloroethene	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.7
Trichlorofluoromethane	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	N/A
Vinyl Chloride	0.0056	U	5.0	U	5.0	U	5.0	U	5.0	U	0.2
TICs	0.0045	J	15	J	14	J	0		0		
Total VOCs	0.0071		1.5		4.0		1.4		1.2		< 10

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation	SS-19		FB030303		TB	FB031003		TB	TAGM 4046
Sample Depth (ft.)	0-0.5		-		-	-		-	Soil Cleanup
Sample Date	3/10/2003		3/3/2003		3/3/2003	3/10/2003		3/10/2003	Objectives /
Laboratory ID number	79964		79537		79538	79537		79953	Eastern USA
PARAMETERS (ppm)									Background (March 6, 2002)
BASE NEUTRAL COMPOUNDS*									
2,4,5-Trichlorophenol	1.1	U	10	U	N/A	10	U	N/A	0.1
2,4,6-Trichlorophenol	1.1	U	10	U	N/A	10	U	N/A	N/A
2,4-Dichlorophenol	1.1	U	10	U	N/A	10	U	N/A	0.4
2,4-Dimethylphenol	1.1	U	10	U	N/A	10	U	N/A	N/A
2,4-Dinitrophenol	1.1	U	10	U	N/A	10	U	N/A	0.200 or MDL
2,4-Dinitrotoluene	1.1	U	10	U	N/A	10	U	N/A	N/A
2,6-Dinitrotoluene	1.1	U	10	U	N/A	10	U	N/A	1.0
2-Chloronaphthalene	1.1	U	10	U	N/A	10	U	N/A	N/A
2-Chlorophenol	1.1	U	10	U	N/A	10	U	N/A	0.8
2-Methylnaphthalene	0.44	J	10	U	N/A	10	U	N/A	36.4
2-Methylphenol	1.1	U	10	U	N/A	10	U	N/A	0.100 or MDL
2-Nitroaniline	1.1	U	10	U	N/A	10	U	N/A	0.430 or MDL
2-Nitrophenol	1.1	U	10	U	N/A	10	U	N/A	0.330 or MDL
3&4-Methylphenol	1.1	U	10	U	N/A	10	U	N/A	
3,3'-Dichlorobenzidine	1.1	U	10	U	N/A	10	U	N/A	N/A
3-Nitroaniline	1.1	U	10	U	N/A	10	U	N/A	0.500 or MDL
4,6-Dinitro-2-methylphenol	1.1	U	10	U	N/A	10	U	N/A	N/A
4-Bromophenyl-phenyl ether	1.1	U	10	U	N/A	10	U	N/A	N/A
4-Chloro-3-methylphenol	1.1	U	10	U	N/A	10	U	N/A	0.240 or MDL
4-Chloroaniline	1.1	U	10	U	N/A	10	U	N/A	0.220 or MDL
4-Chlorophenyl-phenylether	1.1	U	10	U	N/A	10	U	N/A	N/A
4-Nitroaniline	1.1	U	10	U	N/A	10	U	N/A	N/A
4-Nitrophenol	1.1	U	10	U	N/A	10	U	N/A	0.100 or MDL
Acenaphthene	0.12	J	10	U	N/A	10	U	N/A	50
Acenaphthylene	0.99	J	10	U	N/A	10	U	N/A	41
Anthracene	0.74	J	10	U	N/A	10	U	N/A	50
Benzo(a)Anthracene	3.2		10	U	N/A	10	U	N/A	0.224 or MDL
Benzo(a)Pyrene	2.5		10	U	N/A	10	U	N/A	0.061 or MDL
Benzo(b)fluoranthene	3.3		10	U	N/A	10	U	N/A	1.1
Benzo(g,h,i)perylene	1.2		10	U	N/A	10	U	N/A	50
Benzo(k)fluoranthene	1.1	J	10	U	N/A	10	U	N/A	1.1
Bis(2-chloroethoxy)methane	1.1	U	10	U	N/A	10	U	N/A	N/A
Bis(2-chloroethyl)ether	1.1	U	10	U	N/A	10	U	N/A	N/A
Bis(2-chloroisopropyl)ether	1.1	U	10	U	N/A	10	U	N/A	N/A
Bis(2-ethylhexyl)phthalate	1.1	U	10	U	N/A	1.4	JB	N/A	50
Butylbenzylphthalate	1.1	U	10	U	N/A	10	U	N/A	50
Carbazole	0.18	J	10	U	N/A	10	U	N/A	N/A
Chrysene	3.1		10	U	N/A	10	U	N/A	0.4
Dibenzo(a,h)Anthracene	0.45	J	10	U	N/A	10	U	N/A	0.014 or MDL
Dibenzofuran	0.16	J	10	U	N/A	10	U	N/A	6.2
Diethylphthalate	1.1	U	10	U	N/A	10	U	N/A	7.1
Dimethylphthalate	1.1	U	10	U	N/A	10	U	N/A	2.0
Di-n-butylphthalate	0.20	J	10	U	N/A	10	U	N/A	8.1
Di-n-octylphthalate	1.1	U	10	U	N/A	10	U	N/A	50
Fluoranthene	4.8		10	U	N/A	10	U	N/A	50
Fluorene	0.60	J	10	U	N/A	10	U	N/A	50
Hexachlorobenzene	1.1	U	10	U	N/A	10	U	N/A	0.41
Hexachlorobutadiene	1.1	U	10	U	N/A	10	U	N/A	N/A
Hexachlorocyclopentadiene	1.1	U	10	U	N/A	10	U	N/A	N/A
Hexachloroethane	1.1	U	10	U	N/A	10	U	N/A	N/A
Indeno(1,2,3-cd)pyrene	1.1		10	U	N/A	10	U	N/A	3.2
Isophorone	1.1	U	10	U	N/A	10	U	N/A	4.40
Naphthalene	0.72	J	10	U	N/A	10	U	N/A	13.0
Nitrobenzene	1.1	U	10	U	N/A	10	U	N/A	0.200 or MDL
N-Nitroso-Di-N-propylamine	1.1	U	10	U	N/A	10	U	N/A	N/A
N-Nitrosodiphenylamine	1.1	U	10	U	N/A	10	U	N/A	N/A
Pentachlorophenol	1.1	U	10	U	N/A	10	U	N/A	1.0 or MDL
Phenanthrene	3.4		10	U	N/A	10	U	N/A	50.0
Phenol	1.1	U	10	U	N/A	10	U	N/A	0.03 or MDL
Pyrene	5.1		10	U	N/A	10	U	N/A	50.0

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation Sample Depth (ft.) Sample Date Laboratory ID number PARAMETERS (ppm)	SS-19 0-0.5 3/10/2003 79964	FB030303 - 3/3/2003 79537	TB - 3/3/2003 79538	FB031003 - 3/10/2003 79537	TB - 3/10/2003 79953	TAGM 4046 Soil Cleanup Objectives / Eastern USA Background (March 6, 2002)
Total	33.42	0		1.4		< 500

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation	SS-19		FB030303		TB	FB031003		TB	TAGM 4046
Sample Depth (ft.)	0-0.5		-		-	-		-	Soil Cleanup
Sample Date	3/10/2003		3/3/2003		3/3/2003	3/10/2003		3/10/2003	Objectives /
Laboratory ID number	79964		79537		79538	79537		79953	Eastern USA
PARAMETERS (ppm)									Background
									(March 6, 2002)
METALS									
Aluminum	5,700		2,000	U	N/A	2,000	U	N/A	SB / 33000
Antimony	2.2	U	20	U	N/A	20	U	N/A	SB / NA
Arsenic	2.2	U	20	U	N/A	20	U	N/A	7.5 or SB / 3-12
Barium	30		100	U	N/A	100	U	N/A	300 or SB / 15-600
Beryllium	0.67	U	6.0	U	N/A	6.0	U	N/A	0.16 or SB / 0-1.75
Cadmium	0.67	U	6.0	U	N/A	6.0	U	N/A	1 or SB / 0.1-1
Calcium	1,100	U	10,000	U	N/A	10,000	U	N/A	SB / 130-35000
Chromium	8.5		50	U	N/A	50	U	N/A	10 or SB / 1.5-40
Cobalt	4.9		25	U	N/A	25	U	N/A	30 or SB / 2.5-60
Copper	13		50	U	N/A	50	U	N/A	25 or SB / 1-50
Iron	9,700		2,000	U	N/A	2,000	U	N/A	2000 or SB / 2000-550000
Lead	28		50.0	U	N/A	50	U	N/A	SB / 200-500
Magnesium	1,200		5,000	U	N/A	5,000	U	N/A	SB / 100-5000
Manganese	200		100	U	N/A	100	U	N/A	SB / 50-5000
Mercury	0.093	U	0.50	U	N/A	0.50	U	N/A	0.1 / 0.001-0.2
Nickel	8.8		50	U	N/A	50	U	N/A	13 or SB / 0.5-25
Potassium	560	U	5,000	U	N/A	5,000	U	N/A	SB / 8500-43000
Selenium	2.0	U	18	U	N/A	18	U	N/A	2 or SB / 0.1-3.9
Silver	2.8	U	25	U	N/A	25	U	N/A	SB / NA
Sodium	560	U	5,000	U	N/A	5,000	U	N/A	SB / 6000-8000
Thallium	1.3	U	12	U	N/A	12	U	N/A	SB / NA
Vanadium	11	U	100	U	N/A	100	U	N/A	150 or SB / 1-300
Zinc	200		100	U	N/A	100	U	N/A	20 or SB / 9-50
CYANIDE	2.2		0.01	U	N/A	0.01	U	N/A	N/A
PESTICIDES									
Aldrin	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.041
Alpha-BHC	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.11
Beta-BHC	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.2
Chlordane	0.0074	U	0.020	U	N/A	0.20	U	N/A	0.54
Delta-BHC	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.3
Dieldrin	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.044
Endosulfan I	0.0097		0.010	U	N/A	0.10	U	N/A	0.9
Endosulfan II	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.9
Endosulfan Sulfate	0.0037	U	0.010	U	N/A	0.10	U	N/A	1.0
Endrin	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.10
Endrin Aldehyde	0.0037	U	0.010	U	N/A	0.10	U	N/A	N/A
Endrin Ketone	0.0037	U	0.010	U	N/A	0.10	U	N/A	N/A
Gamma-BHC	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.06
Heptachlor	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.10
Heptachlor Epoxide	0.0037	U	0.010	U	N/A	0.10	U	N/A	0.02
Methoxychlor	0.0037	U	0.010	U	N/A	0.10	U	N/A	--
P,P'-DDD	0.0037	U	0.010	U	N/A	0.10	U	N/A	2.9
P,P'-DDE	0.0037	U	0.010	U	N/A	0.10	U	N/A	2.1
P,P'-DDT	0.036		0.010	U	N/A	0.10	U	N/A	2.1
Toxaphene	0.019	U	0.050	U	N/A	0.50	U	N/A	N/A
PCB									
Arochlor-1016	0.019	U	0.050	U	N/A	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1221	0.019	U	0.050	U	N/A	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1232	0.019	U	0.050	U	N/A	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1242	0.019	U	0.050	U	N/A	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1248	0.019	U	0.050	U	N/A	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1254	0.019	U	0.050	U	N/A	0.50	U	N/A	1 (surface)/10(subsurface)
Arochlor-1260	0.019	U	0.050	U	N/A	0.50	U	N/A	1 (surface)/10(subsurface)

Notes:
1. NA = Not analyzed.
2. ND = Not detected.

Notes:
1. NA = Not analyzed.
2. ND = Not detected.
3. D = Analytical result taken from secondary sample dilution.
4. B = Found in blank as well as the sample.

6. U = Indicates compound was analyzed but not detected.
7. RE = Reanalyzed due to surrogate recoveries outside QC limits.
8. MS/MSD = Matrix Spike/Matrix Spike Duplicate.

Table 1
Soil Sampling Analytical Results
Iroquois Gas Transmission Pipeline
"Site E"
Hunts Point
Bronx, New York

Sample Designation	SS-19	FB030303	TB	FB031003	TB	TAGM 4046
Sample Depth (ft.)	0-0.5	-	-	-	-	Soil Cleanup
Sample Date	3/10/2003	3/3/2003	3/3/2003	3/10/2003	3/10/2003	Objectives /
Laboratory ID number	79964	79537	79538	79537	79953	Eastern USA
						Background
PARAMETERS (ppm)						(March 6, 2002)

** = Value is for total Xylenes.

** = Value is for total Xylenes.

* = As per TAGM #4046, total VOCs < 10 * = As per TAGM #4046, total VOCs < 10 ppm, Total Semi-VOCs < 500 ppm, and Individual Semi-VOCs < 50 ppm.

ATTACHMENT F
ENSR PILE SAMPLE RESULTS

TEST LABORATORIES, INC. • ENVIRONMENTAL TESTING
77 Sheffield Avenue, North Babylon, New York 11703
631) 422-5777 • FAX (631) 422-5770

CHAIN OF CUSTODY RECORD

lient: CODE ENVIRONMENTAL SERVICES
ddress: 400 MIDDLESEX AVE
CARTERET NJ
hone: 732 969-2700 FAX: 732-969-2701 *
erson receiving report: BILL IRELAND
ampled by: ENSR
ource:
ob No.:

* ALSO FAX RESULTS TO: CASIE PRO TANK ATTN: CLIFF FAX # - 856-696-7065

MATRIX (Soil, Water, etc.)	COLLECTED DATE	COLLECTED TIME	SAMPLE IDENTIFICATION	TOTAL NUMBER OF CONTAINERS	TYPE & NUMBER OF CONTAINERS: FULL TCLP	PCB	RCRA CHARACTERISTICS	PAH	TOTAL VOC's	TPH	ASBESTOS CONTENT
SOIL	4/15/03	1220	HPSA#1-01A	4	X	X	X	X	X	X	X
SOIL	4/15/03	1245	HPSA#1-01B	4	X	X	X	X	X	X	X
SOIL	4/15/03	1110	HPSA#1-01C	4	X	X	X	X	X	X	X

REMARKS–TESTS REQUIRED, SPECIAL TURNAROUND, SPECIAL Q.C. etc

4 DAY TAT

Relinquished by: (Signature)	DATE/TIME	SEAL INTACT? YES NO NA	Received by: (Signature)	Relinquished by: (Signature)	DATE/TIME	SEAL INTACT? YES NO NA	Received by: (Signature)
Representing:	4/16/03 1130		Representing:	Representing:			Representing:
Relinquished by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)	Relinquished by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.01 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1220
MATRIX:Extract SAMPLE: HPSA#1-01A
HPSA#1-01A
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTIC/ METHOD
Arsenic as As	mg/L	< 0.05		04/18/03	0.05	EPA6010
Barium as Ba	mg/L	0.35		04/18/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		04/18/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		04/18/03	0.05	EPA6010
Lead as Pb	mg/L	0.44		04/18/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		04/18/03	0.001	EPA7470A
Selenium as Se	mg/L	< 0.1		04/18/03	0.1	EPA6010
Silver as Ag	mg/L	< 0.05		04/18/03	0.05	EPA6010
TCLP Extraction				04/16/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 14662 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.01 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1220
MATRIX:Extract SAMPLE: HPSA#1-01A
HPSA#1-01A
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/L	< 0.5		04/17/03	0.5	EPA8081
Endrin	ug/L	< 0.5		04/17/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		04/17/03	1	EPA8081
Toxaphene	ug/L	< 10		04/17/03	10	EPA8081
Chlordane	ug/L	< 2		04/17/03	2	EPA8081
Heptachlor	ug/L	< 0.5		04/17/03	0.5	EPA8081
Heptachlor Epoxide	ug/L	< 0.5		04/17/03	0.5	EPA8081
?,4-D	ug/L	< 1		04/18/03	1	EPA8151
,4,5-TP	ug/L	< 0.5		04/18/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	< 10		04/18/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	< 10		04/18/03	10	EPA8270
4-Methylphenol (p-cresol)	.g/L	< 10		04/18/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		04/18/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		04/18/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		04/18/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		04/18/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		04/18/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		04/18/03	10	EPA8270
Hexachloroethane	ug/L	< 10		04/18/03	10	EPA8270
Nitrobenzene	ug/L	< 10		04/18/03	10	EPA8270
Pyridine	ug/L	< 10		04/18/03	10	EPA8270
TCLP Extraction				04/16/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 14663 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.01 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1220
MATRIX:Extract SAMPLE: HPSA#1-01A
HPSA#1-01A
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTIC METHOD
Carbon Tetrachloride	ug/L	< 1		04/18/03	1	EPA8260
Chlorobenzene	ug/L	< 1		04/18/03	1	EPA8260
Chloroform	ug/L	< 1		04/18/03	1	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 1		04/18/03	1	EPA8260
1,2 Dichloroethane	ug/L	< 1		04/18/03	1	EPA8260
1,1 Dichloroethene	ug/L	< 1		04/18/03	1	EPA8260
Methyl Ethyl Ketone	ug/L	< 10		04/18/03	10	EPA8260
Tetrachloroethene	ug/L	< 1		04/18/03	1	EPA8260
Trichloroethylene	ug/L	< 1		04/18/03	1	EPA8260
Vinyl Chloride	ug/L	< 1		04/18/03	1	EPA8260
Benzene	ug/L	3		04/18/03	1	EPA8260
TCLP Zero Headspace Extract				04/16/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.01 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1220

MATRIX:Soil SAMPLE: HPSA#1-01A
HPSA#1-01A

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Dichlordifluomethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Chloromethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Vinyl Chloride	ug/Kg	< 220		04/18/03	224.71	EPA8260
Bromomethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Chloroethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Trichlorofluomethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
1,1 Dichloroethene	ug/Kg	< 220		04/18/03	224.71	EPA8260
Methylene Chloride	ug/Kg	< 220		04/18/03	224.71	EPA8260
1,2-Dichloroethene	ug/Kg	< 220		04/18/03	224.71	EPA8260
1,1 Dichloroethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
2,2-Dichloropropane	ug/Kg	< 220		04/18/03	224.71	EPA8260
c-1,2-Dichloroethene	ug/Kg	< 220		04/18/03	224.71	EPA8260
Bromochloromethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Chloroform	ug/Kg	< 220		04/18/03	224.71	EPA8260
111 Trichloroethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Carbon Tetrachloride	ug/Kg	< 220		04/18/03	224.71	EPA8260
1,1-Dichloropropene	ug/Kg	< 220		04/18/03	224.71	EPA8260
Benzene	ug/Kg	220		04/18/03	224.71	EPA8260
1,2 Dichloroethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Trichloroethylene	ug/Kg	< 220		04/18/03	224.71	EPA8260
1,2 Dichloropropane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Dibromomethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Bromodichloromethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
t-1,3Dichloropropene	ug/Kg	< 220		04/18/03	224.71	EPA8260
Toluene	ug/Kg	310		04/18/03	224.71	EPA8260

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.01 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1220

MATRIX:Soil SAMPLE: HPSA#1-01A
HPSA#1-01A

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAl METHOD
t-1,3Dichloropropene	ug/Kg	< 220		04/18/03	224.71	EPA8260
112 Trichloroethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Tetrachloroethene	ug/Kg	< 220		04/18/03	224.71	EPA8260
1,3-Dichloropropane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Chlorodibromomethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
1,2 Dibromoethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
Chlorobenzene	ug/Kg	< 220		04/18/03	224.71	EPA8260
thyl Benzene	ug/Kg	260		04/18/03	224.71	EPA8260
1112Tetrachloroethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
m + p Xylene	ug/Kg	820		04/18/03	449.43	EPA8260
o Xylene	ug/Kg	260		04/18/03	224.71	EPA8260
Styrene	ug/Kg	< 220		04/18/03	224.71	EPA8260
Bromoform	ug/Kg	< 220		04/18/03	224.71	EPA8260
Isopropylbenzene	ug/Kg	< 220		04/18/03	224.71	EPA8260
Bromobenzene	ug/Kg	< 220		04/18/03	224.71	EPA8260
1122Tetrachlorocthane	ug/Kg	< 220		04/18/03	224.71	EPA8260
123-Trichloropropane	ug/Kg	< 220		04/18/03	224.71	EPA8260
n-Propylbenzene	ug/Kg	< 220		04/18/03	224.71	EPA8260
2-Chlorotoluene	ug/Kg	< 220		04/18/03	224.71	EPA8260
135-Trimethylbenzene	ug/Kg	290		04/18/03	224.71	EPA8260
4-Chlorotoluene	ug/Kg	< 220		04/18/03	224.71	EPA8260
tert-Butylbenzene	ug/Kg	< 220		04/18/03	224.71	EPA8260
124-Trimethylbenzene	ug/Kg	700		04/18/03	224.71	EPA8260
sec-Butylbenzene	ug/Kg	< 220		04/18/03	224.71	EPA8260
p-Isopropyltoluene	ug/Kg	< 220		04/18/03	224.71	EPA8260

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR 

rn = 14666 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.01 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1220
MATRIX:Soil SAMPLE: HPSA#1-01A
HPSA#1-01A

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
1,3 Dichlorobenzene (v)	ug/Kg	< 220		04/18/03	224.71	EPA8260
1,4 Dichlorobenzene (v)	ug/Kg	< 220		04/18/03	224.71	EPA8260
n-Butylbenzene	ug/Kg	< 220		04/18/03	224.71	EPA8260
1,2 Dichlorobenzene (v)	ug/Kg	< 220		04/18/03	224.71	EPA8260
Dibromochloropropane	ug/Kg	< 220		04/18/03	224.71	EPA8260
124-Trichlorobenzene (v)	ug/Kg	< 220		04/18/03	224.71	EPA8260
Hexachlorobutadiene	ug/Kg	< 220		04/18/03	224.71	EPA8260
aphthalene(v)	ug/Kg	53000		04/18/03	224.71	EPA8260
23-Trichlorobenzene	ug/Kg	< 220		04/18/03	224.71	EPA8260
ter.ButylMethylEther	ug/Kg	< 220		04/18/03	224.71	EPA8260
p-Ethyltoluene	ug/Kg	< 220		04/18/03	224.71	EPA8260
Freon 113	ug/Kg	< 220		04/18/03	224.71	EPA8260
1245 Tetramethylbenz	ug/Kg	< 220		04/18/03	224.71	EPA8260
Acetone	ug/Kg	< 2200		04/18/03	2247.1	EPA8260
Methyl Ethyl Ketone	ug/Kg	< 2200		04/18/03	2247.1	EPA8260
Methylisobutylketone	ug/Kg	< 2200		04/18/03	2247.1	EPA8260
Chlorodifluoromethane	ug/Kg	< 220		04/18/03	224.71	EPA8260
p Diethylbenzene	ug/Kg	< 220		04/18/03	224.71	EPA8260
% Solids		89		04/17/03	0.1	SM182540G

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.01 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1220

MATRIX:Soil SAMPLE: HPSA#1-01A
HPSA#1-01A

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	18000		04/17/03	337.07	EPA8270
2-Methylnaphthalene	ug/Kg	7100		04/17/03	337.07	EPA8270
Acenaphthylene	ug/Kg	9300		04/17/03	337.07	EPA8270
Acenaphthene	ug/Kg	1800		04/17/03	337.07	EPA8270
Fluorene	ug/Kg	17000		04/17/03	337.07	EPA8270
Phenanthrene	ug/Kg	62000		04/18/03	3370.7	EPA8270
Anthracene	ug/Kg	13000		04/17/03	337.07	EPA8270
luoranthene	ug/Kg	46000		04/18/03	3370.7	EPA8270
yrene	ug/Kg	45000		04/18/03	3370.7	EPA8270
Benzo(a)anthracene	ug/Kg	19000		04/17/03	337.07	EPA8270
Chrysene	ug/Kg	17000		04/17/03	337.07	EPA8270
Benzo(b)fluoranthene	ug/Kg	15000	#	04/17/03	337.07	EPA8270
Benzo(k)fluoranthene	ug/Kg	15000	#	04/17/03	337.07	EPA8270
Benzo(a)pyrene	ug/Kg	18000		04/17/03	337.07	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	7300		04/17/03	337.07	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	3400		04/17/03	337.07	EPA8270
Benzo(ghi)perylene	ug/Kg	6500		04/17/03	337.07	EPA8270

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 30000ug/Kg, unable to separate isomers.

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.01 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1220
MATRIX:Soil SAMPLE: HPSA#1-01A
HPSA#1-01A

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 45		04/17/03	44.943	EPA8082
Aroclor 1221	ug/Kg	< 45		04/17/03	44.943	EPA8082
Aroclor 1232	ug/Kg	< 45		04/17/03	44.943	EPA8082
Aroclor 1242	ug/Kg	< 45		04/17/03	44.943	EPA8082
Aroclor 1248	ug/Kg	< 45		04/17/03	44.943	EPA8082
Aroclor 1254	ug/Kg	< 45		04/17/03	44.943	EPA8082
Aroclor 1260	ug/Kg	< 45		04/17/03	44.943	EPA8082
lash Point deg C		> 100		04/17/03	25	EPA1010
pH (lab) units		7.5		04/17/03	0.1	EPA9045C
Reactive cyanide	mg/Kg	< 2.2		04/16/03	2.2471	EPA335.4
Sulfide as S	mg/Kg	< 2.2		04/21/03	2.2471	EPA376.2
Petrol. Hydrocarbons	mg/Kg	6700		04/17/03	112.35	EPA418.1
Asbestos Content (%) (PLM)	%	< 1	*	04/18/03	1	PLM

cc:

LRL=laboratory Reporting Limit

REMARKS: * NAD (No Asbestos Detected) Analysis performed by Warren & Panzer, Long Island City, NY.

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.02 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1245

MATRIX:Extract SAMPLE: HPSA#1-01B
HPSA#1-01B
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	< 0.05		04/18/03	0.05	EPA6010
Barium as Ba	mg/L	0.62		04/18/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		04/18/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		04/18/03	0.05	EPA6010
Lead as Pb	mg/L	0.15		04/18/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		04/18/03	0.001	EPA7470A
Selenium as Se	mg/L	< 0.1		04/18/03	0.1	EPA6010
Silver as Ag	mg/L	< 0.05		04/18/03	0.05	EPA6010
TCLP Extraction				04/16/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 14670 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.02 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1245
MATRIX:Extract SAMPLE: HPSA#1-01B
HPSA#1-01B
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/L	< 0.5		04/17/03	0.5	EPA8081
Endrin	ug/L	< 0.5		04/17/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		04/17/03	1	EPA8081
Toxaphene	ug/L	< 10		04/17/03	10	EPA8081
Chlordane	ug/L	< 2		04/17/03	2	EPA8081
Heptachlor	ug/L	< 0.5		04/17/03	0.5	EPA8081
Heptachlor Epoxide	ug/L	< 0.5		04/17/03	0.5	EPA8081
2,4-D	ug/L	< 1		04/18/03	1	EPA8151
2,4,5-TP	ug/L	< 0.5		04/18/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	< 10		04/18/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	< 10		04/18/03	10	EPA8270
4-Methylphenol (p-cresol)	.g/L	< 10		04/18/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		04/18/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		04/18/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		04/18/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		04/18/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		04/18/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		04/18/03	10	EPA8270
Hexachloroethane	ug/L	< 10		04/18/03	10	EPA8270
Nitrobenzene	ug/L	< 10		04/18/03	10	EPA8270
Pyridine	ug/L	< 10		04/18/03	10	EPA8270
TCLP Extraction				04/16/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.02 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1245
MATRIX:Extract SAMPLE: HPSA#1-01B
HPSA#1-01B
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Carbon Tetrachloride	ug/L	< 1		04/18/03	1	EPA8260
Chlorobenzene	ug/L	< 1		04/18/03	1	EPA8260
Chloroform	ug/L	< 1		04/18/03	1	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 1		04/18/03	1	EPA8260
1,2 Dichloroethane	ug/L	< 1		04/18/03	1	EPA8260
1,1 Dichloroethene	ug/L	< 1		04/18/03	1	EPA8260
Methyl Ethyl Ketone	ug/L	< 10		04/18/03	10	EPA8260
Tetrachloroethene	ug/L	< 1		04/18/03	1	EPA8260
Trichloroethylene	ug/L	< 1		04/18/03	1	EPA8260
Vinyl Chloride	ug/L	< 1		04/18/03	1	EPA8260
Benzene	ug/L	< 1		04/18/03	1	EPA8260
TCLP Zero Headspace Extract				04/16/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.02 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1245
MATRIX:Soil SAMPLE: HPSA#1-01B
HPSA#1-01B

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICA METHOD
Dichlordifluomethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Chloromethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Vinyl Chloride	ug/Kg	< 230		04/18/03	229.88	EPA8260
Bromomethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Chloroethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Trichlorofluomethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
1,1 Dichloroethene	ug/Kg	< 230		04/18/03	229.88	EPA8260
Methylene Chloride	ug/Kg	< 230		04/18/03	229.88	EPA8260
t-1,2-Dichloroethene	ug/Kg	< 230		04/18/03	229.88	EPA8260
1,1 Dichloroethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
2,2-Dichloropropane	ug/Kg	< 230		04/18/03	229.88	EPA8260
c-1,2-Dichloroethene	ug/Kg	< 230		04/18/03	229.88	EPA8260
Bromochloromethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Chloroform	ug/Kg	< 230		04/18/03	229.88	EPA8260
111 Trichloroethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Carbon Tetrachloride	ug/Kg	< 230		04/18/03	229.88	EPA8260
1,1-Dichloropropene	ug/Kg	< 230		04/18/03	229.88	EPA8260
Benzene	ug/Kg	330		04/18/03	229.88	EPA8260
1,2 Dichloroethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Trichloroethylene	ug/Kg	< 230		04/18/03	229.88	EPA8260
1,2 Dichloropropane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Dibromomethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Bromodichloromethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
c-1,3Dichloropropene	ug/Kg	< 230		04/18/03	229.88	EPA8260
Toluene	ug/Kg	280		04/18/03	229.88	EPA8260

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.02 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1245

MATRIX:Soil SAMPLE: HPSA#1-01B
HPSA#1-01B

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
t-1,3Dichloropropene	ug/Kg	< 230		04/18/03	229.88	EPA8260
112 Trichloroethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Tetrachloroethene	ug/Kg	< 230		04/18/03	229.88	EPA8260
1,3-Dichloropropane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Chlorodibromomethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
1,2 Dibromoethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
Chlorobenzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
Ethyl Benzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
1112Tetrachloroethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
m + p Xylene	ug/Kg	740		04/18/03	459.77	EPA8260
o Xylene	ug/Kg	450		04/18/03	229.88	EPA8260
Styrene	ug/Kg	< 230		04/18/03	229.88	EPA8260
Bromoform	ug/Kg	< 230		04/18/03	229.88	EPA8260
Isopropylbenzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
Bromobenzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
1122Tetrachloroethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
123-Trichloropropane	ug/Kg	< 230		04/18/03	229.88	EPA8260
n-Propylbenzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
2-Chlorotoluene	ug/Kg	< 230		04/18/03	229.88	EPA8260
135-Trimethylbenzene	ug/Kg	360		04/18/03	229.88	EPA8260
4-Chlorotoluene	ug/Kg	< 230		04/18/03	229.88	EPA8260
tert-Butylbenzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
124-Trimethylbenzene	ug/Kg	860		04/18/03	229.88	EPA8260
sec-Butylbenzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
p-Isopropyltoluene	ug/Kg	< 230		04/18/03	229.88	EPA8260

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.02 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1245

MATRIX:Soil SAMPLE: HPSA#1-01B
HPSA#1-01B

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICA METHOD
1,3 Dichlorobenzene (v)	ug/Kg	< 230		04/18/03	229.88	EPA8260
1,4 Dichlorobenzene (v)	ug/Kg	< 230		04/18/03	229.88	EPA8260
n-Butylbenzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
1,2 Dichlorobenzene (v)	ug/Kg	< 230		04/18/03	229.88	EPA8260
Dibromochloropropane	ug/Kg	< 230		04/18/03	229.88	EPA8260
124-Trichlorobenzene (v)	ug/Kg	< 230		04/18/03	229.88	EPA8260
Hexachlorobutadiene	ug/Kg	< 230		04/18/03	229.88	EPA8260
aphthalene(v)	ug/Kg	68000		04/18/03	1149.4	EPA8260
123-Trichlorobenzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
ter.ButylMethylEther	ug/Kg	< 230		04/18/03	229.88	EPA8260
p-Ethyltoluene	ug/Kg	< 230		04/18/03	229.88	EPA8260
Freon 113	ug/Kg	< 230		04/18/03	229.88	EPA8260
1245 Tetramethylbenz	ug/Kg	< 230		04/18/03	229.88	EPA8260
Acetone	ug/Kg	< 2300		04/18/03	2298.8	EPA8260
Methyl Ethyl Ketone	ug/Kg	< 2300		04/18/03	2298.8	EPA8260
Methylisobutylketone	ug/Kg	< 2300		04/18/03	2298.8	EPA8260
Chlorodifluoromethane	ug/Kg	< 230		04/18/03	229.88	EPA8260
p Diethylbenzene	ug/Kg	< 230		04/18/03	229.88	EPA8260
% Solids		87		04/17/03	0.1	SM182540G

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.02 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1245
MATRIX:Soil SAMPLE: HPSA#1-01B
HPSA#1-01B

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	20000		04/17/03	344.82	EPA8270
2-Methylnaphthalene	ug/Kg	6600		04/17/03	344.82	EPA8270
Acenaphthylene	ug/Kg	8300		04/17/03	344.82	EPA8270
Acenaphthene	ug/Kg	16000		04/17/03	344.82	EPA8270
Fluorene	ug/Kg	30000		04/17/03	344.82	EPA8270
Phenanthrene	ug/Kg	110000		04/18/03	3448.2	EPA8270
Anthracene	ug/Kg	25000		04/18/03	3448.2	EPA8270
Fluoranthene	ug/Kg	72000		04/18/03	3448.2	EPA8270
Pyrene	ug/Kg	66000		04/18/03	3448.2	EPA8270
Benzo(a)anthracene	ug/Kg	31000		04/17/03	344.82	EPA8270
Chrysene	ug/Kg	26000		04/17/03	344.82	EPA8270
Benzo(b)fluoranthene	ug/Kg	19000	#	04/18/03	3448.2	EPA8270
Benzo(k)fluoranthene	ug/Kg	19000	#	04/18/03	3448.2	EPA8270
Benzo(a)pyrene	ug/Kg	22000		04/18/03	3448.2	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	9900		04/18/03	3448.2	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	4900		04/18/03	3448.2	EPA8270
Benzo(ghi)perylene	ug/Kg	9700		04/18/03	3448.2	EPA8270

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 38000ug/Kg, unable to separate isomers.

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.02 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1245
MATRIX:Soil SAMPLE: HPSA#1-01B
HPSA#1-01B

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 46		04/17/03	45.977	EPA8082
Aroclor 1221	ug/Kg	< 46		04/17/03	45.977	EPA8082
Aroclor 1232	ug/Kg	< 46		04/17/03	45.977	EPA8082
Aroclor 1242	ug/Kg	< 46		04/17/03	45.977	EPA8082
Aroclor 1248	ug/Kg	< 46		04/17/03	45.977	EPA8082
Aroclor 1254	ug/Kg	< 46		04/17/03	45.977	EPA8082
Aroclor 1260	ug/Kg	< 46		04/17/03	45.977	EPA8082
Flash Point deg C		> 100		04/17/03	25	EPA1010
pH (lab) units		8.2		04/17/03	0.1	EPA9045C
Reactive cyanide	mg/Kg	< 2.3		04/16/03	2.2988	EPA335.4
Sulfide as S	mg/Kg	< 2.3		04/21/03	2.2988	EPA376.2
Petrol. Hydrocarbons	mg/Kg	3300		04/17/03	114.94	EPA418.1
Asbestos Content (%) (PLM)	%	< 1	*	04/18/03	1	PLM

cc:

LRL=laboratory Reporting Limit

REMARKS: * NAD (No Asbestos Detected) Analysis performed by Warren & Panzer, Long Island City, NY.

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.03 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1110
MATRIX:Extract SAMPLE: HPSA#1-01C
HPSA#1-01C
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	< 0.05		04/18/03	0.05	EPA6010
Barium as Ba	mg/L	0.53		04/18/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		04/18/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		04/18/03	0.05	EPA6010
Lead as Pb	mg/L	0.37		04/18/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		04/18/03	0.001	EPA7470A
Selenium as Se	mg/L	< 0.1		04/18/03	0.1	EPA6010
Silver as Ag	mg/L	< 0.05		04/18/03	0.05	EPA6010
LP Extraction				04/16/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 14678 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.03 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1110
MATRIX:Extract SAMPLE: HPSA#1-01C
HPSA#1-01C
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICA METHOD
Lindane	ug/L	< 0.5		04/17/03	0.5	EPA8081
Endrin	ug/L	< 0.5		04/17/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		04/17/03	1	EPA8081
Toxaphene	ug/L	< 10		04/17/03	10	EPA8081
Chlordane	ug/L	< 2		04/17/03	2	EPA8081
Heptachlor	ug/L	< 0.5		04/17/03	0.5	EPA8081
Heptachlor Epoxide	ug/L	< 0.5		04/17/03	0.5	EPA8081
2,4-D	ug/L	< 1		04/18/03	1	EPA8151
2,4,5-TP	ug/L	< 0.5		04/18/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	< 10		04/18/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	< 10		04/18/03	10	EPA8270
4-Methylphenol (p-cresol)	.g/L	< 10		04/18/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		04/18/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		04/18/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		04/18/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		04/18/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		04/18/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		04/18/03	10	EPA8270
Hexachloroethane	ug/L	< 10		04/18/03	10	EPA8270
Nitrobenzene	ug/L	< 10		04/18/03	10	EPA8270
Pyridine	ug/L	< 10		04/18/03	10	EPA8270
TCLP Extraction				04/16/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 14679 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon. NY 11703
631 422-5777

LAB NO.231771.03 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1110
MATRIX:Extract SAMPLE: HPSA#1-01C
HPSA#1-01C
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICA METHOD
Carbon Tetrachloride	ug/L	< 1		04/18/03	1	EPA8260
Chlorobenzene	ug/L	< 1		04/18/03	1	EPA8260
Chloroform	ug/L	< 1		04/18/03	1	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 1		04/18/03	1	EPA8260
1,2 Dichloroethane	ug/L	< 1		04/18/03	1	EPA8260
1,1 Dichloroethene	ug/L	< 1		04/18/03	1	EPA8260
Methyl Ethyl Ketone	ug/L	< 10		04/18/03	10	EPA8260
Tetrachloroethene	ug/L	< 1		04/18/03	1	EPA8260
richloroethylene	ug/L	< 1		04/18/03	1	EPA8260
Vinyl Chloride	ug/L	< 1		04/18/03	1	EPA8260
Benzene	ug/L	< 1		04/18/03	1	EPA8260
TCLP Zero Headspace Extract				04/16/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 14680 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.03 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1110

MATRIX:Soil SAMPLE: HPSA#1-01C
HPSA#1-01C

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTI METHOD
Dichlordifluomethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Chloromethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Vinyl Chloride	ug/Kg	< 110		04/18/03	111.11	EPA8260
Bromomethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Chloroethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Trichlorofluomethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
1,1 Dichloroethene	ug/Kg	< 110		04/18/03	111.11	EPA8260
Methylene Chloride	ug/Kg	< 110		04/18/03	111.11	EPA8260
t-1,2-Dichloroethene	ug/Kg	< 110		04/18/03	111.11	EPA8260
1,1 Dichloroethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
2,2-Dichloropropane	ug/Kg	< 110		04/18/03	111.11	EPA8260
c-1,2-Dichloroethene	ug/Kg	< 110		04/18/03	111.11	EPA8260
Bromochloromethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Chloroform	ug/Kg	< 110		04/18/03	111.11	EPA8260
111 Trichloroethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Carbon Tetrachloride	ug/Kg	< 110		04/18/03	111.11	EPA8260
1,1-Dichloropropene	ug/Kg	< 110		04/18/03	111.11	EPA8260
Benzene	ug/Kg	< 110		04/18/03	111.11	EPA8260
1,2 Dichloroethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Trichloroethylene	ug/Kg	< 110		04/18/03	111.11	EPA8260
1,2 Dichloropropane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Dibromomethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Bromodichloromethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
c-1,3Dichloropropene	ug/Kg	< 110		04/18/03	111.11	EPA8260
Toluene	ug/Kg	< 110		04/18/03	111.11	EPA8260

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 14681 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.03 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1110

MATRIX:Soil SAMPLE: HPSA#1-01C
HPSA#1-01C

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICA METHOD
t-1,3Dichloropropene	ug/Kg	< 110		04/18/03	111.11	EPA8260
112 Trichloroethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Tetrachloroethene	ug/Kg	< 110		04/18/03	111.11	EPA8260
1,3-Dichloropropane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Chlorodibromomethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
1,2 Dibromoethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
Chlorobenzene	ug/Kg	< 110		04/18/03	111.11	EPA8260
Ethyl Benzene	ug/Kg	190		04/18/03	111.11	EPA8260
1112Tetrachloroethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
m + p Xylene	ug/Kg	370		04/18/03	222.22	EPA8260
o Xylene	ug/Kg	480		04/18/03	111.11	EPA8260
Styrene	ug/Kg	< 110		04/18/03	111.11	EPA8260
Bromoform	ug/Kg	< 110		04/18/03	111.11	EPA8260
Isopropylbenzene	ug/Kg	170		04/18/03	111.11	EPA8260
Bromobenzene	ug/Kg	< 110		04/18/03	111.11	EPA8260
1122Tetrachloroethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
123-Trichloropropane	ug/Kg	< 110		04/18/03	111.11	EPA8260
n-Propylbenzene	ug/Kg	260		04/18/03	111.11	EPA8260
2-Chlorotoluene	ug/Kg	< 110		04/18/03	111.11	EPA8260
135-Trimethylbenzene	ug/Kg	940		04/18/03	111.11	EPA8260
4-Chlorotoluene	ug/Kg	< 110		04/18/03	111.11	EPA8260
tert-Butylbenzene	ug/Kg	< 110		04/18/03	111.11	EPA8260
124-Trimethylbenzene	ug/Kg	3200		04/18/03	111.11	EPA8260
sec-Butylbenzene	ug/Kg	< 110		04/18/03	111.11	EPA8260
p-Isopropyltoluene	ug/Kg	220		04/18/03	111.11	EPA8260

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 14682 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.03 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1110
MATRIX:Soil SAMPLE: HPSA#1-01C
HPSA#1-01C

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTIC/ METHOD
1,3 Dichlorobenzene (v)	ug/Kg	< 110		04/18/03	111.11	EPA8260
1,4 Dichlorobenzene (v)	ug/Kg	< 110		04/18/03	111.11	EPA8260
n-Butylbenzene	ug/Kg	< 110		04/18/03	111.11	EPA8260
1,2 Dichlorobenzene (v)	ug/Kg	< 110		04/18/03	111.11	EPA8260
Dibromochloropropane	ug/Kg	< 110		04/18/03	111.11	EPA8260
124-Trichlorobenzene (v)	ug/Kg	< 110		04/18/03	111.11	EPA8260
Hexachlorobutadiene	ug/Kg	< 110		04/18/03	111.11	EPA8260
Naphthalene(v)	ug/Kg	19000		04/18/03	1111.1	EPA8260
123-Trichlorobenzene	ug/Kg	< 110		04/18/03	111.11	EPA8260
ter.ButylMethylEther	ug/Kg	< 110		04/18/03	111.11	EPA8260
p-Ethyltoluene	ug/Kg	890		04/18/03	111.11	EPA8260
Freon 113	ug/Kg	< 110		04/18/03	111.11	EPA8260
1245 Tetramethylbenz	ug/Kg	840		04/18/03	111.11	EPA8260
Acetone	ug/Kg	< 1100		04/18/03	1111.1	EPA8260
Methyl Ethyl Ketone	ug/Kg	< 1100		04/18/03	1111.1	EPA8260
Methylisobutylketone	ug/Kg	< 1100		04/18/03	1111.1	EPA8260
Chlorodifluoromethane	ug/Kg	< 110		04/18/03	111.11	EPA8260
p Diethylbenzene	ug/Kg	< 110		04/18/03	111.11	EPA8260
% Solids		90		04/17/03	0.1	SM18254O(

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 14683 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon. NY 11703
631 422-5777

LAB NO.231771.03 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1110

MATRIX:Soil SAMPLE: HPSA#1-01C
HPSA#1-01C

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	11000		04/17/03	333.33	EPA8270
2-Methylnaphthalene	ug/Kg	3700		04/17/03	333.33	EPA8270
Acenaphthylene	ug/Kg	4700		04/17/03	333.33	EPA8270
Acenaphthene	ug/Kg	3200		04/17/03	333.33	EPA8270
Fluorene	ug/Kg	10000		04/17/03	333.33	EPA8270
Phenanthrene	ug/Kg	32000		04/17/03	333.33	EPA8270
Anthracene	ug/Kg	8400		04/17/03	333.33	EPA8270
[illegible]uoranthene	ug/Kg	21000		04/17/03	333.33	EPA8270
[illegible]ne	ug/Kg	23000		04/17/03	333.33	EPA8270
Benzo(a)anthracene	ug/Kg	10000		04/17/03	333.33	EPA8270
Chrysene	ug/Kg	9400		04/17/03	333.33	EPA8270
Benzo(b)fluoranthene	ug/Kg	7200	#$	04/17/03	333.33	EPA8270
Benzo(k)fluoranthene	ug/Kg	7200	#$	04/17/03	333.33	EPA8270
Benzo(a)pyrene	ug/Kg	8200	$	04/17/03	333.33	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	3000	$	04/17/03	333.33	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	1700	$	04/17/03	333.33	EPA8270
Benzo(ghi)perylene	ug/Kg	2700	$	04/17/03	333.33	EPA8270

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 14400 ug/Kg, unable to separate isomers.
$Estimated due to low internal standard, $49%. Low recovery due to interfernce. QC limit is 50%.

DIRECTOR

rn = 14684 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.231771.03 04/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:04/15/03 RECEIVED:04/16/03
TIME COL'D:1110

MATRIX:Soil SAMPLE: HPSA#1-01C
HPSA#1-01C

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 44		04/17/03	44.444	EPA8082
Aroclor 1221	ug/Kg	< 44		04/17/03	44.444	EPA8082
Aroclor 1232	ug/Kg	< 44		04/17/03	44.444	EPA8082
Aroclor 1242	ug/Kg	< 44		04/17/03	44.444	EPA8082
Aroclor 1248	ug/Kg	< 44		04/17/03	44.444	EPA8082
Aroclor 1254	ug/Kg	< 44		04/17/03	44.444	EPA8082
Aroclor 1260	ug/Kg	53		04/17/03	44.444	EPA8082
Flash Point deg C		> 100		04/17/03	25	EPA1010
pH (lab) units		8.3		04/17/03	0.1	EPA9045C
Reactive cyanide	mg/Kg	< 2.2		04/16/03	2.2222	EPA335.4
Sulfide as S	mg/Kg	< 2.2		04/21/03	2.2222	EPA376.2
Petrol. Hydrocarbons	mg/Kg	4400		04/17/03	55.555	EPA418.1
Asbestos Content (%) (PLM)	%	< 1	*	04/18/03	1	PLM

cc:

LRL=laboratory Reporting Limit

REMARKS: * NAD (No Asbestos Detected) Analysis performed by Warren & Panzer, Long Island City, NY.

DIRECTOR

rn = 14685 NYSDOH ID # 10320

ECO TES LABORATORIES, INC. • ENVIRONMENTAL TESTIN

7 Sheffield Avenue, North Babylon, New York 11703

(631) 422-5777 • FAX (631) 422-5770

CHAIN OF CUSTODY RECORD

Client: CODE ENV SERVICES

Address: 400 MIDDLESEX AVE

Phone: 732 969 5700 FAX: 718 893 3870

Person receiving report: Bill Ireland

Sampled by: Bill Ireland / CODE

Source:

Job No.: 5752 HUNTS POINT NY

TYPE & NUMBER OF CONTAINERS

MATRIX (Soil, Water, etc.)	COLLECTED DATE	COLLECTED TIME	SAMPLE IDENTIFICATION	TOTAL NUMBER OF CONTAINERS	FULL TCLP	PCB	RCRA characteristics	TPH	DAH	TCX	BETX							REMARKS-TESTS REQUIRED, SPECIAL TURNAROUND, SPECIAL Q.C. etc
Soil	[illegible]	[illegible]	HPSA #2 - 01A		X	X	X	X	X	X	X							4 Business Day TAT
Soil	[illegible]	[illegible]	HPSA #2 - 01B		X	X	X	X	X	X	X							
Soil	[illegible]	0[illegible]	HPSA #2 - 01C		X	X	X	X	X	X	X							

Please also fax results to:

CASIE - ATTN: CLIFF 856-696-7065

CLEAN EARTH ATTN: CARL ELLIN 302 427 6634

Relinquished by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)	Relinquished by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)
[signature]	[illegible]/03	YES NO NA				YES NO NA	
Representing:			Representing:	Representing:			Representing:
Relinquished by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)	Relinquished by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)
		YES NO NA				YES NO NA	
Representing:			Representing:	Representing:			Representing:

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.282892.01

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Extract SAMPLE: HPSA#2-01A
HPSA#2-01A
TCLP

ALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
:bon Tetrachloride	ug/L	< 10		06/16/03	10	EPA8260
lorobenzene	ug/L	< 10		06/16/03	10	EPA8260
loroform	ug/L	< 10		06/16/03	10	EPA8260
4 Dichlorobenzene (v)	ug/L	< 10		06/16/03	10	EPA8260
2 Dichloroethane	ug/L	< 10		06/16/03	10	EPA8260
1 Dichloroethene	ug/L	< 10		06/16/03	10	EPA8260
thyl Ethyl Ketone	ug/L	< 100		06/16/03	100	EPA8260
trachloroethene	ug/L	< 10		06/16/03	10	EPA8260
hloroethylene	ug/L	< 10		06/16/03	10	EPA8260
nyl Chloride	ug/L	< 10		06/16/03	10	EPA8260
nzene	ug/L	< 10		06/16/03	10	EPA8260
LP Zero Headspace Extract				06/15/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 23598

NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232892.01 06/17/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Extract SAMPLE: HPSA#2-01A
HPSA#2-01A
TCLP

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
enic as As	mg/L	0.052		06/17/03	0.05	EPA6010
ium as Ba	mg/L	0.25	*	06/17/03	0.05	EPA6010
nium as Cd	mg/L	< 0.05		06/17/03	0.05	EPA6010
omium as Cr	mg/L	< 0.05		06/17/03	0.05	EPA6010
d as Pb	mg/L	1.3		06/17/03	0.05	EPA6010
cury as Hg	mg/L	< 0.001		06/17/03	0.001	EPA7470A
enium as Se	mg/L	< 0.1		06/17/03	0.1	EPA6010
ver as Ag	mg/L	< 0.05		06/17/03	0.05	EPA6010
- Extraction				06/15/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS: * Blank corrected Analyte.

DIRECTOR

rn = 23599 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.2[illegible]2892.01

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland

PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client
DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Extract SAMPLE: HPSA#2-01A
HPSA#2-01A
TCLP

ALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
ıdane	ug/L	< 0.5		06/17/03	0.5	EPA8081
ırin	ug/L	< 0.5		06/16/03	0.5	EPA8081
:hoxychlor	ug/L	< 1		06/16/03	1	EPA8081
‹aphene	ug/L	< 10		06/16/03	10	EPA8081
lordane	ug/L	< 2		06/16/03	2	EPA8081
›tachlor	ug/L	< 0.5		06/16/03	0.5	EPA8081
›tachlor Epoxide	ug/L	< 0.5		06/17/03	0.5	EPA8081
4-D	ug/L	< 1		06/16/03	1	EPA8151
5-TP	ug/L	< 0.5		06/17/03	0.5	EPA8151
ıethylphenol (p-cresol)	ug/L	< 10		06/16/03	10	EPA8270
ıethylphenol (m-cresol)	ug/L	< 10		06/16/03	10	EPA8270
ıethylphenol (p-cresol)	ug/L	< 10		06/16/03	10	EPA8270
ıtachlorophenol (ms)	ug/L	< 100		06/16/03	100	EPA8270
4,5-Trichlorophenol	ug/L	< 10		06/16/03	10	EPA8270
4,6-Trichlorophenol	ug/L	< 10		06/16/03	10	EPA8270
4-Dinitrotoluene	ug/L	< 10		06/16/03	10	EPA8270
xachlorobenzene	ug/L	< 10		06/16/03	10	EPA8270
xachlorobutadiene	ug/L	< 10		06/16/03	10	EPA8270
xachloroethane	ug/L	< 10		06/16/03	10	EPA8270
trobenzene	ug/L	< 10		06/16/03	10	EPA8270
ridine	ug/L	< 10		06/16/03	10	EPA8270
LP Extraction				06/15/03		EPA1311

cc

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 23600 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.232892.01

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland

PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client
DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Soil

SAMPLE: HPSA#2-01A
HPSA#2-01A

Results reported on a dry weight basis

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
clor 1016	ug/Kg	< 230	**	06/17/03	229.88	EPA8082
clor 1221	ug/Kg	< 230	**	06/17/03	229.88	EPA8082
clor 1232	ug/Kg	< 230	**	06/17/03	229.88	EPA8082
clor 1242	ug/Kg	< 230	**	06/17/03	229.88	EPA8082
clor 1248	ug/Kg	< 230	**	06/17/03	229.88	EPA8082
clor 1254	ug/Kg	< 230	**	06/17/03	229.88	EPA8082
clor 1260	ug/Kg	< 230	**	06/17/03	229.88	EPA8082
ene	ug/Kg	20		06/16/03	11.494	EPA8021
uene	ug/Kg	29		06/16/03	11.494	EPA8021
yl Benzene	ug/Kg	< 11		06/16/03	11.494	EPA8021
p Xylene	ug/Kg	92		06/16/03	22.988	EPA8021
Xylene	ug/Kg	220		06/16/03	11.494	EPA8021
Solids		87		06/16/03	0.1	SM18 2540G
active cyanide	mg/Kg	< 2.3		06/16/03	2.2988	EPA335.3
lfide as S	mg/Kg	< 2.3		06/16/03	2.2988	EPA376.2
ash Point deg C		> 100		06/16/03	25	EPA1010
(lab) units		7.4		06/16/03	0.1	EPA9045C
trol. Hydrocarbons	mg/Kg	900		06/16/03	27.586	EPA418.1
t.Organic Halogens	mg/Kg	< 11	*	06/17/03	11.494	EPA9020B

cc

LRL=laboratory Reporting Limit

REMARKS: * Anaylsis was performed by ELAP Lab #11693.
**Elevated detection limit due to sample interference.

DIRECTOR

rn = 23601

NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.232892.01

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008 PO#:

ATTN: Bill Ireland

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Soil SAMPLE: HPSA#2-01A
HPSA#2-01A

Results reported on a dry weight basis

ALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
phthalene(sv)	ug/Kg	16000		06/16/03	3448.2	EPA8270
fethylnaphthalene	ug/Kg	62000		06/16/03	3448.2	EPA8270
enaphthylene	ug/Kg	6000		06/16/03	3448.2	EPA8270
enaphthene	ug/Kg	6200		06/16/03	3448.2	EPA8270
iorene	ug/Kg	22000		06/16/03	3448.2	EPA8270
enanthrene	ug/Kg	120000		06/16/03	3448.2	EPA8270
thracene	ug/Kg	11000		06/16/03	3448.2	EPA8270
oranthene	ug/Kg	59000		06/16/03	3448.2	EPA8270
ne	ug/Kg	71000		06/16/03	3448.2	EPA8270
nzo(a)anthracene	ug/Kg	24000		06/16/03	3448.2	EPA8270
rysene	ug/Kg	25000		06/16/03	3448.2	EPA8270
nzo(b)fluoranthene	ug/Kg	17000	*	06/16/03	3448.2	EPA8270
nzo(k)fluoranthene	ug/Kg	17000	*	06/16/03	3448.2	EPA8270
nzo(a)pyrene	ug/Kg	18000		06/16/03	3448.2	EPA8270
deno(1,2,3-cd)pyrene	ug/Kg	8900		06/16/03	3448.2	EPA8270
benzo(a,h)anthracene	ug/Kg	< 3400		06/16/03	3448.2	EPA8270
nzo(ghi)perylene	ug/Kg	9200		06/16/03	3448.2	EPA8270

cc:

LRL=laboratory Reporting Limit

REMARKS: *Total = 30000 ug/Kg**, unable to separate isomers.
**WET WEIGHT RESULT.

DIRECTOR

rn = 23602

NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.212892.02

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Extract SAMPLE: HPSA#2-01B
HPSA#2-01B
TCLP

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
bon Tetrachloride	ug/L	< 10		06/16/03	10	EPA8260
orobenzene	ug/L	< 10		06/16/03	10	EPA8260
oroform	ug/L	< 10		06/16/03	10	EPA8260
Dichlorobenzene (v)	ug/L	< 10		06/16/03	10	EPA8260
Dichloroethane	ug/L	< 10		06/16/03	10	EPA8260
Dichloroethene	ug/L	< 10		06/16/03	10	EPA8260
hyl Ethyl Ketone	ug/L	< 100		06/16/03	100	EPA8260
rachloroethene	ug/L	< 10		06/16/03	10	EPA8260
loroethylene	ug/L	< 10		06/16/03	10	EPA8260
yl Chloride	ug/L	< 10		06/16/03	10	EPA8260
zene	ug/L	< 10		06/16/03	10	EPA8260
P Zero Headspace Extract				06/15/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 23603

NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.232892.02

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Extract SAMPLE: HPSA#2-01B
HPSA#2-01B
TCLP

ALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
ldane	ug/L	< 0.5		06/17/03	0.5	EPA8081
lrin	ug/L	< 0.5		06/16/03	0.5	EPA8081
:hoxychlor	ug/L	< 1		06/16/03	1	EPA8081
xaphene	ug/L	< 10		06/16/03	10	EPA8081
lordane	ug/L	< 2		06/16/03	2	EPA8081
ptachlor	ug/L	< 0.5		06/16/03	0.5	EPA8081
ptachlor Epoxide	ug/L	< 0.5		06/17/03	0.5	EPA8081
4-D	ug/L	< 1		06/17/03	1	EPA8151
5-TP	ug/L	< 0.5		06/17/03	0.5	EPA8151
methylphenol (o-cresol)	ug/L	< 10		06/16/03	10	EPA8270
Methylphenol (m-cresol)	ug/L	< 10		06/16/03	10	EPA8270
Methylphenol (p-cresol)	ug/L	< 10		06/16/03	10	EPA8270
ntachlorophenol (ms)	ug/L	< 100		06/16/03	100	EPA8270
4,5-Trichlorophenol	ug/L	< 10		06/16/03	10	EPA8270
4,6-Trichlorophenol	ug/L	< 10		06/16/03	10	EPA8270
4-Dinitrotoluene	ug/L	< 10		06/16/03	10	EPA8270
xachlorobenzene	ug/L	< 10		06/16/03	10	EPA8270
xachlorobutadiene	ug/L	< 10		06/16/03	10	EPA8270
xachloroethane	ug/L	< 10		06/16/03	10	EPA8270
trobenzene	ug/L	< 10		06/16/03	10	EPA8270
ridine	ug/L	< 10		06/16/03	10	EPA8270
LP Extraction				06/15/03		EPA1311

cc

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 23604 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.212892.02

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland

PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client
DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Extract SAMPLE: HPSA#2-01B
HPSA#2-01B
TCLP

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
enic as As	mg/L	0.14		06/17/03	0.05	EPA6010
ium as Ba	mg/L	0.2	*	06/17/03	0.05	EPA6010
mium as Cd	mg/L	< 0.05		06/17/03	0.05	EPA6010
omium as Cr	mg/L	< 0.05		06/17/03	0.05	EPA6010
d as Pb	mg/L	0.28		06/17/03	0.05	EPA6010
cury as Hg	mg/L	< 0.001		06/17/03	0.001	EPA7470A
enium as Se	mg/L	< 0.1		06/17/03	0.1	EPA6010
ver as Ag	mg/L	< 0.05		06/17/03	0.05	EPA6010
Extraction				06/15/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS: * Blank corrected Analyte.

DIRECTOR

rn = 23605 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.212892.02

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

PO#:

ATTN: Bill Ireland

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Soil SAMPLE: HPSA#2-01B
HPSA#2-01B

Results reported on a dry weight basis

ALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
)clor 1016	ug/Kg	< 230	**	06/17/03	232.55	EPA8082
)clor 1221	ug/Kg	< 230	**	06/17/03	232.55	EPA8082
)clor 1232	ug/Kg	< 230	**	06/17/03	232.55	EPA8082
)clor 1242	ug/Kg	< 230	**	06/17/03	232.55	EPA8082
)clor 1248	ug/Kg	< 230	**	06/17/03	232.55	EPA8082
)clor 1254	ug/Kg	< 230	**	06/17/03	232.55	EPA8082
)clor 1260	ug/Kg	< 230	**	06/17/03	232.55	EPA8082
ene	ug/Kg	30		06/16/03	11.627	EPA8021
luene	ug/Kg	49		06/16/03	11.627	EPA8021
yl Benzene	ug/Kg	40		06/16/03	11.627	EPA8021
+ p Xylene	ug/Kg	150		06/16/03	23.255	EPA8021
Xylene	ug/Kg	260		06/16/03	11.627	EPA8021
Solids		86		06/16/03	0.1	SM18 2540G
active cyanide	mg/Kg	< 2.3		06/16/03	2.3255	EPA335.3
lfide as S	mg/Kg	< 2.3		06/16/03	2.3255	EPA376.2
ash Point deg C		> 100		06/16/03	25	EPA1010
(lab) units		7.6		06/16/03	0.1	EPA9045C
trol. Hydrocarbons	mg/Kg	730		06/16/03	27.906	EPA418.1
t.Organic Halogens	mg/Kg	< 12	*	06/17/03	11.627	EPA9020B

cc:

LRL=laboratory Reporting Limit

REMARKS: * Anaylsis was performed by ELAP Lab #11693.
**Elevated detection limit due to sample interference.

DIRECTOR

rn = 23606 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.232892.02

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008 PO#:
ATTN: Bill Ireland

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Soil SAMPLE: HPSA#2-01B
HPSA#2-01B

Results reported on a dry weight basis

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
hthalene(sv)	ug/Kg	13000		06/16/03	3488.3	EPA8270
lethylnaphthalene	ug/Kg	60000		06/16/03	3488.3	EPA8270
naphthylene	ug/Kg	4400		06/16/03	3488.3	EPA8270
naphthene	ug/Kg	5900		06/16/03	3488.3	EPA8270
orene	ug/Kg	20000		06/16/03	3488.3	EPA8270
nanthrene	ug/Kg	120000		06/16/03	3488.3	EPA8270
hracene	ug/Kg	9700		06/16/03	3488.3	EPA8270
ranthene	ug/Kg	56000		06/16/03	3488.3	EPA8270
e	ug/Kg	67000		06/16/03	3488.3	EPA8270
zo(a)anthracene	ug/Kg	23000		06/16/03	3488.3	EPA8270
ysene	ug/Kg	24000		06/16/03	3488.3	EPA8270
zo(b)fluoranthene	ug/Kg	16000	*	06/16/03	3488.3	EPA8270
zo(k)fluoranthene	ug/Kg	16000	*	06/16/03	3488.3	EPA8270
zo(a)pyrene	ug/Kg	17000		06/16/03	3488.3	EPA8270
eno(1,2,3-cd)pyrene	ug/Kg	7900		06/16/03	3488.3	EPA8270
benzo(a,h)anthracene	ug/Kg	< 3500		06/16/03	3488.3	EPA8270
zo(ghi)perylene	ug/Kg	8300		06/16/03	3488.3	EPA8270

cc

LRL=laboratory Reporting Limit

REMARKS: *Total = 32000 ug/Kg, unable to separate isomers.

DIRECTOR

rn = 23607 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232892.03 06/17/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Extract SAMPLE: HPSA#2-01C
HPSA#2-01C
TCLP

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
bon Tetrachloride	ug/L	< 10		06/16/03	10	EPA8260
orobenzene	ug/L	< 10		06/16/03	10	EPA8260
oroform	ug/L	< 10		06/16/03	10	EPA8260
Dichlorobenzene (v)	ug/L	< 10		06/16/03	10	EPA8260
Dichloroethane	ug/L	< 10		06/16/03	10	EPA8260
Dichloroethene	ug/L	< 10		06/16/03	10	EPA8260
hyl Ethyl Ketone	ug/L	< 100		06/16/03	100	EPA8260
rachloroethene	ug/L	< 10		06/16/03	10	EPA8260
loroethylene	ug/L	< 10		06/16/03	10	EPA8260
yl Chloride	ug/L	< 10		06/16/03	10	EPA8260
zene	ug/L	< 10		06/16/03	10	EPA8260
P Zero Headspace Extract				06/15/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 23608 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.232892.03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland

PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client
DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Extract SAMPLE: HPSA#2-01C
HPSA#2-01C
TCLP

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
dane	ug/L	< 0.5		06/17/03	0.5	EPA8081
rin	ug/L	< 0.5		06/16/03	0.5	EPA8081
hoxychlor	ug/L	< 1		06/16/03	1	EPA8081
aphene	ug/L	< 10		06/16/03	10	EPA8081
ordane	ug/L	< 2		06/16/03	2	EPA8081
tachlor	ug/L	< 0.5		06/16/03	0.5	EPA8081
tachlor Epoxide	ug/L	< 0.5		06/17/03	0.5	EPA8081
-D	ug/L	< 1		06/17/03	1	EPA8151
-TP	ug/L	< 0.5		06/17/03	0.5	EPA8151
ethylphenol (p-cresol)	ug/L	< 10		06/16/03	10	EPA8270
ethylphenol (m-cresol)	ug/L	< 10		06/16/03	10	EPA8270
ethylphenol (o-cresol)	ug/L	< 10		06/16/03	10	EPA8270
tachlorophenol (ms)	ug/L	< 100		06/16/03	100	EPA8270
,5-Trichlorophenol	ug/L	< 10		06/16/03	10	EPA8270
,6-Trichlorophenol	ug/L	< 10		06/16/03	10	EPA8270
-Dinitrotoluene	ug/L	< 10		06/16/03	10	EPA8270
achlorobenzene	ug/L	< 10		06/16/03	10	EPA8270
achlorobutadiene	ug/L	< 10		06/16/03	10	EPA8270
achloroethane	ug/L	< 10		06/16/03	10	EPA8270
robenzene	ug/L	< 10		06/16/03	10	EPA8270
idine	ug/L	< 10		06/16/03	10	EPA8270
P Extraction				06/15/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.212892.03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland

PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client
DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Extract SAMPLE: HPSA#2-01C
HPSA#2-01C
TCLP

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
enic as As	mg/L	< 0.05		06/17/03	0.05	EPA6010
ium as Ba	mg/L	0.25	*	06/17/03	0.05	EPA6010
mium as Cd	mg/L	< 0.05		06/17/03	0.05	EPA6010
omium as Cr	mg/L	< 0.05		06/17/03	0.05	EPA6010
d as Pb	mg/L	0.45		06/17/03	0.05	EPA6010
cury as Hg	mg/L	< 0.001		06/17/03	0.001	EPA7470A
enium as Se	mg/L	< 0.1		06/17/03	0.1	EPA6010
ver as Ag	mg/L	< 0.05		06/17/03	0.05	EPA6010
Extraction				06/15/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS: * Blank corrected Analyte.

DIRECTOR

rn = 23610

NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.2[illegible]2892.03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland

PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client
DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Soil

SAMPLE: HPSA#2-01C
HPSA#2-01C

Results reported on a dry weight basis

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
clor 1016	ug/Kg	< 240	**	06/17/03	235.29	EPA8082
clor 1221	ug/Kg	< 240	**	06/17/03	235.29	EPA8082
clor 1232	ug/Kg	< 240	**	06/17/03	235.29	EPA8082
clor 1242	ug/Kg	< 240	**	06/17/03	235.29	EPA8082
clor 1248	ug/Kg	< 240	**	06/17/03	235.29	EPA8082
clor 1254	ug/Kg	< 240	**	06/17/03	235.29	EPA8082
clor 1260	ug/Kg	< 240	**	06/17/03	235.29	EPA8082
ene	ug/Kg	27		06/16/03	11.764	EPA8021
uene	ug/Kg	49		06/16/03	11.764	EPA8021
yl Benzene	ug/Kg	24		06/16/03	11.764	EPA8021
p Xylene	ug/Kg	150		06/16/03	23.529	EPA8021
Xylene	ug/Kg	270		06/16/03	11.764	EPA8021
olids		85		06/16/03	0.1	SM182540G
ctive cyanide	mg/Kg	< 2.4		06/17/03	2.3529	EPA335.3
fide as S	mg/Kg	< 2.4		06/16/03	2.3529	EPA376.2
sh Point deg C		> 100		06/16/03	25	EPA1010
(lab) units		7.5		06/16/03	0.1	EPA9045C
rol. Hydrocarbons	mg/Kg	950		06/16/03	28.235	EPA418.1
.Organic Halogens	mg/Kg	< 12	*	06/17/03	11.764	EPA9020B

cc:

LRL=laboratory Reporting Limit

REMARKS: * Anaylsis was performed by ELAP Lab #11693.
**Elevated detection limit due to sample interference.

DIRECTOR

rn = 23611

NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

06/17/03

LAB NO.232892.03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland

PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client
DATE COL'D:06/11/03 RECEIVED:06/13/03
TIME COL'D:0600

MATRIX:Soil

SAMPLE: HPSA#2-01C
HPSA#2-01C

Results reported on a dry weight basis

LYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
hthalene(sv)	ug/Kg	94000		06/16/03	35294.	EPA8270
ethylnaphthalene	ug/Kg	240000		06/16/03	35294.	EPA8270
naphthylene	ug/Kg	14000		06/16/03	3529.4	EPA8270
naphthene	ug/Kg	15000		06/16/03	3529.4	EPA8270
orene	ug/Kg	49000		06/16/03	3529.4	EPA8270
nanthrene	ug/Kg	330000		06/16/03	35294.	EPA8270
hracene	ug/Kg	31000		06/16/03	3529.4	EPA8270
oranthene	ug/Kg	130000		06/16/03	35294.	EPA8270
e	ug/Kg	160000		06/16/03	35294.	EPA8270
zo(a)anthracene	ug/Kg	59000		06/16/03	3529.4	EPA8270
ysene	ug/Kg	65000		06/16/03	3529.4	EPA8270
zo(b)fluoranthene	ug/Kg	52000	*	06/16/03	3529.4	EPA8270
zo(k)fluoranthene	ug/Kg	52000	*	06/16/03	3529.4	EPA8270
zo(a)pyrene	ug/Kg	45000		06/16/03	3529.4	EPA8270
eno(1,2,3-cd)pyrene	ug/Kg	16000		06/16/03	3529.4	EPA8270
enzo(a,h)anthracene	ug/Kg	5800		06/16/03	3529.4	EPA8270
zo(ghi)perylene	ug/Kg	15000		06/16/03	3529.4	EPA8270

cc:

LRL=laboratory Reporting Limit

REMARKS: *Total =104000 ug/Kg, unable to separate isomers.

DIRECTOR

rn = 23612

NYSDOH ID # 10320

EcoTest LABORATORIES, INC. • ENVIRONMENTAL TESTING
377 Sheffield Avenue, North Babylon, New York 11703
(631) 422-5777 • FAX (631) 422-5770

CHAIN OF CUSTODY RECORD

Client: Cone Environmental Services
Address: 400 Middlesex Ave
Carteret NJ
Phone: 732-969-1700 FAX: 732 969-2701 *
Person receiving report: Bill Ireland
Sampled by: Cone
Source:
Job No.:

* Also fax results to: Casie Pac Tank (Cliff) fax # 856-696-7065 and Clean Earth (Carl Elliot) fax # 302-427-6634

MATRIX (Soil, Water, etc.)	COLLECTED DATE	COLLECTED TIME	SAMPLE IDENTIFICATION	TOTAL NUMBER OF CONTAINERS	Full TCLP	PCB	RCRA Characteristics	TPH	PAH										REMARKS–TESTS REQUIRED, SPECIAL TURNAROUND, SPECIAL Q.C. etc
Soil	5/1/03	11:15	HPSA# 3S - 01A	3	X	X	X	X	X										4 DAY TAT
Soil	5/1/03	11:45	HPSA# 3S - 01B	3	X	X	X	X	X										

Relinquished by: (Signature)	DATE/TIME	SEAL INTACT ?	Received by: (Signature)	Relinquished by: (Signature)	DATE/TIME	SEAL INTACT ?	Received by: (Signature)
[signature] Representing:	5/1/03	YES NO NA	Representing:	Representing:		YES NO NA	Representing:
Relinquished by: (Signature) Representing:	DATE/TIME	SEAL INTACT ? YES NO NA	Received by: (Signature) Representing:	Relinquished by: (Signature) Representing:	DATE/TIME	SEAL INTACT ? YES NO NA	Received by: (Signature) Representing:

PILE #3

[illegible] Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.01 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1115

MATRIX:Extract SAMPLE: HPSA#35-01A
HPSA#35-01A
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Carbon Tetrachloride	ug/L	< 10		05/16/03	10	EPA8260
Chlorobenzene	ug/L	< 10		05/16/03	10	EPA8260
Chloroform	ug/L	< 10		05/16/03	10	EPA8260
1.4 Dichlorobenzene (v)	ug/L	< 10		05/16/03	10	EPA8260
1,2 Dichloroethane	ug/L	< 10		05/16/03	10	EPA8260
1,1 Dichloroethene	ug/L	< 10		05/16/03	10	EPA8260
Methyl Ethyl Ketone	ug/L	< 100		05/16/03	100	EPA8260
Tetrachloroethene	ug/L	< 10		05/16/03	10	EPA8260
Trichloroethylene	ug/L	< 10		05/16/03	10	EPA8260
Vinyl Chloride	ug/L	< 10		05/16/03	10	EPA8260
Benzene	ug/L	< 10		05/16/03	10	EPA8260
TCLP Zero Headspace Extract				05/15/03		EPA1311

VOC QCQA

cc:Casie, 856-696-7065
Carl Elliot, 302-427-6634

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 20048 NYSDOH ID # 10320

377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.01 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1115

MATRIX:Extract SAMPLE: HPSA#35-01A
HPSA#35-01A
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	< 0.05		05/19/03	0.05	EPA6010
Barium as Ba	mg/L	0.33		05/19/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		05/19/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		05/19/03	0.05	EPA6010
Lead as Pb	mg/L	0.061		05/19/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		05/20/03	0.001	EPA7470A
Selenium as Se	mg/L	< 0.1		05/19/03	0.1	EPA6010
Silver as Ag	mg/L	< 0.05		05/19/03	0.05	EPA6010
TCLP Extraction				05/15/03		EPA1311

Metals, QCQA

cc:Casie, 856-696-7065
Carl Elliot, 302-427-6634

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 20049 NYSDOH ID # 10320

Accutest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.01 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1115
MATRIX:Extract SAMPLE: HPSA#35-01A
HPSA#35-01A
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/L	< 0.5		05/18/03	0.5	EPA8081
Endrin	ug/L	< 0.5		05/18/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		05/18/03	1	EPA8081
Toxaphene	ug/L	< 10		05/18/03	10	EPA8081
Chlordane	ug/L	< 2		05/18/03	2	EPA8081
Heptachlor	ug/L	< 0.5		05/18/03	0.5	EPA8081
Heptachlor Epoxide	ug/L	< 0.5		05/18/03	0.5	EPA8081
2,4-D	ug/L	< 1		05/20/03	1	EPA8151
2,4,5-TP	ug/L	< 0.5		05/20/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	16		05/19/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	34	#	05/19/03	10	EPA8270
4-Methylphenol (p-cresol)	ug/L	34	#	05/19/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		05/19/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		05/19/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		05/19/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		05/19/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		05/19/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		05/19/03	10	EPA8270
Hexachloroethane	ug/L	< 10		05/19/03	10	EPA8270
Nitrobenzene	ug/L	< 10		05/19/03	10	EPA8270
Pyridine	ug/L	13		05/19/03	10	EPA8270
TCLP Extraction				05/05/03		EPA1311

cc:Casle, 856-696-7065
Carl Elliot, 302-427-6634

LRL=laboratory Reporting Limit

REMARKS: #Total = 68 ug/L, ubable to separate isomers.

DIRECTOR

Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.01 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1115
MATRIX:Soil SAMPLE: HPSA#35-01A
HPSA#35-01A

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1221	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1232	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1242	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1248	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1254	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1260	ug/Kg	< 46		05/20/03	45.977	EPA8082
Peat QAQC						
% Solids		87		05/16/03	0.1	SM182540G
Flash Point deg C		> 100		05/16/03	25	EPA1010
Reactive cyanide	mg/Kg	< 2.3		05/16/03	2.2988	EPA335.4
Sulfide as S	mg/Kg	< 2.3		05/19/03	2.2988	EPA376.2
pH (lab) units		5.9		05/16/03	0.1	EPA9045C
Petrol. Hydrocarbons	mg/Kg	340		05/20/03	27.586	EPA418.1
Quality Control						

cc:Casie, 856-696-7065
Carl Elliot, 302-427-6634

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

[illegible] Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.01 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1115

MATRIX:Soil SAMPLE: HPSA#35-01A
HPSA#35-01A
Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	5100		05/20/03	3448.2	EPA8270
2-Methylnaphthalene	ug/Kg	< 3400		05/20/03	3448.2	EPA8270
Acenaphthylene	ug/Kg	< 3400		05/20/03	3448.2	EPA8270
Acenaphthene	ug/Kg	< 3400		05/20/03	3448.2	EPA8270
Fluorene	ug/Kg	10000		05/20/03	3448.2	EPA8270
Phenanthrene	ug/Kg	36000		05/20/03	3448.2	EPA8270
Anthracene	ug/Kg	11000		05/20/03	3448.2	EPA8270
Fluoranthene	ug/Kg	31000		05/20/03	3448.2	EPA8270
Pyrene	ug/Kg	22000		05/20/03	3448.2	EPA8270
Benzo(a)anthracene	ug/Kg	10000		05/20/03	3448.2	EPA8270
Chrysene	ug/Kg	9500		05/20/03	3448.2	EPA8270
Benzo(b)fluoranthene	ug/Kg	6900	*	05/20/03	3448.2	EPA8270
Benzo(k)fluoranthene	ug/Kg	6900	*	05/20/03	3448.2	EPA8270
Benzo(a)pyrene	ug/Kg	7900		05/20/03	3448.2	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	4000		05/20/03	3448.2	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	<-3400		05/20/03	3448.2	EPA8270
Benzo(ghi)perylene	ug/Kg	4800		05/20/03	3448.2	EPA8270

Base Neutrals QAQC

cc:Casie, 856-696-7065
Carl Elliot, 302-427-6634

LRL=laboratory Reporting Limit

REMARKS: *Total = 13800 ug/Kg, unable to separate isomers.

DIRECTOR

rn = 20052 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.02 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1145

MATRIX:Extract SAMPLE: HPSA#35-01B
HPSA#35-01B
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Carbon Tetrachloride	ug/L	< 10		05/16/03	10	EPA8260
Chlorobenzene	ug/L	< 10		05/16/03	10	EPA8260
Chloroform	ug/L	< 10		05/16/03	10	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 10		05/16/03	10	EPA8260
1,2 Dichloroethane	ug/L	< 10		05/16/03	10	EPA8260
1,1 Dichloroethene	ug/L	< 10		05/16/03	10	EPA8260
Methyl Ethyl Ketone	ug/L	< 100		05/16/03	100	EPA8260
Tetrachloroethene	ug/L	< 10		05/16/03	10	EPA8260
Trichloroethylene	ug/L	< 10		05/16/03	10	EPA8260
Vinyl Chloride	ug/L	< 10		05/16/03	10	EPA8260
Benzene	ug/L	< 10		05/16/03	10	EPA8260
TCLP Zero Headspace Extract				05/15/03		EPA1311

VOC QCQA

cc:Casie, 856-696-7065
Carl Elliot, 302-427-6634

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 20053 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.02 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1145

MATRIX:Extract SAMPLE: HPSA#35-01B
HPSA#35-01B
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	< 0.05		05/19/03	0.05	EPA6010
Barium as Ba	mg/L	0.31		05/19/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		05/19/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		05/19/03	0.05	EPA6010
Lead as Pb	mg/L	0.086		05/19/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		05/20/03	0.001	EPA7470A
Selenium as Se	mg/L	< 0.1		05/19/03	0.1	EPA6010
Silver as Ag	mg/L	< 0.05		05/19/03	0.05	EPA6010
TCLP Extraction				05/15/03		EPA1311

Metals, QCQA

cc:Casie, 856-696-7065
Carl Elliot, 302-427-6634

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 20054 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.02 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Harry Elias PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1145

MATRIX:Extract SAMPLE: HPSA#35-01B
HPSA#35-01B
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/L	< 0.5		05/18/03	0.5	EPA8081
Endrin	ug/L	< 0.5		05/18/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		05/18/03	1	EPA8081
Toxaphene	ug/L	< 10		05/18/03	10	EPA8081
Chlordane	ug/L	< 2		05/18/03	2	EPA8081
Heptachlor	ug/L	< 0.5		05/18/03	0.5	EPA8081
Heptachlor Epoxide	ug/L	< 0.5		05/18/03	0.5	EPA8081
2,4-D	ug/L	< 1		05/20/03	1	EPA8151
2,4,5-TP	ug/L	< 0.5		05/20/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	11		05/19/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	11	#	05/19/03	10	EPA8270
4-Methylphenol (p-cresol)	ug/L	11	#	05/19/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		05/19/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		05/19/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		05/19/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		05/19/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		05/19/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		05/19/03	10	EPA8270
Hexachloroethane	ug/L	< 10		05/19/03	10	EPA8270
Nitrobenzene	ug/L	< 10		05/19/03	10	EPA8270
Pyridine	ug/L	18		05/19/03	10	EPA8270
TCLP Extraction				05/05/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 22 ug/L, unable to separate isomers.

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.02 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1145

MATRIX:Soil SAMPLE: HPSA#35-01B
HPSA#35-01B

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1221	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1232	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1242	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1248	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1254	ug/Kg	< 46		05/20/03	45.977	EPA8082
Aroclor 1260	ug/Kg	< 46		05/20/03	45.977	EPA8082
Pest QAQC						
% Solids		87		05/16/03	0.1	SM182540G
Flash Point deg C		> 100		05/16/03	25	EPA1010
Reactive cyanide	mg/Kg	< 2.3		05/16/03	2.2988	EPA335.4
Sulfide as S	mg/Kg	< 2.3		05/19/03	2.2988	EPA376.2
pH (lab) units		7.1		05/16/03	0.1	EPA9045C
Petrol. Hydrocarbons	mg/Kg	700		05/20/03	27.586	EPA418.1
Quality Control						

cc:Casie, 856-696-7065
Carl Elliot, 302-427-6634

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn # 20056 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232391.02 05/20/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Code Environmental Services
SOURCE OF SAMPLE: Iroquois
COLLECTED BY: Client DATE COL'D:05/14/03 RECEIVED:05/15/03
TIME COL'D:1145

MATRIX:Soil SAMPLE: HPSA#35-01B
HPSA#35-01B

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	49000		05/20/03	3448.2	EPA8270
2-Methylnaphthalene	ug/Kg	18000		05/20/03	3448.2	EPA8270
Acenaphthylene	ug/Kg	21000		05/20/03	3448.2	EPA8270
Acenaphthene	ug/Kg	8900		05/20/03	3448.2	EPA8270
Fluorene	ug/Kg	39000		05/20/03	3448.2	EPA8270
Phenanthrene	ug/Kg	100000		05/20/03	3448.2	EPA8270
Anthracene	ug/Kg	36000		05/20/03	3448.2	EPA8270
Fluoranthene	ug/Kg	85000		05/20/03	3448.2	EPA8270
Pyrene	ug/Kg	57000		05/20/03	3448.2	EPA8270
Benzo(a)anthracene	ug/Kg	28000		05/20/03	3448.2	EPA8270
Chrysene	ug/Kg	25000		05/20/03	3448.2	EPA8270
Benzo(b)fluoranthene	ug/Kg	18000	*	05/20/03	3448.2	EPA8270
Benzo(k)fluoranthene	ug/Kg	18000	*	05/20/03	3448.2	EPA8270
Benzo(a)pyrene	ug/Kg	22000		05/20/03	3448.2	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	9000		05/20/03	3448.2	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	< 3400		05/20/03	3448.2	EPA8270
Benzo(ghi)perylene	ug/Kg	9000		05/20/03	3448.2	EPA8270

Base Neutrals QAQC

cc:Casie, 856-696-7065
Carl Elliot, 302-427-6634

LRL=laboratory Reporting Limit

REMARKS: *Total = 36000 ug/Kg, unable to separate isomers.

DIRECTOR

rn = 20057 NYSDOH ID # 10320

;CO ▮ T LABORATORIES, INC. • ENVIRONMENTAL TESTIN

7 Sheffield Avenue, North Babylon, New York 11703

31) 422-5777 • FAX (631) 422-5770

CHAIN OF CUSTODY RECORD

nt: CODE ENV. SERVICES

lress: 400 MIDDLESEX AVE

CARTERET, NJ

ne: 732-969-2700 FAX: 732-969-2701 *

son receiving report: BILL IRELAND

npled by: CODE

rce:

No.: 8150 - Hunts Point, NY

* PLEASE ALSO FAX RESULTS TO:

856-696-7065

NEED FAXES ON MAY 28th

MATRIX (soil, water, etc.)	COLLECTED DATE	COLLECTED TIME	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FULL TCLP	PCB	RCRA characteristics	TPH	PAH	REMARKS—TESTS REQUIRED, SPECIAL TURNAROUND, SPECIAL DL, etc.
soil	5/21/03	7:20	HPSA #4S - 01A	3	X	X	X	X	X	
soil	5/21/03	7:40	HPSA #4S - 01B	3	X	X	X	X	X	4 DAY TAT
soil	5/21/03	7:55	HPSA #4S - 01C	3	X	X	X	X	X	

Relinquished by: (Signature) / Representing:	DATE/TIME	SEAL INTACT?	Received by: (Signature) / Representing:	Relinquished by: (Signature) / Representing:	DATE/TIME	SEAL INTACT?	Received by: (Signature) / Representing:
[signature]	5/21/03 4:45 PM	YES NO NA	[signature]			YES NO NA	
		YES NO NA	[signature]			YES NO NA	

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.01 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0720
MATRIX:Extract SAMPLE: HPSA#45-01A
HPSA#45-01A
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Carbon Tetrachloride	ug/L	< 10		05/29/03	10	EPA8260
Chlorobenzene	ug/L	< 10		05/29/03	10	EPA8260
Chloroform	ug/L	< 10		05/29/03	10	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 10		05/29/03	10	EPA8260
1,2 Dichloroethane	ug/L	< 10		05/29/03	10	EPA8260
,1 Dichloroethene	ug/L	< 10		05/29/03	10	EPA8260
ethyl Ethyl Ketone	ug/L	< 100		05/29/03	100	EPA8260
Tetrachloroethene	ug/L	< 10		05/29/03	10	EPA8260
Trichloroethylene	ug/L	< 10		05/29/03	10	EPA8260
Vinyl Chloride	ug/L	< 10		05/29/03	10	EPA8260
Benzene	ug/L	< 10		05/29/03	10	EPA8260
TCLP Zero Headspace Extract				05/22/03		EPA1311

VOC QCQA

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 20923 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.01 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0720
MATRIX:Extract SAMPLE: HPSA#45-01A
HPSA#45-01A
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/L	< 0.5		05/27/03	0.5	EPA8081
Endrin	ug/L	< 0.5		05/27/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		05/27/03	1	EPA8081
Toxaphene	ug/L	< 10		05/27/03	10	EPA8081
Chlordane	ug/L	< 2		05/27/03	2	EPA8081
Heptachlor	ug/L	< 0.5		05/27/03	0.5	EPA8081
Heptachlor Epoxide	ug/L	< 0.5		05/27/03	0.5	EPA8081
2,4-D	ug/L	< 1		05/28/03	1	EPA8151
2,4,5-TP	ug/L	< 0.5		05/28/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	< 10		05/27/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	< 10		05/27/03	10	EPA8270
4-Methylphenol (p-cresol)	ug/L	< 10		05/27/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		05/27/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		05/27/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		05/27/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		05/27/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		05/27/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		05/27/03	10	EPA8270
Hexachloroethane	ug/L	< 10		05/27/03	10	EPA8270
Nitrobenzene	ug/L	< 10		05/27/03	10	EPA8270
Pyridine	ug/L	< 10		05/27/03	10	EPA8270
TCLP Extraction				05/22/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.01 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0720
MATRIX:Extract SAMPLE: HPSA#45-01A
HPSA#45-01A
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	< 0.05		05/27/03	0.05	EPA6010
Barium as Ba	mg/L	0.29	*	05/27/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		05/27/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		05/27/03	0.05	EPA6010
Lead as Pb	mg/L	0.66		05/27/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		05/28/03	0.001	EPA7470A
Selenium as Se	mg/L	< 0.1		05/27/03	0.1	EPA6010
Silver as Ag	mg/L	< 0.05		05/27/03	0.05	EPA6010
TCLP Extraction				05/22/03		EPA1311

Metals, QCQA

cc:

LRL=laboratory Reporting Limit

REMARKS: *Blank corrected.

DIRECTOR

rn = 20925 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.01 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0720
MATRIX:Soil SAMPLE: HPSA#45-01A
HPSA#45-01A
Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	11000		05/28/03	3370.7	EPA8270
2-Methylnaphthalene	ug/Kg	4200		05/28/03	3370.7	EPA8270
Acenaphthylene	ug/Kg	4200		05/28/03	3370.7	EPA8270
Acenaphthene	ug/Kg	7400		05/28/03	3370.7	EPA8270
Fluorene	ug/Kg	20000		05/28/03	3370.7	EPA8270
Phenanthrene	ug/Kg	71000		05/28/03	3370.7	EPA8270
Anthracene	ug/Kg	25000		05/28/03	3370.7	EPA8270
Fluoranthene	ug/Kg	64000		05/28/03	3370.7	EPA8270
Pyrene	ug/Kg	53000		05/28/03	3370.7	EPA8270
Benzo(a)anthracene	ug/Kg	22000		05/28/03	3370.7	EPA8270
Chrysene	ug/Kg	21000		05/28/03	3370.7	EPA8270
Benzo(b)fluoranthene	ug/Kg	15000	#	05/28/03	3370.7	EPA8270
Benzo(k)fluoranthene	ug/Kg	15000	#	05/28/03	3370.7	EPA8270
Benzo(a)pyrene	ug/Kg	19000		05/28/03	3370.7	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	7600		05/28/03	3370.7	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	2600	$	05/28/03	3370.7	EPA8270
Benzo(ghi)perylene	ug/Kg	8100		05/28/03	3370.7	EPA8270

Base Neutrals QAQC

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 30000 ug/Kg, unable to separate isomers.
$Reported below quantification.

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.01 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0720
MATRIX:Soil SAMPLE: HPSA#45-01A
HPSA#45-01A

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1221	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1232	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1242	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1248	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1254	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1260	ug/Kg	99		05/28/03	44.943	EPA8082
Post QAQC						
% Solids		89		05/23/03	0.1	SM182540G
Flash Point deg C		> 100		05/23/03	25	EPA1010
pH (lab) units		7.7		05/22/03	0.1	EPA9045C
Reactive cyanide	mg/Kg	< 2.2		05/27/03	2.2471	EPA335.4
Sulfide as S	mg/Kg	< 2.2		05/27/03	2.2471	EPA376.2
Petrol. Hydrocarbons	mg/Kg	460		05/29/03	2.2471	EPA418.1
Quality Control						

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.02 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0740
MATRIX:Extract SAMPLE: HPSA#45-01B
HPSA#45-01B
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Carbon Tetrachloride	ug/L	< 10		05/29/03	10	EPA8260
Chlorobenzene	ug/L	< 10		05/29/03	10	EPA8260
Chloroform	ug/L	< 10		05/29/03	10	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 10		05/29/03	10	EPA8260
1,2 Dichloroethane	ug/L	< 10		05/29/03	10	EPA8260
1,1 Dichloroethene	ug/L	< 10		05/29/03	10	EPA8260
Methyl Ethyl Ketone	ug/L	< 100		05/29/03	100	EPA8260
Tetrachloroethene	ug/L	< 10		05/29/03	10	EPA8260
Trichloroethylene	ug/L	< 10		05/29/03	10	EPA8260
Vinyl Chloride	ug/L	< 10		05/29/03	10	EPA8260
Benzene	ug/L	< 10		05/29/03	10	EPA8260
TCLP Zero Headspace Extract				05/22/03		EPA1311

VOC QCQA

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 20928 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.02 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0740
MATRIX:Extract SAMPLE: HPSA#45-01B
HPSA#45-01B
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/L	< 0.5		05/27/03	0.5	EPA8081
Endrin	ug/L	< 0.5		05/27/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		05/27/03	1	EPA8081
Toxaphene	ug/L	< 10		05/27/03	10	EPA8081
Chlordane	ug/L	< 2		05/27/03	2	EPA8081
Heptachlor	ug/L	< 0.5		05/27/03	0.5	EPA8081
eptachlor Epoxide	ug/L	< 0.5		05/27/03	0.5	EPA8081
2,4-D	ug/L	< 1		05/28/03	1	EPA8151
2,4,5-TP	ug/L	< 0.5		05/28/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	< 10		05/27/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	< 10		05/27/03	10	EPA8270
4-Methylphenol (p-cresol)	ug/L	< 10		05/27/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		05/27/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		05/27/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		05/27/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		05/27/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		05/27/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		05/27/03	10	EPA8270
Hexachloroethane	ug/L	< 10		05/27/03	10	EPA8270
Nitrobenzene	ug/L	< 10		05/27/03	10	EPA8270
Pyridine	ug/L	< 10		05/27/03	10	EPA8270
TCLP Extraction				05/23/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.02 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0740
MATRIX:Extract SAMPLE: HPSA#45-01B
HPSA#45-01B
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	< 0.05		05/27/03	0.05	EPA6010
Barium as Ba	mg/L	0.18	*	05/27/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		05/27/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		05/27/03	0.05	EPA6010
Lead as Pb	mg/L	0.46		05/27/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		05/28/03	0.001	EPA7470A
Selenium as Se	mg/L	< 0.1		05/27/03	0.1	EPA6010
Silver as Ag	mg/L	< 0.05		05/27/03	0.05	EPA6010
TCLP Extraction				05/22/03		EPA1311

Metals, QCQA

cc:

LRL=laboratory Reporting Limit

REMARKS: *Blank corrected.

DIRECTOR

rn = 20930 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.02 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0740
MATRIX:Soil SAMPLE: HPSA#45-01B
HPSA#45-01B

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	8800		05/28/03	3703.7	EPA8270
2-Methylnaphthalene	ug/Kg	3100	$	05/28/03	3703.7	EPA8270
Acenaphthylene	ug/Kg	4000		05/28/03	3703.7	EPA8270
Acenaphthene	ug/Kg	5700		05/28/03	3703.7	EPA8270
Fluorene	ug/Kg	17000		05/28/03	3703.7	EPA8270
Phenanthrene	ug/Kg	64000		05/28/03	3703.7	EPA8270
Anthracene	ug/Kg	21000		05/28/03	3703.7	EPA8270
Fluoranthene	ug/Kg	59000		05/28/03	3703.7	EPA8270
Pyrene	ug/Kg	51000		05/28/03	3703.7	EPA8270
Benzo(a)anthracene	ug/Kg	22000		05/28/03	3703.7	EPA8270
Chrysene	ug/Kg	21000		05/28/03	3703.7	EPA8270
Benzo(b)fluoranthene	ug/Kg	14000	#	05/28/03	3703.7	EPA8270
Benzo(k)fluoranthene	ug/Kg	14000	#	05/28/03	3703.7	EPA8270
Benzo(a)pyrene	ug/Kg	20000		05/28/03	3703.7	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	7700		05/28/03	3703.7	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	2300	$	05/28/03	3703.7	EPA8270
Benzo(ghi)perylene	ug/Kg	8500		05/28/03	3703.7	EPA8270

Base Neutrals QAQC

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 28000 ug/Kg, unable to separate isomers.
$Reported below quantification.

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.02 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0740
MATRIX:Soil SAMPLE: HPSA#45-01B
HPSA#45-01B

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 49		05/28/03	49.382	EPA8082
Aroclor 1221	ug/Kg	< 49		05/28/03	49.382	EPA8082
Aroclor 1232	ug/Kg	< 49		05/28/03	49.382	EPA8082
Aroclor 1242	ug/Kg	< 49		05/28/03	49.382	EPA8082
Aroclor 1248	ug/Kg	< 49		05/28/03	49.382	EPA8082
Aroclor 1254	ug/Kg	< 49		05/28/03	49.382	EPA8082
Aroclor 1260	ug/Kg	220		05/28/03	49.382	EPA8082
Pest QAQC						
% Solids		81		05/23/03	0.1	SM182540G
Flash Point deg C		> 100		05/23/03	25	EPA1010
pH (lab) units		7.8		05/22/03	0.1	EPA9045C
Reactive cyanide	mg/Kg	< 2.5		05/27/03	2.4691	EPA335.4
Sulfide as S	mg/Kg	< 2.5		05/27/03	2.4691	EPA376.2
Petrol. Hydrocarbons	mg/Kg	680		05/29/03	2.4691	EPA418.1
Quality Control						

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 20932 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.03 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0755
MATRIX:Extract SAMPLE: HPSA#45-01C
HPSA#45-01C
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Carbon Tetrachloride	ug/L	< 10		05/29/03	10	EPA8260
Chlorobenzene	ug/L	< 10		05/29/03	10	EPA8260
Chloroform	ug/L	< 10		05/29/03	10	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 10		05/29/03	10	EPA8260
1,2 Dichloroethane	ug/L	< 10		05/29/03	10	EPA8260
,1 Dichloroethene	ug/L	< 10		05/29/03	10	EPA8260
ethyl Ethyl Ketone	ug/L	< 100		05/29/03	100	EPA8260
Tetrachloroethene	ug/L	< 10		05/29/03	10	EPA8260
Trichloroethylene	ug/L	< 10		05/29/03	10	EPA8260
Vinyl Chloride	ug/L	< 10		05/29/03	10	EPA8260
Benzene	ug/L	< 10		05/29/03	10	EPA8260
TCLP Zero Headspace Extract				05/22/03		EPA1311

VOC QCQA

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 20933 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.03 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0755
MATRIX:Extract SAMPLE: HPSA#45-01C
HPSA#45-01C
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/L	< 0.5		05/27/03	0.5	EPA8081
Endrin	ug/L	< 0.5		05/27/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		05/27/03	1	EPA8081
Toxaphene	ug/L	< 10		05/27/03	10	EPA8081
Chlordane	ug/L	< 2		05/27/03	2	EPA8081
Heptachlor	ug/L	< 0.5		05/27/03	0.5	EPA8081
Heptachlor Epoxide	ug/L	< 0.5		05/27/03	0.5	EPA8081
2,4-D	ug/L	< 1		05/28/03	1	EPA8151
2,4,5-TP	ug/L	< 0.5		05/28/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	< 10		05/27/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	< 10		05/27/03	10	EPA8270
4-Methylphenol (p-cresol)	ug/L	< 10		05/27/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		05/27/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		05/27/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		05/27/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		05/27/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		05/27/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		05/27/03	10	EPA8270
Hexachloroethane	ug/L	< 10		05/27/03	10	EPA8270
Nitrobenzene	ug/L	< 10		05/27/03	10	EPA8270
Pyridine	ug/L	< 10		05/27/03	10	EPA8270
TCLP Extraction				05/22/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 20934 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.03 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0755
MATRIX:Extract SAMPLE: HPSA#45-01C
HPSA#45-01C
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	< 0.05		05/27/03	0.05	EPA6010
Barium as Ba	mg/L	0.36	*	05/27/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		05/27/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		05/27/03	0.05	EPA6010
Lead as Pb	mg/L	1.2		05/27/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		05/28/03	0.001	EPA7470A
Selenium as Se	mg/L	< 0.1		05/27/03	0.1	EPA6010
Silver as Ag	mg/L	< 0.05		05/27/03	0.05	EPA6010
TCLP Extraction				05/22/03		EPA1311

Metals, QCQA

cc:

LRL=laboratory Reporting Limit

REMARKS: *Blank corrected.

DIRECTOR

rn = 20935 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.03 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0755
MATRIX:Soil SAMPLE: HPSA#45-01C
HPSA#45-01C

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	11000		05/28/03	3370.7	EPA8270
2-Methylnaphthalene	ug/Kg	4600		05/28/03	3370.7	EPA8270
Acenaphthylene	ug/Kg	4400		05/28/03	3370.7	EPA8270
Acenaphthene	ug/Kg	6900		05/28/03	3370.7	EPA8270
Fluorene	ug/Kg	19000		05/28/03	3370.7	EPA8270
Phenanthrene	ug/Kg	62000		05/28/03	3370.7	EPA8270
Anthracene	ug/Kg	20000		05/28/03	3370.7	EPA8270
Fluoranthene	ug/Kg	55000		05/28/03	3370.7	EPA8270
Pyrene	ug/Kg	45000		05/28/03	3370.7	EPA8270
Benzo(a)anthracene	ug/Kg	20000		05/28/03	3370.7	EPA8270
Chrysene	ug/Kg	19000		05/28/03	3370.7	EPA8270
Benzo(b)fluoranthene	ug/Kg	14000	#	05/28/03	3370.7	EPA8270
Benzo(k)fluoranthene	ug/Kg	14000	#	05/28/03	3370.7	EPA8270
Benzo(a)pyrene	ug/Kg	18000		05/28/03	3370.7	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	7000		05/28/03	3370.7	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	2200	$	05/28/03	3370.7	EPA8270
Benzo(ghi)perylene	ug/Kg	7900		05/28/03	3370.7	EPA8270

Base Neutrals QAQC

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 28000 ug/Kg, unable to separate isomers.
$Reported below quantification.

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.232494.03 05/29/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: 8150 Hunts Point
SOURCE OF SAMPLE: 8150 Hunts Point
COLLECTED BY: Client DATE COL'D:05/21/03 RECEIVED:05/22/03
TIME COL'D:0755
MATRIX:Soil SAMPLE: HPSA#45-01C
HPSA#45-01C

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1221	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1232	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1242	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1248	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1254	ug/Kg	< 45		05/28/03	44.943	EPA8082
Aroclor 1260	ug/Kg	190		05/28/03	44.943	EPA8082
Pest QAQC						
% Solids		89		05/23/03	0.1	SM18#2540G
Flash Point deg C		> 100		05/23/03	25	EPA1010
pH (lab) units		7.8		05/22/03	0.1	EPA9045C
Reactive cyanide	mg/Kg	< 2.2		05/27/03	2.2471	EPA335.4
Sulfide as S	mg/Kg	< 2.2		05/27/03	2.2471	EPA376.2
Petrol. Hydrocarbons	mg/Kg	810		05/29/03	2.2471	EPA418.1
Quality Control						

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233095.01 06/30/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/23/03 RECEIVED:06/25/03
TIME COL'D:1450
MATRIX:Extract SAMPLE: SA#4 Special
SA#4 Special
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Carbon Tetrachloride	ug/L	< 10		06/27/03	10	EPA8260
Chlorobenzene	ug/L	< 10		06/27/03	10	EPA8260
Chloroform	ug/L	< 10		06/27/03	10	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 10		06/27/03	10	EPA8260
1,2 Dichloroethane	ug/L	< 10		06/27/03	10	EPA8260
1,1 Dichloroethene	ug/L	< 10		06/27/03	10	EPA8260
Methyl Ethyl Ketone	ug/L	< 100		06/27/03	100	EPA8260
Tetrachloroethene	ug/L	< 10		06/27/03	10	EPA8260
Trichloroethylene	ug/L	< 10		06/27/03	10	EPA8260
Vinyl Chloride	ug/L	< 10		06/27/03	10	EPA8260
Benzene	ug/L	< 10		06/27/03	10	EPA8260
TCLP Zero Headspace Extract				06/25/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR ____________

rn = 25[illegible]55 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO:233095.01 06/30/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/23/03 RECEIVED:06/25/03
TIME COL'D:1450
MATRIX:Extract SAMPLE: SA#4 Special
SA#4 Special
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/L	< 0.5		06/26/03	0.5	EPA8081
Endrin	ug/L	< 0.5		06/26/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		06/26/03	1	EPA8081
Toxaphene	ug/L	< 10		06/26/03	10	EPA8081
Chlordane	ug/L	< 2		06/26/03	2	EPA8081
Heptachlor	ug/L	< 0.5		06/26/03	0.5	EPA8081
Heptachlor Epoxide	ug/L	< 0.5		06/26/03	0.5	EPA8081
2,4-D	ug/L	< 100		06/28/03	100	EPA8151
2,4,5-TP	ug/L	< 0.5		06/27/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	< 10		06/27/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	< 10		06/27/03	10	EPA8270
4-Methylphenol (p-cresol)	ug/L	< 10		06/27/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		06/27/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		06/27/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		06/27/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		06/27/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		06/27/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		06/27/03	10	EPA8270
Hexachloroethane	ug/L	< 10		06/27/03	10	EPA8270
Nitrobenzene	ug/L	< 10		06/27/03	10	EPA8270
Pyridine	ug/L	140		06/27/03	10	EPA8270
TCLP Extraction				06/25/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233095.01 06/30/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/23/03 RECEIVED:06/25/03
TIME COL'D:1450
MATRIX:Extract SAMPLE: SA#4 Special
SA#4 Special
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	< 0.25		06/30/03	0.25	EPA6010
Barium as Ba	mg/L	< 0.05		06/27/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		06/27/03	0.05	EPA6010
Chromium as Cr	mg/L	0.36		06/27/03	0.05	EPA6010
Lead as Pb	mg/L	< 0.05		06/27/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		06/27/03	0.001	EPA7470A
Selenium as Se	mg/L	< 1		06/30/03	1	EPA6010
Silver as Ag	mg/L	< 0.05		06/27/03	0.05	EPA6010
TCLP Extraction				06/25/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 25457 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233095.01 06/30/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/23/03 RECEIVED:06/25/03
TIME COL'D:1450

MATRIX:Soil SAMPLE: SA#4 Special
SA#4 Special
Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	740		06/27/03	416.66	EPA8270
2-Methylnaphthalene	ug/Kg	960		06/27/03	416.66	EPA8270
Acenaphthylene	ug/Kg	890		06/27/03	416.66	EPA8270
Acenaphthene	ug/Kg	< 420		06/27/03	416.66	EPA8270
Fluorene	ug/Kg	3200		06/27/03	416.66	EPA8270
Phenanthrene	ug/Kg	14000		06/27/03	416.66	EPA8270
Anthracene	ug/Kg	3800		06/27/03	416.66	EPA8270
Fluoranthene	ug/Kg	6500		06/27/03	416.66	EPA8270
Pyrene	ug/Kg	6500		06/27/03	416.66	EPA8270
Benzo(a)anthracene	ug/Kg	3500		06/27/03	416.66	EPA8270
Chrysene	ug/Kg	3200		06/27/03	416.66	EPA8270
Benzo(b)fluoranthene	ug/Kg	2200	#	06/27/03	416.66	EPA8270
Benzo(k)fluoranthene	ug/Kg	2200	#	06/27/03	416.66	EPA8270
Benzo(a)pyrene	ug/Kg	2500		06/27/03	416.66	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	1100		06/27/03	416.66	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	490		06/27/03	416.66	EPA8270
Benzo(ghi)perylene	ug/Kg	1100		06/27/03	416.66	EPA8270
% Solids		72		06/27/03	0.1	SM18\2540G

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 4400 ug/Kg, unable to separate isomers.

DIRECTOR

rn = 25458 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233095.01 06/30/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/23/03 RECEIVED:06/25/03
TIME COL'D:1450
MATRIX:Soil SAMPLE: SA#4 Special
SA#4 Special
Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 56		06/27/03	55.555	EPA8082
Aroclor 1221	ug/Kg	< 56		06/27/03	55.555	EPA8082
Aroclor 1232	ug/Kg	< 56		06/27/03	55.555	EPA8082
Aroclor 1242	ug/Kg	< 56		06/27/03	55.555	EPA8082
Aroclor 1248	ug/Kg	< 56		06/27/03	55.555	EPA8082
Aroclor 1254	ug/Kg	< 56		06/27/03	55.555	EPA8082
Aroclor 1260	ug/Kg	< 56		06/27/03	55.555	EPA8082
Flash Point deg C		> 100		06/27/03	25	EPA1010
pH (lab) units		2.8		06/25/03	0.1	EPA9045C
Reactive cyanide	mg/Kg	< 2.8		06/27/03	2.7777	EPA335.4
Sulfide as S	mg/Kg	< 2.8		06/27/03	2.7777	EPA376.2
Petrol. Hydrocarbons	mg/Kg	400		06/27/03	66.666	EPA418.1

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 25459 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233095.02 06/30/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/23/03 RECEIVED:06/25/03
TIME COL'D:1400

MATRIX:Extract SAMPLE: RR1100
RR1100
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Carbon Tetrachloride	ug/L	< 10		06/27/03	10	EPA8260
Chlorobenzene	ug/L	< 10		06/27/03	10	EPA8260
Chloroform	ug/L	< 10		06/27/03	10	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 10		06/27/03	10	EPA8260
1,2 Dichloroethane	ug/L	< 10		06/27/03	10	EPA8260
1,1 Dichloroethene	ug/L	< 10		06/27/03	10	EPA8260
Methyl Ethyl Ketone	ug/L	< 100		06/27/03	100	EPA8260
Tetrachloroethene	ug/L	< 10		06/27/03	10	EPA8260
Trichloroethylene	ug/L	< 10		06/27/03	10	EPA8260
Vinyl Chloride	ug/L	< 10		06/27/03	10	EPA8260
Benzene	ug/L	< 10		06/27/03	10	EPA8260
TCLP Zero Headspace Extract				06/25/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 25460 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233095.02 06/30/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/23/03 RECEIVED:06/25/03
TIME COL'D:1400

MATRIX:Extract SAMPLE: RR1100
RR1100 > Trench 11+00
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/L	< 0.5		06/26/03	0.5	EPA8081
Endrin	ug/L	< 0.5		06/26/03	0.5	EPA8081
Methoxychlor	ug/L	< 1		06/26/03	1	EPA8081
Toxaphene	ug/L	< 10		06/26/03	10	EPA8081
Chlordane	ug/L	< 2		06/26/03	2	EPA8081
Heptachlor	ug/L	< 0.5		06/26/03	0.5	EPA8081
Heptachlor Epoxide	ug/L	< 0.5		06/26/03	0.5	EPA8081
2,4-D	ug/L	< 100		06/28/03	100	EPA8151
2,4,5-TP	ug/L	< 0.5		06/27/03	0.5	EPA8151
2-Methylphenol (o-cresol)	ug/L	< 10		06/27/03	10	EPA8270
3-Methylphenol (m-cresol)	ug/L	< 10		06/27/03	10	EPA8270
4-Methylphenol (p-cresol)	ug/L	< 10		06/27/03	10	EPA8270
Pentachlorophenol (ms)	ug/L	< 100		06/27/03	100	EPA8270
2,4,5-Trichlorophenol	ug/L	< 10		06/27/03	10	EPA8270
2,4,6-Trichlorophenol	ug/L	< 10		06/27/03	10	EPA8270
2,4-Dinitrotoluene	ug/L	< 10		06/27/03	10	EPA8270
Hexachlorobenzene	ug/L	< 10		06/27/03	10	EPA8270
Hexachlorobutadiene	ug/L	< 10		06/27/03	10	EPA8270
Hexachloroethane	ug/L	< 10		06/27/03	10	EPA8270
Nitrobenzene	ug/L	< 10		06/27/03	10	EPA8270
Pyridine	ug/L	41		06/27/03	10	EPA8270
TCLP Extraction				06/25/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 25461 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233095.02 06/30/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/29/03 RECEIVED:06/25/03
TIME COL'D:1400

MATRIX:Extract SAMPLE: RR1100
RR1100
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	< 0.25		06/30/03	0.25	EPA6010
Barium as Ba	mg/L	0.14		06/27/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		06/27/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		06/27/03	0.05	EPA6010
Lead as Pb	mg/L	< 0.05		06/27/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		06/27/03	0.001	EPA7470A
Selenium as Se	mg/L	< 1		06/30/03	1	EPA6010
Silver as Ag	mg/L	< 0.05		06/27/03	0.05	EPA6010
TCLP Extraction				06/25/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 25462 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233095.02 06/30/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/23/03 RECEIVED:06/25/03
TIME COL'D:1400
MATRIX:Soil SAMPLE: RR1100
RR1100

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Naphthalene(sv)	ug/Kg	710		06/27/03	410.95	EPA8270
2-Methylnaphthaleno	ug/Kg	< 410		06/27/03	410.95	EPA8270
Acenaphthylene	ug/Kg	1500		06/27/03	410.95	EPA8270
Acenaphthene	ug/Kg	< 410		06/27/03	410.95	EPA8270
Fluorene	ug/Kg	4100		06/27/03	410.95	EPA8270
Phenanthrene	ug/Kg	13000		06/27/03	410.95	EPA8270
Anthracene	ug/Kg	3600		06/27/03	410.95	EPA8270
Fluoranthene	ug/Kg	3600		06/27/03	410.95	EPA8270
Pyrene	ug/Kg	3200		06/27/03	410.95	EPA8270
Benzo(a)anthracene	ug/Kg	1900		06/27/03	410.95	EPA8270
Chrysene	ug/Kg	1800		06/27/03	410.95	EPA8270
Benzo(b)fluoranthene	ug/Kg	1400	#	06/27/03	410.95	EPA8270
Benzo(k)fluoranthene	ug/Kg	1400	#	06/27/03	410.95	EPA8270
Benzo(a)pyrene	ug/Kg	1600		06/27/03	410.95	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	640		06/27/03	410.95	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	< 410		06/27/03	410.95	EPA8270
Benzo(ghi)perylene	ug/Kg	600		06/27/03	410.95	EPA8270
% Solids		73		06/27/03	0.1	SM18 2540G

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 2800 ug/Kg, unable to separate isomers.

DIRECTOR

rn = 2[illegible]463 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon. NY 11703
631 422-5777

06/30/03

LAB NO.233095.02

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008

ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point Area "C"
SOURCE OF SAMPLE: Hunts Point Area "C"
COLLECTED BY: Client DATE COL'D:06/23/03 RECEIVED:06/25/03
TIME COL'D:1400

MATRIX:Soil SAMPLE: RR1100
RR1100

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Aroclor 1016	ug/Kg	< 55		06/27/03	54.794	EPA8082
Aroclor 1221	ug/Kg	< 55		06/27/03	54.794	EPA8082
Aroclor 1232	ug/Kg	< 55		06/27/03	54.794	EPA8082
Aroclor 1242	ug/Kg	< 55		06/27/03	54.794	EPA8082
Aroclor 1248	ug/Kg	< 55		06/27/03	54.794	EPA8082
Aroclor 1254	ug/Kg	< 55		06/27/03	54.794	EPA8082
Aroclor 1260	ug/Kg	< 55		06/27/03	54.794	EPA8082
Flash Point	deg C	> 100		06/27/03	25	EPA1010
pH (lab)	units	5.5		06/25/03	0.1	EPA9045C
Reactive cyanide	mg/Kg	< 2.7		06/27/03	2.7397	EPA335.4
Sulfide as S	mg/Kg	< 2.7		06/27/03	2.7397	EPA376.2
Petrol. Hydrocarbons	mg/Kg	160		06/27/03	65.753	EPA418.1

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 25464 NYSDOH ID # 10320

Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233522.00 07/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point
SOURCE OF SAMPLE: Hunts Point
COLLECTED BY: Client DATE COL'D:07/16/03 RECEIVED:07/17/03
TIME COL'D:1000
MATRIX:Extract SAMPLE: EDC71603
EDC71603
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Carbon Tetrachloride	ug/L	< 1		07/18/03	1	EPA8260
Chlorobenzene	ug/L	< 1		07/18/03	1	EPA8260
Chloroform	ug/L	< 1		07/18/03	1	EPA8260
1,4 Dichlorobenzene (v)	ug/L	< 1		07/18/03	1	EPA8260
1,2 Dichloroethane	ug/L	< 1		07/18/03	1	EPA8260
1,1 Dichloroethene	ug/L	< 1		07/18/03	1	EPA8260
Methyl Ethyl Ketone	ug/L	< 10		07/18/03	10	EPA8260
Tetrachloroethene	ug/L	< 1		07/18/03	1	EPA8260
Trichloroethylene	ug/L	< 1		07/18/03	1	EPA8260
Vinyl Chloride	ug/L	< 1		07/18/03	1	EPA8260
Benzene	ug/L	< 1		07/18/03	1	EPA8260
TCLP Zero Headspace Extract				07/17/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 29041 NYSDOH ID # 10320

ECOTEST LABORATORIES, INC. *ENVIRONMENTAL TESTING*
377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (631) 422-5777• FAX (631) 422-5770
Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO.233522.00 07/23/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point
SOURCE OF SAMPLE: Hunts Point
COLLECTED BY: Client DATE COL'D:07/16/03 RECEIVED:07/17/03
TIME COL'D:1000

MATRIX:Extract SAMPLE: EDC71603
EDC71603
TCLP

YTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
ane	ug/L	< 0.5		07/18/03	0.5	EPA8081
in	ug/L	< 0.5		07/18/03	0.5	EPA8081
oxychlor	ug/L	< 1		07/18/03	1	EPA8081
phene	ug/L	< 10		07/18/03	10	EPA8081
rdane	ug/L	< 2		07/18/03	2	EPA8081
achlor	ug/L	< 0.5		07/18/03	0.5	EPA8081
achlor Epoxide	ug/L	< 0.5		07/18/03	0.5	EPA8081
)	ug/L	< 1		07/20/03	1	EPA8151
)P	ug/L	< 0.5		07/20/03	0.5	EPA8151
.hylphenol (o-cresol)	ug/L	< 10		07/18/03	10	EPA8270
hylphenol (m-cresol)	ug/L	< 10		07/18/03	10	EPA8270
hylphenol (p-cresol)	ug/L	< 10		07/18/03	10	EPA8270
achlorophenol (ms)	ug/L	< 100		07/18/03	100	EPA8270
5-Trichlorophenol	ug/L	< 10		07/18/03	10	EPA8270
-Trichlorophenol	ug/L	< 10		07/18/03	10	EPA8270
)initrotoluene	ug/L	< 10		07/18/03	10	EPA8270
.hlorobenzene	ug/L	< 10		07/18/03	10	EPA8270
hlorobutadiene	ug/L	< 10		07/18/03	10	EPA8270
.hloroethane	ug/L	< 10		07/18/03	10	EPA8270
benzene	ug/L	< 10		07/18/03	10	EPA8270
ine	ug/L	< 10		07/18/03	10	EPA8270
Extraction				07/17/03		EPA1311

cc:

LRL=Laboratory Reporting Limit

REMARKS:

DIRECTOR

9

rn = 29042 NYSDOH ID # 10320

Suffolk Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233522.00 07/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point
SOURCE OF SAMPLE: Hunts Point
COLLECTED BY: Client DATE COL'D:07/16/03 RECEIVED:07/17/03
TIME COL'D:1000
MATRIX:Extract SAMPLE: EDC71603
EDC71603
TCLP

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Arsenic as As	mg/L	0.32		07/21/03	0.05	EPA6010
Barium as Ba	mg/L	0.37		07/21/03	0.05	EPA6010
Cadmium as Cd	mg/L	< 0.05		07/21/03	0.05	EPA6010
Chromium as Cr	mg/L	< 0.05		07/21/03	0.05	EPA6010
Lead as Pb	mg/L	< 0.05		07/21/03	0.05	EPA6010
Mercury as Hg	mg/L	< 0.001		07/18/03	0.001	EPA7470A
Selenium as Se	mg/L	< 0.1		07/21/03	0.1	EPA6010
Silver as Ag	mg/L	< 0.05		07/21/03	0.05	EPA6010
TCLP Extraction				07/17/03		EPA1311

cc:

LRL=laboratory Reporting Limit

REMARKS:

DIRECTOR

rn = 29043 NYSDOH ID # 10320

Chemtest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233522.00 07/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland PO#:

SOURCE OF SAMPLE: Hunts Point
SOURCE OF SAMPLE: Hunts Point
COLLECTED BY: Client DATE COL'D:07/16/03 RECEIVED:07/17/03
TIME COL'D:1000
MATRIX:Soil SAMPLE: EDC71603
EDC71603

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL *METHOD
Naphthalene(sv)	ug/Kg	7100		07/21/03	379.74	EPA8270
2-Methylnaphthalene	ug/Kg	1500		07/21/03	379.74	EPA8270
Acenaphthylene	ug/Kg	4800		07/21/03	379.74	EPA8270
Acenaphthene	ug/Kg	2500		07/21/03	379.74	EPA8270
Fluorene	ug/Kg	5200		07/21/03	379.74	EPA8270
Phenanthrene	ug/Kg	23000		07/21/03	379.74	EPA8270
Anthracene	ug/Kg	6700		07/21/03	379.74	EPA8270
Fluoranthene	ug/Kg	27000		07/21/03	379.74	EPA8270
Pyrene	ug/Kg	34000		07/21/03	379.74	EPA8270
Benzo(a)anthracene	ug/Kg	16000		07/21/03	379.74	EPA8270
Chrysene	ug/Kg	15000		07/21/03	379.74	EPA8270
Benzo(b)fluoranthene	ug/Kg	15000	#	07/21/03	379.74	EPA8270
Benzo(k)fluoranthene	ug/Kg	15000	#	07/21/03	379.74	EPA8270
Benzo(a)pyrene	ug/Kg	19000		07/21/03	379.74	EPA8270
Indeno(1,2,3-cd)pyrene	ug/Kg	6700		07/21/03	379.74	EPA8270
Dibenzo(a,h)anthracene	ug/Kg	3400		07/21/03	379.74	EPA8270
Benzo(ghi)perylene	ug/Kg	6800		07/21/03	379.74	EPA8270

cc:

LRL=laboratory Reporting Limit

REMARKS: #Total = 24000 ug/Kg, unable to separate isomers.

*RESULTS REPORTED ON A WET-WEIGHT BASIS.

DIRECTOR

Suffolk Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.233522.00

07/21/03

Code Environmental Services, Inc.
400 Middlesex Avenue
Carteret, NJ 07008
ATTN: Bill Ireland

PO#:

SOURCE OF SAMPLE: Hunts Point
SOURCE OF SAMPLE: Hunts Point
COLLECTED BY: Client

DATE COL'D:07/16/03 RECEIVED:07/17/03
TIME COL'D:1000

MATRIX:Soil SAMPLE: EDC71603
EDC71603

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Benzene	ug/Kg	< 6.3		07/21/03	6.3291	EPA8021
Toluene	ug/Kg	< 6.3		07/21/03	6.3291	EPA8021
Ethyl Benzene	ug/Kg	< 6.3		07/21/03	6.3291	EPA8021
m + p Xylene	ug/Kg	< 13		07/21/03	12.658	EPA8021
o Xylene	ug/Kg	< 6.3		07/21/03	6.3291	EPA8021
% Solids		79		07/18/03	0.1	SM18**540G
Petrol. Hydrocarbons	mg/Kg	330		07/21/03	30.379	EPA418.1
Flash Point deg C		> 100		07/18/03	25	EPA1010
pH (lab) units		7.4		07/17/03	0.1	EPA9045C
Reactive cyanide	mg/Kg	< 2.5		07/17/03	2.5316	EPA335.4
Sulfide as S	mg/Kg	< 2.5		07/21/03	2.5316	EPA376.2
Tot.Organic Halogens	mg/Kg	< 13	*	07/21/03	12.658	EPA9020
Aroclor 1016	ug/Kg	< 510		07/21/03	506.32	EPA8082
Aroclor 1221	ug/Kg	< 510		07/21/03	506.32	EPA8082
Aroclor 1232	ug/Kg	< 510		07/21/03	506.32	EPA8082
Aroclor 1242	ug/Kg	< 510		07/21/03	506.32	EPA8082
Aroclor 1248	ug/Kg	< 510		07/21/03	506.32	EPA8082
Aroclor 1254	ug/Kg	< 510		07/21/03	506.32	EPA8082
Aroclor 1260	ug/Kg	< 510		07/21/03	506.32	EPA8082

cc:

LRL=laboratory Reporting Limit

REMARKS: * By ELAP Lab 11693.

DIRECTOR

rn = 29045 NYSDOH ID # 10320