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-FINAL-

INTERIM REMEDIAL MEASURE (IRM) COMPLETION REPORT

For the:

GREENPOINT ENERGY CENTER
SITE No: V006312, NORTTHEAST CORNER

Greenpoint, Brooklyn, New York

Submitted by:

KEYSPAN CORPORATION

One MetroTech Center, Brooklyn, New York

JUNE 2006

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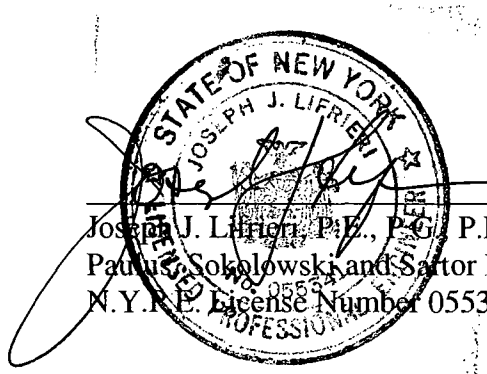
PROFESSIONAL ENGINEER'S CERTIFICATION

The activities implemented for the Interim Remedial Measure were completed in substantial conformance with the NYSDEC approved Interim Remedial Action Work Plan (Work Plan), NYSDEC correspondence dated March 31, 2005 and the Work Plan modifications and expansions indicated in this Report. I have personally examined and am familiar with the attached IRM Completion Report. To the best of my knowledge, the contents of the report are accurate, complete and sufficient in documenting the Interim Remedial Measure completed for the Greenpoint Energy Center, Northeast Corner, in accordance with the NYSDEC approved Work Plan.

June 16, 2006
Date



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EXECUTIVE SUMMARY

Paulus, Sokolowski and Sartor Engineering, PC (PS&SPC), on behalf of KeySpan Corporation (KeySpan), has prepared this Interim Remedial Measure (IRM) Completion Report (Report) to document the completion of the IRM at the Northeast Corner of the Greenpoint Energy Center, located in the Greenpoint section of Brooklyn, New York. The location of the Greenpoint Energy Center and the IRM area are depicted on Figures 1 and 2, respectively. The Figures referenced in this Report are included in Appendix A.

The IRM activities have been implemented in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved March 2005 Interim Remedial Action Work Plan (IRAWP) and the requirements set forth in the Voluntary Cleanup Agreement with the NYSDEC, Site No. V006312. Modification and expansions to the IRAWP are detailed in Section 4.5 of this Report.

The IRM was conducted within the Northeast Corner of the Greenpoint Energy Center in order to eliminate exposure pathways to site soils with contaminant concentrations in excess of established cleanup standards and to remove grossly contaminated soils and other potential contaminated material that could serve as a potential source of contaminant soil gas. Completion of the IRM ensures the protection of human health and the environment and provides for a permanent solution within the remedial area that is protective of the health of current and future workers and residents.

KeySpan presently operates a Liquefied Natural Gas (LNG) plant at the Greenpoint Energy Center. The LNG plant was constructed in 1968 with various additions over the years. Currently, the plant has a liquefaction capacity of 5.9 million standard cubic feet per day (scfd), a vaporization capacity of 280 million scfd and a storage capacity of 1600 million scf. The Greenpoint Energy Center formerly functioned as a large manufactured gas plant (MGP) and byproduct coking operation from 1928 until 1952. In addition, it has served as a major energy center for New York City, including support services for gas operations and production of LNG.

A review of historical property maps indicates that structures related to the former MGP and associated operations have, over time, occupied most of the current Greenpoint Energy Center, with the exception of the IRM area in the Northeast Corner. Within the Northeast Corner, only a small oil unloading pump house located near the intersection of Lombardy Street and Newtown Creek, has been identified to have existed east of and outside of the remedial area. The environmental soil cap will be effective in preventing

Remedial investigation activities were conducted in March 2004, November and December 2004 and January 2005. A total of 32 soil borings, seven test pits, ten monitoring wells and six soil gas sampling locations were installed during the remedial investigation program. Soil sample analytical results revealed the presence of metals, semivolatile organic and volatile organic compounds (SVOCs and VOCs) at levels typical of industrial sites. Visual observations of soil indicated the presence of MGP tar related impacts. The soil gas sampling revealed the presence of naphthalene and other VOCs. Groundwater analytical results revealed concentrations of

VOCs, SVOCs, arsenic and cyanide in excess of applicable Standards, Criteria and Guidelines (SCGs) in monitoring wells within the investigation area. A summary of the remedial investigation results are presented in the March 2005 IRAWP and summarized in Section 3.0 of this Report.

Implementation of IRM activities commenced with mobilization on April 15, 2005 and concluded with restoration activities on June 17, 2005. The completed IRM work effort included the following:

- Removal of approximately 9,900 tons of impacted soils that were classified as non-hazardous waste for transport and thermal treatment at Clean Earth of New Castle, Delaware;
- Removal of approximately 408 tons of debris consisting primarily of demolished roadway asphalt and cement piping for transportation and disposal at Bayshore Recycling Corp. of Keasbey, New Jersey;
- Backfilling and compaction of excavation areas using certified clean course aggregate to pre-existing grades (i.e., environmental soil cap);
- Placement of a crushed stone cover consisting of 12-inches of ¾ inch stone located along the eastern portion of the remedial area;
- Re-construction of the pre-existing asphalt roadway using certified clean fill (i.e., road-base material) consisting of crushed ledge rock; and
- Installation of a protective stone cover over the eastern extent of the existing soil berm using 7-inch diameter riprap stone.

A complete description of these activities is provided in Section 5.0 of this Report. Refer to Figure 5, Post-Remedial Action Overall Site Plan, for a depiction of post-IRM site conditions. Based upon completion of the activities described in this Report, the IRM was successful in removing the identified materials from the IRM area. The environmental soil cap will be effective in preventing exposure to residual soil contaminants and supports the industrial use of the Northeast Corner.

As a result of the IRM field activities, the following actions are recommended:

- All future site related construction activities that result in potential exposure to site soils below the existing environmental soil cap or crushed stone cover should be evaluated to determine if construction personnel must conform to 29 CFR 1910.120 Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) Training requirements;
- All future site related construction activities that are intrusive in nature should be performed in accordance with a Health and Safety Plan that conforms to the requirements of the OSHA HAZWOPER standard; and
- An Operation, Monitoring, and Maintenance (OM&M) Plan should be prepared that addresses the monitoring of the existing environmental soil cap and crushed stone cover on a periodic basis and contains guidelines for maintenance and repair activities.

These recommendations are presented in Section 10.0 of this Report.

This Report is organized into ten sections. Section 1.0, Introduction, provides a regulatory overview of the IRM and states the IRM objectives. Section 2.0, Site Background, describes the remedial area and the surrounding area. Section 3.0, Remedial Investigation Summary, summarizes the previous investigations performed in the Northeast Corner. Section 4.0, Remedial Action Approach, summarizes the interim remedial actions proposed in March 2005 IRAWP and describes the limited modifications and expansions that were made to the IRM field effort. Section 5.0, Implementation of the Proposed Interim Remedial Actions, presents a comprehensive summary of the interim remedial actions that were implemented. Section 6.0, Site Restoration Activities, describes the restoration activities conducted within the remedial area. Section 7.0, Construction Costs, describes the approximate construction costs for the IRM activities. Section 8.0, Construction As-Builts, describes the post-remedial surveying activities conducted within the remedial area. Section 9.0, Manifests, provides a tabulation of the various wastes generated during implementation of the IRM activities. Finally, Section 10.0, Conclusions and Recommendations, presents the findings and conclusions that have been derived from the performance of the IRM.

1.0 INTRODUCTION

Paulus, Sokolowski and Sartor Engineering, PC (PS&SPC), on behalf of KeySpan Corporation (KeySpan), has prepared this Interim Remedial Measure (IRM) Completion Report (Report) to document completed remedial activities undertaken within the Northeast Corner of the Greenpoint Energy Center. The Greenpoint Energy Center is located at the intersection of Vandervoort Avenue and Maspeth Avenue in the Greenpoint section of Brooklyn, New York. The location of the Greenpoint Energy Center and the remedial area are depicted on Figures 1 and 2, respectively. The Figures referenced in this Report are included in Appendix A.

The Greenpoint Energy Center is bounded to the north by Lombardy Street, to the east by Newtown Creek, to the south by Maspeth Avenue and to the west by Vandervoort Avenue. The remedial area is located north of and away from a former manufactured gas plant (MGP) that was located at the Greenpoint Energy Center. This remedial area is not known to have been part of any of the former Greenpoint Energy Center operational activities or the former MGP activities.

The remedial activities were proposed to the New York State Department of Environmental Conservation (NYSDEC) in a work plan entitled "Interim Remedial Action Work Plan for the Greenpoint Energy Center, Northeast Corner – Greenpoint, Brooklyn, New York" prepared by PS&SPC and dated March 2005 (March 2005 IRAWP). The IRM was implemented in accordance with the provisions of the NYSDEC approved IRAWP in conjunction with correspondence from NYSDEC dated March 31, 2005, the Work Plan modifications and expansions indicated in this Report, and the requirements set forth in the Voluntary Cleanup Agreement with the NYSDEC, Site No. V006312.

1.1 Interim Remedial Measure Objectives

The IRM activities involved the removal of impacted soils, construction of an environmental soil cover, and restoration of the site to support future site related construction activities. The remedial objectives for the completed IRM were as follows:

1. To protect human health by eliminating the potential for direct contact with soils exhibiting contaminant concentrations above established soil cleanup standards;

2. To protect human health and the environment by removing grossly contaminated soils; and

3. To support future site related construction activities.

1.2 Interim Remedial Measure Completion Report Organization

This Report is organized in accordance with the following sections:

- Section 1.0 – INTRODUCTION: This section of the Report provides a regulatory overview as well as the objectives of the IRM.
- Section 2.0 – SITE DESCRIPTION: This section provides a description of the Greenpoint Energy Center and surrounding area.
- Section 3.0 – REMEDIAL INVESTIGATION SUMMARY: This section provides a summary of previous investigations performed within the remedial area.
- Section 4.0 – PROPOSED INTERIM REMEDIAL MEASURES: This section summarizes the interim remedial measures that were proposed in the March 2005 IRAWP. This section also includes a description of limited modifications and expansions that were made to the March 2005 IRAWP.
- Section 5.0 – IMPLEMENTATION OF THE PROPOSED INTERIM REMEDIAL MEASURES: This section presents a comprehensive summary of the interim remedial measures that were conducted between April and June 2005.
- Section 6.0 – SITE RESTORATION ACTIVITIES: This section describes the post-remedial restoration activities completed within the IRM area. Documentation regarding the source and quality of fill materials utilized to backfill excavations and restore the area is included in this section.
- Section 7.0 – CONSTRUCTION COSTS: This section describes the approximate construction costs for the completed remedial activities.
- Section 8.0 – CONSTRUCTION AS-BUILTS: This section describes the post-remedial surveying activities that were conducted within the remedial area.
- Section 9.0 – MANIFESTS: A tabulation of the amounts of the various wastes generated during the implementation of the remedial activities as well as documentation concerning the off-site disposal of these wastes is provided in this section.
- Section 10.0 – CONCLUSIONS AND RECOMMENDATIONS: This section presents the findings and conclusions that have been derived from the performance of the IRM.

2.0 SITE BACKGROUND

This section provides general information regarding the Greenpoint Energy Center setting and the immediately surrounding area. Also included is a description of the land use and operating history of the Greenpoint Energy Center.

2.1 Site Description

The Greenpoint Energy Center is located in the Greenpoint section of Brooklyn, New York. The surrounding area is dominated by industrial and commercial uses with the exception of a residential area near Beadel Street located to the northwest. To the north of the Greenpoint Energy Center (along Lombardy Street) are commercial enterprises (i.e., a trucking company, a construction and demolition debris recycling plant and a solid waste transfer facility).

The remedial area is located in the Northeast Corner of the Greenpoint Energy Center (Northeast Corner). This area consists of elevated terrain surrounding a relatively flat area with a slight slope to the east towards Newtown Creek. The areas are separated by a steep slope (i.e., on the order of 1H:1V) which is stabilized with a fiberglass mat covered with a tar emulsion. The mat and the tar emulsion provide a suitable substrate for the control of vegetative growth and are also flame resistant.

2.1.1 Historical Site Usage

The Greenpoint Energy Center functioned as a large manufactured gas plant (MGP) and byproduct coking operation from 1928 until 1952. In addition, it has served as a major energy center for New York City, including support services for gas operations and production of Liquefied Natural Gas (LNG) and Synthetic Natural Gas (SNG).

A review of historical property maps indicated that structures related to the former MGP and associated operations have, over time, occupied most of the current Greenpoint Energy Center, with the exception of the Northeast Corner. In the Northeast Corner, only a small oil unloading pump house located near the intersection of Lombardy Street and Newtown Creek has been identified to have existed east of and outside the remedial area.

2.1.2 Curent Site Usage

Currently, KeySpan operates a LNG Plant at the Greenpoint Energy Center. The plant produces LNG by liquefying pipeline gas. The LNG is stored in 2 tanks (LNG Tank Nos. 1 and 2) and is regasified (vaporized) for delivery back into the local pipeline distribution system as required.

The LNG plant was constructed in 1968 with various additions over the years. Currently, the plant has a liquefaction capacity of 5.9 million standard cubic feet per day (scfd), a vaporization capacity of 280 million scfd and a storage capacity of 1600 million scf.

Future construction related activities will include the potential expansion of the LNG operations. Elements of the expansion that will involve work within surface and subsurface soils will likely include, but no be limited to, expansion of the existing Control House, the addition of piping supports and related appurtenances, and the installation of dry wells and foundation supports. The expected life cycle of the expansion is in excess of 30 years.

3.0 REMEDIAL INVESTIGATION SUMMARY

PS&SPC performed a remedial investigation of the soils and groundwater within the approximately two acre Northeast Corner of the Greenpoint Energy Center (Figure 2). The results of the investigation provided data to assess the environmental conditions and formed the basis for the selection of the remedial approach and the preparation of the March 2005 IRAWP. The objectives of the remedial investigation were as follows:

- To characterize the soil and groundwater conditions beneath the Northeast Corner of the Greenpoint Energy Center in order to understand the nature and extent of environmental impacts; and

- To provide the necessary information to support the removal of environmental impacts that may pose a hazard to human health during future use of the area by Greenpoint Energy Center personnel.

The remedial investigation was conducted during two periods of field activities. In March 2004, 13 soil borings; GPE-1 through GPE-13, were installed. The soil borings were installed in accordance with the procedures outlined in the Site Investigation Work Plan (October 2004 SIWP). In November and December 2004 and January 2005, the following were installed to further assess subsurface soil and groundwater conditions in the Northeast Corner: six soil vapor points; GPESV-1 through GPESV-6, 19 additional soil borings; GPESB-14 through GPESB-26, GPEMW-1S/1D through GPEMW-5S/5D, seven test pits; GPETP-01 through GPETP-07, and ten monitoring wells; GPEMW-1S, GPEMW-1D, GPEMW-2S, GPEMW-2D, GPEMW-3S, GPEMW-3D, GPEMW-4S, GPEMW-4D, GPEMW-5S and GPEMW-5D.

3.1 Soil Investigation

The soil investigation was conducted in two mobilizations. In March 2004, a total of 13 Geoprobe locations were installed to a depth of approximately 50 ft. below ground surface (bgs) within the northern portion of the area of flat terrain. Subsequent to the March 2004 investigation event, an additional soil investigation program was implemented to further characterize the area. In November 2004, six soil vapor probes, 19 soil borings, and seven test pits were installed.

Subsurface soil samples were observed to determine the presence/absence of MGP-Tar related and other impacts. A written log that included a description of observed soil conditions was prepared for each boring. The results of the observations concerning MGP-Tar and petroleum-related impacts are presented on boring logs and geologic cross sections presented in the March 2005 IRAWP.

MGP-Tar related impacts, including the presence of fragments, saturation, coating and staining, when present, were observed typically between 0.5 and about 20 ft. bgs. Naphthalene-like odors, when observed, were detected primarily from the ground surface

to three ft. bgs. A fuel-like odor was encountered predominately at depths below the water table (greater than five ft. bgs). It is most probable that the fuel-like odors are emanating from the dissolved phase petroleum constituents in groundwater.

3.2 Groundwater Investigation

In December 2004, a total of 10 monitoring wells were installed at locations depicted on Figure 2. The monitoring wells were installed by Zebra Environmental Corporation, Miller Environmental Group and Fenley & Nicol Environmental Corporation. The wells were installed as five pairings (GPEMW-1S/D, GPEMW-2S/D, GPEMW-3S/D, GPEMW-4S/D, and GPEMW-5S/D) with each pairing having a well screened at a shallow (identified with an "S") and a deep (identified with a "D") depth interval. The GPEMW-1S/D through GPEMW-5S/D clusters were installed to assess both groundwater flow and quality conditions beneath the Northeast Corner of the Greenpoint Energy Center.

4.0 REMEDIAL MEASURE OBJECTIVES

In accordance with the March 2005 IRAWP, the remedial objectives for the remedial activities performed within the Northeast Corner were as follows:

1. To protect human health by eliminating the potential for direct contact with soils exhibiting contaminant concentrations above established soil cleanup values;

2. To protect human health and the environment by removing grossly contaminated soils; and

3. To support future site related construction activities.

4.1 Protection of Human Health

The primary objective for the completed remedial measures was the elimination of potential exposure pathways to soils exhibiting contaminant concentrations in excess of established cleanup standards. The Technical and Administrative Guidance Memorandum (TAGM) #4046 was followed as the basis for determining cleanup values. All remedial decisions followed Section 2.0, Basis of Soil Cleanup Objectives, to ensure protection of human health and the environment. For each contaminant of concern (COC), soil concentrations were compared to the recommended soil cleanup objective found in Tables 1, 2, 3, and 4 of TAGM #4046 or values developed using TAGM #4046 guidance.

4.2 Removal of Grossly Contaminated Soils

The second remedial objective was the removal of grossly contaminated soils. In accordance with NYSDEC's draft DER-10 guidance document, grossly contaminated soils are defined as soil that contains visibly identifiable free or otherwise readily detectable free or residual product. In addition, for the purposes of this IRM, grossly contaminated soil was defined to include those materials that could be a source of contaminant soil vapors, which may lead to future worker exposure. The removal of grossly contaminated soils, as defined in the IRAWP, is considered to be protective, prudent, and permanent.

4.3 Future Site Related Construction Activities

The proposed remedial measures were designed to be consistent with future site related construction activities. The remedial activities were implemented in a manner which allowed for continued access to the area by site construction workers and Greenpoint Energy Center operational personnel. The placement of an environmental soil cap ensures that the remedial area is suitable for future potential construction activities while eliminating potential exposure pathways to pre-remedial surface soils.

4.4 Approved Work Plan Scope

In accordance to the March 2005 IRAWP, the proposed remedial activities included:

- Excavation and removal of soil and associated debris in Excavation Areas A and B to a depth of approximately 3 feet bgs;
- Excavation and removal of soil and associated debris in Excavation Area C to a depth of approximately 2 feet bgs;
- Excavation and removal of soil and associated debris in Excavation Area D to a depth of approximately 1 foot bgs;
- Excavation and removal of soil and associated debris in Excavation Area E to a depth of approximately 1 foot bgs;
- Backfilling all excavation areas with crushed stone/clean fill to construct an environmental cap; and
- Constructing a one (1) foot thick crushed stone cap on the existing grade.

The proposed remedial activities are depicted on Figure 3.

4.5 Work Plan Modifications and Expansions

Limited IRM work scope modifications and expansions were made to the field program as contained in the approved March 20005 IRAWP. These modifications and expansions were dictated by site conditions encountered during the remedial field program. These modifications/expansions to the March 2005 IRAWP were undertaken with the approval of the NYSDEC on-site field representative. These expansions/modifications included the following:

- Expansion of the extent of Excavation Area A;
- Expansion of the extent of Excavation Area B;
- Expansion of the extent of Excavation Area C;
- Expansion of the extent of Excavation Area D;
- Expansion of the extent of Excavation Area E;
- Modification of the extent of the crushed stone cap area;
- Modification of the backfill material in the area of the existing roadway (as part of Excavation Areas C and D); and
- Elimination of the proposed 20 by 30 foot excavation area (as part of Excavation Area E) in the northern portion of the remedial area.

These modifications and expansions are depicted on Figure 4.

4.5.1 Expansion of Excavation Areas A thru E

Within each of these excavation areas, visually impacted soil was observed at lateral or vertical extents that were greater than that which was proposed in March 2005 IRAWP. Within Excavation Area B, the vertical extent of excavation was increased based on direction received from the NYSDEC. A discussion of the excavation area expansions is presented in Section 5.0. Table 1 identifies both the proposed and final excavation volumes from each area.

4.5.2 Modification of the Crushed Stone Cap Area

The extent of the proposed crushed stone cap area as depicted in Figure 3 and as proposed in the March 2005 IRAWP was modified to terminate approximately 25 feet south of the initial proposed northern extent. This modification was in order to accommodate an existing electrical control house that exists in that area. It was determined that the 12-inch thick crushed stone cap would have adversely impacted the structural integrity of the existing electrical control house, therefore the north extent of the crushed stone cap area was relocated. Currently, the crushed stone cap extends approximately 9 feet to the north of monitoring wells GPEMW-2 S/D.

4.5.3 Modification of Backfill Material for Existing Roadway

The March 2005 IRAWP specified the demolition and removal of the existing asphalt roadway as part of the remedial activities for Excavation Areas C and D. The existing roadway was demolished and the area was excavated as depicted in Figure 3 and backfilled with certified clean material. However, the backfill material was modified to consist of NYSDOT road-base Type 2 material since this area will be subject to future vehicle traffic during the ongoing operations at the Greenpoint Energy Center. The road-base material provides greater structural stability as a road surface compared to the initially proposed sand material.

4.5.4 Elimination of 20 by 30 foot Excavation Area

As part of Excavation Area E, the March 2005 IRAWP included excavating a 20 by 30 foot area in the northern portion of the remedial area as depicted in Figure 3. This area was not excavated during the field effort due to the fact that this area will not be subject to future site related construction activities. In addition, no visually impacted material was observed during the installation of soil boring GPESB-24.

TABLE 1
IN-PLACE EXCAVATION VOLUMES
(PROPOSED VS. ACTUAL)

Excavation Area	Proposed In-Place Remediation Volume (cubic yards)	Actual In-Place Remediation Volume (cubic yards)
Excavation Area A	1,240	1,550
Excavation Area B	590	882
Excavation Area C	855	1,140
Excavation Area D	172	202
Excavation Area E1	83	312
Excavation Area E1A	0	140
Excavation Area E1B	0	345
Excavation Area E1C	0	295
Excavation Area E2	567	709
Excavation Area E2A	70	208
Excavation Area E3	58	174
Excavation Area E3A	0	460
Excavation Area E3B	0	250
Excavation Area E4	174	174
Excavation Area E5	66	66
Excavation Area E6	85	85
Excavation Area E7	22	22
TOTAL VOLUME	**3,982**	**7,014**

5.0 IMPLEMENTATION OF THE PROPOSED INTERIM REMEDIAL MEASURE

Implementation of the proposed interim remedial activities described in the March 2005 IRAWP commenced in April 2005 with mobilization activities and concluded in June 2005 with restoration activities. On-site personnel included a representative of KeySpan, representatives of PS&SPC (i.e., the Construction Observation Engineer), GEI Consultants (i.e., Community Air Monitoring consultant), the NYSDEC, Hallen Construction Company, Inc. (i.e., the selected Contractor), and Code Environmental Services, Inc. (i.e. the selected Transportation and Disposal Contractor). The following describes the various field activities associated with implementation of the IRM.

5.1 In-Situ Waste Classification

In-situ waste classification activities were performed to characterize the in-place soils that were to be excavated prior to their removal and off-site disposal. The in-situ waste classification activities were implemented in conformance with the requirements of the selected KeySpan disposal facilities prior to the performance of the remedial activities.

The execution of the in-situ waste classification activities included field identification of existing utilities, providing temporary facilities for use during the work, preparation of a Health and Safety Plan, installation of soil borings using a Geoprobe® drilling rig in the proposed excavation areas, collection of soil samples, management and shipment of soil samples, and decontamination of equipment.

Soil samples were collected from each soil boring at the interval corresponding with the greatest indication of contamination. The sampling frequency and analytical parameters were based on the requirements of Clean Earth of New Castle, Delaware and Casie Protank, Vineland, New Jersey. In general, Clean Earth of New Castle required specific analysis on composite samples obtained at a frequency of one composite sample per every 500 tons of impacted soil. Casie Protank required specific analysis on composite samples obtained at a frequency of one composite samples per every 1,000 tons of impacted soil. The in-situ waste classification activities were performed to achieve the requirements of both Clean Earth of New Castle and Casie Protank. The samples were analyzed by H2M Labs. H2M Labs is located in Melville, New York and maintains New York State Laboratory Certification Number 10478.

5.2 Pre-mobilization Activities

Prior to mobilization of equipment and personnel to the remediation area, the selected Contractor procured a utility locating service (i.e. Xray Utility Locating Company and BL Companies) to conduct a Utility/Subsurface Obstruction Survey to field identify and mark any present and historic overhead/subsurface utilities (e.g., water, sewer, electric, gas, communications, data, etc.) or potential subsurface obstructions that may be present.

Any identified overhead/subsurface utilities and/or subsurface obstructions were marked in the field prior to the commencement of intrusive work and a scaled drawing was issued.

Prior to mobilization activities, the selected Contractor coordinated with Greenpoint Energy Center personnel regarding all aspects of the proposed remedial work. The Contractor obtained all necessary authorizations for implementation of the remedial work. KeySpan obtained a permit from the City of New York Department of Small Business Services – Waterfront Unit, to conduct excavation and replacement of clean fill and crushed stone within the Northeast Corner.

The selected Contractor provided all necessary submittals for review, including proposed backfill material information (i.e. sieve analysis, clean source certification, etc.), proposed soil erosion and sediment control measures, proposed dust control measures, MSDS information, power requirements, etc.

5.3 Mobilization

Mobilization activities were performed to initiate the remedial on-site activities. All on-site personnel were required to have the requisite 1910.120 Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) Training as well as site-specific training prior to the commencement of any intrusive activity. A Project Health and Safety Plan (HASP), which was included with the March 2005 IRAWP, was followed during implementation of the remedial activities. The selected Contractor adopted the above-mentioned HASP without amendment.

Staging areas for materials, construction equipment and excavated material, decontamination areas, and support areas were identified by the selected Contractor and approved by KeySpan prior to performing work. These areas were selected based on ease of access and proximity to the major work areas and Greenpoint Energy Center traffic patterns. Equipment and materials for the remedial activities were inspected prior to utilization and checked periodically for performance and corrective repair. All equipment was required to be clean prior to arrival at the remedial area. The selected Contractor was required to coordinate with KeySpan regarding equipment and material staging so as to not impede existing KeySpan operations.

5.4 Temporary Facilities

The Contractor was required to provide suitable office trailer(s) for the duration of the remedial work. The construction trailers were located in the northeast portion of the remedial area.

KeySpan provided the necessary electrical service to the work area. KeySpan facilitated the availability of the required utilities which the Contractor extended to the work areas. The Contractor utilized an existing fire hydrant as the source of water for the remedial activities.

5.5 Site Preparation

Site preparation activities consisted of tasks that were performed prior to the performance of the intrusive remedial work. These activities included relocating existing equipment and materials owned by KeySpan, re-routing the existing storm water drains located in the western portions of the remedial area, demolishing the asphalt pavement on the existing roadway, establishing required utilities, implementation of soil erosion and sediment control measures, and construction of a decontamination pad for equipment and transport vehicles.

5.5.1 Existing Storm Water Drain Temporary Re-Location

Prior to the commencement of intrusive remedial work, the Contractor was required to re-route the existing storm water gravity drains that were located in the northwestern and southwestern areas of the remedial area. The storm water drains were re-routed using four (4) inch diameter flexible fire hoses and were re-located and re-aligned away from the remedial work areas so as to minimize any potential hindrances.

5.5.2 Soil Erosion and Sediment Control Measures

Prior to the commencement of intrusive activities, soil erosion and sediment control measures were implemented. A combination of silt fencing (Amoco 2130) and hay bales were installed along the eastern portion of the remedial work area to minimize the potential migration of surface soil via wind and/or storm water runoff outside the limits of disturbance. During construction, erosion and sediment control measures were inspected and maintained on a daily basis.

5.5.3 Decontamination Pad

A decontamination pad was constructed to adequately facilitate decontamination of the selected Contractor's largest mobile equipment and to withstand the traffic loads throughout the duration of the project. The decontamination pad consisted of a wooden berm system underlain by a HDPE liner and protected by wooden plywood. In addition, a sump was constructed that facilitated the collection of decontamination fluids.

5.6 Decontamination Activities

All personnel, tools, equipment, and vehicles that came in contact with contaminated soil, debris and/or wastewater were required to be decontaminated. As previously described, a decontamination pad was set up to facilitate the decontamination activities. The Contractor utilized a high-pressure steam-cleaning system for equipment decontamination in the aforementioned decontamination pad. The Contractor was responsible for collecting the wastewater generated from the equipment cleaning and pumping it to drums or tanks for off-site disposal.

5.7 Excavation Area A

The proposed remedial work detailed in the March 2005 IRAWP for Excavation Area A consisted of removing soil and associated debris to a depth of three feet bgs as depicted on Figure 3. The proposed extent and depth of excavation activities within Excavation Area A was determined based on existing soil boring observations and data collected from the remedial area. The proposed excavation volume was approximately 1,240 cubic yards (in-place) of materials.

However, during the actual implementation of the proposed excavation activities, visually impacted soil was observed at a depth of approximately three and one half (3.5) to four (4) feet bgs. As such, the depth of the excavation was extended to remove the visually impacted soil. This resulted in an additional in place excavation volume of 310 cubic yards, based on an average additional depth of approximately 0.75 feet. As such, the total in place volume of material excavated from Excavation Area A was approximately 1,550 cubic yards. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

No significant amount of debris was encountered during excavation activities within Excavation Area A. Any encountered debris exceeding the acceptance criteria of the selected disposal facility was segregated and prepared (i.e. decontamination, size reduction, etc.), as necessary, and placed into roll-off containers for off-site disposal.

5.8 Excavation Area B

The proposed remedial work detailed in the March 2005 IRAWP for Excavation Area B consisted of removing soil and associated debris to a depth of three feet bgs as depicted on Figure 3. The proposed extent and depth of excavation activities within Excavation Area **B** were determined based on existing soil boring observations and data collected from the remedial area. The proposed excavation volume was approximately 590 cubic yards (in-place) of materials.

However, as per the March 31, 2005 correspondence from the NYSDEC, it was requested that the excavation activities around soil boring GPE-7 extend down to approximately 13 feet bgs in order to remove visually impacted material that was noted during the installation of the soil boring. As such, a series of trench boxes were utilized and visually impacted soil was removed in this area as depicted in Figure 4 to approximately 13 feet bgs. The dimensions of the trench boxes were approximately twelve feet long by 6 feet wide by 8 feet deep. No dewatering was performed during the excavation within the trench boxes. The trench boxes supported the sides of the excavation above the water table and the groundwater itself supported the sides of the excavation within the existing water table.

In addition, the extent of Excavation Area B was extended to the west as depicted on Figure 4 due to the presence of visually impacted material observed at a depth of approximately three (3) feet bgs.

The expansion of the extent of excavation (both horizontally and vertically) for Excavation Area B resulted in an additional in-place excavation volume of approximately 292 cubic yards. As such, the total in-place volume of material excavated from Excavation Area B was approximately 882 cubic yards. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

During the excavation activities in Excavation Area B, a metal bearing waste was encountered. The waste, which had a purple coloration, was segregated and staged within roll-off containers for waste characterization sampling. The waste material was sampled and determined to be non-hazardous. As such, the waste material was disposed of off-site along with the other excavated soil. The analytical results for the metal bearing waste is included in Appendix B.

No significant amount of debris was encountered during excavation activities for Excavation Area B. Any encountered debris exceeding the acceptance criteria of the selected disposal facility was segregated and prepared (i.e. decontamination, size reduction, etc.), as necessary, and placed into roll-off containers for off-site disposal.

5.9 Excavation Area C

The proposed remedial work detailed in the March 2005 IRAWP for Excavation Area C consisted of removing soil and associated debris to a depth of two feet bgs as depicted on Figure 3. The proposed extent and depth of excavation activities within Excavation Area C were determined based on existing soil boring observations and data collected from tbe remedial area. The proposed excavation volume was approximately 855 cubic yards (in-place) of materials.

However, during the actual implementation of the proposed excavation activities, visually impacted soil was observed deeper in some areas and not at all in others. As such, the extent of the excavation was modified as depicted in Figure 4.

The depth of excavation in the western portion of Excavation Area C was extended to approximately two and one half (2.5) to three (3) feet bgs in order to remove the visually impacted material. The depth of excavation in the center portion of Excavation Area C extended to two and one half (2.5) feet in some areas. The eastern portion of Excavation Area C was not excavated due to the fact that visually impacted soil was not observed during the excavation activities in that area.

As such, the modified/expanded in-place total volume of material excavated from Excavation Area C was approximately 1,140 cubic yards, based on an average depth of 2.75 feet in the western portion of Excavation Area C and an average depth of 2.25 feet for the remaining portion of the area. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to existing grade with certified clean backfill material.

No significant amount of debris was encountered during the excavation activities for Excavation Area C. Any encountered debris exceeding the acceptance criteria of the selected disposal facility was segregated and prepared (i.e. decontamination, size reduction, etc.), as necessary, and placed into roll-off containers for off-site disposal.

5.10 Excavation Area D

The proposed remedial work detailed in the March 2005 IRAWP for Excavation Area D consisted of removing soil and associated debris to a depth of one (1) foot bgs as depicted on Figure 3. The proposed extent and depth of excavation activities within Excavation Area C were determined based on existing soil boring observations and data collected from the remedial area. The proposed excavation volume was approximately 172 cubic yards (in-place) of materials.

During the actual implementation of the proposed excavation activities, visually impacted soil was observed deeper (i.e. one to one and one half feet bgs) in some areas along the eastern portion of Excavation Area D. As such, the depth of excavation was extended as depicted in Figure 4. This resulted in an additional in-place excavation volume of approximately 30 cubic yards based on an average additional depth of 0.25 feet. As such, the total in-place volume of material excavated from Excavation Area D was approximately 202 cubic yards. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean sandy backfill material.

No significant amount of debris was encountered during the excavation activities for Excavation Area D. The only debris generated from the remedial activities in this area was due to the demolition of the former asphalt cover that was demolished and removed

prior to the excavation work. Any encountered debris exceeding the acceptance criteria of the selected disposal facility was segregated and prepared (i.e. decontamination, size reduction, etc.), as necessary, and placed into roll-off containers for off-site disposal.

5.11 Excavation Area E

The proposed extent of excavation activities for Excavation Area E, as detailed in the March 2005 IRAWP, was expanded during the field activities based on the observed locations of visually impacted materials as depicted in Figure 3. The following provides a detailed description of the remedial activities for each sub-area of Excavation Area E.

A significant amount of debris was not encountered during the excavation activities for Excavation Area E. Any encountered debris exceeding the acceptance criteria of the selected disposal facility was segregated and prepared (i.e. decontamination, size reduction, etc.), as necessary, and placed into roll-off containers for off-site disposal.

5.11.1 Excavation Area E1

As detailed in the March 2005 IRAWP, the proposed excavation depth in this area was one (1) foot bgs., which would have resulted in an in-place volume of approximately 83 cubic yards.

During excavation activities in this area, visually impacted material was observed to be located at a depth of approximately three and one half (3.5) to four (4) feet bgs as depicted in Figure 4. As such, the depth of excavation was extended in this area to remove the visually impacted material. This resulted in an additional in-place excavation volume of approximately 229 cubic yards, based on an additional average excavation depth of 2.75 feet. The total in-place volume of material excavated from Excavation Area E1 was approximately 312 cubic yards. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

5.11.2 Excavation Area E1-A

Due to the continual observed presence of visually impacted material located at approximately three and one half (3.5) to four (4) feet bgs, the excavation activities in Excavation Area E1 extended to the south into Excavation Area E1-A as depicted in Figure 4. As per the March 2005 IRAWP, no intrusive work was to be performed in this area due to the presence of existing utilities and was thus referred to as the Access Restricted Area. However, with the assistance from Greenpoint Energy Center personnel and with the procurement of a utility locating service, excavation activities were extended into this area in order to remove the visually impacted material. This resulted in an additional in-place excavation volume of approximately 140 cubic yards, based on an average depth

of 3.75 feet. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

5.11.3 Excavation Area E1-B

Due to the continual observed presence of visually impacted material located at approximately three and a half (3.5) to four (4) feet bgs, the excavation activities in Excavation Area E1-A extended to the south into Excavation Area E1-**B** as depicted in Figure 4. As per the March 2005 IRAWP, no intrusive work was to be performed in this Access Restricted Area due to the presence of existing utilities. However, with the assistance from Greenpoint Energy Center personnel and with the procurement of a utility locating service, excavation activities were extended into this area in order to remove the visually impacted material. This resulted in an additional in-place excavation volume of approximately 345 cubic yards, based on an average depth of 3.75 feet. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

5.11.4 Excavation Area E1-C

Due to the continual observed presence of visually impacted material located at approximately two (2) to three and one half (3.5) feet bgs, the excavation activities in Excavation Area E1-**B** extended to the south into Excavation Area E1-C as depicted in Figure 4. As per the March 2005 IRAWP, no intrusive work was to be performed in this Access Restricted Area due to the presence of existing utilities. However, with the assistance from Greenpoint Energy Center personnel and with the procurement of a utility locating service, excavation activities were extended into this area in order to remove the visually impacted material. This resulted in an additional in-place excavation volume of approximately 295 cubic yards, based on an average depth of 2.75 feet. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

5.11.5 Excavation Area E2

The proposed remedial activities for this area as detailed in the March 2005 IRAWP included excavating an area as depicted on Figure 3 to a depth of one (1) feet bgs that would have resulted in an approximate in-place excavation volume of 567 cubic yards. However, during the actual implementation of the proposed excavation activities, visually impacted soil was observed at a depth of approximately one (1) to one and one half (1.5) feet bgs. As such, the depth of the excavation was extended to remove the visually impacted soil. This resulted in an additional in-place excavation volume of approximately 142 cubic yards, based on an average additional depth of approximately 0.25 feet. The total in-place

volume of material excavated from Excavation Area E2 was approximately 709 cubic yards. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

5.11.6 Excavation Area E2-A

The proposed remedial activities for this area as detailed in the March 2005 IRAWP included excavating an area as depicted on Figure 3 to a depth of one (1) feet bgs. This resulted in an estimated in-place excavation volume of 70 cubic yards. However, during the actual implementation of the proposed excavation activities, visually impacted soil was observed at a depth of approximately three (3) feet bgs. As such, the depth of the excavation was extended to remove the visually impacted soil. This resulted in an additional in-place excavation volume of approximately 138 cubic yards, based on an average additional depth of approximately 2 feet. The total in-place volume of material excavated from Excavation Area E2-A was approximately 208 cubic yards. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

During the excavation activities in Excavation Area E2-A, the previously mentioned metal bearing waste was encountered. This waste material, which was identified by its purple coloration, was segregated and staged within roll-off containers for waste characterization sampling. The waste material was sampled and determined to be non-hazardous. As such, the waste material was disposed of off-site along with the other excavated soil. The analytical results for the metal bearing waste is included in Appendix B.

5.11.7 Excavation Area E3

The proposed remedial activities for this area as detailed in the March 2005 IRAWP included excavating an area as depicted on Figure 3 to a depth of one (1) feet bgs. This resulted in an approximate in-place volume of 58 cubic yards. However, during the actual implementation of the proposed excavation activities, visually impacted soil was observed at a depth of approximately three (3) feet bgs. As such, the depth of the excavation was extended to remove the visually impacted soil. This resulted in an additional in-place excavation volume of approximately 116 cubic yards, based on an average additional depth of approximately 2 feet. The total in-place volume of material excavated from Excavation Area E3 was approximately 174 cubic yards. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

5.11.8 Excavation Area E3-A

Due to the continual observed presence of visually impacted material located at approximately three (3) feet bgs, the excavation activities in Excavation Area E3 were extended to the south into Excavation Area E3-A as depicted in Figure 4. As per the March 2005 IRAWP, no remedial activities were proposed in this area. However, due to the presence of visually impacted material, remedial activities were extended into this area. As such, this area was excavated to a depth of three (3) feet bgs. This resulted in an additional in-place excavation volume of approximately 460 cubic yards, based on an average depth of 3 feet. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

5.11.9 Excavation Area E3-B

Due to the continual observed presence of visually impacted material, excavation activities were extended from Excavation Area E3-A into Excavation Area E3-B. In the western portion of this area, visually impacted soil was observed to an approximate depth of two (2) feet bgs and approximately one (1) foot bgs in the eastern portion of this area as depicted in Figure 4. As per the March 2005 IRAWP, no remedial activities were proposed in this area. However, due to the presence of visually impacted material, remedial activities were extended into this area. The visually impacted material that was excavated resulted in an additional in-place excavation volume of approximately 250 cubic yards, based on an average depth of 1.5 feet. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

5.11.10 Excavation Area E4

As proposed in the March 2005 IRAWP, this area was excavated to a depth of approximately one (1) foot bgs and backfilled with clean material as depicted in Figure 3. No visually impacted material was observed to exist deeper than this depth during the field effort. As such, this resulted in an in-place excavation volume of approximately 174 cubic yards, based on an average excavation depth of one (1) bgs. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation areas were backfilled to the existing grade with certified clean backfill material.

5.11.11 Excavation Area E5

This area was excavated as depicted in Figure 3 and as detailed in the March 2005 IRAWP. No modifications to proposed remedial activities in this area were required during the field effort and approximately 66 cubic yards (in-place) of

material was excavated, based on an average excavation depth of one (1) foot bgs. Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation area was backfilled to the existing grade with certified clean backfill material.

5.11.12 Excavation Area E6

This area was excavated as depicted in Figure 3 and as detailed in the March 2005 IRAWP. The in-place excavation volume in this area was approximately 85 cubic yards. The only modification to the remedial activities in this area, as compared to the March 2005 IRAWP, was the type of backfill and cover material utilized. An asphalt cover was constructed instead of the proposed crushed stone cover due to the fact that this area will be subject to future vehicle traffic during the ongoing operations at the Greenpoint Energy Center. In addition, the backfill material in this area was modified to include approximately four (4) inches of sand backfill and six (6) inches of the NYSDOT road-base type 2 material in order to accommodate the overlaying asphalt cover. The area was then paved with asphalt at an approximate two (2) inch paving depth.

5.11.13 Excavation Area E7

As detailed in the March 2005 IRAWP and as depicted in Figure 3, this area was to be excavated to a depth of one (1) foot bgs. During the remedial field work, this area was relocated to the southwest as depicted in Figure 4 in order to minimize potential disturbance to the existing soil berm. The volume of soil excavated did not change from that which was initially proposed; approximately 22 cubic yards (in-place). Excavated materials were direct-loaded onto transport vehicles for off-site disposal. The excavation area was backfilled to the existing grade with certified clean backfill material.

5.12 Backfilling of Excavation Areas A through E

Engineered fill material was used to backfill each Excavation Area. Backfill was required to be certified clean and to have come from a NYSDOT approved source. The backfill consisted of three types:

5.12.1 Backfill

This material consisted of well-graded granular sand material with the gradation specified in Table 2 below. Backfill was required to contain no clay, silt and/or organic material. The source of this material was Ranco Road and Stone Corp. located in Manorville, New York. This material was required to be backfilled from the bottom of the excavation to the existing grade.

5.12.2 Crushed Stone Cover

This backfill material consisted of ¾ inch diameter crushed stone that had a NYSDOT designation of Type 2. The source of this material was the Haverstraw, New York quarry owned by Tilcon New York Inc. The crushed stone cover was required to have a minimum thickness of 3 inches and a maximum thickness of 4 inches after compaction.

5.12.3 Road-Base Material

The road-base material was required to consist of crushed stone that was a product of crushing or blasting ledge rock. The source of this material was the West Nyack, New York quarry owned by Tilcon New York Inc. The road-base material was required to be free of organics and deleterious material and was utilized to backfill the excavated portions of the existing roadway at a minimum thickness of 1 foot.

5.12.4 Riprap Stone

Seven (7) inch diameter riprap stone was placed as a cover material over the excavated portions of the existing soil berm along the northeastern portion of the remedial area. The source of this material was the West Nyack, New York quarry owned by Tilcon New York Inc. This riprap stone cover replaced the previous asphalt emulsion cover as a soil erosion control measure.

The three types of backfill material consisted of certified clean coarse aggregate conforming to the following gradations:

TABLE 2
BACKFILL MATERIAL GRADATION

Sieve Size	Percent Passing
1½ inch	100%
¾ inch	90% - 100%
No. 4	60% - 80%
No. 50	10% - 25%
No. 200	3% - 8%

TABLE 3
CRUSHED STONE COVER GRADATION

Sieve Size	Percent Passing
1½ inch	100%
1 inch	90% - 100%
½ inch	0% - 15%

TABLE 4
ROAD-BASE MATERIAL GRADATION

Sieve Size	Percent Passing
2 inch	100%
¼ inch	25% - 60%
No. 40	5% - 40%
No. 200	0% - 10%

Once the excavation areas were backfilled with the clean backfill to the existing grade, a geotextile fabric was laid over the excavation areas. The crushed stone cover was then backfilled over the geotextile fabric as a cover material. The geotextile fabric used was Mutual Industries, Inc. non-woven polypropylene geotextile NW-35.

All backfill material delivered to the remedial area not subject to analytical testing was accompanied by documentation stating the fill was certified "clean" from a virgin source or a blend of soils originating from virgin sources not subject to manufacturing operations and free of contaminants. Copies of this documentation are included as Appendix C.

In addition, analytical testing was performed on all soil backfill material (i.e. sand) that was brought on-site by H2M Labs. One representative confirmatory sample was required to be collected from each off-site source of sand material at a rate of 1 per 1,000 cubic yards. The sample was required to be analyzed for Total PAHs, Total VOCs, RCRA Metals and Cyanide. A copy of the analytical results is included as Appendix D.

5.13 Compaction of Excavation Areas A through E

Backfill placed in excavation areas was placed in 12-inch lifts and compacted to a minimum of 90 percent of the modified proctor density (as determined by ASTM D1557) with vibratory equipment. Backfill placed in Excavation Area C was placed in 6-inch lifts and compacted to a minimum of 95 percent of the modified proctor density (as determined by ASTM D1557). A 13-ton roller was used to compact the excavation areas. The Contractor provided a qualified independent geotechnical engineering testing firm (Material Testing Lab, Inc.) to perform field quality control testing for compaction. The testing firm inspected and tested subgrades and each fill or backfill layer. The Contractor proceeded with subsequent earthwork only after test results for previously completed

earthwork complied with the compaction requirements. The testing firm tested the compaction of soils in place according to ASTM D 1557, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests were performed at each compacted initial and final backfill layer, at least 1 test for each 200 cubic yards placed, but no fewer than 2 tests per each excavation area.

If the testing firm reported that subgrades, fills, or backfills had not achieved the degree of compaction specified, the Contractor was required to notify KeySpan and/or PS&SPC and the area which failed the compaction testing was to be re-compacted. If the compaction testing revealed inadequate compaction of the backfilled area, the Contractor was required to remove and replace the backfilled material to the depth required. The Contractor was required to then re-compact and retest until the specified compaction was obtained. However, this was not required as all the compaction testing indicated that the compaction requirements were fulfilled.

5.14 Crushed Stone Cap Area

As depicted on Figure 4, a one (1) foot thick crushed stone cap was constructed above grade in an area in proximity to Newtown Creek (i.e., eastern portion of remedial area). The crushed stone cap was constructed in the following manner:

- Preparing the area (i.e. minor grading), as necessary;
- Installing a geotextile fabric on the existing grade in accordance with manufacturer's recommendations;
- Constructing a 12-inch high asphalt curb between the Crushed Stone Cap Area and the existing road; and
- Backfilling the area with one foot of ¾ inch diameter crushed stone as approved by KeySpan.

The type of geotextile fabric utilized by the selected Contractor consisted of Mutual Industries, Inc. non-woven polypropylene geotextile NW-35. The asphalt curb was constructed to be 12 inches in height with a top width of 8 inches and a bottom width of 12 inches. In addition, the asphalt curbing was reinforced with timber and metal stakes. The extent of the crushed stone cap extended to the newly constructed asphalt curbing and tied into the existing grade at a 2H: 1V slope on all other sides of the cap.

5.15 Material Handling

5.15.1 Debris

As previously stated in this Report, a significant amount of debris was not encountered during the excavation activities. Any encountered debris was evaluated and segregated with regard to its disposition. If the debris was constructed of material that was impervious to contamination infiltration (i.e., steel, glass, etc.), it was power washed to remove gross contamination and then disposed of as general construction debris. If the debris was of a porous nature (i.e., brick, concrete, or wood), a gross decontamination effort was performed and the debris was disposed of as contaminated debris along with the excavated materials.

5.15.2 Excavated Material

All excavated materials were direct loaded into roll-offs or trucks. Excavated soil was direct loaded into dump trailers and removed debris was placed into roll-off containers and disposed off-site. Section 9.0 provides a detailed description of materials excavated and removed off-site.

5.16 Dust and Odor Control

Construction activities were performed in a manner limiting the potential for fugitive dust emission and odors. Dust and odor suppression measures were readily available on-site and utilized, as necessary, during the remedial activities. The dust control measure consisted of water sprays and the odor suppression measure consisted of the use of an odor suppressant foam (Rusmar Foam®). Hoses were attached to an existing fire hydrant to facilitate spraying down disturbed areas on an as needed basis for dust control. Odor suppression measures were applied on open excavations and/or temporary soil stockpiles if unacceptable odor levels were identified during air monitoring. Suppressant foams were only required during the excavation activities at Excavation Area B. Perimeter air monitoring took place in accordance with the Air Monitoring Work Plan that was previously submitted to the NYSDEC.

5.17 Health and Safety Plan

A Site Specific Health and Safety Plan (HASP) was prepared by PS&SPC and implemented during the remedial activities. The HASP was included with the March 2005 IRAWP that was submitted to and approved by the NYSDEC. During intrusive activities, GEI Consultants performed air-monitoring activities in accordance with the Air Monitoring Work Plan at four locations within the site perimeter. A document prepared

Greenpoint Energy Center Site" summarizes the results of the air monitoring activities and is provided in Appendix E. In addition, a discussion of these monitoring activities is provided in the following subsection.

5.17.1 Air Monitoring

GEI was responsible for providing technical expertise for the air monitoring program implemented during the completion of the IRM. The Community Air Monitoring Program (CAMP) was drafted by GEI using NYSDOH guidance and approved by NYSDEC and NYSDOH prior to the start of the remedial activities. The purpose of the CAMP was to monitor potential off-site migration of VOCs and particulates during intrusive activities and to mitigate these pathways of exposures to off-site receptors (i.e., residents). The CAMP consisted of continuous monitoring at four perimeter stations and walk-around monitoring for total volatile organic compounds (TVOC) and respirable particulate matter (RPM_{10}) generated from the remedial operations. The CAMP also included monitoring for naphthalene emissions downwind of the operations.

Action Levels were established that represented concentrations of concern and appropriate actions were recommended if these levels were met or exceeded at any time during the monitoring period. Based on the data collected during the CAMP for VOCs, naphthalene, and dust, no concentrations exceeded their respective Action Levels. As no Action Level thresholds were exceeded, it is concluded that no adverse health effects in the surrounding community can be attributed to the IRM activities as no off-site migration of significant concentrations occurred.

5.18 Site Security

The Contractor was responsible for maintaining the security of tools, equipment and chemicals brought into the remedial area. The Contractor was also required to coordinate security requirements with the Greenpoint Energy Center security personnel. A full time security guard was posted at the Lombardy Street entrance to the work area throughout the duration of the project.

6.0 SITE RESTORATION ACTIVITIES

Restoration activities included the replacement of fill and surface cover materials in the areas disturbed by remedial activities. All excavated areas were backfilled with certified clean fill from certified clean sources as previously described in this Report.

Approximately 839 tons of NYSDOT Road-Base Material, Type 2 was delivered to the remedial area. The road-base material was used to backfill the excavated portions of the existing roadway and Excavation Area E6. Excavation areas backfilled with the road-base material were compacted to 95 percent of the modified proctor density (as determined by ASTM D1557) with compaction equipment. The required documentation for the road-base material is included in Appendix C.

Approximately 79 tons of riprap material was delivered to the proposed remedial area. The riprap stone had a mean diameter of approximately seven (7) inches and was placed as a cover material over the excavated portions of the existing berm in the northeastern portion of the remedial area. This riprap stone cover replaced the previous asphalt emulsion cover as a soil erosion control measure. The required documentation for this material is included in Appendix C.

Approximately 9,147 tons of clean sand was delivered to the remedial area. The clean sand material was used to backfill all excavation areas (with the exception to Excavation Area E6) to the existing grade. Excavation areas backfilled with the sand material were compacted to 90 percent of the modified proctor density (as determined by ASTM D1557) with compaction equipment. The required analytical results for the sand material are included in Appendix D.

Approximately 2,727 tons of NYSDOT Designation Type 2 (¾ inch) crushed stone was delivered to the remedial area. The ¾ inch stone was placed over all backfilled excavation areas as a cover material, with the exception to Excavation Area E6. In addition, the ¾ inch stone was utilized for the construction of the Crushed Stone Cap Area. The required documentation for this material is included in Appendix C.

Other restoration activities included abandoning and replacing existing monitoring well GPEMW-02D, which was damaged during remedial construction activities, and modifying existing monitoring wells GPEMW-02S, GPEMW-03S, GPEMW-03D, GPEMW-04S, GPEMW-04D, and MW-05S from stick up casings to flush mounted monitoring wells.

7.0 CONSTRUCTION COSTS

Construction costs for the remedial activities are the sole responsibility of KeySpan. The actual construction costs, based on invoices submitted to date from Hallen, Code, F&N, PS&SPC, GEI, Materials Testing, Xray Utility Locating, BL Companies and H2M Laboratories is approximately $2.1 million.

8.0 CONSTRUCTION AS-BUILTS

Construction as-built information for the remedial work is provided in Figure 5. In general, the as-built data includes a revised survey of the remedial area depicting the extent of the excavation/backfill areas, the extent of the Crushed Stone Cap Area, the re-establishment of the existing roadway, etc.

9.0 MANIFESTS

Approximately 9,900 tons of non-hazardous soil was excavated during the remedial activities and transported to Clean Earth of New Castle, Delaware. Waste characterization analytical parameters, as well as the frequency of collection of waste characterization samples, were dictated by the disposal facility, Clean Earth of New Castle and the NYSDEC.

Table 5 provides a summary of the non-hazardous waste manifests generated during the off-site soil disposal activities. The table includes the disposal facility's manifest number as well as tonnage shipped under each manifest.

TABLE 5
SUMMARY OF OFF-SITE SOIL DISPOSAL ACTIVITIES

Manifest Number	Date	Weight (tons)
MASP001	4/20/05	20.15
MASP002	4/20/05	18.55
MASP003	4/20/05	17.21
MASP004	4/20/05	19.52
MASP005	4/20/05	25.99
MASP006	4/20/05	16.12
MASP007	4/20/05	24.27
MASP008	4/20/05	25.53
MASP009	4/20/05	28.73
MASP010	4/20/05	28.49
MASP011	4/20/05	25.73
MASP012	4/21/05	25.40
MASP013	4/21/05	25.28
MASP014	4/21/05	30.86
MASP015	4/21/05	24.95
MASP016	4/21/05	22.31
MASP017	4/21/05	24.05
MASP018	4/21/05	24.51
MASP019	4/21/05	20.07
MASP020	4/21/05	23.36
MASP021	4/21/05	25.85
MASP022	4/21/05	19.91
MASP023	4/21/05	19.77
MASP024	4/21/05	25.76

Manifest Number	Date	Weight (tons)
MASP025	4/21/05	24.84
MASP026	4/21/05	28.05
MASP027	4/21/05	20.57
MASP028	4/21/05	24.38
MASP029	4/21/05	22.67
MASP030	4/21/05	28.81
MASP031	4/22/05	25.70
MASP032	4/22/05	27.56
MASP033	4/22/05	22.01
MASP034	4/22/05	26.61
MASP035	4/26/05	31.48
MASP036	4/22/05	22.38
MASP037	4/22/05	23.81
MASP038	4/22/05	27.82
MASP039	4/22/05	31.80
MASP040	4/22/05	23.62
MASP041	4/22/05	24.96
MASP042	4/22/05	28.17
MASP043	4/22/05	27.79
MASP044	4/25/05	26.12
MASP045	4/25/05	21.77
MASP046	4/25/05	23.25
MASP047	4/25/05	21.72
MASP048	4/25/05	22.16
MASP049	4/25/05	22.53
MASP050	4/25/05	27.08
MASP051	4/26/05	25.89
MASP052	4/25/05	24.45
MASP053	4/25/05	24.71
MASP054	4/25/05	21.78
MASP055	4/25/05	19.98
MASP056	4/25/05	22.48
MASP057	4/25/05	21.35
MASP058	4/25/05	19.49
MASP059	4/25/05	23.29
MASP060	4/25/05	21.96
MASP061	4/25/05	23.16
MASP062	4/25/05	22.61
MASP063	4/26/05	18.83

Manifest Number	Date	Weight (tons)
MASP064	4826/05	22.18
MASP065	4/26/05	21.38
MASP066	4/26/05	21.73
MASP067	4/26/05	24.00
MASP068	4/26/05	22.45
MASP069	4/26/05	22.86
MASP070	4/26/05	24.31
MASP071	4/26/05	26.01
MASP072	4/26/05	31.13
MASP073	4/26/05	33.76
MASP074	4/26/05	29.27
MASP074	4/26/05	28.91
MASP076	4/26/05	26.03
MASP077	4/26/05	26.05
MASP078	4/26/05	28.19
MASP079	4/26/05	24.49
MASP080	4/26/05	29.26
MASP081	4/27/05	28.77
MASP081	4/27/05	24.88
MASP082	4/27/05	30.38
MASP083	4/27/05	33.29
MASP084	4/27/05	27.00
MASP085	4/27/05	24.02
MASP086	4/27/05	25.91
MASP087	4/27/05	30.04
MASP088	4/27/05	24.04
MASP089	4/27/05	22.35
MASP090	4/27/05	23.09
MASP092	4/27/05	26.75
MASP093	4/27/05	23.86
MASP094	4/27/05	28.63
MASP095	4/27/05	26.51
MASP096	4/28/05	25.27
MASP096	4/28/05	24.17
MASP097	4/28/05	25.89
MASP099	4/28/05	26.91
MASP100	4/28/05	21.16
MASP101	4/28/05	25.24
MASP102	4/28/05	29.47

Manifest Number	Date	Weight (tons)
MASP103	4/28/05	30.33
MASP104	4/28/05	27.43
MASP105	4/28/05	28.60
MASP106	4/28/05	26.99
MASP107	4/28/05	30.50
MASP108	4/28/05	31.25
MASP109	4/28/05	29.31
MASP110	4/28/05	20.55
MASP111	4/28/05	16.30
MASP112	4/28/05	32.57
MASP113	4/29/05	26.82
MASP114	4/29/05	29.30
MASP115	4/29/05	22.55
MASP116	4/29/05	26.00
MASP117	4/29/05	26.92
MASP118	4/29/05	28.32
MASP119	4/29/05	26.15
MASP120	4/29/05	22.84
MASP121	4/29/05	25.41
MASP122	4/29/05	22.76
MASP123	4/29/05	28.42
MASP124	4/29/05	29.13
MASP125	4/29/05	25.42
MASP126	4/29/05	31.73
MASP127	5/2/05	29.33
MASP128	5/2/05	23.95
MASP129	5/2/05	30.53
MASP130	5/2/05	25.05
MASP131	5/2/05	26.02
MASP132	5/2/05	23.88
MASP133	5/2/05	25.91
MASP134	5/2/05	30.59
MASP135	5/2/05	29.82
MASP136	5/2/05	29.80
MASP137	5/2/05	34.45
MASP138	5/2/05	25.71
MASP139	5/2/05	24.71
MASP140	5/2/05	31.45
MASP141	5/2/05	30.58

Manifest Number	Date	Weight (tons)
MASP142	5/2/05	26.50
MASP143	5/2/05	29.80
MASP144	5/2/05	31.22
MASP145	5/2/05	26.96
MASP146	5/2/05	31.50
MASP147	5/2/05	31.48
MASP148	5/2/05	27.22
MASP149	5/3/05	27.48
MASP150	5/3/05	26.03
MASP151	5/3/05	17.56
MASP152	5/3/05	21.26
MASP153	5/3/05	21.77
MASP154	5/3/05	23.67
MASP155	5/3/05	28.61
MASP156	5/3/05	27.68
MASP157	5/3/05	23.60
MASP158	5/3/05	21.06
MASP159	5/3/05	23.80
MASP160	5/3/05	24.40
MASP161	5/3/05	22.53
MASP162	5/3/05	27.42
MASP163	5/3/05	24.99
MASP164	5/3/05	24.21
MASP165	5/4/05	26.69
MASP166	5/4/05	23.93
MASP167	5/4/05	25.05
MASP168	5/4/05	21.03
MASP169	5/4/05	21.41
MASP170	5/4/05	21.48
MASP171	5/4/05	24.66
MASP172	5/4/05	27.33
MASP173	5/4/05	27.53
MASP174	5/4/05	23.43
MASP175	5/4/05	24.07
MASP176	5/4/05	25.13
MASP177	5/4/05	29.35
MASP178	5/4/05	31.04
MASP179	5/5/05	24.56
MASP180	5/5/05	26.38

Manifest Number	Date	Weight (tons)
MASP181	5/5/05	33.14
MASP182	5/5/05	31.14
MASP183	5/5/05	23.89
MASP184	5/5/05	29.37
MASP185	5/5/05	28.46
MASP186	5/5/05	25.02
MASP187	5/5/05	35.42
MASP188	5/5/05	29.97
MASP189	5/5/05	28.11
MASP190	5/5/05	29.76
MASP191	5/5/05	29.97
MASP192	5/5/05	25.27
MASP193	5/5/05	28.34
MASP194	5/5/05	23.83
MASP195	5/5/05	26.31
MASP196	5/5/05	30.83
MASP197	5/6/05	27.61
MASP198	5/6/05	27.17
MASP199	5/6/05	25.89
MASP200	5/6/05	28.43
MASP201	5/6/05	22.60
MASP202	5/6/05	22.20
MASP203	5/6/05	29.20
MASP204	5/6/05	27.41
MASP205	5/6/05	27.52
MASP206	5/6/05	23.12
MASP207	5/6/05	30.10
MASP208	5/9/05	30.36
MASP209	5/9/05	28.28
MASP210	5/9/05	31.14
MASP211	5/9/05	23.20
MASP212	5/9/05	35.36
MASP213	5/9/05	22.40
MASP214	5/9/05	23.68
MASP215	5/9/05	30.13
MASP216	5/9/05	26.99
MASP217	5/9/05	26.94
MASP218	5/9/05	28.10
MASP219	5/9/05	30.70

Manifest Number	Date	Weight (tons)
MASP220	5/9/05	28.05
MASP221	5/9/05	22.96
MASP222	5/9/05	23.94
MASP223	5/10/05	20.94
MASP224	5/10/05	22.15
MASP225	5/10/05	19.09
MASP226	5/10/05	21.11
MASP227	5/10/05	21.74
MASP228	5/10/05	19.30
MASP229	5/10/05	22.07
MASP230	5/10/05	28.18
MASP231	5/10/05	29.40
MASP232	5/11/05	20.71
MASP233	5/11/05	20.15
MASP234	5/11/05	23.12
MASP235	5/12/05	32.50
MASP236	5/12/05	29.86
MASP237	5/12/05	30.33
MASP238	5/17/05	27.68
MASP239	5/17/05	21.71
MASP240	5/17/05	20.47
MASP241	5/17/05	32.11
MASP242	5/17/05	28.52
MASP243	5/17/05	25.70
MASP244	5/17/05	22.60
MASP245	5/17/05	26.70
MASP246	5/17/05	29.86
MASP247	5/17/05	28.77
MASP248	5/17/05	30.82
MASP249	5/17/05	25.51
MASP250	5/17/05	30.09
MASP251	5/17/05	25.28
MASP252	5/17/05	21.18
MASP253	5/19/05	22.77
MASP254	5/19/05	25.55
MASP255	5/19/05	22.32
MASP256	5/19/05	27.36
MASP257	5/20/05	22.90
MASP258	5/20/05	27.21

Manifest Number	Date	Weight (tons)
MASP259	5/20/05	21.28
MASP260	5/20/05	29.38
MASP261	5/20/05	22.21
MASP262	5/20/05	24.16
MASP263	5/20/05	24.34
MASP264	5/20/05	28.89
MASP265	5/20/05	29.27
MASP266	5/20/05	28.49
MASP267	5/20/05	22.49
MASP268	5/20/05	26.12
MASP269	5/23/05	21.51
MASP270	5/23/05	18.91
MASP271	5/23/05	21.74
MASP272	5/23/05	20.33
MASP273	5/23/05	21.33
MASP274	5/23/05	22.21
MASP275	5/23/05	21.50
MASP276	5/23/05	31.30
MASP277	5/23/05	24.40
MASP278	5/23/05	30.45
MASP279	5/23/05	31.49
MASP280	5/24/05	19.45
MASP281	5/24/05	22.29
MASP282	5/24/05	22.38
MASP283	5/24/05	23.15
MASP284	5/24/05	21.72
MASP285	5/24/05	23.07
MASP286	5/24/05	22.05
MASP287	5/24/05	22.43
MASP288	5/24/05	32.30
MASP289	5/24/05	23.17
MASP290	5/24/05	14.85
MASP291	5/24/05	29.04
MASP292	5/24/05	22.21
MASP293	5/24/05	25.65
MASP294	5/24/05	24.75
MASP295	5/24/05	25.10
MASP296	5/24/05	23.06
MASP296	5/24/05	26.22

Manifest Number	Date	Weight (tons)
MASP288	5/25/05	27.03
MASP298	5/27/05	24.87
MASP299	5/25/05	30.97
MASP300	5/25/05	21.57
MASP301	5/25/05	24.54
MASP301	5/25/05	26.11
MASP303	5/25/05	23.93
MASP304	5/25/05	22.64
MASP304	5/25/05	33.14
MASP305	5/25/05	20.88
MASP306	5/25/05	21.17
MASP307	5/25/05	23.12
MASP309	5/25/05	27.88
MASP310	5/25/05	25.38
MASP311	5/25/05	28.71
MASP312	5/25/05	27.53
MASP313	5/25/05	21.63
MASP314	5/25/05	23.18
MASP315	5/25/05	22.07
MASP316	5/25/05	24.19
MASP317	5/25/05	32.83
MASP318	5/26/05	16.67
MASP319	5/26/05	24.45
MASP320	5/26/05	24.30
MASP321	5/26/05	16.87
MASP322	5/26/05	28.60
MASP323	5/26/05	27.10
MASP324	5/26/05	29.13
MASP325	5/26/05	21.32
MASP326	5/26/05	22.13
MASP327	5/26/05	23.58
MASP328	5/26/05	29.32
MASP329	5/26/05	24.88
MASP330	5/26/05	23.97
MASP330	5/26/05	21.40
MASP333	5/26/05	22.85
MASP333	5/26/05	22.55
MASP334	5/26/05	22.42
MASP335	5/26/05	24.65

Manifest Number	Date	Weight (tons)
MASP336	5/26/05	31.22
MASP338	5/27/05	20.69
MASP339	5/27/05	23.51
MASP340	5/26/05	33.15
MASP341	5/27/05	27.49
MASP342	5/27/05	20.94
MASP343	5/27/05	23.41
MASP344	5/27/05	29.68
MASP345	5/27/05	21.69
MASP346	5/27/05	24.06
MASP347	5/27/05	21.46
MASP348	5/27/05	22.87
MASP349	5/27/05	30.83
MASP350	5/27/05	23.43
MASP351	5/27/05	25.81
MASP352	5/27/05	24.95
MASP353	5/27/05	17.08
MASP354	5/27/05	33.70
MASP355	5/27/05	21.58
MASP356	5/27/05	17.56
MASP357	5/31/05	28.67
MASP358	5/31/05	23.31
MASP359	5/31/05	33.00
MASP360	5/31/05	28.80
MASP361	5/31/05	21.53
MASP362	5/31/05	29.24
MASP363	5/31/05	27.28
MASP364	5/31/05	22.44
MASP366	5/31/05	26.70
MASP367	5/31/05	24.43
MASP368	5/31/05	22.76
MASP369	5/31/05	26.61
MASP370	6/1/05	26.62
MASP371	6/1/05	28.98
MASP372	6/1/05	19.71
MASP373	6/1/05	20.59
MASP374	6/1/05	16.06
MASP375	6/1/05	22.34
MASP376	6/1/05	25.95

Manifest Number	Date	Weight (tons)
MASP377	6/1/05	27.31
MASP378	6/1/05	32.20
MASP379	6/1/05	24.94
MASP380	6/1/05	26.36
MASP381	6/6/05	22.89
113152 *	5/23/05	24.40
113162 *	5/24/05	14.85
113170 *	5/24/05	24.87
113187 *	5/25/05	21.63
113188 *	5/25/05	23.18
113190 *	5/25/05	24.19
113212 *	5/26/05	16.67
113199 *	5/26/05	23.51
113202 *	5/26/05	20.69
113234 *	5/27/05	17.56
113233 *	5/27/05	21.58
113231 *	5/27/05	17.08
	TOTAL	**9,917.21**

* - Indicates off-site disposal in roll-offs.

10.0 CONCLUSIONS AND RECOMMENDATIONS

The completion of the IRM activities within the Northeast Corner of the Greenpoint Energy Center was performed in accordance with the March 2005 IRAWP (with the exception of the modifications/expansions described herein) and correspondence from the NYSDEC dated March 31, 2005. Based upon the completion of the activities described in this Report, the remedial action was successful in achieving the remedial action objectives.

10.1 Conclusions

Based on the results of the completed remedial activities, the following conclusions can be made:

- Exposure pathways to soils exhibiting contaminant concentrations above established soil cleanup values has been eliminated, thus removing the potential for direct contact and thereby protecting human health;
- Removal of grossly contaminated soils has eliminated the potential for direct contact and potential exposure to contaminant soil gas, thereby protecting human health; and
- The remedial action was performed to be consistent with both current site operations as well as anticipated future site related construction activities.

10.2 Recommendations

Based on the results of the completed IRM, the following recommendations are proposed:

- All future site related construction activities that result in potential exposure to site soils below the existing environmental soil cap should be evaluated to determine if construction personnel must conform to 29 CFR 1910.120 Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) Training requirements;
- All future site related construction activities that are intrusive in nature should be performed in accordance with a Health and Safety Plan that conforms to the requirements of the OSHA HAZWOPER standard; and
- An Operation, Monitoring, and Maintenance (OM&M) Plan should be prepared that addresses the monitoring of the existing soil cap on a periodic basis and contains guidelines for maintenance and repair activities.

APPENDIX A

FIGURES

GREENPOINT ENERGY CENTER LOCATION MAP

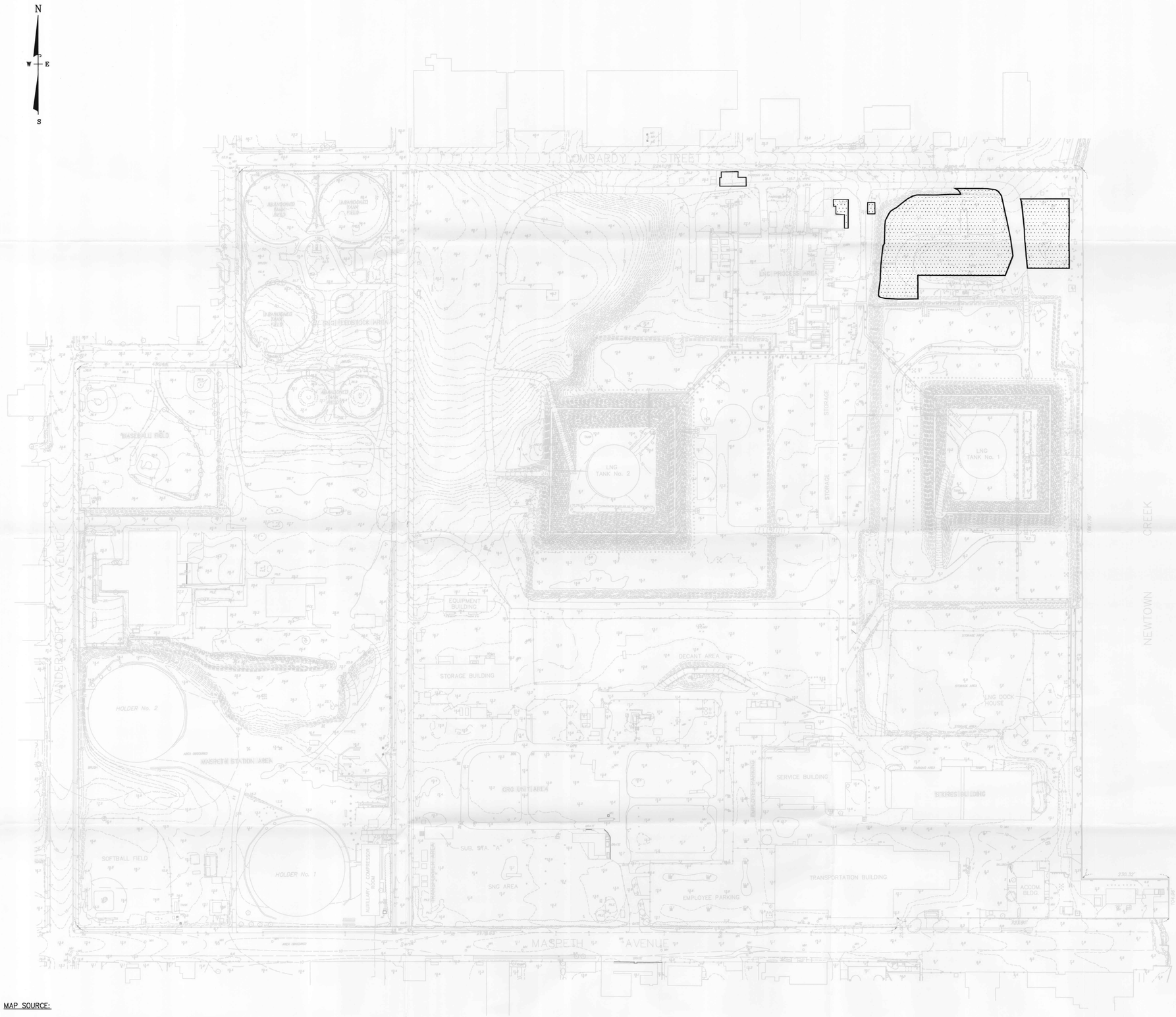
KEYSPAN CORPORATION
GREENPOINT ENERGY CENTER
REMEDIAL AREA
BROOKLYN, KINGS COUNTY, NEW YORK

Source: BROOKLYN, N.Y. U.S.G.S. TOPOGRAPHIC QUADRANGLE (1979)		
Drn. By: DMM	Scale: 1"=2000'	Proj. No.: 2522.033.024
Chkd.. By: JWW	Date: August 2005	Fig. No.: FIGURE 1

PAULUS SOKOLOWSKI and SARTOR Engineering, PC
Engineers · Architects · Environmental Scientists
67A MOUNTAIN BOULEVARD EXTENSION
P.O. BOX 4039
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700
FAX: (732) 560-9768

N

PROJECT: FILE NAME=S:\KeySpan Greenpoint\Remedial Action Completion Report\CADD\Figure 1 - Site Location Map.dwg LAST EDIT: 09/09/2005-02:55:51 PM



LEGEND

- CURB
- ROAD
- DRIVE
- BUILDING
- TRAILER
- RAILROAD
- WALL
- FENCE
- FENCE ON WALL
- GUARDRAIL
- SIDEWALK
- CONC. PAD
- TREELINE
- SHRUBLINE
- SINGLE TREE
- SINGLE SHRUB
- BRUSH LINE
- UTILITY POLE
- UTILITY POLE W/LIGHT
- ANCHOR GUY
- TRAFFIC SIGNAL
- TRAFFIC CONTROL BOX
- MANHOLE
- FIRE HYDRANT
- VALVE
- METAL COVER
- LAMP POST
- POST
- SIGN
- CATCH BASIN
- DOUBLE CATCH BASIN
- FLAGPOLE
- LIGHT POLE
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- APPROXIMATE LIMITS OF REMEDIAL WORK

MAP SOURCE:

1) BASEMAP OBTAINED FROM DRAWING ENTITLED, "TOPOGRAPHIC MAP FOR GREENPOINT ENERGY CENTER BOUNDED BY MASPETH AVENUE, VANDERVOORT AVENUE, LOMBARDY STREET, & NEWTOWN CREEK" DATED SEPTEMBER 24, 1999 AND PREPARED BY LYNCH, GIULIANO & ASSOCIATES, INC.

130 0 130 260
GRAPHIC SCALE IN FEET (APPROXIMATE)

REVISIONS/ISSUES		
NO.	DATE	DESCRIPTION

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KEYSPAN CORPORATION
GREENPOINT ENERGY CENTER

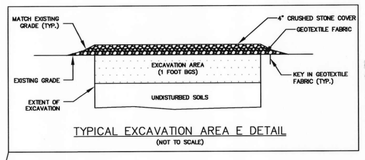
BROOKLYN, NEW YORK

GREENPOINT ENERGY CENTER SITE PLAN

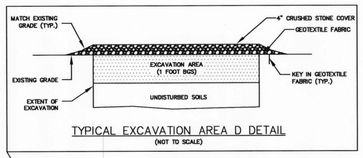
FOR THE REMEDIAL AREA

DATE: AUGUST 2005	JOB NO. 2522.033.024
SCALE 1" = 130'	
DRAWN DMM	FIGURE NO. FIGURE 2
CHKD. JWW	

PROJECT: FILE NAME: S:\KeySpan Greenpoint\Remedial Action Completion Report\CADD\FIGURE 2 - Facility Plan.dwg LAST EDIT: 09/08/2005 - 02:58:50 PM LOGIN: Rsgobbo@rsgobbo



TYPICAL EXCAVATION AREA E DETAIL
(NOT TO SCALE)



TYPICAL EXCAVATION AREA D DETAIL
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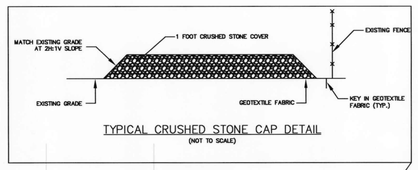
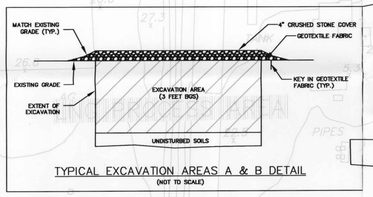
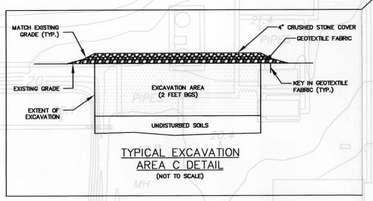


TYPICAL CRUSHED STONE CAP DETAIL
(NOT TO SCALE)



TYPICAL EXCAVATION AREAS A & B DETAIL
(NOT TO SCALE)



TYPICAL EXCAVATION AREA C DETAIL
(NOT TO SCALE)

EXCAVATE & BACKFILL TO EXISTING SIDEWALK

EXISTING LNG CONTROL HOUSE

PROPOSED 12" HIGH ASPHALT CURBING (TYP.)

EXISTING FENCE

ACCESS RESTRICTED AREA

LOMBARDY STREET

NEWTOWN CREEK

REMEDIAL LEGEND

- EXCAVATION AREAS A & B (3' DEPTH)
- EXCAVATION AREA C (2' DEPTH)
- EXCAVATION AREA D (1' DEPTH)
- EXCAVATION AREA E (1' DEPTH)
- CRUSHED STONE CAP AREA (1' ABOVE GRADE)

LEGEND

- CURB
- ROAD
- DRIVE
- BUILDING
- TRAILER
- RAILROAD
- WALL
- FENCE
- FENCE ON WALL
- GUARDRAIL
- SIDEWALK
- CONC. PAD
- TREELINE
- SHRUBLINE
- SINGLE TREE
- SINGLE SHRUB
- BRUSH LINE
- UTILITY POLE
- UTILITY POLE W/LIGHT
- ANCHOR GUY
- TRAFFIC SIGNAL
- TRAFFIC CONTROL BOX (TCB)
- MANHOLE (MH)
- FIRE HYDRANT (FH)
- VALVE (V)
- METAL COVER (MC)
- LAMP POST (LT)
- POST
- SIGN (S)
- CATCH BASIN
- DOUBLE CATCH BASIN
- FLAGPOLE (FP)
- LIGHT POLE
- ACCESS RESTRICTED AREA DUE TO THE PRESENCE OF EXISTING SITE UTILITIES
- PHASE I SOIL BORING (GPE-8)
- PHASE II SOIL BORING (GPESB-17)
- MONITORING WELL (GPEMW-3S)
- TEST PIT (GPETP-06)

NOTES:

1) BASEMAP OBTAINED FROM DRAWING ENTITLED, "TOPOGRAPHIC MAP FOR GREENPOINT ENERGY CENTER BOUNDED BY MASPETH AVENUE, VANDERVOORT AVENUE, LOMBARDY STREET, & NEWTOWN CREEK" DATED SEPTEMBER 24, 1999 AND PREPARED BY LYNCH, GIULIANO & ASSOCIATES, INC.

50 25 0 50 100
GRAPHIC SCALE IN FEET (APPROXIMATE)

REVISIONS/ISSUES		
NO.	DATE	DESCRIPTION

PAULUS SOKOLOWSKI and SARTOR Engineering, PC
Engineers • Architects
Environmental Scientists
67A MOUNTAIN BOULEVARD EXTENSION
P.O. BOX 4039
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700
FAX: (732) 560-9768

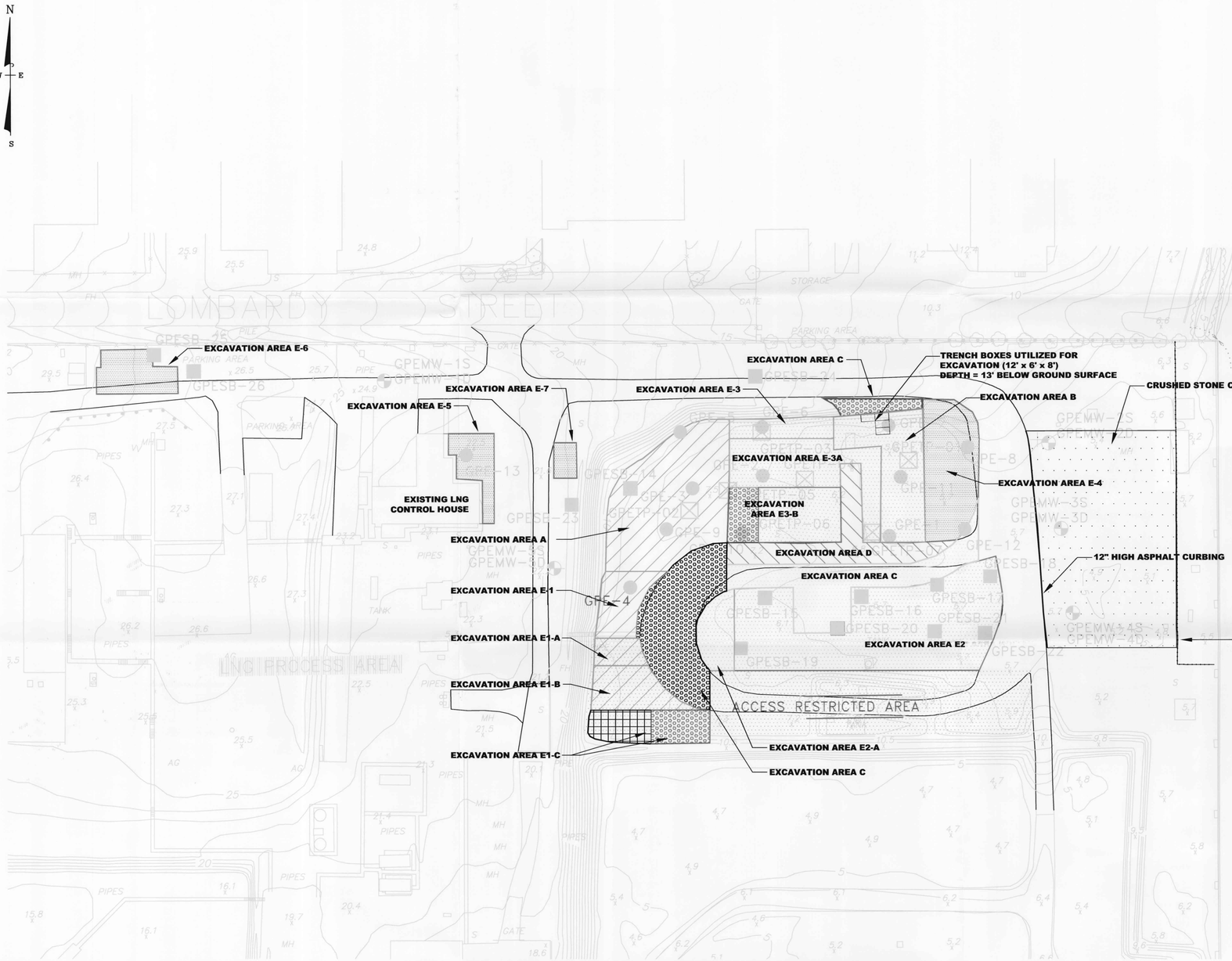
KEYSPAN CORPORATION
GREENPOINT ENERGY CENTER

BROOKLYN, NEW YORK

PROPOSED REMEDIAL ACTION SITE PLAN

DATE: AUGUST 2005	JOB NO.: 2522.033.024
SCALE: AS SHOWN	
DRAWN: DMM	FIGURE NO.: FIGURE 3
CHKD.: JWW	

PROJECT: FILE NAME:S:\KeySpan Greenpoint\Remedial Action Completion Report\CADD\FIGURE 3 -Proposed Site Plan.dwg LAST EDIT: 09/09/2005-03:02:05 PM



LEGEND

- CURB
- ROAD
- DRIVE
- BUILDING
- TRAILER
- RAILROAD
- WALL
- FENCE
- FENCE ON WALL
- GUARDRAIL
- SIDEWALK
- CONC. PAD
- TREELINE
- SHRUBLINE
- SINGLE TREE
- SINGLE SHRUB
- BRUSH LINE
- UTILITY POLE
- UTILITY POLE W/LIGHT
- ANCHOR GUY
- TRAFFIC SIGNAL
- TRAFFIC CONTROL BOX
- MANHOLE
- FIRE HYDRANT
- VALVE
- METAL COVER
- LAMP POST
- POST
- SIGN
- CATCH BASIN
- DOUBLE CATCH BASIN
- FLAGPOLE
- LIGHT POLE
- ACCESS RESTRICTED AREA DUE TO THE PRESENCE OF EXISTING SITE UTILITIES
- PHASE I SOIL BORING — GPE-8
- PHASE II SOIL BORING — GPESB-17
- MONITORING WELL — GPEMW-3S
- TEST PIT — GPETP-06

REMEDIAL LEGEND

- 3.5' TO 4' DEEP EXCAVATION AREA
- 3.5' DEEP EXCAVATION AREA
- 3.0' DEEP EXCAVATION AREA
- 2.5' to 3.0' DEEP EXCAVATION AREA
- 2.0' to 2.5' DEEP EXCAVATION AREA
- 2.0' DEEP EXCAVATION AREA
- 1.0' to 1.5' DEEP EXCAVATION AREA
- 1.0' DEEP EXCAVATION AREA
- CRUSHED STONE CAP AREA (1' ABOVE GRADE)

50 25 0 50 100
GRAPHIC SCALE IN FEET (APPROXIMATE)

NOTE:

1) BASEMAP OBTAINED FROM DRAWING ENTITLED, "TOPOGRAPHIC MAP FOR GREENPOINT ENERGY CENTER BOUNDED BY MASPETH AVENUE, VANDERVOORT AVENUE, LOMBARDY STREET, & NEWTOWN CREEK" DATED SEPTEMBER 24, 1999 AND PREPARED BY LYNCH, GIULIANO & ASSOCIATES, INC.

REVISIONS/ISSUES		
NO.	DATE	DESCRIPTION

PAULUS SOKOLOWSKI and SARTOR Engineering, PC
Engineers • Architects
Environmental Scientists
67A MOUNTAIN BOULEVARD EXTENSION
P.O. BOX 4039
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700
FAX: (732) 560-9768

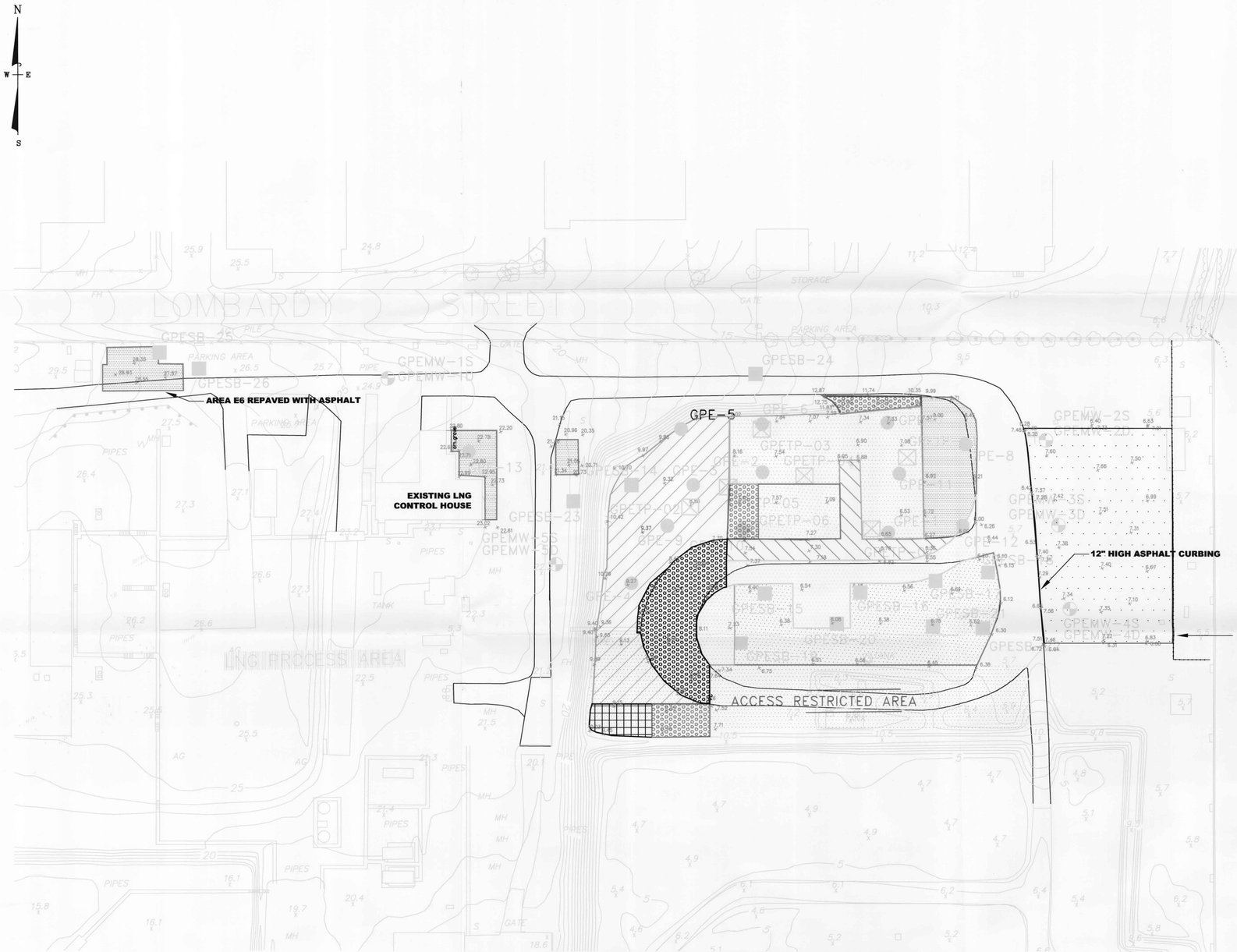
KEYSPAN CORPORATION
GREENPOINT ENERGY CENTER

BROOKLYN, NEW YORK

MODIFIED REMEDIAL ACTION SITE PLAN

DATE: AUGUST 2005	JOB NO.: 2522.033.024
SCALE: AS SHOWN	
DRAWN: DMM	FIGURE NO.: FIGURE 4
CHKD.: JWW	

PROJECT: FILE NAME:S:\KeySpan Greenpoint\Remedial Action Completion Report\CADD\FIGURE 4 – Expanded Site Plan.dwg LAST EDIT: 09/09/2005-03:03:50 PM



LEGEND

CURB
ROAD
DRIVE
BUILDING
TRAILER
RAILROAD
WALL
FENCE
FENCE ON WALL
GUARDRAIL
SIDEWALK
CONC. PAD
TREELINE
SHRUBLINE
SINGLE TREE
SINGLE SHRUB
BRUSH LINE
UTILITY POLE
UTILITY POLE W/LIGHT
ANCHOR GUY (AG)
TRAFFIC SIGNAL
TRAFFIC CONTROL BOX (TCB)
MANHOLE (MH)
FIRE HYDRANT (FH)
VALVE (V)
METAL COVER (MC)
LAMP POST (LT)
POST
SIGN (S)
CATCH BASIN
DOUBLE CATCH BASIN
FLAGPOLE (FP)
LIGHT POLE
ACCESS RESTRICTED AREA DUE TO THE PRESENCE OF EXISTING SITE UTILITIES
PHASE 1 SOIL BORING (GPE-8)
PHASE II SOIL BORING (GPESB-17)
MONITORING WELL (GPEMW-3S)
TEST PIT (GPETP-06)

REMEDIAL LEGEND

- 3.5' TO 4' THICK CAP AREA
- 3.5' THICK CAP AREA
- 3.0' THICK CAP AREA
- 2.5' to 3.0' THICK CAP AREA
- 2.0' to 2.5' THICK CAP AREA
- 2.0' THICK CAP AREA
- 1.0' to 1.5' THICK CAP AREA
- 1.0' THICK CAP AREA
- CRUSHED STONE CAP AREA (1' ABOVE GRADE)
- POST-REMEDIAL SPOT ELEVATION (IN FEET) (21.34)

50 25 0 50 100
GRAPHIC SCALE IN FEET (APPROXIMATE)

NOTE:

1) BASEMAP OBTAINED FROM DRAWING ENTITLED, "TOPOGRAPHIC MAP FOR GREENPOINT ENERGY CENTER BOUNDED BY MASPETH AVENUE, VANDORVOORT AVENUE, LOMBARDY STREET, & NEWTOWN CREEK" DATED SEPTEMBER 24, 1999 AND PREPARED BY LYNCH, GIULIANO & ASSOCIATES, INC.

REVISIONS/ISSUES		
NO.	DATE	DESCRIPTION

PAULUS SOKOLOWSKI and SARTOR Engineering, PC
Engineers • Architects
Environmental Scientists
67A MOUNTAIN BOULEVARD EXTENSION
P.O. BOX 4039
WARREN, NEW JERSEY 07059
PHONE: (732) 560-9700
FAX: (732) 560-9768

KEYSPAN CORPORATION
GREENPOINT ENERGY CENTER

BROOKLYN, NEW YORK

POST-REMEDIAL ACTION SITE PLAN (AS-BUIILT)

DATE: AUGUST 2005	JOB NO.: 2522.033.024
SCALE: AS SHOWN	
DRAWN: DMM	FIGURE NO.: FIGURE 5
CHKD.: JWW	

PROJECT: FILE NAME:S:\KeySpan Greenpoint\Remedial Action Completion Report\CADD\FIGURE 5 – As-Built Site Plan.dwg LAST EDIT: 09/09/2005-03:05:28 PM

APPENDIX B

METAL BEARING WASTE ANALYTICAL RESULTS

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505158-001**

Sample Information...
Type : Solid

Origin:

Client ID. : 1 EAST AREA C

Greenpoint Remediation

Collected 5/5/2005 12:30:00 PM
Received 5/5/2005 3:20:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Aluminum	5000		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Barium	27.9		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Beryllium	< 0.54		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Cadmium	0.57		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Calcium	365		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Chromium	14.1		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Cobalt	< 5.43		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Copper	39.7		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Iron	21000		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Magnesium	1310		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Manganese	61.3		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Nickel	6.70		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Potassium	935		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Sodium	444		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Vanadium	21.4		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Zinc	18.0		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Antimony	< 6.51		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Arsenic	401		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Lead	4.53		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Selenium	< 0.54		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Silver	< 1.09		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Thallium	< 1.09		1	mg/Kg-dry	SW6010A	05/09/2005 7:26 AM
Mercury	< 0.22		1	mg/Kg-dry	SW7471	05/06/2005 11:33 AM
Phenol	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Bis(2-chloroethyl)ether	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2-Chlorophenol	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
1,3-Dichlorobenzene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
1,4-Dichlorobenzene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
1,2-Dichlorobenzene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2-Methylphenol	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2,2'-oxybis(1-Chloropropane)	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
4-Methylphenol	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
N-Nitroso-di-n-propylamine	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Hexachloroethane	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Nitrobenzene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Isophorone	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2-Nitrophenol	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/10/2005

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505158-001**

Sample Information...
Type : Solid

Origin:

Client ID. : 1 EAST AREA C

Greenpoint Remediation

Collected 5/5/2005 12:30:00 PM
Received 5/5/2005 3:20:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
2,4-Dimethylphenol	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
bis(2-Chloroethoxy)methane	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2,4-Dichlorophenol	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
1,2,4-Trichlorobenzene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Naphthalene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
4-Chloroaniline	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Hexachlorobutadiene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
4-Chloro-3-methylphenol	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2-Methylnaphthalene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Hexachlorocyclopentadiene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2,4,6-Trichlorophenol	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2,4,5-Trichlorophenol	< 900		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2-Chloronaphthalene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2-Nitroaniline	< 900		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Dimethylphthalate	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Acenaphthylene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2,6-Dinitrotoluene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
3-Nitroaniline	< 900		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Acenaphthene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2,4-Dinitrophenol	< 900		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
4-Nitrophenol	< 900		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Dibenzofuran	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
2,4-Dinitrotoluene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Diethylphthalate	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
4-Chlorophenyl-phenylether	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Fluorene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
4-Nitroaniline	< 900		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
4,6-Dinitro-2-methylphenol	< 900		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
N-Nitrosodiphenylamine	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
4-Bromophenyl-phenylether	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Hexachlorobenzene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Pentachlorophenol	< 900		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Phenanthrene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Anthracene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Carbazole	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Di-n-butyl phthalate	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Fluoranthene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Pyrene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/10/2005

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505158-001**

Sample Information...
Type : Solid

Origin:

Client ID. : 1 EAST AREA C
Greenpoint Remediation

Collected 5/5/2005 12:30:00 PM
Received 5/5/2005 3:20:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Butyl benzyl phthalate	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
3,3'-Dichlorobenzidine	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Benzo(a)anthracene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Chrysene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
bis(2-Ethylhexyl)phthalate	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Di-n-octyl phthalate	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Benzo(b)fluoranthene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Benzo(k)fluoranthene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Benzo(a)pyrene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Indeno(1,2,3-cd)pyrene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Dibenzo(a,h)anthracene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Benzo(g,h,i)perylene	< 360		1	µg/Kg-dry	SW8270B	05/09/2005 1:29 PM
Chloromethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Vinyl chloride	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Bromomethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Chloroethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
1,1-Dichloroethene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
1,2-Dichloroethene (total)	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Acetone	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Carbon disulfide	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Methylene chloride	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
1,1-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
2-Butanone	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Chloroform	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
1,1,1-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Carbon tetrachloride	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Benzene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
1,2-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Trichloroethene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
1,2-Dichloropropane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Bromodichloromethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
cis-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
4-Methyl-2-pentanone	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Toluene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
trans-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
1,1,2-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Tetrachloroethene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/10/2005

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505158-001**

Sample Information...
Type : Solid

Origin:

Client ID. : 1 EAST AREA C

Greenpoint Remediation

Collected 5/5/2005 12:30:00 PM
Received 5/5/2005 3:20:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
2-Hexanone	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Dibromochloromethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Chlorobenzene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Ethylbenzene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Xylene (total)	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Styrene	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Bromoform	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
1,1,2,2-Tetrachloroethane	< 11		1	µg/Kg-dry	SW8260B	05/06/2005 10:56 PM
Cyanide	10.6		1	mg/Kg-dry	SW9010	05/06/2005 9:47 AM
Reactive Cyanide	< 100		1	mg/Kg	SW7.3.3.2	05/06/2005 9:32 AM
pH	6.0		1	pH Units	SW9045	05/06/2005 4:00 PM
Percent Moisture	7.9		1	wt%	D2216	05/05/2005 4:20 PM
Reactive Sulfide	< 100		1	mg/Kg	SW7.3.4.2	05/10/2005 11:02 AM
Sulfate	841		25	mg/Kg-dry	SW9038	05/06/2005 11:44 AM
Sulfide	< 10.9		1	mg/Kg-dry	SW9030	05/10/2005 11:02 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Dale Reported : 5/10/2005

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505158-002**

Sample Information...
Type : Solid

Origin:

Client ID. : 1 WEST AREA C

Greenpoint Remediation

Collected 5/5/2005 12:35:00 PM
Received 5/5/2005 3:20:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Aluminum	1720		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Barium	113		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Beryllium	< 0.74		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Cadmium	< 0.74		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Calcium	1450		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Chromium	7.94		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Cobalt	< 7.35		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Copper	95.4		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Iron	17400		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Magnesium	482		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Manganese	22.5		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Nickel	< 5.88		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Potassium	1080		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Sodium	452		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Vanadium	9.66		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Zinc	20.8		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Antimony	< 8.82		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Arsenic	993		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Lead	448		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Selenium	1.51		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Silver	< 1.47		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Thallium	< 1.47		1	mg/Kg-dry	SW6010A	05/09/2005 7:33 AM
Mercury	0.59		1	mg/Kg-dry	SW7471	05/06/2005 11:42 AM
Phenol	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Bis(2-chloroethyl)ether	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2-Chlorophenol	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
1,3-Dichlorobenzene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
1,4-Dichlorobenzene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
1,2-Oichlorobenzene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2-Methylphenol	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2,2'-oxybis(1-Chloropropane)	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
4-Methylphenol	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
N-Nitroso-di-n-propylamine	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Hexachloroethane	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Nitrobenzene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Isophorone	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2-Nitrophenol	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/10/2005

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505158-002**

Sample Information...
Type : Solid

Origin:

Client ID. : 1 WEST AREA C

Greenpoint Remediation

Collected 5/5/2005 12:35:00 PM
Received 5/5/2005 3:20:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
2,4-Dimethylphenol	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
bis(2-Chloroethoxy)methane	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2,4-Dichlorophenol	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
1,2,4-Trichlorobenzene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Naphthalene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
4-Chloroaniline	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Hexachlorobutadiene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
4-Chloro-3-methylphenol	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2-Methylnaphthalene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Hexachlorocyclopentadiene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2,4,6-Trichlorophenol	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2,4,5-Trichlorophenol	< 1200		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2-Chloronaphthalene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2-Nitroaniline	< 1200		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Dimethylphthalate	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Acenaphthylene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2,6-Dinitrotoluene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
3-Nitroaniline	< 1200		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Acenaphthene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2,4-Dinitrophenol	< 1200		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
4-Nitrophenol	< 1200		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Dibenzofuran	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
2,4-Dinitrotoluene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Diethylphthalate	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
4-Chlorophenyl-phenylether	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Fluorene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
4-Nitroaniline	< 1200		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
4,6-Dinitro-2-methylphenol	< 1200		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
N-Nitrosodiphenylamine	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
4-Bromophenyl-phenylether	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Hexachlorobenzene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Pentachlorophenol	< 1200		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Phenanthrene	540		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Anthracene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Carbazole	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Di-n-butyl phthalate	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Fluoranthene	1500		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Pyrene	1500		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/10/2005

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505158-002**

Sample Information...
Type : Solid

Origin:

Client ID. : 1 WEST AREA C

Greenpoint Remediation

Collected 5/5/2005 12:35:00 PM
Received 5/5/2005 3:20:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Butyl benzyl phthalate	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
3,3'-Dichlorobenzidine	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Benzo(a)anthracene	890		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Chrysene	990		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
bis(2-Ethylhexyl)phthalate	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Di-n-octyl phthalate	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Benzo(b)fluoranthene	800		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Benzo(k)fluoranthene	870		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Benzo(a)pyrene	880		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Indeno(1,2,3-cd)pyrene	620		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Dibenzo(a,h)anthracene	< 490		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Benzo(g,h,i)perylene	710		1	µg/Kg-dry	SW8270B	05/09/2005 2:00 PM
Chloromethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Vinyl chloride	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Bromomethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Chloroethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
1,1-Dichloroethene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
1,2-Dichloroethene (total)	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Acetone	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Carbon disulfide	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Methylene chloride	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
1,1-Dichloroethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
2-Butanone	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Chloroform	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
1,1,1-Trichloroethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Carbon tetrachloride	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Benzene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
1,2-Dichloroethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Trichloroethene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
1,2-Dichloropropane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Bromodichloromethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
cis-1,3-Dichloropropene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
4-Methyl-2-pentanone	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Toluene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
trans-1,3-Dichloropropene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
1,1,2-Trichloroethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Tetrachloroethene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/10/2005

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505158-002**

Sample Information...
Type : Solid

Origin:

Client ID. : 1 WEST AREA C

Collected 5/5/2005 12:35:00 PM
Received 5/5/2005 3:20:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC

Greenpoint Remediation

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
2-Hexanone	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Dibromochloromethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Chlorobenzene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Ethylbenzene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Xylene (total)	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Styrene	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Bromoform	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
1,1,2,2-Tetrachloroethane	< 15		1	µg/Kg-dry	SW8260B	05/06/2005 11:29 PM
Cyanide	55.0		25	mg/Kg-dry	SW9010	05/06/2005 9:48 AM
Reactive Cyanide	< 100		1	mg/Kg	SW7.3.3.2	05/06/2005 9:33 AM
pH	6.3		1	pH Units	SW9045	05/06/2005 4:02 PM
Percent Moisture	32.0		1	wt%	D2216	05/05/2005 4:23 PM
Reactive Sulfide	< 100		1	mg/Kg	SW7.3.4.2	05/10/2005 11:03 AM
Sulfate	< 919		25	mg/Kg-dry	SW9038	05/06/2005 11:46 AM
Sulfide	< 14.7		1	mg/Kg-dry	SW9030	05/10/2005 11:03 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/10/2005

Metal-bearing wastes (TCLP)

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Keyspan
175 East Old Country Rd.
Hicksville, NY 11801
Attn To :

Lab No. : 0505386-001A

Client ID. : LNG PROJECT-ROLLOFF
Greenpoint Energy Center

Sample Information...
Type : Soil

Origin:

Collected 5/13/2005 2:30:00 PM
Received 5/13/2005 4:00:00 PM
Collected By :
Copy : Joe Walsh
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
2,4-D	< 5.0		1	µg/L	SW1311/8151	05/19/2005 4:02 PM
2,4,5-TP (Silvex)	< 2.5		1	µg/L	SW1311/8151	05/19/2005 4:02 PM
gamma-BHC	< 0.10		1	µg/L	SW1311/8081	05/20/2005 2:00 AM
Heptachlor	< 0.10		1	µg/L	SW1311/8081	05/20/2005 2:00 AM
Heptachlor epoxide	< 0.10		1	µg/L	SW1311/8081	05/20/2005 2:00 AM
Endrin	< 0.20		1	µg/L	SW1311/8081	05/20/2005 2:00 AM
Methoxychlor	< 1.0		1	µg/L	SW1311/8081	05/20/2005 2:00 AM
Toxaphene	< 10		1	µg/L	SW1311/8081	05/20/2005 2:00 AM
Chlordane	< 2.0		1	µg/L	SW1311/8081	05/20/2005 2:00 AM
Silver	< 0.02		1	mg/L	SW1311/7760	05/19/2005 8:57 AM
Mercury	< 0.200		1	ug/L	SW1311/7470	05/18/2005 12:48 PM
Barium	< 10.0		1	mg/L	SW1311/6010	05/19/2005 9:55 AM
Cadmium	< 0.100		1	mg/L	SW1311/6010	05/19/2005 9:55 AM
Chromium	< 1.00		1	mg/L	SW1311/6010	05/19/2005 9:55 AM
Arsenic	< 1.00		1	mg/L	SW1311/6010	05/19/2005 9:55 AM
Lead	< 1.00		1	mg/L	SW1311/6010	05/19/2005 9:55 AM
Selenium	< 0.100		1	mg/L	SW1311/6010	05/19/2005 9:55 AM
Pyridine	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
1,4-Dichlorobenzene	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
2-Methylphenol	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
3-Methylphenol/4-Methylphenol	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
Cresols, Total	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
Hexachloroethane	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
Nitrobenzene	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
Hexachlorobutadiene	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
2,4,6-Trichlorophenol	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
2,4,5-Trichlorophenol	< 25		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
2,4-Dinitrotoluene	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
Hexachlorobenzene	< 10		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
Pentachlorophenol	< 25		1	µg/L	SW1311/8270	05/18/2005 1:24 PM
Vinyl chloride	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM
1,1-Dichloroethene	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM
2-Butanone	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM
Chloroform	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM
1,2-Dichloroethane	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM
Carbon tetrachloride	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM
Benzene	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM
Trichloroethene	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/20/2005

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Keyspan
175 East Old Country Rd.
Hicksville, NY 11801
Attn To :

Lab No. : **0505386-001A**

Client ID. : LNG PROJECT-ROLLOFF
Greenpoint Energy Center

Collected 5/13/2005 2:30:00 PM
Received 5/13/2005 4:00:00 PM
Collected By :
Copy : **Joe Walsh**
CC

Sample Information...
Type : Soil

Origin:

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Tetrachloroethene	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM
Chlorobenzene	< 10		1	µg/L	SW1311/8260	05/19/2005 12:41 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 5/20/2005

Joann M. Slavin

Laboratory Manager

APPENDIX C

BACKFILL DOCUMENTATION

TILCON NEW YORK INC. 980 East 149th Street Bronx, NY 10455 (718) 665-9350 Fax (718) 665-9371

New York Paving
37-18 Railroad Avenue
Long Island City, New York 11101
Att: Pete

May 11, 2005

Re: Keyspan Remedial Measure Statement of Work-Greenpoint Energy Center

Dear Pete,

Tilcon New York Inc. produces NYSDOT material at its West Nyack quarry meeting the specifications for subbase Type 2-Item 304.02 . The West Nyack quarry is an approved source by the New York State DOT . The quarry is located on Snake Hill Road in West Nyack in the county of Rockland , New York The material crushed is virgin aggregates blended to meet the above specs for Item 304.02. The material produced at the West Nyack quarry is free of any contaminates and or hazardous material prior to transport

Very Truly Yours

Edward Cicalese

TILCON NEW YORK INC. 980 East 149th Street Bronx, NY 10455 (718) 665-9350 Fax (718) 665-9371

New York Paving
37-18 Railroad Avenue
Long Island City, New York 11101

June 5, 2005

Re: Keyspan Remedial Measure Statement of Work-Greenpoint Energy Center

Dear Pete,

Tilcon New York Inc. produces NYSDOT material at it's West Nyack quarry meeting the requirements needed for the 6''-12'' rip-wrap surge item. The West Nyack quarry is an approved source by the New York State DOT. The quarry is located on Snake Hill Road in West Nyack in the county of Rockland , New York. The stone used comes from virgin material and is free of any contaminates and or hazardous materials prior to transport.

Very Truly Yours

Edward Cicalese

APPENDIX D

BACKFILL ANALYTICAL RESULTS

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-001A**

Client ID. : TILCON 11:00

Sample Information...
Type : Solid

Origin:

Collected 4/12/2005 11:00:00 AM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : **Dan**
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Barium	36.6		1	mg/Kg-dry	SW6010A	04/13/2005 10:02 AM
Cadmium	1.59		1	mg/Kg-dry	SW6010A	04/13/2005 10:02 AM
Chromium	3.63		1	mg/Kg-dry	SW6010A	04/13/2005 10:02 AM
Arsenic	1.47		1	mg/Kg-dry	SW6010A	04/13/2005 10:02 AM
Lead	6.43		1	mg/Kg-dry	SW6010A	04/13/2005 10:02 AM
Selenium	< 0.54		1	mg/Kg-dry	SW6010A	04/13/2005 10:02 AM
Silver	< 1.07		1	mg/Kg-dry	SW6010A	04/13/2005 10:02 AM
Mercury	< 0.21		1	mg/Kg-dry	SW7471	04/13/2005 9:57 AM
Naphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
2-Methylnaphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Acenaphthylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Acenaphthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Fluorene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Phenanthrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Benzo(a)anlhracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Chrysene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Benzo(b)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Benzo(k)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Benzo(a)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Indeno(1,2,3-cd)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Dibenzo(a,h)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Benzo(g,h,i)perylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:17 PM
Chloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Vinyl chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Bromomelhane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Chloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
1,1-Dichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
1,2-Dichloroethene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Acetone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Carbon disulfide	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Methylene chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
1,1-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
2-Butanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Chloroform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
1,1,1-Trichloroelhane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-001A**

Client ID. : TILCON 11:00

Sample Information...
Type : Solid

Origin:

Collected 4/12/2005 11:00:00 AM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : Dan
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Carbon tetrachloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Benzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
1,2-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Trichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
1,2-Dichloropropane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Bromodichloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
cis-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
4-Methyl-2-pentanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Toluene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
trans-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
1,1,2-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Tetrachloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
2-Hexanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Dibromochloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Chlorobenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Ethylbenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Xylene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Styrene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Bromoform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
1,1,2,2-Tetrachloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:06 PM
Cyanide	< 0.5		1	mg/Kg-dry	SW9010	04/13/2005 10:47 AM
Percent Moisture	6.7		1	wt%	D2216	04/12/2005

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-002A**

Client ID. : TILCON 11:15

Sample Information...
Type : Solid

Origin:

Collected 4/12/2005 11:15:00 AM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : Dan
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Barium	292		1	mg/Kg-dry	SW6010A	04/13/2005 10:30 AM
Cadmium	0.96		1	mg/Kg-dry	SW6010A	04/13/2005 10:30 AM
Chromium	3.47		1	mg/Kg-dry	SW6010A	04/13/2005 10:30 AM
Arsenic	2.13		1	mg/Kg-dry	SW6010A	04/13/2005 10:30 AM
Lead	5.21		1	mg/Kg-dry	SW6010A	04/13/2005 10:30 AM
Selenium	< 0.53		1	mg/Kg-dry	SW6010A	04/13/2005 10:30 AM
Silver	< 1.07		1	mg/Kg-dry	SW6010A	04/13/2005 10:30 AM
Mercury	< 0.21		1	mg/Kg-dry	SW7471	04/13/2005 10:03 AM
Naphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
2-Methylnaphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Acenaphthylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Acenaphthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Fluorene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Phenanthrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Benzo(a)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Chrysene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Benzo(b)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Benzo(k)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Benzo(a)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Indeno(1,2,3-cd)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Dibenzo(a,h)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Benzo(g,h,i)perylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 6:49 PM
Chloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Vinyl chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Bromomethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Chloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
1,1-Dichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
1,2-Dichloroethene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Acetone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Carbon disulfide	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Methylene chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
1,1-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
2-Butanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Chloroform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
1,1,1-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040. FAX: (631) 420-8436 NYSDOHID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-002A**

Client ID. : TILCON 11:15

Sample Information...
Type : Solid

Origin:

Collected 4/12/2005 11:15:00 AM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : **Dan**
CC : EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Carbon tetrachloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Benzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
1,2-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Trichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
1,2-Dichloropropane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Bromodichloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
cis-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
4-Methyl-2-pentanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Toluene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
trans-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
1,1,2-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Tetrachloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
2-Hexanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Dibromochloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Chlorobenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Ethylbenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Xylene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Styrene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Bromoform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
1,1,2,2-Tetrachloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 6:37 PM
Cyanide	< 0.5		1	mg/Kg-dry	SW9010	04/13/2005 10:48 AM
Percent Moisture	6.2		1	wt%	D2216	04/12/2005

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-003A**

Client ID. : TILCON 11:30

Sample Information...
Type : Solid

Origin:

Collected 4/12/2005 11:30:00 AM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : Dan
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Barium	45.0		1	mg/Kg-dry	SW6010A	04/13/2005 10:39 AM
Cadmium	1.09		1	mg/Kg-dry	SW6010A	04/13/2005 10:39 AM
Chromium	5.08		1	mg/Kg-dry	SW6010A	04/13/2005 10:39 AM
Arsenic	2.22		1	mg/Kg-dry	SW6010A	04/13/2005 10:39 AM
Lead	6.51		1	mg/Kg-dry	SW6010A	04/13/2005 10:39 AM
Selenium	< 0.54		1	mg/Kg-dry	SW6010A	04/13/2005 10:39 AM
Silver	< 1.07		1	mg/Kg-dry	SW6010A	04/13/2005 10:39 AM
Mercury	< 0.21		1	mg/Kg-dry	SW7471	04/13/2005 10:05 AM
Naphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
2-Methylnaphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Acenaphthylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Acenaphthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Fluorene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Phenanthrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Benzo(a)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Chrysene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Benzo(b)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Benzo(k)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Benzo(a)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Indeno(1,2,3-cd)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Dibenzo(a,h)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Benzo(g,h,i)perylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:21 PM
Chloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Vinyl chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Bromomethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Chloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
1,1-Dichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
1,2-Dichloroethene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Acetone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Carbon disulfide	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Methylene chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
1,1-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
2-Butanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Chloroform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
1,1,1-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-003A**

Client ID. : TILCON 11:30

Sample Information...
Type : Solid

Origin:

Collected 4/12/2005 11:30:00 AM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : Dan
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Carbon tetrachloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Benzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
1,2-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Trichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
1,2-Dichloropropane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Bromodichloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
cis-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
4-Methyl-2-pentanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Toluene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
trans-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
1,1,2-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Tetrachloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
2-Hexanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Dibromochloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Chlorobenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Ethylbenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Xylene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Styrene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Bromoform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
1,1,2,2-Tetrachloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:07 PM
Cyanide	< 0.5		1	mg/Kg-dry	SW9010	04/13/2005 10:49 AM
Percent Moisture	6.5		1	wt%	D2216	04/12/2005

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-004A**

Client ID. : TILCON 11:45

Sample Information...
Type : Solid

Origin:

Collected 4/12/2005 11:45:00 AM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : Dan
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Barium	45.6		1	mg/Kg-dry	SW6010A	04/13/2005 10:48 AM
Cadmium	1.14		1	mg/Kg-dry	SW6010A	04/13/2005 10:48 AM
Chromium	4.07		1	mg/Kg-dry	SW6010A	04/13/2005 10:48 AM
Arsenic	1.38		1	mg/Kg-dry	SW6010A	04/13/2005 10:48 AM
Lead	3.61		1	mg/Kg-dry	SW6010A	04/13/2005 10:48 AM
Selenium	< 0.53		1	mg/Kg-dry	SW6010A	04/13/2005 10:48 AM
Silver	< 1.07		1	mg/Kg-dry	SW6010A	04/13/2005 10:48 AM
Mercury	< 0.21		1	mg/Kg-dry	SW7471	04/13/2005 10:06 AM
Naphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
2-Methylnaphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Acenaphthylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Acenaphthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Fluorene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Phenanthrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Benzo(a)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Chrysene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Benzo(b)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Benzo(k)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Benzo(a)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Indeno(1,2,3-cd)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Dibenzo(a,h)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Benzo(g,h,i)perylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 7:53 PM
Chloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Vinyl chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Bromomethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Chloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
1,1-Dichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
1,2-Dichloroethene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Acetone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Carbon disulfide	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Methylene chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
1,1-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
2-Butanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Chloroform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
1,1,1-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-004A**

Sample Information...
Type : Solid

Origin:

Client ID. : TILCON 11:45

Collected 4/12/2005 11:45:00 AM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : Dan
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Carbon tetrachloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Benzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
1,2-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Trichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
1,2-Dichloropropane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Bromodichloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
cis-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
4-Methyl-2-pentanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Toluene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
trans-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
1,1,2-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Tetrachloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
2-Hexanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Dibromochloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Chlorobenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Ethylbenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Xylene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Styrene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Bromoform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
1,1,2,2-Tetrachloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 7:38 PM
Cyanide	< 0.5		1	mg/Kg-dry	SW9010	04/13/2005 10:50 AM
Percent Moisture	6.2		1	wt%	D2216	04/12/2005

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-005A**

Sample Information...
Type : Solid

Origin:

Client ID. : TILCON 12:00

Collected 4/12/2005 12:00:00 PM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : Dan
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Barium	42.3		1	mg/Kg-dry	SW6010A	04/13/2005 10:58 AM
Cadmium	1.07		1	mg/Kg-dry	SW6010A	04/13/2005 10:58 AM
Chromium	4.60		1	mg/Kg-dry	SW6010A	04/13/2005 10:58 AM
Arsenic	1.89		1	mg/Kg-dry	SW6010A	04/13/2005 10:58 AM
Lead	2.68		1	mg/Kg-dry	SW6010A	04/13/2005 10:58 AM
Selenium	< 0.54		1	mg/Kg-dry	SW6010A	04/13/2005 10:58 AM
Silver	< 1.07		1	mg/Kg-dry	SW6010A	04/13/2005 10:58 AM
Mercury	< 0.21		1	mg/Kg-dry	SW7471	04/13/2005 10:08 AM
Naphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
2-Methylnaphthalene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Acenaphthylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Acenaphthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Fluorene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Phenanthrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Benzo(a)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Chrysene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Benzo(b)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Benzo(k)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Benzo(a)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Indeno(1,2,3-cd)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Dibenzo(a,h)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Benzo(g,h,i)perylene	< 350		1	µg/Kg-dry	SW8270B	04/13/2005 8:24 PM
Chloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Vinyl chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Bromomethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Chloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
1,1-Dichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
1,2-Dichloroethene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Acetone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Carbon disulfide	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Methylene chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
1,1-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
2-Butanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Chloroform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
1,1,1-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-005A**

Client ID. : TILCON 12:00

Sample Information...
Type : Solid

Origin:

Collected 4/12/2005 12:00:00 PM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : **Dan**
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Carbon tetrachloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Benzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
1,2-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Trichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
1,2-Dichloropropane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Bromodichloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
cis-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
4-Methyl-2-pentanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Toluene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
trans-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
1,1,2-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Tetrachloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
2-Hexanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Dibromochloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Chlorobenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Ethylbenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Xylene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Styrene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Bromoform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
1,1,2,2-Tetrachloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:08 PM
Cyanide	< 0.5		1	mg/Kg-dry	SW9010	04/13/2005 10:51 AM
Percent Moisture	6.7		1	wt%	D2216	04/12/2005

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631)694-3040 .FAX: (631)420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-006A**

Sample Information...
Type : Solid

Origin:

Client ID. : TILCON 12:15

Collected 4/12/2005 12:15:00 PM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : Dan
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Barium	40.5		1	mg/Kg-dry	SW6010A	04/13/2005 11:25 AM
Cadmium	1.00		1	mg/Kg-dry	SW6010A	04/13/2005 11:25 AM
Chromium	5.99		1	mg/Kg-dry	SW6010A	04/13/2005 11:25 AM
Arsenic	1.64		1	mg/Kg-dry	SW6010A	04/13/2005 11:25 AM
Lead	2.17		1	mg/Kg-dry	SW6010A	04/13/2005 11:25 AM
Selenium	< 0.53		1	mg/Kg-dry	SW6010A	04/13/2005 11:25 AM
Silver	4.25		1	mg/Kg-dry	SW6010A	04/13/2005 11:25 AM
Mercury	< 0.21		1	mg/Kg-dry	SW7471	04/13/2005 10:14 AM
Naphthalene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
2-Methylnaphthalene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Acenaphthylene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Acenaphthene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Fluorene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Phenanthrene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Anthracene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Pyrene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Benzo(a)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Chrysene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Benzo(b)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Benzo(k)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Benzo(a)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Indeno(1,2,3-cd)pyrene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Dibenzo(a,h)anthracene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Benzo(g,h,i)perylene	< 350		1	µg/Kg-dry	SW8270B	04/14/2005 10:45 AM
Chloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Vinyl chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Bromomethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Chloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
1,1-Dichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
1,2-Dichloroethene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Acetone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Carbon disulfide	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Methylene chloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
1,1-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
2-Butanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Chloroform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
1,1,1-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631)694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0504294-006A**

Client ID. : TILCON 12:15

Sample Information...
Type : Solid

Origin:

Collected 4/12/2005 12:15:00 PM
Received 4/12/2005 12:40:00 PM
Collected By : CLIENT
Copy : **Dan**
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Carbon tetrachloride	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Benzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
1,2-Dichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Trichloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
1,2-Dichloropropane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Bromodichloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
cis-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
4-Methyl-2-pentanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Toluene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
trans-1,3-Dichloropropene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
1,1,2-Trichloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Tetrachloroethene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
2-Hexanone	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Dibromochloromethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Chlorobenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Ethylbenzene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Xylene (total)	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Styrene	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Bromoform	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
1,1,2,2-Tetrachloroethane	< 11		1	µg/Kg-dry	SW8260B	04/12/2005 8:39 PM
Cyanide	< 0.5		1	mg/Kg-dry	SW9010	04/13/2005 10:52 AM
Percent Moisture	6.3		1	wt%	D2216	04/12/2005

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 4/14/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505118-001**

Sample Information...
Type : Soil

Origin:

Client ID. : RANCO MATERIALS (12:42)
Greenpoint Remediation

Collected 5/4/2005 12:42:00 PM
Received 5/4/2005 1:50:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Barium	< 20.9		1	mg/Kg-dry	SW6010A	05/05/2005 5:17 PM
Cadmium	< 0.52		1	mg/Kg-dry	SW6010A	05/05/2005 5:17 PM
Chromium	< 1.05		1	mg/Kg-dry	SW6010A	05/05/2005 5:17 PM
Arsenic	< 1.05		1	mg/Kg-dry	SW6010A	05/05/2005 5:17 PM
Lead	1.37		1	mg/Kg-dry	SW6010A	05/05/2005 5:17 PM
Selenium	0.58		1	mg/Kg-dry	SW6010A	05/05/2005 5:17 PM
Silver	< 1.05		1	mg/Kg-dry	SW6010A	05/05/2005 5:17 PM
Mercury	< 0.21		1	mg/Kg-dry	SW7471	05/06/2005 11:17 AM
Naphthalene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
2-Methylnaphthalene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Acenaphthylene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Acenaphthene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Fluorene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Phenanthrene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Anthracene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Fluoranthene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Pyrene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Benzo(a)anthracene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Chrysene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Benzo(b)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Benzo(k)fluoranthene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Benzo(a)pyrene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Indeno(1,2,3-cd)pyrene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Dibenzo(a,h)anthracene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Benzo(g,h,i)perylene	< 350		1	µg/Kg-dry	SW8270B	05/06/2005 1:29 PM
Chloromethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Vinyl chloride	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Bromomethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Chloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
1,1-Dichloroethene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
1,2-Dichloroethene (total)	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Acetone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Carbon disulfide	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Methylene chloride	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
1,1-Dichloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
2-Butanone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Chloroform	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/9/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505118-001**

Sample Information...
Type : Soil

Origin:

Client ID. : RANCO MATERIALS (12:42)
Greenpoint Remediation

Collected 5/4/2005 12:42:00 PM
Received 5/4/2005 1:50:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
1,1,1-Trichloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Carbon tetrachloride	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Benzene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
1,2-Dichloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Trichloroethene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
1,2-Dichloropropane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Bromodichloromethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
cis-1,3-Dichloropropene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
4-Methyl-2-pentanone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Toluene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
trans-1,3-Dichloropropene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
1,1,2-Trichloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Tetrachloroethene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
2-Hexanone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Dibromochloromethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Chlorobenzene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Ethylbenzene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Xylene (total)	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Styrene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Bromoform	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
1,1,2,2-Tetrachloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 8:45 PM
Cyanide	< 0.5		1	mg/Kg-dry	SW9010	05/06/2005 9:41 AM
Percent Moisture	4.4		1	wt%	D2216	05/05/2005 11:18 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/9/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505118-002**

Sample Information...
Type : Soil

Origin:

Client ID. : RANCO MATERIALS (12:48)
Greenpoint Remediation

Collected 5/4/2005 12:48:00 PM
Received 5/4/2005 1:50:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Barium	< 20.7		1	mg/Kg-dry	SW6010A	05/05/2005 5:28 PM
Cadmium	< 0.52		1	mg/Kg-dry	SW6010A	05/05/2005 5:28 PM
Chromium	1.21		1	mg/Kg-dry	SW6010A	05/05/2005 5:28 PM
Arsenic	< 1.03		1	mg/Kg-dry	SW6010A	05/05/2005 5:28 PM
Lead	1.57		1	mg/Kg-dry	SW6010A	05/05/2005 5:28 PM
Selenium	< 0.52		1	mg/Kg-dry	SW6010A	05/05/2005 5:28 PM
Silver	< 1.03		1	mg/Kg-dry	SW6010A	05/05/2005 5:28 PM
Mercury	< 0.21		1	mg/Kg-dry	SW7471	05/06/2005 11:22 AM
Naphthalene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
2-Methylnaphthalene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Acenaphthylene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Acenaphthene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Fluorene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Phenanthrene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Anthracene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Fluoranthene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Pyrene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Benzo(a)anthracene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Chrysene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Benzo(b)fluoranthene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Benzo(k)fluoranthene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Benzo(a)pyrene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Indeno(1,2,3-cd)pyrene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Dibenzo(a,h)anthracene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Benzo(g,h,i)perylene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:01 PM
Chloromethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Vinyl chloride	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Bromomethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Chloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
1,1-Dichloroethene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
1,2-Dichloroethene (total)	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Acetone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Carbon disulfide	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Methylene chloride	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
2-Butanone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Chloroform	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Carbon tetrachloride	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/9/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokoiowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505118-002**

Sample Information...
Type : Soil

Origin:

Client ID. : RANCO MATERIALS (12:48)
Greenpoint Remediation

Collected 5/4/2005 12:48:00 PM
Received 5/4/2005 1:50:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Benzene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
1,2-Dichloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Trichloroethene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
1,2-Dichloropropane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Bromodichloromethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
cis-1,3-Dichloropropene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
4-Methyl-2-pentanone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Toluene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
trans-1,3-Dichloropropene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Tetrachloroethene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
2-Hexanone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Dibromochloromethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Chlorobenzene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Ethylbenzene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Xylene (total)	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Styrene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Bromoform	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:18 PM
Cyanide	< 0.5		1	mg/Kg-dry	SW9010	05/06/2005 9:42 AM
Percent Moisture	3.3		1	wt%	D2216	05/05/2005 11:19 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/9/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505118-003**

Sample Information...
Type : Soil

Origin:

Client ID. : RANCO MATERIALS (12:55)
Greenpoint Remediation

Collected 5/4/2005 12:55:00 PM
Received 5/4/2005 1:50:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Barium	< 20.6		1	mg/Kg-dry	SW6010A	05/05/2005 5:38 PM
Cadmium	< 0.51		1	mg/Kg-dry	SW6010A	05/05/2005 5:38 PM
Chromium	1.09		1	mg/Kg-dry	SW6010A	05/05/2005 5:38 PM
Arsenic	< 1.03		1	mg/Kg-dry	SW6010A	05/05/2005 5:38 PM
Lead	1.43		1	mg/Kg-dry	SW6010A	05/05/2005 5:38 PM
Selenium	0.54		1	mg/Kg-dry	SW6010A	05/05/2005 5:38 PM
Silver	< 1.03		1	mg/Kg-dry	SW6010A	05/05/2005 5:38 PM
Mercury	< 0.21		1	mg/Kg-dry	SW7471	05/06/2005 11:24 AM
Naphthalene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
2-Methylnaphthalene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Acenaphthylene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Acenaphthene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Fluorene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Phenanthrene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Anthracene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Fluoranthene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Pyrene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Benzo(a)anthracene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Chrysene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Benzo(b)fluoranthene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Benzo(k)fluoranthene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Benzo(a)pyrene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Indeno(1,2,3-cd)pyrene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Dibenzo(a,h)anthracene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Benzo(g,h,i)perylene	< 340		1	µg/Kg-dry	SW8270B	05/06/2005 2:33 PM
Chloromethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Vinyl chloride	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Bromomethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Chloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
1,1-Dichloroethene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
1,2-Dichloroethene (total)	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Acetone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Carbon disulfide	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Methylene chloride	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
1,1-Dichloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
2-Butanone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Chloroform	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Joann M. Slavin

Laboratory Manager

Date Reported : 5/9/2005

Clean sand analyticals

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID # 10478

LABORATORY RESULTS

Paulus, Sokolowski and Sartor, LLC
67 Mountain Boulevard Ext.
Warren, NJ 07059
Attn To : Joe Walsh

Lab No. : **0505118-003**

Sample Information...
Type : Soil

Origin:

Client ID. : RANCO MATERIALS (12:55)
Greenpoint Remediation

Collected 5/4/2005 12:55:00 PM
Received 5/4/2005 1:50:00 PM
Collected By CLIENT
Copies To Joe Walsh
CC ; EDD

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
1,1,1-Trichloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Carbon tetrachloride	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Benzene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
1,2-Dichloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Trichloroethene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
1,2-Dichloropropane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Bromodichloromethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
cis-1,3-Dichloropropene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
4-Methyl-2-pentanone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Toluene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
trans-1,3-Dichloropropene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
1,1,2-Trichloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Tetrachloroethene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
2-Hexanone	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Dibromochloromethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Chlorobenzene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Ethylbenzene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Xylene (total)	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Styrene	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Bromoform	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
1,1,2,2-Tetrachloroethane	< 10		1	µg/Kg-dry	SW8260B	05/06/2005 9:50 PM
Cyanide	< 0.5		1	mg/Kg-dry	SW9010	05/06/2005 9:43 AM
Percent Moisture	2.7		1	wt%	D2216	05/05/2005 11:20 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

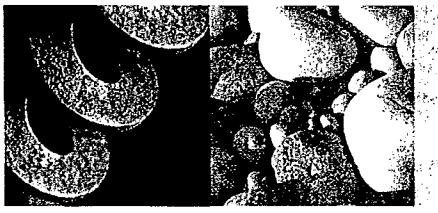
Joann M. Slavin

Laboratory Manager

Date Reported : 5/9/2005

APPENDIX E

COMMUNITY AIR MONITORING PROGRAM REPORT



GEI Consultants

Geotechnical
Environmental and
Water Resources
Engineering

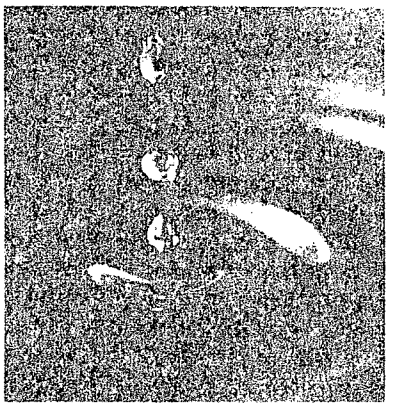
DRAFT Community Air Monitoring Program Report

Greenpoint Energy Center Site
Brooklyn, New York

Submitted to:
KeySpan Corporation
One Metro Tech Center
Brooklyn, NY 11201-3850

Submitted by:
GEI Consultants, Inc.
455 Winding Brook Drive, Suite 201
Glastonbury, CT 06033
860-368-5300

August 2005
982482-19-2907



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Abbreviations and Acronyms

AMS	Air Monitoring Stations
ASTM	American Society for Testing and Materials
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
CAMP	Community Air Monitoring Program
GC	Gas Chromatograph
HCN	Hydrogen Cyanide
LNG	Liquified Natural Gas
MGP	Manufactured Gas Plant
NYSDOH	New York State Department of Health
OVM	Organic Vapor Meter
PID	Photoionization Ionization Detector
ppmv	Parts Per Million Volume
RPM_{10}	Respirable Particulate Matter (average aerodynamic diameter less than 10 microns)
SAW	Surface Acoustic Wave
TVOC	Total Volatile Organic Compounds
TWA	Time Weighted Average
$\mu g/m3$	Micrograms Per Cubic Meter
PS&SPC	Paulus, Sokolowski and Sartor Engineering, PC
GEI	GEI Consultants, Inc.

Executive Summary

This is a report on the Community Air Monitoring Program (CAMP) that was performed at the Greenpoint Energy Center Site (the Site) located at 287 Maspeth Avenue in Brooklyn, New York. The CAMP was implemented during a soil excavation and capping project performed by Paulus, Sokolowski, and Sartor, PC (PS&SPC) on behalf of KeySpan. The project team consisted of Hallen Construction Company, Inc. (Hallen) as the construction contractor; Code Environmental (Code) as the worker health and safety consultant and soil disposal coordinator; PS&SPC as the remedial engineer; and GEI Consultants, Inc. (GEI) as the air quality consultant. The MEDTOX Team is a medical, safety, and health management firm that collaborated with GEI to assess potential off-site impacts of the remediation. GEI Consultants, Inc. (GEI) implemented the CAMP on behalf of KeySpan to be protective of the public during the construction. The CAMP included real-time monitoring and air sampling at the Site perimeter, and was implemented during soil disturbance activities from April 20, 2005 to June 1, 2005.

Brooklyn Union Gas began operations the Greenpoint MGP in 1928. Operations at the Site consisted of gas manufacturing and byproduct coking operations until 1952. These manufactured gas plant (MGP) and by product coking operations caused soil impacts in the area where the soil excavation was to be performed. The CAMP was conducted to mitigate potential exposures of nearby workers and the community from airborne contaminants associated with the excavation. Today, the Greenpoint site remains a major energy center by providing gas storage. In addition, it is a liquefied natural gas (LNG) compressor station, a major warehouse facility, and a major operations center for distribution and service units.

GEI developed the CAMP in conformance with guidance prepared by the New York State Department of Health (NYSDOH). The CAMP consisted of continuous monitoring at four perimeter stations and walk-around monitoring for total volatile organic compounds (TVOC) and respirable particulate matter (RPM_{10}) generated from the remedial operations. The CAMP also included monitoring for naphthalene emissions downwind of the operations.

A three-tiered warning system was implemented to monitor operations. An alert was called if the conditions for Action Level 2 or Action Level 3 were present for 15 minutes.

- **Action Level 1.** Normal or ambient air conditions where all target concentrations (e.g. total VOCs, particulates, etc.) are less than 75 percent of the Action Level.

- **Action Level 2.** Concentration of at least one target is equal to or greater than 75 percent of the Action Level but less than the Action Level.
- **Action Level 3.** Concentration of at least one target is greater than the Action Level.

The remedial operations were conducted under Action Level 1 conditions (no elevated concentrations from contaminated soil at the Site perimeter of TVOC, RPM_{10}, or naphthalene for 15 minutes or greater) throughout the duration of the project.

Based on the data collected during the CAMP for VOCs, naphthalene, and dust, no concentrations exceeded the respective Action Level during the excavation activities at the Site. As no Action Level Thresholds were exceeded, it is concluded that no adverse health effects in the surrounding community can be attributed to the Site activities as no off-site migration of significant concentrations occurred. The GEI/MEDTOX Team certifies that the measures taken to prevent and mitigate potential off-site migration to protect public health were effective for the duration of the project.

1. Introduction

GEI Consultants, Inc. (GEI) prepared this Community Air Monitoring Program (CAMP) Report for KeySpan Corporation (KeySpan). The New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) requires that real-time monitoring for total volatile organic compounds (TVOCs) and particulates (i.e., dust) be conducted at the upwind and downwind perimeter of each designated work area during intrusive activities at contaminated sites. KeySpan and GEI developed an enhanced CAMP building on the standard NYSDOH CAMP specified in the New York State Department of Environmental Conservation (NYSDEC) Technical Manual DER-10. This CAMP was conducted during an excavation and capping project at Greenpoint Energy Center Site (Site) between April 20, 2005 and June 1, 2005 in accordance with the NYSDOH CAMP. The Site location map is shown in Figure 1.

The remediation was performed by Paulus, Sokolowski, and Sartor Engineering, PC (PS&SPC) on behalf of KeySpan. The project team consisted of Hallen Construction Company, Inc. (Hallen) as the construction contractor; Code Environmental (Code) as the worker health and safety consultant and soil disposal coordinator; PS&SPC as the remedial engineer; and GEI Consultants, Inc. (GEI) as the air quality consultant. The MEDTOX Team is a medical, safety, and health management firm that collaborated with GEI to assess potential off-site impacts of the remediation. A description of qualifications for the MEDTOX Team is provided in Appendix A.

1.1 Purpose and Objectives

The purpose of the air-monitoring program was to prevent and/or mitigate potential short-term emissions and off-site migration of Site-related contaminants by early detection in the field. This early detection and mitigation protected the community and general public from potentially hazardous constituents at levels above accepted regulatory limits and guidelines provided in the NYSDOH CAMP. During the excavation and capping project, worker protection and health and safety monitoring was conducted by Code Environmental (Code) using hand-held instruments in the work zone. The worker health and safety monitoring data are not included in this report.

The objectives of the Plan were as follows:

- Provide an early warning system to alert the Site owners that concentrations of TVOCs or dust in ambient air are approaching Action Levels due to Site conditions.
- Provide details for a Site contingency plan that are designed to reduce the off-site migration of contaminants/odors if established Action Levels are approached/exceeded.
- Determine whether construction controls are effective in reducing ambient air concentrations to below Action Levels, and make appropriate and necessary adjustments.
- Develop a permanent record that includes a database of perimeter air monitoring results and meteorological conditions, calibration records, and other pertinent information.

The contingency plan is discussed in the *Air Monitoring Work Plan* for the Site (GEI, 2005).

1.2 Background

Brooklyn Union Gas began operations the Greenpoint MGP in 1928. Operations at the Site consisted of gas manufacturing and byproduct coking operations until 1952. It remains a major energy center by providing gas storage. In addition, it is a liquefied natural gas compressor station, a major warehouse facility, and a major operations center.

PS&SPC was the construction oversight engineer for the remediation. Hallen was the construction contractor for the excavation of contaminated soil and the installation of the geotextile and soil caps at the Site in preparation for facility modifications. In addition to conducting worker safety monitoring, Code coordinated transportation of the contaminated soil. GEI conducted perimeter air monitoring as part of the CAMP during all intrusive activities.

This CAMP Report describes the air monitoring means and methods, presents a summary of the air monitoring data prior to and during soil disturbance activities at the Site, and presents a conclusion regarding the documented level of protection from emissions afforded to the nearby workers and community during the project. This CAMP Report includes real-time monitoring data and data from samples collected for laboratory analysis. GEI conducted community air monitoring using a combination of real-time air monitoring at fixed locations, and walk-around perimeter monitoring using hand-held instruments.

2. Sampling and Analytical Procedures

This section of the CAMP Report presents a detailed description of the sampling, analytical, and data management procedures that were used during the air-monitoring program. The procedures in this section were presented in the Air Monitoring Work Plan (GEI 2005). In general, real-time sampling methods were utilized to determine ambient air concentrations during the project. Real-time continuous monitoring for TVOC and RPM_{10} occurred at four fixed locations around the perimeter of the site. Meteorological conditions including wind speed and direction, temperature, and relative humidity were monitored in real time. TVOCs, odor, and particulates were also monitored along the site perimeter and in the work zone with hand-held equipment during regular walk-around monitoring events.

2.1 Action Levels

The project Action Levels for perimeter real-time monitoring are discussed below. An Action Level is a contaminant concentration or odor intensity that triggers contingent measures. For example, if odors were detected on Site, the Odor Action Levels may require odor suppression using foam or temporary work stoppage.

The following target compounds and corresponding Action Levels were developed in accordance with the NYSDOH Generic CAMP.

Target Compounds	Action Levels
TVOCs (15-minute average concentration)	5.0 ppmv
TVOCs (maximum allowable concentration)	25 ppmv
Respirable Particulate Matter (RPM_{10})	150 $\mu g/m^3$
Odor (n-butanol scale; an ASTM standard)	3
Odor (naphthalene)	440 $\mu g/m^3$
Hydrogen cyanide	1 ppmv

ppmv – parts per million volumetric
$\mu g/m^3$ – micrograms per cubic meter

In addition, if odors were detected at the property line at a 15-minute sustained level of "3" on an eight-point butanol scale, naphthalene is detected at a concentration greater

than 440 $\mu g/m^3$, or an odor complaint is made by someone in the community, then a contingency action plan for odor control would be implemented.

2.2 Real-Time Fixed Station Monitoring

Real-time air monitoring for TVOCs and suspended particulates (RPM_{10}) was conducted upwind and downwind of the work area along the Site perimeter. The intent of the real-time monitoring program is to prevent and/or mitigate potential short-term emissions and off-site migration of Site-related TVOCs and dust by early detection in the field. Real-time monitoring occurred during active construction periods using the patented AirLogics, LLC Perimeter Air Monitoring System. The perimeter air monitoring system consisted of four Air Monitoring Stations (AMS-1 through AMS-4), one meteorological tower, and one central computer system. The central computer system was located in the GEI project trailer located at the Site (Figure 2).

The rationale for the placement of each fixed station is summarized below. The real-time fixed air monitoring stations were positioned between the work zone and potential receptors in each direction, (i.e., the commercial properties surrounding the Site and the surrounding Energy Center facilities). Therefore, the placement of the fixed air monitoring stations was based on the need to document all potential off-site migration on the perimeter, but also recognized the potential off-site receptors and the location of the remedial activities. The stations were located as follows:

- **AMS-1** was located on the northern property line adjacent to Lombardy Street.
- **AMS-2** was located on the eastern property line adjacent to Newtown Creek.
- **AMS-3** was located on the along the southern boundary work area and north of a liquefied natural gas (LNG) tank.
- **AMS-4** was located on western boundary of the work area adjacent to the LNG Control House.

Each real-time air monitoring station contained the following:

1. Station enclosure
2. PhotoVac Voyager gas chromatograph (GC)
3. GC carrier gas
4. GC sample inlet
5. GC sample inlet tubing
6. MIE DataRAM 2000 portable real-time aerosol monitor
7. DataRAM sample inlet with PM-10 impactor

8. DataRAM sample tubing with in-line heater
9. Data communications device
10. Heat exchanger
11. Heater element

Each monitoring station was housed in a weather-tight NEMA-4 type enclosure. The internal components of an air monitoring station are illustrated in Figure 3.

Each monitoring station continuously measured and recorded TVOCs and RPM_{10}. Each GC operated in the TVOC mode to measure the TVOC concentration in ambient air. In TVOC mode, the GCs collected and analyzed samples at a rate of one sample per minute. If the TVOC concentration measured at any station reached 75 percent of the Action Level for TVOC (3.7 ppmv), then the GC began to continuously sample and measure in the compound-specific mode. In the compound-specific mode, quantitative concentrations of benzene, toluene, ethylbenzene, m,p-xylene, and o-xylene (BTEX) in ambient air were determined. During compound-specific operation of the GCs, TVOC concentrations were monitored using a hand-held organic vapor meter (OVM) at the downwind monitoring station. The GC operated in compound-specific mode until the downwind TVOC concentration dropped below 3.7 ppmv. Each GC was calibrated once daily using a certified standard isobutylene gas for TVOC mode and a certified standard gas mixture for specific compounds.

Each MIE DataRAM portable particulate meter was equipped with a PM-10 impactor to monitor RPM less than 10 microns (RPM_{10}). An in-line heater was used to accurately measure particulates during high moisture conditions. Particulate meters were set to a 1-minute averaging time. DataRAMs for RPM_{10} were zeroed and span-checked daily.

From April 28 to May 27, 2005, there was a transmission error at AMS-1 that impeded the collection of RPM_{10} data. During this period, AMS-1 transmitted RPM_{10} concentrations that varied between 30 and 35 $\mu g/m^3$. The dust meters were calibrated daily, however, as a matter of operating procedure, the calibration reading was not transmitted to the receiver in the computer because of a communication error. This error was discovered on May 27, 2005. During this period, perimeter walk around RPM_{10} data were collected. The collection of these data is described in subsection 2.3.

In addition to the four monitoring stations, a Campbell Scientific, Inc., Met Data1 meteorological monitoring system was established on Site. The meteorological system was set at a height of 3 meters (approximately 10 feet) above ground and located along the western boundary of the work area and adjacent to AMS-4 (Figure 2). The meteorological system continuously monitored temperature, relative humidity, wind

speed, and wind direction. Fifteen-minute average values for each meteorological parameter were stored in the central computer database.

All TVOC, individual VOC constituents, RPM_{10}, and meteorological data were stored in dataloggers located within each monitoring station. System performance data from each station were sent in real-time, via radio telemetry, to the central computer system located in the GEI trailer for monitoring and analysis.

In the event of a TVOC or RPM_{10} exceedance, floodlights on the construction trailer were illuminated to notify the air monitoring consultant (GEI). Floodlights notified the air monitoring consultant at every instance where measured concentrations are greater than 75% of the Action Levels.

2.3 Perimeter Walk-around Monitoring

GEI conducted walk-around perimeter TVOC, RPM_{10}, and odor along the perimeter of the project Site twice per day. In cases where soil was disturbed outside of the network of air monitoring stations, upwind and downwind measurements for TVOC, RPM_{10} and odor were recorded.

TVOC concentrations were monitored and recorded using a Rae Systems MiniRAE 2000 Portable Ionization Detector (PID) or equivalent. RPM_{10} concentrations were measured and recorded using a MIE personal DataRAM 1200 (pdR-1200) portable real-time aerosol monitor equipped with a PM-10 impactor and Gilian personal air sampling pump. Odors were noted based on the n-butanol scale, as adapted from the American Society for Testing and Materials (ASTM) E544-99.

At each monitoring point, the 5-minute average value of TVOC and RPM_{10}, sample time, and sample location and recorded. The odor intensity based on the n-butanol scale was monitored over a 15-minute period and recorded. Hand-held portable equipment was calibrated before each use.

Odor as a function of naphthalene concentration was monitored over a 15-minute period using the zNose® Model 4200 system (Figure 4). The zNose® is an ultra-fast GC that is capable of analyzing airborne concentrations of VOCs and SVOCs in less than one minute. The zNose® uses a surface acoustic wave (SAW) detector that changes in vibration frequency as compounds elute from the column and condense onto the surface of the detector.

The zNose® is a portable instrument and was positioned downwind of the remedial activities. A minimum of two samples were analyzed for naphthalene concentrations over each 15-minute period. The concentrations were averaged to produce a 15-minute result. The calibration was checked at the start of and at least one other time during the day. At least two air blanks were analyzed throughout day.

2.4 Time-Weighted Average Volatile Organic Compound (VOC) Measurements

Verification VOC samples were collected once per week at the upwind and downwind AMS. The verification samples were collected to demonstrate that the real-time monitoring stations were effective in measuring the concentration of the VOC target compounds and naphthalene. VOC samples were collected using 6-liter Summa® canisters and analyzed using EPA Method TO-15. Pre-sample and post-sample vacuum checks were conducted on the canisters to verify sample collection.

A total of 14 samples were collected throughout the CAMP during the excavation and capping project.

2.5 Hydrogen Cyanide

Hydrogen cyanide (HCN) was to be measured in cases where sulfur odors were present or purifier material was encountered. A five-gas meter with an HCN sensor was used to measure HCN concentrations at the perimeter. If concentrations of greater than 1 ppmv were measured, then a Draeger tube would be used to confirm the presence of HCN. On April 29 and May 5, material that was suspected to be purifier waste was encountered, but no HCN was detected on a five-gas meter. An analysis of material collected on May 5 indicated that the material had an arsenic concentration of 1,000 mg/kg. A description of the HCN monitoring on these dates is in subsection 3.2.5.

2.6 Background Sampling

Background sampling was completed on March 24, 25, 28, 29, and 30 to establish baseline ambient air concentrations prior to the start of construction activities. Background ambient air conditions were established for TVOCs and RPM_{10} using the four real-time fixed stations. In addition, a baseline odor survey was completed during background sampling activities. Sample collection and analysis methods followed those described in subsections 2.2 through 2.4. The background sampling results are presented in subsection 3.1. Upwind and downwind time weighted average samples (TWA) were collected on March 30 and analyzed for VOCs and naphthalene by EPA TO-15. These samples were collected in 6-liter Summa® canisters over an 8-hour sampling period.

Background odors were monitored both on-site prior to construction using two methods of measurement: the 8-point n-butanol scale and the zNose®. The on-site odor surveys were conducted along the perimeter of the Site. The sample locations, times, and number of samples collected at each location are indicated in Table 1.

2.7 Data Management Procedures

Data were generated from real-time from real-time fixed station analytical monitoring, walk-around monitoring, background sampling, and meteorological monitoring. Analytical data generated at each fixed-station monitoring location were sent to the central computer system via radio telemetry. Software translated the data into Microsoft Excel format for data analysis, interpretation, and reporting. The fixed station monitoring data was downloaded to the project database. Data from the zNose® was manually downloaded and stored in the on-site computer.

3. Sample Results

3.1 Background Sampling Results

The following is a summary of the results from background monitoring at the Site. The AirLogics, zNose®, and EPA TO-15 data appear in Appendix B.

3.1.1 Total Volatile Organic Compounds (TVOC)

Figures 5a – 5d present the daily maximum 15-minute average perimeter TVOC concentration data at the four monitoring stations during the background sampling period (March 24 – March 30, 2005). The maximum 15-minute average TVOC concentration from any station during the background period was 0.51 ppmv. The Site-wide average background 15-minute TVOC concentration was 0.049 ppmv. For comparison, the Action Level for TVOCs was 5.0 ppmv.

3.1.2 Respirable Particulate Matter (RPM_{10})

Figures 6a – 6d present the daily maximum 15-minute average perimeter RPM_{10} concentrations at each of the monitoring stations during the background sampling period (March 24 – March 30, 2005). The maximum 15-minute average RPM_{10} concentration from any station during the background period was 94 $\mu g/m^3$. The Site-wide average background 15-minute RPM_{10} concentration was 36 $\mu g/m^3$. For reference purposes, the Action Level for RPM_{10} was 150 $\mu g/m^3$.

3.1.3 Naphthalene (Odor)

The average naphthalene screening concentration on site was approximately 11 $\mu g/m^3$. The maximum naphthalene concentration was 30 $\mu g/m^3$. The daily maximum 15-minute on-site concentrations are shown in Figure 7. Odor intensity based on the ASTM n-butanol scale was 0 on site. On a few occasions, very brief odors (ASTM Index 1-2) from vehicle exhaust from the off-site warehouse were noted. The Action Levels for odor were 3 on the n-butanol scale and 440 $\mu g/m^3$ naphthalene as measured by the zNose®.

3.1.4 Time-Weighted Average VOC

EPA TO-15 samples were collected upwind and downwind of the Site on March 30, 2005. The upwind location was at AMS-1 and the downwind location was at

AMS-3. The samples were collected in Summa® canisters over an 8-hour period.

Table 2 presents the data from the background EPA TO-15 samples. Toluene, ethanol, acetone, and 2-butanone were detected in upwind and downwind samples during background sampling. These analytes may be attributed to emissions from the surrounding commercial and industrial area.

3.1.5 Hydrogen Cyanide

Background hydrogen cyanide (HCN) readings were measured with an Industrial Scientific five-gas meter that was equipped with a hydrogen cyanide sensor on May 18, 2005. Readings were obtained at AMS-1, AMS-3, AMS-4, and around the LNG Process Area adjacent to the LNG Control Room. No HCN was detected in the ambient air at any of these locations.

3.2 Sampling Results During Construction

The following is a summary of the results from monitoring at the Site during construction. The AirLogics data and summary weekly report sheets are presented in Appendix C. The zNose® naphthalene concentration data are in Appendix D. The EPA TO-15 data appear in Appendix E.

3.2.1 TVOC

Figures 5a through 5d show the daily maximum 15-minute average concentration for each AMS. The 5-minute walk around data are also shown on the same figures. Figure 5e shows daily downwind maximum walk-around data for days when excavation activities were outside of the AMS network. No maximum average TVOC concentrations greater than 3.7 ppmv were detected at any monitoring station.

3.2.2 RPM_{10}

Figures 6a through 6d show the daily maximum 15-minute average concentration for each station. The 5-minute walk around data are also shown on the same figures. Figure 6e shows the daily downwind maximum RPM_{10} concentration for days when excavation activities were outside of the AMS network. Fifteen, 15-minute average RPM_{10} concentrations exceeded either the Action Level 2 or the Action Level 3 thresholds. However, the particulates from these exceedances were caused by dust from clean fill and not from disturbed contaminated soil.

Some differences between the walk-around and the AirLogics data can be observed from the data. Each one of the data points for each day is the maximum average for that day

for both the AirLogics and the walk-around data. The AirLogics data were collected continuously during a workday, whereas the walk-around data were monitored twice per day for each station. Therefore, the AirLogics data may differ from the walk-around data as there were more monitoring periods.

Upon notifying PS&SPC of the excessive dust readings from clean fill on April 25, 2005, Hallen designated a full-time employee to water down all contaminant excavations to prevent dust migration. All stockpiles were immediately covered with foam. Stockpiles that remained overnight were covered with poly sheeting. This dust containment procedure continued every day (unless rain was present) until the end of the ambient air monitoring period.

3.2.3 Naphthalene (Odor)

Figure 7 shows the maximum 15-minute average naphthalene concentration for each day. The maximum 15-minute average naphthalene concentration throughout construction was 136 $\mu g/m^3$, which is significantly less than the 440 $\mu g/m^3$ (0.082 ppmv) threshold for an Action Level 3 Alert.

3.2.4 Time-Weighted-Average VOC

Time-weighted average samples were collected on a weekly basis during construction. Seven upwind and seven downwind EPA TO-15 samples were collected at the Site throughout the sample period. The samples were collected in Summa® canisters over an 8-hour period.

Table 3 presents the data from the EPA TO-15 samples during soil disturbance activities. Naphthalene was not detected in any of the upwind or downwind samples. Generally, only slightly higher concentrations of certain volatile compounds (e.g., toluene, ethylbenzene, xylenes, 2-butanone, 1,2,4-trimethylbenzene) were found downwind of remedial activities compared to the upwind samples on certain days. The downwind concentrations of each BTEX analyte detected was typically below 10 $\mu g/m^3$ (<0.005 ppmv). Only toluene was detected at a greater concentration on April 29, 2005 (23 $\mu g/m^3$, 0.006 ppmv). Acetone was also measured downwind of remedial activities, but at levels that less than 0.021 ppmv.

Chlorinated compounds such as dichlorodifluoromethane, chloromethane, trichlorofluoromethane were measured on several occasions at concentrations less than 0.010 ppmv throughout the excavation. These chemicals may be attributed to the commercial and industrial operations in the area. Additional compounds related to

vehicle exhaust, such as methyl tert-butyl ether (MTBE) and 2,2,4-trimethylpentane (isooctane), were also occasionally detected in the downwind samples.

A number of volatile compounds were detected in both the upwind and downwind samples and at similar concentrations. These compounds include benzene, hexane, heptane, cyclohexane, and 1,2-dichloropropane. The presence of these compounds in the ambient air at both locations is indicative of local background conditions and the influence of industrial operations and vehicle traffic on ambient air in the vicinity of the Site.

3.2.5 *Hydrogen Cyanide*

On April 29, 2005, blue stained soil and wood chips were observed in the excavation along the site berm along the western side of the work area. The material was identified as potentially purifier waste. GEI began supplemental perimeter monitoring using a five-gas meter that measured HCN, hydrogen sulfide, oxygen, lower explosion level, and carbon monoxide. Fifteen-minute time weighted averages were measured downwind of the impacted material along the southern site berm. Downwind HCN values for the period 10:38-10:53 AM were 0.0 ppmv, compared to an action level of 1.0 ppmv defined in the CAMP. Upwind concentrations were also measured during the period 11:00 am-11:15 am, and found to be 0.0 ppmv. The material was loaded out and back-filled with clean fill material

On May 5, 2005 at 10:20, purple staining of the soil accompanied by wood chips was observed at a depth of 2 feet in the excavation located at the center of the work area. The material was identified as possible purifier waste. GEI began supplemental perimeter monitoring using a five-gas meter downwind of the impacted material near AMS-04. Before the perimeter reading was completed, HCN was measured in the breathing zone. A 15-minute time weighted average was measured for the period 10:46 am-11:00 am. During this time, the 5-gas meter was placed very near the material for durations of about 20 seconds and detected 0.0 ppmv HCN. A laboratory analysis of a sample of the waste indicated that it was contaminated with approximately 1000 mg/kg of arsenic.

3.2.6 *Meteorological Monitoring*

The wind rose for the period during construction is shown in Figure 8. This figure is a summary for all of the hours that the AirLogics was operational from April 20, 2005 – June 1, 2005 period. Wind direction, wind speed, temperature, and relative humidity from the 15-minute data collected from the station were averaged to obtain 24-hour results. The predominant wind directions at the Site during this period were from the

northeast and the southeast. The meteorological data summary is in Table 4. The raw Meteorological Data is provided in Appendix F.

3.2.7 *Data Quality*

The project consisted of data collected from real-time, walk-around, and laboratory data. Hand-held PIDs were calibrated daily prior to use with a 100 ppmv isobutylene standard and a zero gas calibration. Hand-held dust meters were calibrated daily according to the manufacturer's instructions using an internal filter as a zero calibration point. The GCs on the AirLogics were calibrated daily using a 0.5 ppmv isobutylene standard and a BTEX mixture with individual analyte concentrations ranging from 0.5 – 5.0 ppmv. The zNose® calibration was checked each day with a two-point standard for accuracy and with filtered air to check for potential interferences from the instrument. The zNose® was recalibrated on one occasion during the program. The battery voltage from the meteorological station is required to be above 9 volts to have valid data and this was the case for this project. Laboratory data from the TO-15 results was validated by a GEI data validator according to the procedures outlined in *National Functional Guideline for Organic Data Review, October 1999, Office of Emergency and Remedial Response; U.S. Environmental Protection Agency.* All of the laboratory data was found to be acceptable.

While the transmission errors did impede the collection of some RPM_{10} data, the data set collected is sufficiently complete because of the redundancy of the data collection system. (The system was designed with an inherent redundancy of data collection to provide for that temporary failure of a system.)

4. Conclusions

Soil disturbance activities associated with the Greenpoint Energy Center remediation were conducted from April 20, 2005 through June 1, 2005. The operations were conducted under Action Level 1 conditions throughout the entire project. No sustained concentrations greater than the Action Level 2 or Action Level 3 thresholds were observed for the target contaminants (TVOCs, RPM_{10}, odor, and HCN). The only exceedance occurred for instances where clean fill material was stockpiled at the Site and dust (RPM_{10}) was measured at concentrations above the Action Level Threshold. As the dust was from certified clean material and actions were immediately undertaken to suppress the dust from migrating off-site, this pathway is not considered a significant concern. Based on the data and the lack of exceedance for the established Action Level Thresholds, it is concluded that no adverse health effects in the surrounding community can be attributed to the Site activities as no off-site migration of significant concentrations occurred. The GEI/MEDTOX Team certifies that the measures taken to prevent and mitigate potential off-site migration to protect public health were effective for the duration of the project.

References

GEI, 2005. *Air Monitoring Work Plan, Greenpoint Energy Center*, Brooklyn, New York, GEI Consultants, Inc., March 4, 2005.

Tables

Table 1
zNose Background Sample Times and Locations
Greenpoint Energy Center
Brooklyn, New York

Date	Position	Location	Time	Number of Samples Collected
March 24	Upwind	80 feet east of AMS-1	12:34 – 14:35	5
	Downwind	190 feet west of AMS-3	15:02 - 16:27	3
March 25	Downwind	AMS-2	9:22 – 13:05	7
March 28	Downwind	10 feet east of AMS-3	11:28 - 14:12	3
March 29	Downwind	10 feet east of AMS-3	8:36 - 10:42	5
	Upwind	40 feet east of AMS-1	11:21 - 15:17	6
March 30	Downwind	AMS-4	9:47 - 12:14	4
	Upwind	20 feet east of AMS-1	13:57 - 14:56	3

Table 2
Background TO-15 Data
Greenpoint Energy Center
Brooklyn, New York

	DOWNWIND 3/30/2005 (ug/m3)	UPWIND 3/30/2005 (ug/m3)	DOWNWIND 3/30/2005 (ppmv)	UPWIND 3/30/2005 (ppmv)
BTEX				
Benzene	3 U	2.9 U	0.00094 U	0.00092 U
Toluene	**3.8**	**5.3**	**0.001**	**0.0014**
Ethylbenzene	4.1 U	4 U	0.00094 U	0.00092 U
m,p-xylene	4.1 U	4 U	0.00094 U	0.00092 U
Xylene, o-	4.1 U	4 U	0.00094 U	0.00092 U
Other VOCS				
Naphthalene	19.4 UJ	19.4 UJ	0.0037 UJ	0.0037 UJ
Dichlorodifluoromethane	4.7 U	4.6 U	0.00094 U	0.00092 U
Cryofluorane	6.6 U	6.4 U	0.00094 U	0.00092 U
Chloromethane	7.7 U	7.7 U	0.0037 U	0.0037 U
Vinyl chloride	2.4 U	2.4 U	0.00094 U	0.00092 U
Butadiene, 1,3-	2.1 U	2 U	0.00094 U	0.00092 U
Bromomethane	3.7 U	3.6 U	0.00094 U	0.00092 U
Chloroethane	2.5 U	2.4 U	0.00094 U	0.00092 U
Trichlorofluoromethane	5.3 U	5.2 U	0.00094 U	0.00092 U
Ethanol	**9.6**	**13.6**	**0.0051**	**0.0072**
Trichloro-1,2,2-trifluoroethane, 1,1,2-	7.2 U	7.1 U	0.00094 U	0.00092 U
Dichloroethene,1,1-	3.7 U	3.7 U	0.00094 U	0.00092 U
Acetone	**21.4**	**23.8**	**0.009**	**0.01**
Propanol,2-	9.1 U	9.1 U	0.0037 U	0.0037 U
Carbon disulfide	2.9 U	2.9 U	0.00094 U	0.00092 U
Allyl chloride	11.6 U	11.6 U	0.0037 U	0.0037 U
Methylene chloride	3.3 U	3.2 U	0.00094 U	0.00092 U
Methyl tert-butyl ether	3.4 U	3.3 U	0.00094 U	0.00092 U
Trans-1,2-dichloroethene	3.7 U	3.7 U	0.00094 U	0.00092 U
Hexane, n-	3.3 U	3.2 U	0.00094 U	0.00092 U
Dichloroethane,1,1-	3.8 U	3.7 U	0.00094 U	0.00092 U
Butanone,2-	**3**	**3.8**	**0.001**	**0.0013**
Dichloroethene, cis-1,2-	3.7 U	3.7 U	0.00094 U	0.00092 U
Tetrahydrofuran	2.8 U	2.7 U	0.00094 U	0.00092 U
Chloroform	4.6 U	4.5 U	0.00094 U	0.00092 U
Trichloroethane,1,1,1-	5.1 U	5 U	0.00094 U	0.00092 U
Cyclohexane	3.2 U	3.2 U	0.00094 U	0.00092 U
Carbon tetrachloride	5.9 U	5.8 U	0.00094 U	0.00092 U
2,2,4-Trimethylpentane	4.4 U	4.3 U	0.00094 U	0.00092 U
Dichloroethane,1,2-	3.8 U	3.7 U	0.00094 U	0.00092 U
Heptane, n-	3.9 U	3.8 U	0.00094 U	0.00092 U
Trichloroethene	5 U	4.9 U	0.00094 U	0.00092 U
Dichloropropane,1,2-	4.3 U	4.3 U	0.00094 U	0.00092 U
Dioxane,1,4-	13.3 U	13.3 U	0.0037 U	0.0037 U
Bromodichloromethane	6.3 U	6.2 U	0.00094 U	0.00092 U
Dichloropropene, cis-1,3	4.3 U	4.2 U	0.00094 U	0.00092 U
Methyl-2-pentanone,4-	3.9 U	3.8 U	0.00094 U	0.00092 U
Dichloropropene, trans-1,3	4.3 U	4.2 U	0.00094 U	0.00092 U
Trichloroethane,1,1,2-	5.1 U	5 U	0.00094 U	0.00092 U
Tetrachloroethene	6.4 U	6.2 U	0.00094 U	0.00092 U
Hexanone,2-	15.2 U	15.2 U	0.0037 U	0.0037 U
Dibromochloromethane	8 U	7.8 U	0.00094 U	0.00092 U
Dibromoethane,1,2-	7.2 U	7.1 U	0.00094 U	0.00092 U
Chlorobenzene	4.3 U	4.2 U	0.00094 U	0.00092 U
Styrene	4 U	3.9 U	0.00094 U	0.00092 U
Bromoform	9.7 U	9.5 U	0.00094 U	0.00092 U
Isopropyl benzene	4.6 U	4.5 U	0.00094 U	0.00092 U

Table 2
Background TO-15 Data
Greenpoint Energy Center
Brooklyn, New York

	DOWNWIND 3/30/2005 (ug/m3)	UPWIND 3/30/2005 (ug/m3)	DOWNWIND 3/30/2005 (ppmv)	UPWIND 3/30/2005 (ppmv)
Tetrachloroethane,1,1,2,2-	6.5 U	6.3 U	0.00094 U	0.00092 U
Propylbenzene, n-	4.6 U	4.5 U	0.00094 U	0.00092 U
Ethyltoluene, p-	4.6 U	4.5 U	0.00094 U	0.00092 U
Trimethylbenzene,1,3,5-	4.6 U	4.5 U	0.00094 U	0.00092 U
Trimethylbenzene,1,2,4-	4.6 U	4.5 U	0.00094 U	0.00092 U
Dichlorobenzene,1,3-	5.6 U	5.5 U	0.00094 U	0.00092 U
Dichlorobenzene,1,4-	5.6 U	5.5 U	0.00094 U	0.00092 U
Benzyl chloride	4.9 U	4.8 U	0.00094 U	0.00092 U
Dichlorobenzene,1,2-	5.6 U	5.5 U	0.00094 U	0.00092 U
Trichlorobenzene,1,2,4-	27.5 U	27.5 U	0.0037 U	0.0037 U
Hexachlorobutadiene	39.4 U	39.4 U	0.0037 U	0.0037 U

Notes:
BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
VOCs - Volatile Organic Compounds
ug/m3 - micrograms per cubic meter
U - Not detected at or above the limit shown
Bold indicates compound was detected in sample

Table 3
Construction Phase TO-15 Data
Greenpoint Energy Center
Brooklyn, New York

	Upwind 4/22/2005	Downwind 4/22/2005	Upwind 4/29/2005	Downwind 4/29/2005	Upwind 5/5/2005	Downwind 5/5/2005	Upwind 5/12/2005	Downwind 5/12/2005
BTEX (ug/m3)								
Benzene	0.64 U	0.64 U	2.3	1.2	0.86	1.1	0.86	1.5
Toluene	2	1.4	4.9	23	2.8	4.1	3.7	7.9
Ethylbenzene	0.87 U	0.87 U	0.87 U	1.7	0.87 U	0.87 U	0.87 U	1.3
Xylene, o-	0.87 U	0.87 U	0.87 U	1.6	0.87 U	0.87 U	0.87 U	1.5
Xylene, total	0.87 U	0.91	2.1	4.8	1.1	1.3	1.9	4.2
Other VOCs (ug/m3)								
Naphthalene	2.6 U	2.6 U	2.6 U	2.6 U	2.6 UJ	2.6 UJ	2.6 UJ	2.6 UJ
Dichlorodifluoromethane	2.5 U	2.5 U	3.2	3.3	2.6	2.9	3	4.9
Cryofluorane	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Chloromethane	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Vinyl chloride	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Butadiene, 1,3-	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Bromomethane	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
Chloroethane	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Trichlorofluoromethane	1.3	1.2	2.4	2.5	1.5	1.6	2	13
Trichloro-1,2,2-trifluoroethane, 1,1,2-	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Dichloroethene,1,1-	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Acetone	12 U	12 U	12 U	16	12 U	12 U	12 U	13
Propanol,2-	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
Carbon disulfide	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Allyl chloride	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Methylene chloride	1.7 U	1.7 U	2	3.8	1.7 U	1.7 U	1.7 U	4.2
Methyl tert-butyl ether	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	2.6
Trans-1,2-dichloroethene	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Hexane, n-	0.7 U	0.7 U	2.8	3	0.81	1.7	0.7 U	1.8
Dichloroethane,1,1-	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Butanone,2-	1.5 U	1.5 U	1.9	3.8	1.5 U	1.5 U	1.5 U	2.3
Dichloroethene, cis-1,2-	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Tetrahydrofuran	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U
Chloroform	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Trichloroethane,1,1,1-	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Cyclohexane	0.69 U	0.69 U	0.89	2.9	0.69 U	0.69 U	0.69 U	0.69 U
Carbon tetrachloride	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2,2,4-Trimethylpentane	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	2.7
Dichloroethane,1,2-	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U

Table 3
Construction Phase TO-15 Data
Greenpoint Energy Center
Brooklyn, New York

	Upwind 4/22/2005	Downwind 4/22/2005	Upwind 4/29/2005	Downwind 4/29/2005	Upwind 5/5/2005	Downwind 5/5/2005	Upwind 5/12/2005	Downwind 5/12/2005
Heptane, n-	0.82 U	0.82 U	1.2	1.4	0.82 U	0.82 U	0.82 U	1.2
Trichloroethene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Dichloropropane,1,2-	1.3	0.92 U	0.92 U	1.5	1.7	1.9	0.92 U	1.2
Dioxane,1,4-	18 U	18 U	18 U	18 U	18 U	18 U	18 U	18 U
Bromodichloromethane	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Dichloropropene, cis-1,3	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Methyl-2-pentanone,4-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dichloropropene, trans-1,3	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Trichloroethane,1,1,2-	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Tetrachloroethene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	3.9
Hexanone,2-	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibromochloromethane	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Dibromoethane,1,2-	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Chlorobenzene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Styrene	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Bromoform	2.1 U	2.1 U	2.1 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.1 U	2.1 U
Tetrachioroethane,1,1,2,2-	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Ethyltoluene, p-	0.98 U	0.98 U	0.98 U	0.98 U	0.98	1	0.98 U	1.4
Trimethylbenzene,1,3,5-	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Trimethylbenzene,1,2,4-	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98	0.98 U	1.7
Dichlorobenzene,1,3-	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorobenzene,1,4-	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichiorobenzene,1,2-	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Trichlorobenzene,1,2,4-	3.7 UJ	3.7 UJ	3.7 UJ	3.7 UJ	3.7 UJ	3.7 UJ	3.7 UJ	3.7 UJ
Hexachlorobutadiene	2.1 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.1 UJ

Table 3
Construction Phase TO-15 Data
Greenpoint Energy Center
Brooklyn, New York

	Upwind 5/18/2005	Downwind 5/18/2005	Upwind 5/27/2005	Downwind 5/27/2005	Upwind 6/1/2005	Downwind 6/1/2005
BTEX (ug/m3)						
Benzene	**0.77**	**0.64**	**1.3**	**0.93**	0.64 U	0.64 U
Toluene	2.2	**1.9**	**10**	**7.2**	**2**	**2.1**
Ethylbenzene	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
Xylene, o-	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
Xylene, total	2.5	**1.1**	**2.3**	**1.8**	0.87 U	**0.91**
Other VOCs (ug/m3)						
Naphthalene	2.6 UJ	2.6 UJ	2.6 U	2.6 U	2.6 U	2.6 U
Dichlorodifluoromethane	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cryofluorane	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Chloromethane	1.3	**1.4**	**1**	**1.1**	1 U	1 U
Vinyl chloride	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Butadiene, 1,3-	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Bromomethane	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
Chloroethane	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Trichlorofluoromethane	**1.1**	1.3	**1.6**	**1.6**	**1.2**	1.1
Trichloro-1,2,2-trifluoroethane, 1,1,2-	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Dichloroethene,1,1-	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Acetone	12 U	12 U	**36**	**50**	12 U	**38**
Propanol,2-	12 U	12 U	12 U	12 U	12 U	12 U
Carbon disulfide	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	4.4
Allyl chloride	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Methylene chloride	1.7 U	1.7 U	**1.8**	1.7 U	1.7 U	1.7 U
Methyl tert-butyl ether	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Trans-1,2-dichloroethene	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Hexane, n-	0.7 U	0.7 U	**1.2**	**1.1**	0.7 U	0.7 U
Dichloroethane,1,1-	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Butanone,2-	1.5 U	1.5 U	5.9	**5.3**	1.5 U	**17**
Dichloroethene, cis-1,2-	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Tetrahydrofuran	15 U	15 U	15 U	15 U	15 U	15 U
Chloroform	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Trichloroethane,1,1,1-	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Cyclohexane	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
Carbon tetrachloride	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2,2,4-Trimethylpentane	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U
Dichloroethane,1,2-	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U

Table 3
Construction Phase TO-15 Data
Greenpoint Energy Center
Brooklyn, New York

	Upwind 5/18/2005	Downwind 5/18/2005	Upwind 5/27/2005	Downwind 5/27/2005	Upwind 6/1/2005	Downwind 6/1/2005
Heptane, n-	0.82 U	0.82 U	0.9	0.82 U	0.82 U	0.82 U
Trichloroethene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Dichloropropane,1,2-	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Dioxane,1,4-	18 U	18 U	18 U	18 U	18 U	18 U
Bromodichloromethane	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Dichloropropene, cis-1,3	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Methyl-2-pentanone,4-	2 U	2 U	2 U	2 U	2 U	2 U
Dichloropropene, trans-1,3	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Trichloroethane,1,1,2-	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Tetrachloroethene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Hexanone,2-	2 U	2 U	2.7	2 U	2 U	2 U
Dibromochloromethane	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Dibromoethane,1,2-	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Chlorobenzene	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Styrene	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Bromoform	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Tetrachloroethane,1,1,2,2-	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Ethyltoluene, p-	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Trimethylbenzene,1,3,5-	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Trimethylbenzene,1,2,4-	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Dichlorobenzene,1,3-	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorobenzene,1,4-	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorobenzene,1,2-	1.2 UJ	1.2 UJ	1.2 U	1.2 U	1.2 U	1.2 U
Trichlorobenzene,1,2,4-	3.7 UJ	3.7 UJ	3.7 UJ	3.7 UJ	3.7 UJ	3.7 UJ
Hexachlorobutadiene	2.1 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.1 UJ	2.1 UJ

Table 3
Construction Phase TO-15 Data
Greenpoint Energy Center
Brooklyn, New York

Notes:

BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes

VOCs - Volatile Organic Compounds

ug/m3 - micrograms per cubic meter

U - Not detected at or above the limit shown

UJ - Not detected at or above the limit shown, the limit shown is estimated

Bold indicates compound was detected in sample

Table 4

Meteorological Data Summary[1]

Community Air Monitoring Plan Report

Former Greenpoint Manufactured Gas Plant

Date of Sample	Average Temperature (deg F)	Average Relative humidity (%)	Average Wind speed (mph)	Average Wind direction	
4/15/2005	46.9	38.2	9.0	71	ENE
4/16/2005	47.9	30.3	6.9	85	E
4/17/2005	58.4	25.6	2.7	253	WSW
4/18/2005	64.0	32.0	4.7	83	E
4/19/2005	61.7	51.7	3.8	111	ESE
4/20/2005	76.5	34.1	3.5	243	WSW
4/21/2005	58.0	50.9	7.7	280	W
4/22/2005	50.0	70.3	6.6	131	SE
4/23/2005	53.3	93.7	8.7	130	SE
4/24/2005	52.4	68.4	5.7	223	SW
4/25/2005	49.7	48.3	4.2	243	WSW
4/26/2005	56.0	55.9	7.6	154	SSE
4/27/2005	56.9	82.4	4.6	111	ESE
4/28/2005	57.0	46.8	5.9	291	WNW
4/29/2005	54.0	37.5	5.4	248	WSW
4/30/2005	53.7	89.6	4.6	121	ESE
5/1/2005	59.1	59.8	4.5	293	WNW
5/2/2005	54.1	50.3	5.1	245	WSW
5/3/2005	53.2	44.1	3.9	273	W
5/4/2005	55.3	35.9	3.8	301	WNW
5/5/2005	53.9	37.7	5.8	94	E
5/6/2005	50.0	64.9	8.5	52	NE
5/7/2005	53.3	54.7	8.8	22	NNE
5/8/2005	55.7	48.2	10.0	8	N
5/9/2005	57.5	57.1	6.3	80	E
5/10/2005	56.7	69.2	5.1	142	SE
5/11/2005	57.9	75.8	4.9	137	SE
5/12/2005	63.3	44.3	8.1	37	NE
5/13/2005	54.1	32.4	6.7	96	E
5/14/2005	61.3	61.3	5.5	141	SE
5/15/2005	70.0	58.5	3.8	248	WSW
5/16/2005	62.3	64.0	5.6	97	E
5/17/2005	61.7	41.2	5.2	279	W

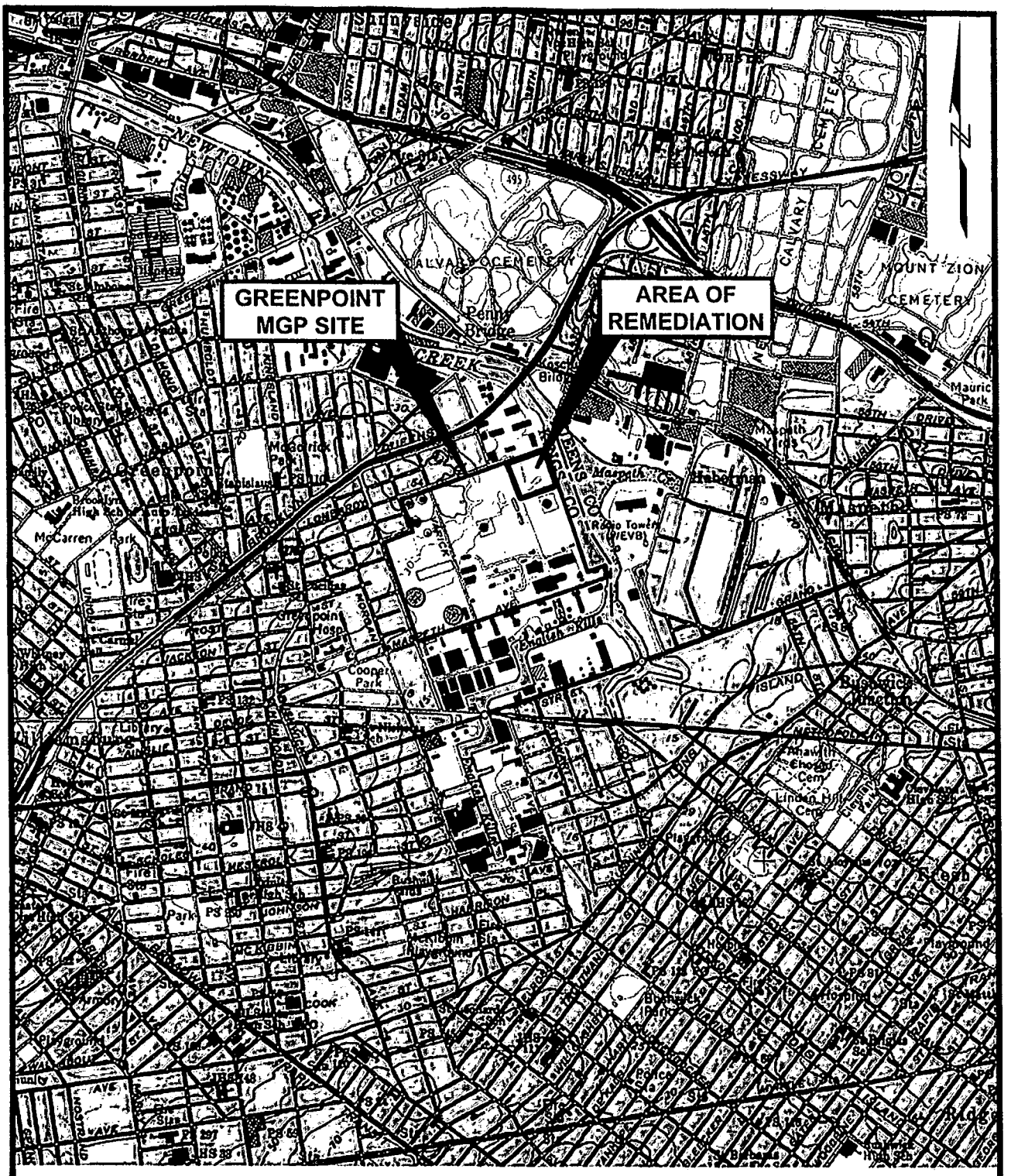
Table 4

Meteorological Data Summary[1]
Community Air Monitoring Plan Report
Former Greenpoint Manufactured Gas Plant

Date of Sample	Average Temperature (deg F)	Average Relative humidity (%)	Average Wind speed (mph)	Average Wind direction	
5/18/2005	61.5	34.6	5.6	65	ENE
5/19/2005	59.7	46.9	6.2	95	E
5/20/2005	53.5	73.3	6.4	101	E
5/21/2005	58.7	60.7	6.3	63	ENE
5/22/2005	55.7	72.4	4.4	282	WNW
5/23/2005	56.7	65.3	4.4	71	ENE
5/24/2005	53.2	75.2	9.1	49	NE
5/25/2005	50.7	79.3	10.4	16	NNE
5/26/2005	56.9	71.4	7.8	34	NE
5/27/2005	65.6	61.1	4.7	278	W
5/28/2005	67.0	56.9	4.6	254	WSW
5/29/2005	67.5	50.3	5.3	290	WNW
5/30/2005	69.3	40.2	4.1	293	WNW
5/31/2005	66.8	52.7	5.2	81	E
6/1/2005	58.7	78.6	5.7	132	SE
6/2/2005	55.7	83.1	4.2	139	SE

[1] Meterological data presented are 24-hour average values

Figures



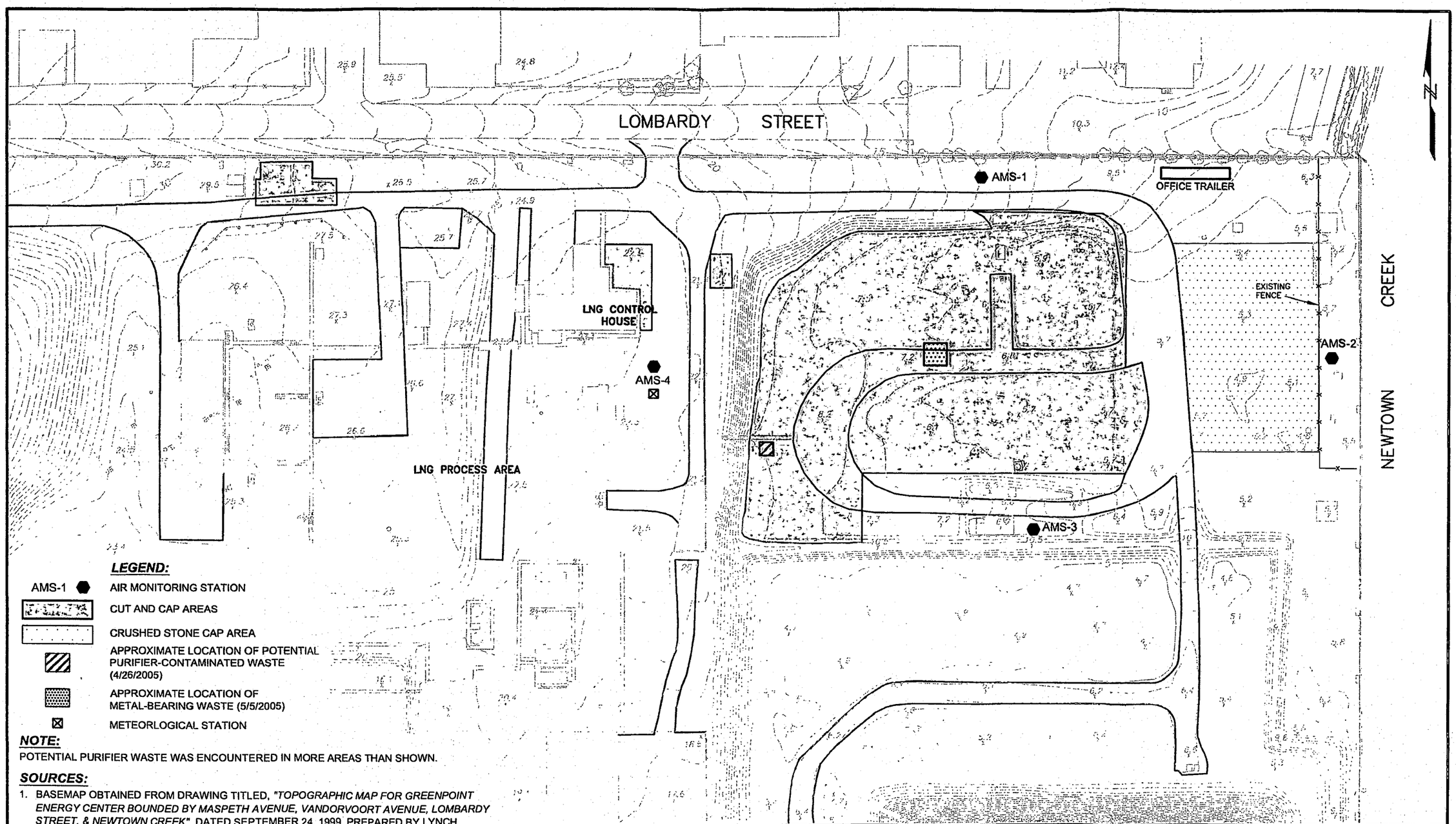
SOURCE: Map created with TOPO! ® ©2001 National Geographic
(www.nationalgeographic.com/topo)

0 2000 4000

SCALE, FEET

COMMUNITY AIR MONITORING PROGRAM REPORT GREENPOINT ENERGY CENTER BROOKLYN, NEW YORK	GEI Consultants	**SITE LOCATION MAP**
KEYSPAN CORPORATION BROOKLYN, NEW YORK	PROJECT 982482	August 2005 Figure 1

KEYSPAN\GREENPOINT\GREENPOINT-LOC.PPT



LEGEND:

- AMS-1 — AIR MONITORING STATION
- CUT AND CAP AREAS
- CRUSHED STONE CAP AREA
- APPROXIMATE LOCATION OF POTENTIAL PURIFIER-CONTAMINATED WASTE (4/26/2005)
- APPROXIMATE LOCATION OF METAL-BEARING WASTE (5/5/2005)
- ⊠ METEORLOGICAL STATION

NOTE:

POTENTIAL PURIFIER WASTE WAS ENCOUNTERED IN MORE AREAS THAN SHOWN.

SOURCES:

1. BASEMAP OBTAINED FROM DRAWING TITLED, *"TOPOGRAPHIC MAP FOR GREENPOINT ENERGY CENTER BOUNDED BY MASPETH AVENUE, VANDORVOORT AVENUE, LOMBARDY STREET, & NEWTOWN CREEK"* DATED SEPTEMBER 24, 1999, PREPARED BY LYNCH, GIULIANO & ASSOCIATES, INC.
2. LOCATION OF THE CUT AND CAP AREAS AND THE CRUSHED STONE CAP OBTAINED FROM DRAWING TITLED *"POST-REMEDIAL ACTION SITE PLAN (AS-BUILT), KEYSPAN CORPORATION GREENPOINT ENERGY CENTER, BROOKLYN, NEW YORK"* FIGURE 5, DATED JULY 2005, SCALE: 1"=50', PREPARED BY PAULUS, SOKOLOWSKI AND SARTOR ENGINEERING, PC.

0 80 160

SCALE, FEET

COMMUNITY AIR MONITORING PROGRAM REPORT
GREENPOINT ENERGY CENTER
BROOKLYN, NEW YORK

KEYSPAN CORPORATION
BROOKLYN, NEW YORK

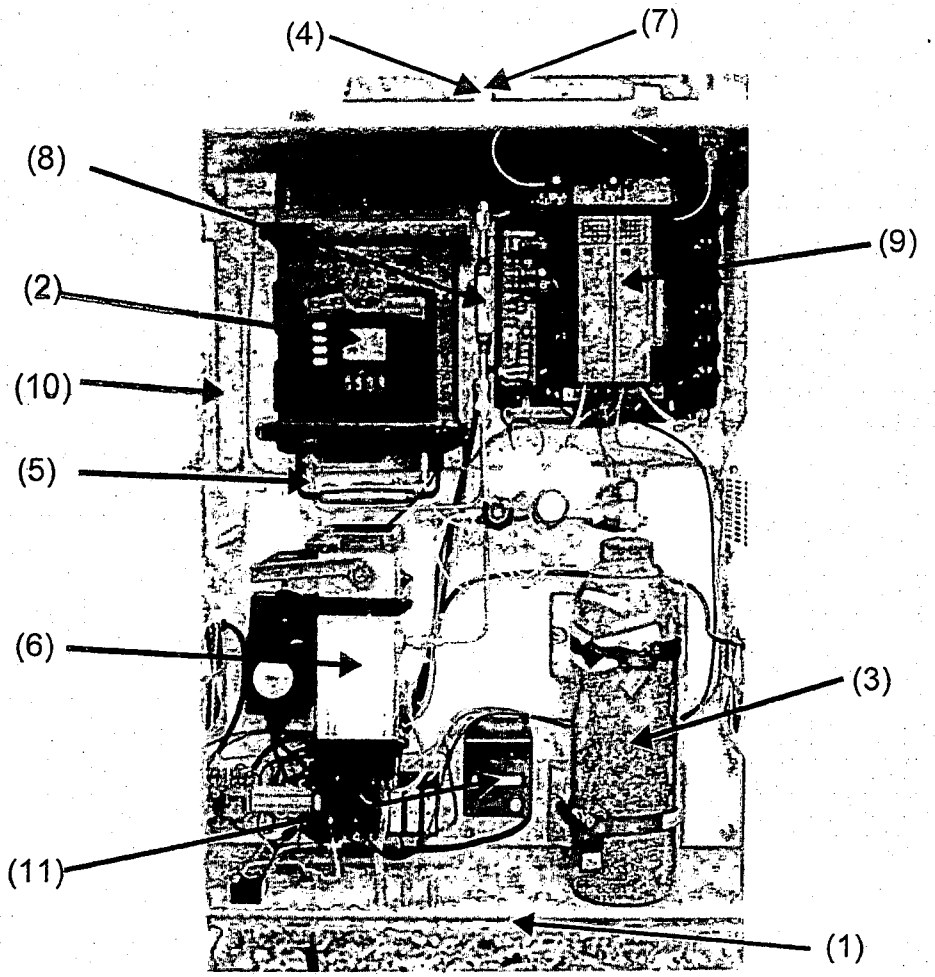
GEI Consultants

Project 982482-19-2907

AIR MONITORING STATION LOCATIONS

August 2005 Figure 2

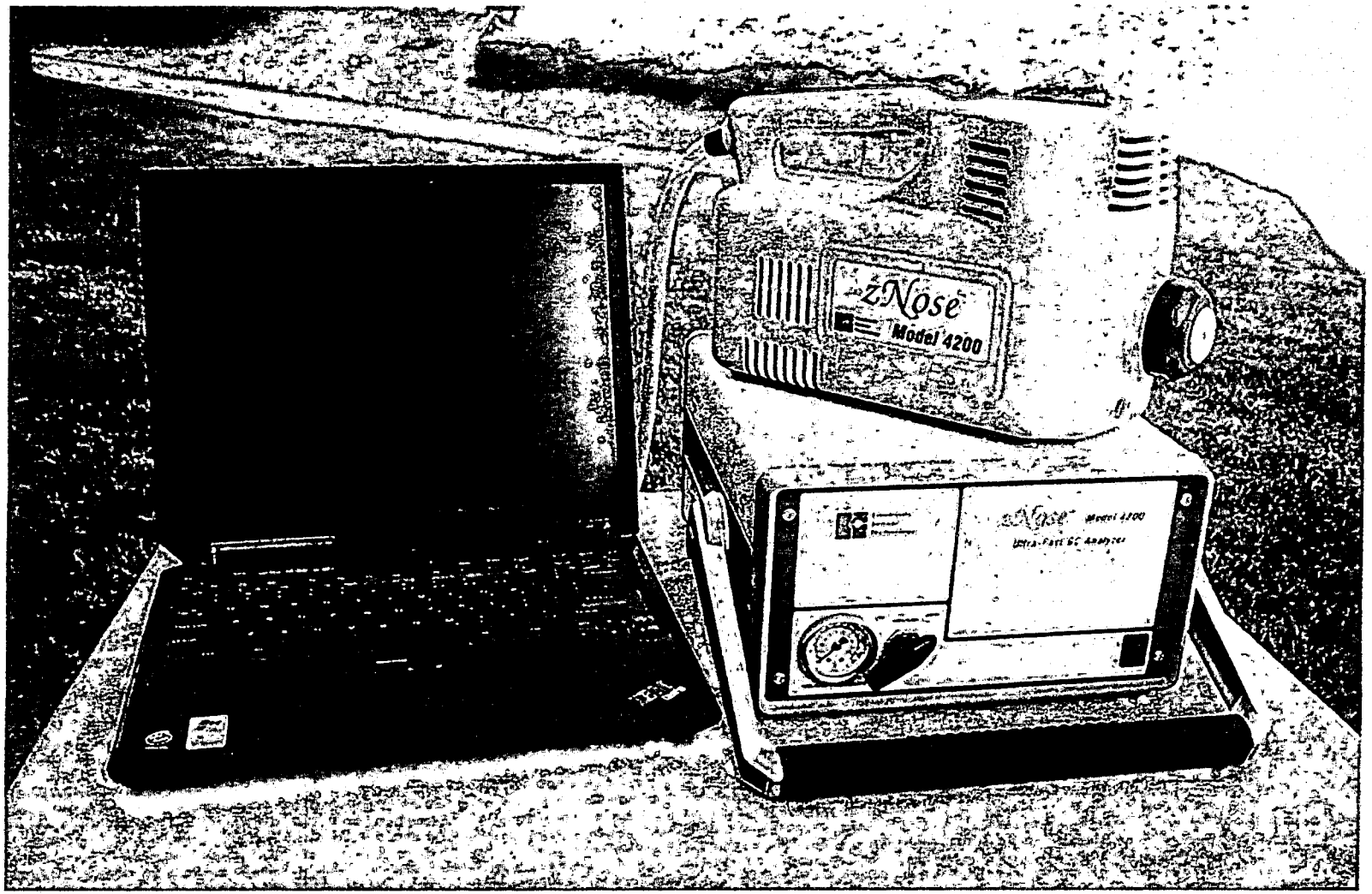
KEYSPAN\GREENPOINT\AIR SAMPLING\GREENPOINT-REMEDIATION AREAS.dwg



1. Station enclosure
2. PhotoVac Voyager gas chromatograph (GC)
3. GC carrier gas
4. GC sample inlet
5. GC sample inlet tubing
6. MIE DataRAM 2000 portable real-time aerosol monitor
7. DataRAM sample inlet with PM-10 impactor
8. DataRAM sample tubing with in-line heater
9. Data communications device
10. Heat exchanger
11. Heater element

COMMUNITY AIR MONITORING PROGRAM REPORT GREENPOINT ENERGY CENTER BROOKLYN, NEW YORK	GEI Consultants	**REAL-TIME STATION INTERNAL COMPONENTS**
KEYSPAN CORPORATION BROOKLYN, NEW YORK	Project 982482-19-2907	August 2005 Figure 3

KEYSPAN\GREENPOINT\AIR SAMPLING\GREENPOINT-SITE LOCATION.PPT



COMMUNITY AIR MONITORING PROGRAM REPORT GREENPOINT ENERGY CENTER BROOKLYN, NEW YORK	GEI Consultants	**The zNose® Model 4200 Analyzer**
KEYSPAN CORPORATION BROOKLYN, NEW YORK	Project 982482-19-2907	August 2005 Figure 4

KEYSPAN\GREENPOINT\AIR SAMPLING\GREENPOINT-SITE LOCATION.PPT

Figure 5
Daily Maximum Real-Time and Walk-Around Total Volatile Organic Compunds (TVOC) Data
Community Air Monitoring Plan Report
Former Greenpoint Manufactured Gas Plant

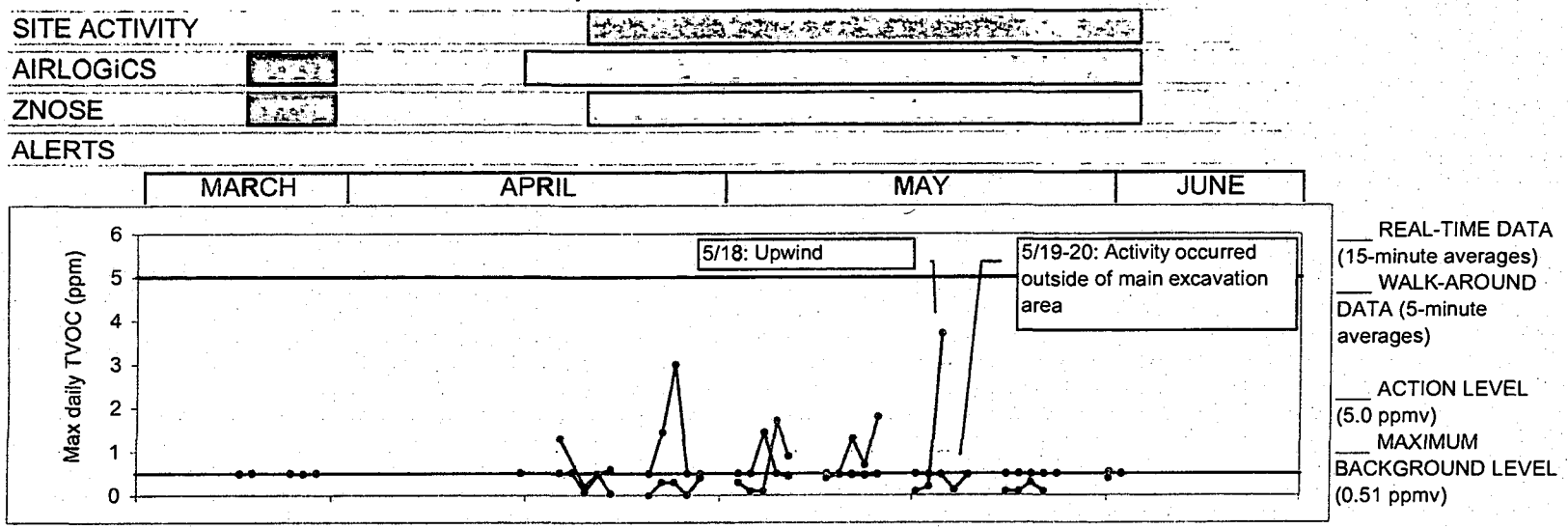


Figure 5a. Station 1 TVOC maximum averages.

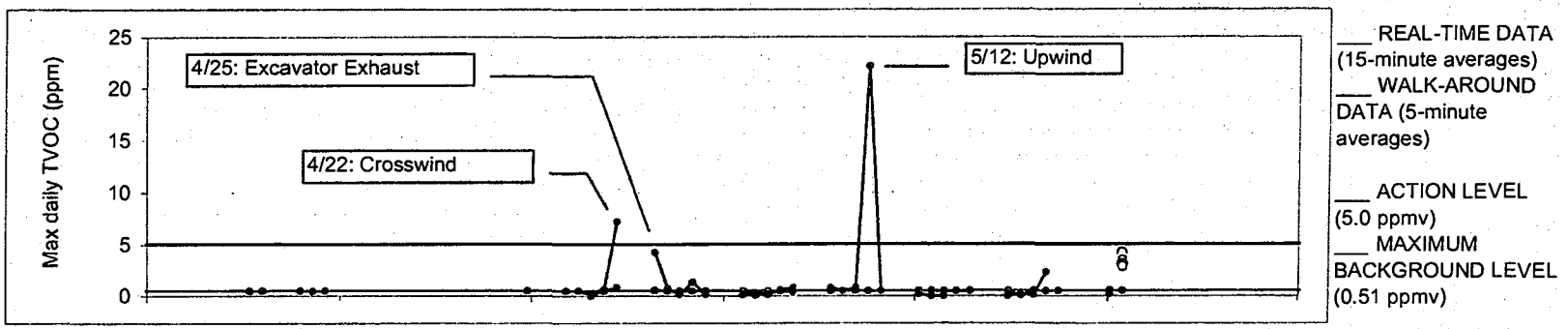


Figure 5b. Station 2 TVOC maximum averages.

Figure 5
Daily Maximum Real-Time and Walk-Around Total Volatile Organic Compunds (TVOC) Data
Community Air Monitoring Plan Report
Former Greenpoint Manufactured Gas Plant

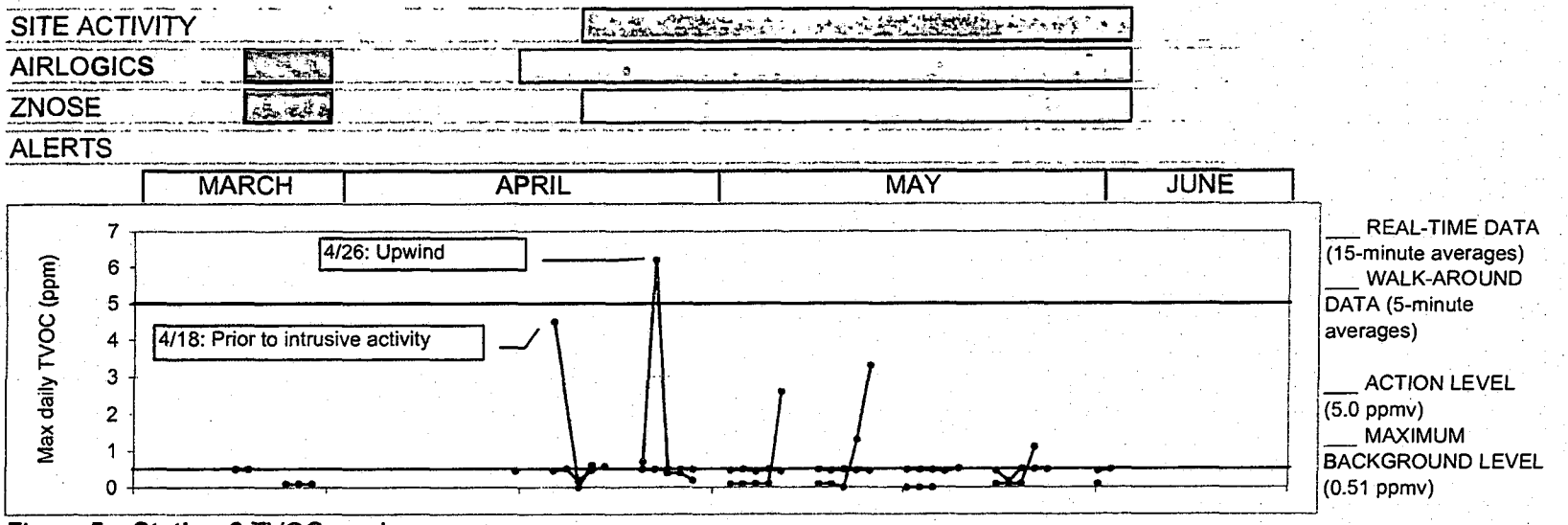


Figure 5c. **Station 3** TVOC maximum averages.

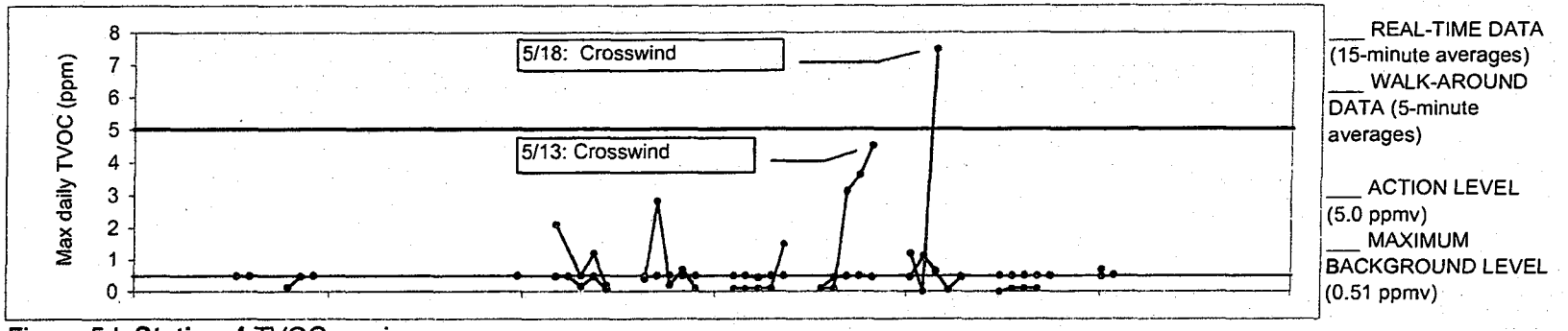


Figure 5d. **Station 4** TVOC maximum averages.

Figure 5
Daily Maximum Real-Time and Walk-Around Total Volatile Organic Compunds (TVOC) Data
Community Air Monitoring Plan Report
Former Greenpoint Manufactured Gas Plant

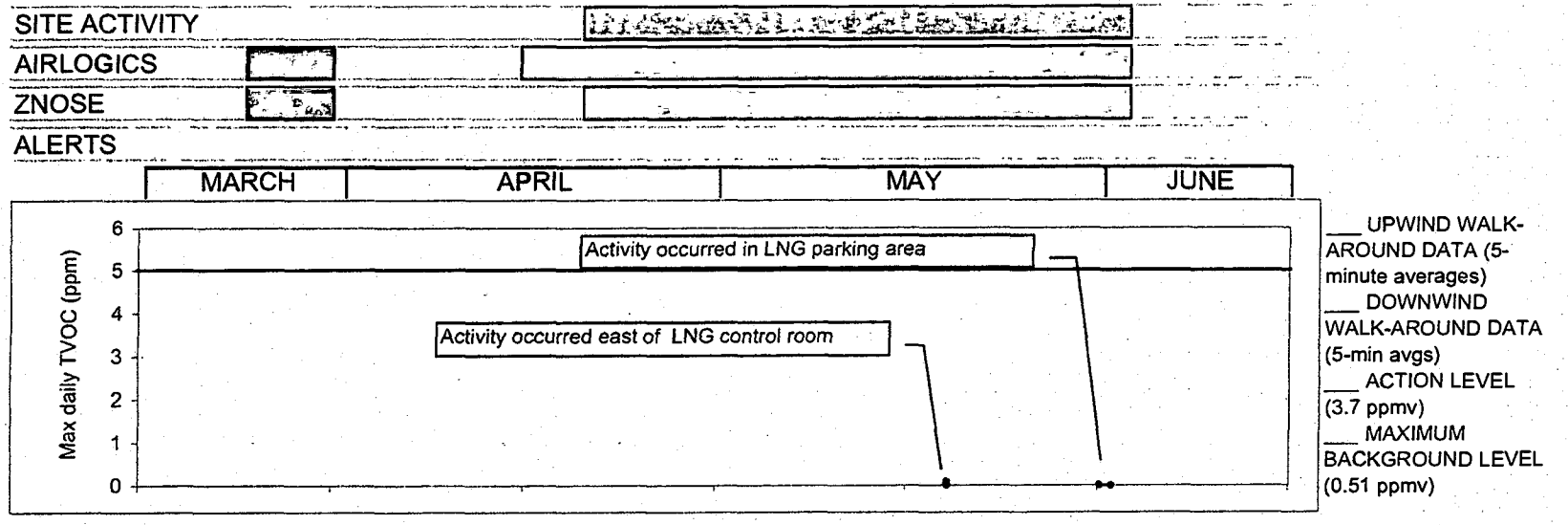


Figure 5e. TVOC maximum averages (walk-around).

Figure 6
Daily Maximum Real-Time and Walk-Around Respirable Particulate Matter (RPM10) Concentration Data
Community Air Monitoring Plan Report
Former Greenpoint Manufactured Gas Plant

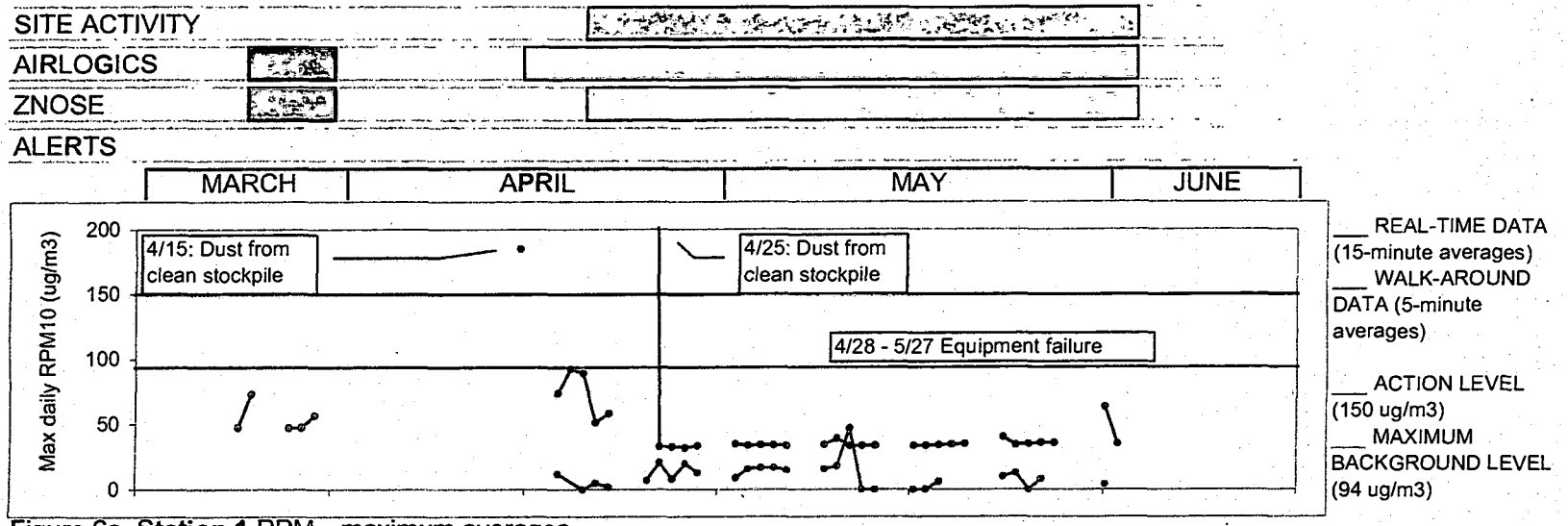


Figure 6a. Station 1 RPM_{10} maximum averages.

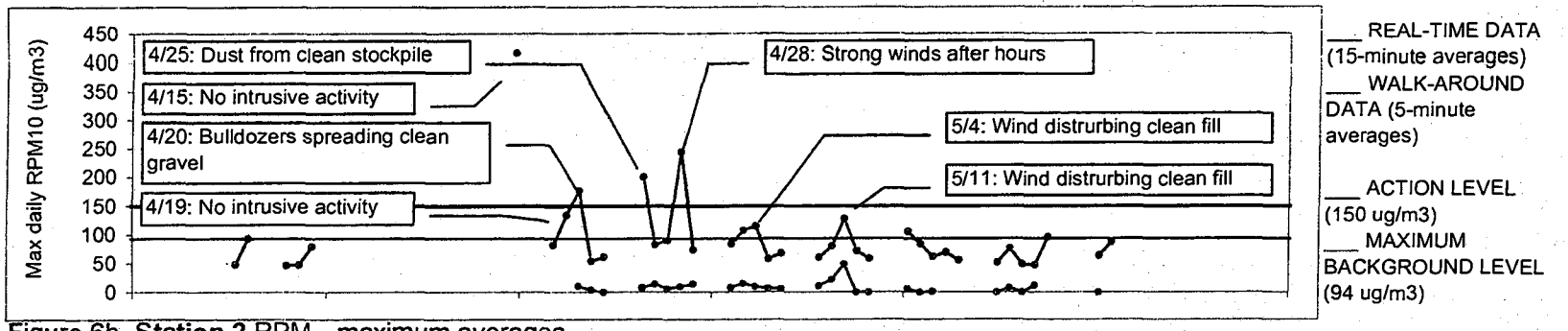


Figure 6b. Station 2 RPM_{10} maximum averages.

Figure 6
Daily Maximum Real-Time and Walk-Around Respirable Particulate Matter (RPM10) Concentration Data
Community Air Monitoring Plan Report
Former Greenpoint Manufactured Gas Plant

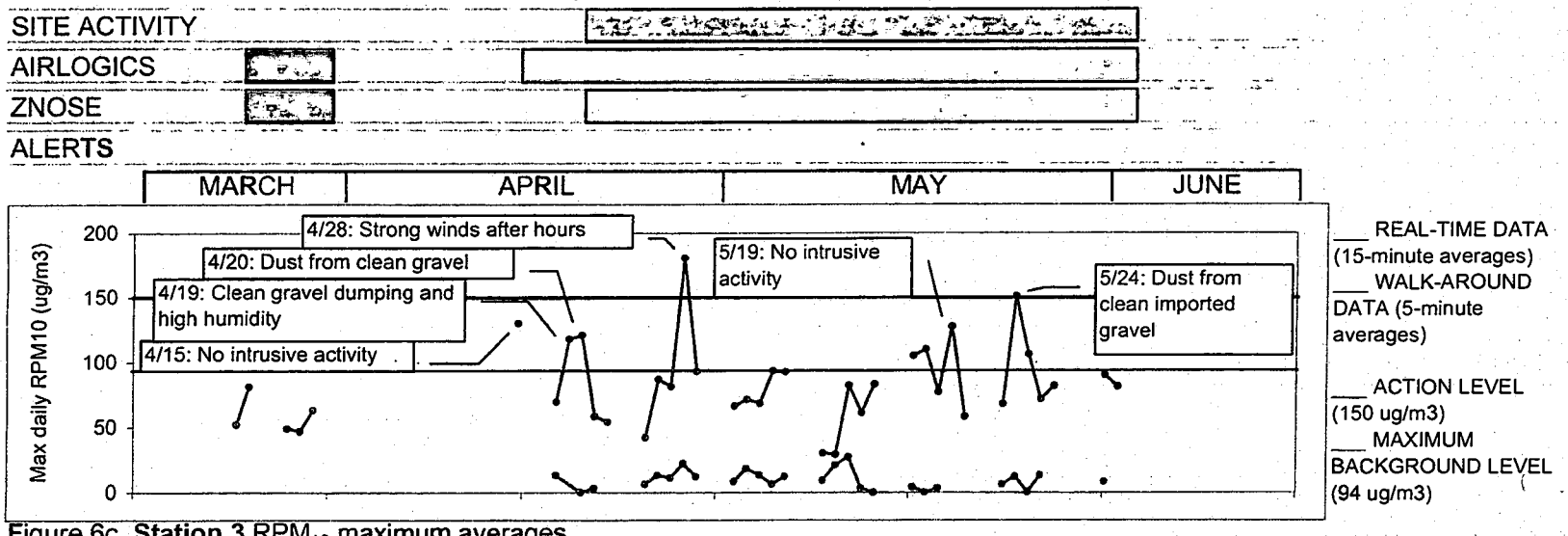


Figure 6c. **Station 3** RPM_{10} maximum averages.

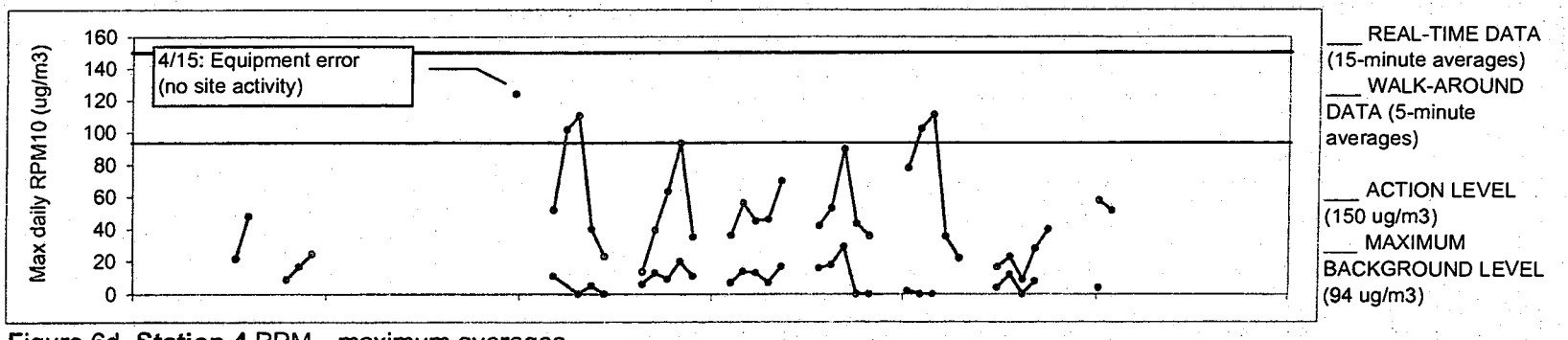


Figure 6d. **Station 4** RPM_{10} maximum averages.

Figure 6
Daily Maximum Real-Time and Walk-Around Respirable Particulate Matter (RPM10) Concentration Data
Community Air Monitoring Plan Report
Former Greenpoint Manufactured Gas Plant

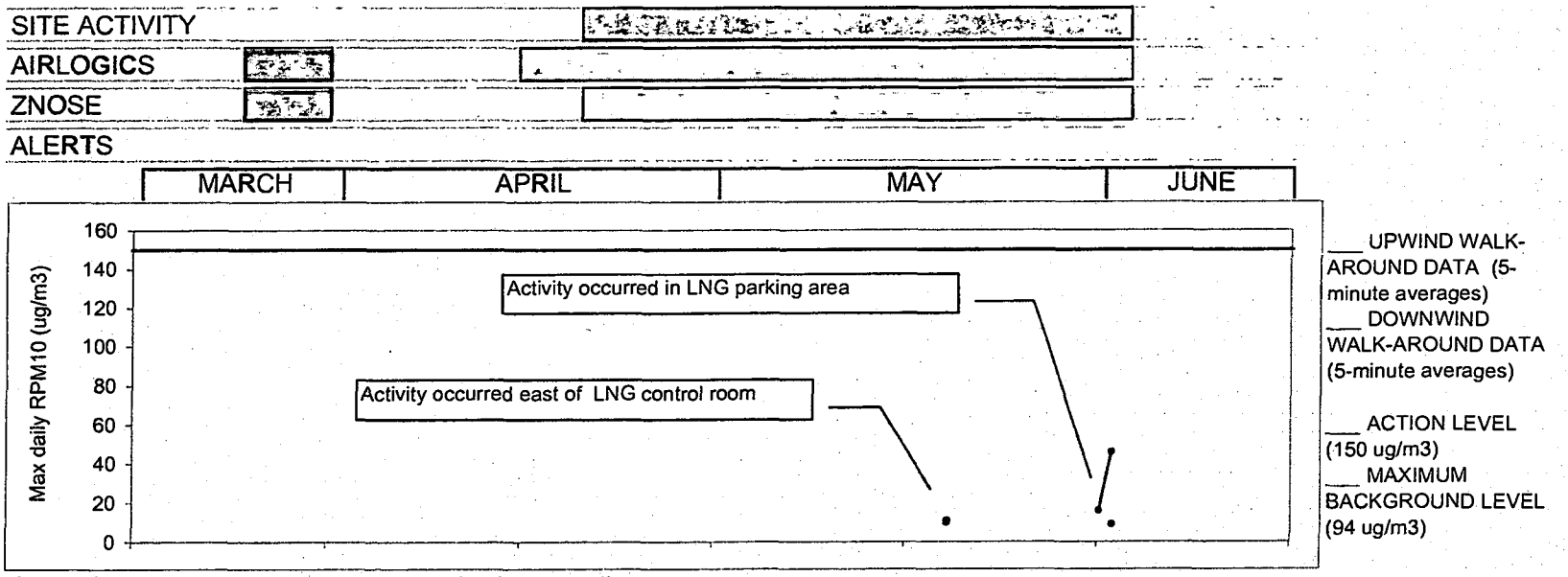


Figure 6e. RPM_{10} maximum averages (walk-around).

Figure 7
Daily Maximum Naphthalene Concentration Data
Community Air Monitoring Plan Report
Former Greenpoint Manufactured Gas Plant

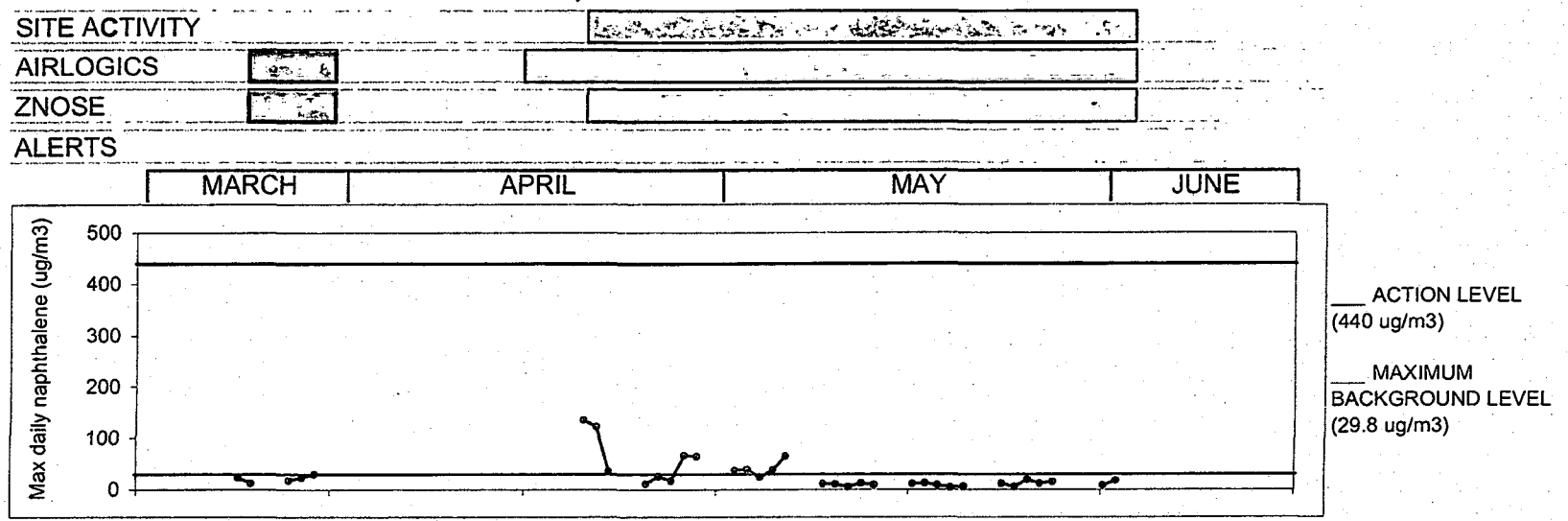
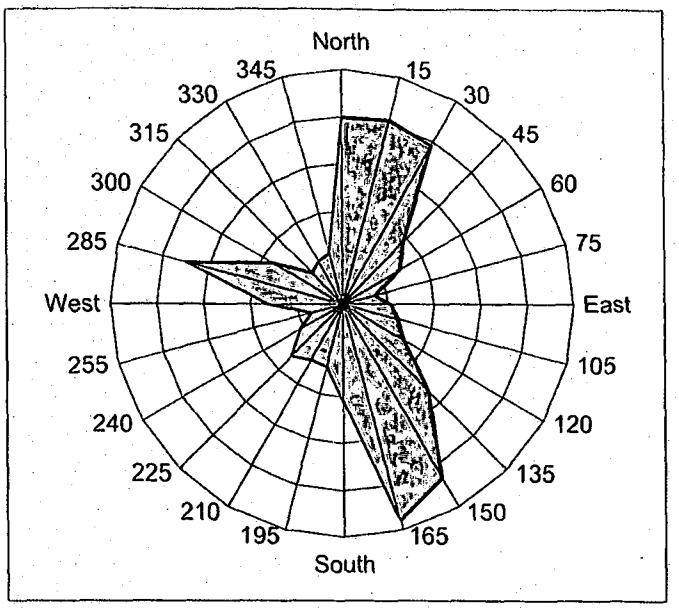


Figure 7. Downwind naphthalene maximum daily 15-minute average.

Figure 8
Distribution of Wind Direction (4/15/2005 - 6/2/2005)
Community Air Monitoring Plan Report
Greenpoint Energy Center



Appendices (Electronic Only)

A MEDTOX Team Description of Qualifications

B Background AirLogics, Naphthalene, and TO-15 Data

C Construction Phase AirLogics Data

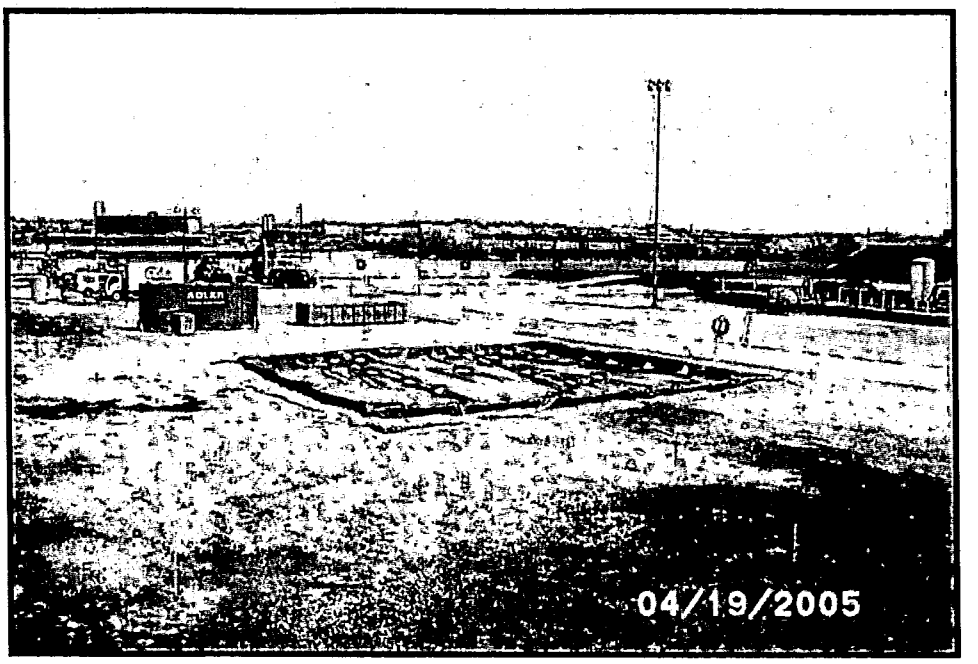
D Construction Phase Naphthalene Concentration Data

E Construction Phase TO-15 Data

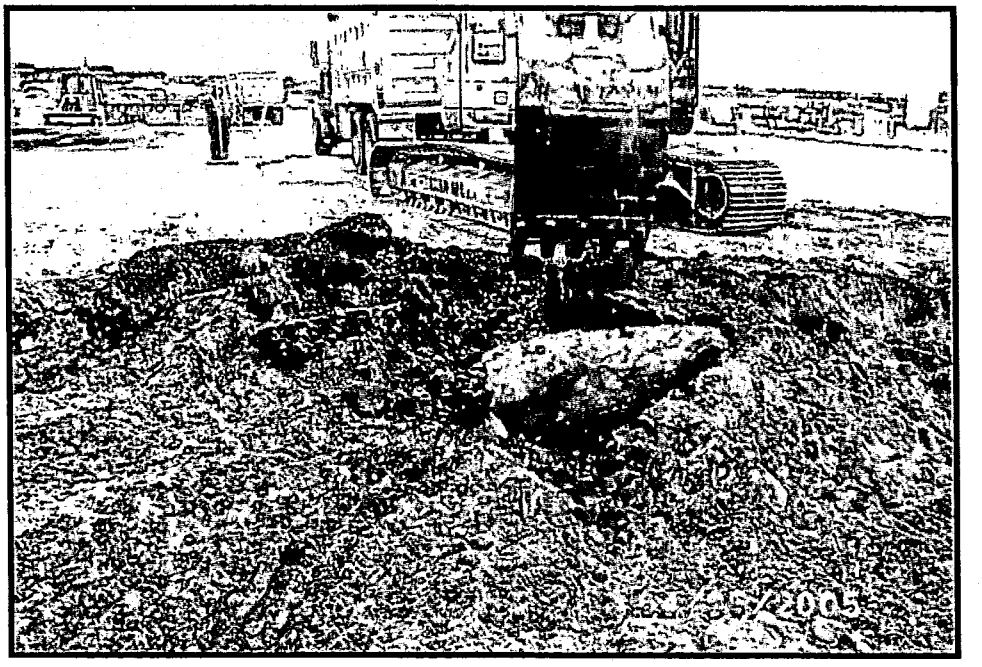
F Meteorological Data

APPENDIX F

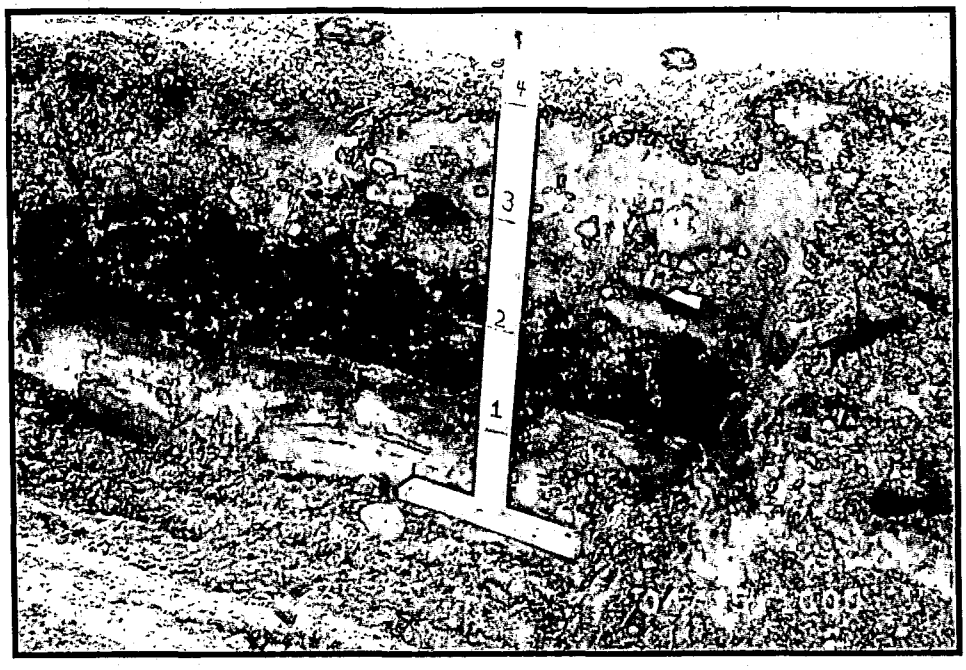
PROJECT PHOTOGRAPHS



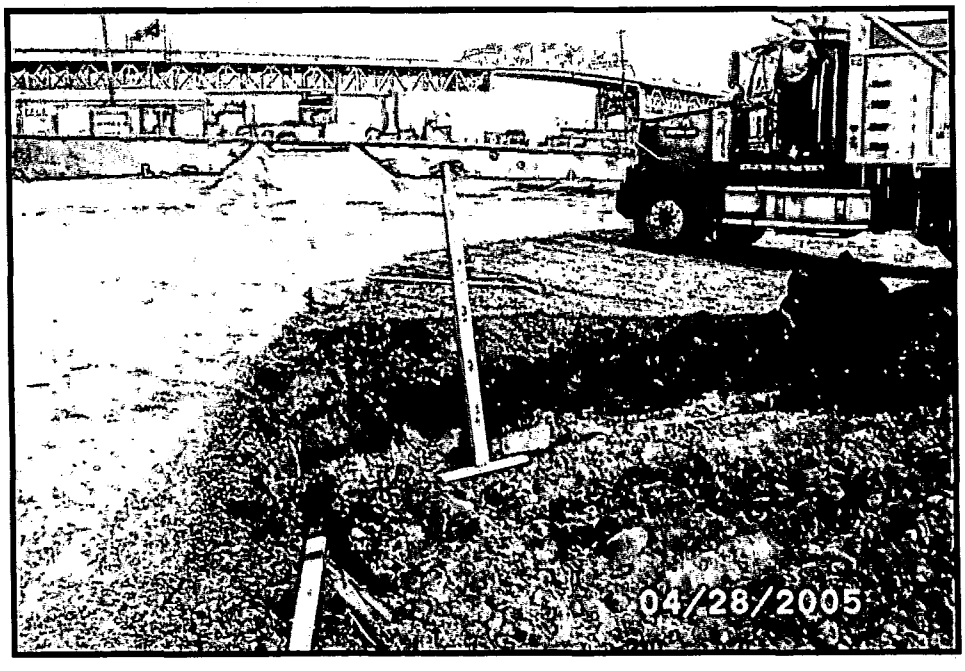
Southeast view of site prior to initiating IRM



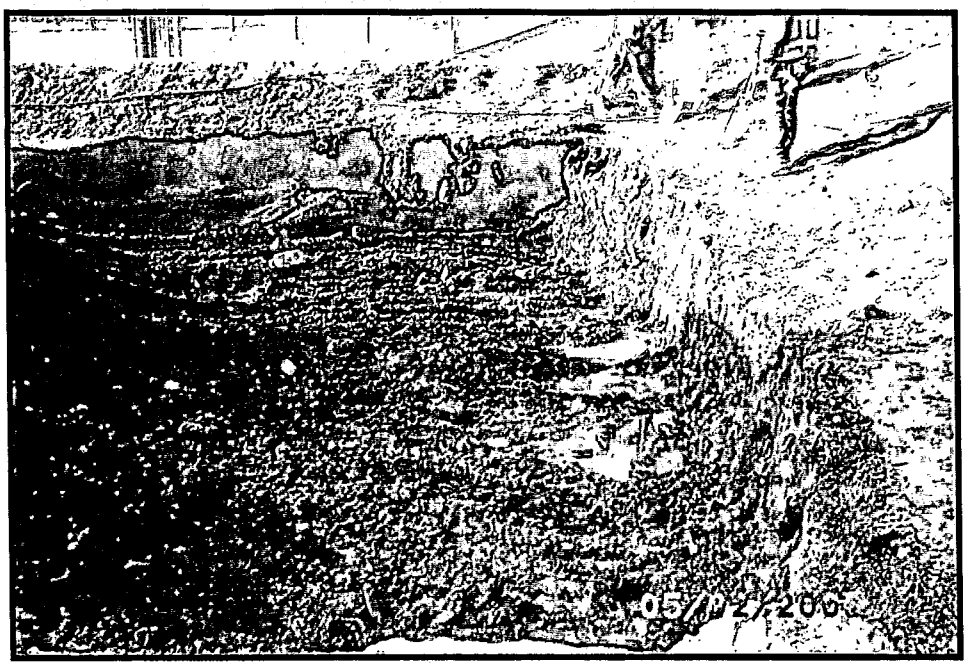
Excavation Area A - Tar layer 2.0 ft. bgs near asphalt road



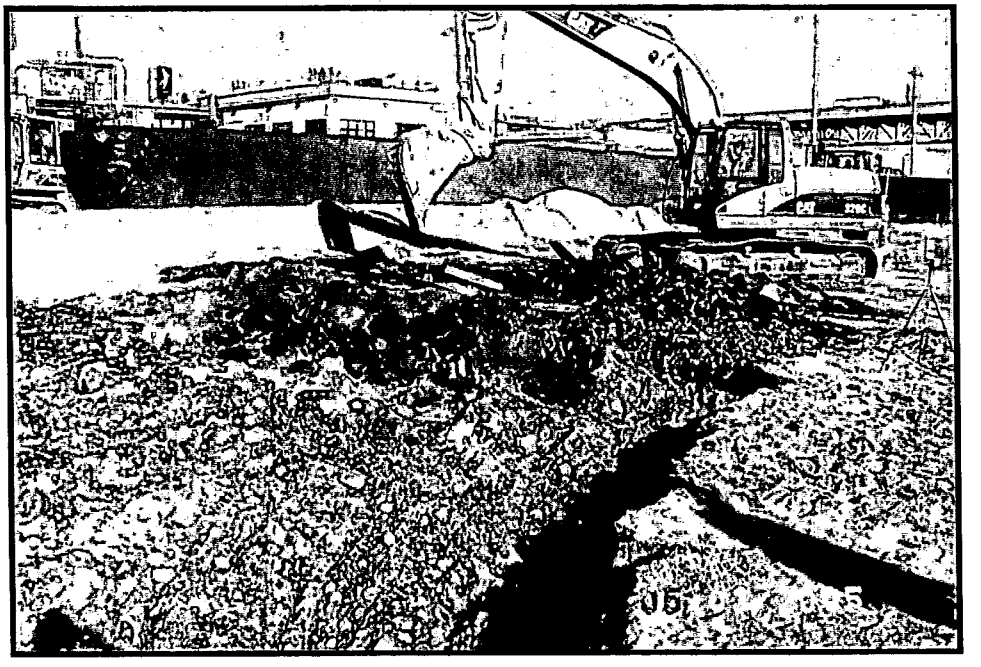
Excavation Area A - Tar layer at 1.5 to 2.0 ft. bgs



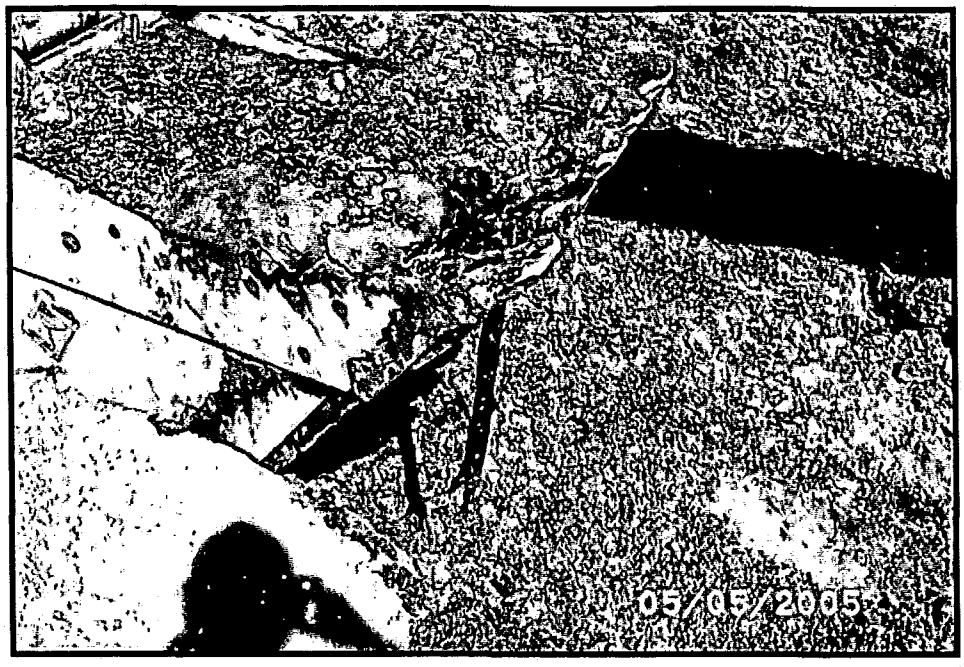
Excavation Area E - Impacted soils on north wall east of asphalt road



Excavation Area E – Extension to the southwest berm, 4.0 ft. bgs

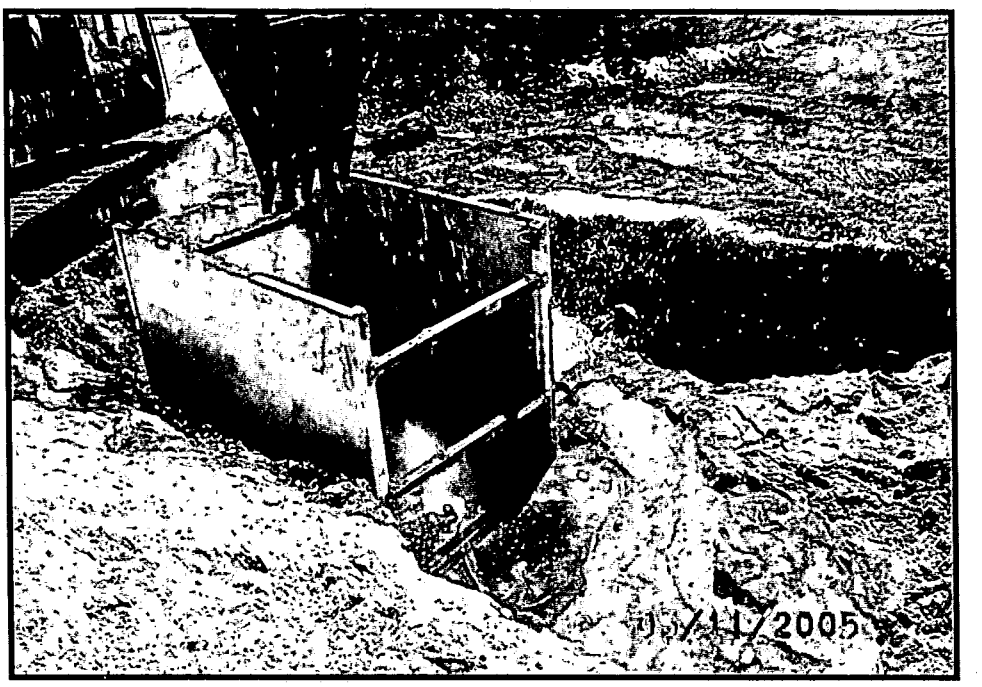


Excavation Area C – Impacted soils beneath asphalt roadway

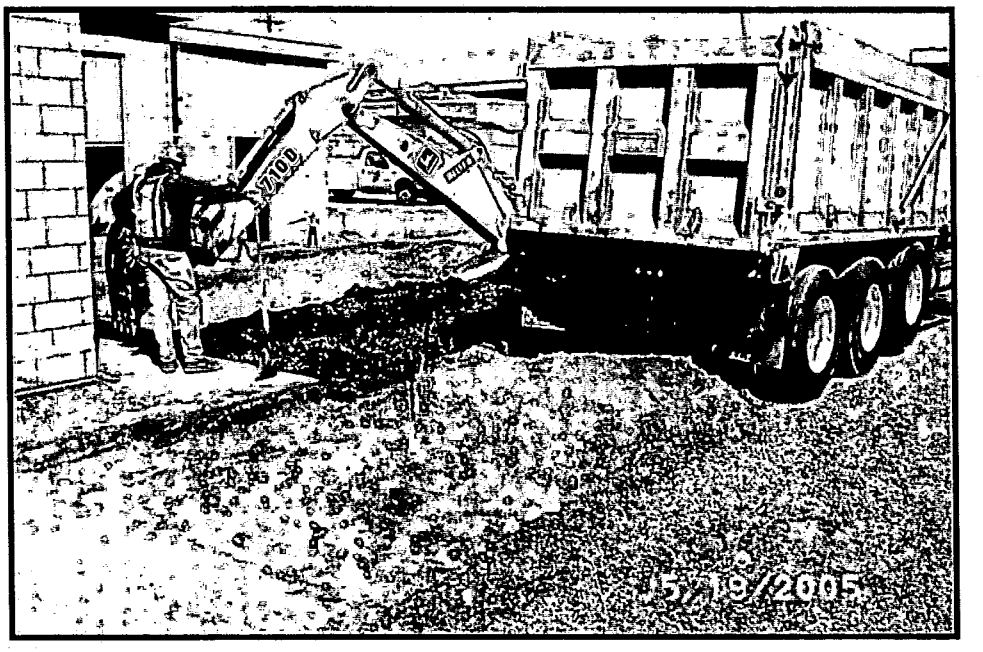


Excavation Area C - Purple stained soils from 4.0 to 4.5 ft. bgs

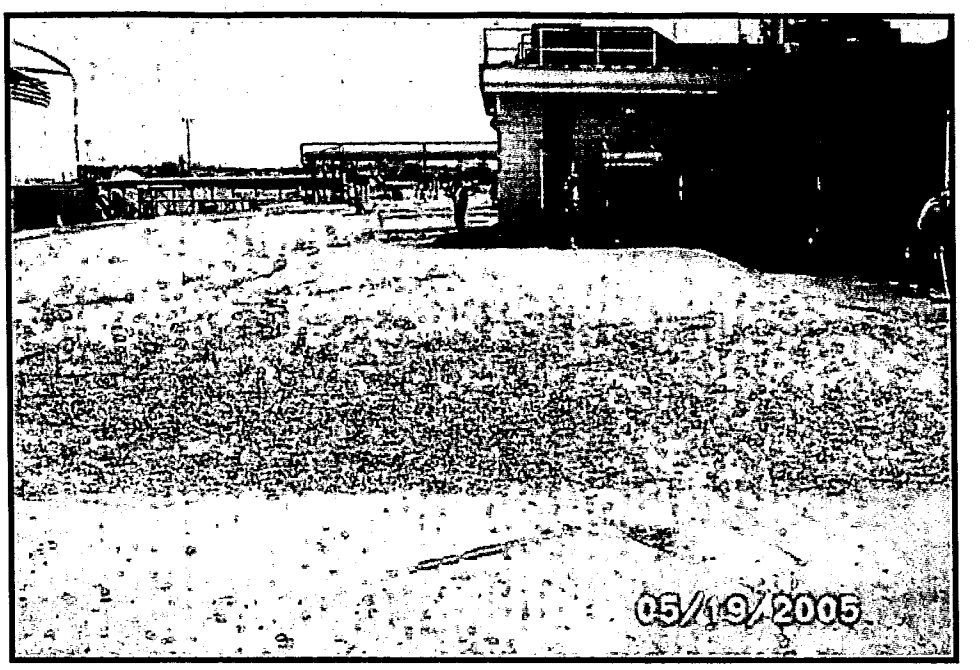
Excavation Area B – Excavation of impacted soils; use of odor suppressant foam



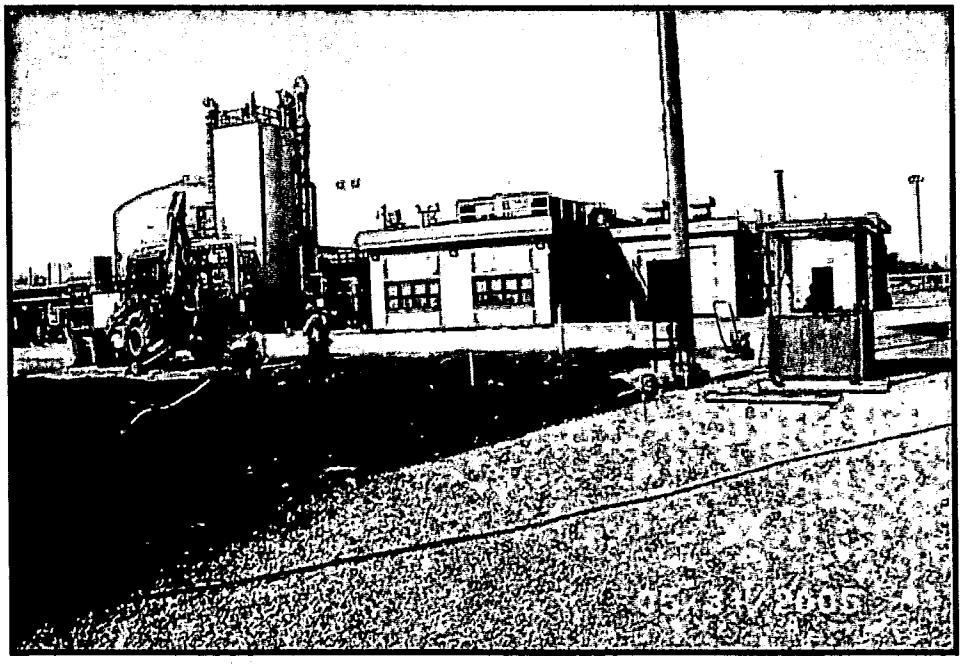
Excavation Area B – Excavation to 13 ft. bgs using trench boxes



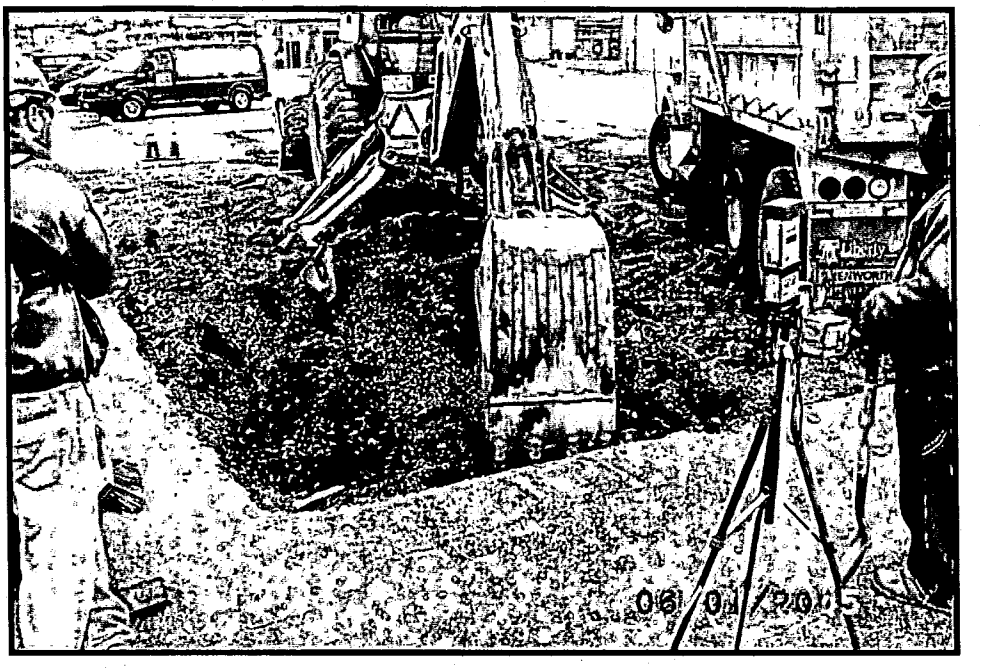
Excavation Area E – Soil removal near LNG Plant at 1.0 to 1.5 ft. bgs



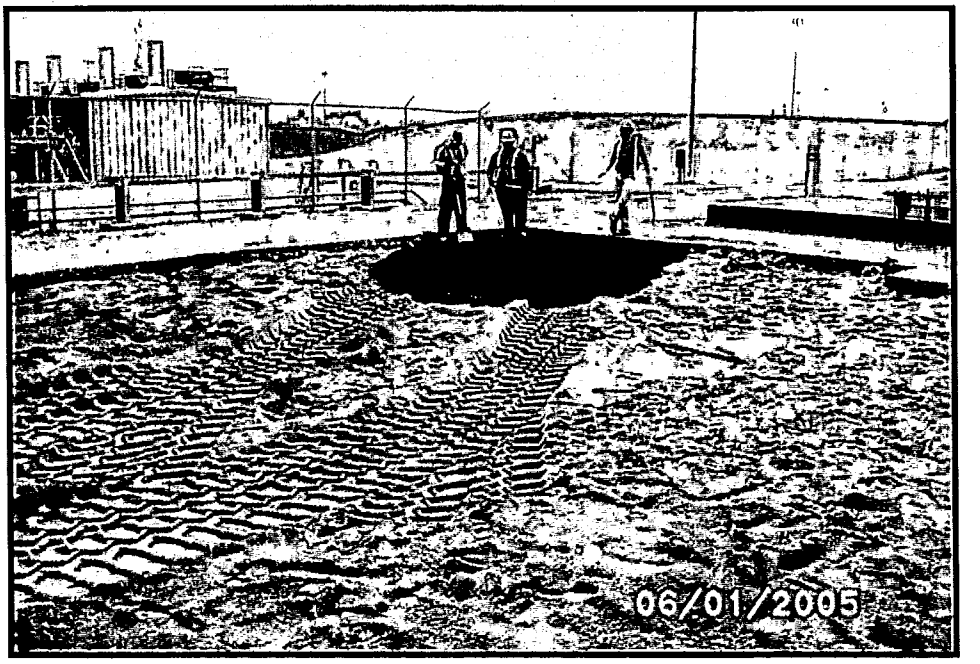
Excavation Area E – Site restoration near LNG Plant



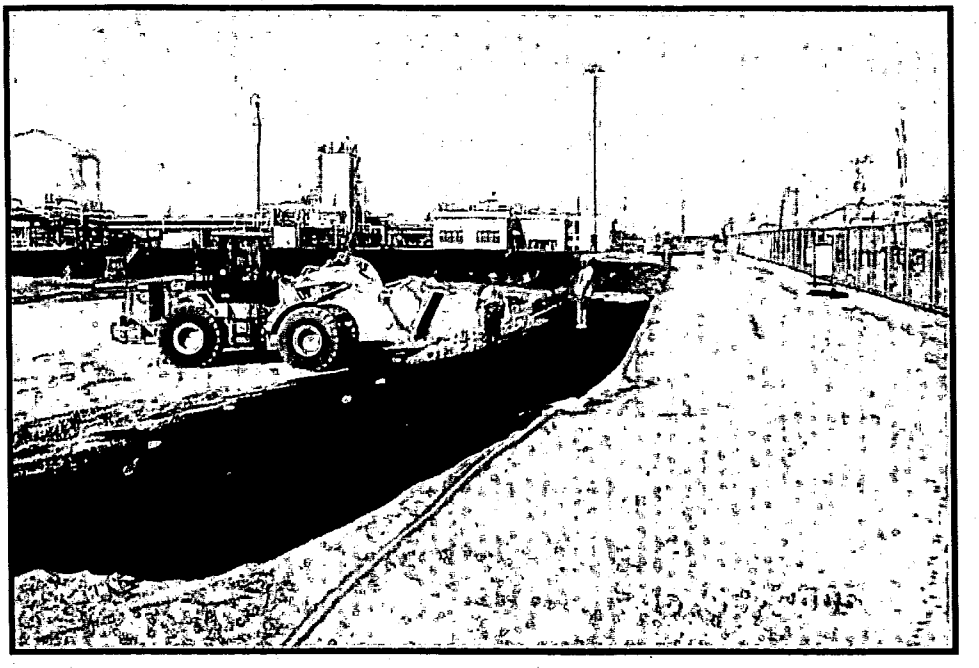
Excavation Area E – Soil removal near switchgear station at 1.0 ft. bgs



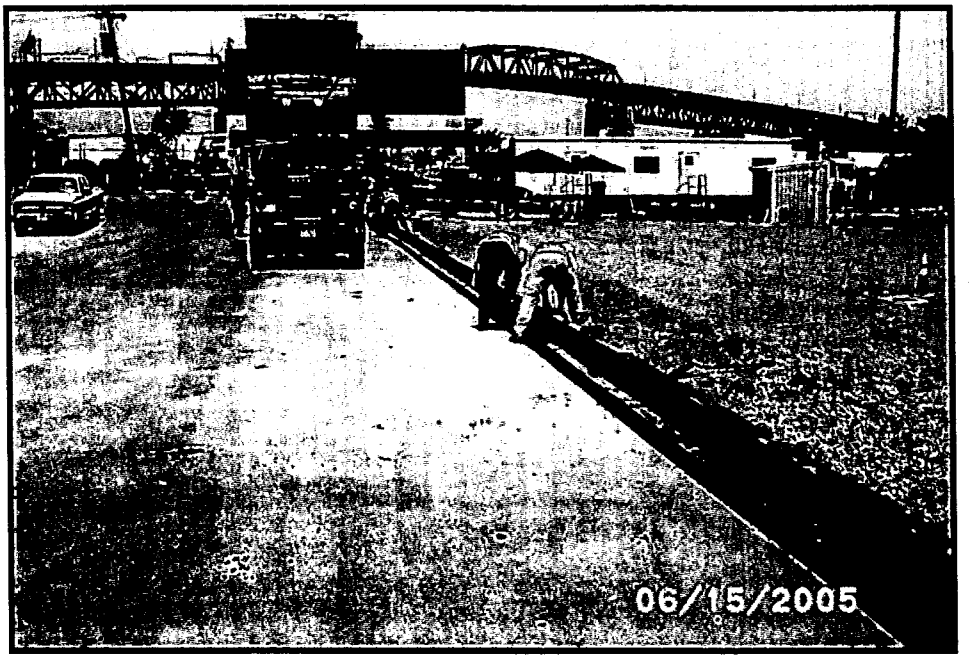
Excavation Area E – Soil removal near substation location at 1.0 ft. bgs



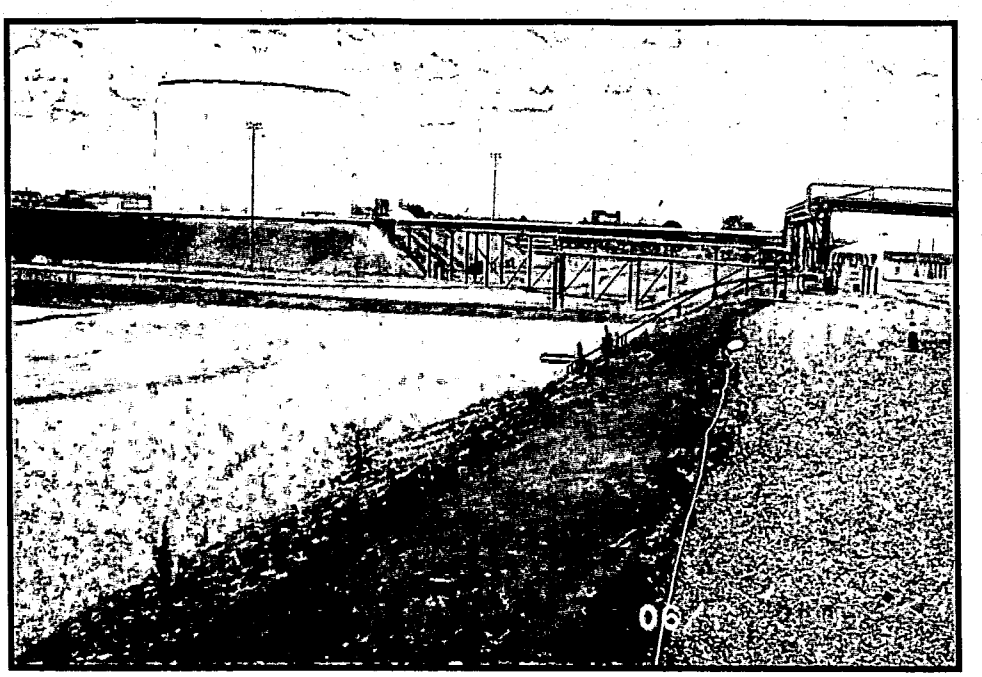
Excavation Area E – Site restoration near substation location



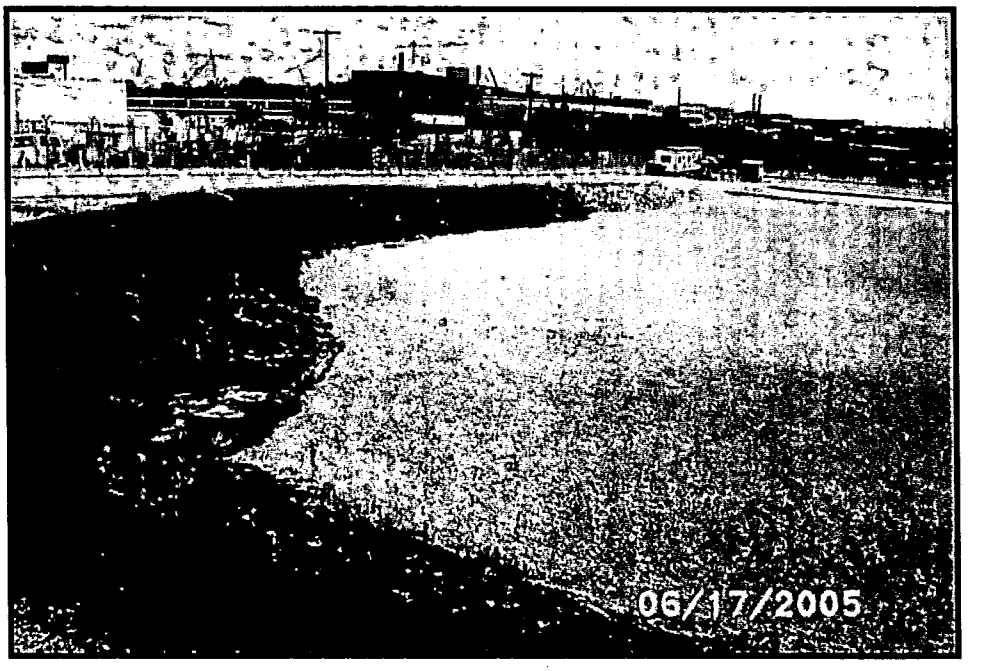
Excavation Area C – Site restoration with rip wrap on northeastern berm



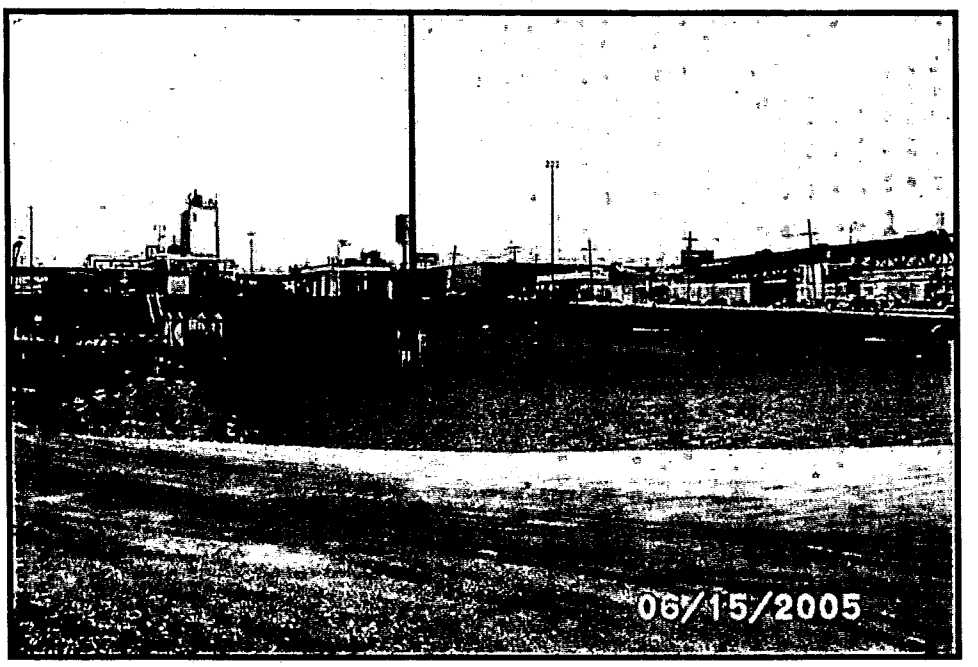
Crushed Stone Cap Area - Asphalt curbing on west side of cap



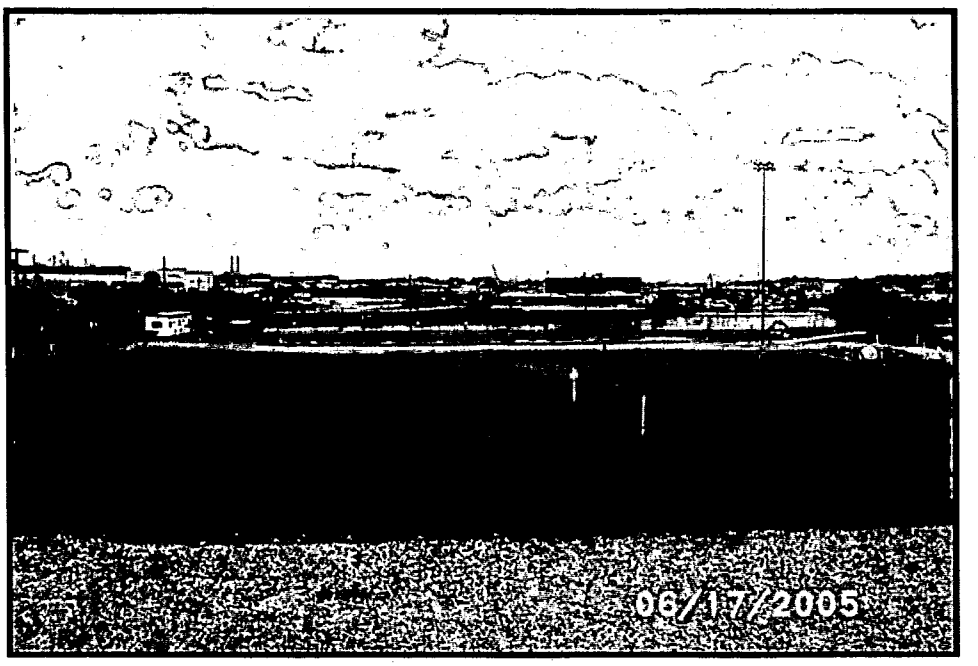
Site restoration looking from the northwest to the southwest berm, including Excavation Areas A, E, C and the roadway



Site restoration looking from the northwest berm to the northeast side of the site including Excavation Areas A through E and western side of the asphalt road



Site restoration looking from the southeastern side of the site, viewing the northwestern side of the site



Site restoration looking from the west viewing the eastern side of the site, including the crushed stone cap in the distance