REMEDIAL ACTIVITIES REPORT

115 FRONT STREET PROPERTY
VILLAGE OF GREENPORT
NEW YORK

PREPARED IN CONJUNCTION WITH THE
INCORPORATED VILLAGE OF GREENPORT AND THE
NYSDEC ENVIRONMENTAL RESTORATION PROJECTS
(BROWNSFIELD PROGRAM)

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DRAFT

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H2MGROUP **REMEDIAL ACTIVITIES REPORT**

115 FRONT STREET
GREENPORT, NEW YORK

FEBRUARY 2006

TABLE OF CONTENTS

TABLE OF CONTENTS (CONT.)

FIGURES

TABLES

APPENDICIES

1.0 INTRODUCTION

1.1 Purpose of the Report

The overall purpose of this Remedial Activities (RA) report is to document the various remediation efforts undertaken at the subject property located at 115 Front Street ("Site"), presently known as Mitchell Park. Information in the report will be presented to the NYSDEC and used to document the remedial activities undertaken and the future maintenance activities required. The RA, originally issued in July 2003, was amended in February 2006 to document additional remedial activities conducted subsequent to the July 2003 RA report during the final phase of the site's redevelopment as a waterfront park. The specific objectives of this RA report are as follows:

1. Provide sufficient data on the site so that areas previously identified or suspected as potential source areas of contamination are confirmed or determined to be either free of contamination or below regulatory levels.
2. Provide analytical data pertaining to contamination, if any, remaining on-site after remediation activities were completed.
3. Present and discuss the data necessary to support the proposed management plan.

This RA report focuses on several areas of concern at the site where previous investigations identified historic underground storage tanks (USTs), impacted surface soils and/or impacted subsurface soils. These areas of concern included:

1. Areas with Arsenic-Impacted Soils: Several areas throughout the site were found to have surface soils with arsenic concentrations above background levels.
2. Texaco Alley Area: Located in the eastern portion of the site, Texaco Alley was found to contain three 4,000-gallon petroleum USTs and petroleum-impacted subsurface soils.

3. Bait Shop Area: Located on the eastern-most side of the site, immediately northeast of the Texaco Alley Area, the Bait Shop Area was found to contain petroleum-impacted soils.
4. Light Pole Area: Located at the southwest corner of an access road entering the east side of the site from Front Street, the Light Pole Area was suspect due to the reported presence of oily residues.
5. South UST Area: Located in the southwest portion of the site, the South UST Area was found to contain petroleum-impacted soils associated with five 4,000-gallon USTs.
6. North UST Area: Located in the north-central portion of the site, the North UST Area was found to contain petroleum-impacted soils associated with a single 1,000-gallon UST.
7. Boat Slip UST Area: Located immediately north of the former Star Marina boat slip, the Boat Slip Area was found to contain petroleum-impacted soils associated with five USTs ranging in size from 1,000 to 5,000-gallons.

1.2 Site Background

The following sections provide a detailed description of the site, site history and the results of previous investigations conducted at the site.

1.2.1 Site Description

The subject property, located at 115 Front Street in Greenport, New York, is also known as Mitchell Park, and encompasses approximately 3.19 acres (139,168 square feet). The property's tax map number is District 1001, Section 005, Block 04, Lots 8.1 and 40.1. The majority of the site is being utilized by the Village as a public waterfront park. The site has little topographic relief. The northern property line abuts to Front Street while the southern property line is characterized by bulkheading and piers constructed into Greenport Harbor.

1.2.2 Site History

The Village acquired the 115 Front Street property on September 11, 1996. Prior to this date, the property was known as Mohring's Marina and was also the location of Kokomos Restaurant. Reportedly, there were three to five underground storage tanks (USTs), which were used to store gasoline fuel for the boats utilizing the adjoining marina facilities. This portion of the site is herein designated as the South UST Area. The prior owners of the site were the Mitchell family.

According to available NYSDEC and Suffolk County Department of Health Services (SCDHS) records, in August of 1991, a hurricane occurred during which significant rain impacted the Village. One 3,000-gallon UST was apparently flooded by the rain water and it's contents, reported as oil, flowed out onto the surface of the blue-stone parking lot of the Kokomos restaurant. The incident was assigned NYSDEC Spill No. 91-05515. Records indicate that the surface spill was cleaned up to SCDHS and NYSDEC satisfaction.

The records also indicate that the 3,000-gallon steel UST was removed under NYSDEC oversight. Minor soil contamination was noted in the area of the fill pipe but none was observed under the UST. The UST was successfully removed and the spill number closed by the NYSDEC. The records indicate the presence of five additional USTs at the site but no action was taken at that time with respect to the remaining USTs. There was no indication at the time that any of the remaining USTs had ever leaked.

In April and May 1997, the Village contracted to have approximately 1,000 cubic yards of topsoil spread across the site. The source of the topsoil was reportedly from a local farm-field. Reportedly, the thickness of the topsoil cover varied from 2 to 12 inches and was used to level out low spots within the site.

1.2.3 Previous Investigations

According to Village files, one 3,000-gallon UST was removed from the site on August 27, 1991 with oversight provided by NYSDEC. Reportedly, there were still five out-of-service USTs present in the southwest corner of the property. An initial geophysical survey was conducted to determine the number and approximate size of any out-of-service USTs present in the southwest corner of the property. The work was conducted with oversight provided by SCDHS.

The geophysical survey was conducted in February 1997 using ground-penetrating radar (GPR). Based upon the response of the GPR unit, it appeared that there were three USTs present associated with the three fill pipes encased in a concrete vault (it was later discovered that there were five USTs). The concrete vault attenuated the GPR signal and prevented the operator from accurately establishing the size of the USTs. Subsurface piping observed near the shoreline were traced with the GPR to a concrete box. The outline of a former canal was clearly indicated by the survey. The former canal appeared to truncate the underground piping, however, the pipes were picked up east of the former canal and traced to the three out-of-service USTs.

Based upon the results of the initial geophysical survey, three out-of-service USTs were thought to be present in the southwest corner of the subject property.

1.2.4 Initial Site Investigation

The purpose of the initial Site Investigation (SI) was to define the nature and extent of contamination resulting from previous uses and activities at the site. The fieldwork for the SI was performed between August 1998 and March 1999. A report entitled Site Investigation Report dated July 1999 was prepared by H2M documenting the various field investigation activities and the findings of the SI. Field investigation activities conducted during the initial site investigation included:

- Geophysical Survey: A geophysical investigation was conducted to identify the presence of subsurface utilities and to locate any previously unidentified USTs on the site.
- UST Investigations: A total of nine USTs were found at the site during the SI. The USTs were removed as part of the SI to determine whether they had leaked petroleum into the subsurface.
- Surface Soil Investigation: Ten surface soil samples were collected and analyzed based upon the reported disposal of potential contaminants directly onto the surface soils of the site.
- Subsurface Soil Investigation: During their removal, it was evident that several of the USTs had leaked. Additionally, other areas of concern (AOC) evidenced potential for the subsurface release of contaminants. Therefore, 18 soil borings were conducted with soil samples collected and analyzed to evaluate potential impacts in subsurface soils.
- Groundwater Investigation: Based upon the presence of subsurface soil contamination found during the removal of on-site USTs, ten monitoring wells were installed and sampled to evaluate potential impacts to groundwater quality beneath the site.

The SI Report provided a description of the site and further identified:

- The physical characteristics of the site area including surface features, geology/hydrogeology, demography and land use.
- A discussion of the nature and extent of contamination including potential sources of contamination in the surface soils, subsurface soils and groundwater.
- A discussion of the fate and transport of site-specific contaminants.
- A human exposure assessment.

Based upon the results of analytical testing, several contaminants were detected in the on-site surface and subsurface soils, and in groundwater at levels exceeding the NYSDEC concentrations of concern (e.g., TAGM HWR 94-4046, Recommended Soil Cleanup Objectives and 6 NYCRR Parts 700-706, Class GA Water Quality Standards). Halogenated hydrocarbons associated with petroleum contamination were detected in on-site unsaturated subsurface soils and groundwater in the areas of concern where previous underground petroleum storage tanks were located. Additionally, arsenic was detected in the surface soils at concentrations above background levels throughout the site.

There are three possible routes of migration for these contaminants: (1) migration of semi-volatile organic compounds (SVOCs) associated with petroleum hydrocarbons from surface and subsurface soils to the air in the form of vapors, (2) migration of volatile organic compounds (VOCs) and SVOCs associated with petroleum hydrocarbons from unsaturated zone soils to groundwater and (3) migration of dissolved VOCs and SVOCs in groundwater.

To qualitatively evaluate the chemicals of concern and the affected media with respect to potential exposure pathways and receptors for human health, an exposure assessment was undertaken. Six pathways were evaluated: (1) ingestion of contaminated soil, (2) inhalation of vapors and/or dust, (3) direct contact with potentially contaminated surface runoff, (4) ingestion of contaminated groundwater, (5) dermal contact to contaminated soils, and (6) dermal contact to contaminated groundwater. Potential human receptors in the vicinity of the site included: workers on the site, trespassers who transit the site, residents who live in the area, and construction workers who will implement remedial actions at the site.

Based upon the completability of potentially functional exposure pathways and exposure/uptake routes, a qualitative risk per functional exposure pathway and potentially exposed receptors, the qualitative risk characterization for most exposure pathways was

considered low. However, on-site workers and trespassers were determined to have a moderate to high qualitative potential risk via four exposure pathways: (1) ingestion of contaminated soil, (2) inhalation of vapors, (3) inhalation of dust, and (4) dermal absorption of contaminants in soil. For area residence and remedial workers the qualitative risk potential for all exposure pathways was considered low.

2.0 INTERIM REMEDIAL MEASURES

An Interim Remedial Measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completing the Site Investigation (SI) and Remedial Alternatives Report (RAR). An IRM is a discrete set of activities that can be undertaken without extensive investigation and evaluation, to prevent, mitigate, or remedy environmental damage or the consequences of environmental damage attributable to a site.

As part of the UST removals performed during the SI, all highly impacted soils in close proximity to the USTs were removed. Significant leakage had occurred in all three UST areas (i.e., North UST Area, South UST Area and Texaco Alley UST Area). A combined total of approximately 315 cubic yards of soils, which were highly impacted with gasoline, diesel fuel or heating oil, were removed from the three UST areas. The UST removals, conducted as an IRM, were responsible for removing the primary sources of petroleum contamination at the site in a timely manner. The IRMs were, to a large extent, responsible for eliminating the environmental threat posed by potential discharge of contaminated groundwater to the adjacent Greenport Harbor.

In addition, ongoing construction and redevelopment of the subject site as a public waterfront park required the partial excavation and stockpiling of arsenic-impacted soils in the area of the carousel building and amphitheater. The top 12-inches of surface soils in these areas were excavated to allow construction of footings and drainage structures. The impacted soils were temporarily stockpiled in the northern portion of the

subject site. These soils were to be removed from the site or used as fill in appropriate areas of the site during remediation activities.

2.1 Remedial Alternatives Report

The ultimate goal of the New York State Environmental Restoration Program is to remediate contaminated sites for reuse and redevelopment. Whereas the Site Investigation (SI) report provided information about the nature and extent of contamination, the Remedial Alternatives Report (RAR) used that information to develop and evaluate various remedial action alternatives that would reduce the threat to public health and the environment. After the remedial alternatives were developed, they were evaluated against a number of criteria to arrive at what the State considered to be the best approach for cleaning up the site.

The objective of the RAR was to develop, screen and evaluate appropriate actions, which would achieve the remedial objectives established for the site. Based on the nature and extent of contamination at the 115 Front Street site (Mitchell Park), remedial action objectives determined to be appropriate for the site were to: (1) minimize the potential for direct contact exposure, (2) remediate source areas to the extent practical, and (3) implement strategies for groundwater protection. The RAR evaluated methods to prevent, minimize, or eliminate the release of hazardous substances from the site and to minimize the risk to human health and the environment. The alternatives evaluation process was consistent with NYSDEC's Brownfields Guidance Memo (TAGM 4058, Environmental Restoration Projects).

The RAR for the 115 Front Street site presented a comparative analysis of five remedial alternatives and a discussion of whether the alternatives would be capable of meeting the remedial action objectives. The following provides a summary of the alternatives evaluated and recommendations as presented in the RAR.

- Alternative 1 - The No Action alternative, which would be limited to continued groundwater monitoring and a deed restriction for the entire site, would not meet the remedial action objectives for this site in that it was not protective of human health or the environment. Impacted surface soils poses a potential direct contact exposure risk. Also, the continued presence of a source area at Texaco Alley would continue to degrade groundwater quality beneath the site. This alternative was not an appropriate management option for the site. The total worth cost for this remedial alternative was estimated at approximately $105,000.

- Alternative 2 - This remedial alternative included soil removal (top 12 inches) from the entire site, soil removal to two feet below grade surface at the Light Pole Area, groundwater monitoring for five years and a deed restriction for the entire site. No active soil remediation would be undertaken for the Texaco Alley Area under this remedial action alternative. This alternative met the remedial action objectives for protection of human health, but was not protective of groundwater. Removing and replacing the top foot of surface soil, and two feet of surface soils in the Light Pole Area would minimize the risk for exposure via the direct contact pathway. However, the continued presence of a source area in the Texaco Alley Area would further degrade groundwater quality beneath the site. Contaminant concentrations in groundwater were likely to have remained above the NYSDEC SCGs. The total worth cost for this remedial alternative was estimated at approximately $645,000.

- Alternative 3 - This remedial alternative included soil removal (top 12 inches) from the entire site, soil removal to two feet below grade surface in the Light Pole Area, soil removal to seven feet below ground surface in the Texaco Alley Area, groundwater monitoring for two years and a deed restriction for the entire site. This alternative met the remedial action objectives and was

protective of human health and the environment. Soil removal from the top 12 inches across the site and two feet in the Light Pole Area would adequately minimize and control risks via direct contact, whereas removal of petroleum-impacted soils from the Texaco Alley Area would be protective of groundwater. With removal of the Texaco Alley source area, groundwater would achieve the SCGs through natural attenuation/degradation processes. The total worth cost for this remedial alternative was estimated at approximately $690,000.

- Alternative 4 - This remedial alternative included soil removal (top 12 inches) from the entire site, soil removal to two feet below grade surface in the Light Pole Area, an air sparge/soil vapor extraction (AS/SVE) system in the Texaco Alley Area, groundwater monitoring for two years and a deed restriction for the entire site. This alternative also met the remedial action objectives for the site, and would be protective of human health and the environment. Risks via the direct contact exposure pathway would be effectively mitigated by soil removal. The use of an AS/SVE system would address VOCs in soil and groundwater in the Texaco Alley Area. The total worth cost for this remedial alternative was estimated at approximately $843,000.

- Alternative 5 - This alternative included the removal of all soil from the site that were above the NYSDEC Recommended Soil Cleanup Objectives (RSCOs) or the STARS TCLP Alternative Guidance Values (AGVs), including the Dredge Spoil Area, the Water Line Area, the Boat Bottom Scraping Area and the South UST Area, and from beneath the foundation of the new carousel and amphitheater buildings. The total worth cost for this remedial alternative was estimated at approximately $1,800,000. When compared with Alternatives 3 or 4, Alternative 5 did not provide any significant degree of additional protection to public health to justify the incremental cost and time delays that would be associated with implementing

this remedial action. While Alternative 5 also included aquifer rehabilitation via an active pump and treat system, there are no downgradient receptors or routes of potential exposure for contaminated groundwater associated with the site. Therefore, by implementing an active groundwater remediation, the residual level of human health risk would only be decreased beyond what is already considered to be acceptable for groundwater.

Of the five alternatives evaluated, only Alternatives 3, 4 and 5 met the remedial action objectives for the site and would be protective of human and the environment. While Alternative 5 was more comprehensive in terms of seeking to restore site-wide soil and groundwater quality to pre-release conditions, this alternative would not provide a degree of protection to human health or the environment significantly beyond that of the other less costly and less exhaustive remedies.

Between the two remaining alternatives (Alternative 3 and Alternative 4), Alternative 3 was the preferred remedy. Both alternatives included surface soil removal from the entire site, soil removal from the Light Pole Area, and source area remediation in the Texaco Alley Area. Alternative 3 would employ soil excavation and off-site disposal while Alternative 4 would utilize an AS/SVE system for source area (soil and groundwater) remediation. Both of these alternatives provided beneficial effects on groundwater. The removal of any floating product on top of the exposed groundwater during excavation activities would provide for immediate improvement to groundwater quality. Groundwater quality beneath the site would achieve SCGs under both of these alternatives. However, the use of the AS/SVE system, in Alternative 4 would have limited effect on the SVOCs in the soils in the Texaco Alley Area. Alternative 3 would remove the source area soils, thereby eliminating any potential for further groundwater impacts from these soils. Furthermore, of the three remedial alternatives that meet the remedial action objectives, Alternative 3 was also the most cost-effective.

2.2 Proposed Remedial Action Plan

After the Site Investigation and Remedial Alternatives Reports were completed, NYSDEC prepared a Proposed Remedial Action Plan (PRAP), dated February 2000, which identified the State's preferred remedy and provided the supporting information that led to the recommended remedial action. The PRAP identified Alternative 3 as the proposed remedy for the site. The elements of the proposed remedy as identified in the PRAP were as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program. Any uncertainties identified during the SI/RAR would be resolved.

2. Excavation and off-site disposal of the top one foot of the surface soils in all areas above the site background concentration for arsenic. A background sample detected 8.7 milligrams per kilogram (mg/kg) of arsenic. Additional background sampling would be performed during the remedial phase to better define the background concentration of arsenic. Additionally, grid sampling would be performed prior to soil removal to better define the area(s) that contains arsenic above background concentrations. Some of these soils which are judged to be unsuitable due to direct contact concerns resulting solely from their arsenic content, may be used as part of the fill in the excavations described in Items 3 and 4 below where direct contact would not be an issue.

3. Excavation and off-site disposal of soils from the surface to approximately two feet below grade in the Light Pole Area. Further sampling would be performed to better delineate the impacted soils.

4. Excavation and off-site disposal of the subsurface soils to a depth of seven feet below grade in a 55-foot by 55-foot area located immediately south of the former USTs in the Texaco Alley Area. These soils were judged to be acting as a continuing source of groundwater contamination by petroleum related volatile and semi-volatile organic compounds. The actual area to be remediated would be adjusted during implementation based on visual and olfactory evidence of contamination.

5. A surface cover consisting of at least one foot of clean soil would be placed over all of the remaining impacted soils to prevent direct contact with any residual subsurface soil contamination. Some arsenic impacted soils would be placed under the carousel building. However, a concrete slab would cover these soils.

6. A deed restriction would be instituted to prevent future site activities which would result in direct contact with contaminated subsurface soils and groundwater. Uncontrolled excavations, which could expose contaminated subsurface soils, would be prohibited.

7. Since the remedy results in untreated hazardous substances remaining at the site, a long term monitoring program would be instituted. This program would allow the effectiveness of the selected remedy to be monitored and would be a component of the operation and maintenance for the site. Groundwater monitoring would be implemented for a minimum of two years.

2.3 Citizen Participation

Throughout the course of the remedial investigation, NYSDEC sought to encourage participation of the general public, and encouraged two-way communication with interested or affected public through the use of contact lists, fact sheets, and document repositories. The NYSDEC, in cooperation with the New York State

Department of Health (NYSDOH), held a public hearing on the Site Investigation and Remedial Alternatives Reports and the Proposed Remedial Action Plan (PRAP) on March 8, 2000 at the Floyd Memorial Library located at 539 First Street, Greenport, New York. The purpose of the public hearing was to solicit public comments on the PRAP. In addition, the public comment period was open from February 10, 2000 through March 26, 2000.

2.4 Record of Decision

The NYSDEC prepared a Record of Decision (ROD) for the subject site, dated March 2000. The ROD present the selected remedy for the subject environmental restoration site, which was chosen in accordance with the New York State Environmental Conservation Law. The selected remedy was based upon the NYSDEC Administrative Record for the site, and public input to the PRAP.

3.0 REMEDIAL ACTIONS

The following sub-sections describe the various post-Site Investigation activities (i.e., pre-design investigations) that were conducted prior to site remediation and document the actual site remediation activities conducted in each area of concern.

3.1 Pre-Design Investigations

Based on the ROD, and to properly identify the extent of impacted soils for removal and disposal, two areas of the subject site were investigated further. Surface soils in the Texaco Alley Area were sampled in a grid pattern to better define the area that contained arsenic levels above the site background concentration of 8.7 mg/kg. In addition, further subsurface sampling was performed in the Light Pole Area to better delineate the extent of impact in this area of concern. This additional investigation was performed prior to bid document preparation in order to provide a basis for estimated quantities of soil removal and to better estimate costs for the remediation of the site.

3.1.1 Additional Arsenic Sampling – Texaco Alley Area

H2M collected twelve surface soil samples in a grid pattern across the eastern portion of the southeastern corner of the site, within and adjacent to the Texaco Alley area of concern. Surface soil samples were collected in May 2000 with the oversight provided by the NYSDEC. One surface soil sample was collected within the Light Pole area of concern. Sampling locations were pre-selected to target the areas of concern using an approximate 40-foot grid pattern. Surface soil samples were collected utilizing dedicated plastic disposable trowels from the surface to 3-inches below grade. Each surface soil sample was analyzed for arsenic.

Analytical results indicated that only one sample contained arsenic concentrations above the site background level of 8.7 mg/kg. During the site investigation phase of the project a nearby surface soil sample was also found to contain arsenic concentrations above site background levels. Based on these data, it was determined that arsenic impacted surface soils were evident in an area approximately 60 feet long by 32 feet wide, north of the Texaco Alley area of concern.

3.1.2 Additional Sampling – Light Pole Area

In July 2000, H2M conducted six additional soil borings (GP-1 through GP-6) to evaluate subsurface soils within and adjacent to the Light Pole area of concern. Using a Geoprobe drilling rig, soil samples were collected on a nominally continuous basis and inspected for visual and olfactory evidence of petroleum-related impacts, and screened for VOCs using a photoionization detector (PID). Each boring was advanced to four-feet below grade surface. Based on the visual, olfactory and PID screening of the soils, one soil sample from each boring was collected for laboratory analysis. Each soil sample was analyzed for STARS SVOCs.

Significant concentrations of various STARS SVOCs were detected in four of the six subsurface soil samples collected. The most numerous and highest concentrations

were observed in the soil sample collected from boring GP-4, located directly north of the blacksmith shop. This soil sample contained contaminant concentrations ranging from 17,000 ug/kg for benzo(k)fluoranthene to 77,000 ug/kg for fluoranthene.

3.1.3 Additional Sampling – Geotechnical Sampling

One of the major objectives of the remediation project included the excavation and disposal of arsenic-impacted surface soils to a depth of 12 inches across the subject site. Initially, the Village of Greenport and the Town of Southold reached an agreement whereby the arsenic-impacted soils would be transported to the Town of Southold Landfill for use as a capping material. As part of this agreement, the Town's Landfill consultant, Dvirka & Bartilucci (D&B), in February 2000 requested that samples of the subject soils be obtained and geophysical analyses data of the samples be provided. H2M collected composite samples of the stockpiled soils and delivered these samples to Soil Mechanics of Seaford, New York for analysis. Two soils analyses were performed; a standard proctor (ASTM D1557) and a sieve analysis (ASTM C136), as requested by D&B. The results of these tests were forwarded to D&B in May 2000. Based on the test results D&B approved the use of these soils as capping material at the subject landfill. Subsequently, the soils were never used as cover at the landfill. Rather, the arsenic-impacted soils were used as fill material as the site was redeveloped as a waterfront park.

3.2 Remediation Project Bidding

Based on the remedial elements presented in the Record of Decision (ROD) and the pre-bid investigation, SHoP Architects, P.C. (ShoP) in conjunction with H2M prepared draft Bid Specifications and Drawings for remediation of the subject site. The draft bid documents were reviewed by the NYSDEC, and revised to address NYSDEC comments. Final bid documents were prepared and an Invitation to Bidders was released in July 2000. A mandatory pre-bid meeting was held on July 25th, 2000 at the Third Street Fire Station Meeting Room, located at 236 Third Street, Greenport, New York. Twenty-three potential bidders attended the pre-bid meeting. Based on comments and

questions raised during the pre-bid meeting, an addendum (Addendum No. 1) to the bid documents was issued on August 4, 2000. Bids were received until August 15, 2000 at 2:00 PM, at which time the bids were publicly opened and read aloud. Four remedial contractors submitted bids by the deadline. Tyree Brothers Environmental Services, Inc. (Tyree), submitted the winning bid for the remediation.

3.3 On-Site Remediation Activities

The on-site remediation activities were undertaken following the requirements set forth in the ROD and subsequent bid documents and drawings dated July 10, 2000 and addendum dated August 4, 2000. While on-site remedial work was being performed any changes in scope due to corrections, alternate work program, or unforeseen circumstances change orders were issued and approved.

3.3.1 Arsenic Impacted Soil Remediation

Tyree mobilized at the site on September 11, 2000, and began excavation and relocation activities for arsenic-impacted soils in accordance with the ROD on September 12, 2000. Excavation was also begun surrounding the Blacksmith Shop in preparation for moving the building to allow excavation of impacted soils underlying the shop. Excavation and relocation of arsenic-impacted soils to allow for the construction of building foundations and site drainage systems (i.e., stormwater control systems) was undertaken nearly continually throughout the project timeframe. H2M representatives were present to conduct air monitoring as specified in the Community Air Monitoring program (CAMP) during the excavation of arsenic-impacted soils.

Due to variations between the actual grades on the site versus the topographical survey, it became apparent that arsenic-impacted soils did not have to be transported to the Town of Southold Landfill for disposal. Instead, these soils were used as fill material in grading the site, allowing for a minimum of one-foot of clean fill to be applied as a capping material.

Due to the fact that the arsenic-impacted soils and capping was performed concurrently with park construction, this remediation activity was initiated in September 2000 and completed in May 2001. Additional arsenic-impacted soils were excavated during the final phase of site redevelopment in the fall of 2003. Arsenic-impacted soils were excavated and stockpiled from those areas of the site where cuts were made to the topography and were filled into lower areas of the site where a rise in topography was required. Areas of the site to which no change in topographic elevation was specified, a minimum of one-foot of arsenic-impacted soil were excavated in order to allow placement of a minimum of one-foot of clean cap material. The entire area of the site that contained arsenic-impacted soils was either covered with a minimum of one-foot of clean fill and topsoil or capped with structures.

3.3.2 Texaco Alley Area of Concern

On September 19, 2000 excavation of the Texaco Alley area of concern was begun. The upper three to four feet of soil, which was not impacted, was removed and stockpiled south of the excavation area for latter use as backfill. Impacted soils were encountered at a depth approximately 4 feet below ground surface. Petroleum-impacted soils were excavated and loaded directly into trucks for transportation off-site to an approved disposal facility. Eight trucks were loaded. Based on the transporter manifests, approximately 281 tons of impacted soil was excavated. During soil excavation, groundwater was encountered approximately 5 feet below grade surface.

Soil excavation in the Texaco Alley area continued on September 20, 2000. Twenty-seven trucks were loaded with petroleum-impacted soil. Two trucks were required to return to the site due to water leaking from the rear gate of the truck. This was due to fact that soils were excavated from below the water table and thus contained a large percentage of water. Soils had to be "scraped" to the side of the excavation above the water table, and allowed to drain back into the excavation prior to being loaded into

trucks for transport. In total, 25 trucks were loaded for transport and disposal of the petroleum-impacted soils. Based on the transporter manifests, approximately 841 tons of petroleum-impacted soils were excavated and removed from the Texaco Alley area. Continued areas of impacted soils were noted in the southwest and northeast corners of the excavation. Soils from the base of the excavation, approximately 12 feet below grade surface (approximately 7 feet below the groundwater level) began to show indications of clean material. However, it was apparent that LNAPL (light non-aqueous phase liquid) was present on the surface of the groundwater within the excavation. The extent of the excavation was well beyond what was anticipated for excavation and disposal.

Due to the extent of contamination discovered during excavation of the Texaco Alley area, the fact that the excavation would take place below the water table and the location of subsurface structural elements for the surrounding bulkhead, it was determined that excavation of all petroleum-impacted soils from the area of concern would be impracticable and would entail extensive costs and timeframes. The use of Oxygen Releasing Compounds (ORC) in the excavation as part of the backfill was proposed to enhance the natural biodegradation of any residual petroleum-impacted soils. In addition, due to the tidal influence, the water table would rise and fall through the ORC amended backfill thus enhancing the biodegradation of dissolved phase hydrocarbons in groundwater. After excavation of the impacted soils from the subject area of concern was completed, ORC would be mixed with backfill materials.

Additional excavation of the petroleum-impacted soil was undertaken on September 21 and 22, 2000 during which nine trucks were loaded for transport and disposal of contaminated material. A total of approximately 319 tons of petroleum-impacted soil were excavated and transported off-site on these two days.

In order to assess potential contaminant levels in the soils remaining at the limits of the excavation, H2M collected soil samples from the sidewalls and bottom of the

excavation. Five soil samples were collected from the excavation in accordance with the September 18, 2000 Post-Excavation Sampling Work Plan. Soils were screened for evidence of residual contamination utilizing PID and soil samples collected for laboratory analysis from areas of the excavation exhibiting the highest PID readings. One soil sample was collected from each of the four sidewalls and one from the bottom of the excavation. Entry into the excavation was not possible, and thus soil samples were collected utilizing the on-site excavator. Soil samples were collected from the excavator bucket utilizing dedicated trowels, and placed directly into laboratory glassware. The samples were identified as B1, N1, S1, E1 and W1 (bottom, north wall, south wall, east wall, and west wall, respectively). Each soil sample was analyzed for STARS VOCs and SVOCs by Mitkem Corporation, a New York State Department of Health ELAP-CLP certified laboratory. Analytical results are summarized in Table 3.1, Texaco Alley Area End Point Sampling.

As indicated in Table 3.1, relatively high concentrations of VOCs were detected in samples N1, W1 and E1. STARS VOCs detected at concentrations above the NYSDEC Recommended Soil Cleanup Objectives (RSCOs) included total xylene (10,000 ug/kg) in sample N1, toluene (3,800 ug/kg) in sample W1 and ethylbenzene (10,000 ug/kg) and total xylene (28,000 ug/kg) in sample E1. All other VOCs in samples N1, W1 and E1 were either non-detectable or present at concentrations within their respective RSCOs. All VOCs in samples B1 and S1 were non-detectable or present at concentrations within their respective RSCOs.

STARS SVOCs detected at concentrations above the NYSDEC RSCOs included naphthalene (16,000 ug/kg in sample N1 and 35,000 ug/kg in sample E1) and benzo(a)pyrene (77 ug/kg) in sample S1. All other SVOCs were either non-detectable or present at concentrations within their respective RSCOs.

Additional soils were excavated from the Texaco Alley area on October 10, 2000. Petroleum-impacted soils were excavated from the northern and western walls of the excavation, where previous sampling revealed the highest concentrations of impact. Additional soil removal on the eastern wall of the excavation was limited by the presence of the adjacent bulkhead and its associated structural components. Six trucks were loaded with petroleum-impacted soils for transport and disposal. Based on transporter manifests, approximately 208 tons of impacted soils was excavated and transported off-site for disposal on October 10, 2000. Approximately 80 cubic yards of impacted soil were stockpiled for latter transport and disposal off-site. Stockpiled soils were removed on October 17, 2000. The area of excavation as of October 2000 extended approximately 70 feet long (east-west) and approximately 65 feet wide (north-south), and was approximately 10 feet deep. This represents a significantly larger excavation than the 55-foot by 55-foot by 7 foot deep excavation originally anticipated.

H2M, with oversight by NYSDEC collected an additional end-point sample from the southwest corner of the excavation. This section of the excavation is believed to be the likely downgradient corner of the area of impact based on data contained in the SI/RAR and visual observations during remediation activities. The soil sample was collected utilizing a dedicated trowel, and placed directly into laboratory glassware. The sample was identified as SW1 (indicating the southwest wall sample) and analyzed for STARS VOCs and SVOCs by Mitkem Corporation. As indicated in Table 3.1, all STARS VOCs and SVOCs were either non-detectable or present at estimated concentrations well below their respective RSCOs.

Backfilling operations in the Texaco Alley excavation began on October 12, 2000, in order to apply ORC and stabilize the excavation walls. The backfilling operation included placement of concrete debris from adjacent areas of the project site and clean fill material in the bottom of the excavation up to the groundwater elevation. Beginning at a depth approximately one foot above groundwater (four to five feet below

grade surface) ORC was applied to the backfill material, in accordance with a NYSDEC-approved ORC Application Work Plan dated September 26, 2000. As the ORC was applied to soils within the excavation, the combination of soil and ORC was mixed using the excavator bucket to achieve a homogeneous mixture. Approximately 1,885 pounds of ORC was utilized in the excavation.

3.3.3 Bait Shop Area

At the direction of the DEC, additional petroleum-impacted soils in the northeast corner of the Texaco Alley excavation area, also known as the "Bait Shop Area," were excavated. This was due to the fact that the area still contained high concentrations of petroleum impact. On November 8, 2000 soils in the Bait Shop Area were excavated and stockpiled for latter disposal. The total area of excavation in the Bait Shop Area measured approximately 30 feet long by 20 feet wide by approximately 6 feet deep. The top three to four feet of soil was not impacted and was stockpiled for use as backfill. Approximately 80 tons of impacted soils were excavated and stockpiled for disposal. The Bait Shop Area was backfilled on November 8, and 9, 2000.

3.3.4 Light Pole Area of Concern

The Blacksmith Shop was temporarily relocated to allow excavation of soils underlying the structure. The shop was moved approximately 50 feet to the south of its location, on October 13, 2000. Soils in the Light Pole Area were excavated on October 17, 2000, to a depth of approximately 4 feet below grade surface. The soils were immediately loaded into trucks for transport and disposal off-site. The Light Pole excavation area measured approximately 25 feet long by 15 feet wide. The NYSDEC was on-site to observe the work during excavation activities.

Upon completing the soil excavation work in the Light Pole Area, H2M collected soil samples from the sidewalls and bottom of the excavation. The soils were screened for evidence of residual contamination utilizing a PID, and samples were collected for

laboratory analysis from areas of the excavation exhibiting the highest PID readings, or exhibited visual evidence of petroleum impact. Five soil samples were collected from the Light Pole Area excavation in accordance with the Post-Excavation Sampling Work Plan dated September 18, 2000. One soil sample was collected from each of the four sidewalls, and one was collected from the bottom of the excavation. The soil samples were collected utilizing dedicated trowels, and were identified as EP-B, EP-N, EP-S, EP-E and EP-W (bottom, north wall, south wall, east wall, and west wall, respectively). Each soil sample was analyzed for STARS SVOCs by Mitkem Corporation, a New York State Department of Health ELAP-CLP certified laboratory. Analytical results are summarized in Table 3.2, Light Pole Area End Point Sampling.

As indicated in Table 3.2, several STARS SVOCs were detected at estimated concentrations exceeding the NYSDEC RSCOs in samples EP-E and EP-N. These included benzo(a)anthracene, chrysene, benzo(b)fluoranthene and benzo(a)pyrene. All other SVOCs were either non-detectable or present at concentrations within their respective RSCOs. All STARS SVOCs were non-detectable or present at concentrations within their respective RSCOs in samples EP-B, EP-S and EP-W.

3.3.5 Unidentified (Boat Slip) UST Area

During park construction activities on or about November 8, 2000, five previously unidentified USTs were discovered in an area immediately north of the former Peconic Star boat slip. The tanks were located under a concrete slab, approximately 3.0 to 3.5 feet below grade surface. Two of the tanks had a capacity of 1,000-gallons, two tanks had a capacity of 5,000-gallons, and one tank had a capacity of 3,000-gallons. Upon inspection of the USTs the first 5,000-gallon tank contained approximately 40-inches of liquid, the top 5.5-inches of which was product similar to gasoline. The second 5,000-gallon tank contained approximately 69-inches of liquid, of which approximately 0.5-inches was a product similar to diesel fuel/No. 2 fuel oil. The 3,000-gallon UST contained approximately 36-inches of liquid, all of which appeared to be water with no

discernable petroleum product present. One of the 1,000-gallon USTs contained approximately 22-inches of liquid with approximately 0.5-inches of gasoline product, and the second 1,000-gallon UST contained mostly sand with some water and approximately 0.5-inches of apparent waste oil.

The five tanks were excavated on November 8 and 9, 2000. In addition, impacted soil discovered in the subject tank farm area was excavated during the same period. The five subject tanks were stored on-site, and the impacted soils were excavated and stockpiled for latter transport and disposal off-site. On November 13, 2000 CO_2 was utilized to purge the tanks of any potentially explosive vapors and provide an inert atmosphere in each tank prior to cutting access ports to allow for the removal of bottom sludge. The bottom sludge from each UST was removed and placed into 55-gallon drums to await off-site disposal. Each UST was inspected by the NYSDEC and H2M for the presence of holes indicating evidence of leaks. Holes were observed in three of the five USTs. The tanks were subsequently removed from the site on November 14 and 15, 2000. The 55-gallon drums containing the tank sludge were transported off-site on December 6, 2000 for disposal.

Approximately 120 cubic yards of petroleum-impacted soils were excavated and stockpiled for latter transport and disposal off-site. The excavation was conducted to a depth approximately two feet below the water table in an effort to remediate a smear zone created by a tidal influence (i.e., rise and fall) on the groundwater. A gray, clay-rich bog layer was encountered at approximately eight to nine feet below grade during the excavation activities. Because the clay unit did not exhibit visual or olfactory evidence of petroleum impacts, the excavation was terminated at this depth. The final resulting excavation was approximately 40-feet long by 30-feet wide and 8-feet deep. Some petroleum-impacted soils were still present in the sidewalls of the excavation and could not be removed due to schedule and funding constraints; therefore, post-excavation soil samples were not collected.

3.4 Final Site Remediation Activities

During the final stages of the site's redevelopment as a waterfront park, additional remediation activities were completed in conjunction with the construction of the Harbormaster Building in the southeast portion of the site. In the fall of 2003, arsenic-impacted soils were excavated from ground surface to three feet below grade to allow for the construction of concrete slab for the Harbormaster Building. Approximately 150 cubic yards of impacted soils were excavated and temporarily stockpiled on-site. The arsenic-impacted soils were ultimately used as fill material beneath the Harbormaster Building and as base material beneath the asphalt paved area immediately east and north of the Harbormaster Building.

During the same time period, additional petroleum-impacted soils were removed from the Texaco Alley excavation. These were soils that were left in place when the area was originally remediated in September 2000 due to their proximity to the bulkhead. Petroleum-impacted soils were removed from a depth of three to five feet below grade surface in a small area in the eastern-most portion of the excavation. Approximately 40 cubic yards (62.88 tons) of petroleum-impacted soils were excavated and shipped off site for disposal. Waste manifests documenting the transportation and disposal of this last load of petroleum-impacted soils are provided in Appendix A.

3.5 Groundwater Monitoring

As a result of the findings during site remediation activities and the destruction of several existing monitoring wells during park redevelopment and construction activities, six new monitoring wells were installed at the site. These six wells were identified as SMW-1 through SMW-6. The wells were installed utilizing a hollow stem auger drill rig. Each monitoring well was constructed with four-inch inside diameter PVC flush joint risers with appropriate lengths of 0.020 inch slot-size PVC well screen extending above the water table and down to approximately 20 feet below grade surface. The wells were

constructed so that the screens intersected the water table to allow for the evaluation of the presence of light non-aqueous phase liquids (LNAPLs).

Groundwater monitoring was conducted on a semi-annual basis beginning in January 2002. Additional semi-annual groundwater monitoring events were conducted in July 2002, March 2003, September 2003 and March 2004. As originally proposed, groundwater samples were to be collected from nine on-site monitoring wells. The monitoring wells to be sampled included three remaining wells installed during the initial site investigation (MW-3, MW-5 and MW-6), the three monitoring wells installed in the Texaco Alley area (SMW-1, SMW-2, and SMW-3), and the three monitoring wells installed north of the former Peconic Star boat slip (SMW-4, SMW-5, and SMW-6). During the initial sampling event in January 2002, MW-5 was found completely filled with soil. Although well MW-5 could not be sampled, given the groundwater flow direction, MW-6 was determined to be sufficient as a means of monitoring groundwater quality in this specific area of the site.

Prior to sampling and immediately following the removal of each well cap, a PID was used to screen the headspace of each well for total non-methane organic vapors. No significant organic vapors above background concentrations were detected. Static water level and well depth measurements to the nearest hundredth (0.01) of a foot were obtained from each well to determine the standing water volume.

To ensure that a representative groundwater sample was collected from each monitoring well, a minimum of three well volumes were purged prior to sampling. Purging was accomplished using dedicated disposable bailers. Temperature, pH, dissolved oxygen and conductivity were measured and recorded after each well was purged.

After the wells were purged, a dedicated, disposable, polyethylene bailer affixed to dedicated polypropylene rope was lowered into the water column to collect a

groundwater sample from each well. An equipment blank (field blank) was collected during the sampling to ensure that the sampling equipment was properly decontaminated and that cross contamination between wells had not occurred. A trip blank accompanied the samples to the field and back to the laboratory to ensure that sample contamination did not occur during transport. Groundwater samples and QA/QC samples for the January 2002 and July 2002 sampling events were analyzed by Mitkem Corporation. Groundwater samples collected during the initial January 2002 monitoring event were analyzed for STARS VOCs and SVOCs by EPA Methods 8021 and 8270. Groundwater samples collected during the second monitoring event (July 2002) were analyzed by Mitkem Corporation for STARS VOCs only. The March 2003, September 2003 and March 2004 samples were analyzed by H2M Labs, for STARS VOCs only by EPA Method 8021.

A summary of the initial January 2002 groundwater monitoring results is provided in Table 3.3, STARS VOCs and SVOCs Groundwater Analytical Results. As indicated in Table 3.3, several VOCs were detected at concentrations exceeding the Class GA Water Quality Standards in five of the eight wells sampled. VOCs that exceeded the Class GA Water Quality Standards included naphthalene (15 ug/l) in MW-3; benzene (17 ug/l) in SMW-1; benzene (7.0 ug/l), ethylbenzene (59 ug/l), total xylene (16 ug/l), isopropylbenzene (30 ug/l), n-propylbenzene (48 ug/l), 1,2,4-trimethylbenzene (32 ug/l) and naphthalene (15 ug/l) in SMW-2; benzene (88 ug/l), ethylbenzene (340 ug/l), toluene (49 ug/l), total xylene (580 ug/l), isopropylbenzene (15 ug/l), n-propylbenzene (61 ug/l), 1,2,4-trimethylbenzene (240 ug/l) and naphthalene (25 ug/l) in SMW-4; and benzene (120 ug/l), ethylbenzene (11 ug/l), isopropylbenzene (7.0 ug/l) and n-propylbenzene (6.0 ug/l) in SMW-6. All other VOCs were either non-detectable or were detected at concentrations within the Class GA Water Quality Standards. All VOCs were non-detectable in the equipment and trip blanks.

With the exception of naphthalene, which was detected at 17 ug/l in SMW-2 and

benzo(a)anthracene and chrysene, which were detected at estimated concentrations of 1.0 ug/l each in SMW-5, SVOCs were either non-detectable or present at concentrations within the Class GA Water Quality Standards in all eight monitoring wells. Based on the initial January 2002 groundwater monitoring results and the absence of any significant concentrations of SVOCs, subsequent groundwater monitoring was limited to VOCs.

Four additional groundwater monitoring events were conducted in July 2002, March 2003, September 2003 and March 2004. A summary of the groundwater monitoring data is provided in Table 3.4, Semi-Annual Groundwater Monitoring Data. As indicated in Table 3.4, VOCs were either non-detectable or present at concentrations within the Class GA Water Quality Standards in wells MW-3, SMW-3 and SMW-6 during all four semi-annual monitoring events.

All STARS VOCs were non-detectable in well MW-6 during the January 2002, July 2002 and March 2003 monitoring events. Benzene, xylene, isopropylbenzene, n-propylbenzene and n-butylbenzene were detected at concentrations exceeding their respective Class GA Water Quality Standards during the September 2003 sampling event. During the March 2004 monitoring event, benzene, isopropylbenzene and n-propylbenzene were the only VOCs still present at concentrations exceeding the Class GA Water Quality Standards.

Several VOCs including benzene, ethylbenzene, xylene, isopropylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, n-butylbenzene and/or naphthalene were detected at concentrations exceeding the Class GA Water Quality Standards in well SMW-2 during all four monitoring events. Well SMW-2 was destroyed during site redevelopment sometime between the September 2003 and March 2004 monitoring events. Accordingly, no sample was collected from SMW-2 in March 2004.

VOCs, including benzene, ethylbenzene, toluene, xylene, isopropylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene and naphthalene were detected at concentrations exceeding the Class GA Water Quality Standards in SMW-4 during the January 2002 monitoring event and again in the September 2003 and March 2004 monitoring events. These same compounds were either non-detectable or present at concentrations within the Class GA Water Quality Standards during the July 2002 and March 2003 monitoring events. This fluctuation in contaminant concentrations is attributed to the rise and fall in groundwater levels due to tidal influence. By the final monitoring event in March 2004, most if not all contaminant concentrations were significantly lower than during the initial monitoring event in January 2002.

During the initial groundwater monitoring event in January 2002, benzene, ethylbenzene, isopropylbenzene and n-propylbenzene were detected in well SMW-5 at concentrations above their respective Class GA Water Quality Standard. During the second and third rounds of semi-annual monitoring, these same compounds were all non-detectable. By the final two rounds of monitoring in September 2003 and March 2004, benzene was the only VOC that still exceeded its Class GA Water Quality Standard.

As indicated previously, static water level measurements were obtained prior to purging each of the monitoring wells. Water level measurements were taken from a surveyed mark on the well casings to the nearest hundredth of a foot. This data was used to prepare groundwater elevation contour maps, which show inferred groundwater flow direction and its gradient. Groundwater contour maps for the last three monitoring events conducted in March 2003, September 2003 and March 2004 are provided in Figures 3.1, 3.2 and 3.3, respectively. Based on the groundwater contours, local groundwater flow direction is toward the south.

In March 2005, the NYSDEC determined that further groundwater monitoring at the site was unnecessary for the following reasons:

- The soil excavation performed around the new Harbormaster Building is expected to have removed the remaining source of the groundwater contaminants in this area.
- Due to the location of the Harbormaster Building, it is not possible to re-install a well at this location to further monitor the highly localized groundwater contamination in this area.
- The location of the new ice skating rink prevents the installation of a new monitoring well to monitor the very localized groundwater contamination in the other areas with residual groundwater contamination.
- Due to saltwater intrusion, the use of Class GA Water Quality Standards to evaluate the groundwater quality at this site is very conservative. The site would not meet applicable GSA groundwater standards.
- There are no potential receptors of the residual groundwater contamination due to the saltwater intrusion.
- The two years of groundwater monitoring, as required by the ROD dated March 2000 has been completed.

4.0 REMEDIAL ACTIONS SUMMARY

A variety of remedial actions were completed in the course of investigating and redeveloping the 115 Front Street property as a waterfront park. Interim remedial actions were implemented during the investigative stages of the project. Final remedial actions were completed in accordance with the ROD during the redevelopment and construction of the park.

A summary of the remedial actions is provided below. The location of each area remediated is shown in Figure 4.1, Site Plan.

4.1 Arsenic-Impacted Soils

- Beginning in September 2000 and through May 2001, arsenic-impacted surface soils were removed from a wide area encompassing the north-central portion of

the site. Arsenic-impacted soils were removed primarily from those areas of the site where cuts to the topography were required. Excavation depths varied depending upon the desired finished grade. In areas of the site where little or no change in topography was required, a minimum of one foot of arsenic-impacted surface soils were removed and replaced with a minimum of one foot of clean cap material. All areas of the site where arsenic-impacted soils were encountered were either covered with a minimum of one-foot of clean fill and topsoil or capped with structures or pavement.

- During the final stages of the park's redevelopment, additional arsenic-impacted soils were excavated from the southeast portion of the site (see Figure 4.1) to facilitate the construction of a concrete slab for the Harbormaster Building. The excavation was approximately 60-feet long by 30-feet wide and two to three-feet deep. Approximately 150 cubic yards of arsenic-impacted soils were excavated and temporarily stockpiled on site. The arsenic-impacted soils were ultimately used as fill material beneath the Harbormaster Building and as base material beneath the asphalt paved area immediately east and north of the Harbormaster Building.

4.2 Texaco Alley Area

- In January 1999, as part of a Site Investigation IRM, three 4,000-gallon petroleum USTs were excavated and removed from the area know as Texaco Alley located in the southeast portion of the site (see Figure 4.1). The resulting excavation was approximately 35-feet long by 43-feet wide by 8-feet deep. Approximately 130 cubic yards of petroleum-impacted soils were excavated from the UST area and shipped off-site for disposal.
- In September and October 2000, as part of the site's remedial program, additional petroleum-impacted soils were excavated from the Texaco Alley Area, immediately south of the former USTs (see Figure 4.1). Petroleum-impacted soils were encountered at a depth of 4-feet below grade surface. Impacted soils were

excavated to a depth of roughly 10 to 12-feet below grade surface, or five to seven feet into the water table. The resulting excavation was approximately 70-feet long by 65-feet wide by 10-feet deep. Approximately 1,650 tons of petroleum-impacted soils were excavated and shipped off-site for disposal.

- Due to the depth extent of the impacted soils (five to seven feet into the water table) and proximity to an adjacent bulkhead, it was deemed impractical for all petroleum-impacted soils to be excavated. As a means of remediating the residual petroleum-impacted soils, oxygen release compounds (ORC) were mixed with fill material as the excavation was backfilled. Approximately 1,885 pounds of ORC was applied in the excavation.
- In October 2003, during the final stages of site redevelopment, additional petroleum-impacted soils were excavated from the eastern portion of the former excavation. Approximately 40 cubic yards of petroleum-impacted soils were excavated and shipped off-site for disposal.

4.3 Bait Shop Area

- In November 2000, petroleum-impacted soils were excavated from the Bait Shop Area located northeast of the Texaco Alley USTs (see Figure 4.1). The excavation measured approximately 30-feet long by 20-feet by six-feet deep. Approximately 80 tons of petroleum-impacted soils were excavated and shipped off-site for disposal.

4.4 Light Pole Area

- In October 2000, petroleum-impacted soils were removed from the Light Pole Area located in the eastern portion of the site (see Figure 4.1). The excavation measured 25-feet long by 15-feet wide by four-feet deep. Approximately 55 cubic yards of petroleum-impacted soils were excavated and shipped off-site for disposal.

4.5 Boat Slip UST Area

- In November 2000, during park construction work, five previously unidentified USTs were discovered in an area immediately north of the former Peconic Star boat slip (see Figure 4.1). Two 5,000-gallon, one 3,000-gallon and two 1,000-gallon USTs were removed. The UST excavation measured approximately 40-feet long by 30-feet wide by eight-feet deep. Approximately 120 cubic yards of petroleum-impacted soils were excavated and shipped off-site for disposal.

4.6 South UST Area

- In August 1998, as part of a Site Investigation IRM, five 4,000-gallon petroleum USTs were excavated and removed from an area located approximately midway between the southeast corner of the Post Office property and the former Peconic Star boat slip (see Figure 4.1). The resulting excavation was approximately 38-feet long by 31-feet wide by 8-feet deep. Approximately 135 cubic yards of petroleum-impacted soils were excavated from the UST area and shipped off-site for disposal.

4.7 North UST Area

- In December 1998, as part of a Site Investigation IRM, a single 1,000-gallon petroleum UST was excavated and removed from the north central portion of the site (see Figure 4.1). Petroleum-impacted soils were excavated to a depth 10 to 12-feet below grade. Approximately 50 cubic yards of petroleum-impacted soils were excavated from the UST area and shipped off-site for disposal.

5.0 SITE MAINTENANCE

A number of remedial actions were implemented over the course of the Site Investigation and during site redevelopment and construction activities. A combination of engineering and institutional controls have or will be put in place to maintain the site in a condition that is protective to human health.

5.1 Engineering Controls

Engineering controls are defined as any physical barrier or method employed to actively or passively contain, stabilize, or monitor contamination, restrict the movement of contamination to ensure the long-term effectiveness of a remedial program, or eliminate potential exposure pathways to contamination. As indicated in Sections 3.3 and 4.1 of this Remedial Activities Report, soils with arsenic concentrations in excess of site background levels, were excavated as necessary to facilitate changes in the site's topography. Arsenic-impacted soils were excavated from those areas of the site where cuts were made to the topography and used to fill in areas where a rise in topography was required. In both cases, a minimum of one-foot of clean fill was applied as a capping material. In some areas of the site, new buildings (e.g., Carousel, and Harbormaster Buildings) and paved areas represented an additional cap. In areas of the site where no change in topography was required, a minimum of one-foot of arsenic-impacted soil was excavated in order to allow for the placement of a minimum of one-foot of clean cap material.

The above mentioned capping of arsenic-impacted soils, whether a one foot of clean capping material or by structures and pavement, represent an engineering control capable of preventing direct contact with any residual contamination remaining in the subsurface soils at the site. Uncontrolled excavations, which could jeopardize the integrity of the capping material and potentially expose contaminated subsurface soils, should be prohibited.

In the event that the integrity of the engineering controls is breached (e.g., excavation to install new or repair existing subsurface utilities), special care should be taken to prevent direct contact to the underlying soils, and the disturbed engineering control (e.g., one foot of clean fill and/or asphalt pavement) should be restored to its original condition.

5.2 Institutional Controls

Institutional controls are defined as any non-physical means of enforcing a restriction on the real property that limits human or environmental exposure, restricts the use of groundwater, provides notice to potential owners, operators, or members of the public, or prevents actions that would interfere with the effectiveness of a remedial program or with the effectiveness and/or integrity of operation, maintenance, or monitoring activities at or pertaining to a remedial site.

As indicated in Section 5.1, engineering controls in the form of clean fill, pavement or building structures were employed at the 115 Front Street site (Mitchell Park) to eliminate potential exposure pathways to subsurface arsenic-impacted soils. An Environmental Easement has been prepared and will be filed with the Suffolk County Clerk's office, which restricts the use of the property. The Environmental Easement specifically restricts the use of the property to passive recreational activities consistent with the waterfront park. In addition, the Environmental Easement also defines the engineering controls employed at the site and prohibits their disturbance.

TABLES

TABLE 3.1
Texaco Alley Area
End Point Sampling
VOCs SVOCs
115 Front Street
Greenport, NY

SAMPLE ID	B1		N 1		W1		EI		S1		SW1		NYSDEC RSCO[1]
STARS VOCs - ug/kg													
MTBE	1	U	230	U	240	U	280	U	1	U	1	U	NA
Benzene	1	U	230	U	240	U	280	U	1	U	1	U	60
Toluene	1	U	230	U	**3800**		430		6		1	U	1,500
Ethylbenzene	1	U	2900		240	U	**10000**		1	U	1	U	5,500
Xylenes (total)	1	U	**10000**		5	U	**28000**	B	1	U	1	U	1,200
Isopropylbenzene	1	U	1100		3300		3500		2		1	U	NA
n-Propylbenzene	1	U	3100		3300		7500		2		1	U	NA
1,3,5-Trimethylbenzene	1	U	9600		1500		11000		1	U	1	U	NA
1,2,4-Trimethylbenzene	1	U	22000		14000		32000	EB	2		1	U	NA
sec-Butylbenzene	1	U	230	U	4800		2000		6		1	U	NA
p-Isopropyltoluene	1	U	230	U	4000		1000	B	1	U	1	U	NA
n-Butylbenzene	1	U	230	U	5,000		16,000		1	U	1	U	NA
Napthalene	2	U	12000		1,000		5,800		4		2	U	13,000
STARS SVOCs - ug/kg													
Napthalene	390	U	**16000**		390	U	**35000**		420	U	370	U	13,000
Acenaphthene	390	U	1900	U	42	J	3800	U	420	U	370	U	50,000
Fluorene	390	U	1900	U	100	J	600	J	420	U	370	U	50,000
Phenanthrene	98	J[5]	3200		170	J	810	J	89	J	370	U	50,000
Anthracene	390	U	280	J	390	U	3800	U	420	U	370	U	50,000
Fluoranthene	390	U	300	J	56	J	3800	U	140	J	45	J	50,000
Pyrene	390	U	370	J	56	J	3800	U	140	J	55	J	50,000
Benzo(a)anthracene	390	U	1900	U	390	U	3800	U	76	J	370	U	224 or MDL
Chrysene	390	U	1900	U	390	U	3800	U	66	J	370	U	400
Benzo(b)fluoranthene	390	U	1900	U	390	U	3800	U	99	J	370	U	1,100
Benzo(k)fluoranthene	390	U	1900	U	390	U	3800	U	420	U	370	U	1,100
Benzo(a)pyrene	390	U	1900	U	390	U	3800	U	77	J	370	U	61 or MDL
Ideno(1,2,3-cd)pyrene	390	U	1900	U	390	U	3800	U	420	U	370	U	3,200
Dibenzo(a,h)anthracene	390	U	1900	U	390	U	3800	U	420	U	370	U	14 or MDL
Benzo(g,h,i)perylene	390	U	1900	U	390	U	3800	U	52	J	370	U	50,000

NOTES:

[1] NYSDEC Recommended Soil Cleanup Objectives (TAGM HWR-94-4046).

"B" - Analyte was detected in associated blank.

"E" - Concentration exceeded instrument calibration range.

"J" - Estimated value.

"NA" - Recommended Soil Cleanup Objective was not available.

"U" - Compound was analyzed for but not detected.

TABLE 3.2
Light Pole Area
End Point Sampling
SVOCs
115 Front Street
Greenport, NY

SAMPLE ID	EP-B		EP-E		EP-N		EP-S		EP-W		NYSDEC RSCO[1]
STARs SVOCs - ug/kg											
Napthalene	380	U	3800	U	3900	U	3600	U	350	U	13,000
Acenaphthene	380	U	3800	U	3900	U	3600	U	350	U	50,000
Fluorene	380	U	3800	U	3900	U	3600	U	350	U	50,000
Phenanthrene	380	U	530	J	870	J	3600	U	350	U	50,000
Anthracene	380	U	3800	U	3900	U	3600	U	350	U	50,000
Fluoranthene	46	J	1300	J	1600	J	3600	U	46	J	50,000
Pyrene	41	J	1100	J	1500	J	3600	U	51	J	50,000
Benzo(a)anthracene	380	U	**620**	J	**970**	J	3600	U	350	U	224 or MDL
Chrysene	380	U	**670**	J	**790**	J	3600	U	350	U	400
Benzo(b)fluoranthene	380	U	**820**	J	**1300**	J	3600	U	350	U	1,100
Benzo(k)fluoranthene	380	U	430	J	490	J	3600	U	350	U	1,100
Benzo(a)pyrene	380	U	**640**	J	**990**	J	3600	U	350	U	61 or MDL
Ideno(1,2,3-cd)pyrene	380	U	380	J	590	J	3600	U	350	U	3,200
Dibenzo(a,h)anthracene	380	U	3800	U	3900	U	3600	U	350	U	14 or MDL
Benzo(g,h,i)perylene	380	U	3800	U	3900	U	3600	U	350	U	50,000

NOTES:

[1] NYSDEC Recommended Soil Cleanup Objectives (TAGM HWR-94-4046).

"J" - Estimated value.

"NA" - Recommended Soil Cleanup Objective was not available.

"U" - Compound was analyzed for but not detected.

TABLE 3.3
STARS VOCs and SVOCs Groundwater Analytical Results
115 Front Street Property
Greenport, New York

Well ID	MW-3	MW-6	SMW-1	SMW-2	SMW-3	SMW-4	SMW-5	SMW-6	NYSDEC Class GA[1]
STARS VOCs - ug/l									
Benzene	1.0 U	1.0	**17**	**7.0**	1.0 U	**88**	**120**	1.0 U	1
Ethylbenzene	1.0 U	1.0 U	1.0	**59**	1.0 U	**340**	**11**	1.0 U	5
MTBE	1.0 U	1.0 U	2.0	1.0 U	1.0	5.0 U	2.0 U	1.0 U	10 *
Toluene	1.0 U	1.0 U	1.0 U	2.0	1.0 U	**49**	2.0	1.0 U	5
Xylenes (total)	1.0 U	1.0 U	2.0	**16**	1.0 U	**580**	2.0 U	1.0 U	5
Isopropylbenzene	1.0 U	1.0 U	2.0	**30**	1.0 U	**15**	**7.0**	1.0 U	5
n-Propylbenzene	1.0 U	1.0 U	1.0	**48**	1.0 U	**61**	**6.0**	1.0 U	5
p-Isopropyltoluene	1.0 U	1.0 U	3.0	1.0 U	4.0	5.0 U	2.0 U	1.0 U	5
1,2,4-Trimethylbenzene	1.0 U	1.0 U	1.0 U	**32**	1.0 U	**240**	2.0 U	1.0 U	5
1,3,5-Trimethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	2.0 U	1.0 U	5
n-Butylbenzene	1.0 U	1.0 U	1.0	1.0 U	1.0 U	5.0 U	3.0	1.0 U	5
sec-Butylbenzene	1.0 U	1.0 U	5.0	3.0	1.0 U	5.0 U	2.0 U	1.0 U	5
Napthalene	**15**	2.0 U	2.0 U	**15**	3.0	**25**	9.0	2.0 U	10
STARS SVOCs - ug/l									
Napthalene	10 U	10 U	10 U	**17**	10 U	9.0 J	10 U	10 U	10
Acenaphthene	10 U	10 U	1.0 J	1.0 J	10 U	10 U	16	10 U	20 *
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U	1.0 J	10 U	50 *
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 *
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	1.0 J	10 U	35 *
Fluoranthene	10 U	2.0 J	10 U	10 U	10 U	10 U	9.0 J	10 U	50 *
Pyrene	10 U	1.0 J	10 U	10 U	10 U	10 U	5.0 J	10 U	50 *
Benzo(a)anthracene	10 U	10 U	10 U	10 U	10 U	10 U	**1.0** J	10 U	0.002 *
Chrysene	10 U	10 U	10 U	10 U	10 U	10 U	**1.0** J	10 U	0.002 *
Benzo(b)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.002 *
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.002 *
Benzo(a)pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	ND
Ideno(1,2,3-cd)pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.002 *
Dibenzo(a,h)anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA
Benzo(g,h,i)perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA

NOTES:

[1] NYSDEC Class GA Water Quality Standards.

"*" Guidance value.

"J" - Estimated value.

"ND" - Non-detectable.

"NA" - Class GA Standard not available.

"U" - Compound was analyzed for but not detected.

Table 3.4
Semi-Annual Groundwater Monitoring Data
115 Front Street
Greenport, NY

Well ID	MW-3					MW-6					NYSDEC
Sample Date	Jan-02	Jul-02	Mar-03	Sept-03	Mar-04	Jan-02	Jul-02	Mar-03	Sept-03	Mar-04	Class GA[1]
STARs VOCs - ug/l											
Benzene	1.0 U	2.0 U	1.0	1.0 U	1.0 U	1.0	2.0 U	1.0 U	**50.0**	**29.0**	1.0
Ethylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	3.6	2.1	5.0
MTBE	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.1	2.7	10 *
Toluene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.3	1.2	5.0
Xylenes (total)	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	**7.9**	3.0	5.0
Isopropylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	**7.3**	**5.4**	5.0
n-Propylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	**9.1**	**6.4**	5.0
p-Isopropyltoluene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
1,2,4-Trimethylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
1,3,5-Trimethylbenzene	1.0 U	2.0 U	3.8	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
n-Butylbenzene	1.0 U	2.0 U	4.7	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	**50.0**	1.0 U	5.0
sec-Butylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
Napthalene	15.0	2.0 U	1.0	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	10.0	6.4	10.0

Well ID	SMW-1					SMW-2					NYSDEC
Sample Date	Jan-02	Jul-02	Mar-03	Sept-03	Mar-04	Jan. 02	Jul. 02	Mar. 03	Sept-03	Mar-04	Class GA[1]
STARs VOCs - ug/l											
Benzene	**17.0**	2.0 U	1.0 U	**12.0**	**7.2**	**7.0**	**4.6**	1.0 U	**4.7**	NS	1.0
Ethylbenzene	1.0	2.0 U	1.0 U	1.0 U	1.0 U	**59.0**	**11.0**	4.5	**46.0**	NS	5.0
MTBE	2.0	2.0 U	1.0 U	1.6	1.8	1.0 U	2.0 U	1.0 U	4.4	NS	10 *
Toluene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0	2.0 U	1.0 U	3.2	NS	5.0
Xylenes (total)	2.0	2.0 U	1.0 U	1.0 U	1.4	**16.0**	**9.8**	**13.0**	**119.1**	NS	5.0
Isopropylbenzene	2.0	2.0 U	1.0 U	2.7	3.1	**30.0**	**13.0**	**5.9**	**28.0**	NS	5.0
n-Propylbenzene	1.0	2.0 U	1.0 U	1.5	1.2	**48.0**	**13.0**	**7.3**	**48.0**	NS	5.0
p-Isopropyltoluene	3.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.2	1.0 U	1.5	NS	5.0
1,2,4-Trimethylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.7	**32.0**	**28.0**	**22.0**	**160**	NS	5.0
1,3,5-Trimethylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.8	2.0	**16.0**	NS	5.0
n-Butylbenzene	1.0	2.0 U	1.0 U	2.6	1.7	1.0 U	**10.0**	3.6	**20.0**	NS	5.0
sec-Butylbenzene	5.0	2.0 U	1.0 U	1.0 U	1.0 U	3.0	4.2	1.0 U	3.7	NS	5.0
Napthalene	2.0	2.0 U	1.0 U	3.0	1.4	**15.0**	7.8	2.1	**56.0**	NS	10.0

NOTES:

1 - NYSDEC Class GA Water Quality Standard.

"*" - Guidance value.

"NS" - Not sampled.

"U" - Compound was analyzed for but not detected.

Table 3.4
Semi-Annual Groundwater Monitoring Data
115 Front Street
Greenport, NY

Well ID	SMW-3					SMW-4					NYSDEC
Sample Date	Jan-02	Jul-02	Mar-03	Sept-03	Mar-04	Jan-02	Jul-02	Mar-03	Sept-03	Mar-04	Class GA[1]
STARs VOCs - ug/l											
Benzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	**88.0**	**5.2**	1.0 U	**78.0**	**39.0**	1.0
Ethylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	**340**	2.0 U	1.0 U	**180**	**150**	5.0
MTBE	1.0	2.0 U	1.0 U	1.2	1.0 U	5.0 U	2.0 U	1.0 U	3.7	4.6	10 *
Toluene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	**49.0**	2.0 U	1.0 U	**11.0**	**5.2**	5.0
Xylenes (total)	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	**580**	2.0 U	1.0 U	**368.7**	**341**	5.0
Isopropylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	**15.0**	2.0 U	1.0 U	**16.0**	**14.0**	5.0
n-Propylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	**61.0**	2.0 U	1.0 U	**27.0**	**26.0**	5.0
p-Isopropyltoluene	4.0	2.0 U	1.0 U	1.0 U	1.0 U	5.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
1,2,4-Trimethylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	**240**	2.0 U	1.0 U	**130**	**130**	5.0
1,3,5-Trimethylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0 U	2.3	1.7	**55.0**	**9.0**	5.0
n-Butylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0 U	2.0 U	1.0 U	3.0	**5.8**	5.0
sec-Butylbenzene	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0 U	2.0 U	1.0 U	1.1	1.0 U	5.0
Napthalene	3.0	2.0 U	1.0 U	5.9	1.0 U	**25.0**	2.0 U	1.0 U	**12.0**	6.3	10.0

Well ID	SMW-5					SMW-6					NYSDEC
Sample Date	Jan-02	Jul-02	Mar-03	Sept-03	Mar-04	Jan-02	Jul-02	Mar-03	Sept-03	Mar-04	Class GA[1]
STARs VOCs - ug/l											
Benzene	**120**	2.0 U	1.0 U	**39.0**	**20.0**	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0
Ethylbenzene	**11.0**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
MTBE	2.0 U	2.0 U	1.0 U	1.5	2.0	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	10 *
Toluene	2.0	2.0 U	1.0 U	3.9	1.2	1.0 U	2.0 U	1.0 U	1.0	1.0 U	5.0
Xylenes (total)	2.0 U	2.0 U	1.0 U	1.1	1.1	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
Isopropylbenzene	**7.0**	2.0 U	1.0 U	2.0	1.1	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
n-Propylbenzene	**6.0**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
p-Isopropyltoluene	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
1,2,4-Trimethylbenzene	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
1,3,5-Trimethylbenzene	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
n-Butylbenzene	3.0	2.0 U	1.0 U	1.5	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
sec-Butylbenzene	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	5.0
Napthalene	9.0	2.0 U	1.0 U	1.2	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	10.0

NOTES:

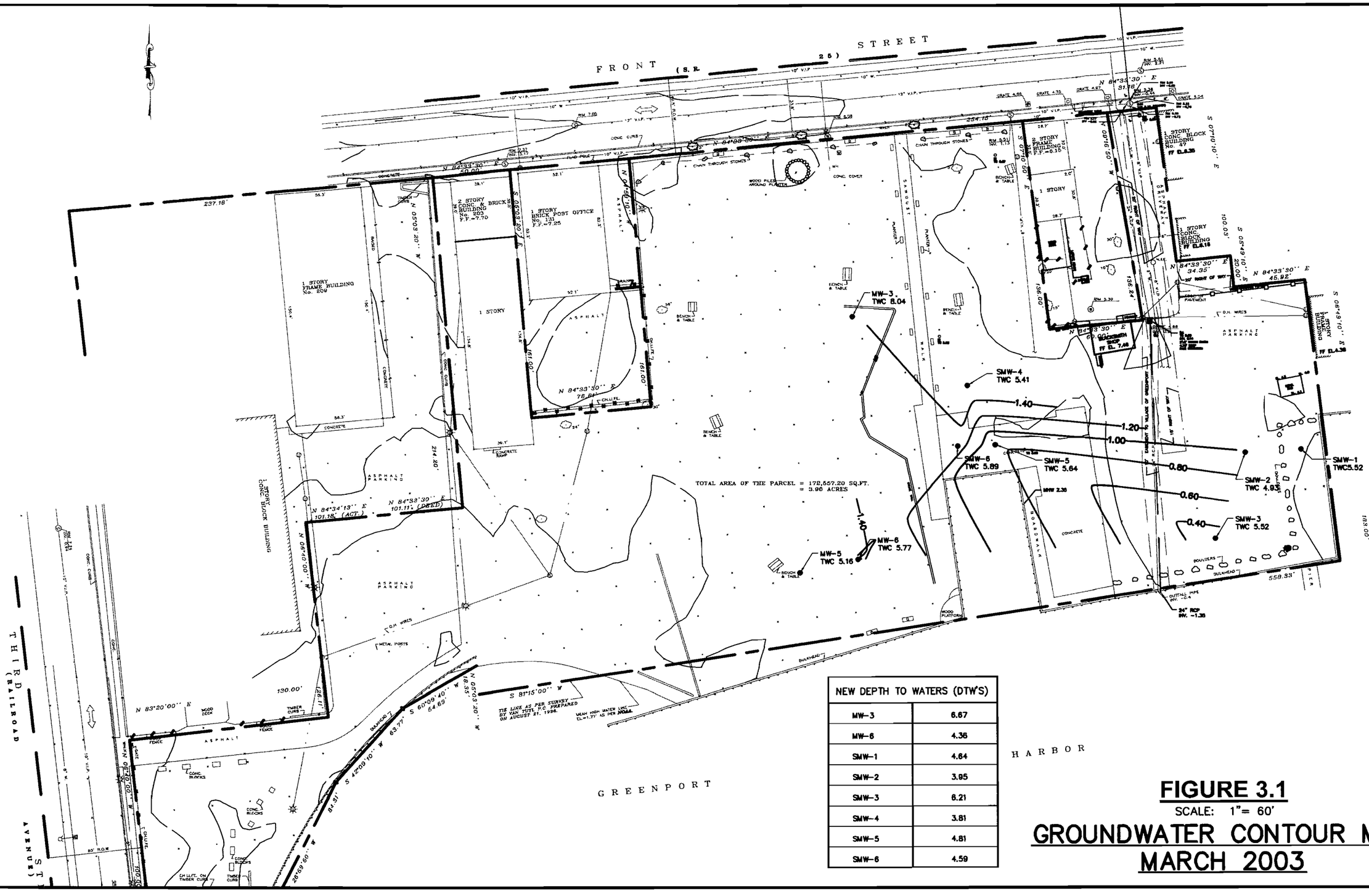
1 - NYSDEC Class GA Water Quality Standard.

"*" - Guidance value.

"NS" - Not sampled.

"U" - Compound was analyzed for but not detected.

FIGURES



NEW DEPTH TO WATERS (DTW'S)	
MW-3	6.67
MW-6	4.36
SMW-1	4.64
SMW-2	3.95
SMW-3	6.21
SMW-4	3.81
SMW-5	4.81
SMW-6	4.59

FIGURE 3.1

SCALE: 1"= 60'

GROUNDWATER CONTOUR MAP MARCH 2003

FRONT STREET (S.R. 25)

THIRD AVENUE (S.R. 25)

GREENPORT HARBOR

TOTAL AREA OF THE PARCEL = 172,557.20 SQ.FT.
= 3.96 ACRES

NEW DEPTH TO WATERS (DTW'S)	
MW-3	6.25
MW-6	4.25
SMW-1	3.91
SMW-2	3.31
SMW-3	3.88
SMW-4	3.78
SMW-5	3.92
SMW-6	4.24

FIGURE 3.2

SCALE: 1" = 60'

GROUNDWATER CONTOUR MAP SEPTEMBER 2003

H2MGROUP ENGINEERS • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS
MELVILLE, N.Y. SHELTON, CT. TOTOWA, N.J.

NEW DEPTH TO WATERS (DTW'S)	
MW-3	6.93
MW-6	4.55
SMW-1	4.99
SMW-3	5.25
SMW-4	3.99
SMW-5	4.81
SMW-6	4.55

FIGURE 3.3

SCALE: 1"= 60'

GROUNDWATER CONTOUR MAP MARCH 2004

H2MGROUP ENGINEERS • ARCHITECTS • PLANNERS • SCIENTISTS • SURVEYORS
MELVILLE, N.Y. SHELTON, CT. TOTOWA, N.J.

FRONT STREET (S.R. 25)

NORTH UST AREA

BAIT SHOP AREA

LIGHT POLE AREA

TEXACO ALLEY UST AREA

TEXACO ALLEY AREA

BOAT SLIP UST AREA

SOUTH UST AREA

TOTAL AREA OF THE PARCEL = 172,557.20 SQ.FT. ± 3.96 ACRES

THIRD AVENUE (RAILROAD)

GREENPORT HARBOR

LEGEND:

PETROLEUM – IMPACTED SOIL EXCAVATIONS

ARSENIC IMPACTED SOIL EXCAVATION

FIGURE 4.1

SCALE: 1"= 60'

SITE PLAN
MITCHELL PARK

APPENDIX A

Waste Manifests

Delivery Report - DR & Approval#

From: 5/24/04
To: 5/28/04
Approval# 240491
Generator THE VILLAGE OF GREENPORT
Origin MACHELL PARK EAST FRONT STREET
GREENPORT, NY 11944

#Loads 2
TOTAL 62.88

ate	Ticket#	Approval #	Truck#	Loc.	Manifest#s.	Net Tons
5/27/04	45618	240491	ZAMO 1	B3	1	30.88
5/27/04	45621	240491	L&P 01	B3	2	32.00

CLEAN EARTH OF CARTERET, INC

24 Middlesex Avenue
Carteret, NJ 07008
(732)-541-8909

INCOMING LOAD TICKET

Date 5/27/04
Time 1:24 PM
Ticket# 45618

Approval # 240491

Type of Material	Gross	Tare	Net Tons	#Drums
I-OIL CONTAMINATION	90,750	29,000	30.88	

WM ID# 3 TOM DURANTE Signature

Bill of Lading#
Manifest# 1
St. Manifest#

Trans. ID# 143
Transporter TOP SOIL DEPOT INC. DE-SW Permit#
Trans. Addr 190 POMPTON PLAINS CROSSROADS
WAYNE, NJ 07470

Driver JOHN Truck # ZAMO 1

Customer ALLIED ENVIRONMENTAL GROUP, INC
Generator THE VILLAGE OF GREENPORT
Generator Site MACHELL PARK EAST FRONT STREET
GREENPORT, NY 11944

Contact 1 STU BERRY 800-969-DIRT
Contact 2 ALLAN PARKER 561 752-2490 FL

NOTES 1:
NOTES 2:

THANK YOU

The TOP SOIL DEPOT
BULK MATERIAL HANDLERS
973-835-9434
Retail/Wholesale

190 POMPTON PLAINS CROSS ROAD, WAYNE, NEW JERSEY 074
Fax: 973-835-3928 • www.topsoildepot.com
** A New Jersey Corporation **

Log Number 2491

NON-HAZARDOUS MATERIAL MANIFEST

Village of Greenport

GENERATOR

Generator Name ____________ Shipping Location Same

Address E. ... St (CSF) Address ____________

Greenport, NY

Phone No. ____________ Phone No. ____________

Codes

Approval Number	Description of Material	Gross Weight	Net Weight (Tons)
240491	Non Hazardous ...	Tare Weight	
		Net Weight	

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name ____________ Signature ____________ Shipment Date ____________

TRANSPORTER

Transporter Name TD Driver Name (Print) J... Z...

Address Jackson Ave Vehicle License No./State AG510F

Truck Number 21

State Permit # ____________

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature [signature] Shipment Date 05/24/04 Driver Signature X [signature] Delivery Date 5/27/04

DESTINATION

Site Name ____________ Phone No. ____________

Address ____________ State Permit # ____________

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent ____________ Signature [signature] Receipt Date 5/27/04

WHITE-FACILITY BLUE-GENERATOR PINK-TRUCKING COMPANY CANARY-CONTRACTOR

CLEAN EARTH OF CARTERET, INC

24 Middlesex Avenue
Carteret, NJ 07008
(732)-541-8909

INCOMING LOAD TICKET

Date 5/27/04
Time 1:36 PM
Ticket# 45621

Approval # 240491

Type of Material	Gross	Tare	Net Tons	#Drums
-OIL CONTAMINATION	91,650	27,650	32.00	

WM ID# 3 TOM DURANTE Signature_____

Bill of Lading#
Manifest# 2
St. Manifest#

Trans. ID# 143
Transporter TOP SOIL DEPOT INC. DE-SW Permit#
Trans. Addr. 190 POMPTON PLAINS CROSSROADS
WAYNE, NJ 07470

Driver JOE Truck # L&P 01

Customer ALLIED ENVIRONMENTAL GROUP, INC
Generator THE VILLAGE OF GREENPORT
Generator Site MACHELL PARK EAST FRONT STREET
GREENPORT, NY 11944

Contact 1 STU BERRY 800-969-DIRT
Contact 2 ALLAN PARKER 561 752-2490 FL

NOTES 1:
NOTES 2:

THANK YOU