SITE INVESTIGATION 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)

PROJECT NO. GRPT98-01

JULY 1999

SITE INVESTIGATION REPORT
for
115 FRONT STREET
GREENPORT, NEW YORK

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EXECUTIVE SUMMARY

Holzmacher, McLendon & Murrell, P.C. (H2M) was contracted by the Incorporated Village of Greenport to conduct a Site Investigation (SI) of the property located at 115 Front Street (Mitchell's Property) in Greenport, New York. The work was conducted under the New York State Department of Environmental Conservation (NYSDEC) 1996 Clean Water/Clean Air Act's Environmental Restoration Projects Brownfields Program (Technical and Administrative Guidance Memorandum Number 4085). This report has been formatted as outlined in the NYSDEC procedures handbook for the Brownfield Program, dated December 1997.

The overall purpose of the SI Report is to evaluate the nature and extent of contamination at the site. Information in the report will be presented to the NYSDEC and used to initiate remedial actions, if and where appropriate.

The subject property, located at 115 Front Street in Greenport, New York, is also known as Mitchell's property. The property's tax map number is 1001-005-00-04-00-040-001, and encompasses approximately 3.19 acres (139,168 square feet). Currently, the majority of the site is being utilized by the Village as a public park. The southeast corner of the site is utilized for parking. The northern property line abuts to Front Street while the southern property line is characterized by bulkheading and piers constructed into Greenport Harbor.

The 115 Front Street property was acquired by the Village on September 5, 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.

There are five areas of concern on the site including:

1. Texaco Alley where above-grade petroleum storage tanks were present. No above-ground storage tanks are currently present at the site.
2. Oily residues were reported encountered in the vicinity of two light poles during on-site excavation activities.
3. Oily residues were reported in the vicinity of a subsurface water line during on-site excavation activities.
4. An area where oyster boats were reportedly brought ashore and their bottoms scraped of anti-fouling paint several decades ago.
5. An area where dredge spoils were reportedly placed.

During 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 Kokomo's restaurant parking lot. 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 with respect to the remaining USTs. There was no indication at the time that any remaining USTs had ever leaked.

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

The site is relatively flat with little variation in topography. Based upon the boring logs prepared as part of the subsurface soil sampling and monitoring well installation program, the subsurface of the site is dominated by fill material, characterized by a complex series of interbedded sand, gravel, silty sand and sandy silt. The underlying clay unit consists of a black to dark brown stiff clay with a very low estimated hydraulic conductivity.

Due to the site location adjacent to Greenport Harbor, it was possible that the groundwater could potentially be influenced by tidal fluctuations in the bay thereby changing the groundwater flow direction beneath the site over time. Groundwater elevation measurements were recorded at local periods of high and low tides, respectively. The data indicates that there was very little water-level changes measured in all four wells over the tidal cycle. The groundwater flow direction was to the south to south southwest. Therefore, based upon the results of the tidal influence study and the high- and low-tide potentiometric surface maps, there appears to the little to no variation in the groundwater flow direction or gradient beneath the site in response to tidal changes in Greenport Harbor.

According to Village files, one 3,000-gallon UST was removed from the site on August 27, 1991 under the oversight of the NYSDEC. Reportedly, there were still five out-of-service USTs present in the southwest corner of the property.

The investigation activities conducted during the 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 (9) USTs were found at the site. The USTs were removed as part of the SI to determine whether they had leaked petroleum into the subsurface.

Surface Soil Investigation – Ten (10) surface soil samples were collected and analyzed based upon the reported potential disposal of 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 and soil samples collected 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 (10) monitoring wells were installed and sampled to evaluate potential impacts to groundwater quality beneath the site.

A site-wide geophysical survey was conducted on December 2, 1998. The survey was conducted utilizing a magnetometer, cable locator tool and electromagnetometer. The locations of on-site subsurface utilities were marked on the ground surface with spray paint. Several anomalies were detected and further evaluated utilizing a GPR unit.

Based upon the site-wide geophysical survey and anomaly-specific GPR scan, the following suspected USTs were located: Three nested USTs, with estimated capacities of 4,000-gallons each, were found in the vicinity of Texaco Alley. A single fill port was uncovered during the geophysical survey. One suspected UST was located in the eastern portion of the site just east of the north-south walkway. One suspected UST was located in the north-central portion of the site east of the post office and west of the north-south walkway.

Based upon previous work conducted at the site and the results of the geophysical survey, four potential UST areas were identified. The South UST Area suspected of containing (3 to 5) 4,000-gallon gasoline and/or diesel USTs. The Texaco Alley Area suspected of containing (3) 4,000-gallon gasoline and/or diesel USTs. The North UST Area suspected of containing (1) 500- to 1,000-gallon UST. The East UST Area suspected of containing (1) 500- to 1,000-gallon UST.

Excavations were conducted in each of the four areas of the site suspected of containing UST(s) to confirm the presence of tanks, pump out their contents (if present), remove them from the ground and determine whether they had leaked thereby impacting the subsurface environment.

In August of 1998 the UST excavation activities at the South UST Area were initiated. The liquid contents of the three previously identified USTs were removed utilizing a vacuum truck. The approximately 4,000 gallons of liquids were composed primarily of water with minor amounts of dissolved gasoline-related volatile organic compounds (VOCs). A 12- to 18-inch thick reinforced-concrete ballast pad was encountered at approximately 3-feet below ground surface (bgs) overlying the USTs. As the concrete pad was being broken up, two additional 4,000-gallon USTs were uncovered. Approximately 4,000-gallons of water were removed and transported for disposal from each of the additional USTs. The tanks were excavated, and inspected by the NYSDEC and H2M. Holes were observed in three of the five USTs. In addition, Petroleum impacted soils were encountered while removing the USTs. Accordingly, the NYSDEC Spills Unit was notified on August 13, 1998 that a release had occurred, and NYSDEC Spill No. 98-05972 was assigned.

Approximately 135 cubic yards of petroleum impacted soils were excavated. 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. The final resulting excavation was approximately 38-feet long, 31-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.

Groundwater was encountered in the excavation at between 5- and 6-feet bgs. A petroleum sheen and globules of black light nonaqueous-phase liquid (LNAPL) were observed on top of the water surface. A vacuum truck was utilized to skim off the LNAPL and water. Oil-adsorbent booms were deployed in the excavation to adsorb as

much LNAPL as possible. Very little floating product was present on top of the water table just prior to backfilling the excavation indicating the successful removal of the majority of the LNAPL.

Four test pits were dug 20 feet off of each wall of the excavation to a depth of 8-feet bgs to evaluate the horizontal and vertical extent of impacted soils and groundwater. There was no visual or olfactory evidence of petroleum product in the soils and groundwater in any of the test pits.

Two sets off subsurface pipes were observed associated with the five USTs. All of the subsurface pipes were traced to their termini to ensure no other USTs or areas of impacted soils were present. No additional areas of concern were observed with respect to the two sets of subsurface pipes which were removed and disposed of.

In January of 1999, UST excavation activities at the Texaco Alley UST Area were initiated. The liquid contents of the three USTs were removed. A tracked excavator was utilized to remove each of the (three) 4,000-gallon USTs from the excavation. Each UST was inspected by the NYSDEC and H2M , and holes were observed in one of the three USTs. In addition, petroleum impacted soils were encountered while removing the USTs. Accordingly, the NYSDEC Spills Unit was notified on January 12, 1999 that a release had occurred, and NYSDEC Spill No. 98-12594 was assigned.

Approximately 130 cubic yards of petroleum impacted soils were excavated. The excavation was conducted to a depth of approximately 1.5 feet below the water table in an effort to remediate the smear zone. The final resulting excavation had was approximately 34-feet long, 43-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 funding and schedule constraints, and therefore, post-excavation soil samples were not collected.

Groundwater was encountered in the excavation at approximately 6.5-feet bgs. A petroleum sheen was observed on top of the water surface. A vacuum truck was utilized to skim off the LNAPL and water. Very little floating product was present on top of the water table just prior to backfilling the excavation indicating the successful removal of the majority of the LNAPL.

On December 23, 1998, excavation activities at the North UST Area were initiated. A 1,000-gallon UST was encountered at approximately 3-feet bgs. Petroleum impacted soils were encountered while removing the UST. Accordingly, the NYSDEC Spills Unit was notified on December 23, 1998 that a release had occurred, and NYSDEC Spill No. 98-11970 was assigned. Several holes were observed in the bottom of the UST.

62.25 tons of petroleum impacted soil was removed. The excavation was continued to a depth of approximately 10- to 12-feet bgs where an un-impacted gray, clay-rich bog layer was encountered. Petroleum impacted soils were removed from the side walls of the excavation until there was no visual or olfactory indications of contamination. The excavation was backfilled with clean fill on December 30, 1998.

A post-excavation bottom soil sample and four side-wall composite soil sample were collected and analyzed for NYSDEC Spill Technology and Remediation Series (STARS) VOCs and SVOCs. SVOCs were not detected above NYSDEC STARS TCLP alternative guidance values (AGVs) or NYSDEC recommend soil cleanup objectives (RSCOs). Additionally, STARS VOCs were not detected above the two NYSDEC guidance criteria in the bottom soil sample. Several VOCs were detected in the composite side-wall sample above their STARS TCLP AGVs ranging from sec-butlybenzene (240 micrograms per kilogram (ug/kg)) to p-isopropyltoluene (2,100 ug/kg).

The anomaly detected during the geophysical survey was exposed on December 23, 1998. A 12-foot storm drain which had been previously backfilled was encountered;

therefore, this anomaly did not represent an UST. The on-site NYSDEC representative directed that no further action was required and the test pit was backfilled.

H2M collected ten surface soil samples from across the site. Sampling locations were pre-selected to target previously-identified areas of concern. The samples were analyzed for STARS VOCs, STARS SVOCs and Target Analyte List (TAL) metals.

H2M conducted eighteen soil borings (SB-1 through SB-18) to evaluate subsurface soils within each of the six previously identified AOCs. A photoionization detector (PID) was used to field screen the soil samples for the presence of total VOCs. The soil samples collected from five of the AOCs were analyzed for STARS VOCs, STARS SVOCs and TAL metals. The soil samples collected from the South UST Area were analyzed for STARS VOCs and STARS SVOCs. Pursuant to the NYSDEC Spills Unit representative's request, two additional soil borings (SB-19 and SB-20) were drilled and sampled in the Texaco Alley Area. The soil samples were analyzed for STARS VOCs, STARS SVOCs and toxicity characteristics leaching procedure (TCLP) STARS SVOCs.

H2M oversaw the installation of ten groundwater monitoring wells at the site . Each of the ten wells was developed on March 8, 1999 by over pumping and swabbing. Groundwater samples were collected from the ten wells on March 23, 1999. All of the groundwater samples were analyzed for STARS VOCs, STARS SVOCs and TAL metals. The top-of-casing (TOC) elevation for each monitoring well was surveyed to the nearest 0.01 foot to an assumed 100-foot reference elevation. Each well was checked for the presence of LNAPLs utilizing an interface probe. Water-level measurements were obtained at local high and low tides to evaluate the effects of tidal influence on the groundwater beneath the site.

Criteria and Guidance (SCGs) for soils and sediments analyzed as part of the SI were selected to be; 1) the TCLP alternative guidance values (AGVs) included in the NYSDEC STARS Memo #1 Petroleum-Contaminated Soil Guidance Policy Manual dated August 1992, and 2) the Recommended Soil Cleanup Objectives (RSCOs)

presented in the NYSDEC Division Technical and Administrative Guidance Memo (TAGM) Determination of Soil Cleanup Objectives and Cleanup Levels, HWR-94-4046, January 24, 1994 (revised 4/95). The initial SCGs for groundwater are the Class GA Groundwater Quality Standards presented in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1): Ambient Water Quality and Guidance Values, March, 1998.

Surface soil sample results indicate MTBE, xylenes and/or n-propylbenzene were detected at low concentrations, well below the SCGs. All other STARS VOCs were non-detectable. STARS SVOCs, chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene and benzo(g,h,i)perylene were detected in one or more of the remaining soil samples exceeding their respective AGV or RSCO. It should be noted that all of the SVOCs present above SCGs were detected at concentrations below their respective NYSDEC contact-required detection limits (CRDLs).

Arsenic, copper, magnesium and zinc were detected above their RSCO, site background and/or Eastern United States background (EUS BG) in one or more of the surface soil samples collected from across the site. Arsenic was the only metal consistently detected above its NYSDEC RSCO in the surface soil samples. It has been postulated that the elevated concentrations of arsenic are related to the top soil spread across the site from a "farm-field source".

The subsurface soil sampling program was designed to evaluate the presence and distribution of contaminants in the following AOCs at the site; the Boat-Bottom Scraping Area, the Dredge Spoils Area, the Water-Line Area, the Light Pole Area, the Texaco Alley Area, and the South UST Area.

In the Boat Bottom Scraping Area, STARS VOCs were not detected above NYSDEC AGVs or RSCOs. STARS SVOCs, chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene and benzo(g,h,i)perylene

were detected the soil samples exceeding their respective AGV or RSCO. It should be noted that these SVOCs have very low AGV and RSCO thresholds and in most cases, the compounds were detected below their respective NYSDEC CRDL. Copper, mercury and/or zinc were detected above their respective NYSDEC guidance value in both soil samples.

In the Dredge Spoil Area, STARS VOCs were not detected above NYSDEC AGVs or RSCOs. Chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene and benzo(g,h,i)perylene were detected at concentrations exceeding their respective AGV or RSCO. Mercury and zinc were the only TAL metals detected above their respective NYSDEC guidance values.

In the Water-Line Area, only very low concentrations (e.g., 3 ug/kg xylenes or less) of STARS VOCs were detected in the soil samples collected. None of the STARS VOCs detected were present at concentrations above their respective NYSDEC AGV or RSCO. STARS VOCs ranging in concentrations from 3 ug/kg toluene to 71 ug/kg n-butlybenzene were detected in the soil sample collected. Chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene and benzo(g,h,i)perylene were detected in the soil samples exceeding their respective AGV or RSCO. Copper, lead, mercury and zinc were detected above their respective NYSDEC guidance value in the soil samples.

In the he Light Pole Area, benzene, MTBE and toluene were detected at concentration well below NYSDEC guidance values (e.g., the highest detected concentration was 5 ug/kg MTBE). All other STARS VOCs were non-detectable. Several STARS SVOCs were detected ranging in concentration from fluorene at 71 ug/kg to pyrene at 2,900 ug/l in the near-surface soil samples, exceeding their respective AGVs and RSCOs. Copper, magnesium, mercury and zinc were the only TAL metals detected above their respective NYSDEC guidance values.

In the Texaco Alley Area, soil samples exhibited strong visual and olfactory evidence of petroleum-related contamination. Additionally, the PID detected up to 250 ppm total VOCs from the soil samples. There was no visual or olfactory indications in the soil samples collected from the remaining four borings. STARS VOCs were detected above their respective NYSDEC AGVs and RSCOs in the soil samples collected. STARS SVOCs were also detected above their applicable NYSDEC guidance values in the soil samples. Copper, lead, mercury and/or zinc were detected in each of the soil samples exceeding their applicable NYSDEC guidance value.

In the South UST Area, VOCs at concentrations ranging from 1 ug/kg toluene to 26 ug/kg 1,2,4-trimethylbenzene were detected in all of the soil samples. However, all of the VOCs detected were present a concentrations well below their respective AGVs and RSCOs. Several STARS SVOCs were detected above their respective NYSDEC guidance values; however, most of the SVOCs were present below their respective NYSDEC CRDL. Arsenic, mercury and zinc were detected in the SB-10 (0.5 to 1.0 feet bgs) soil sample exceeding their applicable NYSDEC guidance value.

The groundwater sampling program was designed to evaluate the presence and distribution of contaminants in groundwater at the North UST, South UST and Texaco Alley areas of the site.

In the North UST Area, monitoring wells MW-1 and MW-2 contained several STARS VOCs above NYSDEC Groundwater Quality Standards. The analytical results of the groundwater sample collected from monitoring well MW-3 reported all VOCs to be either non-detectable or present at concentrations below the SCGs. With the exception of napthalene found in groundwater from MW-2, all three groundwater samples (MW-1, MW-2 and MW-3) reported no detectable concentration levels of SVOCs. Napthalene was observed in the groundwater sample from MW-2 was 64 ug/l. There is no available NYSDEC Class GA standard for this analyte. In addition, concentrations of TAL metals exceeding applicable standards were reported in all three monitoring wells in the North UST Area.

In the South UST Area, groundwater samples from all three monitoring wells contained several STARS VOCs above NYSDEC groundwater standards. With the exception of napthalene, reported at a concentration of 90 ug/l in the groundwater sample from monitoring well MW-4, SVOCs were non-detectable in all three wells. There is no NYSDEC Class GA Water Quality Standards for napthalene. The TAL metals analytical results reported several concentrations above the NYSDEC Class GA Water Quality Standards.

The four monitoring wells in the Texaco Alley Area contained several VOCs above NYSDEC Water Quality Standards. With the exception of napthalene, reported at a concentration of 57 ug/l in the groundwater sample from monitoring well MW-8, SVOCs were non-detectable in all four monitoring wells. Three TAL metals (iron, manganese, and sodium) were detected above the NYSDEC Class GA Water Quality Standards in all four monitoring well samples.

Based upon the results of analytical testing several contaminants were detected in on-site surface soils, subsurface soils, and groundwater at levels exceeding NYSDEC concentrations of concern. 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 throughout the site. There are three possible routes of migration for these contaminants; (1) migration of SVOCs associated with petroleum hydrocarbons from surface and subsurface soils to the air in the form of vapors, (2) Migration of 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 include; workers on the site, trespassers who transit the site, residents who live in the area, and remedial construction workers who will install potential on- and off-site remedial systems.

Based upon the completability of potentially functional pathways and exposure/uptake routes, a qualitative risk per functional exposure pathway and potentially exposed receptors the qualitative risk characterization for most exposure pathways is considered low. However, on-site workers and trespassers have a moderate to high qualitative potential risk four exposure pathways; (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 is considered low.

1.0 INTRODUCTION

Holzmacher, McLendon & Murrell, P.C. (H2M) was contracted by the Incorporated Village of Greenport to conduct a Site Investigation (SI) of the property located at 115 Front Street (Mitchell's Property) in Greenport, New York. The work was conducted under the New York State Department of Environmental Conservation (NYSDEC) 1996 Clean Water/Clean Air Act's Environmental Restoration Projects Brownfields Program (Technical and Administrative Guidance Memorandum Number 4085).

1.1 Purpose of the Report

The overall purpose of the SI Report is to evaluate the nature and extent of contamination at the site. Information in the report will be presented to the NYSDEC and used to initiate remedial actions, if and where appropriate. The specific objectives of this SI are as follows:

1. Provide sufficient analytical data on the site so that areas that have been previously identified or suspected as potential source areas of contamination are confirmed or determined to be either free of contamination or below regulatory levels. Evaluate any potential off-site impacts of site-related contamination.
2. If any previously identified or newly identified source areas are found to be present at the site, determine the nature, type, physical extent and migratory path of contamination at and/or emanating from those areas so that appropriate remedial actions can be implemented.
3. Qualitatively evaluate the impact of contamination quantified at the site on human health.
4. Present and discuss the data necessary to support the development of appropriate remedial actions.

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's property (see Figure 1.1). The property's tax map number is 1001-005-00-04-00-040-001, and encompasses approximately 3.19 acres (139,168 square feet). Currently, the majority of the site is being utilized by the Village as a public park. The southeast corner of the site is utilized for parking. As shown in Figure 1.2, 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 115 Front Street property was acquired by the Village on September 5, 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 local citizens, there were five additional areas of concern on the site (see Figure 1.2) including:

1. Texaco Alley where above-grade petroleum storage tanks were present. No above-ground storage tanks are currently present at the site.

2. Oily residues were reported encountered in the vicinity of two light poles during on-site excavation activities.
3. Oily residues were reported in the vicinity of a subsurface water line during on-site excavation activities.
4. An area where oyster boats were reportedly brought ashore and their bottoms scraped of anti-fouling paint several decades ago.
5. An area where dredge spoils were reportedly placed.

According to available NYSDEC and Suffolk County Department of Health Services (SCDHS) records, during 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 Kokomo's restaurant parking lot. 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 with respect to the remaining USTs. There was no indication at the time that any remaining USTs had ever leaked.

In April and May 1997, the Village contracted to have approximately 1,000 cubic yards of top soil spread across the site from a farm-field source. Reportedly, the thickness of the top soil cover varied from 2 to 12 inches and was used to level out low spots at 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 under the oversight of the 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 the SCDHS.

The geophysical survey was conducted in February of 1997 using the ground-penetrating radar (GPR) geophysical technique. 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 estimating 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. This 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.

1.3 Report Organization

This report has been formatted as outlined in the NYSDEC procedures handbook for the Brownfield Program, dated December 1997. Section 2.0 of the report summarizes the field activities conducted during the SI field work. Section 3.0 discusses the physical characteristics of the site area including surface features, geology/hydrogeology, demography, and land use.

Section 4.0 includes a discussion of the nature and extent of contamination including potential sources of contamination, surface soils, subsurface soils and groundwater. A discussion of the fate and transport of site-specific contaminants is included in Section 5.0. Quality assurance/quality control (QA/QC) procedures and data usability are discussed in Section 6.0. The human exposure assessment is included in Section 7.0.

2.0 STUDY AREA INVESTIGATION

The investigation activities conducted during the 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 (9) USTs were found at the site. The USTs were removed as part of the SI to determine whether they had leaked petroleum into the subsurface.
- Surface Soil Investigation – Ten (10) surface soil samples were collected and analyzed based upon the reported potential disposal of 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 and soil samples collected 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 (10) monitoring wells were installed and sampled to evaluate potential impacts to groundwater quality beneath the site.

2.1 Geophysical Survey

A site-wide geophysical survey was conducted by Naeva Geophysics of Tappan, New York with oversight by H2M on December 2, 1998. The survey was conducted utilizing a magnetometer, cable locator tool and electromagnetometer. The locations of on-site subsurface utilities were marked on the ground surface with spray paint. Several anomalies were detected and further evaluated utilizing a GPR unit.

Based upon the site-wide geophysical survey and anomaly-specific GPR scan, the following suspected USTs were located:

- Three nested USTs, with estimated capacities of 4,000-gallons each, were found in the vicinity of Texaco Alley (see Figure 1.2). A single fill port was uncovered during the geophysical survey.
- One suspected UST was located in the eastern portion of the site just east of the north-south walkway.
- One suspected UST was located in the north-central portion of the site east of the post office and west of the north-south walkway.
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2.2 UST Investigations

Based upon previous work conducted at the site and the results of the geophysical survey, the following potential USTs were identified (see Figure 1.2):

- The South UST Area suspected of containing (3 to 5) 4,000-gallon gasoline and/or diesel USTs.
- The Texaco Alley Area suspected of containing (3) 4,000-gallon gasoline and/or diesel USTs.
- The North UST Area suspected of containing (1) 500- to 1,000-gallon UST.
- The East UST Area suspected of containing (1) 500- to 1,000-gallon UST.

Excavations were conducted in each of the four areas of the site suspected of containing UST(s) to confirm the presence of tanks, pump out their contents (if present), remove them from the ground and determine whether they had leaked thereby impacting the subsurface environment.

2.2.1 South UST Area

In August of 1998, Miller Environmental Group (MEG) with oversight by the NYSDEC and H2M initiated the UST excavation activities at the South UST Area. The liquid contents of the three previously identified USTs were removed utilizing a vacuum truck. Based upon the analytical data presented in the SI Work Plan, included in the SI Report by reference, the liquids were composed primarily of water with minor amounts

of dissolved gasoline-related volatile organic compounds (VOCs). Approximately 4,000-gallons of water were removed from each of the USTs and transported to and disposed of at the Clean Water treatment, storage or disposal facility (TSDF). The disposal documentation is included in Appendix A.

A 12- to 18-inch thick reinforced-concrete ballast pad was encountered at approximately 3-feet below ground surface (bgs) overlying the USTs. The concrete pad was broken up and later disposed of at a permitted construction and demolition (C&D) facility. As the concrete pad was being broken up, two additional 4,000-gallon USTs were uncovered. Approximately 4,000-gallons of water were removed from each of the additional USTs and transported to and disposed of at the Clean Water TSDF.

A tracked excavator was utilized to remove each of the five USTs from the excavation. CO_2 was utilized to provide an inert atmosphere in each tank prior to cutting access ports to allow for the removal of bottom sludges. The bottom sludges from each UST were removed, and transported and disposed of in an appropriate an approved manner. 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. In addition, Petroleum impacted soils were encountered while removing the USTs. Accordingly, the NYSDEC Spills Unit was notified on August 13, 1998 that a release had occurred, and NYSDEC Spill No. 98-05972 was assigned.

Approximately 135 cubic yards of petroleum impacted soils were excavated, transferred to roll-off bins, transported and disposed of at the Blue Water Environmental TSDF. 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 8- to 9-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 38-feet long, 31-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.

Groundwater was encountered in the excavation at between 5- and 6-feet bgs. A petroleum sheen and globules of black light nonaqueous-phase liquid (LNAPL) were observed on top of the water surface. A vacuum truck was utilized to skim off approximately 1,600 gallons of LNAPL and water. Oil-adsorbent booms were deployed on top of the water table in the excavation to adsorb as much LNAPL as possible. Very little floating product was present on top of the water table just prior to backfilling the excavation indicating the successful removal of the majority of the LNAPL.

At the direction of the on-site NYSDEC Spills Unit representative, four test pits were dug 20 feet off of each wall of the excavation to a depth of 8-feet bgs to evaluate the horizontal and vertical extent of impacted soils and groundwater. There was no visual or olfactory evidence of petroleum product in the soils and groundwater in any of the test pits.

Two sets off subsurface pipes were observed associated with the five USTs. One set of lines trended to the southwest of the tanks and another set of subsurface lines were observed trending to the east. All of the subsurface pipes were traced to their termini to ensure no other USTs or areas of impacted soils were present. No additional areas of concern were observed with respect to the two sets of subsurface lines which were removed and disposed of as C&D.

2.2.2 Texaco Alley UST Area

In January of 1999, MEG under the oversight of the NYSDEC and H2M initiated UST excavation activities at the Texaco Alley UST Area. The liquid contents of the three USTs were removed utilizing a vacuum truck. A total of approximately 9,400 gallons of liquids were removed from the USTs and transported to and disposed of at the Clean Water Environmental TSDF. Disposal documentation is included in Appendix A.

A 12- to 18-inch thick reinforced-concrete ballast pad was encountered at approximately 3-feet bgs. The concrete pad was broken up and later disposed of at a permitted C&D facility.

A tracked excavator was utilized to remove each of the (three) 4,000-gallon USTs from the excavation. CO_2 was utilized as an inert atmosphere in each tank prior to cutting access ports to allow for the removal of bottom sludges. The bottom sludges from each UST were removed, containerized in 55-gallon drums, transported to and disposed of at the American Ref-Fuel TSDF. Each UST was inspected by the NYSDEC and H2M for the presence of holes indicating potential leaks. Holes were observed in one of the three USTs. In addition, petroleum impacted soils were encountered while removing the USTs. Accordingly, the NYSDEC Spills Unit was notified on January 12, 1999 that a release had occurred, and NYSDEC Spill No. 98-12594 was assigned.

Approximately 130 cubic yards of petroleum impacted soils were excavated, transferred to roll-off bins, and disposed of at the Blue Water Environmental TSDF. The excavation was conducted to a depth of approximately 1.5 feet below the water table in an effort to remediate the smear zone. The final resulting excavation had was approximately 34-feet long, 43-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 funding and schedule constraints; therefore, post-excavation soil samples were not collected.

Groundwater was encountered in the excavation at approximately 6.5-feet bgs. A petroleum sheen was observed on top of the water surface. A vacuum truck was utilized to skim off approximately 1,200 gallons of LNAPL and water. Very little floating product was present on top of the water table just prior to backfilling the excavation indicating the successful removal of the majority of the LNAPL.

2.2.3 North UST Area

On December 23, 1998, Coastal Environmental Corporation (Coastal), under the oversight of the NYSDEC and H2M, initiated excavation activities at the North UST Area (see Figure 1.2). A 1,000-gallon UST was encountered at approximately 3-feet bgs. Approximately 950 gallons of liquids were removed from the tank, transported and disposed of at a licensed facility. Disposal documentation is included in Appendix A.

A 12- to 18-inch concrete pad was encountered at approximately 3-feet bgs; however, there was an existing large hole cut in the pad and it appeared that the UST had been installed through the hole. The UST and associated soil was removed through this hole and the concrete pad was left in place. Petroleum impacted soils were encountered while removing the UST. Accordingly, the NYSDEC Spills Unit was notified on December 23, 1998 that a release had occurred, and NYSDEC Spill No. 98-11970 was assigned.

Upon removing the tank from the excavation, the atmosphere of the UST was rendered inert with CO_2, an access way was cut, and the bottom sludges were removed, and disposed of at the Posillico Bros. Asphalt recycling plant. Several holes were observed in the bottom of the UST.

62.25 tons of petroleum impacted soil was removed, transported to and disposed of at the Posillico Bros. Asphalt recycling plant. The excavation was continued to a depth of approximately 10- to 12-feet bgs where an un-impacted gray, clay-rich bog layer was encountered. Petroleum impacted soils were removed from the side walls of the excavation until there was no visual or olfactory indications of contamination. The excavation was backfilled with clean fill on December 30, 1998.

A post-excavation bottom soil sample and four side-wall composite soil sample were collected and analyzed for NYSDEC Spill Technology and Remediation Series (STARS)

VOCs and SVOCs. As indicated in Table 2.1, SVOCs were not detected above NYSDEC STARS TCLP alternative guidance values (AGVs) or NYSDEC recommend soil cleanup objectives (RSCOs). Additionally, STARS VOCs were not detected above the two NYSDEC guidance criteria in the bottom soil sample. Several VOCs were detected in the composite side-wall sample above their STARS TCLP AGVs ranging from sec-butlybenzene (240 micrograms per kilogram (ug/kg)) to p-isopropyltoluene (2,100 ug/kg).

2.2.4 East UST Area

The anomaly detected during the geophysical survey was exposed on December 23, 1998. A 12-foot storm drain which had been previously backfilled was encountered; therefore, this anomaly did not represent an UST. The on-site NYSDEC representative directed that no further action was required and the test pit was backfilled.

2.3 Surface Soil Samples

H2M collected ten surface soil samples from across the site under the oversight of the NYSDEC. Sampling locations were pre-selected to target previously-identified areas of concern. Surface soil samples were collected utilizing dedicated plastic disposable trowels from the surface to 3-inches bgs. The samples were analyzed for STARS VOCs, STARS SVOCs and Target Analyte List (TAL) metals. Analytical results are discussed in Section 4.0

2.4 Subsurface Soil Investigation

On December 8 and 9, 1999, H2M conducted eighteen soil borings (SB-1 through SB-18) to evaluate subsurface soils within each of the six previously identified AOCs. Soil samples were collected on a nominally continuous basis utilizing a Geoprobe drill rig and inspected visually and olfactory for evidence of petroleum-related soil contamination. Additionally, a photoionization detector (PID) was used to field screen

the soil samples for the presence of total VOCs. Each boring was advanced to eight-feet bgs. Attempts to tag the top of the water table with an interface probe to evaluate the presence of LNAPLs proved unsuccessful due to caving of the bore holes. Soil boring logs are included in Appendix B.

As indicated in Table 2.2, the soil samples collected from five of the AOCs were analyzed for STARS VOCs, STARS SVOCs and TAL metals. The soil samples collected from the South UST Area were analyzed for STARS VOCs and STARS SVOCs. Pursuant to the NYSDEC Spills Unit representative's request, two additional soil borings (SB-19 and SB-20) were drilled and sampled in the Texaco Alley Area. The soil samples were analyzed for STARS VOCs, STARS SVOCs and toxicity characteristics leaching procedure (TCLP) STARS SVOCs. The analytical data are discussed in Section 4.0.

2.5 Groundwater Investigation

The NYSDEC-approved Investigation Work Plan originally called for groundwater samples to be collected utilizing the Geoprobe drilling method. However, subsequent to the approval of the Work Plan, the NYSDEC requested that groundwater wells be utilized to monitor the groundwater conditions beneath the site.

On March 1 and 2, 1999, H2M oversaw the installation of ten groundwater monitoring wells at the site . The wells were installed utilizing a hollow stem auger (HSA) drill rig. Each monitoring well was constructed with four-inch inside diameter (ID) polyvinyl chloride (PVC) flush joint risers with appropriate lengths of 0.010 inch (#10) slot-size PVC well screen extending above the water table and down to the underlying clay layer. As indicated in Table 2.3 and boring logs/well construction diagrams (see Appendix B), the underlying clay unit was found at different depths below the ground surface necessitating differing depth wells. The wells were installed so that the screens intersected the water table to allow for the evaluation of the presence of LNAPLs.

Each of the ten wells was developed on March 8, 1999 by over pumping and swabbing. Well development logs are included in Appendix C. Well MW-2 was damaged during its installation and could not be developed. The original well was abandoned and re-installed on March 23, 1999 approximately two feet from its original location.

Groundwater samples were collected from the ten wells on March 23, 1999. As indicated in the groundwater sampling logs included in Appendix C, care was taken to collect samples with turbidity values of less than 50 nephelometric turbidity units (NTUs) to ensure representative dissolved TAL metals results. All of the groundwater and QA/QC samples were analyzed for STARS VOCs, STARS SVOCs and TAL metals. Analytical results are discussed in Section 4.0.

The top-of-casing (TOC) elevation for each monitoring well was surveyed to the nearest 0.01 foot to an assumed 100-foot reference elevation. Each well was checked for the presence of LNAPLs utilizing an interface probe. Water-level measurements were obtained at local high and low tides to evaluate the effects of tidal influence on the groundwater beneath the site (see Section 3.0 for discussion).

3.0 PHYSICAL CHARACTERISTICS OF THE SITE

This section of the SI Report provides information and details on the site surface features, surface water hydrology, regional geology/hydrogeology, site-specific geology/hydrogeology, demography and land use.

3.1 Site Surface Features

As indicated on Figure 1.2, the site is relatively flat with little variation in topography. Site surface elevations vary from a low of approximately 4.3 feet above mean sea level (msl) to 8.3 feet msl with an average site elevation of approximately 6.0 to 6.5 feet msl.

The northern property line abuts to the sidewalk for Front Street; the northeast property line abuts retail and residential properties; the southeast corner and southern border of the property are characterized by wooden bulkheading along Greenport Harbor and the western property line abuts a parking lot and the US Post Office property.

Until recently, the site was dominated by grass-covered areas with bare-dirt surfaces where USTs had been removed. An area of concrete surrounds the boat slip in the southeast portion of the property. The surface in the vicinity of the Texaco Alley Area is dominated by gravel and sand. Currently, the Village is presently in the process of building a carousal/amphitheater complex on the site, and as a result, the surface features are undergoing significant change. The NYSDEC have been provided building plans and specifications for the expansion of the park's infrastructure.

3.2 Surface Water Hydrology

There are no permanent streams or ponds on the property. The site is currently graded such that the majority of any stormwater ponds on the site until the water either evaporates of infiltrates into the subsurface.

Several drainage structures and a stormwater conveyance system are included in the redevelopment of the site. The NYSDEC, including the Wetlands Division, have been included in the planning for the park's stormwater handling system.

3.3 Regional Geology/Hydrogeology

The site is located along the waterfront of Southold Bay between the North Fork of Long Island and Shelter Island (see Figure 1.1). The following information on the geology and hydrogeology of the area was compiled from the United States Geological Survey 1961 Water-Supply Paper 1619: Geology and Ground-water Resources of the Town of Southold, Suffolk County, New York.

The township of Southold (of which the Village of Greenport is part) comprises most of the north fork peninsula of Long Island, including a chain of small islands extending northeastward from the peninsula. It is underlain by Cretaceous and Pleistocene deposits resting on a southeastward sloping Precambrian age bedrock surface. The Harbor Hill moraine, which follows the northeastward-trending peninsula along the shore of Long Island Sound, and a glacial outwash plain, which borders Southold Bay, Pipes Cove, Greenport Harbor, and Orient Harbor, are the predominant topographic features. The peninsula is naturally divided by salt-water ponds, marshes and inlets into six distinct morphologic and hydrologic island-like areas. Fresh groundwater underlying the peninsula, which occurs typically under unconfined conditions, is contained in these islands in a series of six lens-like bodies in stratified to semi-stratified upper Pleistocene glacial deposits. Greenport occupies an area in the third island-like area from the western perimeter of Southold. This area extends eastward from Hashamamok Pond to Dam Pond (about seven square miles), and is 1 to 1.5 miles wide. Greenport is located south centrally within this area.

The southern shoreline of the peninsula is predominantly flat and irregularly marked by saltwater embayments and, in the town of Greenport, bulkheads and docks. The north shore of this area has a prominent ridge line bordering the shore, which is characterized

by storm eroded bluffs and headlands nearing twenty feet in height bordered by long narrow beaches and clusters of glacial erratic pebbles and boulders. A gently rolling outwash plain with numerous shallow depressions extends from the ridge along the north shore to the south shore. The plain slopes southeastward at approximately 20 to 30 feet per mile.

The bedrock basement in the Southold area is made up of crystalline rocks of Precambrian age. The basement surface generally slopes to the southeast at a gradient of approximately 80 feet per mile. Semi-consolidated and unconsolidated deposits of Cretaceous and Quarternary age rest on this surface. The Lloyd sand member of the Raritan formation of Late Cretaceous age was deposited directly on the Precambrian bedrock. It consists of beds of coarse quartz sand and gravel, fine sandy clay, clayey sand, and some very thin layers of clay. This portion of the Lloyd aquifer contains brackish or saline groundwater.

The Lloyd grades upwards into the clay member of the Raritan formation. The clay member contains small lenses of sand, but is predominantly gray clay and silty clay. The permeability of the clay is very low and therefore acts as a confining unit or aquitard.

An unconformity separates the Raritan formation from the overlying Magothy formation of Late Cretaceous age. The beds of Magothy formation consist of fine sand, silt, layers of clay and scattered beds of coarse sand and gravel. The thickness of the Magothy formation is poorly defined. The groundwater occurring in the Magothy aquifer is of salty or brackish quality. The permeability of this formation ranges from very low (the clay members) to high (the sand members).

During Tertiary and possibly during the late Quarternary time, the post-Raritan deposits were dissected by streams and possibly by ice into a hilly terrain of moderate relief. Pleistocene glacial deposits consisting largely of sand and gravel, including localized lenses of clay, were then laid down on this irregular surface. The town of Southold reservoir of fresh groundwater is contained in the upper part of these permeable

glacial deposits, which are also known as the upper glacial aquifer. The portion of these upper glacial deposits comprising the Harbor Hill end moraine consists of large coalescing outwash fans of stratified sand and gravel and associated glacial till. The till ranges in thickness from about 5 to almost 50 feet and is characterized by many glacial erratics (very large boulders). The permeability of the upper glacial aquifer ranges from very low (the clays) to high (the sands and gravels). Groundwater quality in the upper glacial aquifer is typically brackish to saline although lenses of fresh water do occur. The freshwater lens occurring in the upper glacial aquifer underlying the Village of Greenport is estimated to hold approximately 10,400 million cubic feet of freshwater (as of 1961).

A clay of late Pleistocene age occurs in several places along the south shore of Greenport. It appears to extend northward for almost a quarter of a mile and ranges in thickness from 5 to 60 feet. Just west of Greenport this layer extends nearly to the north shore. The clay was apparently once quarried in this area for commercial use.

3.4 Site-Specific Geology/Hydrogeology

Based upon the boring logs prepared as part of the subsurface soil sampling and monitoring well installation program (see Appendix B), the subsurface of the site is dominated by fill material to between 9.5 to 12 feet bgs where a fine-grained clay unit was encountered. The fill material was characterized by a complex series of interbedded sand, gravel, silty sand and sandy silt. Evidence that the majority of the material was anthropogenic fill in nature included the presence of old bottles; clam, oyster and scallop shells; broken pieces of wood; brick fragments; pieces of concrete; coal fragments, fiberglass debris; rusted metallic debris; etc. The underlying clay unit consists of a black to dark brown stiff clay with a very low estimated hydraulic conductivity. The clay unit was not penetrated during the SI field work; therefore, its thickness in unknown.

Ten monitoring wells were installed and sampled as part of the groundwater investigation. Due to the site location adjacent to Greenport Harbor, it was possible that the groundwater could potentially be influenced by tidal fluctuations in the bay thereby

changing the groundwater flow direction beneath the site over time. As indicted in Tables 3.1 and 3.2, groundwater elevation measurements were recorded at local periods of high and low tides, respectively. As indicated in Figure 3.1, there appeared to be a slight water table elevation response in Wells MW-2 and MW-10 over the hide-tide cycle; however, there appeared to be little tidal effect in MW-5 and MW-7 during the same period. The data indicates that there was very little water-level changes measured in all four wells over the low-tide cycle (see Figure 3.2). The tidal fluctuations observed did not correlate to the wells proximity to the Bay (MW-2 is located some distance from the nearest bulkhead). This condition is likely due to the heterogeneous nature of the subsurface lithologies observed across the site.

High- and low-tide potentiometric surface maps were prepared (see Figures 3.3 and 3.4, respectively). In both cases, the groundwater flow direction was to the south to south southwest. Therefore, based upon the results of the tidal influence study and the high- and low-tide potentiometric surface maps, there appears to the little to no variation in the groundwater flow direction or gradient beneath the site in response to tidal changes in Southold Bay.

3.5 Demography and Land Use

The Village of Greenport is situated within the Town of Southold on Long Island, in the state of New York. Both the Town of Southold and the Village of Greenport are located within Suffolk County. Geographically, Greenport is located on the North Fork of Long Island, which is bounded on the north by the Long Island Sound and on the south by Gardiners Bay and the Peconic Bay Estuary system. The project area is located on the southern shore of the Village of Greenport and lies adjacent to Greenport Harbor.

The project area lies in the approximate center of the commercial section of the Village of Greenport, which consists of mainly commercial/retail and residential properties. This district extends approximately one mile to the north and one half mile to

the west of the site. The eastern edge of the district is bounded by Stirling Basin which lies 1/3 of a mile to the east of the site.

The site is located on the waterfront area of the Village of Greenport. This makes up part of the downtown area of the Village which is comprised of shops, businesses, restaurants, etc. Additionally, there are several wharves in the vicinity, which are the locations of tourist attractions such as museums and ships. The population increases by approximately 50 percent during the summer season (e.g., Memorial Day through Labor Day). Additionally, there are a large number of tourists/daytimers present in the Village during this period. The 115 Front Street property is a public park opened to the public year round.

According to official census data, the population of the Village of Greenport was 2,070 in 1990. A Long Island Lighting, Co. (LILCO) population estimate in 1997 indicated 2,052 residents in the Village. As stated in the 1998 Long Island Almanac, a publication of the Long Island Business News, the Village boundaries encompass a 1.0 square mile area, indicating a population density of 2,052 persons per square mile in 1997. ~~The Town of Southold has a population of 1,350,747 according to a 1997 LILCO survey, and encompasses 27,474 acres~~. The population density of the Town of Southold is 381 persons per square mile, based upon the 1997 LILCO estimate.

A land use study of Long Island was compiled by the Long Island Regional Planning Board in 1981. The study tabulated land use by acreage and classification at both the town and village levels. The land utilization categories of the town of Southold can be summarized in order of classifications comprising the highest percentage to the lowest percentage of the total acreage. The greatest fraction of the total 27,474 acres in the Town was attributed to vacant land, which was tabulated at 11,013 acres, or 40.1 percent of the total land area. 25 percent of the total land was classified as being used for agricultural purposes. 10 percent of the total land was occupied by medium density residential properties (2 to 4 residences/acre or less). Recreational uses of town land accounted for 8.8 percent of the total land use. 4.5 percent of the total area was devoted

to institutional uses. 4.2 percent of the total area was attributed to use for transportation, utilities, and communications (this category includes expressways, highways, and parking areas). 4 percent of the total land was occupied by low density residential developments (1 residence/acre or less). Commercial land use of the town represented 2 percent of the total area within the town. Commercial use of land related to marine activities represented 0.9 percent of total land use. Industrial land use represented only 0.4 percent of the total land area at the time of the survey.

The Village of Greenport was independently analyzed and tabulated as part of this land use survey. According to Land Use-1981, a publication of the Long Island Regional Planning Board, The Village of Greenport is identified as encompassing 573 acres, or 2 percent of the area of the Town of Southold. The survey identifies the primary land use within the Village as being devoted to recreational uses. 46.4 percent of land use is classified as recreational. 18.5 percent of the Village of Greenport is occupied by medium density residential housing, the sole classification of residential housing within the village. Vacant land occupied 17.6 percent of the total land in the Village. General commercial uses of land within the village were identified as the fourth largest category by area and occupied 6.6 percent of the total land area. 4.7 percent of land use was devoted to transportation, utilities, and communications. Institutional uses of land within the village represented 3.0 percent of the total land area. Both marine based commercial uses and agricultural uses of the land area represented 1.7 percent of total land use.

In conducting a demographical study with respect to environmental impacts which the project area may have upon the neighboring land area, it is important not only to analyze the subject area with regard to municipality borders, which can tend to be vague and irregular, but to also consider land utilization in more geometric, consistent dimensions. The Village of Greenport consists of 573 acres, which is less than one-square mile (i.e., 640 acres) of area. Village borders are not symmetrical with respect to the project area. In order to assemble a comprehensive analysis of land utilization in the region of the project area, an area defined by more general physical boundaries was studied. In the 1981 survey conducted by the Long Island Planning Board, areas defined

by geometrical physical boundaries were surveyed in addition to municipality boundary lines. Specifically, 2¼ square mile adjacent quadrangles were defined and land utilization was tabulated for each of these areas. The pertinent quadrangle with respect to the project area is defined by a square 1½ mile on each side, which runs from Fanning point to Cleaves Point, corner to corner.

The total land area of the subject quadrangle is 1,037 acres. Land utilization categories are subdivided into eleven categories. According to tabulated data, the primary land use in the subject area is transportation, communications & utilities, compromising of 25 percent of the total land area. 22.4 percent of the area encompassed by the quadrangle is vacant land. 17.2 percent of the area is designated as recreational land and open space. 9.9 percent of the area is occupied by water and 8.2 percent is categorized as land used for agricultural purposes. Commercial land use comprises 7.7 percent of the total land area, and 5.8 percent is designated as land occupied by medium density residential dwellings. Marine related commercial activities occupy 2.8 percent of the area defined by the quadrangle, followed by 1.6 percent which is occupied by institutional facilities. The smallest percentage of the total area is occupied by low density residential dwellings, which comprises 0.3 percent of the area as defined by the above referenced quadrangle.

A comparison between the two sets of survey results reveals several differences between each method of approach. Both sets of data are valid, and both are important in considering impacts which the project area may have upon the neighboring land. Each of the two demographical analyses can be applied to an analysis of how contaminants released at the project area may affect nearby land utilization, based upon the migratory nature and physical characteristics of a released contaminant.

In order to preserve land which is considered to be well-suited for the production of food, the U.S. Department of Agriculture has defined areas in New York State as important farmlands. The identification of these tracts of land was performed in order to help decision makers plan for the wise use and protection of these lands. Criteria for

selection and classification of important farmland is based upon soil quality, growing season, and moisture content of the soils. Three classifications of farmland are identified in order of productivity; Prime Farmland, which is defined as an area best suited for high yield crop production, Unique Farmland, which is defined as land best suited for production of specific high-value food crops, and Additional Farmland of Statewide Importance, which identifies land which is important to agriculture in New York, yet does not meet prime farmland criteria. Detailed criteria of all three categories are listed in the Federal Register of January 31, 1978. A survey of applicable farmland with respect to these definitions was performed for New York State in October 1978 by the U.S. Department of Agriculture. The project area is in the proximity of lands which have officially been classified as one of each of the above listed categories. A small area of land classified as Prime Farmland is located approximately 0.7 miles to the northwest. A larger tract of land beyond the Prime Farmland is identified as Prime and Unique Farmland in vegetable crops, which lies approximately 0.78 miles to the northwest. Another large tract of land is identified as an Additional Farmland of Statewide Importance is identified approximately 0.78 miles to the east of the project area.

In addition to the general population, potentially significant sub-populations were also investigated. It was determined that there are two schools located within a 1 mile radius of the subject site. These schools are the Saint Agnes school and Union School (Greenport High School), located approximately 2,000 feet and 2,500 feet to the west, respectively. Both schools are located hydraulically perpendicular to the direction of groundwater flow at the subject site. The schools should not be adversely impacted by the subject site because all the schools are connected to the public water supply.

4.0 NATURE AND EXTENT OF CONTAMINATION

This section of the SI Report details the nature and extent of contamination found in surface soil samples, subsurface soil samples and groundwater. The initial Standard, Criteria and Guidance (SCGs) for soils and sediments analyzed as part of the SI were selected to be; 1) the TCLP alternative guidance values (AGVs) included in the NYSDEC STARS Memo #1 Petroleum-Contaminated Soil Guidance Policy Manual dated August 1992, and 2) the Recommended Soil Cleanup Objectives (RSCOs) presented in the NYSDEC Division Technical and Administrative Guidance Memo (TAGM) Determination of Soil Cleanup Objectives and Cleanup Levels, HWR-94-4046, January 24, 1994 (revised 4/95). The initial SCGs for groundwater are the Class GA Groundwater Quality Standards presented in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1): Ambient Water Quality and Guidance Values, March, 1998.

4.1 Surface Soil Samples

As discussed in Section 2.3, ten surface samples were collected and analyzed for STARS VOCs, STARS SVOCs and TAL metals. The sampling locations were selected by the NYSDEC and H2M based upon previously-identified AOCs and to provide good site-wide coverage (see Figure 4.1). The STARS VOC and STARS SVOC results are summarized in Table 4.1. The TAL metals analytical results are presented in Table 4.2.

MTBE, xylenes and/or n-propylbenzene (e.g., 1 to 4 micrograms per kilogram (ug/kg)) were detected at low concentrations, well below the SCGs. All other STARS VOCs were non-detectable.

STARS SVOCs were not detected in SS-3, SS-4, SS-5, SS-7 and SS-8. Chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene and benzo(g,h,i)perylene were detected in one or more of the remaining soil samples exceeding their respective AGV or RSCO. It should be noted that

all of the SVOCs present above SCGs were detected at concentrations below their respective NYSDEC contact-required detection limits (CRDLs).

Arsenic, copper, magnesium and zinc were the only metals detected above their RSCO, site background and/or Eastern United States background (EUS BG) in one or more of the surface soil samples collected from across the site (see Table 4.2 and Figure 4.1). Arsenic was the only metal consistently detected above its NYSDEC RSCO in the surface soil samples. It has been postulated that the elevated concentrations of arsenic are related to the top soil spread across the site from a "farm-field source".

4.2 Subsurface Soil Samples

The subsurface soil sampling program was designed to evaluate the presence and distribution of contaminants in the following AOCs at the site (see Figure 4.2):

- Boat-Bottom Scraping Area
- Dredge Spoils Area
- Water-Line Area
- Light Pole Area
- Texaco Alley Area
- South UST Area

4.2.1 Boat Bottom Scraping Area

Soil borings SB-1 and SB-2 were drilled and sampled to evaluate unsaturated soils in the Boat Bottom Scraping Area (see Figure 4.2). The 4.5 to 5.5 and 4 to 5 foot bgs samples from SB-1 and SB-2, respectively were analyzed for STARS VOCs, STARS SVOCs and TAL metals.

As indicated in the boring logs, the PID did not indicate the significant presence (e.g., greater than one part-per-million (ppm)) of total VOCs in any of the soil samples

collected from the two borings. A petroleum-like odor was noted at approximately 4 feet bgs in SB-2.

STARS VOCs were not detected above NYSDEC AGVs or RSCOs in either soil sample (see Table 4.3). Chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene and benzo(g,h,i)perylene were detected in both of the soil samples exceeding their respective AGV or RSCO. It should be noted that these SVOCs have very low AGV and RSCO thresholds and in most cases, the compounds were detected below their respective NYSDEC CRDL. Copper, mercury and/or zinc were detected above their respective NYSDEC guidance value in both soil samples (see Table 4.4). No other TAL metal was detected exceeding concentrations of concern.

4.2.2 Dredge Spoil Area

Soil boring SB-3 was drilled and sampled to evaluate the unsaturated soils in Dredge Spoil Area (see Figure 4.2). The 1.6 to 2.1 foot bgs soil sample was analyzed for STARS VOCs, STARS SVOCs and TAL metals.

As indicated in the boring log, the PID did not indicate the significant presence of total VOCs in any of the soil sample collected from the boring. Additionally, there was no visual or olfactory evidence indicting the presence of contamination.

STARS VOCs were not detected above NYSDEC AGVs or RSCOs in the soil sample (see Table 4.3). Chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene and benzo(g,h,i)perylene were detected at concentrations exceeding their respective AGV or RSCO. It should be noted that these SVOCs have very low AGV and RSCO thresholds and the compounds were detected below their respective NYSDEC CRDL. Mercury and zinc were the only TAL metals detected above their respective NYSDEC guidance value (see Table 4.4).

4.2.3 Water-Line Area

Soil borings SB-4, SB-5 and SB-18 were drilled and sampled to evaluate the unsaturated soils in the Water-Line Area. The SB-4 (1.8 to 2.8 feet bgs), SB-5 (3.0 to 5.0 feet bgs) and SB-18 (4.5 to 5.5 feet bgs) soil samples were analyzed for STARS VOCs and STARS SVOCs. The soil samples collected from SB-4 and SB-5 were also analyzed for TAL metals.

As indicated in the boring logs, the PID did not indicate the significant presence of total VOCs in the soil samples collected from SB-4. Up to 15 ppm total VOCs were detected in the soil samples collected from SB-5. There was no visual or olfactory evidence of contamination in the soil samples collected from any of the three borings.

Only very low concentrations (e.g., 3 ug/kg xylenes or less) of STARS VOCs were detected in the soil samples collected from SB-4 and SB-18. STARS VOCs ranging in concentrations from 3 ug/kg toluene to 71 ug/kg n-butlybenzene were detected in the soil sample collected from SB-5 (see Table 4.3). None of the STARS VOCs detected were present at concentrations above their respective NYSDEC AGV or RSCO. Chrysene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene and benzo(g,h,i)perylene were detected in all three soil samples exceeding their respective AGV or RSCO. It should be noted that these SVOCs have very low AGV and RSCO thresholds. Pyrene and benzo(a)anthracene were also detected above their respective NYSDEC AGV in the soil sample collected from SB-4. Other STARS SVOCs were detected in the three soil samples; however, none were detected above their respective NYSDEC guidance values. Copper, lead, mercury and zinc were detected above their respective NYSDEC guidance value in both soil samples (see Table 4.4).

4.2.4 Light Pole Area

SB-6 was drilled and sampled to characterize the unsaturated-zone soils in the Light Pole Area (see Figure 4.2). The 0.0 to 1.5 foot bgs soil sample was analyzed for STARS VOCs, STARS SVOCs and TAL metals. There was no visual or olfactory indications of contamination and the PID did not detect the presence of total VOC.

Benzene, MTBE and toluene were detected at concentration well below NYSDEC guidance values (e.g., the highest detected concentration was 5 ug/kg MTBE). All other STARS VOCs were non-detectable. Several STARS SVOCs were detected ranging in concentration from fluorene at 71 ug/kg to pyrene at 2,900 ug/l in the near-surface soil sample. Several of the SVOCs were detected at concentrations exceeding their respective AGVs and RSCOs. Copper, magnesium, mercury and zinc were the only TAL metals detected above their respective NYSDEC guidance values.

4.2.5 Texaco Alley Area

SB-7, SB-8 and SB-9 were drilled and sampled to evaluate the subsurface soils in the vicinity of the three 4,000-gallon USTs present in the Texaco Alley Area (see Figure 4.2). The NYSDEC requested that two additional borings (SB-19 and SB-20) be drilled and sampled in order to evaluate the lateral extent of petroleum contamination observed during the removal of the three USTs.

Soil samples SB-7 (5.3 to 6.6 feet bgs), SB-8 (5.0 to 5.7 feet bgs) and SB-9 (4.0 to 4.7 feet bgs) were analyzed for STARS VOCs, STARS SVOCs and TAL metals. The soil samples from SB-19 and SB-20 were collected from the "smear zone" (3 to 5 feet bgs) and analyzed for STARS VOCs, STARS SVOCs and TCLP STARS SVOCs.

As indicated in the boring logs, there was strong visual and olfactory evidence of petroleum-related contamination in the soil samples collected from SB-7, which was

located just south of the UST excavation area. Additionally, the PID detected up to 250 ppm total VOCs from the soil samples. There was no visual or olfactory indications in the soil samples collected from the remaining four borings. The PID was not utilized during the advancement of these boring due to rainy conditions.

STARS VOCs were detected above their respective NYSDEC AGVs and RSCOs in the soil samples collected from SB-7 and SB-8 (see Table 4.3). The highest concentrations were detected in the soil sample collected from SB-7 which was located nearest to the UST excavation. STARS SVOCs were also detected above their applicable NYSDEC guidance values in both soil samples. Again, the SVOC concentration were higher in the soil sample collected from SB-7 indicating the petroleum-related contamination is attenuating with distance from the UST excavation. Copper, lead, mercury and/or zinc were detected in each of the soil samples exceeding their applicable NYSDEC guidance value.

The analytical results from SB-19 and SB-20 are summarized in Table 4.5. STARS VOCs, at concentrations below their respective AGVs and RSCOs were detected in both soil samples. Several STARS SVOCs were detected above their respective NYSDEC guidance values; however, most of the SVOCs were present below their respective NYSDEC CRDL. STARS SVOCs were not detected in the TCLP extract from either soil boring.

4.2.6 South UST Area

Soil borings SB-10 through SB-17 were drilled and sampled to evaluate subsurface conditions in the vicinity of the (5) 4,000-gallon USTs which were present in the South UST area (see Figure 4.2). As indicated in the boring logs, there was evidence of petroleum-related contamination in the soil samples collected from SB-12, SB-13, SB-14 and SB-15. The following soil samples were analyzed for STARS VOCs and STARS SVOCs: SB-10 (0.5 to 1.0 feet bgs), SB-11 (4.5 to 5.3 feet bgs), SB-12 (5.5 to 6.0 feet bgs) SB-13 (10.8 to 6.8 feet bgs), SB-14 (4.0 to 5.0 feet bgs), SB-15 (5.0 to 6.0 feet bgs),

SB-16 (1.2 to 2.4 feet bgs) and SB-17 (4.0 to 4.5 feet bgs). Additionally, the SB-10 (0.5 to 1.0 feet bgs) soil sample was analyzed for TAL metals.

With the exception of the SB-15 (5.0 to 6.0 feet bgs) soil sample, VOCs at concentrations ranging from 1 ug/kg toluene to 26 ug/kg 1,2,4-trimethylbenzene were detected in all of the soil samples. However, all of the VOCs detected were present a concentrations well below their respective AGVs and RSCOs. Several STARS SVOCs were detected above their respective NYSDEC guidance values; however, most of the SVOCs were present below their respective NYSDEC CRDL. Arsenic, mercury and zinc were detected in the SB-10 (0.5 to 1.0 feet bgs) soil sample exceeding their applicable NYSDEC guidance value.

4.3 Groundwater Samples

The groundwater sampling program was designed to evaluate the presence and distribution of contaminants in groundwater at the North UST, South UST and Texaco Alley areas of the site (see Figure 4.4). Tables 4.6 and 4.7 present the results of the laboratory analyses performed on the groundwater samples collected.

4.3.1 North UST Area

Wells MW-1, MW-2 and MW-3 were installed to a depth 12-feet bgs to evaluate the groundwater quality where a 1,000-gallon UST was removed in December of 1998. MW-1 was installed within the UST excavation. As indicated in Figures 4.3, MW-2 was located downgradinet and MW-3 was located crossgradient of the former UST.

Monitoring wells MW-1 and MW-2 contained several STARS VOCs above NYSDEC Groundwater Quality Standards. As indicated in Table 4.6, the contaminants found above applicable standards ranged from a low of 5 ug/l for benzene in MW-2, above the NYSDEC standard of 1 ug/l, to a high of 210 ug/l for 1,2,4-trimethylbenzene (NYSDEC standard of 5 ug/l). Other contaminants found above applicable standards

included ethylbenzene, xylenes, isopropylbenzene, 1,3,5-trimethylbenzene, *n*-butylbenzene, and *sec*-butylbenzene. The analytical results of the groundwater sample collected from monitoring well MW-3 reported all BOCs to be either non-detectable or present at concentrations below the SCGs.

With the exception of napthalene found in groundwater from MW-2, all three groundwater samples (MW-1, MW-2 and MW-3) reported no detectable concentration levels of SVOCs. Napthalene was observed in the groundwater sample from MW-2 was 64 ug/l. There is no available NYSDEC Class GA standard for this analyte.

Concentrations of TAL metals exceeding applicable standards were reported in all three monitoring wells. Iron concentration levels ranging from 1,730 to 17,200 mg/l were reported in all three samples, well above the NYSDEC Class GA groundwater standard of 300 mg/l. The concentrations of manganese were reported in all three samples, ranging from a low of 303 mg/l in the groundwater sample collected from MW-2 to a high of 2,140 mg/l in MW-3. The NYSDEC Class GA groundwater standard for manganese is 300 mg/l. Sodium concentrations were reported above the applicable groundwater standard of 20,000 mg/l in all three groundwater samples. Concentrations of 31,200, 26,500 and 42,900 mg/l were reported for samples from MW-1, MW-2 and MW-3 respectively. The high concentration levels of sodium are likely due to the location of the study area adjacent to a salt water surface body. In addition, the groundwater sample collected from MW-3 contained lead (226 mg/l) and mercury (0.97 mg/l) above the respective Water Quality Standards of 25 mg/l and 0.7 mg/l.

4.3.2 South UST Area

Wells MW-4, MW-5 and MW-6 were installed to a depth 12-feet bgs to evaluate the groundwater quality where five 4,000-gallon USTs were located. MW-4 was installed within the UST excavation. As indicated in Figures 4.3, MW-5 was located downgradient and MW-6 was located crossgradient of the former USTs.

Groundwater samples from all three monitoring wells contained several STARS VOCs above NYSDEC groundwater standards. The groundwater sample from monitoring well MW-4 contained the most (eight) analyets detected above applicable standards, and the highest concentration levels of the three samples. Analytical results reported benzene at a concentration of 50 ug/l, well above the NYSDEC Class GA Water Quality Standard of 1 ug/l. Ethylbenzene (740 ug/l), toluene (250 ug/l), xylenes (2,800 ug/l), isopropylbenzene (65 ug/l), 1,2,4-trimethylbenzene (1,200 ug/l), 1,3,5-trimethylbenzene (180 ug/l), and n-butylbenzene (190 ug/l) were reported above their NYSDEC Groundwater standard of 5 ug/l. Monitoring well MW-5 grounwater sample analysis reported concentrations of benzene at 2 ug/l (above the Class GA standard of 1 ug/l), xylenes at 10 ug/l (Class GA standard of 5 ug/l), and n-butylbenzene at 6 ug/l (only slightly above the groundwater standard of 5 ug/l). The sample collected from MW-6 also contained several VOCs above applicable standards. Benzene was reported at 94 ug/l, well above the NYSDEC Class GA standard of 1 ug/l. Ethylbenzene, xylenes, p-isopropyltoluene, and 1,2,4-trimethylbenzene were reported at concentration levels of 74, 70, 22 and 46 ug/l respectively. These concentration levels are above their NYSDEC Water Quality Standard of 5 ug/l.

With the exception of napthalene, reported at a concentration of 90 ug/l in the groundwater sample from monitoring well MW-4, SVOCs were non-detectable in all three wells. There is no NYSDEC Class GA Water Quality Standards for napthalene.

The TAL metals analytical results reported several concentrations above the NYSDEC Class GA Water Quality Standards. Common to all three groundwater samples was iron, reported at 5,980, 6,210 and 8,760 mg/l in MW-4, MW-5 and MW-6 respectively. These concentration levels are well above the applicable standard of 300 mg/l. Mercury was also reported in all three samples exceeding the Class GA standard of 0.7 mg/l. Concentrations of mercury were reported at 1.4 mg/l in the groundwater sample from MW-4, 1.1 mg/l in MW-5 and 1.2 mg/l in MW-6. Lead was reported at concentrations above the NYSDEC Class GA standard of 25 mg/l in MW-4 (279 mg/l) and MW-5 (193 mg/l). The groundwater sample from MW-4 contained manganese at a

concentration of level of 506 mg/l, and in MW-6 at 440 mg/l, slightly above the applicable standard of 300 mg/l. Sodium concentration levels exceeding applicable standard of 20,000 mg/l were reported in MW-5 (73,500 mg/l) and MW-6 (59,000 mg/l).

4.3.3 Texaco Alley Area

Four monitoring wells, MW-7, MW-8, MW-9 and MW-10, were installed to a depth 12-feet bgs to evaluate the groundwater quality in the area where three 4,000-gallon USTs were excavated and above-grade petroleum storage tanks were once present. MW-7 was installed within the UST excavation. As indicated in Figures 4.3, MW-8 was located downgradinet and to the southwest of the tank excavation. MW-9 was located southeast of the tank excavation and MW-10 was located directly south of the former USTs.

All four monitoring wells contained several VOCs above NYSDEC Water Quality Standards. The groundwater sample from monitoring well MW-8 contained the greatest number of contaminants reported, and the highest concentrations of the four monitoring wells in this area of concern. Benzene was reported at a concentration of 8 ug/l, above the Class GA standard of 1 ug/l. The highest concentration of 1,200 ug/l for xylenes is well above the applicable standard of 5 ug/l. Monitoring well MW-10 reported the least number of VOCs above applicable standards, and the lowest contaminant concentrations of the four groundwater samples from this area of concern. Benzene was reported at 4 ug/l, above the applicable standard of 1 ug/l. Ethylbenzene (11 ug/l), xylenes (51 ug/l), and 1,2,4-trimethylebenzene (25 ug/l) were reported above the standard of 5 ug/l.

With the exception of napthalene, reported at a concentration of 57 ug/l in the groundwater sample from monitoring well MW-8, SVOCs were non-detectable in all four monitoring wells. There is no NYSDEC Class GA groundwater quality standard for napthalene.

Three TAL metals were detected above the NYSDEC Class GA groundwater qualtiy standards in all four monitoring well samples. Iron and manganese, both with an applicable standard of 300 mg/l, were reported in all four wells. Iron concentrations of 3,530 mg/l, 8,380 mg/l, 6,840 mg/l and 4,490 mg/l were reported in samples from MW-7, MW-8, MW-9, and MW-10 respectively. Manganese concentrations of 1,220 mg/l, 3,600 mg/l, 1,020 mg/l and 580 mg/l were reported in samples from MW-7, MW-8, MW-9, and MW-10 respectively. Relatively high concentrations of sodium were reported exceeding the NYSDEC Class GA Water Quality Standard of 20,000 mg/l in all four samples.

5.0 Quality Assurance / Quality Control

This section of the Site Investigation report describes the various procedures used in the field investigation and in evaluating the analytical data to ensure that the data collected were of the highest quality possible. Quality assurance/quality control (QA/QC) procedures, data validation results, and data usability are discussed in Sections 5.1, 5.2 and 5.3 respectively.

5.1 QA/QC Procedures

All surface soil, subsurface soil and groundwater and QA/QC samples collected during the SI were analyzed at Mitkem Corporation, located in Warwick, Rhode Island. Mitkem Corporation is a NYSDOH-ELAP-CLP certified laboratory, proficient in all aspects of the 1991 Analytical Services Protocol including the ability to perform continuous liquid-liquid extraction. Field and QA/QC samples were analyzed for STARS VOCs, STARS SVOCs, and/or TAL metals, as shown in Table 5.1 and 5.2.

The overall QA/QC plan objective is to produce data of the highest quality. In order to ensure that data collected in the field is consistent and accurate, standard preprinted forms were utilized for repetitive data collection. In addition, QA/QC samples (field blanks, trip blanks, and blind duplicate samples) were collected during various sampling activities. The purpose of the QA/QC samples is to insure that the analytical data are precise, accurate, representative, complete, and comparable. Table 3.1 presents a summary of the analyses to be performed per task as well as what QA/QC samples that were utilized.

5.1.1 Field QA/QC

Field QA/QC procedures included the use of specially developed forms and logs for the collection of repetitive data such as well development and groundwater sampling. Additionally, all other site-specific observations were recorded in project-specific log

books. Specific information recorded in the log books and field forms were those required in the Work Plan. Additionally, all QA/QC procedures stipulated in the Work Plan such as Chain-of-Custody procedures, field measurement requirements, etc., were followed.

5.1.2 Field Blanks and Duplicates

In order to meet project specific Data Quality Objectives (DQOs), various types of QA/QC blank and duplicated samples were collected and analyzed. These QA/QC samples include trip blanks, field blanks and blind duplicate samples.

Trip Blanks

Trip blanks were obtained from the Mitkem analytical laboratory containing analyte-free water and were transported to the site and returned to the laboratory without being opened. Trip blanks serve as a check for contamination originating from sample transport, shipping, and from site conditions.

One trip blank for each day of VOC sample collection was utilized during site investigation sampling activities. A total of three trip blanks were taken for soil sampling on December 8th and 9th, and March 2nd. As indicated in Table 5.2, STARS VOCs were not detected in any of the three trip blanks. Therefore, these soil sample results were not impacted by sample transport and shipping.

One trip blank was utilized and analyzed for STARS VOCs during the monitoring well sampling event. Only one trip blank was necessary for this phase since the well sampling event was completed in one day (March 23rd, 1999). As indicated on Table 4.6, the analytical results show that there was no impact to the samples during transport or shipping.

Field Blanks

Field (equipment) blanks were used to determine the effectiveness of the decontamination of the sampling devices (i.e., bailers, split-spoon samplers, sample

sleeves, etc.) during all sample collection phases of the investigation. Field blanks were collected by pouring analyte free water through the sampling devices into the appropriate sample containers. Field blank samples were collected and analyzed for STARS VOCs, STARS SVOCs, and TAL metals. One field blank was collected for each sampling event.

A field blank was utilized during the soil boring/sampling phase of the project. Decontaminated split-spoon soil samplers were utilized to collect these samples. As indicated in Tables 5.1 and 5.2, no site-related STARS VOCs, STARS SVOCs, or TAL metals were detected in the field blank; therefore, the field decontamination procedures were effective and there are no concerns with regards to cross contamination impacting the analytical results of these samples.

A field blank was utilized during the surface soil sampling phase of the project. A decontaminated sampling spade and stainless steel sampling bowl were used to collect this sample. As indicated in Tables 5.1 and 5.2, no VOCs, SVOCs or TAL metals were detected in the field blanks; therefore, the factory and field decontamination procedures were effective and there are no concerns with regards to cross contamination impacting the analytical results of these samples.

During the monitoring well sampling phase of this project, a field blank was collected for the groundwater sampling equipment. The sample was collected in the work zone by running the laboratory provided water through the sampling equipment (i.e., baller) and into the glassware. The laboratory's analytical results for this sample indicated that no VOCs, SVOCs or TAL metals were present in the field sampling equipment (Tables 5.1 and 5.2).

Blind Duplicates

Blind duplicate samples were utilized as an additional QA/QC measure throughout the site investigation. Each of the duplicated samples was assigned fictitious names in the field; therefore, the analytical laboratory was unaware of the duplicates making them

true blind samples. A comparison of analytical results between the sample and blind duplicate are used to determine if the data reported by the laboratory are precise, accurate, representative, and comparable.

A blind duplicate soil sample was utilized during the subsurface soil sampling phase of the site investigation. As indicated in Tables 4.3, 4.4, 5.1 and 5.2, the correlation between compound concentrations in the field sample SB-16 and corresponding blind duplicate sample SB-AA was acceptable, indicating the analytical results are precise, accurate, representative, and comparable.

A blind duplicate of the surface sediment sample was collected from the previously defined source area (Samples SS-2). As indicated in Tables 4.3, 4.4, 5.1 and 5.2, the correlation between compound concentrations in the field sample and corresponding blind duplicate sample SS-BB was acceptable, indicating the analytical results are precise, accurate, representative, and comparable.

A blind duplicate was collected during the monitoring well sampling phase of this project. Again its purpose was to ensure that proper laboratory protocols and analyses were followed. The blind duplicate was collected on MW-3 and identified as MW-11. As indicated in Tables 4.6 and 4.7, the compound concentrations correlate showing that the results are accurate and representative.

5.2 Data Validation

In accordance with the Work Plan, all of the CLP analytical packages and results generated by NYSDEC approved analytical laboratory underwent data validation by H2M Labs. Methodologies utilized were those of the 1995 NYSDEC ASP. The summary reports for the data groups are included in Appendix E.

As per NYSDEC CLP procedures, the concentrations and data qualifiers shown on the summary analytical tables in Section 4.0 have been edited to reflect the recommendations made during the validation process. Therefore the analytical results

presented in the data summary tables report validated data which are applicable for use in health-based risk assessments.

Data validation was performed following the most current federal and state guidelines. The following items were reviewed:

- Data Completeness
- Custody Documentation
- Holding Times
- Surrogate and Internal Standard Recoveries
- Matrix Spike Recoveries/Duplicate Correlations
- Field Duplicate Correlations
- Preparation/Calibration Spikes
- Control Spike/Laboratory Control Samples
- Instrument Tunes
- Calibration Standards
- Instrument IDLs
- Method Compliance
- Sample Result Verification

The analytical data packages supplied by the analytical laboratory were not NYSDEC ASP 10/95 category B data packages, but standard laboratory data packages. However, enough information was provided in the data packages to substantiate the concentration levels of the analytes reported. Specific discrepancies in reporting, laboratory analyses and handling procedures are discussed in the data validation reports (see Appendix E).

In general, the analytical data reported by the NYSDEC-approved laboratory was of sufficient quality to support the DQOs of the SI.

5.3 Data Usability

As part of the Site Investigation process, usable data, by definition, is that data which may be used as part of the health-based risk assessment. However, in accordance with the requirements of the NYSDEC, a less stringent qualitative human exposure assessment was conducted in place of a health-based risk assessment. Therefore, the DQOs for this project are somewhat less stringent than those required for support of a quantitative health-based risk assessment.

The results of the QA/QC evaluation indicate that the surface soil, subsurface soil and groundwater data reported by the NYSDEC-approved laboratory were precise, accurate, representative, and comparable. Therefore, the data are considered usable and support the conclusions drawn in Section 4.0 (Nature and Extent of Contamination), Section 7.0 (Human Exposure Assessment).

6.0 CONTAMINANT FATE AND TRANSPORT

The purpose of this section is to provide a discussion of the fate and transport mechanisms for the migration of various contaminants present on the subject site in air, unsaturated soil and groundwater.

6.1 Potential Routes of Migration

Based upon the results of analytical testing summarized in Section 4.0, several contaminants were detected in on-site surface soils, subsurface soils, and groundwater at levels exceeding NYSDEC concentrations of concern. 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 throughout the site. Therefore, the potential routes of migration include:

- Migration of SVOCs associated with petroleum hydrocarbons from surface and subsurface soils to the air in the form of vapors.
- Migration of VOCs and SVOCs associated with petroleum hydrocarbons from unsaturated zone soils to groundwater.
- Migration of dissolved VOCs and SVOCs in groundwater.

Migration of SVOCs in Air

As discussed in Section 4.0, SVOCs were detected in the surface and subsurface soil samples collected from on the site. The tendency for a compound to volatilize from a liquid state into the atmosphere is a function of its vapor pressure. The vapor pressures SVOCs are lower than those of other more common halogenated hydrocarbons. In addition, the field sampling program included the use of a photoionizaiton detector (PID) during sampling. The PID readings obtaining during the subsurface sampling program did not indicate significant

volatilized VOC readings at most of the subsurface sampling points. This indicates that petroleum contamination detected in the soils is relatively non-volatile and only low amounts will change phase from a liquid to a vapor state at standard temperature and pressure.

The vapor density of a compound is a function of its molecular weight compared to that of air. The vapor density of halogenated hydrocarbons are heavier than air; therefore, if present at significant concentrations in the atmosphere, associated vapors will tend to concentrate in low areas such a excavations, basements, etc.

Migration of Petroleum Hydrocarbons in Unsaturated Soils

With its relatively low vapor pressure, SVOCs will tend to remain in a liquid phase versus changing to a vapor phase. In the unsaturated zone, free-phase liquid SVOCs will tend to migrate downwards due to the influence of gravity and leaching of rain water. Some of the liquid will adsorb onto the soil particles due to capillary forces. The amount of free-phase liquids that will adsorb onto the soil particles will be a function of the soil's grain size and carbon content. The tendency for a chemical to partition between particles containing organic carbon (e.g., soil retardation) and water is known as the soil partition coefficient (K_{oc}). The soil partition coefficient varies widely for each specific contaminant of concern associated with petroleum. For example, one of the contaminants found in subsurface soil samples, ethylbenzene, has a K_{oc} of 1,100 (NYSDEC TAGM 4046). This relatively high value indicates that ethylbenzene will absorb readily with organic carbon in soil. On the other hand, benzene has a K_{oc} of 83 (NYSDEC TAGM 4046). This relatively low value indicates that benzene will not be strongly adsorbed by organic carbon in soil. According to the American Petroleum Institute, *A Guide to the Assessment of Remediation of Underground Petroleum Releases*, residual liquid hydrocarbon concentrations in the unsaturated zone may be as high as 39,000 mg/kg in fine sands. This figure is well above the highest contaminant concentrations reported for subsurface soil samples collected at the site.

Approximately 20 inches per year of precipitation infiltrates into the ground in this portion of Long Island. As this water flows downward through the unsaturated zone in response to gravity, it will dissolve a portion of any petroleum contaminant that is present in the soil which will result in a downward contaminant migration pathway through the unsaturated zone, eventually reaching groundwater. The general migration of liquids (water or free-phase product) will be predominantly downward with relatively modest dispersion in the sands and gravels. Liquids may encounter low-permeability zones, which could result in non-vertical migration.

Migration of VOCs and SVOCs in Groundwater

Dissolved phase hydrocarbons result from contact between subsurface water and liquid phase hydrocarbons. The transport of hydrocarbons in groundwater is based on the USGS standard hydraulic conductivity (K) of 270 feet per day for the Upper Glacial aquifer, a maximum un-retarded groundwater flow velocity of 1.8 feet per day was calculated for the site (see Table 6.1 for backup calculations). As indicated on Table 6.1, the maximum distance that groundwater is expected to travel over a 10-year period is 6,570 feet. Halogenated VOCs would tend to migrate at a slower rate through groundwater due to the physical/chemical properties of the contaminants and the aquifer system including factors such as retardation due to carbon in the soils, natural attenuation due to biodegradation (aerobic biodegradation) and chemical degradation, and dilution due to dispersion and diffusion. In addition, the local hydraulic disruptions in the area, such as the local bulkheading, utilities, and subsurface structures buried during filling operations, are likely to provide disruption in the groundwater flow velocities and direction.

7.0 HUMAN EXPOSURE ASSESSMENT

The purpose of this exposure assessment is to qualitatively evaluate the chemicals of concern and the affected media with respect to potential exposure pathways and receptors for human health. For the Mitchell Park site, the following pathways were evaluated:

- Ingestion of contaminated soil.
- Inhalation of vapors and/or dust.
- Direct contact with potentially contaminated surface runoff.
- Ingestion of contaminated groundwater.
- Dermal contact to contaminated soils
- Dermal contact to contaminated groundwater.

Potential human receptors in the vicinity of the site include:

- Workers on the site.
- Trespassers who transit the site.
- Residents who live in the area.
- Remedial construction workers who will install potential on- and off-site remedial systems.

Since the area is highly developed, there is little wildlife in the area that could be impacted by chemical contamination related to the subject site. Marine life living in the waters adjacent to the site are not likely to be impacted due to the relatively low concentration levels found in on-site groundwater, in comparison to contaminant levels from bulkheading materials, and marine commercial and recreational uses.

The following conservative worst-case scenario assumptions were made in the qualitative exposure pathway analyses:

- Contaminated soil is in contact with groundwater and dissolved contaminants in the soils may be released to groundwater.
- Contaminated unsaturated soils may release fugitive dust during excavation activities into the atmosphere.
- Individuals who work or trespass on the property may come in contact with potentially contaminated on-site surface and unsaturated-zone soils.
- Remedial efforts may expose potentially contaminated soils and groundwater on and off of the property.

7.1 Exposure and Pathway Overview for the Site

To evaluate potential exposures to the site in a qualitative fashion, various exposure scenarios were classified in terms of the general release mechanisms including:

1. Infiltration from soil moisture to groundwater.
2. Volatilization.
3. Erosion producing dust during remedial measures.
4. Direct contact to soil and potentially contaminated groundwater.
5. Water runoff.

Direct exposures to the chemicals of concern from the above-referenced mechanisms could potentially occur in the following ways:

1. Ingestion of contaminated soil.
2. Inhalation of vapors.
3. Inhalation of potentially contaminated dust during remedial measures.
4. Direct contact with potentially contaminated runoff water.
5. Ingestion of contaminated groundwater.

6. Dermal adsorption of contaminants via direct contact with contaminated soils and groundwater.

Potential exposure pathways are examined for functionality and completeness as follows:

- Functional Exposure Pathways – A functional pathway requires that a contaminant source, release mechanism and transport mechanism be present. If any of these three components is absent, the pathway is considered nonfunctional. The functional pathways for this site are included in Table 7.1.
- Complete Pathway – A complete pathway requires a functional exposure pathway, potential receptors to the exposure and an exposure/uptake route. An exposure is considered incomplete and the risks qualitatively low if one or more of these components is missing.

7.1.1 Functional Exposure Pathways

The five functional exposure pathway components and their status with respect to the subject site are discussed below:

Ingestion of Contaminated Soil

Based upon the review of the soil analytical data presented in Section 4.0, significant concentrations of petroleum hydrocarbons were detected above the SCGs in the on-site unsaturated-zone soils resulting in a contaminant source. Additionally, arsenic was detected in on-site surface soils. Impacted soils could be brought to the surface of the site during excavation activities where they could be potentially ingested. Therefore, as indicated on Table 7.1, this functional exposure pathway is completable.

Inhalation of Vapors

Based upon the review of the soil analytical data presented in Section 4.0, petroleum hydrocarbons were detected above concentrations of concern in the on-site unsaturated zone soils

(e.g., 0 to 7 feet) indicating that there are sources of VOC-type contaminants that could be released in the form of vapors. There is a contaminant source, release mechanism (i.e., volatilization of VOCs from impacted soils) and a potential transport mechanism (i.e., airborne VOC vapors present on the site). Therefore, the potential for human inhalation of vapors from on-site contaminated soils is considered possible and this functional exposure pathway is completable.

Inhalation of Dust During Remedial Measures

As discussed in previous subsections, hydrocarbons and arsenic was detected in on-site soil samples above NYSDEC concentrations of concern. Therefore, this functional exposure pathway is considered completable due to a contaminant source; a release mechanism (VOCs and arsenic present in the near-surface soil samples) and a transport mechanism (VOCs and arsenic released during potential near-surface excavation remediation activities).

Direct Contact with Potentially Contaminated Runoff Water

The site is in generally unpaved and stormwater usually does not pond, rather it infiltrates into the subsurface. Therefore, the potential for human exposure to potentially contaminated site runoff is considered low and this functional exposure pathway lacks a contaminant source.

Ingestion of Contaminated Groundwater

Based upon a review of NYSDEC records there are several public water supply wells owned and operated by the Suffolk County Water Authority (SCWA) located north, northeast and northwest of the site. Figure 7.1 illustrates the location of these well fields. The nearest SCWA well field, S001673 is located approximately 9,000 feet northwest of the subject site. SCWA well field S076772, is located approximately 11,000 feet northeast of the subject site. All of the SCWA wells identified are located upgradient of the subject site. Therefore, the SCWA wells are not likely to be impacted by contamination located on the subject site. Two other wells located near the subject site were identified through NYSDEC records. However, there is no further information regarding these wells. The two wells, identified as 7642303 and 81293, are located approximately 900 and 1,200 feet, respectively, east-northeast of the subject

site. Thus, both of these wells are located upgradient, and are not likely to be impacted due to contamination of the subject site. While this functional exposure pathway contains a contaminant source (contaminated on-site saturated soils), a release mechanism (groundwater moving through and dissolving the VOCs in the source area) and a transport mechanism (hydrogeologic flow of on-site contaminated groundwater), the impact to groundwater is limited both horizontally and vertically. Therefore, the ingestion of contaminated groundwater exposure pathway is considered not completable.

Dermal Adsorption of Contaminants Via Direct Contact with Contaminated Soil

As discussed in previous subsections, petroleum hydrocarbons and arsenic were detected in on-site soil samples above NYSDEC concentrations of concern. Therefore, this functional exposure pathway is considered completable due to a contaminant source; a release mechanism (VOCs and arsenic present in the near-surface soil samples) and a transport mechanism (contaminants released during potential near-surface excavation activities).

Dermal Adsorption of Contaminants Via Direct Contact with Contaminated Groundwater

As discussed in previous subsections, petroleum hydrocarbons were detected in groundwater samples above NYSDEC concentrations of concern. Additionally, no downgradient drinking water wells were identified. The on-site groundwater flow to the south southwest, towards Greenport Harbor, would likely preclude on-site contamination from impacting any groundwater off-site. Therefore, this functional exposure pathway is not considered completable.

7.1.2 Complete Pathway

As discussed previously, a complete pathway requires a functional exposure pathway, potential receptors to the exposure and an exposure/uptake route. As indicated in Section 7.1.1 and Table 7.1, there are four completable functional exposure pathways with respect to human health which will be evaluated in this section including:

- Ingestion of contaminated soil.

- Inhalation of vapors or dust during remedial activities.
- Dermal adsorption of contaminants via direct contact with contaminated soil.
- Dermal adsorption of contaminants via direct contact with contaminated groundwater.

This section of the human exposure assessment details potential receptors and exposure/uptake routes.

Workers on the Site

The potential for workers on the site to be exposed to site-related contaminants includes:

- Ingestion of on-site contaminated soils - This pathway is potentially completable for on-site workers due to the presence of impacted unsaturated-zone soils at the site. There are currently no indications of contaminated off-site soils; therefore, off-site workers can not be exposed.
- Inhalation of vapors - On-site workers may be exposed to VOC vapors emanating from impacted soil piles during future excavation activities.
- Dermal adsorption of contaminants via direct contact with contaminated soil - Workers may be exposed to contaminated unsaturated soils during on-site excavation activities.
- Dermal adsorption of contaminants via direct contact with contaminated groundwater - There are no on-site water wells; therefore, there is little potential for on-site worker exposure to contaminated groundwater.

Trespassers Who Transit the Site

Site security consists of wire mesh fencing with gates that are locked when no on-site activity is underway. This fencing, however, maybe scaled by individuals. Additionally, there is evidence that trespassers occasionally transit the site and could potentially be at risk due to the presence of on-site contaminants. The potential for trespassers to be exposed to site-related contaminants includes:

- Ingestion of on-site contaminated soils - This pathway is potentially completable due to the presence of impacted unsaturated-zone soils at the site.
- Inhalation of vapors and potentially contaminated dust - Trespassers may be exposed to VOC vapors emanating from impacted soil piles during future excavation activities.
- Dermal adsorption of contaminants via direct contact with contaminated soil - Trespassers may be exposed to contaminated unsaturated soils if soil stockpiles generated during on-site excavation activities are left uncovered.
- Dermal adsorption of contaminants via direct contact with contaminated groundwater - There are no on-site water wells; therefore, there is little potential for on-site worker exposure to contaminated groundwater.

Residents Who Live in the Area

The potential for residents who live in the area of the site to be exposed to site-related contaminants by potentially completable functional pathways includes:

- Ingestion of contaminated soil by residents - There are no indications of off-site contaminated unsaturated soils.
- Inhalation of vapors for residents – There are no indications of off-site contaminated unsaturated soils.
- Inhalation of potentially contaminated dust during remedial activities for residents – Fugitive airborne dust from near-surface soils from the site would only be likely during remediation activities that entail subsurface excavation activities. Such activities incorporate mitigation measures that reduce or eliminate fugitive dust. In addition, during any such activity a community monitoring program would be initiated that would greatly reduce the likelihood of dust exposure to residence.
- Dermal adsorption of contaminants via direct contact with contaminated soil – Residents are not likely to be in direct contact with impacted soil from the site.

- Dermal adsorption of contaminants via direct contact with contaminated groundwater – Residents are not likely to be in direct contact with impacted groundwater from the subject site.

Remedial Construction Workers

Remedial construction workers could potentially be exposed for short periods of time to contaminants of concern during the installation, testing and operation of any remediation system the NYSDEC deems warranted. However, as all of the workers will be: working under a NYSDEC-approved Health and Safety Plan; knowledgeable of site conditions; and utilize appropriate personal protective equipment, the exposure/uptake route is considered incomplete. Therefore, the qualitative risk is considered low.

7.2 Toxicity Assessment

The primary contaminants of concern at the subject site include petroleum hydrocarbons in the subsurface soils and groundwater, and arsenic reported in the surface soils. Some constituents of petroleum based fuels reported in significant concentrations at the subject site include benzene, ethylbenzene, xylenes, isopropylbenzene, *n*-propylbenzene, *p*-isopropyltolunene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, *n*-butylbenzene, *sec*-butylbenzene, napthalene, acenaphthene, fluorene, phenanthrene, anthracene, and fluoranthene.

Of these petroleum compounds benzene, ethylbenzene, and xylenes prove to be the most toxic. Exposure to these compounds can be persistent over a long period of time (chronic effects). As discussed above, these compounds enter the body through ingestion, inhalation, or through dermal contact. Benzene is a known carcinogen, and is suspected to be linked to leukemia, and other cancers. Exposure to petroleum hydrocarbons can include eye irritation, irritation to the nose and throat, dizziness, headache and nausea.

In its inorganic form, arsenic is an silver-gray or white solid, often very brittle and odorless. Arsenic is an ubiquitous metal. Acute symptoms of overexposure include irritation of

the gastro-intestinal tract, nausea, vomiting, and diarrhea that may cause shock and death. Chronic overexposure can cause exfoliation and pigmentation of skin, polyneurities, and degeneration of the liver and kidneys. Routes of exposure include inhalation, absorption through the skin, eye or mucus membrane contact, and ingestion. The substance is listed as a suspected human carcinogen, in lung and lymphatic cancers.

Based upon the above-referenced discussion, chronic exposure to petroleum hydrocarbons and arsenic reported on-site may cause carcinogenic effects. Additionally, several negative health effects may occur due to acute exposures to high concentrations of these compounds. However, the concentration levels reported at the site are not likely to cause acute overexposure effects.

7.3 Risk Characterization

Based upon the completability of potentially functional pathways and exposure/uptake routes, a qualitative risk per functional exposure pathway and potentially exposed receptors was prepared. As indicated in Table 7.3, several of the receptor evaluations would be potentially exposed with functional exposure pathways consisting of ingestion of contaminated soil, inhalation or vapors and dermal absorption of contaminated soil. There are low qualitative risks for potential receptors to contact contaminated runoff water, ingest site-related contaminated groundwater or come into dermal contact with groundwater.

FIGURES

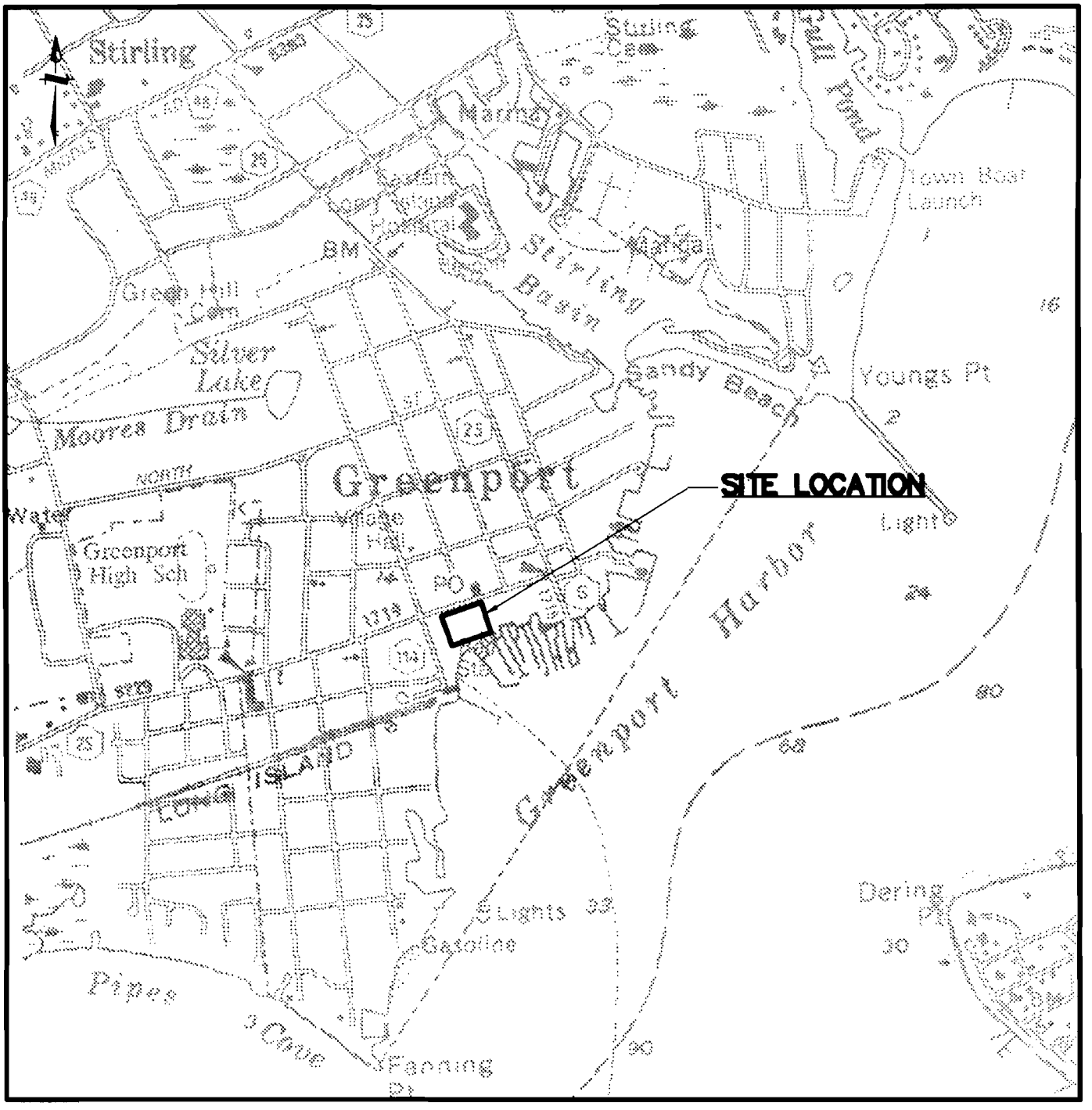


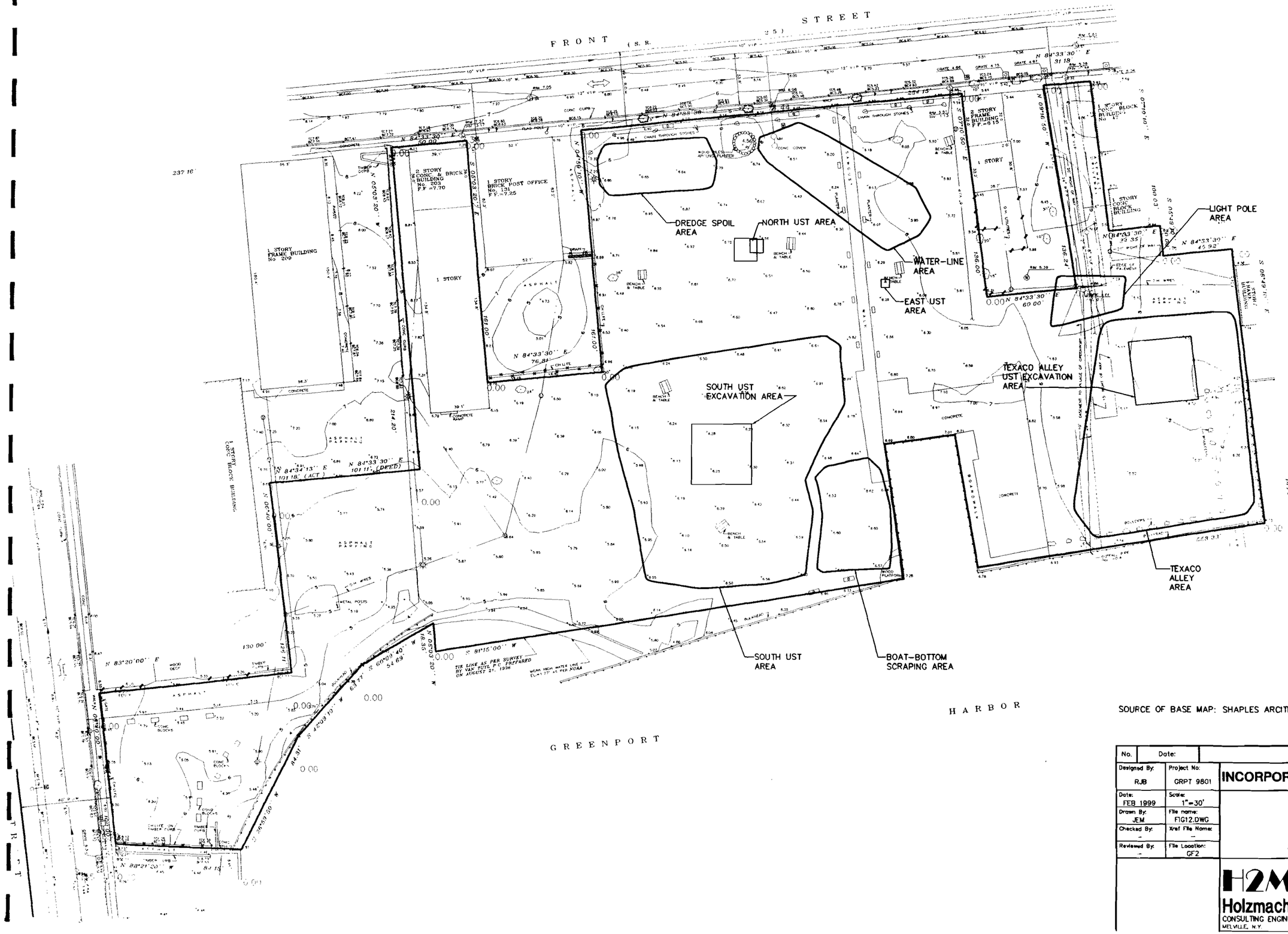
FIGURE 1.1

SITE LOCATION MAP
115 FRONT STREET PROPERTY
SITE LOCATION MAP

SCALE: 1" = 2000'

SOURCE: U.S.G.S. AMITYVILLE QUADRANGLE 1969

TOPOGRAPHICAL SURVEY



SOURCE OF BASE MAP: SHAPLES ARCITECHURE

LEGEND

- SEWER MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- ELECTRIC MANHOLE
- GAS VALVE
- WATER VALVE
- LOW PRESS. FIRE HYDRANT
- HIGH PRESS. FIRE HYDRANT
- PARKING METER
- UTILITY AND LIGHT POLE
- DRAIN INLET
- CATCH BASIN
- MAIL BOX
- TRAFFIC CONTROL BOX
- DIRECTION OF WATER FLOW
- SINGLE TRAFFIC FLOW
- TWO WAY TRAFFIC FLOW
- RECORD INFORMATION
- 12"W — 12" WATER MAIN
- 6"G — 6" GAS LINE
- 12"S — SEWER LINE (8" SIZE & DIRECTION OF FLOW)
- UTILITY POLE
- GUY/SPRED
- O.H. WIRES
- TREE WITH DIAMETER
- STONE BOULDERS
- SPOT GRADE WITH LOCATION
- FENCE
- BENCH
- METAL POSTS
- CONTOUR LINE
- CHAIN
- TRAFFIC SIGN
- PLANTER
- TELEPHONE BOOTH
- WATER VALVE
- UNKNOWN MANHOLE
- SITE BOUNDARY

ABBREVIATIONS:

TC	TOP OF CURB
BC	BOTTOM OF CURB
O.H. WIRES	OVERHEAD WIRES
CONC.	CONCRETE
CH.LI.FE.	CHAIN LINK FENCE
SQ.FT.	SQUARE FEET
ACT.	ACTUAL
R.O.W.	RIGHT OF WAY
N.I.F.	NOT IN FIELD

NOTES:

1) ELEVATIONS SHOWN HEREON REFER TO THE NGVD 1929 DATUM.

2) THE INFORMATION SHOWN ON THIS SURVEY PERTAINING TO LOCATIONS AND/OR DIMENSIONS IS NOT CERTIFIED AS TO ACCURACY OR COMPLETENESS.

3) ON-SITE SUBSURFACE UTILITY INFORMATION IS SHOWN BASED ON THE INFORMATION RECEIVED IN AN IN-FIELD WALK THROUGH WITH OWNER REPRESENTATIVES AND ON THE INFORMATION FROM THE AVAILABLE DRAWING RECORDS.

SURVEY OF: DESCRIBED PROPERTY

LOCATED AT: Incorporated Village of Greenport, Town of Southold, State of New York

TAX DESIG: District 1001, Section 006, Block 4, Lot No.'s 7.3, 7.4, 8.1, 46.1

THE ENDORSEMENT OR APPROVAL OF THIS SURVEY IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.

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THE EXISTENCE OF RIGHT OF WAYS AND/OR EASEMENTS OF RECORD, IF ANY, NOT SHOWN ARE NOT CERTIFIED.

No.	Date:	Revisions:	By:

Designed By: RJB	Project No: GRPT 9801
Date: FEB 1999	Scale: 1"=30'
Drawn By: JEM	File name: FIG12.DWG
Checked By: -	Xref File Name: -
Reviewed By: -	File Location: GF2

INCORPORATED VILLAGE OF GREENPORT

FIGURE 1.2
SITE MAP WITH
AREA OF CONCERN

H2MGROUP
516-756-8000
203-929-3788
973-942-0700
Holzmacher, McLendon & Murrell, P.C.
CONSULTING ENGINEERS · ARCHITECTS · PLANNERS · SCIENTISTS · SURVEYORS
MELVILLE, N.Y. SHELTON, CT. TOTOWA, N.J.

Figure 3.1
Tidal Influence Study - High Tide Cycle
115 Front Street Property
Greenport, New York
April 15, 1999

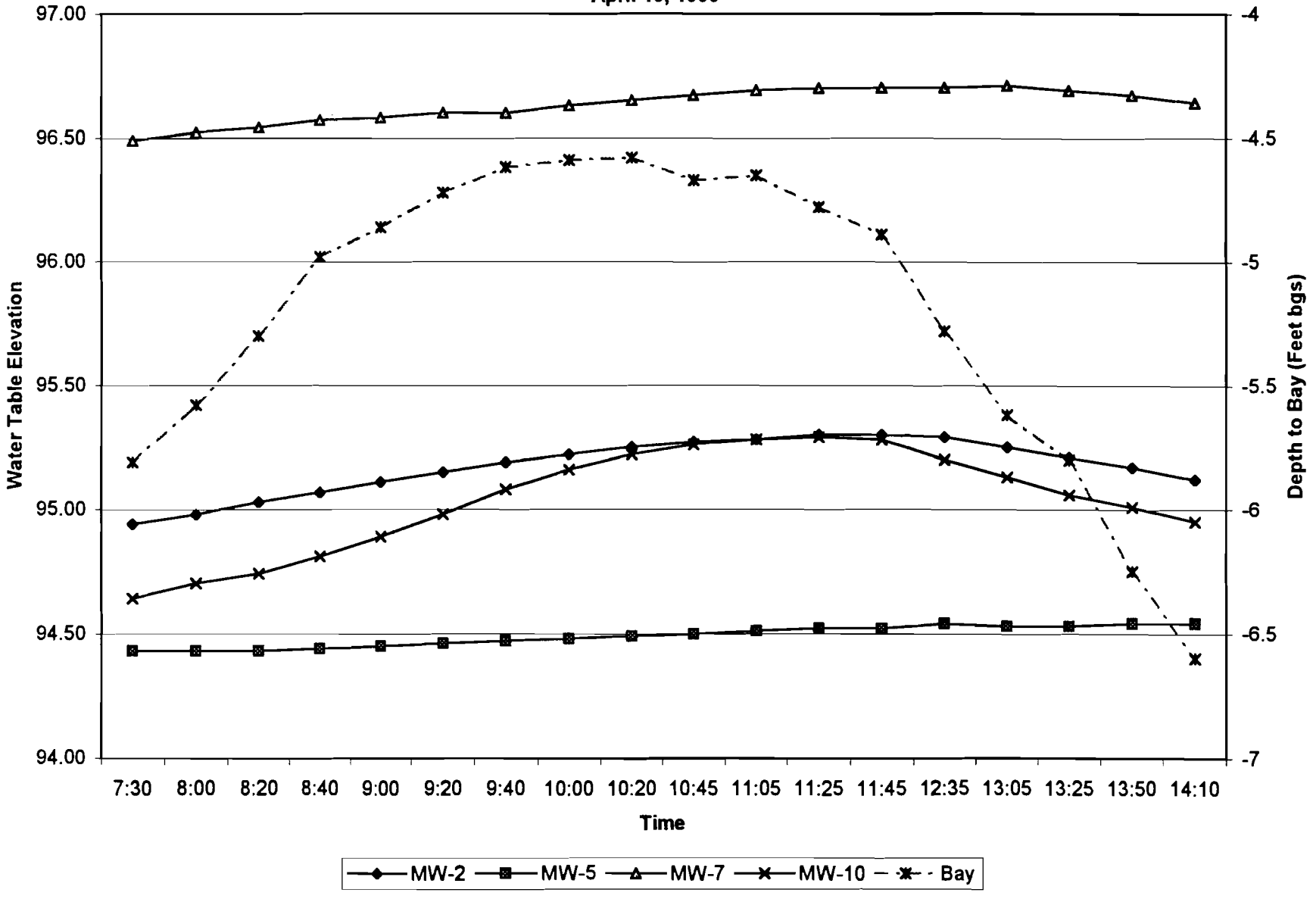
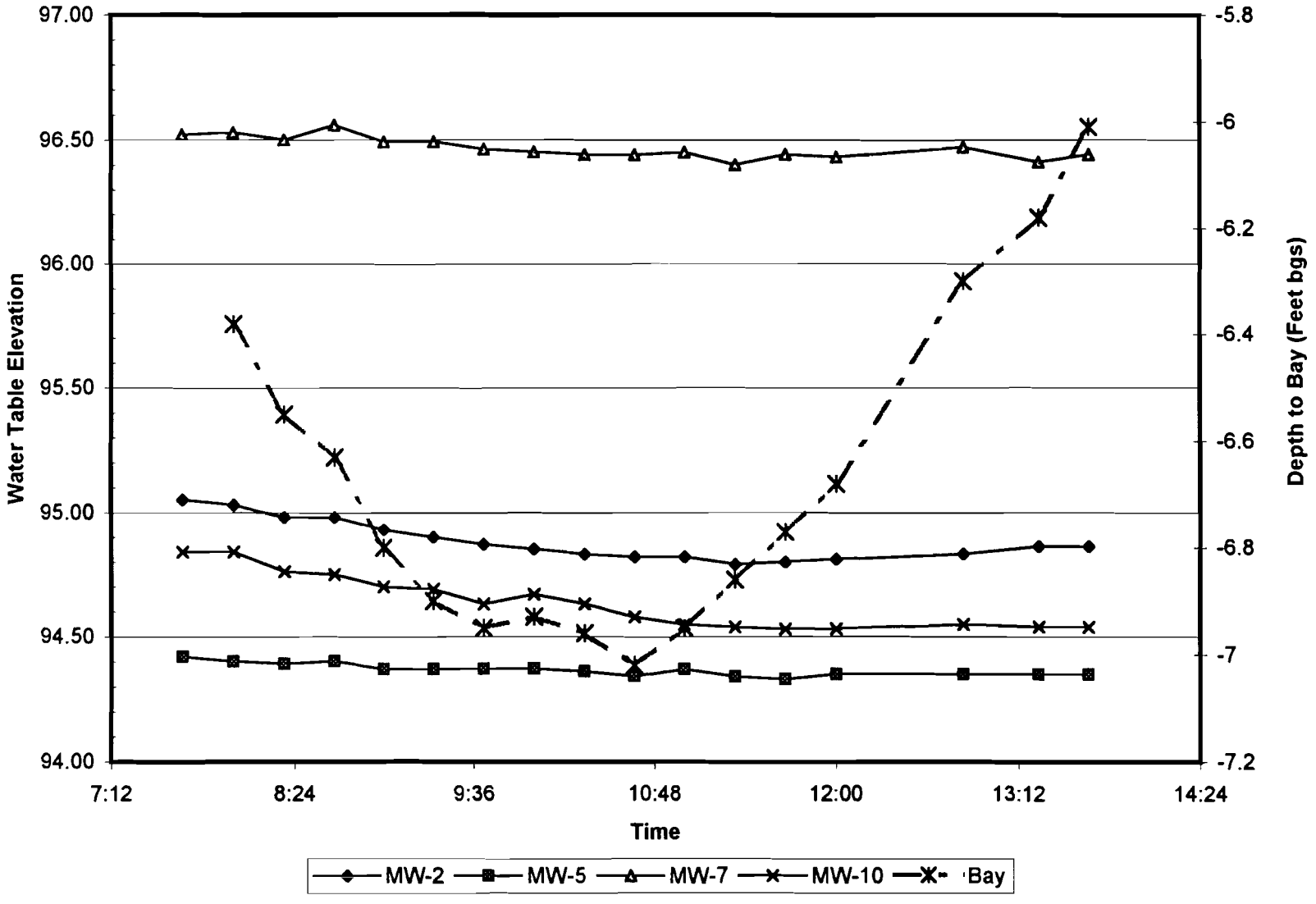


Figure 3.2
Tidal Influence Study - Low Tide Cycle
115 Front Street Property
Greenport, New York
April 7, 1999



FRONT STREET (S.R. 25)

TANK EXCAVATION
MW-1
(95.01)

MW-2
(94.79)

MW-3
(94.83)

ABANDONED STORM DRAIN
(FORMER SUSPECTED UST)

TANK EXCAVATION
MW-7
(96.00) (96.11)

TANK EXCAVATION

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

MW-4
(94.17)

MW-5
(94.12)

MW-6
(94.03)

MW-8
(95.27)

MW-9
(95.38)

MW-10
(94.48)

95.75
95.50
95.25
95.00
94.75
94.50
94.25

1 STORY
FRAME BUILDING
No. 209

2 STORY
CONC. & BRICK
BUILDING
No. 203
FF=7.70

1 STORY
BRICK POST OFFICE
No. 131
FF=7.25

1 STORY
CONC. BLOCK BUILDING

2 STORY
FRAME BUILDING
FF=10.15

1 STORY
CONC. BLOCK BUILDING

1 STORY
CONC. BLOCK BUILDING

THIRD (RAILROAD)

GREENPORT HARBOR

LEGEND:

⊕ MONITORING WELL

NOTE:
DATA PRESENTED REFLECTS WATER LEVEL READINGS TAKEN AT HIGH TIDE AT 11:22 AM ON APRIL 2, 1999.

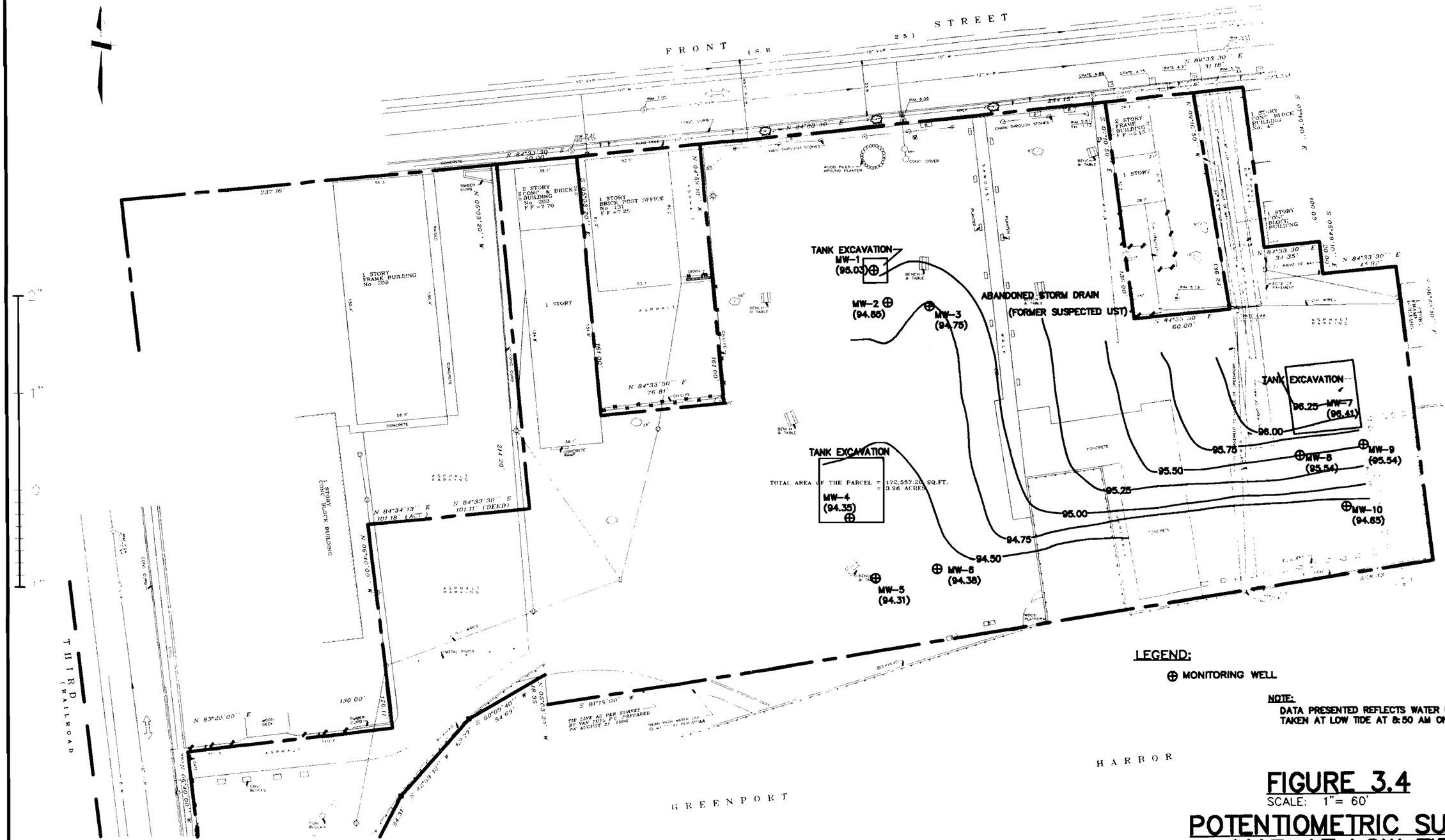
FIGURE 3.3

SCALE: 1"= 60'

POTENTIOMETRIC SURFACE MAP AT HIGH TIDE

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

M:\ ADD\GRPT\380\Figurex.dwg June 18 1999 1:17pm By:ADD3



LEGEND:

⊕ MONITORING WELL

NOTE:

DATA PRESENTED REFLECTS WATER LEVEL READINGS TAKEN AT LOW TIDE AT 8:50 AM ON APRIL 6, 1999.

FIGURE 3.4

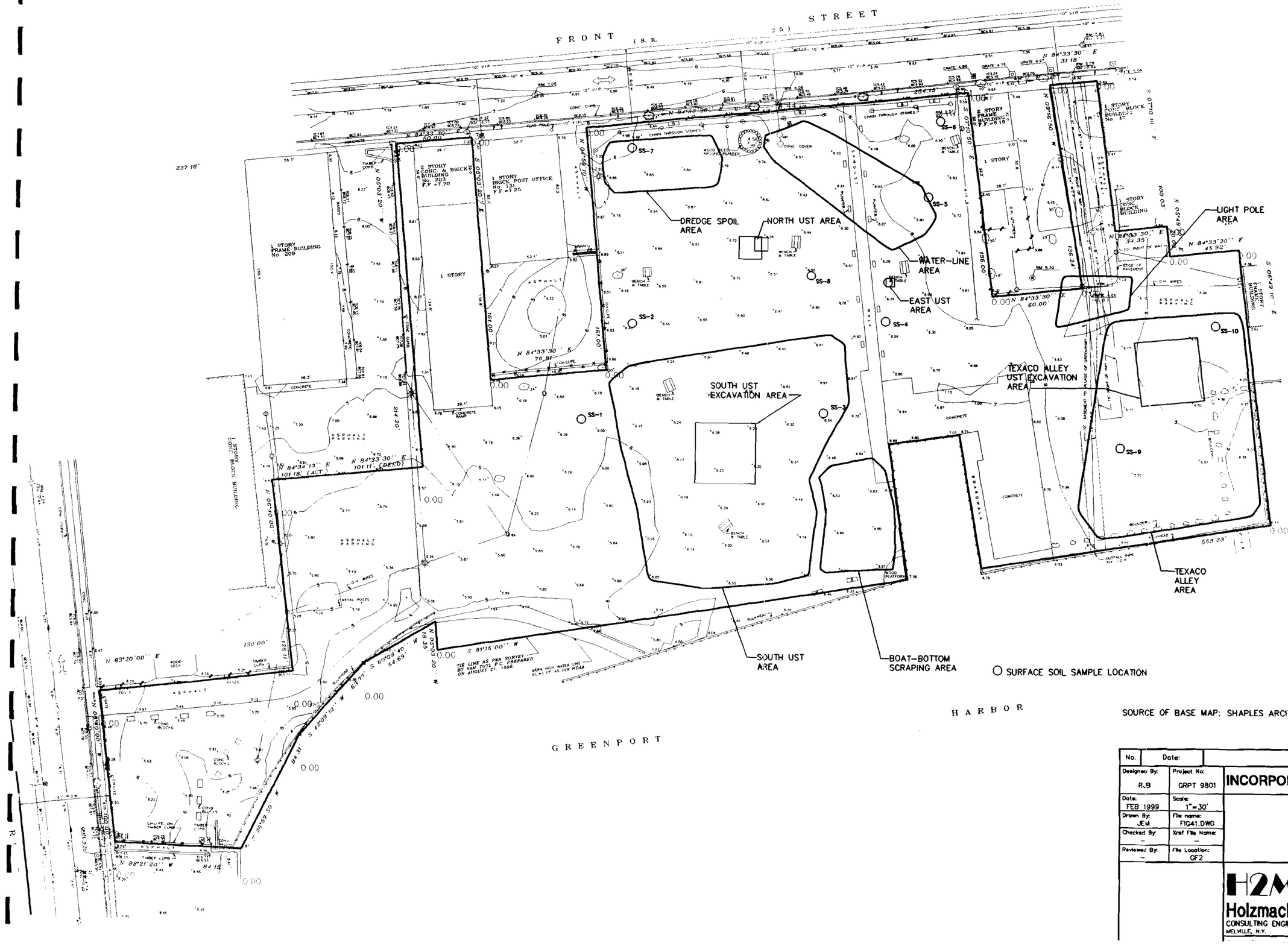
SCALE: 1"= 60'

POTENTIOMETRIC SURFACE MAP AT LOW TIDE

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

M:\CAD\ARF\1998\Figure1.dwg June 18, 1999 1:23pm EyeCAD3

TOPOGRAPHICAL SURVEY



SOURCE OF BASE MAP: SHAPLES ARCITECHURE

LEGEND

- SEWER MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- ELECTRIC MANHOLE
- GAS VALVE
- WATER VALVE
- LOW PRESS. FIRE HYDRANT
- HIGH PRESS. FIRE HYDRANT
- PARKING METER
- UTILITY AND LIGHT POLE
- DRAIN INLET
- CATCH BASIN
- GAS BOX
- TRAFFIC CONTROL BOX
- DIRECTION OF WATER FLOW
- SINGLE TRAFFIC FLOW
- TWO WAY TRAFFIC FLOW
- RECORD INFORMATION
- 12"W — 12" WATER MAIN
- 6"G — 6" GAS LINE
- 12" — SEWER LINE W/ SIZE & DIRECTION OF FLOW
- UTILITY POLE
- PALISADES
- O.H. WIRES
- TREE WITH DIAMETER
- STONE BOULDERS
- SPOT GRADE WITH LOCATION
- FENCE
- BENCH
- METAL POSTS
- CONTOUR LINE
- CHAIN
- TRAFFIC SIGN
- PLANTER
- TELEPHONE BOOTH
- WATER VALVE
- LONDONDERRY MANHOLE
- SITE BOUNDARY

ABBREVIATIONS:

TC	TOP OF CURB
BC	BOTTOM OF CURB
O.H. WIRES	OVERHEAD WIRES
CONC.	CONCRETE
CH.LI.FE.	CHAIN LINK FENCE
SQ.FT.	SQUARE FEET
ACT.	ACTUAL
R.O.W.	RIGHT OF WAY
M.E.F.	NOT IN FIELD

NOTES:

1) SURVEYING DATUM HEREON REFER TO THE NGVD 1929 DATUM.
2) THE INFORMATION SHOWN ON THIS SURVEY PERTAINING TO UTILITIES AND/OR SUBSTRUCTURES IS NOT CERTIFIED AS TO ACCURACY OR COMPLETENESS.
3) ON-SITE IMPROVEMENTS, AS INFORMATION IS SHOWN BASED ON THE INFORMATION RECORDED IN AN ON-FIELD SURVEY PERFORMED WITH CERTAIN RESTRICTIONS AND ON THE INFORMATION FROM THE AVAILABLE DRAWING RECORDS.

SURVEY OF: DESCRIBED PROPERTY

LOCATED AT: Incorporated Village of Greenport, Town of Southold, State of New York

TAX DESIG: District 1091, Section 005, Block 4, Lot No.'s 7.3, 7.4, 8.1, 40.1

THE EXISTENCE OF RIGHT OF WAYS AND/OR EASEMENTS OF RECORD, IF ANY, NOT SHOWN ARE NOT CERTIFIED.

No.	Date:	Revisions:	By:

Designed By: R.B	Project No: GRPT 9801
Date: FEB 1999	Scale: 1"=30'
Drawn By: JEM	File name: FIG41.DWG
Checked By: —	Xref File Name: —
Reviewed By: —	File Location: GF2

INCORPORATED VILLAGE OF GREENPORT

FIGURE 4.1
SURFACE SOIL
SAMPLE LOCATIONS

H2MGROUP
518-758-8000
203-929-3788
973-942-0700
Holzmacher, McLendon & Murrell, P.C.
CONSULTING ENGINEERS · ARCHITECTS · PLANNERS · SCIENTISTS · SURVEYORS
MELVILLE, N.Y. SHELTON, CT. TOTOWA, N.J.

TOPOGRAPHICAL SURVEY

LEGEND

- SEWER MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- ELECTRIC MANHOLE
- GAS VALVE
- WATER VALVE
- LOW PRESS. FIRE HYDRANT
- HIGH PRESS. FIRE HYDRANT
- PARKING METER
- UTILITY AND LIGHT POLE
- DRAIN INLET
- CATCH BASIN
- MAIL BOX
- TRAFFIC CONTROL BOX
- DIRECTION OF WATER FLOW
- SINGLE TRAFFIC FLOW
- TWO WAY TRAFFIC FLOW
- RECORD INFORMATION
- 12" WATER MAIN
- 6" GAS LINE
- SEWER LINE W/ ARROW & DIRECTION OF FLOW
- UTILITY POLE
- GUARDRAIL
- O.H. WIRES
- TREE WITH DIAMETER
- STONE BOULDERS
- SPOT GRADE WITH LOCATION
- FENCE
- SIGNS
- METAL POSTS
- CONTOUR LINE
- CHAIN
- TRAFFIC SIGN
- PLANTER
- TELEPHONE BOOTH
- WATER VALVE
- UNKNOWN MANHOLE
- SITE BOUNDARY

ABBREVIATIONS:

TC	TOP OF CURB
BC	BOTTOM OF CURB
O.H. WIRES	OVERHEAD WIRES
CONC.	CONCRETE
CH.LI.FE.	CHAIN LINK FENCE
SQ.FT.	SQUARE FEET
ACT.	ACTUAL
R.O.W.	RIGHT OF WAY
N.I.F.	NOT IN FIELD

NOTES:

1) ELEVATIONS SHOWN HEREON REFER TO THE NGVD 1929 DATUM.

2) THE INFORMATION SHOWN ON THIS SURVEY PERTINENT TO UTILITIES AND/OR SUBSTRUCTURES IS NOT CERTIFIED AS TO ACCURACY OR COMPLETENESS.

3) ON-SITE SUBSURFACE UTILITY INFORMATION AS SHOWN BASED ON THE INFORMATION RECEIVED IN AN IN-FIELD WALK THROUGH WITH OTHER REPRESENTATIVES AND ON THE INFORMATION FROM THE AVAILABLE DRAWING RECORDS.

SURVEY OF: DESCRIBED PROPERTY

LOCATED AT: Incorporated Village of Greenport, Town of Southold, State of New York

TAX DESIG: District 1001, Section 006, Block 4, Lot No.'s 7.3, 7.4, 8.1, 40.1

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COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

CERTIFICATION HEREON MEANS THAT IN MY OPINION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE SURVEY SHOWN HEREON CONFORMS WITH THE CURRENT CODE OF PRACTICE FOR LAND TITLE SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. THE CERTIFICATION IS MADE ONLY TO THOSE PERSONS FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON, AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATION IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

THE EXISTENCE OF RIGHT OF WAYS AND/OR EASEMENTS OF RECORD, IF ANY, NOT SHOWN ARE NOT CERTIFIED.

SOURCE OF BASE MAP: SHAPLES ARCITECHURE

No.	Date:	Revisions:	By:

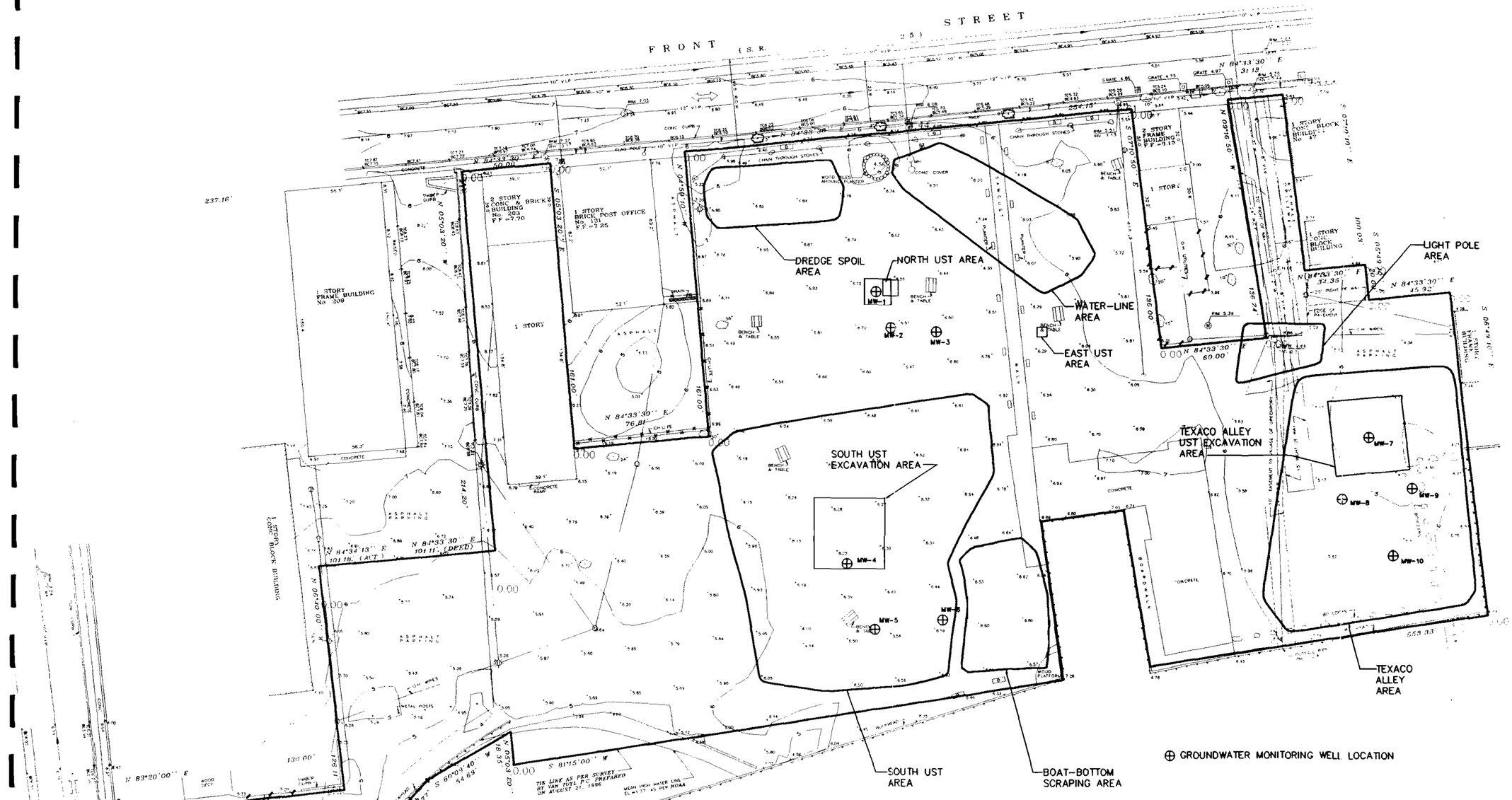
Designed By: RJB	Project No: GRPT 9801
Date: FEB 1999	Scale: 1"=30'
Drawn By: JEM	File name: FIG42.DWG
Checked By: -	Xref File Name: -
Reviewed By: -	File Location: GF2

INCORPORATED VILLAGE OF GREENPORT

FIGURE 4.2
SOIL BORING
SAMPLE LOCATIONS

H2MGROUP
516-758-8000
203-929-3788
973-942-0700
Holzmacher, McLendon & Murrell, P.C.
CONSULTING ENGINEERS · ARCHITECTS · PLANNERS · SCIENTISTS · SURVEYORS
MELVILLE, N.Y. SHELTON, CT. TOTOWA, N.J.

TOPOGRAPHICAL SURVEY



⊕ GROUNDWATER MONITORING WELL LOCATION

SOURCE OF BASE MAP: SHAPLES ARCITECHURE

LEGEND

- SEWER MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- ELECTRIC MANHOLE
- GAS VALVE
- WATER VALVE
- LOW PRESS. FIRE HYDRANT
- HIGH PRESS. FIRE HYDRANT
- PARKING METER
- UTILITY AND LIGHT POLE
- DRAIN INLET
- CATCH BASIN
- MAIL BOX
- TRAFFIC CONTROL BOX
- DIRECTION OF WATER FLOW
- SINGLE TRAFFIC FLOW
- TWO WAY TRAFFIC FLOW
- RECORD INFORMATION
- 12" WATER MAIN
- 8" GAS LINE
- SEWER LINE W/ SIZE & DIRECTION OF FLOW
- UTILITY POLE
- GUYWIRES
- O.H. WIRES
- TREE WITH SPREAD
- STONE BOULDERS
- SPOT GRADE WITH LOCATION
- FENCE
- BENCH
- METAL POSTS
- CONTOUR LINE
- CHAIN
- TRAFFIC SIGN
- PLANTER
- TELEPHONE BOOTH
- WATER VALVE
- UNKNOWN MANHOLE
- SITE BOUNDARY

ABBREVIATIONS:

TC	TOP OF CURB
BC	BOTTOM OF CURB
O.H. WIRES	OVERHEAD WIRES
CONC.	CONCRETE
CH.-LK.FE.	CHAIN LINK FENCE
SQ.FT.	SQUARE FEET
ACT.	ACTUAL
R.O.W.	RIGHT OF WAY
R.L.F.	NOT IN FIELD

NOTES:

1) ELEVATIONS SHOWN HEREON REFER TO THE NGVD 1929 DATUM.
2) THE INFORMATION SHOWN ON THIS SURVEY PERTAINING TO UTILITIES AND/OR SUBSTRUCTURES IS NOT CERTIFIED AS TO ACCURACY OR COMPLETENESS.
3) ON-SITE SUBSURFACE UTILITY INFORMATION IS SHOWN BASED ON THE INFORMATION RECEIVED IN AN ON-FIELD WALK THROUGH WITH OWNER REPRESENTATIVES AND ON THE INFORMATION FROM THE AVAILABLE DRAWING RECORDS.

SURVEY OF: DESCRIBED PROPERTY

LOCATED AT: Incorporated Village of Greenport, Town of Southold, State of New York

TAX DESIG: District 1001, Section 006, Block 4, Lot No.'s 7.3, 7.4, 8.1, 40.1

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.
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No.	Date:	Revisions:	By:

Designed By: RJB	Project No: GRPT 9801
Date: FEB 1999	Scale: 1"=30'
Drawn By: JLM	File name: FIG43.DWG
Checked By: -	Xref File Name: -
Reviewed By: -	File Location: GF2

INCORPORATED VILLAGE OF GREENPORT

FIGURE 4.3
GROUNDWATER MONITORING WELL SAMPLE LOCATIONS

H2MGROUP
518-756-8000
203-929-3788
973-942-0700
Holzmacher, McLendon & Murrell, P.C.
CONSULTING ENGINEERS · ARCHITECTS · PLANNERS · SCIENTISTS · SURVEYORS
MELVILLE, N.Y. SHELTON, CT. TOTOWA, N.J.

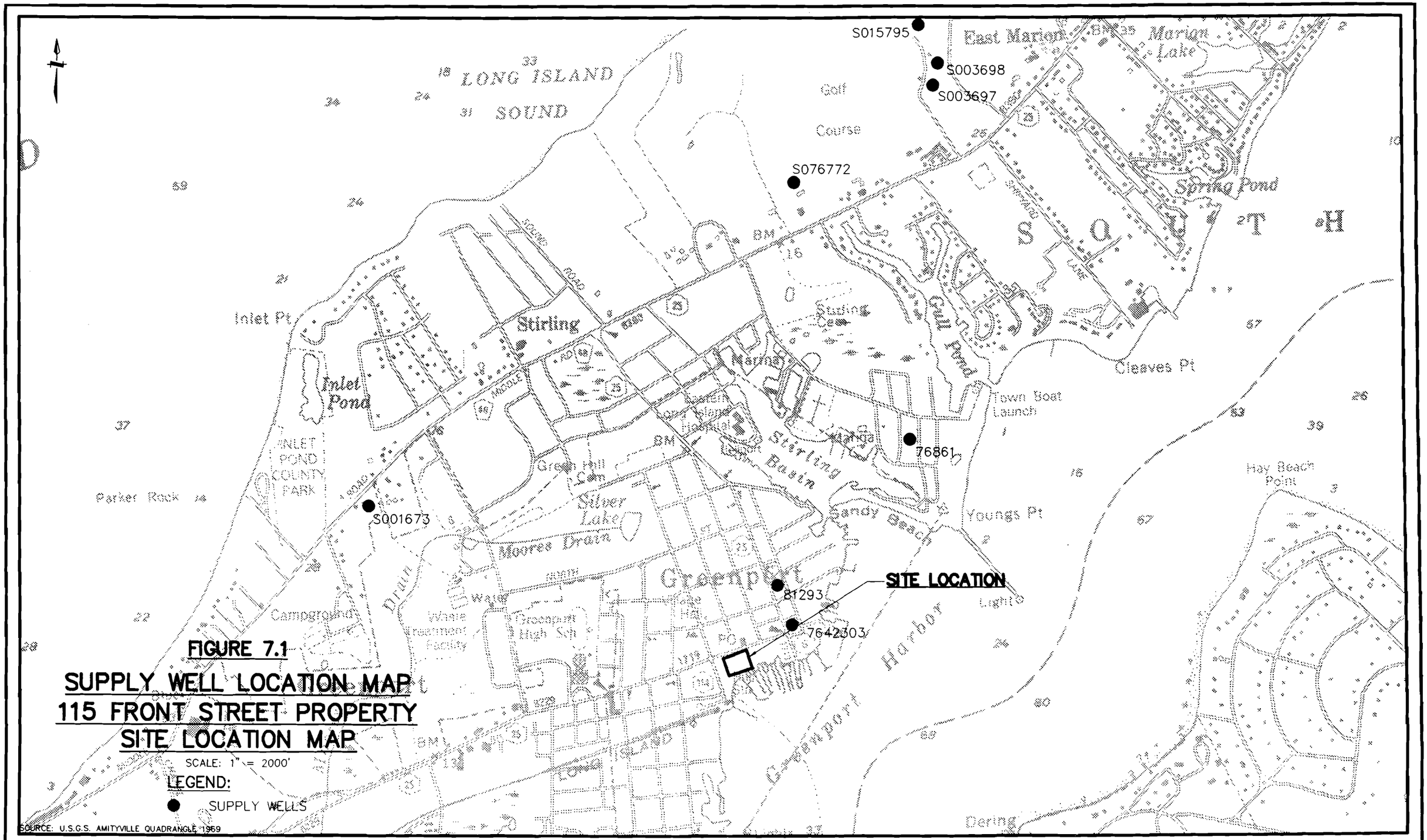

FIGURE 7.1

SUPPLY WELL LOCATION MAP
115 FRONT STREET PROPERTY
SITE LOCATION MAP

SCALE: 1" = 2000'

LEGEND:

● SUPPLY WELLS

SOURCE: U.S.G.S. AMITYVILLE QUADRANGLE 1969

TABLES

Table 2.1
North UST Area Post-Excavation Soil Samples
STARs VOCs and SVOCs Analytical Results
115 Front Street Property
Greenport, New York

SAMPLE ID	NW UST Bottom		NW UST Sidewall[6]		NYSDEC STARs TCLP Alt.	NYSDEC RSCO[4]
STARs VOCs - ug/kg						
Benzene	<5		<61		14	60
Ethylbenzene	<5		<61		100	5,500
MTBE	<5		<61		1,000	N/A[5]
Toluene	<5		<61		100	1,500
Xylenes (total)	<5		250		100	1,200
Isopropylbenzene	<5		61		100	N/A
n-Propylbenzene	<5		480		100	N/A
p-Isopropyltoluene	42		2,100		100	N/A
1,2,4-Trimethylbenzene	22		1,100		100	N/A
1,3,5-Trimethylbenzene	<5		240		100	N/A
n-Butylbenzene	45		1,400		100	N/A
sec-Butylbenzene	7		240		100	N/A
Napthalene	78		<122		200	13,000
STARs SVOCs - ug/kg						
Napthalene	340	U[2]	190	J	200	13,000
Acenaphthene	340	U	74	J	400	50,000
Fluorene	60	J	120	J	1,000	50,000
Phenanthrene	130	J	230	J	1,000	50,000
Anthracene	340	U	400	U	1,000	50,000
Fluoranthene	340	U	400	U	1,000	50,000
Pyrene	340	U	66	J	1,000	50,000
Benzo(a)anthracene	340	U	400	U	0.04	224 or MDL
Chrysene	340	U	400	U	0.04	400
Benzo(b)fluoranthene	340	U	400	U	0.04	224 or MDL
Benzo(k)fluoranthene	340	U	400	U	0.04	224 or MDL
Benzo(a)pyrene	340	U	400	U	0.04	61 or MDL
Ideno(1,2,3-cd)pyrene	340	U	400	U	0.04	3,200
Dibenzo(a,h)anthracene	340	U	400	U	1,000	14 or MDL
Benzo(g,h,i)perylene	340	U	400	U	0.04	50,000

NOTES:

[1] < - Indicates analyte was not detected above instrument detection limits.

[2] U - Indicates analyte was not detected above instrument detection limits.

[3] J - Indicates an estimated value.

[4] NYSDEC Recommended Soil Cleanup Objectives and Cleanup Levels Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (NYSDEC TAGM No. 92-4046, revised 4/95).

[5] NA - Indicates Recommended Soil Cleanup Objective was not available.

Table 2.2
Subsurface Soil Investigation
Sample Matric Chart
115 Front Street Property
Greenport, New York

Area of Concern	Soil Borings	STARs VOCs	STARs SVOCs	STARs TCLP SVOCs	TAL Metals
Boat-Bottom Scraping Area	SB-1, SB-2	X	X		X
Dredge Spoil Area	SB-3	X	X		X
Water-Line Area	SB-4, SB-5, SB-18	X	X		X
Light Pole Area	SB-6	X	X		X
Texico Alley Area	SB-7, SB-8, SB-9	X	X		X
Texico Alley Area[1]	SB-19, SB-20	X	X	X	X
South UST Area	SB-10, SB-11, SB-12, SB-13, SB-14, SB-15, SB-16, SB-17	X	X		

Notes:

[1] Samples collected at later date.

Table 2.3
Groundwater Investigation
Monitoring Well Construction Details
115 Front Street Property
Greenport, New York

Well ID	Well Location	Screened Interval (ft bgs)	Total Depth (ft bgs)	TOC[1] Elevation[2] (ft)	DTW[3] at High Tide (ft)	WTE[4] at High Tide[5] (ft)	DTW at Low Tide (ft)	WTE at Low Tide[6] (ft)
MW-1	North UST Area	12 to 2	12.0	100.00	4.99	95.01	4.97	95.03
MW-2	North UST Area	12 to 2	12.0	99.57	4.78	94.79	4.72	94.85
MW-3	North UST Area	12 to 2	12.0	99.50	4.67	94.83	4.75	94.75
MW-4	South UST Area	9.5 to 1.5	9.5	99.17	5.00	94.17	4.82	94.35
MW-5	South UST Area	9.5 to 1.5	9.5	99.10	4.98	94.12	4.79	94.31
MW-6	South UST Area	9.5 to 1.5	9.5	99.41	5.38	94.03	5.03	94.38
MW-7	Texaco Alley Area	12 to 2	12.0	99.26	3.15	96.11	2.85	96.41
MW-8	Texaco Alley Area	12 to 2	12.0	99.18	3.91	95.27	3.64	95.54
MW-9	Texaco Alley Area	12 to 2	12.0	99.49	4.11	95.38	3.95	95.54
MW-10	Texaco Alley Area	12 to 2	12.0	98.46	3.98	94.48	3.81	94.65

Notes:

[1] TOC - Top of casing elevation.

[2] Based on an assumed 100-foot reference elevation.

[3] DTW - Depth to water.

[4] WTE - Water table elevation.

[5] High Tide water table elevations measured at 11:22 AM on April 2, 1999.

[6] Low tide water table elevations measured at 8:50 AM on April 6, 1999.

Table 3.1
Tidal Influence Study
115 Front Street Property
Greenport, New York - High Tide Cycle

Time	MW-2 (WTE)[1]	MW-5 (WTE)	MW-7 (WTE)	MW-10 (WTE)	Bay (DTW)[2]
7:30	94.94	94.43	96.49	94.64	-5.81
8:00	94.98	94.43	96.52	94.70	-5.58
8:20	95.03	94.43	96.54	94.74	-5.30
8:40	95.07	94.44	96.57	94.81	-4.98
9:00	95.11	94.45	96.58	94.89	-4.86
9:20	95.15	94.46	96.60	94.98	-4.72
9:40	95.19	94.47	96.60	95.08	-4.62
10:00	95.22	94.48	96.63	95.16	-4.59
10:20	95.25	94.49	96.65	95.22	-4.58
10:45	95.27	94.50	96.67	95.26	-4.67
11:05	95.28	94.51	96.69	95.28	-4.65
11:25	95.30	94.52	96.70	95.29	-4.78
11:45	95.30	94.52	96.70	95.28	-4.89
12:35	95.29	94.54	96.70	95.20	-5.28
13:05	95.25	94.53	96.71	95.13	-5.62
13:25	95.21	94.53	96.69	95.06	-5.80
13:50	95.17	94.54	96.67	95.01	-6.25
14:10	95.12	94.54	96.64	94.95	-6.60

Notes:

[1] WTE - Water Table Elevation (feet) - measured from MW-1 top of casing reference datum of 100 feet.

[2] DTW - Depth to Water (feet) - measured from a constant point on bulkhead, used to determine exact high tide and the tidal delay time from the bay to groundwater.

Table 3.2
Tidal Influence Study - Low Tide Cycle
115 Front Street Property
Greenport, New York

Time	MW-2 (WTE)[1]	MW-5 (WTE)	MW-7 (WTE)	MW-10 (WTE)	Bay (DTW)[2]
7:40	95.05	94.42	96.52	94.84	
8:00	95.03	94.40	96.53	94.84	-6.38
8:20	94.98	94.39	96.50	94.76	-6.55
8:40	94.98	94.40	96.56	94.75	-6.63
9:00	94.93	94.37	96.49	94.70	-6.80
9:20	94.90	94.37	96.49	94.69	-6.90
9:40	94.87	94.37	96.46	94.63	-6.95
10:00	94.85	94.37	96.45	94.67	-6.93
10:20	94.83	94.36	96.44	94.63	-6.96
10:40	94.82	94.34	96.44	94.58	-7.02
11:00	94.82	94.37	96.45	94.55	-6.95
11:20	94.79	94.34	96.40	94.54	-6.86
11:40	94.80	94.33	96.44	94.53	-6.77
12:00	94.81	94.35	96.43	94.53	-6.68
12:50	94.83	94.35	96.47	94.55	-6.30
13:20	94.86	94.35	96.41	94.54	-6.18
13:40	94.86	94.35	96.44	94.54	-6.01

Notes:

[1] WTE - Water Table Elevation (feet) - measured from MW-1 top of casing reference datum of 100 feet.

[2] DTW - Depth to Water (feet) - measured from a constant point on bulkhead, used to determine exact high tide and the tidal delay time from the bay to groundwater.

Table 4.1
Surface Soil Samples
STARs VOCs and SVOCs Analytical Results
115 Front Street Property
Greenport, New York

SAMPLE ID SAMPLE DEPTH	SS-1 (0"-3")	SS-2 (0"-3")	SS-3 (0"-3")	SS-4 (0"-3")	SS-5 (0"-3")	NYSDEC STARs TCLP Alt.[2]	NYSDEC RSCO[3]
STARs VOCs - ug/kg							
Benzene	<1	<1[1]	<1	<1	<1	14	60
Ethylbenzene	<1	<1	<1	<1	<1	100	5,500
MTBE	1	1	1	2	1	1,000	NA
Toluene	<1	<1	<1	<1	<1	100	1,500
Xylenes (total)	<1	<1	4	<1	<1	100	1,200
Isopropylbenzene	<1	<1	<1	<1	<1	100	NA
n-Propylbenzene	<1	1	<1	<1	<1	100	NA
p-Isopropyltoluene	<1	<1	<1	<1	<1	100	NA
1,2,4-Trimethylbenzene	<1	<1	<1	<1	<1	100	NA
1,3,5-Trimethylbenzene	<1	<1	<1	<1	<1	100	NA
n-Butylbenzene	<1	<1	<1	<1	<1	100	NA
sec-Butylbenzene	<1	<1	<1	<1	<1	100	NA
Napthalene	<2	<2	<2	<2	<2	200	13,000
STARs SVOCs - ug/kg							
Acenaphthene	370 U	400 U	390 U	380 U	370 U	400	50,000
Fluorene	370 U	400 U	390 U	380 U	370 U	1,000	50,000
Phenanthrene	370 U	400 U	390 U	380 U	370 U	1,000	50,000
Anthracene	370 U	400 U	390 U	380 U	370 U	1,000	50,000
Fluoranthene	370 U	45 J[5]	390 U	380 U	370 U	1,000	50,000
Pyrene	56 J	43 J	390 U	380 U	370 U	1,000	50,000
Benzo(a)anthracene	370 U	400 U	390 U	380 U	370 U	0.04	224 or MDL
Chrysene	45 J	400 U	390 U	380 U	370 U	0.04	400
Benzo(b)fluoranthene	51 J	42 J	390 U	380 U	370 U	0.04	224 or MDL
Benzo(k)fluoranthene	370 U	400 U	390 U	380 U	370 U	0.04	224 or MDL
Benzo(a)pyrene	370 U	400 U	390 U	380 U	370 U	0.04	61 or MDL
Ideno(1,2,3-cd)pyrene	370 U	400 U	390 U	380 U	370 U	0.04	3,200
Dibenzo(a,h)anthracene	370 U	400 U	390 U	380 U	370 U	1,000	14 or MDL
Benzo(g,h,i)perylene	370 U	400 U	390 U	380 U	370 U	0.04	50,000

NOTES:

[1] < - Indicates analyte was not detected above instrument detection limits.

[2] NYSDEC Recommended Soil Cleanup Objectives and Cleanup Levels Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (NYSDEC TAGM No. 92-4046, revised 4/95).

[3] NA - Indicates Recommended Soil Cleanup Objective was not available.

[4] U - Indicates the compound was analysed for but not dectected.

[5] J - Indicates an estimated value.

Table 4. 1 (Cont.)
Surface Soil Samples
STARs VOCs and SVOCs Analytical Results
115 Front Street Property
Greenport, New York

SAMPLE ID SAMPLE DEPTH	SS-6 (0"-3")		SS-7 (0"-3")		SS-8 (0"-3")		SS-9 (0"-3")		SS-10 (0"-3")		NYSDEC STARs TCLP Alt.[2]	NYSDEC RSCO[3]
STARs VOCs - ug/kg												
Benzene	<1[1]		<1		<1		<1		<1		14	60
Ethylbenzene	<1		<1		<1		<1		<1		100	5,500
MTBE	1		1		<1		<1		<1		1,000	NA
Toluene	<1		<1		<1		<1		<1		100	1,500
Xylenes (total)	<1		<1		<1		<1		<1		100	1,200
Isopropylbenzene	<1		<1		<1		<1		<1		100	NA
n-Propylbenzene	<1		<1		<1		<1		<1		100	NA
p-Isopropyltoluene	<1		<1		<1		<1		<1		100	NA
1,2,4-Trimethylbenzene	<1		<1		2		<1		<1		100	NA
1,3,5-Trimethylbenzene	<1		<1		<1		<1		<1		100	NA
n-Butylbenzene	<1		<1		<1		<1		<1		100	NA
sec-Butylbenzene	<1		<1		<1		<1		<1		100	NA
Napthalene	<2		<2		<2		<2		<2		200	13,000
STARs SVOCs - ug/kg												
Acenaphthene	370	U[4]	390	U	390	U	690	U	700	U	400	50,000
Fluorene	370	U	390	U	390	U	690	U	700	U	1,000	50,000
Phenanthrene	56	J[5]	390	U	390	U	77	J	88	J	1,000	50,000
Anthracene	370	U	390	U	390	U	690	U	71	J	1,000	50,000
Fluoranthene	44	J	390	U	390	U	140	J	170	J	1,000	50,000
Pyrene	98	J	390	U	390	U	200	J	210	J	1,000	50,000
Benzo(a)anthracene	59	J	390	U	390	U	81	J	110	J	0.04	224 or MDL
Chrysene	77	J	390	U	390	U	170	J	140	J	0.04	400
Benzo(b)fluoranthene	120	J	390	U	390	U	150	J	190	J	0.04	224 or MDL
Benzo(k)fluoranthene	40	J	390	U	390	U	76	J	81	J	0.04	224 or MDL
Benzo(a)pyrene	140	J	390	U	390	U	170	J	140	J	0.04	61 or MDL
Ideno(1,2,3-cd)pyrene	67	J	390	U	390	U	76	J	76	J	0.04	3,200
Dibenzo(a,h)anthracene	370	U	390	U	390	U	690	U	700	U	1,000	14 or MDL
Benzo(g,h,i)perylene	120	J	390	U	390	U	100	J	96	J	0.04	50,000

NOTES:

[1] < - Indicates analyte was not detected above instrument detection limits.

[2] NYSDEC Recommended Soil Cleanup Objectives and Cleanup Levels Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (NYSDEC TAGM No. 92-4046, revised 4/95).

[3] NA - Indicates Recommended Soil Cleanup Objective was not available.

[4] U - Indicates the compound was analysed for but not dectected.

[5] J - Indicates an estimated value.

Table 4.2
Surface Soil Samples
Target Analyte List Metals Analytical Results
115 Front Street Property
Greenport, New York

SAMPLE ID	SS-1	SS-2	SS-3	SS-4	SS-5	CONCENTRATIONS OF CONCERN[3]		
SAMPLE DEPT	(0-3")	(0-3")	(0-3")	(0-3")	(0-3")	RSCO[A]	SB[B]	EUS BG[C]
Metals - mg/kg								
Aluminum	8,120	19,900	14,000	8,080	9,730	SB[4]	5,460	33,000
Antimony	0.35 B	1.3 B	0.81 B[1]	0.34 U[2]	0.46 B	SB	0.33 U	NA[5]
Arsenic	15.4	67.8	46.1	19.3	13.7	7.5 or SB	8.7	3 - 12
Barium	30.1	51.5	38	24.6	30.7	300 or SB	15.7	15 - 600
Beryllium	0.36 B	0.78	0.54 B	0.33 B	0.4 B	0.16 or SB	0.25	0 - 1.75
Cadmium	0.57	1.7	1.2	0.57 B	0.43 B	10	0.4	0.1 - 1
Calcium	8,380	2,400	724	599	747	SB	498	130 - 35,000
Chromium	11.1	26.7	18.4	10	12	50	7.2	1.5 - 40
Cobalt	3.9 B	3.9 B	2.5 B	2.8 B	4 B	30 or SB	2.6	2.5 - 60
Copper	19.3	81.6	53.6	20.5	11.7	25 or SB	10.9	1 - 50
Iron	9,950	19,000	13,200	9,240	11,600	2,000 or SB	7800	2,000 - 550,00
Lead	33.4	52.3	36.2	18.5	12.7	*	24.6	200 - 500
Magnesium	5,620	2,120	1,520	1,150	1,560	SB	998	100 - 5,000
Manganese	136	146	95.1	117	178	SB	81.5	50 - 5,000
Mercury	0.12 B	0.12 U	0.11 U	0.11 U	0.11 U	0.1	0.1 U	0.001 - 0.2
Nickel	0.042 U	0.049 U	0.047 U	0.046 U	0.043 U	13 or SB	0.044 U	0.5 - 25
Potassium	455	995	509	319	403	SB	346	8,500 - 43,000
Selenium	0.32 U	1.2 B	0.46 B	0.34 U	0.54 B	2 or SB	0.33 U	0.1 - 3.9
Silver	0.4 B	0.55 B	0.3 B	0.26 B	0.28 B	SB	0.16	NA
Sodium	129 B	44.3 B	67.5 B	47 B	81.8 B	SB	88.4	6,000 - 8,000
Thallium	0.77 B	2.5	1.6	0.96 B	0.55 B	SB	0.88	NA
Vanadium	19.5	41	27	17.3	21.2	150 or SB	13.2	1 - 300
Zinc	38.2	44.7	31.4	22.9	24.5	20 or SB	43.6	9 - 50

NOTES:

[1] B - Indicates that analyte was detected in associated blank sample.

[2] U - Indicataes the analyte was analyzed for but not detected.

[3] Concentrations of Concern - Values based on NYSDEC TAGM - Recommended Soil Cleanup Objectives, HWR-94-4046, Revised 4/95 and other indicated documents.

[A] RSCO - Recommended Soil Cleanup Objective

[B] The measured Site Background level.

[C] EUS BG - Eastern USA Background

[4] SB - Site Background.

[5] NA - Indicates Recommended Soil Cleanup Objective was not available.

* Background levels for lead vary widely. Average background levels in metropolitan or suburban areas near highways are much higher and typically range from 200-500 ppm. The USEPA's Interim Lead Hazard Guidance (July 14, 1994) establishes a resedential screeening level of 400ppm.

Table 4.2 (Cont.)
Surface Soil Samples
Target Analyte List Metals Analytical Results
115 Front Street Property
Greenport, New York

SAMPLE ID	SS-6	SS-7	SS-8	SS-9	SS-10	CONCENTRATIONS OF CONCERN[3]		
SAMPLE DEPTH	(0-3")	(0-3")	(0-3")	(0-3")	(0-3")	RSCO[A]	SB[B]	EUS BG[C]
Metals - mg/kg								
Aluminum	8,290	17,100	11,400	1,120	2,750	SB[4]	5,460	33,000
Antimony	0.31 U	0.77 B[1]	0.81 B	0.32 U[2]	0.34 B	SB	0.33 U	N/A[5]
Arsenic	10.7	51.9	43.8	1.9	18.2	7.5 or SB	8.7	3 - 12
Barium	24.6	55	29.4	14.5	40.1	300 or SB	15.7	15 - 600
Beryllium	0.33 B	0.61	0.43 B	0.064 B	0.13 B	0.16 or SB	0.25	0 - 1.75
Cadmium	0.38 B	1.4	1.2	0.3 B	0.84	10	0.4	0.1 - 1
Calcium	866	2,440	606	13,900	8,370	SB	498	130 - 35,000
Chromium	10	20.5	13.8	3.2	13	50	7.2	1.5 - 40
Cobalt	3.3 B	5 B	2.2 B	2.2 B	2.5 B	30 or SB	2.6	2.5 - 60
Copper	11.3	83	48.9	15.2	58.8	25 or SB	10.9	1 - 50
Iron	10,500	19,100	10,800	3,090	7,040	2,000 or SB	7800	2,000 - 550,00
Lead	21	36.4	32.2	44.6	116	*	24.6	200 - 500
Magnesium	1,300	2,840	1,250	761	1,220	SB	998	100 - 5,000
Manganese	119	149	85.9	44.4	120	SB	81.5	50 - 5,000
Mercury	0.099 U	0.12 U	0.11 U	0.11 U	0.11 B	0.1	0.1 U	0.001 - 0.2
Nickel	0.042 U	0.045 U	0.046 U	0.042 U	0.039 U	13 or SB	0.044 U	0.5 - 25
Potassium	320	884	449	176 B	365	SB	346	8,500 - 43,000
Selenium	0.31 U	0.67 B	0.35 U	0.32 U	0.3 U	2 or SB	0.33 U	0.1 - 3.9
Silver	0.2 B	0.27 B	0.28 B	0.3 B	0.36 B	SB	0.16	N/A
Sodium	52.8 B	113 B	48.9 B	233 B	328 B	SB	88.4	6,000 - 8,000
Thallium	0.96 B	1.8	1.4	0.32 U	0.3 U	SB	0.88	N/A
Vanadium	19.1	41.6	22	8.7	10.8	150 or SB	13.2	1 - 300
Zinc	26.3	45.3	24.8	32.5	102	20 or SB	43.6	9 - 50

NOTES:

[1] B - Indicates that analyte was detected in associated blank sample.

[2] U - Indicataes the analyte was analyzed for but not detecte

[3] Concentrations of Concern - Values based on NYSDEC TAGM - Recommended Soil Cleanup Objectives, HWR-94-4046, Revised 4/95 and other indicated documents.

[A] RSCO - Recommended Soil Cleanup Objective

[B] The measured Site Background level.

[C] EUS BG - Eastern USA Background

[4] SB - Site Background.

[5] NA - Indicates Recommended Soil Cleanup Objective was not available.

* Background levels for lead vary widely. Average background levels in metropolitan or suburban areas near highways are much higher and typically range from 200-500 ppm. The USEPA's Interim Lead Hazard Guidance (July 14, 1994) establishes a resedential screeening level of 400ppm.

Table 4.3
Subsurface Soil Samples
STARs VOCs and SVOCs Analytical Results
115 Front Street Property
Greenport, New York

AOC	Boat-Bottom Scraping Area				DSA[6]		Water Line Area						NYSDEC	
Sample ID	SB-1		SB-2		SB-3		SB-4		SB-5		SB-18		STARs	NYSDEC
Sample Depth	(4'6"-5'6")		(4'-5')		(1'7"-2'1")		(1'10"-2'10")		(3'-5')		(4'6"-5'6")		TCLP Alt.[2]	RSCO[3]
STARs VOCs - ug/kg														
Benzene	<1[1]		<1		<1		<1		<1[1]		<1		14	60
Ethylbenzene	<1		<1		<1		<1		<1		<1		100	5,500
MTBE	2		5		2		1		3		<1		1,000	N/A
Toluene	<1		2		<1		<1		3		<1		100	1,500
Xylenes (total)	<1		<1		<1		<1		9		3		100	1,200
Isopropylbenzene	<1		<1		<1		<1		23		<1		100	N/A
n-Propylbenzene	<1		<1		<1		<1		16		<1		100	N/A
p-Isopropyltoluene	<1		<1		<1		<1		31		<1		100	N/A
1,2,4-Trimethylbenzene	<1		<1		<1		<1		21		<1		100	N/A
1,3,5-Trimethylbenzene	<1		<1		<1		<1		25		<1		100	N/A
n-Butylbenzene	<1		<1		<1		<1		71		<1		100	N/A
sec-Butylbenzene	<1		<1		<1		<1		<1		<1		100	N/A
Napthalene	<2		<2		<2		<2		<2		<2		200	13,000
STARs SVOCs - ug/kg														
Acenaphthene	380	U[4]	460	U	380		380	U	380	U[4]	410	U	400	50,000
Fluorene	380	U	460	U	380		380	U	66	J[5]	410	U	1,000	50,000
Phenanthrene	620		630		240	J	150	J	320	J	190	J	1,000	50,000
Anthracene	72	J[5]	63	J	43	J	82	J	80	J	410	U	1,000	50,000
Fluoranthene	740		620		320	J	1,400		350	J	270	J	1,000	50,000
Pyrene	820		720		300	J	1,300		760		350	J	1,000	50,000
Benzo(a)anthracene	320	J	270	J	160	J	390		270	J	170	J	0.04	224 or MDL
Chrysene	470		420	J	240	J	930		650		180	J	0.04	400
Benzo(b)fluoranthene	480		410	J	310	J	580		320	J	200	J	0.04	224 or MDL
Benzo(k)fluoranthene	230	J	210	J	110	J	280	J	130	J	130	J	0.04	224 or MDL
Benzo(a)pyrene	350	J	320	J	190	J	300	J	200	J	170	J	0.04	61 or MDL
Ideno(1,2,3-cd)pyrene	230	J	200	J	130	J	130	J	140	J	54	J	0.04	3,200
Dibenzo(a,h)anthracene	66	J	73	J	49	J	48	J	380	U	410	U	1,000	14 or MDL
Benzo(g,h,i)perylene	270	J	220	J	140	J	130	J	200	J	52	J	0.04	50,000

NOTES:

[1] < - Indicates analyte was not detected above instrument detection limits.

[2] NYSDEC Recommended Soil Cleanup Objectives and Cleanup Levels Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (NYSDEC TAGM No. 92-4046, revised 4/95).

[3] NA - Indicates Recommended Soil Cleanup Objective was not available.

[4] U - Indicates the compound was analyzed for but not dectected.

[5] J - Indicates an estimated value.

[6] DSA - Dredge Spoils Area.

Table 4.3 (Cont. Page 2)
Subsurface Soil Samples
STARs VOCs and SVOCs Analytical Results
115 Front Street Property
Greenport, New York

AOC	LPA[6]	Texaco Alley Area				NYSDEC	
Sample ID	SB-6	SB-7	SB-7DL	SB-8	SB-9	STARs	NYSDEC
Sample Depth	(0"-18")	(5'4"-6'4")	(5'4"-6'4")	(5'-5'8")	(4'-4'8")	TCLP Alt.[2]	RSCO[3]
STARs VOCs - ug/kg							
Benzene	1	<5,000	NA	1,900	<1	14	60
Ethylbenzene	<1	29,000	NA	<100	<1	100	5,500
MTBE	5	<5,000	NA	<100	1	1,000	N/A
Toluene	4	<5,000	NA	<100	<1	100	1,500
Xylenes (total)	<1	160,000	NA	530	3	100	1,200
Isopropylbenzene	<1	24,000	NA	300	<1	100	N/A
n-Propylbenzene	<1	30,000	NA	190	<1	100	N/A
p-Isopropyltoluene	<1	<5,000	NA	700	<1	100	N/A
1,2,4-Trimethylbenzene	<1	210,000	NA	1,100	9	100	N/A
1,3,5-Trimethylbenzene	<1	89,000	NA	850	3	100	N/A
n-Butylbenzene	<1	150,000	NA	1,900	7	100	N/A
sec-Butylbenzene	<1	<5,000	NA	2,400	<1	100	N/A
Napthalene	<2	88,000	NA	1,600	11	200	13,000
STARs SVOCs - ug/kg							
Acenaphthene	360 U	3,700	4,200	400 U	460 U	400	50,000
Fluorene	71 J	5,000	6,900	400 U	460 U	1,000	50,000
Phenanthrene	1,200 —	8,600	10,000	400 U	140 J	1,000	50,000
Anthracene	460	660	780	400 U	58 J	1,000	50,000
Fluoranthene	2,900 —	480	7,700 U	400 U	340 J	1,000	50,000
Pyrene	2,900 —	310 J	7,700 U	400 U	400 J	1,000	50,000
Benzo(a)anthracene	1,800	94 J	7,700 U	400 U	180 J	0.04	224 or MDL
Chrysene	2,100	100 J	7,700 U	400 U	250 J	0.04	400
Benzo(b)fluoranthene	2,400	100 J	7,700 U	400 U	310 J	0.04	224 or MDL
Benzo(k)fluoranthene	1,300	50 J	7,700 U	400 U	170 J	0.04	224 or MDL
Benzo(a)pyrene	1,600	100 J	7,700 U	400 U	220 J	0.04	61 or MDL
Ideno(1,2,3-cd)pyrene	1,200	380 J	7,700 U	400 U	120 J	0.04	3,200
Dibenzo(a,h)anthracene	440	380 J	7,700 U	400 U	460 U	1,000	14 or MDL
Benzo(g,h,i)perylene	1,400	48 J	7,700 U	400 U	130 J	0.04	50,000

NOTES:

[1] < - Indicates analyte was not detected above instrument detection limits.

[2] NYSDEC Recommended Soil Cleanup Objectives and Cleanup Levels Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (NYSDEC TAGM No. 92-4046, revised 4/95).

[3] NA - Indicates Recommended Soil Cleanup Objective was not available.

[4] U - Indicates the compound was analyzed for but not dectected.

[5] J - Indicates an estimated value.

Table 4.3 (Cont. Page 3)
Subsurface Soil Samples
STARs VOCs and SVOCs Analytical Results
115 Front Street Property
Greenport, New York

AOC	South UST Area				NYSDEC	
Sample ID	SB-10	SB-11	SB-12	SB-13	STARs	NYSDEC
Sample Depth	(6"-12")	(4'6"-5'4")	(5'6"-6")	(5'10"-6'10")	TCLP Alt.[2]	RSCO[3]
STARs VOCs - ug/kg						
Benzene	<1[1]	<1	1	<1	14	60
Ethylbenzene	<1	<1	<1	10	100	5,500
MTBE	2	1	<1	<1	1,000	N/A
Toluene	1	<1	<1	<1	100	1,500
Xylenes (total)	1	6	1	11	100	1,200
Isopropylbenzene	<1	<1	<1	1	100	N/A
n-Propylbenzene	<1	<1	<1	2	100	N/A
p-Isopropyltoluene	3	3	<1	<1	100	N/A
1,2,4-Trimethylbenzene	7	2	<1	26	100	N/A
1,3,5-Trimethylbenzene	2	1	<1	2	100	N/A
n-Butylbenzene	10	<1	<1	<1	100	N/A
sec-Butylbenzene	<1	<1	<1	<1	100	N/A
Napthalene	17	4	<2	<2	200	13,000
STARs SVOCs - ug/kg						
Acenaphthene	380 U[4]	400 U	380 U	380 U	400	50,000
Fluorene	380 U	400 U	380 U	380 U	1,000	50,000
Phenanthrene	400	400 U	380 U	380 J	1,000	50,000
Anthracene	82 J[5]	400 U	380 U	49 J	1,000	50,000
Fluoranthene	410	400 U	62 J	800	1,000	50,000
Pyrene	640	48 J	74 J	850	1,000	50,000
Benzo(a)anthracene	170 J	400 U	42 J	360 J	0.04	224 or MDL
Chrysene	270 J	400 U	41 J	440	0.04	400
Benzo(b)fluoranthene	200 J	400 U	47 J	590	0.04	224 or MDL
Benzo(k)fluoranthene	120 J	400 U	380 U	280 J	0.04	224 or MDL
Benzo(a)pyrene	150 J	400 U	380 U	440	0.04	61 or MDL
Ideno(1,2,3-cd)pyrene	70 J	400 U	380 U	160 J	0.04	3,200
Dibenzo(a,h)anthracene	380 U	400 U	380 U	54 J	1,000	14 or MDL
Benzo(g,h,i)perylene	81 J	400 U	380 U	160 J	0.04	50,000

NOTES:

[1] < - Indicates analyte was not detected above instrument detection limits.

[2] NYSDEC Recommended Soil Cleanup Objectives and Cleanup Levels Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (NYSDEC TAGM No. 92-4046, revised 4/95).

[3] NA - Indicates Recommended Soil Cleanup Objective was not available.

[4] U - Indicates the compound was analyzed for but not dectected.

[5] J - Indicates an estimated value.

Table 4.3 (Cont. Page 4)
Subsurface Soil Samples
STARs VOCs and SVOCs Analytical Results
115 Front Street Property
Greenport, New York

AOC	South UST Area				NYSDEC	NYSDEC
Sample ID	SB-14	SB-15	SB-16	SB-17	STARs	
Sample Depth	(4'-5')	(5'-6')	(14"-29")	(4'-4'6")	TCLP Alt.[2]	RSCO[3]
STARs VOCs - ug/kg						
Benzene	<1	<1[1]	2	<1	14	60
Ethylbenzene	<1	<1	<1	<1	100	5,500
MTBE	2	<1	1	<1	1,000	N/A
Toluene	<1	<1	<1	<1	100	1,500
Xylenes (total)	<1	<1	6	<1	100	1,200
Isopropylbenzene	<1	<1	<1	<1	100	N/A
n-Propylbenzene	<1	<1	1	<1	100	N/A
p-Isopropyltoluene	2	<1	1	1	100	N/A
1,2,4-Trimethylbenzene	3	<1	3	<1	100	N/A
1,3,5-Trimethylbenzene	<1	<1	4	<1	100	N/A
n-Butylbenzene	<1	<1	1	<1	100	N/A
sec-Butylbenzene	<1	<1	<1	<1	100	N/A
Napthalene	<2	<2	<2	<2	200	13,000
STARs SVOCs - ug/kg						
Acenaphthene	340 U	410	760 U	390 U	400	50,000
Fluorene	340 U	410 U	760 U	390 U	1,000	50,000
Phenanthrene	340 U	410 J[5]	740 J	110 J	1,000	50,000
Anthracene	340 U	410 U	180 J	120 J	1,000	50,000
Fluoranthene	340 U	410 U	1100	290 J	1,000	50,000
Pyrene	340 U	410 U	1300	620	1,000	50,000
Benzo(a)anthracene	340 U	410 U	640 J	160 J	0.04	224 or MDL
Chrysene	340 U	410 U	780	540	0.04	400
Benzo(b)fluoranthene	340 U	410 U	970	240 J	0.04	224 or MDL
Benzo(k)fluoranthene	340 U	410 U	430 J	69 J	0.04	224 or MDL
Benzo(a)pyrene	340 U	410 U	730 J	110 J	0.04	61 or MDL
Ideno(1,2,3-cd)pyrene	340 U	410 U	630 J	48 J	0.04	3,200
Dibenzo(a,h)anthracene	340 U	410 U	86 J	390 U	1,000	14 or MDL
Benzo(g,h,i)perylene	340 U	410 U	790	83 J	0.04	50,000

NOTES:

[1] < - Indicates analyte was not detected above instrument detection limits.

[2] NYSDEC Recommended Soil Cleanup Objectives and Cleanup Levels Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (NYSDEC TAGM No. 92-4046, revised 4/95).

[3] NA - Indicates Recommended Soil Cleanup Objective was not available.

[4] U - Indicates the compound was analyzed for but not dectected.

[5] J - Indicates an estimated value.

Table 4.4
Subsurface Soil Samples
Target Analyte List Metals Analytical Results
115 Front Street Property
Greenport, New York

AOC	Boat-Bottom Scraping Are		DSA[6]	Water-Line Area		NYSDEC		
Sample ID	SB-1	SB-2	SB-3	SB-4	SB-5	Concentrations of Concern[3]		
Sample Depth	(4'6"-5'6")	(4'-5')	(1'7"-2'1")	(1'10"-2'10")	(3'-5')	RSCO[A]	SB[B]	EUS BG[C]
Metals - mg/kg								
Aluminum	1,050	3,350	1,990	4,840	2,800	SB[4]	5,460	33,000
Antimony	1.5 B[1]	0.63 U[2]	0.52 U	0.56 U	3.7 B[1]	SB	0.33 U	N/A[5]
Arsenic	6.9	3.9	2.4	5.4	9.6	7.5 or SB	8.7	3 - 12
Barium	98.2	38	45.2	62.3	384	300 or SB	15.7	15 - 600
Beryllium	0.084 B	0.19 B	0.13 B	0.26 B	0.4 B	0.16 or SB	0.25	0 - 1.75
Cadmium	0.56	0.44 B	0.4 B	0.46 B	1	10	0.4	0.1 - 1
Calcium	25,600	1,910	5,110	9,240	7,930	SB	498	130 - 35,000
Chromium	4.9	9.7	5.8	9.1	10.8	50	7.2	1.5 - 40
Cobalt	3.2 B	2 B	1.9 B	3.4	3.7 B	30 or SB	2.6	2.5 - 60
Copper	167	37.2	40.1	28.5	208	25 or SB	10.9	1 - 50
Iron	6,220	7,300	6,260	8,460	7,470	2,000 or SB	7800	2,000 - 550,00
Lead	421	118	97	117	969	*	24.6	200 - 500
Magnesium	501	973	817	1,290	530	SB	998	100 - 5,000
Manganese	42.8	61	77.4	108	159	SB	81.5	50 - 5,000
Mercury	1.2	0.79	0.37	0.62	1.3	0.1	0.1 U	0.001 - 0.2
Nickel	0.055 U	0.076 U	0.063 U	0.067 U	19.7	13 or SB	0.044 U	0.5 - 25
Potassium	325	438	321	370	375	SB	346	8,500 - 43,000
Selenium	0.67 B	0.63 U	0.56 B	0.88 B	1.9 B	2 or SB	0.33 U	0.1 - 3.9
Silver	0.29 B	0.25 U	0.22 B	0.25 B	0.38 B	SB	0.16	N/A
Sodium	551	260 B	205 B	346 B	862	SB	88.4	6,000 - 8,000
Thallium	0.36 U	0.55 B	0.42 U	0.46 B	0.45 U	SB	0.88	N/A
Vanadium	5.9	13.1	7.6	13.8	12.2	150 or SB	13.2	1 - 300
Zinc	179	79.2	109	146	479	20 or SB	43.6	9 - 50

NOTES:

[1] B - Indicates that analyte was detected in associated blank sample.

[2] U - Indicataes the analyte was analyzed for but not detected.

[3] Concentrations of Concern - Values based on NYSDEC TAGM - Recommended Soil Cleanup Objectives, HWR-94-4046, Revised 4/95 and other indicated documents.

[A] RSCO - Recommended Soil Cleanup Objective

[B] The measured Site Background level.

[C] EUS BG - Eastern USA Background

[4] SB - Site Background.

[5] NA - Indicates Recommended Soil Cleanup Objective was not available.

* Background levels for lead vary widely. Average background levels in metropolitan or suburban areas near highways are much higher and typically range from 200-500 ppm. The USEPA's Interim Lead Hazard Guidance (July 14, 1994) establishes a resedential screeening level of 400ppm.

Table 4.4 (Cont.)
Subsurface Soil Samples
Target Analyte List Metals Analytical Results
115 Front Street Property
Greenport, New York

AOC	LPA[6]	Texaco Alley Area			SUA[7]	NYSDEC Concentrations of Concern[3]		
Sample ID	SB-6	SB-7	SB-8	SB-9	SB-10			
Sample Depth	(0"-18")	(5'4"-6'4")	(5'-5'8")	(4'-4'8")	(6"-12")	RSCO[A]	SB[B]	EUS BG[C]
Metals - mg/kg								
Aluminum	2,300	710	1,250	2,090	5,120	SB[4]	5,460	33,000
Antimony	0.51 U[2]	0.51 U	0.52 U	3.3 B[1]	0.49 U[2]	SB	0.33 U	N/A[5]
Arsenic	3.7	0.98 B	1.2	2.3	24.1	7.5 or SB	8.7	3 - 12
Barium	54.5	7.7	9.3	95.9	70.5	300 or SB	15.7	15 - 600
Beryllium	0.14 B	0.05 B	0.068 B	0.11 B	0.26 B	0.16 or SB	0.25	0 - 1.75
Cadmium	0.45 B	0.6	0.18 B	0.57 B	0.86	10	0.4	0.1 - 1
Calcium	18,700	231	260	5,540	5,830	SB	498	130 - 35,000
Chromium	6.1	2 B	3.8	7	9	50	7.2	1.5 - 40
Cobalt	3.5 B	0.65 B	0.94 B	2.3 B	3 B	30 or SB	2.6	2.5 - 60
Copper	61.1	0.68	6.6	91	36.7	25 or SB	10.9	1 - 50
Iron	8,800	2,680	2,550	7,020	8,570	2,000 or SB	7800	2,000 - 550,00
Lead	188	21.4	27.1	613	182	*	24.6	200 - 500
Magnesium	6,710	264	569	1,790	979	SB	998	100 - 5,000
Manganese	96.9	15.6	20.1	2830	138	SB	81.5	50 - 5,000
Mercury	0.6	0.12 U	0.28	0.21	0.48	0.1	0.1 U	0.001 - 0.2
Nickel	17.5	0.061 U	0.063 U	0.068 U	0.058 U	13 or SB	0.044 U	0.5 - 25
Potassium	207	96.1 B	277	419	321	SB	346	8,500 - 43,000
Selenium	0.84 B	0.51 U	0.52 U	0.57 U	0.73 B	2 or SB	0.33 U	0.1 - 3.9
Silver	0.28 B	0.2 U	0.21 U	0.23 U	0.19 U	SB	0.16	N/A
Sodium	250 B	144 B	562	2280	244 B	SB	88.4	6,000 - 8,000
Thallium	0.41 U	0.4 U	0.42 U	0.46 U	0.39 U	SB	0.88	N/A
Vanadium	10	3.2 B	6.1	9.2	15.9	150 or SB	13.2	1 - 300
Zinc	117	76.5	43.5	134	150	20 or SB	43.6	9 - 50

NOTES:

[1] B - Indicates that analyte was detected in associated blank sample.

[2] U - Indicataes the analyte was analyzed for but not detecte

[3] Concentrations of Concern - Values based on NYSDEC TAGM - Recommended Soil Cleanup Objectives, HWR-94-4046, Revised 4/95 and other indicated documents.

[A] RSCO - Recommended Soil Cleanup Objective

[B] The measured Site Background level.

[C] EUS BG - Eastern USA Background

[4] SB - The RSCO for the analyte is the Site Background level.

[5] NA - Indicates Recommended Soil Cleanup Objective was not available.

[6] LPA - Light Pole Area.

[7] SUA - South UST Area.

* Background levels for lead vary widely. Average background levels in metropolitan or suburban areas near highways are much higher and typically range from 200-500 ppm. The USEPA's Interim Lead Hazard Guidance (July 14, 1994) establishes a resedential screeening level of 400ppm.

Table 4.5
Texaco Alley Area Soil Borings
STARs VOCs, STARs SVOCs and TCLP SVOCs Analytical Results
115 Front Street Property
Greenport, New York

AOC	Texaco Alley Area		NYSDEC	
Sample ID	SB-19	SB-20	STARs	NYSDEC
Depth	(3.5' to 5.0')	(3.5' to 5.0')	TCLP Alt.	RSCO[1]
STARs VOCs - ug/kg				
Benzene	<1	2	14	60
Ethylbenzene	<1	<1	100	5,500
MTBE	<1	<1	1,000	N/A[5]
Toluene	1	3	100	1,500
Xylenes (total)	4	4	100	1,200
Isopropylbenzene	<1	<1	100	N/A
n-Propylbenzene	<1	<1	100	N/A
p-Isopropyltoluene	<1	46	100	N/A
1,2,4-Trimethylbenzene	1	4	100	N/A
1,3,5-Trimethylbenzene	1	<1	100	N/A
n-Butylbenzene	6	9	100	N/A
sec-Butylbenzene	2	4	100	N/A
Napthalene	6	13	200	13,000
STARs SVOCs - ug/kg				
Napthalene	120 J	2,100 U	200	13,000
Acenaphthene	110 J	2,100 U	400	50,000
Fluorene	120 J	2,100 U	1,000	50,000
Phenanthrene	310 J	2,100 U	1,000	50,000
Anthracene	120 J	2,100 U	1,000	50,000
Fluoranthene	610 J	230 J	1,000	50,000
Pyrene	790 J	450 J	1,000	50,000
Benzo(a)anthracene	350 J	2,100 U	0.04	224 or MDL
Chrysene	540 J	2,100 U	0.04	400
Benzo(b)fluoranthene	660 J	350 J	0.04	224 or MDL
Benzo(k)fluoranthene	390 J	2,100 U	0.04	224 or MDL
Benzo(a)pyrene	470 J	250 J	0.04	61 or MDL
Ideno(1,2,3-cd)pyrene	280 J	2,100 U	0.04	3,200
Dibenzo(a,h)anthracene	1,000 J	2,100 U	1,000	14 or MDL
Benzo(g,h,i)perylene	390 J	470 J	0.04	50,000
TCLP SVOCs - ug/L			**TCLP EGV[2]**	
Napthalene	33 U	33 U	10	NA
Acenaphthene	33 U	33 U	20	NA
Fluorene	33 U	33 U	50	NA
Phenanthrene	33 U	33 U	50	NA
Anthracene	33 U	33 U	50	NA
Fluoranthene	33 U	33 U	50	NA
Pyrene	33 U	33 U	50	NA
Benzo(a)anthracene	33 U	33 U	0.002	NA
Chrysene	33 U	33 U	0.002	NA
Benzo(b)fluoranthene	33 U	33 U	0.002	NA
Benzo(k)fluoranthene	33 U	33 U	0.002	NA
Benzo(a)pyrene	33 U	33 U	0.002	NA
Ideno(1,2,3-cd)pyrene	33 U	33 U	0.002	NA
Dibenzo(a,h)anthracene	33 U	33 U	50	NA
Benzo(g,h,i)perylene	33 U	33 U	0.002	NA

NOTES:
< - Indicates analyte was not detected above instrument detection limits.
U - Indicates analyte was not detected above instrument detection limits.
J - Indicates an estimated value.
NA - Indicates Recommended Soil Cleanup Objective was not available.

[1] NYSDEC Recommended Soil Cleanup Objectives and Cleanup Levels Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (NYSDEC TAGM No. 92-4046, revised 4/95).

[2] TCLP EGV - STARs TCLP Extraction Guidance Value.

Table 4.6
STARs VOCs and SVOCs Groundwater Analytical Results
115 Front Street Property
Greenport, New York

AOC	North UST Area			South UST Area			NYSDEC
Sample ID	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	Class GA[1]
STARs VOCs - ug/L							
Benzene	<1	5	<1	50	2	94	1
Ethylbenzene	10	85	<1	740	2	74	5
MTBE	<1	<1	<1	<50	2	2	NA[2]
Toluene	<1	3	<1	250	5	3	5
Xylenes (total)	21	140	<1	2,800	10	70	5
Isopropylbenzene	6	37	<1	65	<1	4	5
n-Propylbenzene	<1	<1	<1	<50	<1	<1	5
p-Isopropyltoluene	<1	<1	<1	<50	<1	22	5
1,2,4-Trimethylbenzene	64	210	<1	1,200	5	46	5
1,3,5-Trimethylbenzene	15	84	<1	180	1	1	5
n-Butylbenzene	33	65	1	190	6	2	5
sec-Butylbenzene	8	53	<1	<50	<1	1	5
Napthalene	61	220	<2	480	3	9	NA
STARs SVOCs - ug/L							
Napthalene	10 U	64	10 U	90	2 J	1 J	NA
Acenaphthene	1 J	3 J	10 U	2 J	10 U	10 U	NA
Fluorene	1 J	4 J	10 U	4 J	10 U	10 U	NA
Phenanthrene	10 U	2 J	10 U	3 J	1 J	10 U	NA
Anthracene	10 U	10	10 U	10 U	10 U	10 U	NA
Fluoranthene	10 U	10	10 U	10 U	4 J	10 U	NA
Pyrene	10 U	10	10 U	10 U	3 J	10 U	NA
Benzo(a)anthracene	10 U	10	10 U	10 U	2 J	10 U	NA
Chrysene	10 U	10	10 U	10 U	2 J	10 U	NA
Benzo(b)fluoranthene	10 U	10	10 U	10 U	2 J	10 U	NA
Benzo(k)fluoranthene	10 U	10	10 U	10 U	10 U	10 U	NA
Benzo(a)pyrene	10 U	10	10 U	10 U	2 J	10 U	NA
Ideno(1,2,3-cd)pyrene	10 U	10	10 U	10 U	10 U	10 U	NA
Dibenzo(a,h)anthracene	10 U	10	10 U	10 U	10 U	10 U	NA
Benzo(g,h,i)perylene	10 U	10	10 U	10 U	10 U	10 U	NA

NOTES:

[1] NYSDEC Ground Water Quality Regulations Class GA standard.

[2] Class GA Standard not available.

D - Compound identified at a secondary dilution factor.

U - Indicates the compound was analyzed for But not detected.

J - Indicates an estimated value.

Table 4.6 (Cont.)
STARs VOCs and SVOCs Groundwater Analytical Results
115 Front Street Property
Greenport, New York

AOC	Texaco Alley Area				QA/QC			NYSDEC
Sample ID	MW-7	MW-8	MW-9	MW-10	MW-11	Field Blank	Trip Blank	Class GA[2]
STARs VOCs - ug/L								
Benzene	35	6	88	4	<1	<1	<1	1
Ethylbenzene	33	320	17	11	<1	<1	<1	5
MTBE	<1	<5	<10	<1	<1	<1	<1	NA[3]
Toluene	4	43	130	3	<1	<1	<1	5
Xylenes (total)	87	1,200	1,100	51	<1	<1	<1	5
Isopropylbenzene	4	30	40	5	<1	<1	<1	5
n-Propylbenzene	<1	<5	<10	2	<1	<1	<1	5
p-Isopropyltoluene	<1	<5	<10	<1	<1	<1	<1	5
1,2,4-Trimethylbenzene	73	870 D	790	25	<1	<1	<1	5
1,3,5-Trimethylbenzene	21	82	85	1	<1	<1	<1	5
n-Butylbenzene	23	93	100	5	<1	<1	<1	5
sec-Butylbenzene	2	14	<10	4	<1	<1	<1	5
Napthalene	53	106	140	11	<2	<2	<2	NA
STARs SVOCs - ug/L								
Napthalene	10 U	57	10 U	4 J	10 U	10 U	NA	NA
Acenaphthene	10 U	10 U	1 J	10 U	10 U	10 U	NA	NA
Fluorene	10 U	10 U	1 J	10 U	10 U	10 U	NA	NA
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Benzo(a)anthracene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Chrysene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Benzo(b)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Benzo(a)pyrene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Ideno(1,2,3-cd)pyrene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Dibenzo(a,h)anthracene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA
Benzo(g,h,i)perylene	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA

NOTES:

[1] Sample was a blind duplicate of MW-3 and was labeled MW-11 in the field.

[2] NYSDEC Ground Water Quality Regulations Class GA standard.

[3] Class GA Standard not available.

D - Compound identified at a secondary dilution factor.

U - Indicates the compound was analyzed for But not detected.

J - Indicates an estimated value.

Table 4.7
TAL Metals Groundwater Analytical Results
115 Front Street Property
Greenport, New York

AOC	North UST Area						South UST Area						NYSDEC
Sample ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		Class GA[1]
Metals - ug/l													
Aluminum	717		777		615		4,570		3,010		63.2	B	NA[2]
Antimony	2.0	U	2.7	B	3.8	B	4.6	B	3.5	B	2.1	B	3
Arsenic	5.0	B	3.0	U	9.5	B	10.0		4.5	B	3.0	U	25
Barium	31.6	B	33.5	B	352		96.6	B	134	B	144	B	1,000
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	NA
Cadmium	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	5
Calcium	49,900		38,500		87,700		66,800		58,600		130,000		NA
Chromium	2.0	U	2.0	U	2.7	B	7.0	B	8.3	B	2.0	U	50
Cobalt	3.0	U	3.0	U	4.6	B	3.0	U	3.0	U	3.0	U	NA
Copper	3.4	B	5.5	B	155		119		33.5		2.0	U	200
Iron	6,260		1,730		17,200		5,980		6,210		8,760		300
Lead	3.0	U	3.0	U	226		279		193		3.0	U	25
Magnesium	9,180		9,140		13,800		5,900		13,600		18,900		NA
Manganese	659		303		2,140		506		127		440		300
Mercury	0.14	UN	0.14	UN	0.97	N	1.4	N	1.1		1.2	N	0.7
Nickel	2.4	B	1.7	B	6.0	B	5.0	B	7.2	B	2.5	B	100
Potassium	3,260		3,830		6,040		2,820		13,900		24,300		NA
Selenium	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	10
Silver	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	50
Sodium	31,200		26,500		42,900		13,700		73,500		59,000		20,000
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	NA
Vanadium	3.5	B	2.9	B	3.4	B	11.4	B	9.3	B	2.0	U	NA
Zinc	12.3	B	17.4	B	610		169		160		24.2	B	NA

NOTES:

[1] NYSDEC Ground Water Quality Regulations Class GA standard.

[2] Class GA Standard not available.

B - Reported value is less than Contract Required Detection Limit (CDRL) but greater than the Instrument Detection Limit (IDL).

U - Compound was analyzed for but not detected.

N - Matrix spike sample recovery not within control limits.

Table 4.7(Cont.)
TAL Metals Groundwater Analytical Results
115 Front Street Property
Greenport, New York

AOC	Texaco Alley Area								QA/QC				NYSDEC
Sample ID	MW-7		MW-8		MW-9		MW-10		MW-11		Field Blank		Class GA[2]
Metals - ug/l													
Aluminum	2,810		1,660		226	B	389		707		39.0	U	NA[3]
Antimony	2.2	B	2.0	U	2.0	U	2.0	U	4.7	B	2.1	B	3
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	8.0	B	3.0	U	25
Barium	54.1	B	299		259		192	B	362		1.0	B	1,000
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	NA
Cadmium	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	5
Calcium	118,000		126,000		111,000		188,000		89,400		267	U	NA
Chromium	4.3	B	5.6	B	2.0	U	2.0	U	4.5	B	2.0	U	50
Cobalt	3.8	B	3.0	U	3.0	U	3.0	U	4.6	B	3.0	U	NA
Copper	12.1	B	10.0	B	2.0	U	2.0	U	158		2.0	U	200
Iron	3,530		8,380		6,840		4,490		17,300		23.0	U	300
Lead	3.0	U	5.4		3.0	U	3.0	U	220		3.0	U	25
Magnesium	21,500		83,400		80,200		262,000		14,100		19.0	U	NA
Manganese	1,220		3,600		1,020		580		2,130		3.0	U	300
Mercury	0.14	UN	0.14	UN	0.19	BN	0.14	UN	1.2	N	0.14	UN	0.7
Nickel	3.7	B	3.4	B	1.3	B	1.0	B	6.1	B	1.0	U	100
Potassium	8,070		58,300		31,300		179,000		7,330		126	U	NA
Selenium	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.4	B	10
Silver	3.0	U	3.0	U	3.0	U	4.6	B	3.0	U	3.0	U	50
Sodium	116,000		682,000		591,000		302,000		44,200		367	B	20,000
Thallium	3.0	U	3.0	U	4.7	B	9.9	B	3.0		3.0	U	NA
Vanadium	6.1	B	5.9	B	2.1	B	2.0	U	3.7		2.0	U	NA
Zinc	140		183		13.2	B	7.9	B	622		9.7	B	NA

NOTES:

[1] Sample was a blind duplicate of MW-3 and was labeled MW-11 in the field.

[2] NYSDEC Ground Water Quality Regulations Class GA standard.

[3] Class GA Standard not available.

B - Reported value is less than Contract Required Detection Limit (CDRL) but greater than the Instrument Detection Limit (IDL).

U - Compound was analyzed for but not detected.

N - Matrix spike sample recovery not within control limits.

Table 5.1
QA/QC
Target Analyte List Metals Analytical Results
115 Front Street Property
Greenport, New York

SAMPLE ID	SS-BB	BG-1	FB-1	FB-2	CONCENTRATIONS OF CONCERN[2]	
					RSCO[A]	EUS BG[B]
Metals	**mg/kg**	**mg/kg**	**ug/l**	**ug/l**		
Aluminum	20,000	5,460	28.2 B	24.1 B	SB[4]	33,000
Antimony	1.2 B[1]	0.33 U[2]	5 U	3 U	SB	N/A[5]
Arsenic	69.3	8.7	2 U	3 U	7.5 or SB	3 - 12
Barium	68.6	15.7	5.6 B	4.5 B	300 or SB	15 - 600
Beryllium	0.79	0.25 B	0.2 U	0.3 U	0.16 or SB	0 - 1.75
Cadmium	1.8	0.4 B	0.5 U	0.6 B	10	0.1 - 1
Calcium	1,580	498	102 B	63.3 B	SB	130 - 35,000
Chromium	23.6	7.2	0.75 B	0.55 B	50	1.5 - 40
Cobalt	3.5 B	2.6 B	1.1 B	0.83 B	30 or SB	2.5 - 60
Copper	82.3	10.9	2.4 B	5.1 B	25 or SB	1 - 50
Iron	19,000	7800	29.2 B	75 U	2,000 or SB	2,000 - 550,00
Lead	62.7	24.6	3 U	2 U	N/A	200 - 500
Magnesium	2,060	998	50.2 B	44.4 B	SB	100 - 5,000
Manganese	143	81.5	1.8 B	3.1 B	SB	50 - 5,000
Mercury	0.17 B	0.1 U	0.29 U	0.2 U	0.1	0.001 - 0.2
Nickel	0.044 U	0.044 U	0.72 B	1 B	13 or SB	0.5 - 25
Potassium	951	346	177 U	396 U	SB	8,500 - 43,000
Selenium	0.82 B	0.33 U	5 U	3 U	2 or SB	0.1 - 3.9
Silver	0.51 B	0.16 B	2.9 B	4.5 B	SB	N/A
Sodium	63.5 B	88.4 B	300 U	240 U	SB	6,000 - 8,000
Thallium	2.2	0.88 B	4 U	3 U	SB	N/A
Vanadium	38.5	13.2	1 U	1 U	150 or SB	1 - 300
Zinc	69.2	43.6	5.4 B	9.6 B	20 or SB	9 - 50

NOTES:

[1] B - Indicates that analyte was detected in associated blank sample.

[2] U - Indicataes the analyte was analyzed for but not detecte

[3] Concentrations of Concern - Values based on NYSDEC TAGM - Recommended Soil Cleanup Objectives, HWR-94-40

[A] RSCO - Recommended Soil Cleanup Objective

[B] EUS BG - Eastern USA Background

[4] SB - Site Background.

[5] NA - Indicates Recommended Soil Cleanup Objective was not available.

Table 5.2
QA/QC
STARs VOCs and SVOCs Analytical Results
115 Front Street Property
Greenport, New York

SAMPLE ID NITS OF MEASUREMEN	SB-AA		SS-BB		SS-1MS	SS-1MSD	FB-1	FB-2		BG-1		TB 8-Dec	TB 9-Dec	TB 2-Mar	SDEC ST CLP Alt.	NYSDEC RSCO[3]
STARs VOCs	mg/kg		mg/kg		mg/kg	mg/kg	ug/l	ug/l		mg/kg		ug/l	ug/l	ug/l		
Benzene	<1[1]		<1				<1	<1		<1		<1	<1	<1	14	60
Ethylbenzene	<1		<1				<1	<1		<1		<1	<1	<1	100	5,500
MTBE	<1		1				<1	<1		<1		<1	<1	<1	1,000	N/A
Toluene	<1		<1				<1	<1		<1		<1	<1	<1	100	1,500
Xylenes (total)	<1		<1				<1	<1		<1		<1	<1	<1	100	1,200
Isopropylbenzene	<1		<1				<1	<1		<1		<1	<1	<1	100	N/A
n-Propylbenzene	<1		<1				<1	<1		<1		<1	<1	<1	100	N/A
p-Isopropyltoluene	<1		<1				<1	<1		<1		<1	<1	<1	100	N/A
1,2,4-Trimethylbenzene	<1		<1				<1	<1		<1		<1	<1	<1	100	N/A
1,3,5-Trimethylbenzene	<1		<1				<1	<1		<1		<1	<1	<1	100	N/A
n-Butylbenzene	<1		<1				<1	<1		<1		<1	<1	<1	100	N/A
sec-Butylbenzene	<1		<1				<1	<1		<1		<1	<1	<1	100	N/A
Napthalene	<2		<2				<2	<2		<2		<2	<2	<2	200	13,000
STARs SVOCs																
Acenaphthene	410	U[4]	400	U	690	620	10	10	U[4]	380	U				400	50,000
Fluorene	410	U	400	U	740	640	10	10	U	380	U				1,000	50,000
Phenanthrene	410	U	400	U	690	630	10	10	U	380	U				1,000	50,000
Anthracene	410	U	400	U	640	600	10	10	U	380	U				1,000	50,000
Fluoranthene	410	U	400	U	630	570	10	10	U	86	J[5]				1,000	50,000
Pyrene	410	U	400	U	760	720	10	10	U	100	J				1,000	50,000
Benzo(a)anthracene	410	U	400	U	680	620	10	10	U	53	J				0.04	224 or MDL
Chrysene	410	U	400	U	720	640	10	10	U	91	J				0.04	400
Benzo(b)fluoranthene	410	U	400	U	710	630	10	10	U	130	J				0.04	224 or MDL
Benzo(k)fluoranthene	410	U	400	U	740	680	10	10	U	54	J				0.04	224 or MDL
Benzo(a)pyrene	410	U	400	U	640	590	10	10	U	64	J				0.04	61 or MDL
Ideno(1,2,3-cd)pyrene	410	U	400	U	540	480	10	10	U	380	U				0.04	3,200
Dibenzo(a,h)anthracene	410	U	400	U	580	520	10	10	U	380	U				1,000	14 or MDL
Benzo(g,h,i)perylene	410	U	400	U	540	470	10	10	U	380	U				0.04	50,000

NOTES:

[1] < - Indicates analyte was not detected above instrument detection limits.

[2] NYSDEC Recommended Soil Cleanup Objectives and Cleanup Levels Division of Hazardous Waste Remediation - Technical and Administrative Guidance Memorandum (NYSDEC TAGM No. 92-4046, revised 4/95).

[3] NA - Indicates Recommended Soil Cleanup Objective was not available.

[4] U - Indicates the compound was analysed for but not dectected.

TABLE 5.3
SAMPLE MEDIA AND QA/QC CHART
115 AND 203 FRONT STREET PROPERTIES
GREENPORT, NEW YORK

Task Identification	Matrix	Analysis				QA/QC Samples			
		STARS VOCs	STARS SVOCs	TCLP SVOCs	TAL Metals	Trip Blank	Field Blank	MS	Blind Duplicates
Liquids from USTs	Water			1	1				
Subsurface Soil Investigation	Soil	20	20	2	10	2	1	1	1
Surface Soil Investigation	Soil	10	10		10	1	1	1	1
Groundwater Investigation	Groundwater	4	4			1	1	1	1

TABLE 6.1
GROUNDWATER FLOW VELOCITIES
115 Frount Street, Greenport, New York

Year	Days	Feet Traveled
1	365	657
2	730	1,314
3	1,095	1,971
4	1,460	2,628
5	1,825	3,285
6	2,190	3,942
7	2,555	4,599
8	2,920	5,256
9	3,285	5,913
10	3,650	6,570
11	4,015	7,227
12	4,380	7,884
13	4,745	8,541
14	5,110	9,198
15	5,475	9,855
16	5,840	10,512
17	6,205	11,169
18	6,570	11,826
19	6,935	12,483
20	7,300	13,140
21	7,665	13,797
22	8,030	14,454
23	8,395	15,111
24	8,760	15,768
25	9,125	16,425
26	9,490	17,082
27	9,855	17,739
28	10,220	18,396
29	10,585	19,053
30	10,950	19,710

Notes:

Groundwater flow velocity estimated by the following formula:

$$GWFV = \frac{\text{hydraulic Conductiviity (k) x Gradient}}{\text{Porosity}}$$

K = 270 ft/day
Gradient = 0.32ft/155ft=0.002
Porosity = 0.30 (30 percent)

$$\text{Therefore GWFV} = \frac{270 \text{ ft/day} \times 0.002}{0.3}$$

GWFV = 1.8 ft/day

TABLE 7.1

115 Front Street Property
Greenport, New York

Functional Exposure Pathway Evaluation

Functional Exposure Pathway	Contaminant Source	Release Mechanism	Transport Mechanism	Pathway Complete
Ingestion of contaminated soil.	Yes	Yes	Yes	Yes
Inhalation of vapors.	Yes	Yes	Yes	Yes
Inhalation of potentially contaminated dust during remediation activities.	Yes	Yes	Yes	Yes
Direct contact with potentially contaminated runoff water.	Yes	No	NA	No
Ingestion of contaminated groundwater.	Yes	Yes	Yes	No
Dermal absorption of contaminants via direct contact with contaminated soil.	Yes	Yes	Yes	Yes
Dermal absorption of contaminants via direct contact with contaminated groundwater.	Yes	Yes	Yes	No

TABLE 7.2
115 Frount Street Property,
Greenport, New York

Qualitative Risk Characterization

Functional Exposure Pathway	Potential Receptor Population	Qualitative Potential Risk
Ingestion of Contaminated Soil	On-Site Workers	High
	Trespassers	Moderate
	Area Residents	Low
	Remedial Workers	Low
Inhalation of Vapors	On-Site Workers	High
	Trespassers	High
	Area Residents	Low
	Remedial Workers	Low
Inhalation of Contaminated Dust During Remediation Activities	On-Site Workers	High
	Trespassers	Low
	Area Residents	Low
	Remedial Workers	Low
Direct Contact with Runoff Water	On-Site Workers	Low
	Trespassers	Low
	Area Residents	Low
	Remedial Workers	Low
Ingestion of Contaminated Groundwater	On-Site Workers	Low
	Trespassers	Low
	Area Residents	Low
	Remedial Workers	Low
Dermal Absorption of Contaminants in Soil	On-Site Workers	High
	Trespassers	Moderate
	Area Residents	Low
	Remedial Workers	Low
Dermal Absorption of Contaminants in Groundwater	On-Site Workers	Low
	Trespassers	Low
	Area Residents	Low
	Remedial Workers	Low

APPENDIX A

Disposal Documentation

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

No 9267

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 77-119

#1 Truck License Number 722817

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: VILLAGE OF GREENPORT
236 THIRD STREET
GREENPORT, NY 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: CLEAN WATER
3249 RICHMOND TERRACE - PO BOX 030312
STATEN ISLAND, NY 10303-0312

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
OILY WATER WASTE, NONE, NONE	1	TT	5400 /GAL	N010	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Michael N. Hunter (Agent for Generator) - H2M Group — August 12, 1998
Generator's Signature — Date

Transporter's Signature #1 — 8/12/98
Date

Transporter's Signature #2 — 8-13-98
Date

8/13/98 — 8/13/98
TSDF Signature — Date

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

№ 6168

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 33T125

#1 Truck License Number 722802

#2 MEG ID #

#2 Truck License Number

IDENTIFICATION

Company name, mailing address and telephone number

Generator: VILLAGE OF GREENPORT
236 THIRD ST.
GREENPORT NY. 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: CLEAN WATER
3249 RICHMOND TERRACE - PO BOX 030312
STATEN ISLAND NY 10303-0312

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
OILY WATER WASTE, NONE, NONE	1	TT	5200 GALS	NO10	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Generator's Signature: (Agent for Generator) HZM Group — Date: 8/13/98

Transporter's Signature #1: Ray Wittemann — Date: 8/13/98

Transporter's Signature #2 — Date

TSDF Signature — Date: 8/14/98

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

No 9248

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 77-119

#1 Truck License Number 722817

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport NY 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Clean Water
3249 Richmond Terrace - PO Box 030312
Staten Island, NY 10303-0312

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oily Water Waste, none, none	1	TT	5400 /gals.	N010	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Michael N. Kenton (Agent for Owner) HZM Corp — Generator's Signature — Date 8-14-98

Transporter's Signature #1 — Date 8-14-98

Ray Wittmann — Transporter's Signature #2 — Date 8-17-98

TSDF Signature 8/17/98 — Date 8/17/98

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

No 9249

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # #22

#1 Truck License Number PP5353

#2 MEG ID # #22

#2 Truck License Number PP 5353

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport NY 11944

SP #98-05972

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Clean Water
3249 Richmond Terrace - PO Box 030312
Staten Island, NY 10303-0312

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oily Water Waste, none, none	1	TT	122 Stim /gals.	N010	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Generator's Signature — Date 8-17-98

Transporter's Signature #1 — Date 8-17-98

Transporter's Signature #2 — Date 8-21-98

8/21/98

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

No 9247

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # #22

#1 Truck License Number PP535

#2 MEG ID # #22

#2 Truck License Number PP 5353

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport NY 11944

Transporter: Miller Environmental Group, Incorporated
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Clean Water
3249 Richmond Terrace - PO Box 030312
Staten Island, NY 10303-0312

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oily Water Waste, none, none	1	TT	1415 /gals.	N010	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous defined by 6 NY CRR Section 371 and 372.

Michael N. Gentile (Agent for Owner) HZM Corp — Generator's Signature — Date 8-17-98

Transporter's Signature #1 — Date 8-17-98

Transporter's Signature #2 — Date 8-21-98

TSDF Signature — Date 8/21/98

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

Nº 927

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 42

#1 Truck License Number PC9579

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: VILLAGE OF GREENPORT
236 THIRD ST
GREENPORT N.Y.

SP.# 9805972

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: AMERICAN REF-FUEL
600 AVEC @ STEWART AVE
WESTBURY NY 11590

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
VIRGIN OIL SPILL DEBRIS	1	CM	8yds		

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous defined by 6 NY CRR Section 371 and 372.

X Tom Cybulski
Generator's Signature

8/19/98
Date

X
Transporter's Signature #1

8/19/98
Date

Transporter's Signature #2

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

No 8791

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 43 /20-14

#1 Truck License Number PD3674

#2 MEG ID # 42 /20-14

#2 Truck License Number PC9579

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport, NY 11944

Spill # 98-05972
Site: Front Street
Greenport, NY 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Blue Water Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	24.65 TONS 20 ~~tons~~ YDS	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous defined by 6 NY CRR Section 371 and 372.

Tom Cybulski — Generator's Signature — Date 8-20-98

Dale Klatt — Transporter's Signature #1 — Date 8-20-98

[signature] — Transporter's Signature #2 — Date 8-21-98

[signature] — TSDF Signature — Date 8/21/98

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

№ 8789

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 14/20-10

#1 Truck License Number PM 8108

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport, NY 11944

Spill # 98-05972
Site: Front Street
Greenport, NY 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Blue Water Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	23.66 TONS 20 ~~tons~~ YDS	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous defined by 6 NY CRR Section 371 and 372.

Tom Cybulski
Generator's Signature

8-20-98
Date

Transporter's Signature #1

8-20-98
Date

Transporter's Signature #2

Date

V. Pro Illes
TSDF Signature

8-20-98
Date

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

№ 8790

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 42 - 20-2

#1 Truck License Number PC9579

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport, NY 11944

Spill # 98-05972
Site: Front Street
Greenport, NY 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Blue Water Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	31.14 TONS 20 / ~~tons~~ YDS	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Tom Cyganiak
Generator's Signature — Date 8/20/98

Robert Marks
Transporter's Signature #1 — Date 8/20/98

Transporter's Signature #2 — Date

V. Pollas
TSDF Signature — Date 8-20-98

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

Nº 8796

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 42/20-4

#1 Truck License Number PC9579

#2 MEG ID # Same

#2 Truck License Number Same

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport, NY 11944

Spill # 98-05972
Site: Front Street
Greenport, NY 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Blue Water Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	23.70 Tons 20 /Yds.	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Tom Cybulski
Generator's Signature — Date 8-20-98

Robert Mott
Transporter's Signature #1 — Date 8/20/98

Transporter's Signature #2 — Date 8-21-98

M. Reynolds
TSDF Signature — Date 8/21/98

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

Nº 8799

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 43/15-7

#1 Truck License Number PD 3674

#2 MEG ID # 17

#2 Truck License Number PM-8108

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport, NY 11944

Spill # 98-05972
Site: Front Street
Greenport, NY 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Blue Water Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	18 ~~tons~~ YDS	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Generator's Signature — Date 8/20/98

Transporter's Signature #1 — Date 8-20-98

Transporter's Signature #2 — Date 6-21-98

TSDF Signature — Date 8/21/98

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

№ 8798

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 43 /20-6

#1 Truck License Number PD3674

#2 MEG ID # 17

#2 Truck License Number PM-8108

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport, NY 11944

Spill # 98-05972
Site: Front Street
Greenport, NY 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Blue Water Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	20 /Yds.	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Tom Cybulski
Generator's Signature

8-20-98
Date

Bob Klint
Transporter's Signature #1

8-20-98
Date

Jim Brooks
Transporter's Signature #2

8-21-98
Date

M. Reynolds
TSDF Signature

8/21/98
Date

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

No 8797

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 17/20-5

#1 Truck License Number PM8108

#2 MEG ID #

#2 Truck License Number [redacted]

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport, NY 11944

Spill # 98-05972
Site: Front Street
Greenport, NY 11944

Transporter: **Miller Environmental Group, Incorporated**
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Blue Water Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	20 /Yds.	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Tom Cybulski
Generator's Signature

8-20-98
Date

Robert W Maione
Transporter's Signature #1

8-20-98
Date

[illegible]
Transporter's Signature #2

8-21-98
Date

[illegible]
TSDF Signature

8/21/98
Date

Posillico Bros. Asphalt Co.

1610 New Highway, Farmingdale, N.Y. 11735
Plant Tele: 293-2620, 2621

HOT STORAGE

12/30/98
15:51

Ticket
69047

Customer: 178
BLUE WATER ENVIRONMENTAL INC.
1610 NEW HIGHWAY
FARMINGDALE, NY 11735
P.O. #:

Job: 95358
MAN#001240

Truck #
BW104

PICKUP

Products		Amount
67	CONTAMINATED SOIL	10.52

Plant Name: PBA

Received By: _____ Driver Name: _____

		MTN
G=	27.84	25.25
T=	17.32	15.71
N=	10.52	9.54

01249

P.B.A. CO.

1610 NEW HIGHWAY, FARMINGDALE, N.Y. 11735

PBA# 96358

BWE # C1763

SPILL # 98-11770

CUSTOMER HAULER

PLEASE TYPE OR PRINT CLEARLY USING A BALLPOINT PEN — PRESS HARD

GENERATOR NAME

1. Mitchell Property
2.
3.

GENERATOR ADDRESS- FOR THE SERVICE LOCATION

1. 115 Front St, Greenport, NY

GENERATOR CONTACT

1. NAME Brian Balduin TITLE
2. PHONE NUMBER-Area Code ( )- (516) 734-8000 x1611
3. DATE SHIPPED FROM SERVICE LOCATION 12/7/98 A.M. P.M. 1300
4. GENERATOR SIGNATURE Brian Balduin - Ham P.C. => Village of Greenport

GENERATOR INDENTIFICATION OF WASTE TYPE OR TYPES

1. ITEM TYPE N-816 -- CONTAMINATED DIRT SAND OR SOIL
2. ITEM TYPE
3. ITEM TYPE
4. ITEM TYPE
5. QUANTITY — CHECK ONE ( ) CUBIC YARDS _____ TONS _____ OTHER _____
6. SHIPPED IN CONTAINER TYPE ~~TRAILER~~ roll-off

TRANSPORTER I Name and Address

1. Blue Water Environmental Inc. - NYS DEC 1A-400
2. 1610 New Highway
3. Farmingdale, NY 11735
4. Contact: Thomas R. Spatafora - Vice President
5. PHONE NUMBER - Area Code (516) -752-2145
6. DATE OF THE LOAD PICKUP _____ A.M. _____ P.M. _____
7. DRIVER'S NAME John Cunha
8. DRIVER'S SIGNATURE

TRANSPORTER II

1. COMPANY NAME
2. DATE _____ A.M. _____ P.M. _____
3. DRIVER'S NAME
4. DRIVER'S SIGNATURE
5. DELIVERY IN CONTAINER TYPE _____ I.D. NO. _____

DISPOSALFACILITY

12 - 98

1. DELIVERY RECEIVED DATE
2. TIME OF DELIVERY _____ A.M. 4:- P.M. _____
3. SUPERVISOR INSPECTOR NAME
4. INSPECTOR SIGNATURE
5. THE LOAD WAS RECEIVED AS STATED BY THE GENERATOR YES + NO _____
6. REJECTED LOAD - YES _____ NO +
7. IF YES PLEASE REMARK

GENERATOR'S CERTIFICATION. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S.E.P.A. and the NYSDEC. THE WASTE DESCRIBED ABOVE WAS APPROVED FOR DISPOSAL, BASED ON THE AGREEMENT BETWEEN BOTH THE GENERATOR AND THE DISPOSAL FACILITY. I certify that the foregoing is true and correct to the best of my knowledge. If the waste shipment is not as stated I accept the RETURN of the COMPLETE LOAD to the generator's service location, at the generator's expense.

INSTRUCTIONS

GENERATOR'S COPY — Mailed from PBA after disposal process, and with the monthly billing.
TRANSPORTER'S COPY — Given to the transporter driver when shipment is inspected and unloaded.
DISPOSAL FACILITY — Filed in customer - generator master file.

(1&2) Disposal Facility Copy-White/Yellow (3) Generator's Copy-Pink (4) Transporters Copy-Green (5) [illegible]

Posillico Bros. Asphalt Co.

1610 New Highway, Farmingdale, N.Y. 11735
Plant Tele: 293-2620, 2621

HOT STORAGE

01/12/99
12:28

Ticket # 69111

Customer: 178
BLUE WATER ENVIROMENTAL INC.
1610 NEW HIGHWAY
FARMINGDALE, NY 11735
P.O. #:

Job: 98358
MAN#01250

Truck #
971

PICKUP

Products		Amount
57	CONTAMINATED SOIL	29.64

Plant Name: PBA

Received By: _____ Driver Name: _____

		MTN
G=	45.92	41.66
T=	16.28	14.77
N=	29.64	26.89

01250

P.B.A. CO.

1610 NEW HIGHWAY, FARMINGDALE, N.Y. 11735

PBA# _____

BWE # _____

SPILL # _____

CUSTOMER HAULER

PLEASE TYPE OR PRINT CLEARLY USING A BALLPOINT PEN — PRESS HARD

GENERATOR NAME

1. _____
2. _____
3. _____

GENERATOR ADDRESS- FOR THE SERVICE LOCATION

1. _____

GENERATOR CONTACT

1. NAME _____ TITLE _____
2. PHONE NUMBER-Area Code ( )- _____
3. DATE SHIPPED FROM SERVICE LOCATION _____ A.M. _____ P.M.
4. GENERATOR SIGNATURE _____

GENERATOR INDENTIFICATION OF WASTE TYPE OR TYPES

1. ITEM TYPE N-816 -- CONTAMINATED DIRT SAND OR SOIL
2. ITEM TYPE _____
3. ITEM TYPE _____
4. ITEM TYPE _____
5. QUANTITY — CHECK ONE ( ) CUBIC YARDS _____ TONS _____ OTHER _____
6. SHIPPED IN CONTAINER TYPE _____

TRANSPORTER I Name and Address

1. [redacted] - NYS DEC [redacted]
2. [redacted]
3. [redacted]
4. Contact: [redacted]
5. PHONE NUMBER - Area Code (516) [redacted]
6. DATE OF THE LOAD PICKUP _____ A.M. _____ P.M.
7. DRIVER'S NAME _____
8. DRIVER'S SIGNATURE _____

TRANSPORTER II

1. COMPANY NAME _____
2. DATE _____ A.M. _____ P.M.
3. DRIVER'S NAME _____
4. DRIVER'S SIGNATURE _____
5. DELIVERY IN CONTAINER TYPE _____ I.D. NO. _____

DISPOSALFACILITY

1. DELIVERY RECEIVED DATE _____
2. TIME OF DELIVERY _____ A.M. _____ P.M.
3. SUPERVISOR INSPECTOR NAME _____
4. INSPECTOR SIGNATURE _____
5. THE LOAD WAS RECEIVED AS STATED BY THE GENERATOR YES ____ NO ____
6. REJECTED LOAD - YES ____ NO ____
7. IF YES PLEASE REMARK _____

GENERATOR'S CERTIFICATION. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S.E.P.A. and the NYSDEC. THE WASTE DESCRIBED ABOVE WAS APPROVED FOR DISPOSAL, BASED ON THE AGREEMENT BETWEEN BOTH THE GENERATOR AND THE DISPOSAL FACILITY. I certify that the foregoing is true and correct to the best of my knowledge. If the waste shipment is not as stated I accept the RETURN of the COMPLETE LOAD to the generator's service location, at the generator's expense.

INSTRUCTIONS

GENERATOR'S COPY — Mailed from PBA after disposal process, and with the monthly billing.
TRANSPORTER'S COPY — Given to the transporter driver when shipment is inspected and unloaded.
DISPOSAL FACILITY — Filed in customer - generator master file.

Posillico Bros. Asphalt Co.

1610 New Highway, Farmingdale, N.Y. 11735
Plant Tele: 293-2620, 2621

HOT STORAGE

12/30/98
09:56

Ticket # 69034

Customer: 178
BLUE WATER ENVIROMENTAL INC.
1610 NEW HIGHWAY
FARMINGDALE, NY 11735
P.O. #:

Job: 98350
(1251

Truck #
BW104

PICKUP

Products		Amount
67	CONTAMINATED SOIL	22.09

Plant Name: PBA

Received By: _____ Driver Name: _____

		MTN
G=	39.41	35.75
T=	17.32	15.71
N=	22.09	20.04

J1251

P.B.A. CO.

1610 NEW HIGHWAY, FARMINGDALE, N.Y. 11735

PBA# 98358

BWE # 9963

SPILL # 98-1197

CUSTOMER HAULER

PLEASE TYPE OR PRINT CLEARLY USING A BALLPOINT PEN — PRESS HARD

GENERATOR NAME

1. Mitchell property
2.
3.

GENERATOR ADDRESS- FOR THE SERVICE LOCATION

1. 115 Front St, Greenport, NY

GENERATOR CONTACT

1. NAME Rich Paulin TITLE
2. PHONE NUMBER-Area Code ( )- (516) 734-5000 x 1411
3. DATE SHIPPED FROM SERVICE LOCATION 12/1/98 A.M. 7:15 P.M.
4. GENERATOR SIGNATURE NS dept for Rich

GENERATOR INDENTIFICATION OF WASTE TYPE OR TYPES

1. ITEM TYPE N-816 -- CONTAMINATED DIRT SAND OR SOIL
2. ITEM TYPE
3. ITEM TYPE
4. ITEM TYPE
5. QUANTITY – CHECK ONE ( ) CUBIC YARDS _____ TONS _____ OTHER _____
6. SHIPPED IN CONTAINER TYPE ~~TRAILER~~ Roll off

TRANSPORTER I Name and Address

1. Blue Water Environmental Inc. - NYS DEC 1A-400
2. 1610 New Highway
3. Farmingdale, NY 11735
4. Contact: Thomas R. Spatafora - Vice President
5. PHONE NUMBER - Area Code (516) -752-2145
6. DATE OF THE LOAD PICKUP 12/1/98 A.M. 2:00 P.M.
7. DRIVER'S NAME Dan Cummo
8. DRIVER'S SIGNATURE

TRANSPORTER II

1. COMPANY NAME
2. DATE A.M. P.M.
3. DRIVER'S NAME
4. DRIVER'S SIGNATURE
5. DELIVERY IN CONTAINER TYPE I.D. NO.

DISPOSALFACILITY

1. DELIVERY RECEIVED DATE 12-30-98
2. TIME OF DELIVERY 2:00 A.M. P.M.
3. SUPERVISOR INSPECTOR NAME
4. INSPECTOR SIGNATURE
5. THE LOAD WAS RECEIVED AS STATED BY THE GENERATOR YES + NO
6. REJECTED LOAD - YES NO +
7. IF YES PLEASE REMARK

GENERATOR'S CERTIFICATION. This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S.E.P.A. and the NYSDEC. THE WASTE DESCRIBED ABOVE WAS APPROVED FOR DISPOSAL, BASED ON THE AGREEMENT BETWEEN BOTH THE GENERATOR AND THE DISPOSAL FACILITY. I certify that the foregoing is true and correct to the best of my knowledge. If the waste shipment is not as stated I accept the RETURN of the COMPLETE LOAD to the generator's service location at the generator's expense.

INSTRUCTIONS

GENERATOR'S COPY — Mailed from PBA after disposal process, and with the monthly billing.
TRANSPORTER'S COPY — Given to the transporter driver when shipment is inspected and unloaded.
DISPOSAL FACILITY — Filed in customer - generator master file.

STATE OF CONNECTICUT

DEPART ...NT OF ENVIRONMENTAL PR(...CTION

Hazardous Waste MANIFEST PROGRAM
79 Elm St., Hartford, CT 06106-5127

FOR STATE USE ONLY

Please type (or print) *(Form designed for use on elite (12-pitch) typewriter)*

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No.	Manifest Document No.	2 Page 1 of
[illegible]	12901	Information in the shaded areas is not required by Federal law, but may be required by State law.

3 Generator's Name and Mailing Address
[illegible]
156 Third St, [illegible]

4 Generator's Phone ( )

A. State Manifest Document Number: CT F 0672910

B. S.T.I. (Gen. Site Address) [illegible]

C. S.T.I. (Trans. Lic. Plate #) [illegible]

D. Tran. Phone ( ) [illegible]

E. S.T.I. (Trans. Lic. Plate #) [illegible]

F. Tran. Phone ( ) [illegible]

G. State Facility's ID (If Required) [illegible]

H. Facility's Phone [illegible]

5 Transporter 1 Company Name	6. US EPA ID Number
[illegible]	[illegible]
7 Transporter 2 Company Name	8. US EPA ID Number
9 Designated Facility Name and Site Address	10. US EPA ID Number
[illegible] 40 Cross Street [illegible] CT 06613	[illegible]

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. [illegible]	001	TT	x52.50	G	EPA / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above			
		Interim	Final	Interim	Final
a. [illegible]	c. [illegible]	a. [illegible]		c. [illegible]	
b.	d. [illegible]	b.		d.	

15 Special Handling Instructions and Additional Information
[illegible] 49 CFR 261. [illegible]
[illegible] 269-4499

Point of Departure:

16 **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws and regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
MICHAEL N. GENTILE (for Corp)	[signature]	01	12	99

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
RAYMOND WITEMAN	[signature]	01	12	99

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name	Signature	Month	Day	Year

EPA Form 8700-22 (Rev. 9/91) Form Approved OMB No. 2050-0039. Expires 9/30/96. Previous edition is obsolete.

COPY 6 - GENERATOR MAILS TO DESTINATION STATE

GENERATOR

FOR SPILLS WITHIN CONNECTICUT: CONTACT CT DEP - OIL AND CHEMICAL SPILL RESPONSE AT (203) 566-3338

IN THE EVENT OF A SPILL: CONTACT THE NATIONAL RESPONSE CENTER, U.S. COAST GUARD 1-800-424-8802

COPY GENERATOR MAILS TO DESTINATION STATE

C.T.F. 0672910

STATE OF CONNECTICUT

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Hazardous Waste MANIFEST PROGRAM
79 Elm St., Hartford, CT 06106-5127

Please type (or print) *(Form designed for use on elite (12-pitch) typewriter.)*

FOR STATE USE ONLY

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but may be required by State law.

3. Generator's Name and Mailing Address
City of Greenwich
[illegible] Third St, Greenwich NY [illegible]

4. Generator's Phone ( )

5. Transporter 1 Company Name | 6. US EPA ID Number
[illegible] Environmental Group Inc.

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address | 10. US EPA ID Number
Bridgeport United Recycling
50 Cross Street
Bridgeport, CT 06610

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. RQ, Gasoline Mixture, 3, UN1203, PG II, ERG# 128	0.5	T.T.	2250	G
b.				
c.				
d.				

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
[illegible] CHEMTREC [illegible] 40 CFR 761.? [illegible] DOT Commercial
[illegible]
Emergency Contact Ph: 369-4900

Point of Departure:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws and regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Michael A. Gentile (Agent)	[signature]	9	14	99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Raymond Whitmarsh	[signature]	9	14	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR — TRANSPORTER — FACILITY

IN THE EVENT OF A SPILL CONTACT THE NATIONAL RESPONSE CENTER, U.S. COAST GUARD 1-800-424-8802 FOR SPILLS WITHIN CONNECTICUT, CONTACT CT DEP - OIL AND CHEMICAL SPILL RESPONSE AT (203) 566-3338

COPY 7: GENERATOR MAILS TO GENERATOR STATE

CT F 05/2910

EPA Form 8700-22 (Rev. 9/91) Form Approved OMB No. 2050-0039. Expires 9/30/96. Previous edition is obsolete.

COPY 7 - GENERATOR MAILS TO GENERATOR STATE

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Hazardous Waste MANIFEST PROGRAM
79 Elm St., Hartford, CT 06106-5127

FOR STATE USE ONLY

Please type (or print) *(Form designed for use on elite (12-pitch) typewriter.)*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: N.Y.R.1.4.0.9.4.1.9.4 | Manifest Document No: 729.10
2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but may be required by State law

3. Generator's Name and Mailing Address
[illegible] Greenport
136 Third St. Greenport, NY 11944

4. Generator's Phone ( )

5. Transporter 1 Company Name: [illegible] Environmental Group Inc.
6. US EPA ID Number: N.Y.D.9.8.6.9.0.8.0.5.9

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
Bridgeport United Recycling
50 Cross Street
Bridgeport, CT 06610
10. US EPA ID Number: C.T.D.0.0.5.4.3.8.8.7

A. State Manifest Document Number: CT F 0572910
B. G.S.I. (Gen. Site Address): SAME
C. S.T.I. (Trans. Lic. Plate #): 77380 Z
D. Tran. Phone (516) 365-4900
E. S.T.I. (Trans. Lic. Plate #)
F. Tran. Phone ( )
G. State Facility's ID (Not Required)
H. Facility's Phone: 203-334-1666

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, Corrosive Material, 3, UN1760, PG II, ERG: 154	0.0.1	T.T	x.52.50	G	EPA STATE CR04
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials Listed Above
a.
b.
c.
d.

K. Handling Codes for Wastes Listed Above

	Interim	Final		Interim	Final
a.			c.		
b.			d.		

15. Special Handling Instructions and Additional Information
[illegible] # UN3264 [illegible] EPA ID [illegible] spec [illegible] provide.
Emergency Contact: 516-349-4900
Point of Departure:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws and regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Michael A. Gattis (Agent)	[signature]	01	12	99

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Raymond Witemire	[signature]	01	12	99

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR — TRANSPORTER — FACILITY

IN THE EVENT OF A SPILL, CONTACT THE NATIONAL RESPONSE CENTER U.S. COAST GUARD 1-800-424-8802 FOR SPILLS WITHIN CONNECTICUT, CONTACT CT DEP - OIL AND CHEMICAL SPILL RESPONSE AT 203-265-3535

COPY GEN FOR INS

EPA Form 8700-22 (Rev. 9/91) Form Approved OMB No. 2050-0039. Expires 9/30/96. Previous edition is obsolete.

NO 1155

#1 MEG ID # 96/151

#2 MEG ID #

Generator:

Transporter:

TSDF Treatment, Storage or Disposal Facility:

#1 Truck License No. JA 24

#1 Truck License Number

#2 Truck License Number

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION			Total Quantity (Gallons/Pounds/Tons)	NYSDEC Code	TSDF Code
Oily Water Waste, none,		1	3597 gals		

I hereby certify that the above waste description is complete and accurate as defined by 6 NYCRR Section 371 and 372.

Generator's Signature

Date 1/12/17

Transporter's Signature #1

Date

Transporter's Signature #2

Date

TSDF Signature

Date

08/07/97 09:24 [illegible] BFT TED MILLER [illegible]

UNITED OIL RECOVERY, INC.
136 Gracey Avenue, Meriden, CT 06451-2270

BRIDGEPORT UNITED RECYCLING, INC.
50 Crown Street, Bridgeport, CT 06[illegible]

Land Ban Notification Form

Generator Name Village of Greenport

Site 236 Third St, Greenport, NY 11944 Manifest Number CTF 057 2910

___ Nonhazardous Waste. This waste is not hazardous waste as defined in 40CFR 261 and is not subject to regulation under 40 CFR 268.

_____ Hazardous Waste. This waste is hazardous waste and therefore regulated under 40 CFR 268. This waste is banned from land disposal unless treated to the standards under 40 CFR 268.40 or specifically exempt under this Subpart. I understand that United Oil Recovery, Inc. and Bridgeport United Recycling, Inc. operate treatment systems that are regulated under the CWA. This waste is a _____ wastewater _____ nonwastewater as defined in this Subpart. *The applicable waste codes are checked below.*

Spent Solvent Wastes

___ F001. ___ F002. ___ F003. ___ F004. ___ F005

___ Acetone
___ Benzene
___ n-Butyl Alcohol
___ Carbon Disulfide
___ Carbon Tetrachloride
___ Chlorobenzene
___ Cresol (m- and p- isomers)
___ Cresol (o- isomer)
___ Cyclohexanone
___ 1, 2 -Dichlorobenzene
___ Ethyl Acetate
___ Ethyl Benzene
___ Ethyl Ether
___ Isobutanol
___ Methanol
___ Methylene Chloride
___ Methyl Ethyl Ketone
___ Methyl Isobutyl Ketone
___ Nitrobenzene
___ Pyridine
___ Tetrachloroethylene
___ Toluene
___ 1,1,1 - Trichloroethane
___ 1,1,2 - Trichloroethane
___ 1,1,2, - Trichloro - 1,2,2 - Trifluoroethane
___ Trichloroethylene
___ Trichlorofluoromethane
___ Xylene

Michael N Gentils
Hydrogeologist
(Agent for Village of Greenport)

Characteristic Wastes

___ D001 Ignitable Liquids, High TOC (>10%)
___ D001 Ignitable Liquids, Low TOC (<10%)
___ D004 Arsenic
___ D018 Benzene
___ D006 Cadmium
___ D019 Carbon tetrachloride
___ D021 Chlorobeazene
___ D022 Chloroform
___ D007 Chromium
___ D023 o-Cresol
___ D024 m-Cresol
___ D025 p-Cresol
___ D026 Cresol
___ D027 1,4-Dichlurobenzene
___ D028 1,2-Dichloroethane
___ D029 1,1-Dichloroethylene
___ D030 2,4-Dinitrotoluene
___ D032 Hexachlorobeazene
___ D033 Hexachlorobutadiene
___ D034 Hexachloroethane
___ D035 Methyl ethyl ketone
___ D036 Nitrobenzene
___ D037 Pentrachlorophenol
___ D038 Pyridine
___ D011 Silver
___ D039 Tetrachloroethylene
___ D040 Trichlomethylene
___ D041 2,4,5-Trichlomphenol
___ D042 2,4,6-Trichlorophenol
___ D043 Vinyl chloride

GENERATOR COPY

The information provided here is true and accurate to the best of my knowledge. The information here is submitted solely to comply with the LDR found in 40 CFR 268. (Check here if the waste meets the treatment standards) ____. I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Signature Michael N Gentils * Title SENIOR HYDROGEOLOGIST

Print Name MICHAEL N. GENTILS (H2M GROUP) Date 1/12/99

*- Representing the Town of Greenport

White - Original Yellow - Customer Copy

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Hazardous Waste MANIFEST PROGRAM
79 Elm St., Hartford, CT 06106-5127

Please type (or print) *(Form designed for use on elite (12-pitch) typewriter.)*

FOR STATE USE ONLY

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N.Y.D.9.8.6.9.7.1.8.9.1 | Manifest Document No. 724.1.1 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but may be required by State law.

3. Generator's Name and Mailing Address
Village of Greenport
236 Third St. Greenport, NY 11944

4. Generator's Phone ( )

5. Transporter 1 Company Name: Walter Environmental Group Inc. | 6. US EPA ID Number: N.Y.D.0.8.4.9.0.8.0.5

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address
Bridgeport Resource Recycling
50 Cross Street
Bridgeport, CT 06610 | 10. US EPA ID Number: C T D 0 0 2 5 9 3 8 6 7

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. RQ, Gasoline Mixture, 3, UN1203, PG II, ERG: 128	0 0 1	T T	X 1 4 2 1	G
b.				
c.				
d.				

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
UN Ident # UN2566A Hazards except from CFR 261.4 as an off spec commercial product.
Emergency Contact 516-369-4900

Point of Departure:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws and regulations.

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Printed/Typed Name	Signature	Month	Day	Year
James M. Wallis		0 1	1 3	9 7

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		0 1	1 3	9 7

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

EPA Form 8700-22 (Rev. 9/91) Form Approved OMB No. 2050-0039. Expires 9/30/96. Previous edition is obsolete.

GENERATOR

FOR SPILLS WITHIN CONNECTICUT, CONTACT CT DEP - OIL AND CHEMICAL SPILL RESPONSE AT (203) 566-3338

IN THE EVENT OF A SPILL, CONTACT THE NATIONAL RESPONSE CENTER U.S. COAST GUARD 1-800-424-8802

COPY 6: GENERATOR MAILS TO DESTINATION STATE

CT F 05/2911

COPY 6 - GENERATOR MAILS TO DESTINATION STATE

UNITED OIL RECOVERY, INC.
136 Gracey Avenue, Meriden, CT 06451-2270

BRIDGEPORT UNITED RECYCLING, INC.
50 Crown Street, Bridgeport, CT 06

Land Ban Notification Form

Generator Name Village of Greenport

Site 236 Third St. Greenport, NY 11944 Manifest Number CTF 057291 1

___ Nonhazardous Waste. This waste is not hazardous waste as defined in 40CFR 261 and is not subject to regulation under 40 CFR 268.

_____ Hazardous Waste. This waste is hazardous waste and therefore regulated under 40 CFR 268. This waste is banned from land disposal unless treated to the standards under 40 CFR 268.40 or specifically exempt under this Subpart. I understand that United Oil Recovery, Inc. and Bridgeport United Recycling, Inc. operate treatment systems that are regulated under the CWA. This waste is a _____ wastewater _____ nonwastewater as defined in this Subpart. *The applicable waste codes are checked below.*

Spent Solvent Wastes

___ F001. ___ F002. ___ F003. ___ F004. ___ F005

___ Acetone
___ Benzene
___ n-Butyl Alcohol
___ Carbon Disulfide
___ Carbon Tetrachloride
___ Chlorobenzene
___ Cresol (m- and p- isomers)
___ Cresol (o- isomer)
___ Cyclohexanone
___ 1, 2 -Dichlorobenzene
___ Ethyl Acetate
___ Ethyl Benzene
___ Ethyl Ether
___ Isobutanol
___ Methanol
___ Methylene Chloride
___ Methyl Ethyl Ketone
___ Methyl Isobutyl Ketone
___ Nitrobenzene
___ Pyridine
___ Tetrachloroethylene
___ Toluene
___ 1,1,1 - Trichloroethane
___ 1,1,2 - Trichloroethane
___ 1,1,2, - Trichloro - 1,2,2 - Trifluoroethane
___ Trichloroethylene
___ Trichlorofluoromethane
___ Xylene

Characteristic Wastes

___ D001 Ignitable Liquids, High TOC (>10%)
___ D001 Ignitable Liquids, Low TOC (<10%)
___ D004 Arsenic
___ D018 Benzene
___ D006 Cadmium
___ D019 Carbon tetrachloride
___ D021 Chlorobeazene
___ D022 Chloroform
___ D007 Chromium
___ D023 o-Cresol
___ D024 m-Cresol
___ D025 p-Cresol
___ D026 Cresol
___ D027 1,4-Dichlorobenzene
___ D028 1,2-Dichloroethane
___ D029 1,1-Dichloroethylene
___ D030 2,4-Dinitrotoluene
___ D032 Hexachlorobenzene
___ D033 Hexachlorobutadiene
___ D034 Hexachloroethane
___ D008 Lead
___ D035 Methyl ethyl ketone
___ D036 Nitrobenzene
___ D037 Pentrachlorophenol
___ D038 Pyridine
___ D011 Silver
___ D039 Tetrachloroethylene
___ D040 Trichlomethylene
___ D041 2,4,5-Trichlorophenol
___ D042 2,4,6-Trichlorophenol
___ D043 Vinyl chloride

GENERATOR COPY

The information provided here is true and accurate to the best of my knowledge. The information here is submitted solely to comply with the LDR found in 40 CFR 268. (Check here if the waste meets the treatment standards) ____. I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing, or through knowledge of the waste to support this certification that the waste complies with the standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268. 32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Signature _____ Title _____

Print Name _____ Date January 15, 1997

White - Original Yellow - Customer Copy

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Hazardous Waste MANIFEST PROGRAM
79 Elm St., Hartford, CT 06106-5127

Please type (or print) *(Form designed for use on elite (12-pitch) typewriter.)*

FOR STATE USE ONLY

FOR SPILLS WITHIN CONNECTICUT, CONTACT CT DEP - OIL AND CHEMICAL SPILL RESPONSE AT (203) 265-5338
IN THE EVENT OF A SPILL, CONTACT THE NATIONAL RESPONSE CENTER - U.S. COAST GUARD 1-800-424-8802

COPY 8: GENERATOR RETAINS

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. / Manifest Document No.	2 Page 1 of 1	Information in the shaded areas is not required by Federal law, but may be required by State law.
	N.Y.D.9.8.6.9.9.1.8.9.1 / 72.4.1.1		

3 Generator's Name and Mailing Address Village of Greenport 236 Third St, Greenport, NY 11944	A. State Manifest Document Number: CT F 0572911
4 Generator's Phone ( )	B. G.S.I. (Gen. Site Address): SAME
5 Transporter 1 Company Name: Hazen Environmental Group Inc.	6. US EPA ID Number: N.Y.D.9.8.6.9.0.8.0.8.5
7 Transporter 2 Company Name	8. US EPA ID Number
	C. S.T.I. (Trans. Lic. Plate #)
	D. Tran. Phone ( )
9 Designated Facility Name and Site Address Bridgeport United Recycling 50 Cross Street Bridgeport, CT 06610	10. US EPA ID Number: CTD062935847
	E. S.T.I. (Trans. Lic. Plate #)
	F. Tran. Phone ( )
	G. State Facility's ID (Not Required)
	H. Facility's Phone: 203-334-1644

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. NA, Gasoline Mixture, 3, UN1203, PG II, ERG: 128	001	TT	X1421	G	EPA STATE CT04
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above			
		Interim	Final	Interim	Final
a.	c.	a.		c.	
b.	d.	b.		d.	

15. Special Handling Instructions and Additional Information
Hazard # 1203GA Mixture exempt from CFR 261.4 as an off spec commercial product.
Emergency Contact 516-569-4900

Point of Departure:

16 **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws and regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR,** if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
		11	3	11

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		11	3	11

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

EPA Form 8700-22 (Rev. 9/91) Form Approved OMB No. 2050-0039. Expires 9/30/96. Previous edition is obsolete.

CT F 0572911

COPY 8: GENERATOR RETAINS

STATE OF CONNECTICUT

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Hazardous Waste MANIFEST PROGRAM
79 Elm St., Hartford, CT 06106-5127

FOR STATE USE ONLY

Please type (or print) *(Form designed for use on elite (12-pitch) typewriter.)*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No	Manifest Document No	2. Page 1 of	Information in the shaded areas is not required by Federal law, but may be required by State law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number: CT F 000911

5. Transporter 1 Company Name | 6. US EPA ID Number

7. Transporter 2 Company Name | 8. US EPA ID Number

C. State Transporter's ID

9. Designated Facility Name and Site Address | 10. US EPA ID Number

D. Transporter's Phone

E. State Facility's ID

F. Transporter's Phone

G. State Facility's Phone

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	Waste No.
a.					STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

	Interim	Final		Interim	Final
a.			b.		

15. Special Handling Instructions and Additional Information

Point of Departure:

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable State laws and regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; **OR**, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name	Signature	Month	Day	Year

EPA Form 8700-22 (Rev. 9/91) Form Approved OMB No. 2050-0039. Expires 9/30/96. Previous edition is obsolete.

COPY 7: GENERATOR MAILS TO GENERATOR STATE

GENERATOR

IN THE EVENT OF A SPILL, CONTACT THE NATIONAL RESPONSE CENTER, U.S. COAST GUARD 1-800-424-8802 FOR SPILLS WITHIN CONNECTICUT, CONTACT CT DEP - OIL AND CHEMICAL SPILL RESPONSE AT (203) 566-3338

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

No 8707

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 32 #1 Truck License Number PZ8241

#2 MEG ID # #2 Truck License Number

IDENTIFICATION

Company name, mailing address and telephone number

Generator: VILLAGE OF GREENPORT
236 THIRD ST
GREENPORT NY.

Spill # 98-12594

Transporter: Miller Environmental Group, Incorporated
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: AMERICAN REF-FUEL
600 AVE C AT STEWART AVE
WESTBURY, NY 11590

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
VIRGIN OIL SPILL DEBRIS SOLID	1	DT	21 yds	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Generator's Signature Michael R. Lofaro for Village of Greenport — Date 3/1/99

Transporter's Signature #1 [signature] — Date 3/1/99

Transporter's Signature #2 — Date

TSDF Signature — Date

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

№ 10600

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 17/15-7

#1 Truck License Number PM8108

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport, NY 11944
Spill # 98-XXXX 12594

Transporter: Miller Environmental Group, Incorporated
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Blue Water Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	15 yds.	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Michael P. Colbourn for Village of Greenport
Generator's Signature

Date 3-1-99

Transporter's Signature #1

Date

Transporter's Signature #2

Date

TSDF Signature

Date

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

№ 1113

N.Y. State 364 Permit No. 1A-041 153

#1 MEG ID # 43/15-3

#1 Truck License Number PD3674

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
Spill # 95-[illegible] 12594
236 Third St.
Greenport, NY 11944

Transporter: [illegible] Environmental Group, Incorporated
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Clean Water Environmental
1510 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	15 Yds.	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Michael C. Ayello for Village of Greenport
Generator's Signature — Date

Transporter's Signature #1 — Date

Transporter's Signature #2 — Date

TSDF Signature — Date

Y. 8

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

NY 11118

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 42/20.17 #1 Truck License Number P-1577

#2 MEG ID # _____ #2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
236 Third St.
Greenport, NY 11944
Spill # 98-ESSEX 12594

Transporter: [redacted] Environmental Group, Incorporated
536 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Nine Metal Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	20 /yds.	N011	

I hereby certify that the above waste description is complete and accurate, and that no components exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Michael Lapetina for Village of Greenport — Date 3/1/97

Generator's Signature

Transporter's Signature #1 — Date 3/1/97

Transporter's Signature #2 — Date

TSDF Signature — Date

No. 1111

#1 MEG ID # 42120-12

#2 MEG ID #

Generator:

Transporter:

TSDF Treatment/ Storage or Disposal Facility:

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION				TSDF Code
Oil Spill Debris Solid		2 Drums		

I hereby certify that the above named materials are not subject to Federal hazardous as defined by 6 NYCRR Subpart 371.1 (d)(2).

Generator's Signature

Transporter's Signature

Transporter's Signature #2

TSDF Signature

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

NY 11110

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 17/20-6

#1 Truck License Number PM8108

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
25 Third St.
Greenport, NY 11944
Spill # 95-[illegible] 12594

Transporter: [illegible] Environmental Group, Incorporated
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Clean Harbor Environmental
1410 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	20 /yds.	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Generator's Signature: [signature] for Village of Greenport — Date: 3-1-99

Transporter's Signature #1: [signature] — Date: 3-1-99

Transporter's Signature #2: _____ — Date: _____

TSDF Signature: _____ — Date: _____

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

NY 10564

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 42-120-9

#1 Truck License Number PC9579

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
136 Third St.
Greenport, NY 11944
Spill # 98-[illegible] 12594

Transporter: Miller Environmental Group, Incorporated
538 EDWARDS AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: Blue Water Environmental
1610 New Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	20 /yds.	N011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Generator's Signature [signature] for Village of Greenport — Date 3/1/99

Transporter's Signature #1 [signature] — Date 3/1/99

Transporter's Signature #2 _____ — Date _____

TSDF Signature _____ — Date _____

PRIVATE
NON-HAZARDOUS
DOCUMENT OF CARGO

NY 10668

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # P7/20-13

#1 Truck License Number PM 8108

#2 MEG ID # _____

#2 Truck License Number _____

IDENTIFICATION

Company name, mailing address and telephone number

Generator: Village of Greenport
Spill # 98-[illegible] 12594
236 Third St.
Greenport, NY 11944

Transporter: [illegible] Group, Incorporated
[illegible] AVENUE
CALVERTON, NEW YORK 11933

TSDF Treatment Storage or Disposal Facility: [illegible] Environmental
1010 [illegible] Highway
Farmingdale, NY 11735

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers No.	Containers Type	Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
Oil Spill Debris Solid	1	CM	20 Yds.	M011	

I hereby certify that the above waste description is complete and accurate, and that no component exist in the waste which render it hazardous as defined by 6 NY CRR Section 371 and 372.

W. [illegible] for Village of Greenport — Generator's Signature — Date 3/1/99

Transporter's Signature #1 — Date 3/1/99

Transporter's Signature #2 — Date

TSDF Signature — Date

APPENDIX B

Soil Boring Logs/Well Construction Diagrams

H2M GROUP

Boring # SB-1 MW#	Sheet 1 of 1
Project: MITCHELL PARK	
Job # GRPT 9801T1 Site:	
Logged By: SEH Proj. Eng: SEH Edited By: RJB	
Drilling Contractor: ADT	
Drill Rig Type/Method: GEOPROBE	
Drillers Name: S. MILLER	
Borehole Diam./Drill Bit Type: 2" MACROCORE	Total Depth: 8' / Bedrock: SFC
Hammer Wt: NA Drop: NA	
Start Time: Date: 12/8/98	
Completion Time: Date: 12/8/98	
Backfill Time: Date:	

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
	2" MC		48"	32"						SILT (ML), LT. BROWN, MED. STIFF, FINES,
0.2									1	10-20% FINE SANDS
										@ 6" COLOR CHANGE TO DARK BROWN,
ND									2	@ 24" COLOR CHANGE TO BLACK
ND										
									3	
										SAND (SP/SM), LT. BROWN, DENSE,
ND	2" MC		48"	18"					4	10-26% FINES
ND									5	SILT (ML), BLACK, STIFF, FINES,
										10-20% FINE SANDS
									6	
									7	
										SB-1 (4.5'-5.5') ANALYZED FOR STARS
									8	VOCS, SVOCS AND METALS
									9	
									10	
									11	
									12	

N-2

H2M GROUP

Boring # SB-2 MW#	Sheet 1 of 1
Project: MITCHELL PARK	
Job # 6RDT 9801 TY Site:	
Logged By: SEH Proj. Eng: SEH Edited By: RJB	
Drilling Contractor: ADT	
Drill Rig Type/Method: GEOPROBE	
Drillers Name: S MILLER	
Borehole Diam./Drill Bit Type	Total Depth 8'
2" MACROCORE	Soil SFC
Hammer Wt: NA Drop: NA	
Start Time: Date: 12/8/98	
Completion Time: Date: 12/8/98	
Backfill Time: Date:	

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
	2"MC		48"	42"						SILT (ML), LT. BROWN, MED. STIFF, FINES
ND									1	10-20% FINE SANDS
ND										
ND									2	SAND (SW/SP), DK. BROWN, DENSE,
ND										5-10% FINES, FILL (SMELLS)
ND									3	
ND										— — — — — —
									4	
ND	2"MC		48"	32"						CLAYEY GRAVEL, DK. BROWN, DENSE,
ND									5	10-20% FINES, FILL MATERIAL, PETROLEUM
ND										LIKE ODOR NOTED @ 4'
0.4									6	
									7	
										SB-2 (4'-5') ANALYZED FOR STARS
									8	VOCs, SVOCs AND METALS
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-3 MW#	Sheet 1 of 1
Project: MITCHELL PARK	
Job # GRPT 9801 TY Site:	
Logged By: SEH Proj. Eng: SEH Edited By: RJB	
Drilling Contractor: ADT	
Drill Rig Type/Method: GEOPROBE	
Drillers Name: S. MILLER	
Borehole Diam./Drill Bit Type	Total Depth 8'
2" MACROCORE	Bore Depth SFC
Hammer Wt: NA Drop: NA	
Start Time: Date: 12/8/98	
Completion Time: Date: 12/8/98	
Backfill Time: Date:	

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth Sample Rec. Analyses	Feet	
ND	2" MC		48"	41"						CLAYEY GRAVEL (GC), BROWN, DENSE, 30% FINES, FILL
									1	
										SILT (ML), BLACK, STIFF, FINES,
0.4									2	10-20% FINE SANDS
0.2										
										SAND (SP), LT. BROWN, DENSE,
0.2									3	CLAYEY SAND (SC), DK. BROWN, DENSE,
										40% FINES, FILL MATERIAL (SHALLS)
0.2	2" MC		48"	36"					4	
										CLAYEY GRAVEL (GC), BROWN, MED. LOOSE,
ND									5	FINE-MED. SANDS IN FINE GRAVEL, SOILS
										SATURATED
									6	
									7	SB-3 (1.6-2.1) ANALYZED FOR STARS
										VOCS, SVOCS AND METALS
									6	
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-4 MW# Sheet 1 of 1

Project: MITCHELL PARK

Job # GRPT 9801 TY Site:

Logged By: SEH Proj. Eng: SEH Edited By: RJB

Drilling Contractor: ADT

Drill Rig Type/Method: GEOPROBE

Drillers Name: S. MILLER

Borehole Diam./Drill Bit Type: 2" MACROCORE — Total Depth: 5'

Hammer Wt: NA Drop: NA — Pad Elev: SFC

Start Time: Date: 12/8/98

Completion Time: Date: 12/8/98

Backfill Time: Date:

ML= MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
ND			48"	40"						SILTY SAND (SM), BROWN, MED. DENSE, FINES
0.1									1	
0.1									2	SILT (ML), DK. BROWN, STIFF, FIN (SHELLS) FIBERGLASS DEBRIS @ 4'
ND									3	
ND	2" MC		12"	2"					4	
									5	SB-4 (1.8'-2.8') ANALYZED FOR STARS VOCs, SVOCs AND METALS
									6	
									7	
									8	
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-5 MW# Sheet 1 of 1

Project: MITCHELL PARK

Job # GRPT 9801TY Site:

Logged By: SEH Proj. Eng: SEH Edited By: RJB

Drilling Contractor: ADT

Drill Rig Type/Method: GEOPROBE

Drillers Name: S. MILLER

Borehole Diam./Drill Bit Type: Total Depth 8'

2" MACROCORE Bedrock SFC

Hammer Wt: NA Drop: NA

Start Time: Date: 12/8/98

Completion Time: Date: 12/8/98

Backfill Time: Date:

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

1st Water				
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
ND	2" MC		48"	48"						GRAVELLY SANDS (SP), BROWN, MED. DENSE, 30-40% GRAVELS, MED. SANDS, <10% FINE
0.2									1	
0.2									2	CLAYEY SANDS (SC), DK. BROWN, LOOSE, FINE SAND, > 15% FINES
5.0									3	
15										SANDY SILT (ML), DK. BROWN, MED. STIFF, 0-5% FINE GRAVELS, 20-30% FINE SANDS, > 50% FINES
13									4	
15	2" MC		48"	42"						
									5	
0.2										CLAY (CL), DK. BROWN, MED. STIFF, SOILS SATURATED
									6	
0.2										
									7	
										SB-5 (3'-5') ANALYZED FOR STARS VOCS, SVOCS AND METALS
									8	
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-6 MW# | Sheet 1 of 1

Project: MITCHELL PARK

Job # 6RPT 9801 TY Site:

Logged By: SEH Proj. Eng: SEH Edited By: RJB

Drilling Contractor: ADT

Drill Rig Type/Method: GEOPROBE

Drillers Name: S. MILLER

Borehole Diam./Drill Bit Type: 2" MACROCORE | Total Depth: 8' | Rock: SFC

Hammer Wt: NA Drop: NA

Start Time: Date: 12/8/98

Completion Time: Date: 12/8/98

Backfill Time: Date:

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
ND	2"MC		48"	36"					1	GRAVELY SANDS w/HIGH ORGANICS (GC), DK. BROWN, MED. DENSE, 10-20% FINES, 10-20% GRAVELS
									2	SAND (SP), LT. BROWN, DENSE, MED. SAND, 0-5% FINES
ND									3	
									4	GRAVELY SANDS (GC), DK. BROWN, DENSE, 10-20% FINES, SOIL DAMP, FINE GRAVEL, FILL MATERIAL @ 4'
ND	2"MC		48"	36"					5	
ND									6	CLAY (CH), LT. BROWN, VERY STIFF, 90% FINES.
									7	
									8	SB-6 (0-1.5') ANALYZED FOR STARS VOCS, SVOCS, AND METALS
									9	
									10	
									11	
									12	

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

H2M GROUP

Boring # SB-7 MW#	Sheet 1 of 1
Project: MITCHELL PARK	
Job # GRPT 9801 TY Site:	
Logged By: SEH Proj. Eng: SEH Edited By: RJB	
Drilling Contractor: ADT	
Drill Rig Type/Method: GEOPROBE	
Drillers Name: S. MILLER	
Borehole Diam./Drill Bit Type	Total Depth 8'
2" MACROCORE	Depth to Water SFC
Hammer Wt: NA Drop: NA	
Start Time: Date: 12/8/98	
Completion Time: Date: 12/8/98	
Backfill Time: Date:	

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth Sample Rec. Analyses	Feet	
ND	2" MC		48"	32"					1	SILTY SAND (SM), BROWN, LOOSE, 10-20% FINES, MED. SAND
5									2	@ 1.5' COLOR CHANGE TO BLACK AND PETROLEUM LIKE ODOR AND PRODUCT PRESENT
250									3	
									4	
	2" MC		48"	28"					5	
250									6	
100									7	SB-7 (5.3' - 6.3') ANALYZED FOR STARS VOCs, SVOCs AND METALS
									8	
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-8 MW#	Sheet 1 of 1
Project: MITCHELL PARK	
Job # GRPT 9801 TY Site:	
Logged By: SEH Proj. Eng: SEH Edited By: RJB	
Drilling Contractor: ADT	
Drill Rig Type/Method: GEOPROBE	
Drillers Name: S. MILLER	
Borehole Diam./Drill Bit Type	Total Depth 8'
2" MACROCORE	Bottom SFC
Hammer Wt: NA Drop: NA	
Start Time: Date: 12/8/98	
Completion Time: Date: 12/8/98	
Backfill Time: Date:	

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
NOT COLLECTED DUE TO RAIN	2" MC		48"	36"					1	SILTY SAND (SM), LT. BROWN, MED. DENSE, 20-30% FINES, FINE SAND
									2	CLAYEY SANDS (SC), BROWN, LOOSE, 10-20% FINES
									3	SILTY SAND (SM), DK. BROWN TO BLACK, LOOSE, FINE SAND, 20-30% FINES, WET SOILS
	2" MC		48"	20"					4	
									5	
									6	SB-8 (5.0'-5.7') ANALYZED FOR STARS VOCs, SVOCs AND METALS
									7	
									8	
									9	
									10	
									11	
									12	

H2M GROUP

Boring #SB-9 MW# Sheet 1 of 1

Project: MITCHELL PARK

Job # 6RPT 9801 TY Site:

Logged By: SEH Proj. Eng: SEH Edited By: RJB

Drilling Contractor: ADT

Drill Rig Type/Method: GEOPROBE

Drillers Name: S. MILLER

Borehole Diam./Drill Bit Type: 2" MACROCORE — Total Depth: 8'; Bore Depth: SFC

Hammer Wt: NA Drop: NA

Start Time: Date: 12/8/98

Completion Time: Date: 12/8/98

Backfill Time: Date:

MC: MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth (Sample Rec. Analyses)	Feet	
	2" MC		48"	28"					1	SILTY SAND (SM), DK. BROWN, DENSE, 25-30% FINES, FINE SANDS
NOT COLLECTED DUE TO RAIN									2	@ 6" TO 12" FILL MATERIAL
									3	@ 24" SOILS WET
									4	CLAYEY SANDS (SC), DK. BROWN, LOOSE, 5-10% FINE GRAVEL, 20-30% FINES, SOIL SATURATED
	2" MC		48"	10"					5	
									6	
									7	SB-9 (4.0'-4.7') ANALYZED FOR STARS VOCS, SVOCS AND METALS
									8	
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-19 MW# | Sheet 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, DM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem | Total Depth: 6.0' | Ref. Elev.: surface

Hammer Wt: 130 lbs Drop:

Start Time: 11:30 Date: 3/2/99

Completion Time: 11:45 Date: 3/2/99

Backfill Time: Date:

See Attached Map

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
	DA		24"	0					0	Soil Boring Sample Smear Zone
									1	
									2	
	2"/20"	12 8	24"	6"				X	3	moist tan/brown, loose, well sorted gravelly sands
		10 7							4	Approximate depth to water @ 4' bgs
	2"/4.0'	1 8	24"	0					5	→ As per Bob Stewart (NYSDEC) use soil cuttings to collect sample since no recovery occurred
		6 2							6	
									7	→ End drilling at 6' bgs
									8	Sample Analysis: Soil As per NYSDEC STARS VOC's
									9	STARS SVOC's TCLP SVOC's
									10	
									11	
									12	

N-2

H2M GROUP

Boring # SB-20 MW# | Sheet 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, DM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem | Total Depth: 6.0' | Rock Depth: surface

Hammer Wt: 130 lbs. Drop:

Start Time: 11:00 Date: 3/2/99

Completion Time: 11:10 Date: 3/2/99

Backfill Time: Date:

See Attached Map

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
	DA		24"	0					1	Soil Boring Sample Smear Zone
	2" / 2.0'	3	24"	10"				X	2	
		9						X	3	Moist, tan/brown, loose, well sorted gravelly sands
		7								
		6							4	Approximate depth to water @ 4' bgs
	2" / 2.0"	1	24"	15"				X		wet, tan/brown, very loose, well sorted gravelly sands
		4						X	5	
		2						X		
		1							6	→ End drilling
									7	
									8	Sample Analysis: Soil as per NYSDEC STARS VOC's STARS SVOC's TCLP SVOC's
									9	
									10	
									11	
									12	

N-2

H2M GROUP

Boring #SB-10 MW# [redacted] Sheet 1 of 1

Project: MITCHELL PARK

Job # GRPT 9801 TY Site:

Logged By: SEH Proj. Eng: SEH Edited By: RSB

Drilling Contractor: ADT

Drill Rig Type/Method: GEOPROBE

Drillers Name: S. MILLER

Borehole Diam./Drill Bit Type [redacted] 8'

2" MINICORE [redacted] SFC

Hammer Wt: NA Drop: NA

Start Time: Date: 12/8/98

Completion Time: Date: 12/8/98

Backfill Time: Date:

MC = MINICORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filter	Depth: Sample Rec. Analyses	Depth: Feet	
	2" MC		48"	30"					1	CLAYEY SANDS (SC), BROWN, MED. DENSE, 0-5% FINE GRAVELS, FINE SAND, 20-25% FINES
DUE TO RAIN									2	@ 6" TO 12" ODOR PRESENT
									3	
NOT COLLECTED	2" MC		48"	30"					4	SILT (ML), LT. BROWN, STIFF, >50% FINES, SOIL SATURATED
									5	
									6	
									7	SB-10 (0.5'-1.0') ANALYZED FOR STARS VOCs, SVOCs AND METALS
									8	
									9	
									10	
									11	
									12	

H2M GROUP

Boring #SB-11 MW# Sheet 1 of 1

Project: MITCHELL PARK

Job # GRPT 9801TY Site:

Logged By: SEH Proj. Eng: SEH Edited By: RJB

Drilling Contractor: ADT

Drill Rig Type/Method: GEOPROBE

Drillers Name: S. MILLER

Borehole Diam./Drill Bit Type: Total Depth 8'

2" MACROCORE Rig Time SEC

Hammer Wt: NA Drop: NA

Start Time: Date: 12/9/98

Completion Time: Date: 12/9/98

Backfill Time: Date:

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

Boring Depth (ft.)	1st Water			
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
ND	2" MC		48"	40"						SAND (SP), BROWN, MED. DENSE, FINE SANDS, 10-15% FINES @ 0" TO 6" FILL MATERIAL
ND									1	
ND										
ND									2	
ND										
ND									3	
									4	
ND	2" MC		48"	16"						SILT (ML), LT. BROWN, MED. DENSE, >50% FINES
									5	@ 4.5' TO 5.3' FILL MATERIAL, SOILS SATURATED AND MATERIAL DK. BROWN
ND										
									6	
									7	
									8	SB-11 (4.5' TO 5.3') ANALYZED FOR STARS VOCS AND SVOCS
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-12 MW#	Sheet 1 of 1
Project: MITCHELL PARK	
Job # GRDT 98017Y Site:	
Logged By: SEH Proj. Eng: SEH Edited By: RJB	
Drilling Contractor: ADT	
Drill Rig Type/Method: GEOPROBE	
Drillers Name: S. MILLER	
Borehole Diam./Drill Bit Type	Total Depth 8'
2" MACROCORE	Bore Hole SFC
Hammer Wt: NA Drop: NA	
Start Time: Date: 12/9/98	
Completion Time: Date: 12/9/98	
Backfill Time: Date:	

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filter	Depth: Sample Rec. Analyses	Depth: Feet	
ND	2"MC		48"	30"						SILTY SANDS (SM), BROWN, MED. DENSE
ND									1	
ND										
ND									2	WELL GRADED SANDS (SW), BROWN, LOOSE
									3	
									4	
ND	2"MC		48"	24"						
ND									5	
ND										
3.0										SAND (SP), BLACK, LOOSE, PETROLEUM
									6	LIKE ODOR, SOILS SATURATED
									7	
									8	
										SB-12 (5.5'-6.0') ANALYZED FOR STARS
										VOCS AND SVOCS
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-13 MW#	Sheet 1 of 1
Project: MITCHELL PARK	
Job # GRPT 9801 TY Site:	
Logged By: SEH Proj. Eng: SEH Edited By: RJB	
Drilling Contractor: ADT	
Drill Rig Type/Method: GEOPROBE	
Drillers Name: S. MILLER	
Borehole Diam./Drill Bit Type	Total Depth 8'
2" MACROCORE	Bore Dia. SFC
Hammer Wt: NA Drop: NA	
Start Time: Date: 12/9/98	
Completion Time: Date: 12/9/98	
Backfill Time: Date:	

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
ND	2" MC		48"	41"						SILTY SANDS (SM), BROWN, MED. DENSE, 15-20% FINES
ND									1	
ND										
ND									2	SANDS (SW), LT. BROWN, LOOSE, FINE TO COARSE SAND, 5-10% FINES
ND										
ND									3	
ND	2" MC		48"	34"					4	
ND										
ND									5	
ND										
5.0									6	SAND (SP), BLACK, LOOSE, PETROLEUM LIKE ODOR, SOILS SATURATED
7.0										
									7	
									8	
										SB-13 (5.8'-6.5') ANALYZED FOR STARS VOCS AND SVOCS
									9	
									10	
									11	
									12	

H2M GROUP

Boring #SB-14 MW# [redacted] Page 1 of 1

Project: MITCHELL PARK

Job # GRPT 9801 TY Site:

Logged By: SEH Proj. Eng: SEH Edited By: RJB

Drilling Contractor: ADT

Drill Rig Type/Method: GEOPROBE

Drillers Name: S. MILLER

Borehole Diam./Drill Bit Type [redacted] 8'

2" MACROCORE [redacted] SFC

Hammer Wt: NA Drop: NA

Start Time: Date: 12/9/98

Completion Time: Date: 12/9/98

Backfill Time: Date:

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
ND	2"MC		48"	36"						SILTY SANDS (SM), BROWN, MED. DENSE, 10-15% FINE GRAVEL, 20-30% FINES, FINE SAND
ND									1	
ND										@ 18" SOIL LT. BROWN
ND									2	
3.0										@ 48" SOIL BROWN WITH BLACK SPOTS, SOIL LOOSE AND PETROLEUM LIKE
3.0									3	ODOR
									4	
15	2"MC		48"	12"						
21									5	
									6	
									7	
									8	
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-15 MW#	Sheet 1 of 1
Project: MITCHELL PARK	
Job # GRPT 9801 TY Site:	
Logged By: SEH Proj. Eng: SEH Edited By: RJB	
Drilling Contractor: ADT	
Drill Rig Type/Method: GEOPROBE	
Drillers Name: S. MILLER	
Borehole Diam./Drill Bit Type	Total Depth 8'
2" MACROCORE	Bot. Elev. SFC
Hammer Wt: NA Drop: NA	
Start Time: Date: 12/9/98	
Completion Time: Date: 12/9/98	
Backfill Time: Date:	

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
	2"MC		48"	33"					0	SILTY SANDS (SM), BROWN, MED. DENSE, 0-5% FINE GRAVELS
DUE TO RODS									1	@ 6" 30-40% FINE GRAVELS
									2	
									3	
NOT COLLECTED									4	
	2"MC		48"	40"					5	CLAY (CL), DK. BROWN, VERY STIFF, PETROLEUM LIKE ODOR
									6	@ 66" SOILS SATURATED
									7	SB-15 (5.0'-6.0') ANALYZED FOR STARS VOCs AND SVOCs
									8	
									9	
									10	
									11	
									12	

H2M GROUP

Boring #SB-16 MW# Sheet 1 of 1

Project: MITCHELL PARK

Job # 6RPT 9801T4 Site:

Logged By: SEH Proj. Eng: SEH Edited By: RJB

Drilling Contractor: ADT

Drill Rig Type/Method: GEOPROBE

Drillers Name: S. MILLER

Borehole Diam./Drill Bit Type: 2" MACROCORE — Total Depth: 8' — Depth to Bedrock: SFC

Hammer Wt: NA Drop: NA

Start Time: Date: 12/9/98

Completion Time: Date: 12/9/98

Backfill Time: Date:

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
ND	2"MC		48"	29"						SILTY SANDS (SM), BROWN, DENSE, 0-5% FINE GRAVEL, 10-20% FINES
ND									1	@ 14" SOIL BLACK, FILL MATERIAL PRESENT
10.0									2	@ 54" SOIL LT. BROWN, SOILS SATURATED
									3	
1.5	2"MC		48"	28"					4	
0.2									5	
0.2									6	
									7	
									8	SB-16 (1.2'-2.4') ANALYZED FOR STARS VOCS AND SVOCS
									9	
									10	
									11	
									12	

N-2

H2M GROUP

Boring # SB-17 MW# [redacted] Sheet 1 of 1

Project: MITCHELL PARK

Job # GRPT 9801 TY Site:

Logged By: SEH Proj. Eng: SEH Edited By: RJB

Drilling Contractor: ADT

Drill Rig Type/Method: GEOPROBE

Drillers Name: S. MILLER

Borehole Diam./Drill Bit Type [redacted] 8'

2" MACROCORE [redacted] SFC

Hammer Wt: NA Drop: NA

Start Time: Date: 12/9/98

Completion Time: Date: 12/9/98

Backfill Time: Date:

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
ND	2"MC		48"	24"						SILTY SAND (SM), LT. BROWN, MED. DENSE, 15-20% FINES
ND									1	
ND										@ 4' SOIL BLACK AND CONTAIN FILL MATERIAL, LOOSE SOILS
									2	
									3	
									4	
1.0	2"MC		48"	6"						
									5	
									6	
									7	SB-17 (4'-4.5') ANALYZED FOR STARS VOCS AND SVOCS
									8	
									9	
									10	
									11	
									12	

H2M GROUP

Boring # SB-18 MW#	Sheet 1 of 1
Project: MITCHELL FIELD	
Job # GRPT 9801 TY Site:	
Logged By: SEH Proj. Eng: SEH Edited By: RJB	
Drilling Contractor: ADT	
Drill Rig Type/Method: GEOPROBE	
Drillers Name: S. MILLER	
Borehole Diam./Drill Bit Type	Surface 8'
2" MACROCORE	Bedrock SFC
Hammer Wt: NA Drop: NA	
Start Time: Date: 12/9/98	
Completion Time: Date: 12/9/98	
Backfill Time: Date:	

MC = MACROCORE

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
DUE TO RAIN	2"MC		48"	38"					1	GRAVELLY SAND (SP), BROWN, DENSE, 25-30% FINE GRAVEL, ~15% FINES
									2	
									3	SILTY SAND (SM), DK. BROWN, MED. DENSE, 10-15% FINE GRAVEL, 15-20% FINES
NOT COLLECTED	2"MC		48"	32"					4	SILT (ML), DK. BROWN, STIFF, >50% FINES, SOILS SATURATED
									5	@ 4.5' SOIL BLACK
									6	
									7	
									8	SB-18 (4.5-5.5') ANALYZED FOR STARS VOCs AND SVOCs
									9	
									10	
									11	
									12	

N-2

H2M GROUP

Boring # MW# MW-1 Page 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, OM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem — Total Depth: 12.0' — Ref. Elev.: surface

Hammer Wt: 130 lbs Drop:

Start Time: 2:20 Date: 3/2/99

Completion Time: 3:20 Date: 3/2/99

Backfill Time: Date:

Sketch Map of Site Area With Drilling Locations

See Attached Map

Boring Depth (ft.)	1st Water			
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
	Post Hole 0.		48.0"	0		2' pvc casing	1 concrete grout		1	Post hole dig from grade to 4' bgs.
									2	0-4' fill, sands (mostly) backfill from tank excavation, backfill was a homogeneous tan sediment to fine sand
									3	
									4	
	DA					.01 screen	PACK		▽ 5	Approximate depth to water
						schedule #40	FILTER		6	→ Impacted Soil x 6' bgs (fuel like contam) placed in 55 gal. drum
						Casing	SAND		7	
						PVC			8	
						10'	MORIE		9	
	2" / 10.0"	4	24"	24"				X	10	→ gravelly sand fill to clay peat → confining layer saturated, dark brown, soft
		3						X		
		5						X	11	set well @ 12' bgs.
		1						X		→ clay, peat organic confining layer
									12	

N-2

H2M GROUP

Boring # MW# MW-2 Sheet 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, OM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem — Total Depth: 12.0' — Bgs: surface

Hammer Wt: 130 lbs Drop:

Start Time: 2^00 Date: 3/2/99

Completion Time: 2^30 Date: 3/2/99

Backfill Time: Date:

Sketch Map of Site Area With Drilling Locations

See Attached Map

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet
	Post hole 0'		48"	0					
						2" PVC casing	1 concrete grout		1
									2
							BACKFILL		3
						#40			4
	DA					PVC slot			≈ 5
						.01 screen	FILTER SAND		6
									7
									8
									9
						10' PVC	Mottled		10
	2"/100'	6	24"	24"				X	
		9						X	11
		7						X	
		3						X	12

Post hole dig from grade to 4' bgs

0'-4' fill, sands backfill from tank excavation backfill was a homogeneous to medium to fine grain sand

Approximate depth to water

→ Impacted soil cuttings placed in 55 gal. drum

* while setting well, a coupling was needed due to screen crack from installation

→ gravelly sand, tan, fine saturated, dark brown, medium stiff organic layer gray clay, peat

→ set well @ 12' as per confining layer

N-2

H2M GROUP

Boring # MW# MW-3 Sheet 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, DM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem — Total Depth: 12.0' — Ref. Elev.: surface

Hammer Wt: 130 lbs Drop:

Start Time: 1200 Date: 3/2/99

Completion Time: 1330 Date: 3/2/99

Backfill Time: Date:

See Attached Map

Sketch Map of Site Area With Drilling Locations

Boring Depth (ft.)	1st Water			
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Feet
	Post hole 0'		48.0"	0		[	Type I Cement Grout		1
						[2" PVC casing			2
						[			3
	DA						Bentonite		4
						0.10 #40		≈▽	5
						Sched 40	FILTER		6
						PVC	SAND		7
						0.01 screen			8
									9
	2"/120'	2	24"	24"		10' PVC	Native	X	10
		4						X	11
		8						X	
		6				]		Y	12

Post hole dig from grade to 4' bgs

0-4' fill, sands backfill from tank excavation backfill was a fine, medium to fine grain sand poorly sorted

Approximate depth to water

→ Impacted soil cuttings placed in 55 gal. drum

→ saturated, dark brown, medium stiff organic layer, gray clay, peat

→ set well @ 12' as per confining layer

H2M GROUP

Boring # MW# MW-4 Sheet 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, DM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem

Total Depth: 9.5'

Ref. Elev.: surface

Hammer Wt: 130 lbs Drop:

Start Time: 11^00 Date: 3/1/99

Completion Time: 12^00 Date: 3/1/99

Backfill Time: Date:

Sketch Map of Site Area With Drilling Locations

See Attached Map

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
		Post Hole 0'	48.0"	0		1.5" Sch 40 PVC casing	Cement grout			Post hole dig from grade to 4' bgs
									1	
									2	0-4' mostly fill ± some gravelly sands, moist
									3	-fill was medium to fine tan/ brown sand, poorly sorted
	OA					1.5" #10 slotted screen	PACK	≈▽	4	→ Approximate depth to water
									5	
									6	
									7	
	2" / 80'	9	24"	6"		8' PVC sch 40	MORIE SAND FILTER	X	8	→ saturated, dark brown, medium stiff organic layer, shells, peat → grey clay
		6							9	
		3								
		2							10	Set 4" well @ 9.5 as per confining layer
									11	
									12	

N-2

H2M GROUP

Boring # MW# MW-5 Sheet 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, DM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem

Total Depth: 9.5'

Ref. Elev.: surface

Hammer Wt: 130 lbs Drop:

Start Time: 10^25 Date: 3/1/99

Completion Time: 11^00 Date: 3/1/99

Backfill Time: Date:

See Attached Map

Sketch Map of Site Area With Drilling Locations

Boring Depth (ft.)	1st Water			
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth	Sample Rec. Analyses	Feet
		Post Hole 0'	48"	0		1.5' Ind casing	cement grout			
										1
										2
										3
	DA					#40 s.f. slotted screen	BACK	≈▽		4
										5
										6
										7
	2" / 8.0'	12	24"	10"		8' PVC schedule	MOBIE SAND FILTER	1	X	8
		7							X	
		9								9
		10								10
										11
										12

Post hole dig from grade to 4' bgs

0-4' soils are mostly fill, top soils with some well sorted gravelly sands - top soils consisted of organically enriched medium fine brown sands & some fine gravel

→ Approximate depth to water

saturated, dark brown, medium stiff Organic layer & shells → clay (grey)

Set well @ 9.5' as per confining layer

4" well

N-2

H2M GROUP

Boring # MW# MW-6 Sheet 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, DM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem — Total Depth: 9.5' — Ref. Elev.: surface

Hammer Wt: 130 lbs. Drop:

Start Time: 9^15 Date: 3/1/99

Completion Time: 10^15 Date: 3/1/99

Backfill Time: Date:

See Attached Map

Sketch Map of Site Area With Drilling Locations

Boring Depth (ft.)	1st Water			
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth Sample Rec. Analyses	Depth Feet
		Post Hole, 0	48.0"	0		Cement grout	1.5" Bentonite		
									1
									2
									3
	2"/4.0'	4 3	24"	6"		4" PVC Machine slotted #10 screen		X ≈▽	4
		4 3							5
	2"/6.0'	1 1	24"	15"				X X	6 7
		2 4						X X	8
	2"/8.0'	1 3	24"	15"		4" PVC Solid Riser		X X	9
		5 3						X	10
									11
									12

Post hole dig from grade to 4' bgs.

Soils for 1st 4' are fill, top soils, and some well sorted gravelly sands
- top soils consisted of organically enriched medium/fine brown sands & some fine gravel

Approximate 1st water encountered fill, with tan, moist, loose gravelly sands

Fill, wet, very loose & organics some shells, peat
- fill consisted of dredge spoils, brick and shells

saturated, dark brown, loose organic material to grey clay layer @ 9.0'

set well @ 9.5' as per confining layer

4" well

N-2

H2M GROUP

Boring # MW# MW-7 Page 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, DM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem — Total Depth: 12.0' — Ref. Elev.: surface

Hammer Wt: 130 lbs. Drop:

Start Time: 10^20 Date: 3/2/99

Completion Time: 11^00 Date: 3/2/99

Backfill Time: Date:

See Attached Map

Sketch Map of Site Area With Drilling Locations

Boring Depth (ft.)	1st Water			
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet
	Post hole 0'		48.0"	0		[	[		
						[4" PVC casing]	1 cement / grout		1
						]	]		2
									3
						4" PVC slotted screen	PACK		
	DA							≈ 11.0	4
							FILTER		5
						.01 slotted #40			6
							SAND		7
						PVC schedule			8
							RISER		9
									10
	2" / 10.0'	9	24"	24"		10' PVC	MONI	X	
		3						X	11
		4						X	
		2				[	[		12

Post hole dig from grade to 4' bgs

0'-4' fill and gravelly sands medium to fine sand & some fine gravel & homogeneous to fine sand

Approximate depth to water

@ slight odor of fuel contamination, no soil staining

saturated dark brown/grey, medium stiff clays, organics (peat) - confining

confining clay

→ Set well at 12' b.g.s/confining layer

H2M GROUP

See Attached Map

Sketch Map of Site Area With Drilling Locations

Boring #	MW# MW-8 Page 1 of 1
Project:	Village of Greenport
Job #	GRPT 9801 Site: Mitchell Property
Logged By:	MPE Proj. Eng: RJB Edited By: RJB
Drilling Contractor:	Aquifer Drilling & Testing (ADT)
Drill Rig Type/Method:	Mobile B-61 / Hollow Stem Auger
Drillers Name:	Shane Miller, DM
Borehole Diam./Drill Bit Type	Total Depth 12.0'
6 5/8" / Carbide Hollow Stem	Ref. Elev. surface
Hammer Wt:	130 lbs Drop:
Start Time:	10^00 Date: 3/2/99
Completion Time:	10^20 Date: 3/2/99
Backfill Time:	Date:

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth Sample Rec. Analyses	Depth Feet
	Post hole dig		48"	0'		6" dia. casing	1 bentonite grout		1
									2
									3
	DA					2" dia. Schedule 40 PVC .01 Screen	FILTER PACK SAND		4 ≈ ▽ 11/4
									5
									6
									7
									8
									9
									10
	2'/10.6	6	24"	24"		10' PVC	mottle	X	11
		6						X	
		9						X	
		7						X	12

Post hole dig from grade to 4' bgs

0-4' fill and gravelly sands
- fill was medium and fine sand mix, fine & fine grained sand mix poorly sorted

Approximate depth to water

→ Impacted soil cutting ≈ 10' bgs placed in 55 gal. drum

→ saturated, dark brown/gray, stiff clay & some organics, peat

→ Set well @ 12' bgs

NJ

H2M GROUP

Boring # MW# MW-9 Page 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, DM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem — Total Depth: 12.0' — Ref. Elev.: surface

Hammer Wt: 130 lbs. Drop:

Start Time: 9:00 Date: 3/2/99

Completion Time: 9:30 Date: 3/4/99

Backfill Time: Date:

See Attached Map

Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)				
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet
	Post hole 0'		48.0"	0		4" PVC casing	1 concrete grout		1
									2
									3
	DA						PACK	≈ ▽	4
						sch 40			5
							FILTER		6
						.01 screen			7
							SAND		8
									9
	2" / 10.0'	3	24"	24"		10' PVC	MOLIE	X	10
		9						X	11
		7						X	
		3						X	12

Post hole dig from grade to 4' bgs

0-4' fill and gravelly sands

→ fuel-like soil contamination begins

- fill consisted of medium/fine sand well graded

Approximate depth to water

* Impacted/stained soil cuttings placed in 55 gal. drum

saturated dark brown/grey, medium stiff clay & some organics (peat

→ Set well @ 12' bgs

H2M GROUP

Boring # MW# MW-10 Sheet 1 of 1

Project: Village of Greenport

Job # GRPT 9801 Site: Mitchell Property

Logged By: MPE Proj. Eng: RJB Edited By: RJB

Drilling Contractor: Aquifer Drilling & Testing (ADT)

Drill Rig Type/Method: Mobile B-61 / Hollow Stem Auger

Drillers Name: Shawn Miller, DM

Borehole Diam./Drill Bit Type: 6 5/8" / Carbide Hollow Stem

Total Depth: 12.0'

Ref. Elev.: surface

Hammer Wt: 130 lbs Drop:

Start Time: 8^00 Date: 3/2/99

Completion Time: 8^30 Date: 3/2/99

Backfill Time: Date:

See Attached Map

Sketch Map of Site Area With Drilling Locations

Boring Depth (ft.)	1st Water			
Casing Depth (ft.)				
Water Depth (ft.)				
Time				
Date				

PID/OVA (ppm)	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth: Sample Rec. Analyses	Depth: Feet	
	Post hole 0'		48.0"	0						Post hole dig from grade to 4' bgs
						2" dia casing	1 cement grout		1	
									2	0'-4' fill and gravelly sands
										→ fuel-like soil contamination begins
									3	fill consisted of medium/fine poorly sorted tan sand
						2" dia .01" screen	#1 PACK		4	
	DA							▽		Approximate depth to water
									5	☆ Soils appear/smell petroleum impacted and stained soil cuttings placed in 55 gal. drum
						schedule 40	FILTER		6	
									7	
						casing	SAND		8	
									9	
	2" / 10.0'	1	24"	10'		2" dia PVC	#1 MORIE	X	10	→ saturated, dark grey, loose clay
		3						X		
		4							11	Set well @ 12' bgs
		4						X →	12	12-14' split spoon indicates clay @ 12' bgs

APPENDIX C

Groundwater Development Logs/Well Sampling Logs

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-1

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 60 gals

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: 5.05'
Standing Water Column: 6.95
Amnt of One Well Vol: 4.53
Total Water to be Pumped: 45.38 gals

Develop Method: submersible 3" pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC	pH	TEMP	TURB	D.O.	MV
10:30	10	532.0	7.36	7.6	>200	N/A	-035 ≈ 2 gpm ± very silty
	30	600.0	7.29	7.4	>200	N/A	-036
11:00	60	596.0	7.35	7.6	41.9	N/A	-034

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-2

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed:

Vol./ft of casing:
Vol./ft of borehole:

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: → filled ↑ sand
Standing Water Column:
Amnt of One Well Vol:
Total Water to be Pumped:

Develop Method: submersible 3" pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC	pH	TEMP	TURB	D.O.	
11:00							
							* well could not be sampled appears that screen has caved in and sands filled in casing @ approximately 4.66'

Gwss

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-3

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 50 gals

Vol./ft of casing:
Vol./ft of borehole:

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: 4.93
Standing Water Column: 7.07
Amnt of One Well Vol: 4.61
Total Water to be Pumped: 46.16

Develop Method: submersible 3' pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC	pH	TEMP	TURB	D.O.	MV
11[05]	10	845	6.64	7.9	>200	N/A	-027
	25	847	6.64	7.8	>200	N/A	-027 ≈ 1.5 gpm
11[35]	50	839	6.59	7.9	>200	N/A	-022 very silty

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-4

Total Well Depth: 9.5'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 40 gals.

Vol./ft of casing:
Vol./ft of borehole:

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: 4.72
Standing Water Column: 4.78
Amnt of One Well Vol: 3.12
Total Water to be Pumped: 31.21 gals

Develop Method: submersible 3' pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC	pH	TEMP	TURB	D.O.	MV
11:40	10	1116	7.79	7.6	>200	N/A	-021 ≈.5 gpm
12:20	20	1046	7.81	7.6	>200	N/A	-021 very silty
1:00	40	849	7.28	7.6	38.9	N/A	-022

Gwss

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-5

Total Well Depth*: 9.5
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 30 gals

Vol./ft of casing:
Vol./ft of borehole:

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: 5.00
Standing Water Column: 4.50
Amnt of One Well Vol: 2.94
Total Water to be Pumped: 29.40 gals

Develop Method: submersible 3" pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC	pH	TEMP	TURB	D.O.	MV
1 00	10	1048	7.81	7.8	>200	N/A	-053 ≈ .5 ± gpm
	15	1051	7.77	7.9	>200	N/A	-051 very silty
1 40	30	1060	7.80	7.8	43.7	N/A	-054

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-6

Total Well Depth*: 9.5
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 30 gals

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: 5.20
Standing Water Column: 4.30
Amnt of One Well Vol: 2.80
Total Water to be Pumped: 28.01 gals

Develop Method: submersible 3" pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC	pH	TEMP	TURB	D.O.	mV
1[45]	5	111.2	7.21	6.9	>200	N/A	-045 1.0 gpm
	15	112.2	7.23	6.8	>200	N/A	-045 very silty
2[15]	30	112.4	7.21	6.7	48.1	N/A	-045

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-7

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 100 gals

Vol./ft of casing:
Vol./ft of borehole:

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: 3.13
Standing Water Column: 8.87
Amnt of One Well Vol: 5.79
Total Water to be Pumped: 57.92

Develop Method: submersible 3" pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED						COMMENTS
		EC	pH	TEMP	TURB	D.O.	mV	
2:20	10	1457	7.28	10.3	>200	N/A	-147	≈ 10 gpm±
	50	1451	7.28	10.0	>200	N/A	-147	* protective casing was filled
2:30	100	1441	7.28	10.1	43.2	N/A	-145	± water

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-8

Total Well Depth: 12'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 60 gals

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: 4.20
Standing Water Column: 7.80
Amnt of One Well Vol: 5.09
Total Water to be Pumped: 50.93

Develop Method: submersible 3' pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC	pH	TEMP	TURB	D.O.	MV
2:45	10	7.18 ms	7.72	10.1	>200	N/A	-186 ≈ 3 gpm
	30	7.24 ms	7.73	10.0	>200	N/A	-152
3:10	60	7.24 ms	7.74	10.1	47.8	N/A	-186

Gwss

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-9

Total Well Depth: 12'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 150 gals

Vol./ft of casing:
Vol./ft of borehole:

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: 4.45
Standing Water Column: 7.55
Amnt of One Well Vol: 4.93
Total Water to be Pumped: 49.30

Develop Method: submersible 3" pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS	
		EC	pH	TEMP	TURB	D.O.	MV	
3^15	10	3.81 ms	7.35	10.0	7206	N/A	-135	≈ 10 gpm ±
	75	3.80 ms	7.42	10.0	>200	N/A	-136	fuel-like odor present
3^20	150	3.91 ms	7.32	9.9	43.7	N/A	-135	

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-10

Total Well Depth': 12'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 150 gals

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/8/99

Static Water Level*: 4.24
Standing Water Column: 7.76
Amnt of One Well Vol: 5.07
Total Water to be Pumped: 50.7

Develop Method: submersible 3" pump
Presamp Purge Method: N/A
Sampling Method: N/A
Field Tech: MPE

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS	
		EC	pH	TEMP	TURB	D.O.	mV	
3^40	10	11.6 ms	7.22	13.1	>200	N/A	-223	≈ 10 gpm ±
	75	11.50 ms	7.22	13.0	>200	N/A	-221	sulfur/egg like odor (strong)
4^00	150	11.41 ms	7.22	11.9	38.4	N/A	-222	

Gwss

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-1

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 3/8"
Min. Vol. to be Removed: 30 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/23/99

Static Water Level*: 5.20'
Standing Water Column: 6.80
Amnt of One Well Vol: 4.44 gals.
Total Water to be Pumped: 13.32 gals.

Develop Method: N/A
Presamp Purge Method: whale pump
Sampling Method: disposable bailer
Field Tech: MPC/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC µs	pH	TEMP	TURB	~~D.O.~~ MV	
	initial	474	7.24	10.7	115.1	-093	Sample time: 9[10]
	15	513	7.33	9.1	77.9	-087	* collect MS/MSD here
	30	511	7.32	9.3	12.1	-082	

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchell Property
Job#: GRPT 7801
Well ID: MW-2

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 150 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/23/99

Static Water Level*: 4.75
Standing Water Column: 7.25
Amnt of One Well Vol: 4.73 gals.
Total Water to be Pumped: 14.20 gals

Develop Method: Developed ∑ whale pump → re-installed
Presamp Purge Method: whale pump
Sampling Method: disposable bailer
Field Tech: MPE/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC µs	pH	TEMP	TURB	~~D.O.~~ MV	
	initial	327	7.27	21.0	7200	-034	sample time : 14[45]
	15	329	7.28	19.6	92.3	-030	
	150	319	7.16	18.9	30.1	-031	★ After ADT re-installed MW-2 to the original specs. the well was developed, left to settle, and then sampled

MW

Gwss

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchell Property
Job#: GRPT 9801
Well ID: MW-3

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 5/8"
Min. Vol. to be Removed: 50 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/23/99

Static Water Level*: 5.05'
Standing Water Column: 6.95
Amnt of One Well Vol: 4.53 gals
Total Water to be Pumped: 13.61 gals.

Develop Method: N/A
Presamp Purge Method: whale pump
Sampling Method: disposable bailer
Field Tech: MK/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC µs	pH	TEMP	TURB	~~D.O.~~ MV	
	initial	602	6.91	8.9	>200	-030	Sample time: 10 00
	15	619	7.02	8.8	77.1	-028	
	50	621	7.04	8.9	38.1	-021	* Collect Field Blank
							* Collect Blind Duplicate Here called MW-11

MPG

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchell's Property
Job#: GRPT-9801
Well ID: MW-4

Total Well Depth*: 9.5'
Well Dia: 4"
Borehole Dia: 6 3/8"
Min. Vol. to be Removed: 15 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/23/99

Static Water Level*: 4.65
Standing Water Column: 4.85
Amnt of One Well Vol: 3.14 gals.
Total Water to be Pumped: 9.50 gals.

Develop Method: N/A
Presamp Purge Method: whale pump
Sampling Method: disposable bailer
Field Tech: MPG/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC µs	pH	TEMP	TURB	~~DO~~ MV	
	initial	356	8.08	15.6	>200	125	Sample time: 11[45]
	10	361	8.18	15.1	118.1	141	
	15	391	8.28	15.0	43.6	132	

Gwss

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchels Property
Job#: GRPT 9801
Well ID: MW- 5

Total Well Depth*: 9.5
Well Dia: 4"
Borehole Dia: 6 3/8"
Min. Vol. to be Removed: 15 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/23/99

Static Water Level*: 4.74
Standing Water Column: 4.76
Amnt of One Well Vol: 3.10 gals.
Total Water to be Pumped: 9.32 gals.

Develop Method: N/A
Presamp Purge Method: whale pump
Sampling Method: disposable bailer
Field Tech: MPC/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC µs	pH	TEMP	TURB	~~DO~~ MV	
	initial	481	7.96	16.8	>200	-031	Sample time: 1400
	10	380	7.81	13.9	>200	-031	
	15	361	7.67	13.7	24.1	-031	

MPC

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Grempart
Site: Mitchell's Property
Job#: GRPT 9801
Well ID: MW- 6

Total Well Depth*: 9.5
Well Dia: 4"
Borehole Dia: 6 3/8"
Min. Vol. to be Removed: 15 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/25/99

Static Water Level*: 5.11
Standing Water Column: 4.39
Amnt of One Well Vol: 2.86 gals.
Total Water to be Pumped: 8.60 gals.

Develop Method: N/A
Presamp Purge Method: whale pump
Sampling Method: disposable baler
Field Tech: MPC/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC µs	pH	TEMP	TURB	~~D.O.~~ MV	
	initial	1118	7.21	9.7	7200	-051	Sample time: 13 45
	9	1044	7.31	8.9	25.3	-064	
	15	1055	7.18	8.6	18.3	-064	

Gwss

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchell's Property
Job#: GRPT 9801
Well ID: MW-7

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 3/8"
Min. Vol. to be Removed: 40 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/23/99

Static Water Level*: 2.90'
Standing Water Column: 9.1
Amnt of One Well Vol: 5.99 gals.
Total Water to be Pumped: 17.82 gals.

Develop Method: N/A
Presamp Purge Method: whale pump
Sampling Method: disposable bailer
Field Tech: MPC/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC µs	pH	TEMP	TURB	~~D.O.~~ mV	
	Initial	4.01 ms	7.54	7.8	>200	-171	Sample time: 17⁰⁰
	20	4.89 ms	7.68	7 3	>200	-153	
	40	3.90 ms	7.70	7.9	47.9	-109	
					-		

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchell's Property
Job#: GRPT 1801
Well ID: MW-8

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 3/8"
Min. Vol. to be Removed: 30 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/23/99

Static Water Level*: 3.84
Standing Water Column: 8.16
Amnt of One Well Vol: 5.32 gals.
Total Water to be Pumped: 15.98 gals.

Develop Method: N/A
Presamp Purge Method: whale pump
Sampling Method: disposable bailer
Field Tech: MPS/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		~~EC~~ µs	pH	TEMP	TURB	~~D.O.~~ mV	
	initial	361 ms	7.68	89	>200	-181	Sample time: 1620
	16	3.87 ms	7.71	8.6	>200	-035	
	30	3.89 ms	7.70	8.1	39.1	-021	

Gwss

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Grempart
Site: Mitchels Property
Job#: GRPT9801
Well ID: MW-9

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 3/8"
Min. Vol. to be Removed: 30 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/23/99

Static Water Level*: 4.15
Standing Water Column: 7.85
Amnt of One Well Vol: 5.12 gals.
Total Water to be Pumped: 15.37 gals.

Develop Method: N/A
Presamp Purge Method: whale pump
Sampling Method: disposable bailer
Field Tech: MPC/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		~~EC~~ µs	pH	TEMP	TURB	~~D.O.~~ mV	
	initial	3.84 ms	7.32	7.4	>200	-150	Sample time: 16⁰⁰
	16	3.86 ms	7.41	7.1	39.1	-161	
	30	3.85 ms	7.38	8.1	13.1	-135	

H2M GROUP

GROUNDWATER SAMPLING/DEVELOPMENT LOG

Client: Village of Greenport
Site: Mitchell's Property
Job#: GRPT 9801
Well ID: MW-10

Total Well Depth*: 12'
Well Dia: 4"
Borehole Dia: 6 3/8"
Min. Vol. to be Removed: 40 gals.

Vol./ft of casing: _____
Vol./ft of borehole: _____

Waste: Discharge to Ground Surface

Date: 3/23/99

Static Water Level*: 4.00
Standing Water Column: 8.00
Amnt of One Well Vol: 5.32 gals.
Total Water to be Pumped: 15.66 gals.

Develop Method: N/A
Presamp Purge Method: whale pump
Sampling Method: disposable bailer
Field Tech: MPG/EJG

* All measurements taken from: X Top of Casing; ___ Protective Casing; ___ Ground Level

TIME	AMOUNT PURGED (GAL)	FIELD PARAMETER MEASURED					COMMENTS
		EC µs	pH	TEMP	TURB	~~D.O.~~ MV	
	initial	10.63 ms	8.01	11.0	>200	-166	Sample time: 1530
	16	10.68 ms	7.59	10.1	39.1	-160	
	40	11.11 ms	7.10	9.8	25.6	-149	

MPG

APPENDIX D

Field Notes

August 12, 1998

NOTES

Greenport - Mitchell Property Tank Pull

0800 - Miller Environmental on site - begins to excavate the tank liners from the bulkhead back to the tanks.

0820 - Bob Stewart (NYSDEC) arrives on site.

10:20 - Have located UST fill liners & vaults, begin to exravate top of tanks to determine size and orientation of tanks.

11:30 - It appears that the top of the tanks are covered with a 1 foot Concrete layer

There is some impacted soils on the east side of Tank # 3. During the excavation, it has been uncovered a 4th UST has been identified. It appears to be the same size as the other 3. Miller Environmental continues to excavate the tops of the UST.

Miller Environmental begins to cut out vent lines from the tanks and drains the lines back into the tanks. All the lines from the water front to the tanks have been removed and backfilled.

Miller pumps out tanks # 1 & 2 and removes 5,400 gallons. There is approximately 2 feet of bottom sludges in Tank # 1.

August 13, 1998

NOTES

Greenport - Mitchell Property

Miller begins excavation of top of USTs

During excavation, a fifth UST is uncovered. All five UST have fill lines and vent lines are similar

9:45am - Miller brings in Roll-off to begin loading impacted soil from the east end of tank # 4 & 5. Impacted soil extends past concrete footing

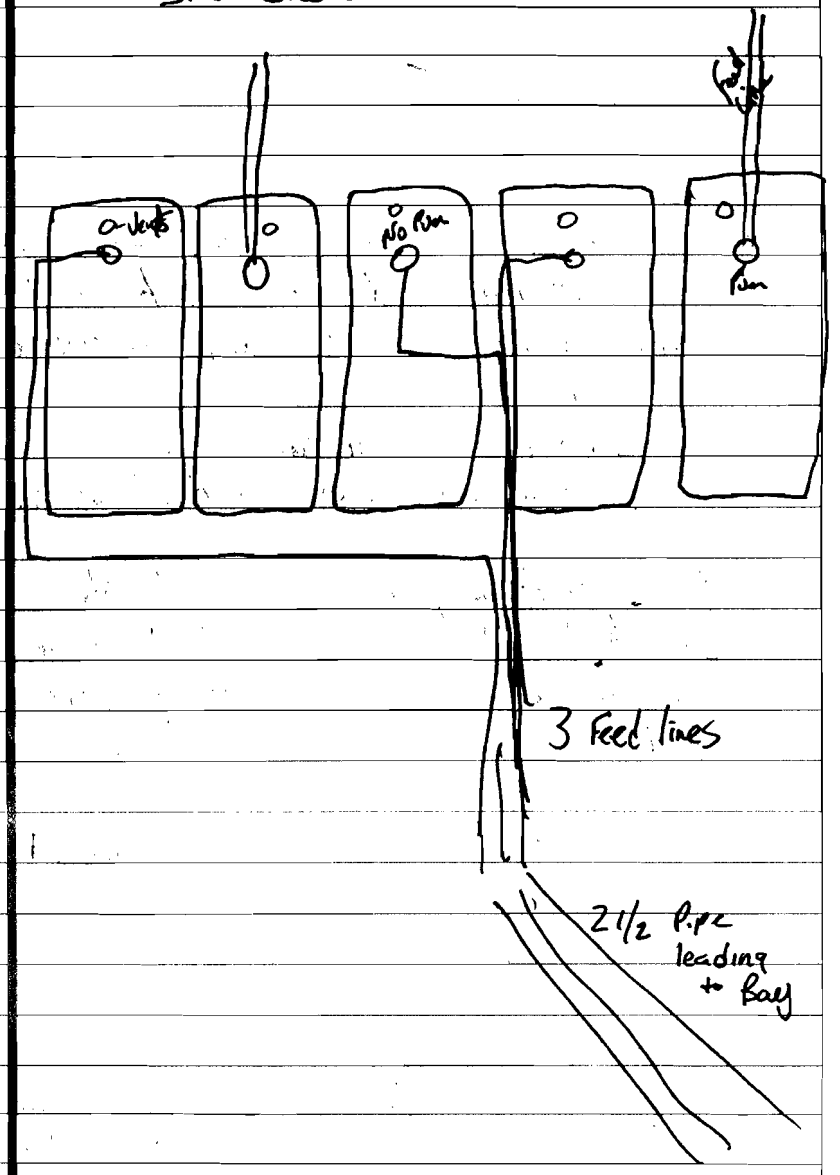
10.00 Miller begins to jackhammer concrete slab and continues excavating the top of Tank # 5. Some of soils have a blackish color, however, they do not have any odors. They are most likely organic (natural). At the end of the concrete layer, there is impacted soil just below the concrete layer. Miller will continue cleaning the top and breaking the concrete slab.

We measure the diameter of tank # 5 - (@4 inches) According to the Tank chart a 4,000 gallon UST must measure 24' Long

NYSDEC wants feed lines running ~~North~~ East to be removed

NOTES

GREENPORT MARINA
Site Sketch



NOTES

2:55 PM - Call NYSDEC to register spill #

spill - 98-05972

Contaminated soil on the south side of Tank # 1 is being excavated and placed into 20 yard roll-offs. By 4:00 PM there are two - 20 yard roll-offs filled.

The impacted black soil has a PID reading of 80 ppm and will be placed in roll-offs.

Bob Stewart has gotten permission to take out up to 160 cubic Yards - If need be we can excavate up to 200 yards if that will prevent any further remedial actions.

3:50 Miller will attempt to lift out Tank # 1. As the concrete is removed the tank is beginning to float towards the surface.

4:15 - Miller Environmental has taken Tank # 1 from the ground - There are several holes in the tank. The LEL measures 14. We have to cut & add Dry Ice prior to cleaning. The tank will be placed on plastic and allowed to vent. The tank measures 24 feet long.

AT-A-GLANCE ORGANIZER®

NOTES

GREENPORT MARINA - AUGUST 14, 1998

0800 - Arrive on site - Miller will utilize an excavator to remove remaining four tanks. Upon inspection, the water in the excavation has risen approximately 2.0 feet. There is a slight sheen and globules of ~~[redacted]~~ gas/diesel.

Tank # 2 removed from the ground - condition of tank much better than tank # 1. Initial inspection only shows two small diameter holes. Further assessment will be completed upon cleaning the tanks.

Miller Environmental begins to cut access to tanks # 1 and 2. There is very little sludge/water in the tanks. Miller continues to break up concrete on tanks 3, 4 & 5. Today, we will attempt to remove the three remaining tanks. Prior to removing, the liquid in the tanks will be removed by vac truck.

Tank # 3 Removed from Ground. Appears to be in better condition than 1 & 2. Tank 1 & 2 insides are being cleaned.

Tank # 4 removed from ground. Condition appears OK.

12:40 - 12:53 - George Pataki on-site with Mayor of Greenport & Police escort.

Greenport Marina - August 14, 1998 NOTES

Miller begins to excavate bottom of Excavation while we wait for an additional Tanker Truck to pump out what left in Tank # 5.

There is approximately a 1 foot sludge layer with impacted sediment. Beneath this layer is a dense grey bog layer with no odors or visual contamination. We will advise

Miller provides a change order which simply takes into account the additional two tanks uncovered. The price per additional tank is $3,650. Total Cost of $11,300.00 Unit prices for soil contamination & liquid will remain the same.

As of End of Day Friday - Waste Totals

- 5 - 4000 gal. Tanks
- 3 - 20 yard Roll-off
- 3 - 5640 gal Tanker Trucks
- 1 - 2,200 gal Tanker Truck
  of which 1600 is from
  fw Surface (Skimmed)

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NOTES

Greenport Marina - August 17, 1998

0800 - Miller Environmental has changed 10' booms on top of water in excavation on Saturday. They replaced on Saturday and today the booms are saturated. The water just has a sheen as of this morning.

Today Miller Environmental will trench the two feed lines running east, and remove. In addition the 5 UST and liner will be removed from site.

We are scheduled on Tuesday to remove the impacted soil from the site and collect confirmatory soil samples.

Greenpoint Marina - August 18, 1998

Today is soil removal day. The bottom one foot of contaminated soil will be excavated and approximately 2 foot of side soils will be removed.

Matt Darcangelo (NYSDEC) arrives on site. I discuss with Matt that we are proposing to remove 140 cubic yards of soils from the bottom of the excavation and sides. Upon removal of the soils, test pits will be completed on the sides of the excavation to determine the extent of free product.

[redacted]

[redacted]

Greenpoint Marina August 13

NOTES

Depth to Water in excavation - 6'
Excavation Size 31' x 38' x 8' deep

A total of 135 cubic Yards of impacted soil is removed from the excavation.

4 Test Pits are completed 20 feet off the excavation side walls. The groundwater entering the pits does not contain petroleum products.

Based on these findings, HZM & NYSDEC devise a plan for soil boring locations. A total of eight locations are depicted. NYSDEC will fax map showing locations of borings.

A total of 25 booms are placed in the excavation to "soak up" floating product. The booms will be removed tomorrow prior to ~~excavation~~ backfilling excavation

Location 115 FRONT ST. Date 12/2/98 105

Project / Client VILLAGE OF GREENPORT

GRTP 9801 T4

(MILEAGE - 130 mi.)

7:30 ON-SITE

8:00 RICH BALDWIN ON-SITE

FIELD CONDITIONS: CLEAR SKIES, LIGHT BREEZE OUT OF THE SOUTH

9:00 NAEVA GEOPHYSICAL, INC. ON-SITE. (MARK WELLS, ADAM WALK THE SITE AND DISCUSS SURVEY PERIMETER

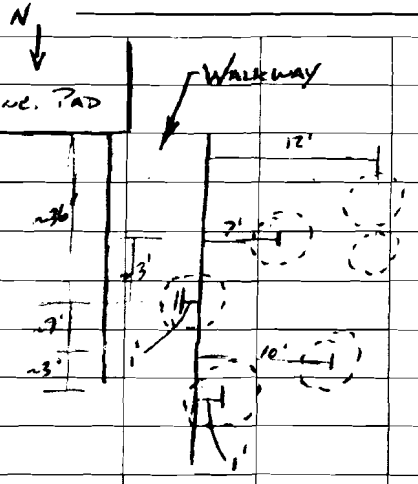
- RICH B. OFF-SITE.

- GEOPHYSICAL SURVEY STARTED BY WALKING SITE WITH MAGNETOMETER, STARTING ON THE WEST SIDE, BEHIND THE POST OFFICE. ALL METAL OBJECTS ARE BEING MARKED ON THE GROUND WITH SPRAY PAINT.

- UNDERGROUND POWER LINES BEING MARKED OUT WITH THE DYNATEL. (STARTING AT NORTH SIDE OF PROPERTY)

12:30 - SUSPECT TANK LOCATED WITH THE METAL DETECTOR. THE SUSPECT TANK IS ~4' x 8' AND LOCATED ~70 FT S. OF THE SIDEWALK AND ~60 FT. W. OF THE WALKWAY

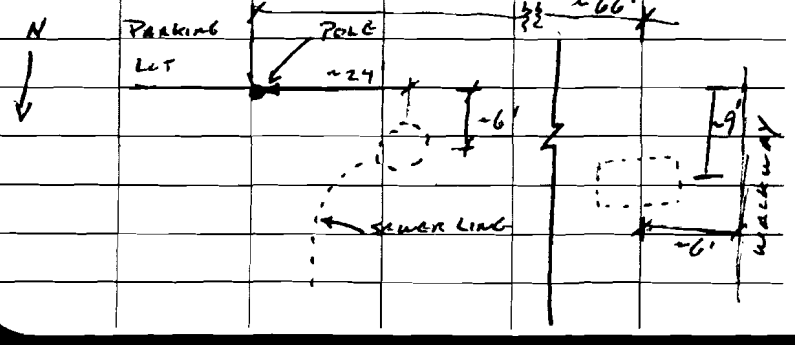
- SERIES OF 5 DRYWELLS (SUSPECT) LOCATED AS SHOWN ON DIAGRAM ON NEXT PAGE.



13:15 SUSPECT TANK CONFIRMED BY GPR

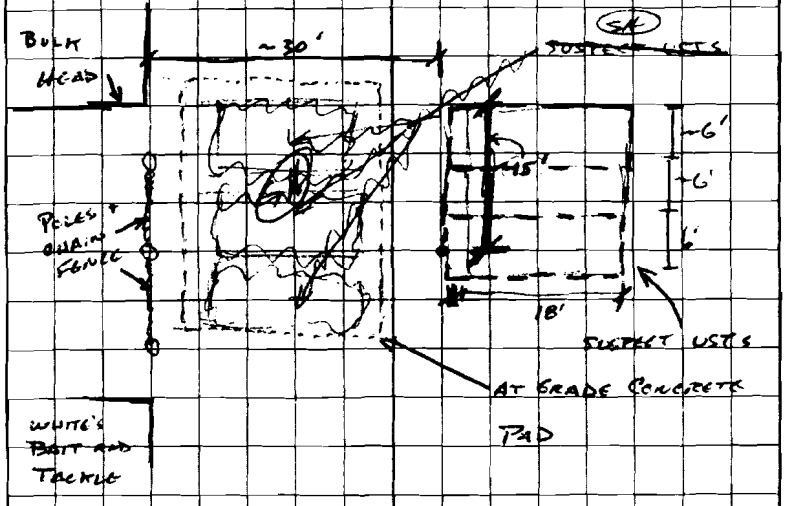
13:30 DIGGING DOWN TO TANK (SUSPECT) TO IDENTIFY IF SUSPECT TANK IS TRUE TANK. DUG DOWN 1.5' THEN PROBED TO 3'. SOLID OBJECT STRUCK AT 3'.

13:50 ANOTHER STRUCTURE IDENTIFIED. STRUCTURE IS INLINE WITH A SANITARY LINE.



14:10 ADDITIONAL SUSPECT TANK IDENTIFIED (4'x6' - 550 GAL). SUSPECT TANK IS LOCATED EAST OF THE WALKWAY AS SHOWN ON THE DRAWING ON THE BOTTOM OF THE PREVIOUS PAGE.

14:30 TANK FILL PORT AND 3 SUSPECT UST IDENTIFIED IN PARKING AREA.



15:30 TANKS CONFIRMED BY GPR.

11:00 Line Extends From Center Suspect UST's, South = 24' (UST area suspect to be 3000 - 5000 Gal. Capacity Each)
- Site being walked with Transmitter/ Receiver in a N-S and E-W Grid. This is being done for final identification of utilities.

18:00 No additional structures found, all utilities marked out.
- Off-site

6:30 On site with RJB
7:30 Robert (RJB) Stewart of NYSDEC on-site.
7:40 Marking out locations for Soil Borings
1 - Dredge Spoils
2 - Bottom Scrapings
3 - Texaco Alley
1 - Light Pole Area
2 - Water Main
* Will mark out 1 more in Texaco Alley and 6-7 in UST Area.
* Need to collect a Base Soil Sample. Should be where Road Run-off of Road is. Unpaved Area. And where Cars Park.
8:45 Auger Drilling and Testing on-site. Miller Environmental Group on-site
8:50 Starting Geotechning at Scrapings Area.
STB #1 0-4 - 32" Recovery
4-8 - 18" Recovery
See Field Sheet for Soil Class.
Sample Collected Last Foot of 4-8' Interval (38-50")

SB #2 0-4 42" Recovery/
4-8 32" Recovery/
Last 4' is Black, Sample Collected ~~First~~ Top Foot of 4-8 Interval (~~8-12~~) (42-54")
Petroleum odor From 4-8 with Shells. Shells Heavier at Top 1 Ft (Where Sample Collected), Depth to Water is 5.34' B.G. Product Probe indicates Absence of Product?

SB#1 Depth to Water is 5.42' B.G. Product Probe Shows no Signs of Product.

Water at SB#2 is Black and Petroleum odor Present

SB #3 Dredge Spoils Area
10:15 Start Geoprobing. Soils Seem Dense.

0-4 41" Recovery/
~~0-22"~~
~~22-25"~~
4-8 36" Recovery/

Collecting Sample at 19"-25"
No odors, No Dredge Spoilings. Soil Looks Good Except For 22-25 (Black) 5.72' to GW. No Product Floating (Probe Probe). Water is Muddy Discharge Bailer

11:00 Matt Steward of Nysped on-site

11:05 Start SB#4 By Water Main Hit Concrete at 3' B.G. Moving to Another Location
0-4' 40" Recovery Top 5" Top Soil Next 35" appear to be Dredge Spoilings Many Shells, Black,

HIGH ORGANIC CONTENT
4-8' REFUSAL AT 5' 2" RECOVERY/
SAMPLE (COLLECTED) AT 3-4' B.G.
(0-4') & 22"-34" IN RECOVERY), NO WATER,
HOLE IS ONLY 5' DEEP, NO ODORS

11:35 MARKING OUT UST AREA WITH NYSDEC

11:45 MATT OFF-SITE. MARK OUT UST AREA TOMORROW.

SB#4 SOIL MAY OR MAY NOT HAVE BEEN DISTURBED SOILS, NYSDEC AND HZM BELIEVE THEY WERE. SOIL WAS DK BROWN SILTS, CLAY, FINE SANDS AND SHELLS.

11:55 STARTING SB# 5 BY WATER MAIN.

SB#5 0-4' FULL RECOVERY/
0-9" TOPSOIL BROWN
9"-15' DK BROWN FINE SANDS
15"-48" DK BROWN-BLK, SILTS, CLAY, VERY FINE SANDS, FEW STONES

4-8' 42" RECOVERY/
0-10" SAME AS 15"-48" ABOVE
10"-BOTT DK BROWN, SILTS, CLAY, SATURATED (H_2O) MORE FINES THAN 0-4

READING OF 15.7 PPM AT 3-4' 4-5'
COLLECTING 3-5 FOR SAMPLE, MS/MSD.

PETROLEUM LIKE ODORS FOR 3-5'
ALL SOIL HAS SLIGHT ODOR.
* BLUE STREAKS SHOW PETROLEUM STAINING.

DEPTH TO WATER 3.83', NO PRODUCT DETECTED BY PRODUCT PROBE, PURGED H_2O OUT BY BAILER → SLIGHT PETRO. ODOR, NO SHEEN OBSERVED.

Project / Client

12:45 DONE SB#6 BY LIGHT POLE. TOP 18" IS DK BROWN WITH H.C. ORGANICS FOLLOWED BY 1 FT OF BLACK SANDS

DEPTH TO WATER IS 2.73', NO ODOR, NO PRODUCT.

SOIL SAMPLE COLLECTED FROM 0-18" DK. BROWN SOILS. OIL LIKE ODOR. ↳ COOKING

13:15 GEOPROBING SB #7, SOUTH OF USTS IN TEXACO ALLEY.

OIL ODOR (PETROLEUM AND GASOLINE) PRESENT WHEN 1ST MACRO TAKEN FROM GROUND.

PRODUCT PRESENT AT 18" DOWN, ~~BOTTOM~~ (END) AND INCREASES AS GOING DOWN WITH HEAVIEST CONC. AT 6-7' (6). SAMPLE COLLECTED AT 6-7' (10"-18" IN RECOVERY AREA). ↳ 7 OF 4-8' INTERVAL

Project / Client

3.90' TO WATER (FT.) WATER TABLE) BORING CAVED IN BEFORE GETTING PRODUCT FOR SAMPLE IN HOLE. FLOATING PRODUCT IS VERY LIKELY

* RAIN LIGHT

13:55 GEOPROBING SB #8 (SOUTH OF SB#7) RAIN STOPPED

REFUSAL AT 8' MEDIAL TO NEW LOCATION.

SOIL HAS ODOR IN 4-8' TUBE, HEAVIEST AT BOTTOM. PID IS NOT WORKING PROPERLY BECAUSE OF RAIN. SAMPLE COLLECTED FROM 7-8' (12-20" IN MACRO) ↳ SLIGHT ODOR (PET.)

COULD NOT DETERMINE DEPTH TO WATER HOLE CAVING IN (≈ 3.73')

14:25 STARTING GEOPROBING AT SB# 9, EAST OF PECONIC STAGE II.

NO ODORS IN SOIL, SAMPLE COLLECTED FROM 0-70" IN 4-8' MACRO, WATER AT 3.11' BY DEPTH TO WATER METER.

15:00 STARTING GEOPROBE SB # 10. OFF SE CORNER OF P.O. PROPERTY, (15'E, 15'S)

NO ODORS OTHER THAN AN UNKNOWN AT 6-12", SOILS LOOK GOOD.
↑ SAMPLE LOCATION
WATER AT 4.64', NO PRODUCT BY PRODUCT PROBE.

15:40 COLLECTING FIELD BLANK BY RUNNING SAMPLE WATER THRU PLASTIC TUBE FOR MACRO CORES. (UN-USED.)

16:00 OFF-SITE, GOING TO FEDEX AND COOLER TO MITKEM CO. (LAB)

* SAMPLES ARE ON ICE IN ONE COOLER.

17:30 SAMPLES HAND TAKEN FED-EX'D

TO CLARIFY TODAYS NOTES THE FOLLOWING TABLE AND NOTES WILL SUMMARIZE THE ACTIVITIES

SB#	Sample Depth	DTW	Visual Cont.	Odor	Total Recovery (of 8)
1	4'6-5'6"	38-50"	5.42'	NO	NO	50"
2	4'-5'	42-54"	5.34'	YES	YES	74"
3	1'72"-2'1"	19-25"	5.72'	YES?	NO	77"
4	1'10"-2'10"	22-34"	—	NO	NO	42"
5	3'-5'	36-60"	3.83'	YES?	YES	90"
6	0"-12"	0-18"	2.73'	NO	NO	72"
7	5'4"-6'4"	42-50"	3.90'	YES*	YES	60"
8	5'-5'8"	48-56"	—	YES*	YES	56"
9	4'-4'10"	28-38"	3.11'	NO	NO	38"
10	6"-12"	6-12"	4.64'	NO	NO	60"

↑ RELATIVE TO RECOVERY
↑ RELATIVE TO SOIL

118 Location 115 FRONT ST. Date 12/8/98

Project / Client

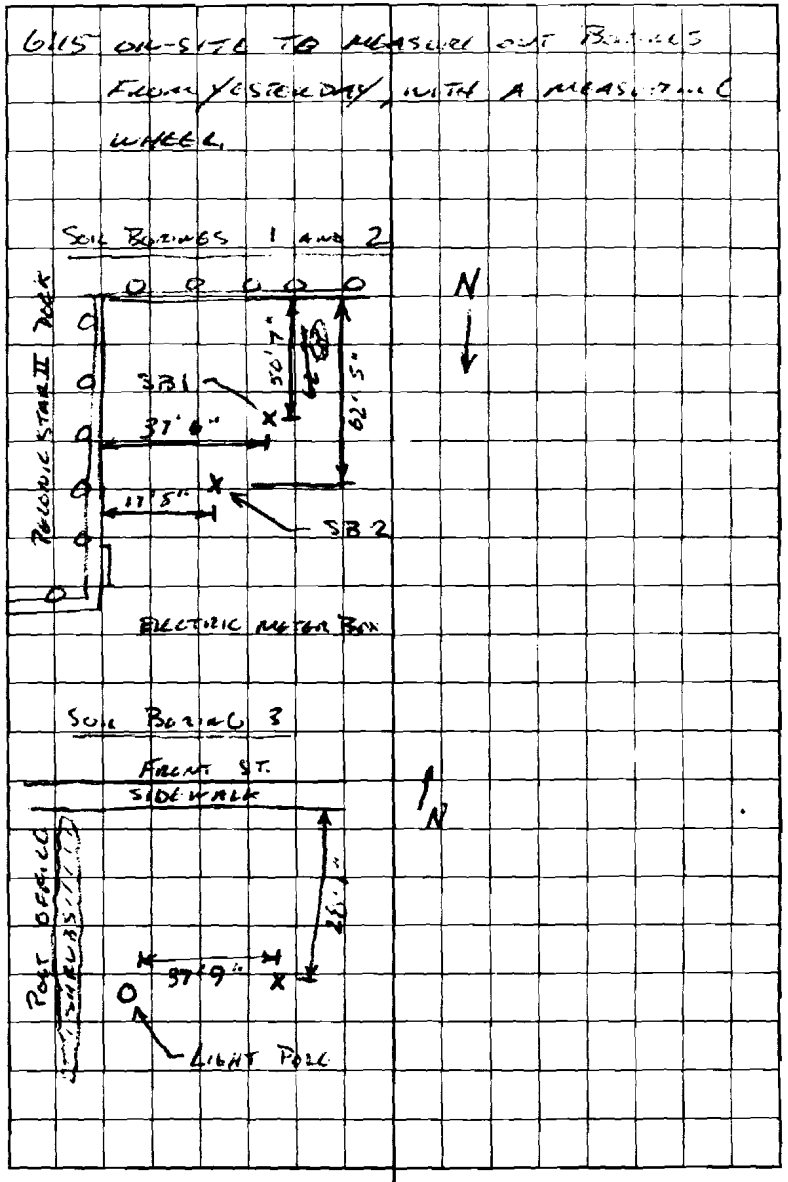
GENERAL CLASSIFICATION OF SOILS ACROSS PROPERTY: SANDS TO SILTS AND CLAYS. TYPICALLY FINES 10-25%. (NOT ALL LOCATIONS HAD FINE GRAINED). MOST SOIL GRAINS VISIBLE TO THE NAKED EYE.

Location 115 FRONT ST. Date 12/9/98 119

Project / Client VILLAGE OF CROTON-ON-HUDSON

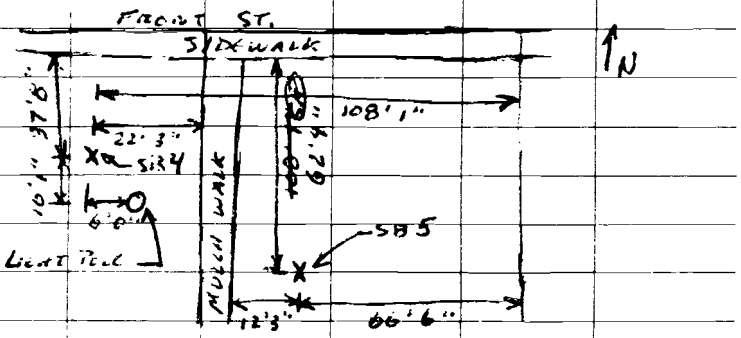
GRPT 9801

GPS ON-SITE TO MEASURE OUT BORINGS FROM YESTERDAY, WITH A MEASURING WHEEL.

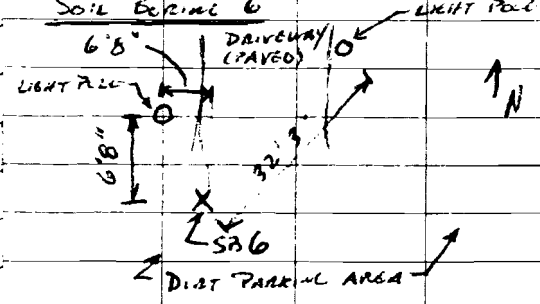


Project / Client

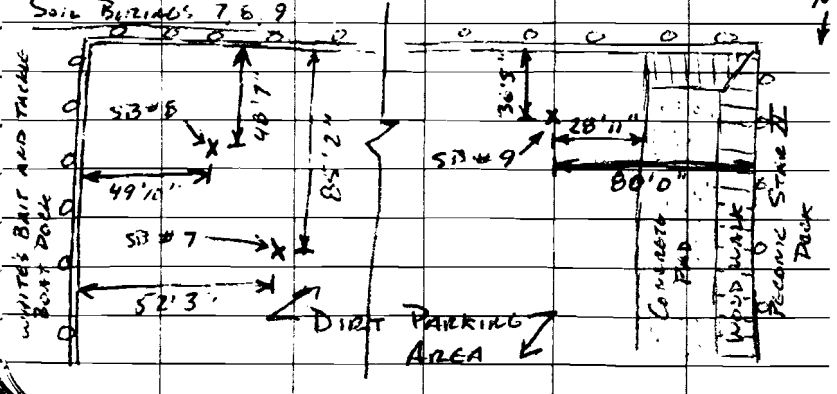
Soil Borings 4 and 5



Soil Boring 6

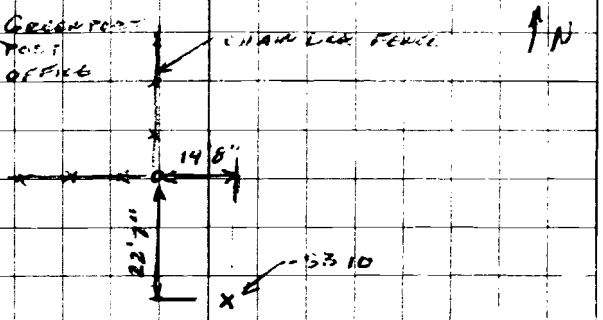


Soil Borings 7 & 9



Project / Client

Soil Boring 10



6:30 RICK BALDWIN ON SITE

6:45 ROBERT STEWART OF NYSDEC ON SITE

8:00 KSTS IS ON SITE, ROBERT AND TED LAYING-OUT 7 BORINGS FOR EXCAVATION

8:30 ADT ON SITE

8:45 START DRILLING SB#11

SB#11

NO ODORS, SOILS LOOKED CLEAN EXCEPT LAST TWO FT OF MATERIAL (BLACK STAINED FROM WATER) WHICH WAS SATURATED, SO CLEANED WATER LEVELS USING BAILER.

SB #12

BOTTOM 6" OF SOIL RECOVERED FROM 4-8 INT IS BLACK AND HAS PETROLEUM ODOR. PID OF 30 ppm. HOLE HAS CAVED IN. (SAMPLED 18-24" IN 4-8 INT.) OR 5'-5.5' CONT. VISIBLE IN LAST 6"

SB #13 SAME AS SB#12, BOTTOM 6' OF SOIL RECOVERED FROM 4-8 INT IS BLACK, HAS PETROLEUM ODOR AND VISIBLE CONTAMINATION. BORING HOLE CAVED IN, NO WATER LEVEL COLLECTED, SAMPLED @ 6-7' (22-34" IN 4-8 INT)

SB #14 BOTTOM FOOT OF RECOVERY (0-12 IN 4-8 INT) HAD PETRO ODOR, AND BLACK STAINING (CONTAMINATION). ALL BORINGS HAVE BEEN CAVED IN AROUND 5' (11, 12, 13, 14) DTW PROBE HAS ODOR ON TIP FROM CHECKING WATER TABLE.

SB #15 (SB #AA IS BLIND REPLICATE)
MARINE CLAYS AROUND WATER TABLE, (VERY STIFF), WATER TABLE AT 4.77' B.G. BY DTW PROBE, NO PRODUCT DETECTED BY PRODUCT PROBE NO PRODUCT SEEN BY BAILER. SOIL SAMPLE COLLECTED AT 5-6' (12-24" IN 4-8 INT.)

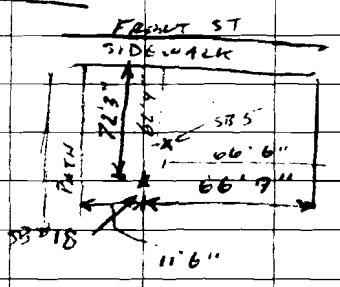
SB #16
LAYERS OF BLACK SOILS AND SHELL DEBRIS AT 14" TO 29". SAMPLE COLLECTED OUT THIS MATERIAL. ODOR AND VISIBLE CONTAMINATION. WATER TABLE AT 4.85' BY WATER PROBE, NO FLOATING PRODUCT INDICATED BY PRODUCT PROBE. SUBSEQUENT SAMPLING BOREHOLE HAD PETROLEUM RESIDUE FOLLOWING SAMPLING

SB #17 6" OF RECOVERY IN 4-8' IN, THIS MATERIAL SAMPLED BECAME BLACK IN COLOR AND APPEARED TO BE VISUALLY CONTAMINATED. 4.68' TO WATER BY DTW METER. NO PRODUCT AS INDICATED BY PRODUCT PROBE. PETRO. SHEEN ON POOL SURFACE

SB #18 BORING HAND INSTALLED IN THE VICINITY OF SB #5 FROM 12/8/98. (SOUTH OF SB #5)
BLACK SOIL IN 6"-18" IN 4-8 INT., SLIGHT ODOR. DEPTH TO WATER BY OIL/WATER IS 4.92', NO PRODUCT INDICATED BY PRODUCT PROBE.

12:30 ADT OFF-SITE.

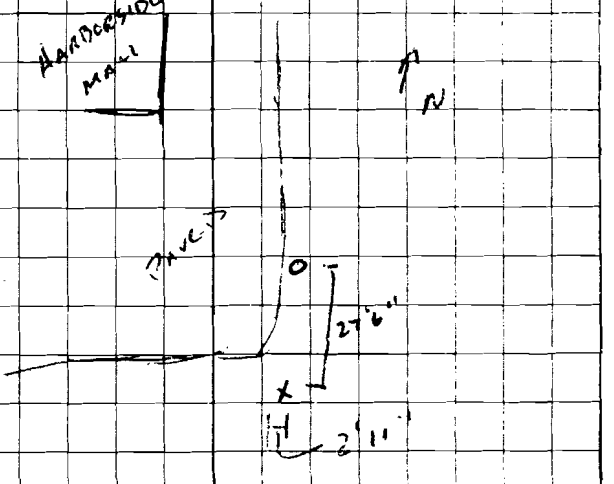
SB 18



UST SOIL BORINGS MARKED OFF ~~AND TESTS~~ TO BE ENTERED LATER. SURFACE SOIL SAMPLES LOGGED (LOCATION) IN RJB's WORK PLAN.

SURFACE SOIL SAMPLES FOR 1 THRU 8 WERE FROM GRASS AREAS, 9 AND 10 WERE FROM DIRT PARKING AREA. 1 THRU 8 LOGGED TO BE CLEAN SOILS, FILLING AND NO ODORS. 9 AND 10 HAD SOILS MIXED IN, DK. BROWN SOILS (TAN ON TOP), NO ODORS, ALL SOILS VERY DENSE.

BACKGROUND BORING COLLECTED WEST OF PROPERTY ON ADJOINING PIECE, EAST OF THE PAVED PARKING



126 Location 115 FRONT ST. Date 12/9/98

Project / Client

BACKGROUND SOIL APPEARS SIMILAR TO SS #1 – SS #8

16:20 OFF-SITE, DROPPING SAMPLES OFF AT FED-EX. ALL SAMPLES ON ICE.

SURFACE SOIL SAMPLES COLLECTED AT 0 3" WITH STAINLESS STEEL SHOVEL AND SAMPLING BOWL.

SB#	DTW	Sample Depth	Visual Contam.	Odor
11	—	4'6"-5'4"	No	No
12	—	5'6"-6'	YES	Yes
13	—	5'10"-6'10"	Yes	YES
14	—	4-5'	YES?	Yes
15	4.79'	5-6'	NO	YES
16	4.85'	14"-29"	YES	YES
17	4.68'	4.0-4.5'	Yes	YES
18	4.92'	4.5-5.5' ↑ Relative to Soil	YES	SLIGHT

Mitchell Properties
115 Front St.

Mayor David Capel
236 3rd. Street
Greenport.

Bob Stewart

December 23, 1998 - Mitchell Properties

7:40 - Coastal Environmental begins excavating northwest UST.
RJB 1 MNS (HAM) on site.

Top of Tank uncovered - Appears to be dented at the top and is filled with water. Awaiting Pump to thaw out

Coastal moves to the southeast area to uncover the geophysical finding. An iron grade is uncovered at 3 Ft bgs and is a 12 foot storm drain which has been backfilled. NYSDEC does not want to excavate. Top is backfilled.
Move back to 550 UST area to pump out Liquids.

Impacted soils encountered -
Call in Spill to Albany
Spill # 98-11970

Mitchell Properties 12/23/98

Tank is 1,000 - So far 550 gallons of liquid has been removed. Need more drums. Groundwater is entering into excavation. There is no sheen or measurable floating product in the GW. Coastal was directed to bring an additional roll-off (25 yards Total). The impact to the subsurface is on both the north and south sides.

I contacted Environmental Services Inc to get a Vactor Truck to remove the remaining Liquids and sludges from the tank. They will be here at around 1000 AM. In addition the additional roll-off container will be here around the same time.

444-0330 - Brian Austin

Environmental Services arrives w/ Pump truck Pumps out contents of tank (w 250 gallons) and proves out 10-55 gallon drums of oily water.

Mitchell Properties 12/23/98

Coastal has brought a 30 yard Roll off Container from Posillico - The fill material is recycled C&D Material. Bob Stewart from NYSDEC does not allow to be used for backfill. I contacted ESI. It is too late for backfill today, however ESI will dump 25 yards of fill into hole tomorrow (December 24, 1998).

Since we need the 30 yard roll-off container from Posillico. The C&D fill is stockpiled on site and the roll-off container will be used for imported soil.

3:15 PM

A decision has been made that the excavation of impacted soil will not be completed tonight. There is impacted soil to both the north & south of the tank. Coastal will remove the top 5 feet of clean material and then excavate the impacted soil. The excavation will be secured upon completion.

January 7, 1999
14 Sunburst Drive Rocky Point

Clear Water has subcontracted Soil Mechanics and ABLE Environmental to complete the two required soil borings - 4 samples will be collected from each boring with the top two samples being analyzed by American Analytical. The deeper two samples will be extracted only and held for possible analysis pending the shallow sample results.

January 12, 1999
Mitchell Properties - Greenport

Miller Environmental begin excavating the tops of what is believed to be 3 - 4,000 gal. gas/fuel USTs.

Fluid Measurement

North Tank - 38 inches - smelled like gas
Center Tank - 49 inches - smelled like diesel
South Tank - 43 inches - smelled like gas

4,000 gal. - 64 inches high

North Tank	2472 Gallons	Readings
Center Tank	3286 - Gallon	
South Tank	2852 - Gallon	
	8,810 gallons	

The disposal of the gas and diesel will be separate in the pump trucks

11:00 AM - Miller begins pumping the gas/water from north and south tanks.

January 12, 1999 U.S

Mitchell Properties - Greenport Marina

Actual Pumping Withdrawal

North Tank - 2800 gallons

South Tank - [redacted] gallons

Tanker Truck is full - [redacted] 5250 gallons

There is still some product in south Tank. The Center tank diesel has not been pumped out yet. Awaiting another tanker truck.

Tanker Truck

54 inches Water - 4900 gallons

4 inches Product - 350 gallons

Additional Tanker Truck arrives to pump out diesel tank.

North Tank is removed from ground Large Diameter holes 1/2 to 1 1/2 inches on west side top middle.

Village of Greenport
236 3rd Street
Greenport

115 Front St.
Mr Capell
Mentor

January 12, 1999

Mitchell Properties - Greenport Marina

Spill Hotline is notified

Spill #-98-12594

Diesel Tanker #'s

3597 gallons of Water

36 inches total

Sheen of Product only

2:25:- Matt Oarcamp arrives on site.

Miller Environmental lifts out diesel tank bottom of tank appears to be in poor condition.

Miller Environmental will pump out the liquids leaking from the bottom of the tank.

Upon initial inspection there are even larger diameter holes on the east side (at least 4 - 1 to 2 inch holes) top middle. There are also smaller diameter holes on the bottom east side.

Mitchell Properties - Freeport Marina
January 13, 1999

Today Miller will be cutting open the three tanks, removing concrete slab and begin excavating impacted soil.

There is a dark sheen of product on top of the groundwater in the excavation. Miller is directed to pump off the sheen prior to excavating the south tank. Approximately 500 gallons of water/product removed from the south tank and 200 gallons from the excavation.

The south tank is removed from the excavation. There is a manway on top of the tank which is bolted. This tank appears to have been lined inside the tank.

The open excavation measures
34 feet - ~~East to West~~ North to South by
43 feet - East to West

Mitchell Properties - January 13, 1999

Miller Environmental will be excavating the impacted soil from the excavation and possibly widen the excavation to the south to recover as much of the impacted soil as possible.

The electrical lines were covered. They ran directly over the south tank. The lines will need to be replaced.

Miller will be stockpiling the impact soil on the north side of the excavation (bermed) to allow the saturated soils to drain back into the hole. Upon receipt of analytical data, the soils will be loaded into roll-off containers. We cannot load directly into containers, the soil is saturated and will freeze in the containers, preventing disposal.

Approximately 150 Cubic Yards of soil removed the excavation is skimmed total 1000 gallons total today pump total.

Greenpoint Marina - Measurements

Excavation

28 North to South

37 East West

Measurement of Excavation

7 feet South of ~~South~~ west bulkhead

31 feet west of northwest bulkhead

Groundwater @ 6.5 ft @ 3:15 pm

Top of Smear Zone 3.5

Excavated to 8 feet

2 Location _____ Date 3/1/99

Project / Client GRPT9801T5 Monday

Village of Greenport (MPG)

job#: GRPT9801 T5/T12

date: Monday, March 1, 1999

site: Village of Greenport

field scientist: Michael P. Engelman (MPE)

field conditions: sunny, cold, blustery, 30°

onsite: MPE @ 7^00
RJB @ 7^20

MPE/RJB go over site plan

objective: to install 10 monitoring wells and 2 soil boring according to site plans, remove soils from east section of property

Drilling - ADT
soil bound - Miller Environmental

Location _____ Date 3/1/99 3

Project / Client GRPT9801T5 Monday

Village of Greenport (MPE)

8^20 - Bob Stewart NYSDEC on site

8^40 - Miller Environmental drops dumpster for soil removal
→ will be on site all moving soil

For soil samples SVOCs TCLP as per 2nd Street

8^55 - Sean & Scott ADT on site
ADT eqpt. mobile drill
support truck

9^15 - Commence at MW-6

9^20 - Miller Enviantl is removing soil into dumpster via bulldozer
Miller eqpt. 1 truck, trailer, bulldozer, dumpsters

10^15 - complete MW-6

10^25 - commence drilling @ MW-5
* move well 3' east (directly)

complete MW-5 @ 11^00

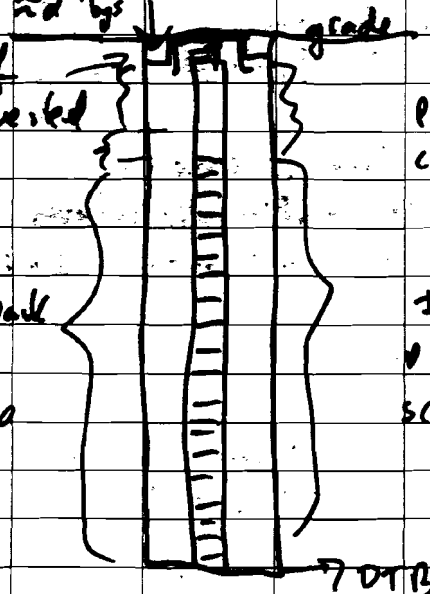
Location _____ Date 3/1/99

Project / Client GRPT980175 Monday

MW-6 (MPC)

0-4'	-		fill, top soils
4-6'	4,3,4,3	6"	→ fill, gravel sand mix
6-8'	1,1,2,4	15"	→ fill, shells
8-10'	1,3,5,3	15"	→ clay, organic material confining layer

MW-6 to be set above clay



4" well — 3 spoons, 2 bags

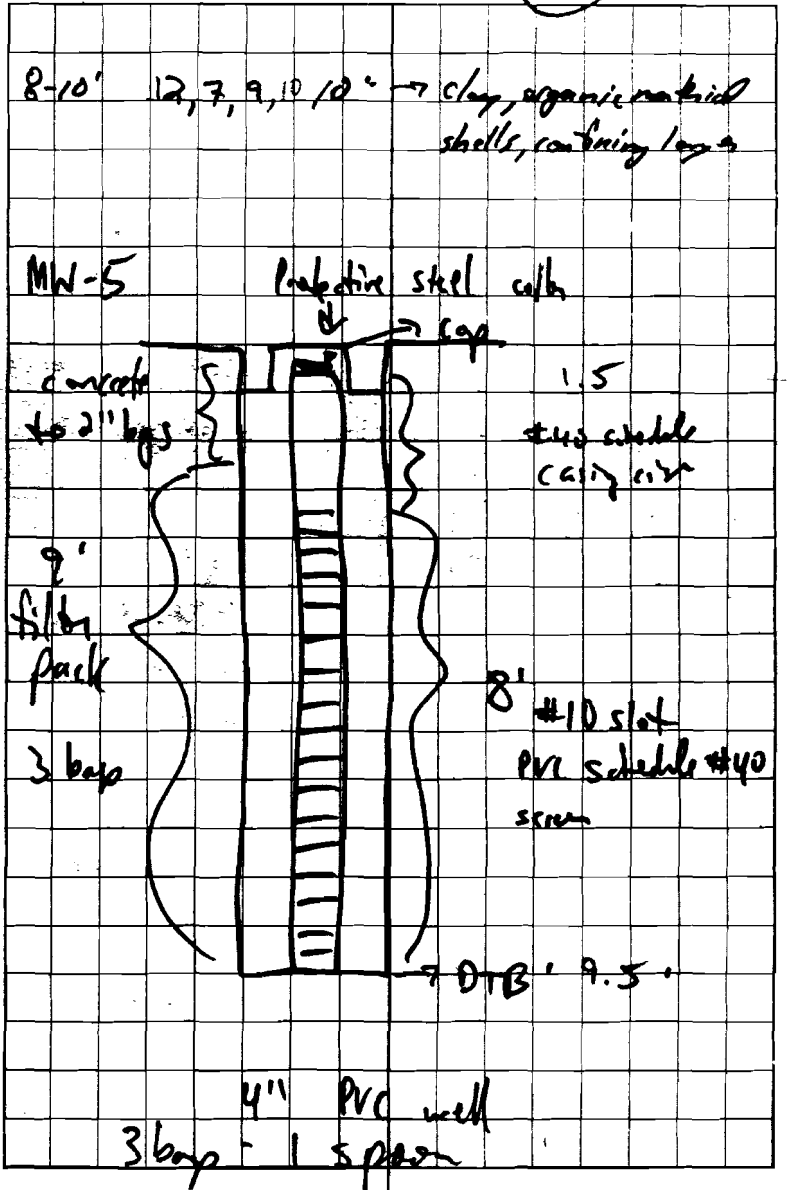
Location _____ Date 3/1/99

Project / Client Monday

MW-5 → 3' east (MPC)

8-10'	12,7,9,10	10"	→ clay, organic material shells, confining layer

MW-5



4" PVC well

3 bags - 1 spoon

6 Location _____ Date 3/1/99

Project / Client GRPT 9801 Monday

MW-4

8-10' 9,6,3,2 6" → clay, organic, peat

MW-4

protective steel collar

2" bgs

6" concrete

1.5' PVC #40 casing risers

9' filter pack

8' #10 slot PVC #40 Screen

→ OTB = 9.5'

1 spoon, 3 bags

Location _____ Date 3/1/99 7

Project / Client GRPT 9801 Monday

11:00 - commence @ MW-4

12 PM - complete MW-4

12 PM - mobilize to MW's 1, 2, 3.

→ drill rig gets stuck, will have pulled out by Miller

→ 1 PM - cannot drill due to soil condition } call RIB

2 PM - ADT off site } OK's

→ Bob Stewart inspect offsite

Miller still removing soil

3 PM - 7 dump stops removed 130 yd³ soil

2 yd³ → sorbent socks, plastic

finish grading

MPE offsite / start @ 7 PM 3/1/99

Talk

3 wells

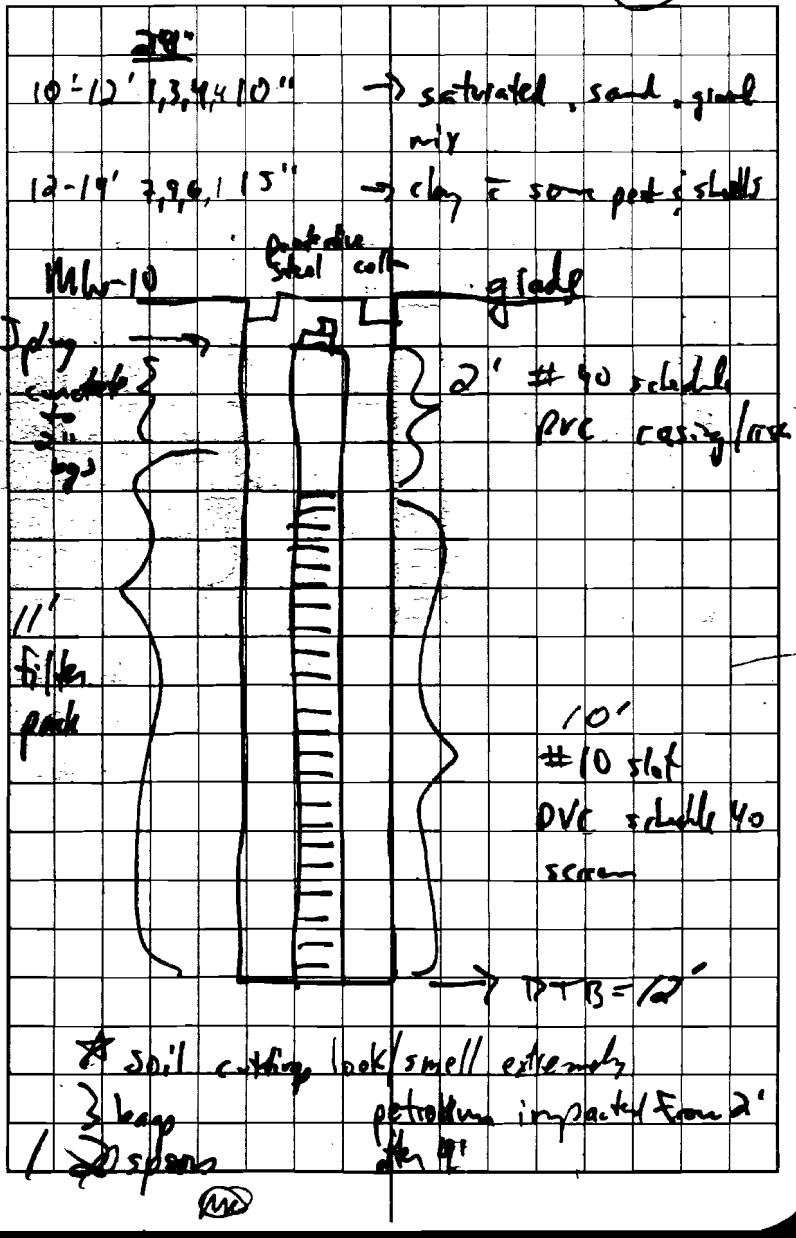
3 spoons

3/1/99

Job #: GRPT9801 TS/
Date: Tuesday, March 2, 1999
Site: Village of Greenport
Field conditions: M. Cloudy, Windy, Cold 35°
Field Service: Michelle Engleman (mPE)
on site: 7:00 - mPE (Hda)
Steven (ADT)
7:20 - Scott (ADT)
objective: Continue drilling → make to excavation site → drill in filled graded area, will drill SB-19, 20 MW- 7, 8, 9, 10.

8:00 - Comm drilling @ MW-10
8:30 - Complete drilling → set well

9:00 - start drilling MW-9
9:20 - complete MW-9
10:00 - start MW-8
10:30 - complete MW-8
10:30 - start MW-7
11:00 - complete MW-7



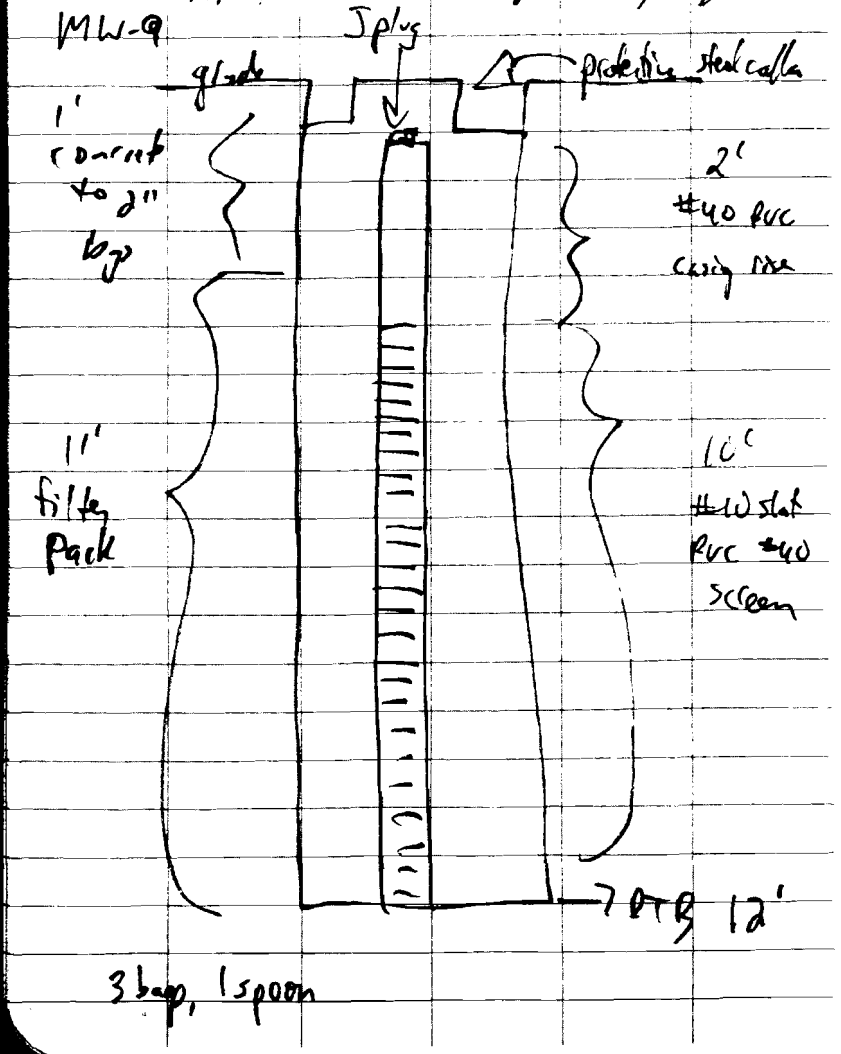
10 Location _____ Date 3/2/99

Project / Client GRPT9801 Tuesday

MW-9

☆ soil cuttings look/smell extremely petroleum impacted from 2'

10'-12' 3,9,7,3 24" → fill → peat, clay layer, saturated



3 bags, 1 spoon

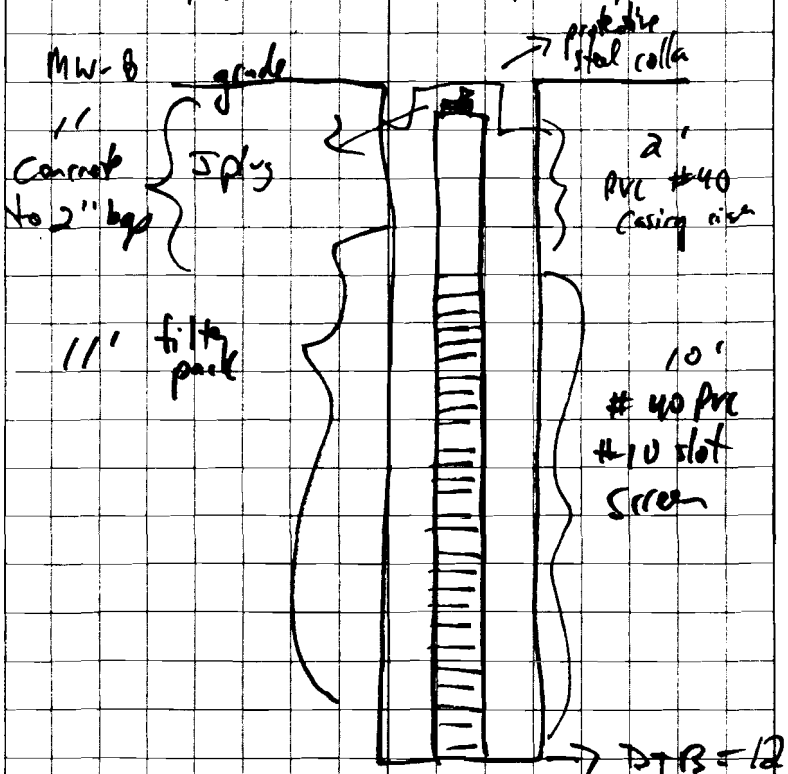
Location _____ Date 3/2/99

Project / Client GRPT9801 Tuesday

MW-8

☆ soil cuttings look/smell petroleum impacted > 10' =

10'-12' 6,6,9,7 24" → fill peat, clay, saturated

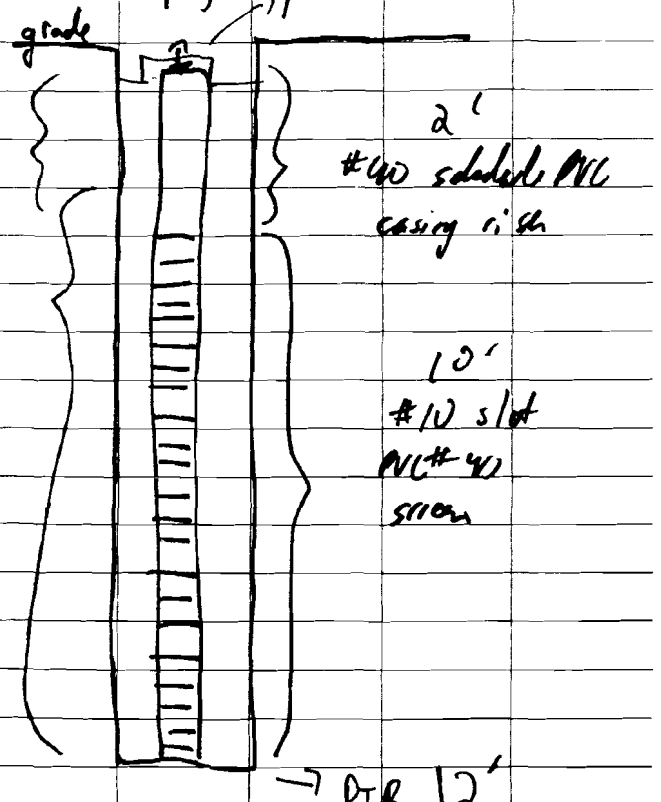


3 bags, 1 spoon

11

@ 2 9,3,4,2 24" → pea clay, fill

MW-7



slight fuel odor
3 bags
1 spoons

11²⁰ - Bob Stewart on sit

11⁰⁰ - commence activities @ SB-20
→ will collect soil samples @ 3'-5' bgs since DTB = 3.5'
→ drill through concrete to get to soil

to be analyzed for
STARS VOC's
STARS SVOC's
TCLP SVOC's

2'-4' 6"
12-10-87
4'-6' → no recovery
1-3-3-2
4'-6' ↳ Sample collected @ 11⁰⁰
1-8-6-2 → no recovery
2 spoons ↳ ground/sand well sorted
→ use soil cutting for sample as per Bob Stewart

* As per Bob Stewart NYSDEC, all petroleum impacted soils must be disposed

14 Location _____ Date 3/2/99

Project / Client GRPT9801 Tuesday

SB-19

11[20] - complete SB-20

11[30] - start SB-19

→ same procedure as SB-20

3-9,7,6 - 10" - gravelly sands

4-4-2-1 - 15" - gravel/sand well sorted

sample collected @ 11[45]

8 spoons

12[00] - Break for lunch

12[20] - EJG on site

1[00] - Commence drilling @ MW-3

drill to 8'

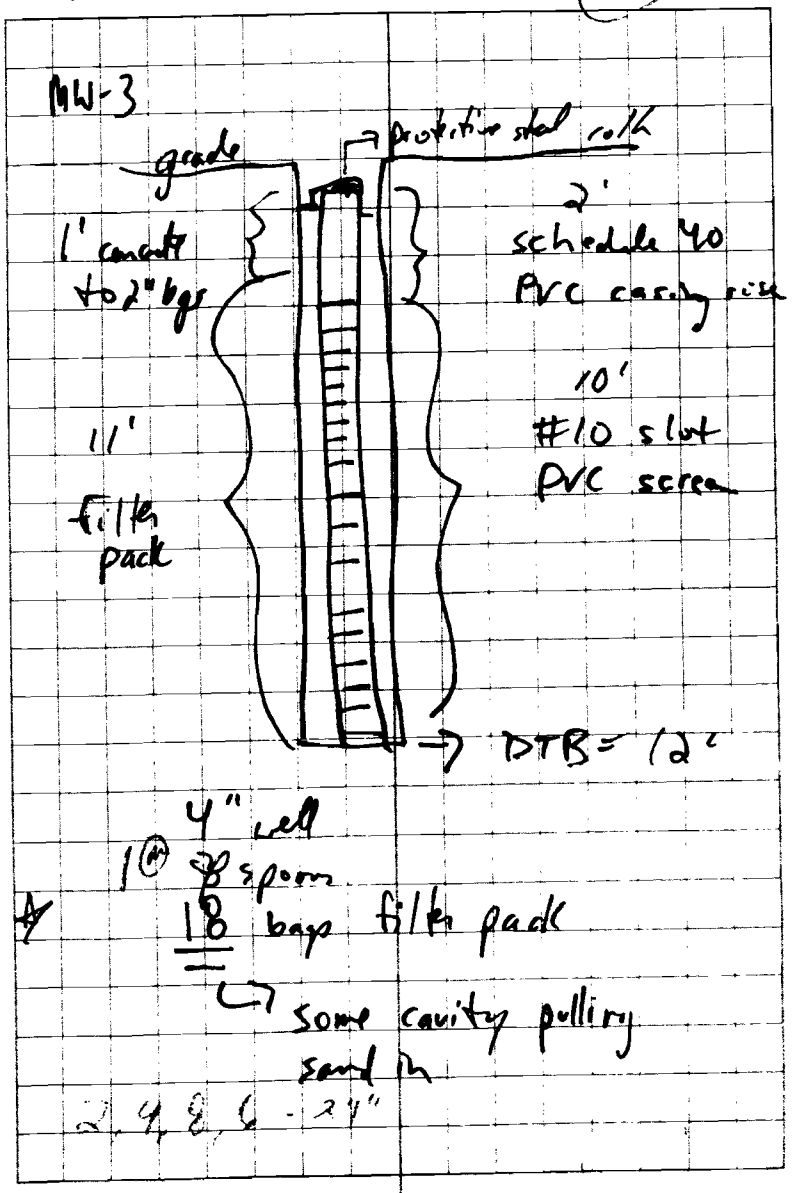
8-10'	10"	1,8,7 → fill, gravel sand, saturated
10-12'	15"	9,12,9 → fill, wood, gravel, sand saturated
12-14'	4"	8,10,11 → clay/peat layer ≈12.5'

1[30] - Bob Stewart offsite

Location _____ Date 3/2/99 15

Project / Client GRPT9801 Tuesday

MW-3



16 Location _____ Date 3/2/99

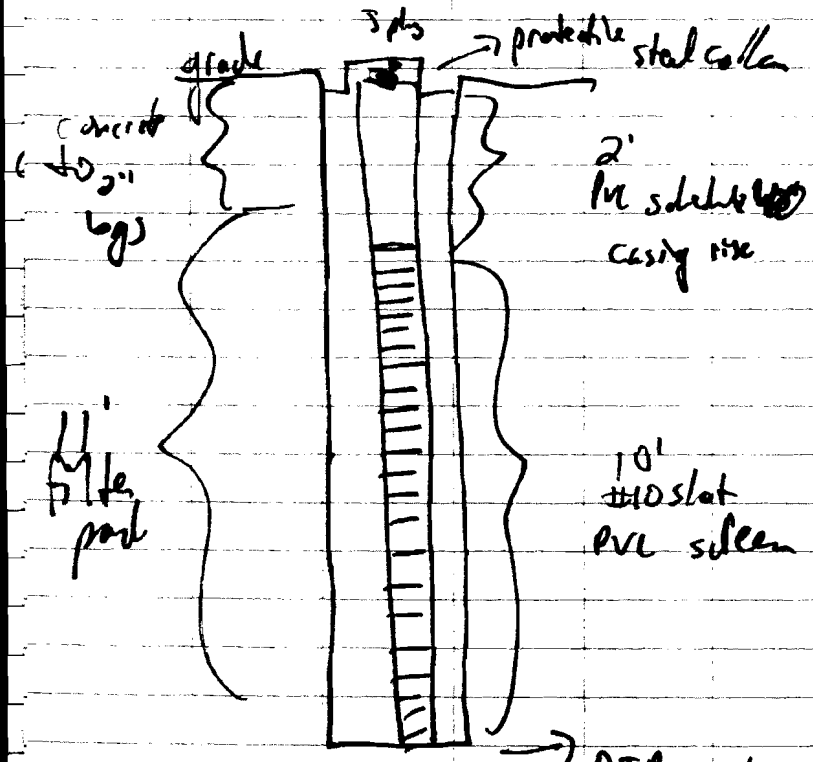
Project / Client GRPT9801

MW-2 (MPG)

2" - MW-2

6.92 - .34'

at 6' → impacted soil → 12' clay/peat layer



3 bags
1 gal spoons

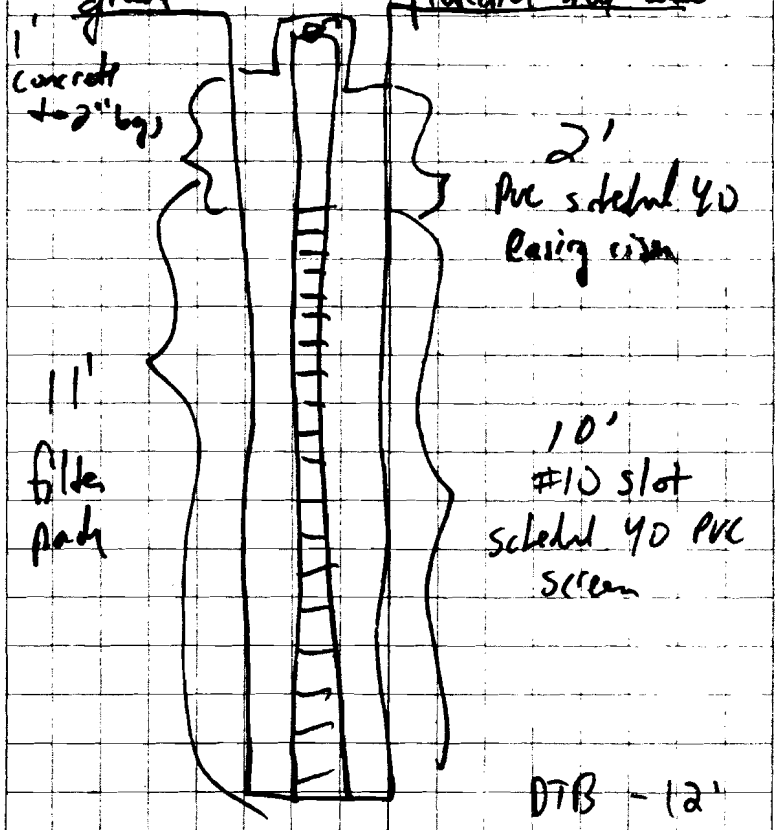
* soil impacted, put in drum

Location _____ Date 3/2/99 17

Project / Client GRPT9801

MW-1 (MPG)

MW-1 - 2 30



4, 3, 5, 1 = 24"

3 bags
spoons

* some impacted soil placed in drum

Location _____ Date 3/2/99

Project / Client GRPT9801 Tuesday

(MPE)

3:10 EJG offsite

3:20 - complete setting MW-1

complete 'work phase
→ all MW's complete
→ all soil samples collected

1 (1/2) (MPE) drums generated from petroleum impacted soils

4:00 - ADT off site
4:15 - MPE off site
→ end work plan

Michael P. Engelmann (MPE)
3/2/99

Totals For Day	
2 - Borings = 4 spoons	(7) total
7 - wells = 7 spoons	
6 spoons - each well area (2) Lithology	for

(MPE)

Location _____ Date 3/23/99

Project / Client GRPT9801 Tuesday

Village of Groveport (MPE)

on site: MPE/EJG 7:45 - (eq. rec'd by 6:30)
job #: GRPT9801 TS
site: Mitchell property, Village of Groveport
date: Tuesday March 23, 1999
field conditions: mostly cloudy blustery 35°
field scientists: Michael P. Engelmann (MPE)
Eric J. Gross (EJG)

8:15 - Bob Stewart (ADT/SDEC) on site
objective: sample 10 newly installed MW's
ADT re-installed MW-2
9:00 - MPE/EJG commence groundwater sampling
↳ → see groundwater sampling sheets
10:20 - Photographs on site 10 shots
10:30 - ADT on site
11:00 - ADT cannot MW-2 2" upgradient
Sure spot w original MW-2
2:30 - Drilling offsite
- Bob Stewart offsite ★ MW-11 is a blind duplicate of MW-3
5:00 - MPE/EJG offsite

Michael P. Engelmann
3/23/99
(MPE)

APPENDIX E

Data Validation Summary Report

H2M LABS, INC.

DUSR EVALUATION
FOR METAL ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	60412

For Samples:

MW-1 MS/MSD	MW-2	MW-6
MW-10	MW-3	MW-70
MW-11	MW-4	MW-8
MW-12	MW-5	MW-9

Data packages were evaluated against the requirements listed in the NYSDEC ASP category B.

Form Comments

Form 2B listing the Contract Required Detector Limit (CRI) Standards and Recoveries was not included in the data package as required.

Form 12 showing ICP Linear Ranges for the Optima 2 ICP was not included in the data package as required.

Form 9 ICP Serial Dilution analysis was not included in the data package as required.

Mercury spike recovery of sample MW1 (60412001) was not within acceptance ranges. The sample data was properly flagged "N" on Forms 1 and 5A.

General Comment

This data packaged contained multiple ICP runs with samples reanalyzed. The reasons for the reanalysis should be mentioned in the case narrative along with all other analytical problems.

A review of the raw data indicates that the required detection limit (CRDL/CRI) standards were not analyzed. The low level accuracy of the instrument could not be evaluated. While there are no acceptance criteria set for these standards, the information is required under NYS ASP and is used in determining data qualifiers and usability under EPA data validation guidelines. (HW-2)

The ICP serial dilution analysis (Form 9) is a NYSDEC ASP requirement with acceptance criteria and data qualifiers used to determine the presence of matrix interferences.

The absence of these two analytical runs (CRDL and ICP serial Dilution) require the data to be qualified as estimated.

The data from Form 1 was confirmed by the raw data provided.

No other problems were noted.

H2M LABS, INC.

DUSR EVALUATION
FOR METAL ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2032

For Samples:

FB-1	SB-4	SB-8
SB–1	SB-5 MS/MSD	SB-9
SB-2	SB-6	XB-10
SB-3	SB-7	

Data packages were evaluated against the requirements listed in the NYSDEC ASP category B.

Form Comments

Form 2B as required under the NYSDEC ASP was not submitted in the data package. Raw data does not show a CRDL (CRI) standard analyzed. Though no acceptance criteria has been set for CRDL standard recovery by the NYSDEC, the analysis and reporting of this standard is required and can review to determine data usability.

Form 3 shows preparation blank data for aluminum exceeding the CRDL of 300 ug/L. The sample (FB-1) should have been redigested and reanalyzed. However, since the sample is a Field Blank with reported aluminum value less than the CRDL it would have minimal effect on the data but should be mentioned in the case narrative.

Form 5A shows spike sample SB-5 not recovering within control ranges for antimony, arsenic, barium, manganese, nickel, selenium silver and thallium. The samples were post spiked (except silver), reanalyzed and recovered acceptably for all elements except thallium.. The sample should have been post spiked for silver as required. All associated data was correctly flagged "N" on Forms 1 and 5A.

Copper, lead and zinc spike recoveries were also outside of control ranges, but the sample value was greater than 4x the spike concentration. No data qualifiers were required. The case narrative should have noted these problems.

Form 6 shows aluminum, arsenic, iron, lead and manganese analysis of sample SB-5 not recovering within acceptance ranges. The samples were reported flagged "*" on Forms 1 and 6 as required. This information should have been noted in the case narrative.

H2M LABS, INC.

DUSR EVALUATION
FOR METAL ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2032

Form 9 ICP serial dilution shows sample SB-5 not recovering within acceptance ranges for aluminum, barium, calcium. chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, vanadium and zinc. Data was reported flagged "*" on Forms 1 and 6. This information should have been reported in the case narrative.

General Comments

The missing Form 2A and analysis would impact the usability and defensibility of the data with regard to low level data.

The sample matrix seems to have caused many problems with recoveries and analysis. (Four ICP runs were utilized.) The case narrative did not mention any problems encountered. Due to the problem matrix interferences all flagged sample data should be considered estimated with manganese, silver and antimony rejected (R) due to spike recoveries, manganese also rejected due to duplicate recovery, nickel and manganese rejected due to ICP serial dilution recovery per EPA HW2 data validation guidelines.

Form 1 reported values were verified by the raw data supplied.

No other problems were noted.

H2M LABS, INC.

DUSR EVALUATION
FOR METAL ANALYTES

CLIENT PROJECT:	GRPT 9801
	VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2042

For Samples:

BG 1	SB # 5	SB # 9
FB 2	SS # 6	SS # 1 MS/MSD
SB # 10	SS # 7	SS 2
SB # 3	SS # 8	SS # BB
SB # 4		

Data packages were evaluated against the requirements listed in the NYSDEC ASP category B.

Form Comments

Form 1 reports do not show sample information for color, clarity and texture as required. The raw digestion log indicates N/A under these sections.

Form 2B listing the Contract Required Detection Limits (CRI) standard recoveries was not included in the data package as required under NYS ASP. The raw data does not show the analysis of this standard. Though there is no acceptance criteria set for these standards, the analysis is required and can be utilized for usability determination.

The ICP interference check solution A for Form 4 is not listed. The raw data does not show the analysis of this standard as required.

Spiked sample SS # 1 (Form 5A) shows antimony, lead, mercury and silver not recovering within acceptance ranges. The sample was post spiked for antimony and lead, reanalyzed and recovered acceptably. No silver post spike was performed as required. All associated data was correctly flagged "N" on Forms 1 and 5A.

Form 6 duplicate analysis of sample SS # 1 shows calcium and magnesium exceeding control ranges. Calcium and magnesium data was reported "*" on Forms 1 and 6.

Form 9 ICP serial dilution shows analysis of sample SS # 1 not recovering within acceptance ranges for cobalt and zinc. Cobalt and zinc data was reported flagged "E" on Forms 1 and 9.

H2M LABS, INC.

DUSR EVALUATION
FOR METAL ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2042

General Comment

The case narrative supplied mentions only he elevated ICB for beryllium. This has minimal effect on the sample since the FB2 has barium levels less than the CRDL. The case narrative does not mention any of the more significant problems as required.

The missing Form 2B (CRDL standards) and the Form 4 solution A would be a problem in the defensability and the usability of low level data.

All qualified data can be considered estimated with mercury and silver data rejected (R) due to spike recoveries and magnesium data rejected due to duplicate recovery per the EPA HW 2 data validation guidelines.

All data reported on Form 1 was confirmed by the raw data supplied.

The blind duplicate analysis of sample SS # 3 and SS 3 BB have several analytes exceeding 20% RPD, however given the matrix of the sample, these differences should be acceptable.

No other problems were noted.

H2M LABS, INC.

DUSR EVALUATION
STARS BASE NEUTRAL EXTRACTABLES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2032

For Samples:

SB-1	SB-7
SB-2	SB-8
SB-3	SB-9
SB-4	SB-10
SB-5 MS/MSD	FB-1
SB-6	

The above samples were analyzed for the STAR's list of base-neutral extractable organic analytes according to the requirements of SW 846 method 8270 with ASP like format category B deliverables.

This data package submitted differs from a NYSDEC ASP 10/95 category B data package in that:

- All limits used appear to be in-house generated. QC limits stated in the ASP were not used.
- Different calibration criteria were used.

Samples SB-5, SB-6, SB-7 and SB-9 had internal standard area counts under the area count limits. This was confirmed in sample SB-5 since both the MS and MSD sample also had low counts.

Sample SB-7 contained levels of targeted analytes above the calibration range and was thus reanalyzed at a dilution. All area counts were acceptable in the diluted analysis.

Samples SB-6 and SB-9 should have been reanalyzed to confirm the low area counts according to the requirements of the NYSDEC ASP 10/95. No reanalyses were submitted for these samples.

The results of samples SB-5, SB-6, SB-7 and SB-9 are flagged with a "J" qualifier by the reviewer.

As mentioned previously, in-house limits are used for surrogate recoveries as well as MS/MSD percent recoveries and RPD criteria (all RPD's are 40%), not the ASP limits. All water surrogate recoveries are 35-130% and all soil recoveries are 40-120%. Sample SB-7 had two surrogate

DUSR EVALUATION
STARS BASE NEUTRAL EXTRACTABLES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2032

standards high outside the QC limits in the initial analysis. The diluted analysis had acceptable recoveries.

The origin of the allowable criteria is unclear. The %D criteria for the continuing check of the calibration are not based on the ASP nor method 8270. Several %D's were above the 15% criteria in the continuing check.

Sample SB-5 was analyzed as the matrix spike/matrix duplicate sample. All percent recovery and RPD requirements were met except for a 48% recovery for fluoranthene in the matrix spike and a 64% recovery in the MSD (lower limit 65%). No qualification of the data is needed.

In Summary

Although the data submitted differs from the ASP requirements, enough information is provided to substantiate the concentration levels of the targeted analytes.

Samples SB-6 and SB-9 should have been reanalyzed to confirm the low area counts. These samples as well as SB-5 and the undiluted analysis of sample SB-7 are flagged as estimated with a "J" qualifier.

H2M LABS, INC.

DUSR EVALUATION
STARS VOLATIVE ORGANIC ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2032

For Samples:

SB-1	SB-7
SB-2	SB-8
SB-3	SB-9
SB-4	SB-10
SB-5	FB-1
SB-6	TRIP BLANK

The above samples were analyzed for the STAR's list of volatile organic analytes according to the requirements of SW 846 method 8021. A NYSDEC ASP 10/95 category B data package was not submitted, but a standard Mitkem format package was submitted. This differs from a category B data package in that the following information was not presented:

Internal chain of custody forms
Surrogate recovery forms
Blank summary forms
IDL
Form I for re analysis (if required)

No quality control limits are stated in the data packages for surrogate or lab fortified blank recoveries. However, several recoveries are flagged as being outside the limits. The following samples are listed as having surrogate recoveries below the QC limits:

Sample ID	Surrogate Recovery	Surrogate Recovery Reanalysis
SB-1	41%	59%
SB-2	43%	45%
SB-3	30%	30%
SB-4	46%	69%
SB-6	51%	51%
SB-9	65%	62%
SB-10	59%	63%

The chromatogram and quant report for the reanalysis is submitted. However, no Form I is included. The percent recoveries listed do indicate a matrix interference in the samples. This may cause a low bias in the reported results.

H2M LABS, INC.

DUSR EVALUATION
STARS VOLATIVE ORGANIC ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2032

Due to high concentration levels of hydrocarbons, sample SB-7 was analyzed at a 1:5000 dilution and sample SB-8 was analyzed at a 1:100 dilution.

Calibration

A single point calibration was used for quantification of the samples. SW 846 method 8000 indicates the average initial calibration response factor should be used as long as the initial calibration % RSD is less than 20% and the daily continuing check is less than 15% as compared to the initial calibration. Since this criteria was met for the majority of the analytes, the initial calibration Rf should have been used, however, since the % differences were close to or less than 15%, the difference in reported values is not significant.

Since the % D's were just outside these limits, no J qualifier need be applied. The continuing calibration of 12/15 (early) was not supplied.

QC

The lab control sample associated with this SDG had good recoveries.

Sample SB-5 was analyzed at the matrix spike/matrix spike duplicate sample. Due to hydrocarbon interferences, the later eluting volatile analytes had interferences negating the use of the spike data (from n-butylbenzene to end of chromatograph).

In Summary

Even though a NYSDEC ASP 10/95 category B data package was not reported, enough information is provided to substantiate the concentration levels of the targeted analytes reported.

Matrix interferences were confirmed for the majority of the samples indicating analyte concentrations reported may be biased low.

H2M LABS, INC.

DUSR EVALUATION
STARS VOLATIVE ORGANIC ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2042

For Samples:

SB # 11	SB # 18	SB # 7
SB # 12	SS # 1	SB # 8
SB # 13	SS # 2	SB # 9
SB # 14	SS # BB	SB # 10
SB # 15	SB # 3	FB 2
SB # AA	SB # 4	TRIP BLANK 1
SB # 16	SB # 5	BACKGROUND 1
SB # 17	SB # 6	

The above samples were analyzed for the STAR's list of volatile organic analytes according to the requirements of SW 846 method 8021. A NYDEC ASP 10/95 category B data package was not submitted, but a standard Mitkem format package was submitted. This differs from a category B data package in that the following information was not presented:

Internal chain of custody forms
Surrogate recovery forms
Blank summary forms
IDL
Form I for re analysis (if required)

Sample SB # 10 was analyzed 11 days from VTSR. The holding time in the ASP is 10 days. This should not significantly impact the data and the results were not flagged.

No quality control limits are stated in the data packages for surrogates and laboratory fortified blanks. However, several recoveries are flagged as being outside the limits.

The following samples are listed as having surrogate recoveries below the QC limits:

Sample ID	Surrogate Recovery	Surrogate Recovery Reanalysis	Sample ID	Surrogate Recovery	Surrogate Recovery Reanalysis
SB # 12	61%	52%	SB # 3	38%	46%
SB # 14	31		SB # 4	49%	46%
SB # 15	54%	48%	SB # 5	38%	47%

H2M LABS, INC.

DUSR EVALUATION
STARS VOLATIVE ORGANIC ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2042

Sample ID	Surrogate Recovery	Surrogate Recovery Reanalysis	Sample ID	Surrogate Recovery	Surrogate Recovery Reanalysis
SB # AA	47%	38	SB # 6	39%	48%
SB # 16	61%	19%	SB # 7	26%	34%
SB # 18	49%	39%	SB #8	51%	46%
SS # 1	41%	57%	SB # 9	40%	28%
SS # 2	32%	34%	SB # 10	47%	37%
SS # BB	24%	33%	BACKGROUND # 1	39%	37%

The chromatogram and quant report for the reanalysis is submitted. However, no Form I is included. The percent recoveries listed do indicate a matrix interference in the samples. This may cause a low bias in the reported results. No reanalysis was submitted for sample SB # 14.

Calibration

A single point calibration was used for quantification of the samples. SW 846 method 8000 indicates the average initial calibration response factor should be used as long as the initial calibration % RSD is less than 20% and the daily continuing check is less than 15% as compared to the initial calibration. Since this criteria was met for the majority of the analytes, the initial calibration Rf should have been used, however, since the % differences were less than 15% the difference in reported values is not significant. Only naphthalene in all continuing checks and o-xylene in the continuing check of 12/20/98 11:05 were above 15% D. The samples associated with naphthalene have been flagged with a "J" qualifier to indicate an estimated value.

QC

The lab control sample associated with this SDG had a 31% recovery for naphthalene (no limits have been supplied) which is listed as below the recovery limits. The naphthalene results have already been flagged by the review with a "J".

Blind and Duplicates

Samples SB # 15 , SB 3 AA, SS #2 and SS # BB were analyzed as blind duplicates. Good correlation was observed in comparing results.

H2M LABS, INC.

DUSR EVALUATION
STARS VOLATIVE ORGANIC ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2042

In Summary

Even though a NYSDEC ASP 10/95 category B data package was not reported, sufficient information is provided to substantiate the concentration levels of the targeted analytes.

All results for naphthalene have been flagged "J" by the reviewer, as the % D of the calibration was greater than 15% and the LCS recovery was 31%. The results for naphthalene may be biased low. Matrix interferences were confirmed for the majority of the samples indicating analyte concentrations reported may be biased low.

H2M LABS, INC.

DUSR EVALUATION
STARS BASE NEUTRAL EXTRACTABLES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2042

For Samples:

SB # 11	SB # 18	SB # 7
SB # 12	SS # 1 MS/MSD	SB # 8
SB # 13	SS # 2	SB # 9
SB # 14	SS # BB	SB # 10
SB # 15	SB # 3	FB 2
SB # AA	SB # 4	BG-1
SB # 16	SB # 5	
SB # 17	SB # 6	

The above samples were analyzed for the STAR's list of base-neutral extractable organic analytes according to the requirements of SW 846 method 8270 with ASP like format category B deliverables.

This data package submitted differs from a NYSDEC ASP 10/95 category B data package in that:

- All limits used appear to be in-house generated. QC limits stated in the ASP were not used.
- Different calibration criteria were used.

Samples SB-15 and SB-AA, as well as SS-2 and SS-BB were analyzed as blind duplicate samples. Good correlation was observed in comparing the data

The following samples exhibited low internal standard area counts:

SB-11	SB-15	SS-1
SB-12	SB-AA	SB-9
SB-13	SB-17	BG-1
SB-14	SB-18	

The NYSDEC ASP 10/95 calls for re-analysis of the samples to confirm matrix interferences. No re-analysis for these samples was submitted. Due to the low internal standard area counts, the sample results are qualified with a "J" as estimated.

Sample BG-1 (background sample) contained levels of targeted analytes under the quantification limit ("J" value). "J" levels found in the other samples should be considered suspect if this sample is a true background level sample.

H2M LABS, INC.

DUSR EVALUATION
STARS BASE NEUTRAL EXTRACTABLES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2042

As mentioned previously, in-house limits are used for surrogate recoveries as well as MS/MSD percent recoveries and RPD criteria (all RPD's are 40%), not the ASP limits.

The origin of the allowable criteria is unclear. The % D criteria for the continuing check of the calibration are not based on the ASP nor method 8270. All % D's, however, are within an acceptable range.

Sample SS-1 was analyzed as the matrix spike/matrix duplicate sample. All percent recovery and RPD requirements were met except for a 61% recovery for fluoranthene in the matrix spike duplicate (lower limit 65%). No qualification of the data is needed.

In Summary

Although the data submitted differs from the ASP requirements, enough information is provided to substantiate the concentration levels of the targeted analytes.

Samples SB-11, SB-12, SB-13, SB-14, SB-15, SB-AA, SB-17, SB-18, SS-1, SB-9 and BG-1 had internal standard area counts outside the limits and should have been reanalyzed to confirm. This data is qualified with a "J" for the analytes quantified against the noncompliant internal standard.

H2M LABS, INC.

DUSR EVALUATION
STARS BASE NEUTRAL EXTRACTABLES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	60412

For Samples:

MW-1	MW-5	MW-9
MW-2	MW-6	MW-10
MW-3	MW-7	MW-11
MW-4	MW-8	MW-12

The above samples were analyzed for the STAR's list of base-neutral extractable organic analytes according to the requirements of SW 846 method 8270 with ASP like format category B deliverables.

This data package submitted differs from a NYSDEC ASP 10/95 category B data package in that:

- All limits used appear to be in-house generated. QC limits stated in the ASP were not used.
- Different calibration criteria were used.

Sample MW-5 exceeded the extraction holding time by one day. The sample was received in the lab on 3/25/99 and extracted on 3/31/99. This is outside the 5 day extraction holding time. Since the sample was collected on 3/23/99, it also exceeds the 7 day holding time as stated in SW 846.

The data, although out of the extraction holding time, are probably not significantly different due to the one day extraction exceedence and have not been qualified by the reviewer.

As mentioned previously, in-house limits are used for surrogate recoveries as well as MS/MSD percent recoveries and RPD criteria (all RPD's are 40%), not the ASP limits.

The origin of the allowable criteria is unclear. The % D criteria for the continuing check of the calibration are not based on the ASP nor method 8270. All % D's, however, are within an acceptable range.

Sample MW-1 was analyzed as the matrix spike/matrix duplicate sample. All percent recovery and RPD requirements were met except for a 116% recovery for naphthalene in the matrix spike (upper limit 105%). No qualification of the data is needed.

H2M LABS, INC.

DUSR EVALUATION
STARS BASE NEUTRAL EXTRACTABLES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	60412

In Summary

Although the data submitted differs from the ASP requirements, enough information is provided to substantiate the concentration levels of the targeted analytes.

Sample MW-5 exceeded the extraction holding time by 1 day. This, however, should not significantly impact the data.

H2M LABS, INC.

DUSR EVALUATION
STARS VOLATIVE ORGANIC ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	60412

For Samples:

MW-1	MW-5	MW-9
MW-2	MW-6	MW-10
MW-3	MW-7	MW-11
MW-4	MW-8	FIELD BLANK
		TRIP BLANK

The above samples were analyzed for the STAR's list of volatile organic analytes according to the requirements of SW 846 method 8021. A NYSDEC ASP 10/95 category B data package was not submitted, but a standard Mitkem format package was submitted. This differs from a category B data package in that the following information was not presented:

Internal chain of custody forms
Surrogate recovery forms
Blank summary forms
Form I for re analysis (if required)

The order of submittal of this data package different from other Mitkem packages.

Due to high concentration levels of targeted analytes above the calibration range, samples MW-2 and MW-8 were reanalyzed at a dilution. A combination of the runs were reported on one Form I. The ASP reports both analyses, the initial as well as it dilution separately, using an "E" qualifier for the analyte that exceeds calibration in the initial analysis.

Sample MW-4 was analyzed at a 1:50 dilution and sample MW-9 was analyzed at a 1:10 dilution.

Calibration

A single point calibration was used for quantification of the samples. SW 846 method 8000 indicates the average initial calibration response factor should be used as long as the initial calibration % RSD is less than 20% and the daily continuing check is less than 15% as compared to the initial calibration. Since this criteria was met for the majority of the analytes, the initial calibration Rf should have been used, however, since the % differences were less than or close to 15%, the difference in reported values is not significant.

DUSR EVALUATION
STARS VOLATIVE ORGANIC ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	60412

Sample MW-1 was analyzed as the matrix spike/matrix spike duplicate sample. Good correlation was seen except for the reproducibility of 1,2,4 trimethylbenzene and the fact that xylenes were not quantified.

In Summary

Even though a NYSDEC SASP 10/95 category B data package was not reported, enough information is provided to substantiate concentration levels of the targeted analytes reported.

H2M LABS, INC.

DUSR EVALUATION
STARS VOLATIVE ORGANIC ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2129

For Samples:

NW UST BOT
NW UST SW

The above samples were analyzed for the STAR's list of volatile organic analytes according to the requirements of SW 846 method 8021. A NYSDEC ASP 10/95 category B data package was not submitted, but a standard Mitkem format package was submitted. This differs from a category B data package in that the following information was not presented:

Internal chain of custody forms
Surrogate recovery forms
Blank summary forms
IDL
Form I for re analysis (if required)

Due to high concentration levels of hydrocarbons, sample NW UST BOT was analyzed at 1:5 dilution and sample NW UST SW was analyzed at a 1:50 dilution.

Calibration

A single point calibration was used for quantification of the samples. SW 846 method 8000 indicates the average initial calibration response factor should be used as long as the initial calibration % RSD is less than 20% and the daily continuing check is less than 15% as compared to the initial calibration. Since this criteria was met for the majority of the analytes, the initial calibration Rf should have been used, however, since the % differences were close to or less than 15%, the difference in reported values is not significant.

In Summary

Even though a NYSDEC ASP 10/95 category B data package was not reported, enough information is provided to substantiate concentration levels of the targeted analytes reported.

H2M LABS, INC.

DUSR EVALUATION
STARS BASE NEUTRAL EXTRACTABLES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	E2129

For Samples:

NW UST BOT
NW UST SW

The above samples were analyzed for the STAR's list of base-neutral extractable organic analytes according to the requirements of SW 846 method 8270 with ASP like format category B deliverables.

This data package submitted differs from a NYSDEC ASP 10/95 category B data package in that:

- All limits used appear to be in-house generated. QC limits stated in the ASP were not used.
- Different calibration criteria were used.

As mentioned previously, in-house limits are used for surrogate recoveries as well as MS/MSD percent recoveries and RPD criteria. (All RPD's are 40%), not the ASP limits.

The origin of the allowable calibration and QC criteria is unclear. The %D criteria for the continuing check of the calibration are not based on the ASP nor method 8270. All %D's, however, are within an acceptable range.

All percent recoveries were within the stated limit for the spiked blank except for benzo(g,h,i)perylene at 132% (upper limit 129%). No qualification of data is necessary.

In Summary

Although the data submitted differs from the ASP requirements, enough information is provided to substantiate the concentration levels of the targeted analytes reported.

H2M LABS, INC.

DUSR EVALUATION
STARS VOLATIVE ORGANIC ANALYTES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	60305

For Samples:

SB-19
SB-20
TRIP BLANK

The above samples were analyzed for the STAR's list of volatile organic analytes according to the requirements of SW 846 method 8021. A NYSDEC ASP 10/95 category B data package was not submitted, but a standard Mitkem format package was submitted. This differs from a category B data package in that the following information was not presented:

Internal chain of custody forms
Surrogate recovery forms
Blank summary forms
IDL
Form I for re analysis (if required)

The total solids (TS) used to calculate sample SB-19 was 67% for BN and 100% for the volatile fraction. This difference should be verified as the TS for sample SB-20 had similar values in both aliquots at 69% and 68%.

Calibration

A single point calibration was used for quantification of the samples. SW 846 method 8000 indicates the average initial calibration response factor should be used as long as the initial calibration % RSD is less than 20% and the daily continuing check is less than 15% as compared to the initial calibration. Since this criteria was met for the majority of the analytes, the initial calibration Rf should have been used, however, since the % differences were close to or less than 15%, the difference in reported values is not significant.

In Summary

Even though a NYSDEC ASP 10/95 category B data package was not reported, enough information is provided to substantiate concentration levels of the targeted analytes reported.

H2M LABS, INC.

DUSR EVALUATION
STARS BASE NEUTRAL EXTRACTABLES

CLIENT PROJECT:	GRPT 9801 VILLAGE OF GREENPORT
CLIENT PROJECT NAME:	115 FRONT STREET PROPERTY
MITKEM PROJECT ID	60305

For Samples:

TCLP	Total
SB-19	SB-19
SB-20	SB-20

The above samples were analyzed for the STAR's list of base-neutral extractable organic analytes according to the requirements of SW 846 method 8270 with ASP like format category B with deliverables. The samples were also leached via TCLP and analyzed for the same parameters.

This data package submitted differs from a NYSDEC ASP 10/95 category B data package in that:

- All limits used appear to be in-house generated. QC limits stated in the ASP were not used.
- Different calibration criteria were used.

No matrix spike/matrix spike duplicate was analyzed for the soil or leached sample. The TCLP method of states that "a matrix spike shall be performed for each waste type..." also a minimum of one matrix spike must be analyzed for each analytical batch. There is no indication on the TCLP report that the sample was leached or the date leached.

Sample SB-20 (SOIL) was analyzed at a 1:2 dilution.

The total solids (TS) used to calculate sample SB-19 was 67% for BN and 100% for the volatile fraction. This difference should be verified as the TS for sample SB-20 had similar values in both aliquots at 69% and 68%.

As mentioned previously, in-house limits are used for surrogate recoveries as well as MS/MSD percent recoveries and RPD criteria. (All RPD's are 40%), not the ASP limits.

The origin of the allowable calibration and QC criteria is unclear. The %D criteria for the continuing check of the calibration are not based on the ASP nor method 8270. All %D's, however, are within an acceptable range.

In Summary

Although the data submitted differs from the ASP requirements, enough information is provided to substantiate the concentration levels of the targeted analytes.