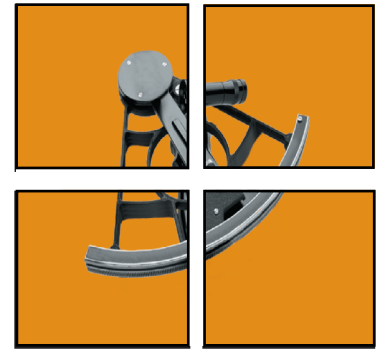


**SITE INVESTIGATION/  
REMEDIAL ALTERNATIVES REPORT  
FORMER PROVAN FACILITY  
NEWBURGH, NEW YORK  
ORANGE COUNTY  
PROJECT No. B00127-3**

**FIRST  
ENVIRONMENT**





**SITE INVESTIGATION/  
REMEDIAL ALTERNATIVES REPORT  
ENVIRONMENTAL RESTORATION PROJECT No. B00127-3  
FORMER PROVAN FORD FACILITY  
146-172 MILL STREET  
NEWBURGH, NEW YORK 12550**

**Prepared for:** City of Newburgh  
83 Broadway  
Newburgh, New York 12550

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JANUARY 2005

REVISED SITE INVESTIGATION/REMEDIAL ALTERNATIVES REPORT  
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January 2005

Project No. PROVA001

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## EXECUTIVE SUMMARY

First Environment, Inc. (First Environment) has completed the remedial investigation and interim remedial actions at the Former Provan Ford Facility on behalf of the City of Newburgh, who acquired the subject site as a result of tax foreclosure. The work was completed as part of the municipal assistance environmental restoration projects "Brownfields Project." The subject site has been assigned Environmental Restoration Project No. B00127-3 by the New York State Department of Environmental Conservation (NYSDEC). The original Site Investigation/ Remedial Alternatives Report (SI/RAR) was prepared in April 2002. This revised SI/RAR includes all the information presented in 2002 as well as the results of additional investigation activities conducted to date.

Based on the soil and groundwater investigation conducted to date, it has been determined that soil and groundwater at the Former Provan Ford Facility located at 146-172 Mill Street in Newburgh, New York has been impacted to levels that exceed State regulatory standards.

Groundwater underlying the site has been impacted with petroleum hydrocarbons and related volatile organic compounds (VOCs) at concentrations above the NYSDEC regulatory standards. Groundwater contaminated with chlorinated solvents was also identified, apparently originating from two separate areas. One area is in the vicinity of the two former 5,000-gallon waste oil tanks and the other in the area of the wash rack and/or associated 8,000-gallon tank, with both areas of groundwater contamination extending across the site to the southeast. Based on monitoring wells recently installed and sampled, the VOCs in groundwater, including chlorinated VOCs, have been identified above NYSDEC regulatory standards at the water table and deeper in the overburden aquifer, but either not detected or detected below NYSDEC regulatory standards in the underlying bedrock aquifer. The concentrations of chlorinated VOCs in groundwater indicate the potential for dense non-aqueous phase liquid (DNAPL), however, none has been detected in any wells onsite.

Free-phase petroleum product (i.e., floating oil) has been identified in several areas onsite. The floating oil is suspected to have originated from four separate areas, including the vicinity of the two 5,000-gallon waste oil underground storage tanks (UST), the wash rack and/or 8,000-gallon UST, the 4,000-gallon gasoline UST, and the 10,000-gallon gasoline and/or 20,000-gallon

diesel fuel USTs. The floating oil is adjacent to the above listed areas, as well as underlying the site building.

Metals were detected in groundwater samples above regulatory standards, however, the concentrations detected are likely attributable to sample turbidity rather than site contamination.

Soils at the site have been found to be impacted by past site operations and releases from underground storage tanks previously located onsite. Although extensive excavation of contaminated soils was conducted during the remedial actions, soil contamination above regulatory standards remains onsite. In addition, soil with metals concentrations above regulatory levels was identified. No previous site activities have been identified that would result in the metals concentrations identified in soil, therefore, the metals detected are suspected to be the result of past practices at the site, specifically historic filling operations at the site, or background conditions.

Soil gas surveys conducted onsite have identified VOCs over essentially the same location(s) as have been identified in shallow groundwater. Based on the most recent round of soil gas sampling, the extent of impacts to soil gas extend off-site to the south to the adjacent commercial/industrial facility, Ridgewood Plumbing, Heating and Cooling (Ridgewood). Based on soil gas detections adjacent to and underlying the Ridgewood site, two air samples were collected from within the Ridgewood warehouse. Several VOCs were detected at both locations, but all below applicable National Institute for Occupational Safety and Health (NIOSH) and Occupational Safety and Health Administration (OSHA) standards.

Remedial activities completed at the site have been effective in removing potential sources of contamination thereby reducing the potential for further degradation of groundwater quality. However, contaminated soil and groundwater remain onsite. The remedial activities conducted at the site consisted of the removal of six underground storage tanks in June 2001; removal of 78 drums of petroleum and other waste in November 2000; as well as the emptying of one underground storage tank and one aboveground storage tank both of which remain onsite; and the cleaning of two oil-water separators, one which was situated aboveground that has been removed, and a second one underground that remains onsite. The remediation activities associated with the underground storage tank removals also included the excavation and off-site disposal of 540 tons of petroleum-contaminated soil.

The additional investigation completed at the site in 2003 and 2004 was conducted to close remaining data gaps and delineate the downgradient extent of groundwater contamination and to determine if contaminants in groundwater are migrating offsite at levels above the NYSDEC regulatory standards. The additional investigation consisted of soil, soil gas, and groundwater sampling of the overburden and bedrock aquifers. The additional investigation was largely effective in defining the extent of soil contamination identified onsite. Based on the soil gas survey as an indicator of shallow groundwater conditions, and sampling of the base of the overburden aquifer at MW-111 near the southeast corner of the site, it appears that the groundwater contaminated above the NYSDEC regulatory standards is migrating offsite.

Based on the extent and concentrations of groundwater contaminants present at the site and the occurrence of floating oil, remediation of the site is warranted. The most appropriate method(s) of remediation is dependent on the type, location and depths of contamination present, as well as future potential uses of the site.

The presence of free-phase floating oil warrants recovery. Based on the extent of floating oil present, it appears that its recovery would involve the demolition of the overlying building to allow for excavation of the impacted soil, or the installation an infiltration gallery and/or recovery well equipped with passive or active oil skimmers if the building were to remain on site.

Due to the thickness of product observed at MW-9, excavation of petroleum-impacted soil from this area is recommended as the most effective method of remediation since the anticipated site redevelopment does not include the existing building. The floating product appear to be limited to the area of the former waste oil tanks as identified at MW-3 and the area downgradient of the wash rack as identified at PZ-7, MW-9, PZ-3 and MW-7.

The presence of dissolved phase VOCs in the groundwater within the shallow and intermediate aquifers may be most effectively addressed through in-situ treatment. Based on the location and extents of contamination identified, the recommended treatment method(s) may be either air sparging/vapor extraction and/or chemical oxidation. The air sparge/soil vapor extraction method injects air into the contaminated aquifer to strip the VOCs from the groundwater. The VOCs within the air are then extracted to aboveground where the VOCs can be treated or removed by various methods. Chemical oxidation involves the injection of reactants into the

aquifer to aggressively breakdown (oxidize) the VOCs. Due to potential issues with off-gassing, some methods may not be desirable under or adjacent to occupied structures. In addition, some limited soil removal in the former waste oil tank area may be warranted. Furthermore, the presence of discontinuous silt or clay layers underlying the site, combined with the vertical extent of groundwater contamination favor in-situ chemical oxidation over air sparge /soil vapor extraction. Finally, groundwater recovery and treatment (pump and treat) could be considered for containment at the downgradient property boundary, however, this alternative will only be implemented if the other alternatives prove to be infeasible.

The determination of the specific soil remediation method is dependent on the extent of contaminants present and the proposed future use of the site. The recommendations for the remediation of soil contamination includes a combination of excavation and off-site treatment or disposal, soil vapor extraction and/or chemical oxidation. Based on the extent of soil contamination present, specifically metals attributed to historic filling of the site, engineering controls (capping) and/or institutional controls (deed restriction) is recommended. Based on the site location and interest expressed by several potential developers of the site, it is expected the facility will continue to remain industrial and, as such, a deed restriction prohibiting residential development would not be an encumbrance on the property. Furthermore, the use of a cap (most likely asphalt) as an engineering control could be integrated into the future development of the site.

## INTRODUCTION

This Site Revised Investigation/Remedial Alternatives Report (SI/RAR) has been prepared by First Environment, Inc. (First Environment) on behalf of the City of Newburgh for the Former Provan Ford Facility (site). The site activities have been completed as part of the municipal assistance environmental restoration projects "Brownfields program" (project number B00127-3). The New York State Department of Environmental Conservation (NYSDEC) administered the investigation and remediation activities.

The investigation and remedial activities were conducted as described in the Site Investigation/Remedial Action Workplan SI/RAW prepared for the site by First Environment. The initial results of the investigation and remedial actions conducted at the site were presented to the NYSDEC in the original SI/RAR submitted to the NYSDEC in April 2002. This report documents not only the original investigation and remedial actions conducted at the site as documented in the earlier report, but provides the results of the further investigation conducted in 2003 and 2004 by First Environment. The additional investigation activities conducted, as required by the NYSDEC included the expansion of the original soil gas survey, the collection of soil samples, and the installation and sampling of deeper overburden (intermediate) and bedrock monitoring wells, as well as re-sampling all monitoring wells onsite.

The Introduction provides the regulatory framework and identifies the entities involved in the project. The Environmental Setting Section provides information regarding the physical site features including regional and site geology and hydrogeology, as well as site history. The site investigation and remediation activities are discussed in the section entitled Remedial Investigation Procedures and include a description of all field activities and quality assurance and quality control procedures. A discussion of possible remedial alternatives for contaminants remaining onsite is provided followed by conclusions and recommendations for further site activities. Test data and backup documentation are provided as Appendices to this report.

## ENVIRONMENTAL SETTING

### SITE DESCRIPTION

The Provan site is located at 146-172 Mill Street in the City of Newburgh, Orange County, New York (Figure 1). The site is located in a mixed-use area of commercial and residential parcels. To the north of the site is Dickson Street with a vacant brick warehouse/light manufacturing building. To the east of the site is Mill Street, and on the other side of Mill street are residences and commercial properties including an automotive repair building, currently occupied by Gary's Truck Repair, a former tenant of the subject site. To the south of the site is the Ridgewood Corporation, Plumbing, Heating and Cooling. To the west the site is bound by Deyo Place and Robinson Street (Route 9W); beyond that there are commercial businesses. Adjacent to the site to the northwest is a railroad spur, beyond which is a Dairy Cone Ice Cream Store and a warehouse/commercial building occupied by Visconte Limousines, Inc.

The site is approximately 3.5 acres in area and gently slopes to the southeast. The majority of the site is concrete or asphalt-paved, while some areas are gravel covered. The northwest end of the property is largely covered with earthen fill and vegetation.

The main structure onsite, the location of the former Provan Ford operations, consists of a slab-on-grade brick and concrete block building with a footprint of approximately 18,000 square feet. The building had reportedly been used primarily for garage and storage space. The northern half of the building was constructed in the 1940s and was most recently used for storage of auto parts and debris and contains an aboveground storage tank for petroleum storage. The southern half of the building was constructed in the 1950s and was most recently used for truck repair operations as well as for the storage of truck parts and petroleum storage in drums. The southern half of the building has a second floor that contained offices for the former operations. The building is currently boarded up and has not been occupied for several years.

The other notable feature on the site is a former truck wash area consisting of two concrete pads and a large steel truck wash rack located immediately west of the facility building as shown on the site plan provided as Figure 2. The truck wash rack was used for the washing of tank trucks at the facility.



## REGIONAL GEOLOGY AND HYDROGEOLOGY

The former Provan site lies within the Valley and Ridge Physiographic Province. The predominant features associated with this province are narrow valleys and ridges formed as a result of differential erosion of the underlying sandstone and shale formations. Specifically, the Newburgh area is characterized by alluvial deposits underlain by meta-sedimentary and sedimentary bedrock formations.

Alluvium in the area is comprised of flood plain sediments (sand, silt and clay) associated with the Hudson River. Glacial deposition in the area consists primarily of till and unsorted outwash. The outwash is predominantly a mixture of gravel, sand, silt and clay. The bedrock underlying this region consists of middle Ordovician Taconian Sequence, which is composed primarily of shale and graywacke.

Regionally groundwater occurs in both overburden and bedrock in confined or unconfined conditions. Regional groundwater flow in the Newburgh area is to the east, towards the Hudson River.

As identified in a water well survey that was conducted as part of this investigation, no supply or domestic wells were identified in the immediate vicinity of the site. Wells installed for the United States Geologic Survey (USGS) are located within one mile of the site. These USGS wells are installed in sand and gravel and lake deposit units in the overburden, as well as in the Onondaga limestone bedrock.

## SITE GEOLOGY AND HYDROGEOLOGY

The discussion of site geology is based on-site observations by First Environment during drilling and excavation activities conducted during site investigation and remediation activities. Site investigation locations are shown in Figures 3 through 5. Based on observations during monitoring well installation, the site is underlain by approximately zero to seven feet of fill consisting primarily of sand, silt, and gravel with traces of building debris. Underlying the fill are naturally-occurring alternating layers of sand and silt with discontinuous clay or silt layers identified at several locations. Bedrock was encountered during the installation of the four bedrock monitoring wells (MW-3D, MW-6D, MW-10D and MW-11D) at depths of approximately

47 to 50 feet. The bedrock (graywacke) is overlain by several feet of weathered bedrock consisting of clayey silt with shale and sandstone fragments, gradually grading to more competent bedrock. The graywacke is a coarse grained sandstone with poorly sorted pieces of shale. The graywacke is characterized by silt and clay filled voids suspected to be related to bedding planes or fractures. The top of bedrock elevation onsite generally follows surface elevations, sloping to the southeast as shown on the geologic cross section provided as Figure 14.

Based on observations made during the site investigation, groundwater occurs at the site at depths ranging from approximately 6 to 15 feet, depending on topography and seasonal variations.

Based on the groundwater elevations measured, local groundwater in the overburden flows to the southeast as shown in Figures 6 and 7. Hydraulic conductivity testing and hydraulic gradient measurements indicate that groundwater flows through the site at an average velocity of  $9.8 \times 10^{-2}$  ft/day. A more detailed discussion of field activities and findings regarding aquifer characteristics is provided in a subsequent section.

Based on groundwater elevations, groundwater in the bedrock aquifer also flows to the southeast as shown in Figure 8. Based on a review of groundwater elevations in the shallow, intermediate and bedrock monitoring wells, a very slight downward vertical gradient was observed between the shallow and intermediate wells, while an upward gradient was observed at all locations between the bedrock and intermediate wells.

### TOPOGRAPHY AND DRAINAGE

The site is located approximately 130 feet above mean sea level and slopes to the southeast towards Quassiac Creek which is approximately one-eighth of a mile southeast of the site. Stormwater that did not infiltrate the site had formerly run off the site to the south and east, or had entered storm drains that flowed to an oil-water separator that, in turn, is believed to have discharged to the City combined sewer system. As part of the remediation work conducted onsite, storm drains and piping leading to the oil-water separator were cleaned and removed. The oil-water separator was also cleaned and remains onsite for potential future use, although

currently not in service. Based on these new site conditions, any stormwater that does not infiltrate the site now runs overland off to the south and east.

## SITE HISTORY AND PRIOR USE

The site history presented in this report is based on information provided during a site inspection with the NYSDEC, information presented in the Environmental Data Resources (EDR) Radius Search for the site, and information obtained during past site investigation activities.

The facility was initially developed in the 1940s as a commercial facility and was expanded in the 1950s. Provan Ford operated the facility for approximately 50 years. Provan Ford's on-site operations included the washing, service, and maintenance of Ford tanker trucks. The Provan Ford facility consisted of two attached garage areas, maintenance areas, a small office area, and an external truck wash rack. Empty tanker trucks would arrive at the site and be cleaned in the wash rack. The trucks were then serviced and fueled before they were sent back on the road for petroleum distribution.

In order to assess past operations as a possible source of soil impacts identified in 2001 in apparent background areas, Sanborn Fire Insurance maps for the years 1957, 1967, 1969 and 1971 were reviewed. Each showed the site, identified as "Priv(ate) Garage & Truck Rep(air)," essentially as it now exists with no operations outside the building, other than parking to the north of the facility identified in the three later Sanborn maps. A notable feature observed on the 1957 and 1967 Sanborn maps is a filling station (off site) on the corner of Dickson and Robinson Streets, adjacent and immediately upgradient of the site.

On September 8, 1988 a caller, identified in the EDR report as "citizen," reported a spill to the NYSDEC. The spill was described in the EDR database report as "heavy chemical smell; sometimes smells like gas. Company cleans out tanker trucks lets material run into ground". The spilled material was listed as "unknown petroleum." The incident was assigned spill case No. 8804981 and was reportedly closed the same day, based on the database search information.

On February 4, 1993 there was a reported spill at the site of 100 gallons of gasoline from a tanker. The release was assigned spill No. 9212498. Mr. Ira Conklin was reported to be on the scene to do the cleanup. The fire department was identified as being onsite as well. The spill is listed on the EDR database as closed.

Gary's Heavy Truck Repair occupied the site from March 1998 to March 2000. Gary's Heavy Truck Repair activities included the service and maintenance of tractor-trailer trucks in the southern garage area.

According to information presented in the EDR database search, one or two spilled drums were observed on the site on June 11, 1998. The EDR report states, "The site consists of 68 drums of oil waste and three underground storage tanks. On June 11, 1998 the NYSDEC met with the EPA and observed a drum of spilled oil on the property. NYSDEC immediately activated its contractor to stabilize the site. The drums were over packed and staged." The spill was reported to the NYSDEC on June 12, 1998. It was reported, "that two 55-gallon drums had been turned over." Product had been cleaned and assigned spill No. 9803229.

The EDR report identified six underground storage tanks (USTs) registered at the site to Provan Leasing, consisting of two 500-gallon, one 20,000-gallon, one 10,000-gallon, one 8,000-gallon and one 4,000-gallon tank. All six USTs were identified as empty and temporarily out of service. Based on field measurements during tank removal activities, the capacity of some of the USTs removed were different than those listed above. The actual capacities determined for USTs encountered is discussed in a subsequent section.

The City of Newburgh became owner of the former Provan-owned property in March 1998 after it foreclosed on the property for non-payment of property taxes. The City evicted Gary's Heavy Truck Repair from the site in March 2000.

Additional investigation and remediation activities conducted onsite as part of this and previous effort are discussed below.

### SUMMARY OF PREVIOUS INVESTIGATIONS

First Environment conducted an initial investigation of the site in October 1999. The initial investigation consisted of the analysis of soil samples from 16 of 27 geoprobe borings and five surface sample locations and the installation and sampling of seven piezometers.

The results of the initial investigation were presented in the Site Investigation/Remedial Alternatives Report Workplan prepared by First Environment dated July 2000. For the sake of completeness, the findings of the initial investigation are summarized below.

### SOIL BORINGS

The geoprobe boring investigation consisted of advancing borings at 27 locations adjacent to areas suspected to present the greatest environmental concern. These areas of concern consisted of the six USTs identified at that time, the exterior oil-water separator and associated piping, and the truck wash rack and associated piping. Soil samples were collected and analyzed from 16 of the 27 locations for volatile organic compound (VOCs) and/or base neutral extractable compounds (BNs) with one sample also analyzed for polychlorinated biphenyls (PCBs).

The analytical results from the geoprobe investigation identified concentrations of one or more compounds above the NYSDEC recommended soil cleanup objectives (RSCOs) as identified in the Technical and Administrative Guidance Memorandum 4046, primarily due to concentrations of the VOCs benzene, toluene, ethylbenzene and/or xylenes. These VOCs exceeded RSCOs in 11 of the 16 samples, specifically those collected near each UST and the wash rack. One or more BNs were detected above the RSCOs in eight of ten samples analyzed from areas adjacent to USTs. No PCBs were detected in the one sample analyzed.

### SURFACE SOIL SAMPLING

Five surface soil samples were collected from stained areas observed onsite and analyzed for BNs and metals. In addition, one of the surface samples was also analyzed for PCBs, while another was also analyzed for VOCs. BNs were detected above the RSCOs in four of the five soil samples. Xylenes were detected above the RSCOs in the sample collected near the wash rack. No PCBs were detected in the surface sample analyzed from the stained area near the waste oil tanks.

## GROUNDWATER SAMPLING

Groundwater quality in the vicinity of six USTs and the oil water separator was evaluated through the installation and sampling of seven piezometers for VOCs. Floating oil was observed in five of the piezometers, specifically two adjacent to the wash rack, and those installed downgradient of the waste oil tanks, the 10,000-gallon gasoline/20,000-gallon diesel fuel USTs, and the 4,000-gallon gasoline UST. Several VOCs were detected above regulatory standards in all piezometers except PZ-5, which is located at the south end of the site. The VOCs detected in groundwater above regulatory standards in the two piezometers immediately downgradient of the gasoline USTs (PZ-2 and PZ-4) were benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tertiary butyl ether (MTBE). In addition to these VOCs, one or more chlorinated VOCs including trichloroethene (TCE), tetrachloroethene (PCE), and their degradation products including vinyl chloride, were detected above regulatory standards in the other four piezometers.

## SUMMARY OF PREVIOUS REMEDIATION ACTIVITIES

At the request of the NYSDEC, 60.8 tons of stained surface soil was excavated and stockpiled onsite for later disposal. First Environment sampled the soil on December 15, 1999 in order to classify it for disposal. The stockpiled soil was identified as non-hazardous and transported to TPS Technologies, Inc. on February 8, 2000 for treatment.

At that time a number of drums remaining on the site from past operations were identified by the NYSDEC and First Environment as a threat to the environment. To remove this threat and to prepare these drums for disposal, Code Environmental Services over packed a total of nine drums on February 24, 2000.

As part of the most recent remedial activities at the site, 78 drums previously identified onsite were characterized and disposed of offsite. Additional containers identified within the building, not present during the February 8, 2000 site inspection, were also characterized and disposed of offsite. Based on the results of the characterization, nine drums were characterized, manifested and disposed of as hazardous waste. The remaining drums were disposed of as non-hazardous waste.

## REMEDIAL INVESTIGATION PROCEDURES

Activities conducted at the site for the remedial investigation were completed in accordance with a NYSDEC-approved SI/RAW. Based on site conditions encountered, the scope of the investigation and remediation at the site was modified. A description of the specific field procedures is provided below.

### SOIL BORINGS

Soil borings were advanced by First Environment using the Geoprobe direct push method. Hollow stem auger borings that were used for the installation of monitoring wells were advanced by Aquifer Drilling and Testing of Troy, New York. Later geoprobe drilling was done by Lazco Environmental Services of Butler, New Jersey under the supervision of a First Environment geologist. During the drilling of soil borings, split spoon soil samples or macrocores were screened for organic vapors using a photoionization detector (PID) and continuously logged by a First Environment geologist to the completed depth of the boring. Soil descriptions, groundwater level, visual and olfactory observations were recorded. Soil boring logs are presented in Appendix 1.

### SOIL SAMPLING

Soil samples were collected from either soil borings, surface locations or directly from excavation areas that were exposed during the investigation. Soil sample depth intervals from soil borings were based either on field observations, photoionization detector (PID) readings, staining and/or odors. Soil samples were placed in laboratory-supplied containers and cooled to 4°C. The soil samples were then transported to the analytical laboratories under chain-of-custody.

Surface soil samples were collected from 20 locations (S-6 through S-25) as well as two background locations (BSS-1 and BSS-2). The samples were collected to delineate contaminated soil encountered at five locations from the previous investigation and to identify background levels at the site. Soil samples that were to be analyzed for BNs were collected from depths of 0 to 0.5 feet below the ground surface. At select boring locations, samples were



collected for VOC analyses from depths of 0.5 to 1.0 feet below the ground surface. In addition, some samples were analyzed for metals and PCBs.

On August 23, 2003 soil samples were collected from 23 geoprobe soil borings (GB-1 through GB-23) as well as MW-3I and MW-11I. Soil samples were analyzed for VOCs to further delineate the extent of contaminants identified during the previous investigation and/or remediation activities. Soil samples were typically collected from the depth intervals exhibiting the highest PID reading, immediately above the water table, or in some cases at depths below the water table in order to assess the vertical extent of impacts.

### MONITORING WELL INSTALLATION

Monitoring wells MW-1 through MW-8 were installed using a hollow stem auger. The monitoring wells were constructed of two-inch diameter schedule 40 threaded, flush joint, PVC casings and slotted screens. Upon completion of the borings, a 10-foot long section of 0.010-inch slotted well screen was installed through the hollow stem augers, typically from approximately five feet below to five feet above the water table. The remainder of the well consisted of two-inch casing, which extended to the ground surface. Clean filter sand was placed in the annulus between the screen and the borehole to a level of at least one to two feet above the top of the screen as the augers were removed. A bentonite pellet seal was placed on top of the filter sand. The remainder of the annulus was grouted with a cement bentonite grout appropriate for use in monitoring wells.

Of the seven piezometers previously installed at the site, PZ-1 through PZ-7, three were destroyed (PZ-1, PZ-2 and PZ-4) during UST removal activities and replaced with monitoring wells MW-3, MW-5, and MW-7 respectively.

Monitoring well MW-9, which was to be located within the facility's main building, could not be installed using the hollow stem auger rig due to site access constraints. This well was instead installed using a geoprobe direct push drill rig. The well was constructed of three-quarter-inch inside diameter (ID) polyvinyl chloride (PVC). The screen consisted of three three-foot sections of pre-packed, slotted screen. Above the top of the pre-packed screen additional sand was placed followed by the bentonite seal and cement grout.

The intermediate aquifer wells (MW-3I, MW-6I MW-10I and MW-11I) were advanced by hollow stem auger method to depths of 35 to 40 feet. At each location, the bottom of the two-inch diameter schedule 40 PVC well screen was set into an underlying lower permeability layer of silt and/or clay in order to target any DNAPLs that may be present. Furthermore, each of the well screens at the intermediate wells were only five feet long, to further target the base of the overburden aquifer to determine if DNAPLs may be present. The balance of the well construction was the same as described above for the shallow monitoring wells.

The four bedrock-monitoring wells were installed using a combination of hollow stem auger and air rotary. At each location the boring was initially advanced to the depth of the adjacent intermediate well before split spoon samples were collected. Split spoon samples were collected continuously to identify the overburden/bedrock interface until refusal was encountered. The boring was then advanced by air rotary until it was certain that the boring was several feet into competent bedrock, ranging from 9 to 16 feet past split spoon refusal due to the degree of weathering and the nature of the graywacke bedrock. A six-inch diameter steel casing was then grouted into the bedrock and allowed to cure for at least 24 hours prior to coring activities. Each bedrock well was then continuously cored for classification and to identify possible contaminant migration pathways. Three HQ core runs were completed at each boring, with total cored lengths at each location ranging from 6.5 to 13 feet. Once coring activities were completed, each boring was reamed by air rotary method to the completion depth resulting in a four-inch diameter borehole.

The surface protection for all permanent monitoring wells consisted of flush-mount steel road boxes. All monitoring wells were secured with locking caps. Boring logs with well construction information are presented in Appendix 1.

Upon the completion of the monitoring well installation, each well was developed by either pumping or bailing in order to ensure that hydraulic continuity was established between the well and the aquifer. The wells were repeatedly purged until dry and then allowed to recharge. However, despite these attempts at developing the wells, some suspended sediment still remained in the groundwater. Lanc and Tully of Goshen, New York, a New York Licensed Surveyor, surveyed each monitoring well. The top of the inner (PVC) casing (excluding the cap) was surveyed to the nearest 0.01 foot. The survey point was the highest point of the casing.

The survey point was marked on each well. Well casing elevations are presented with the groundwater elevation data on Table 1.

### GROUNDWATER SAMPLING

In order to prevent possible cross-contamination, disposable sampling equipment (bailers and tubing) was used for sampling where possible. All reusable equipment (submersible pumps) was thoroughly decontaminated between locations.

Due to an abnormally low water table associated with the drought conditions, not all monitoring wells could be sampled for all analytical parameters during the September 2001 sampling event, therefore, all locations were sampled during the October 2003 sampling event. The four bedrock wells were not yet installed in October 2003, but were sampled two weeks after installation in December 2003. A discussion of the samples collected is provided in a subsequent section.

Prior to sampling, each monitoring well was purged. The purging consisted of the removal of a minimum of three volumes of standing water from the well in order to ensure groundwater representative of the surrounding aquifer was sampled. After removal of each well volume, the discharge water was field tested for dissolved oxygen, pH, temperature, and conductivity to confirm that conditions had stabilized, thereby verifying that the groundwater to be sampled was representative of the surrounding aquifer rather than stagnant groundwater from the well casing.

After purging, samples were collected using disposable Teflon bailers and were placed into laboratory-provided sample bottles. The samples were preserved according to the requirements of the specific analytical methods and cooled to 4°C. The samples were then transported to the analytical laboratory under chain-of-custody. Groundwater sampling results are presented in Table 2 with data for temporary well point data presented in Table 8, and both are discussed later in this report.

### GROUNDWATER ELEVATION MEASUREMENTS

In order to determine groundwater flow direction and hydraulic gradient, First Environment collected synoptic (same day) rounds of water level measurements. Water level measurements

were conducted on September 5 and November 7, 2001, October 23, 2003, and May 12, 2004. In addition, bedrock-monitoring wells were measured during the sampling event on December 19, 2003.

Prior to collecting water level measurements, the wells were opened and allowed to equilibrate to atmospheric pressure. The water level and total depth for each monitoring well was measured from the top of the PVC casing using an electronic oil/water interface probe capable of detecting up to 0.01 foot of light or dense non-aqueous phase liquid (LNAPL or DNAPL), or in some cases using a clear bailer as described below. The groundwater elevation at each location was calculated by subtracting the measured depth to groundwater from the surveyed elevation of the PVC casing of each monitoring well. Where LNAPL was encountered groundwater elevations were corrected for the LNAPL thickness assuming a specific gravity of 0.86 for fuel oil/diesel fuel. Groundwater elevations are presented in Table 1. Groundwater elevation contours and estimated groundwater flow in the overburden aquifer for September 5, 2001 and May 12, 2004 are presented on Figures 6 and 7, respectively. The hydraulic gradient and groundwater flow direction in the overburden was similar during each event, with groundwater flow generally to the southeast. Localized high points in the water table were identified during this and previous events at PZ-7, located adjacent to the trench drain at the vehicle wash rack. During the May 12, 2004 measurement event, a high point in the water table was also identified at PZ-5, located adjacent to the oil-water separator, which was cleaned out in 2001 and not used since.

Floating free-phase product, or floating oil, was observed in several monitoring wells during each water level measurement events as listed on Table 1 and summarized below. The September 5, 2001 observations were made using a clear bailer. The November 7, 2001 observations were based on measurements obtained from a Solinst Model 122 oil/water interface probe. The December 19, 2003 and May 12, 2004 observations were made using an ORS oil/water interface probe.

Piezometer PZ-7 was observed to have a film of floating product on September 5, 2001 and was measured to have 0.07 feet of floating product on November 7, 2001 but had no measureable product on May 12, 2004. Monitoring well MW-3 was observed to have a product film on September 5, 2001, 0.20 feet of floating product on November 7, 2001, 0.14 feet of floating product on October 22, 2003 and 0.20 feet of floating product on May 12, 2004.

Approximately three-quarter of an inch (0.0625 feet) of floating oil was observed in MW-7 on September 5, 2001, 0.26 feet on November 7, 2001 and 0.04 feet of floating product on May 12, 2004. Six to eight inches of product and no groundwater were observed in MW-9 on September 5; 2001. This well was inaccessible on November 7, 2001. On December 22, 2003, MW-9 was measured and found to contain an estimated 4.26 feet of product, however, due to the extremely narrow diameter (three-quarter inch) the measurement had to be collected with a water level meter rather than an oil/water probe. The well was then purged dry yielding only product (no water) with no recharge after one volume. On December 22, 2003 piezometers PZ-8, PZ-9, and PZ-10 were measured with an oil/water probe. A trace of floating product (sheen) observed at PZ-8 and PZ-9, however no floating product observed at PZ-10.

### AQUIFER TESTING

In order to determine the site-specific hydraulic conductivity of the overburden on-site, First Environment conducted rising head in-situ hydraulic conductivity tests (slug tests) at 3 of the 13 monitoring wells and piezometers onsite (MW-1, MW-3 and MW-4). The inside diameters of the piezometers and monitoring well MW-9 are too narrow to allow for slug testing. Falling head aquifer tests were not conducted because it would be an inappropriate test for wells screened across the water table in an unconfined aquifer, as are present onsite.

Prior to testing each well, all down-hole equipment (pressure transducer and slug) was thoroughly decontaminated to prevent potential cross-contamination between wells. The field permeability testing consisted of inserting a pressure transducer connected to an In-Situ Hermit data logger into the well to be tested to a depth immediately above the base of the well. A sealed, sand-filled PVC pipe that was one-inch diameter by five feet long (slug) was then inserted into the well, and the groundwater level in the well was permitted to recover to approximately 80 to 90 percent of the initial groundwater level displacement. The slug was then removed and the water level was once again permitted to recover to approximately 90 percent of the initial water level displacement, during which time the data logger recorded the changes in level.

Aqtesolv® for Windows Version 3.0 using the Bouwer and Rice Method was utilized to calculate the hydraulic conductivity based on field test data for each well. The results of the hydraulic conductivity analysis are summarized in Table 3 and presented in Appendix 2. Well

construction information and estimates of aquifer thickness based on available information were used for the hydraulic conductivity calculations.

### SOIL GAS SURVEY

Soil gas surveys were conducted at the site by First Environment on May 30 and 31, 2001 and December 19, 2003. The purpose of the survey was to establish soil gas concentrations near the property boundaries downgradient of the potential contaminant source areas, as well as to evaluate possible impacts to an adjacent downgradient property (Ridgewood).

Soil gas samples were collected from approximately six inches above the water table using a steel tube advanced using a Geoprobe direct push drill rig. Samples were collected from a total of 21 locations (SG-2 through SG-23). Each sample was collected in a one-liter tedlar bag for field and laboratory VOC analysis.

A Photovac 10S series portable gas chromatograph (GC) was used for onsite VOC analysis of the collected soil gas samples. The portable GC was equipped with a CPSIL-5 capillary column with a photoionization detector. The target compounds were benzene, toluene, ethylbenzene and xylenes during the 2001 event and TCE during the 2003 event. The GC was capable of detecting soil gas concentrations to below 0.1 parts per million by volume (ppmv) for benzene and toluene, and 0.5 ppmv for ethylbenzene and xylenes.

The portable GC was calibrated using vapor standard mixtures prepared from neat standards of the target compounds. Vapor standard mixtures of 10, 50 and 100 ppmv concentrations were prepared. Each mixture contained the same concentration of each of the target compounds. Calibration standards were prepared at the beginning of each day in the field and used to establish calibration curves for the targeted compounds. Concentrations for non-targeted compounds were estimated using the calibration standards of targeted compounds with closest range of molecular weight (or retention time). Samples collected in tedlar bags for field analysis were analyzed within two hours from the time of collection.

The 2001 soil gas sampling locations consisted of a predetermined set of grid points along the southern and eastern property lines (SG-2 through SG-10) to identify the migration of VOCs in groundwater. A second line of samples (SG-12 through SG-17) were collected approximately 60

to 90 feet upgradient of the initial samples. Two additional locations (SG-18 and SG-19) were sampled to provide further delineation between the earlier two lines of samples. Due to low concentrations of analytes detected at SG-2, SG-1 was not sampled.

All samples collected were analyzed onsite. Four samples from the 2001 survey (SG-3, SG-4, SG-7 and SG-8) representing the range of concentrations of target compounds were selected for verification analysis at EMSL Analytical, a New York State Department of Health certified laboratory.

### 2003 SOIL GAS SURVEY

The 2003 soil gas survey was conducted to further evaluate impacts identified in 2001 at SG-16 and SG-4, (2003 samples SG-4A and SG-16A, respectively) to evaluate if soil gas impacts are present at the adjacent property (Ridgewood) and to further define the extent of soil gas impacts along the eastern end of the property. One soil gas sample (SG-20) was from the adjacent property (Ridgewood) for field and laboratory analysis. Based on the detection of VOCs at SG-20 in the field GC analysis, ambient air samples were collected within the Ridgewood warehouse, A1 and A3, as well as a background sample A2. Samples A1 and A2 were collected over a period of approximately 4 hours using SUMA canisters. Sample A2 was also collected within the warehouse as a grab sample using a tedlar bag and sample pump. Laboratory analysis was provided by Air Toxics Ltd of Folsom, California.

## QUALITY ASSURANCE/QUALITY CONTROL

The Quality Assurance/Quality Control (QA/QC) procedures were conducted as described in the QA/QC plan included as Appendix 3 of this report. Laboratory analytical methods and data validation procedures are summarized below.

### LABORATORY ANALYTICAL METHODS

Laboratory sample analysis for the site investigation was conducted by Chemtech of Edison, New Jersey; or Hampton-Clarke Veritech of Fairfield, New Jersey; or Integrated Analytical Laboratories of Randolph, New Jersey; all New York State Department of Health ELAP-Certified laboratories. Semi-volatile organic compounds were analyzed by USEPA Method 8270. Metals were analyzed by USEPA Method 6010 except for mercury, which was analyzed by USEPA Method 7471. Volatile organic compounds were analyzed by USEPA Methods 8260 or 8021 for soil samples and by USEPA Method 8260 for groundwater samples. PCBs were analyzed by USEPA Method 8082.

### DATA VALIDATION

The analytical data packages were reviewed in order to determine compliance with the NYSDEC requirements. The review of the analytical data identified the data as useable although some sample spike recoveries and calibrations were slightly outside of the QC limits. All holding times for the samples were met. Data Usability Summary Reports for each sample package are presented in Appendix 4. Analytical data packages are available upon request.



## INVESTIGATION FINDINGS

The purpose of the investigation and remedial action were to evaluate site conditions to define the extent of contamination present, and to remediate potential sources of ongoing contamination. Activities conducted onsite consisted of the investigation and/or remediation of areas of environmental concern previously identified onsite. These areas of environmental concern are discussed in the following sections. Manifests for wastes removed from the site are presented in Appendix 5.

### 10,000-GALLON GASOLINE UST/20,000-GALLON DIESEL UST

#### UST REMOVAL

Two USTs, identified east of the building, were removed along with associated piping and contaminated soil between June 25 and June 28, 2001. Since the two USTs were situated adjacent to one another, they formed one excavation upon removal. The product remaining in the USTs was pumped out for off-site disposal on June 25, 2001.

The two USTs were removed on June 25, 2001 and examined for holes or indications of a release. The 20,000-gallon UST appeared to be in good condition, with no holes or visible corrosion. During removal of the 10,000-gallon UST, a seam along the bottom of the tank was observed to have separated for a length of approximately two feet; however, observations made in the field were unable to determine whether this separation had occurred prior to the tank's removal or during the removal itself. Nonetheless, the appearance of this separation as well as holes observed in other tanks removed from the site resulted in the reporting of a release to NYSDEC. The NYSDEC assigned Spill No. 0103612 to the case.

#### SOIL REMOVAL

Soil overlying the USTs and associated piping was observed to have a petroleum hydrocarbon odor and PID readings in excess of 100 ppm, necessitating the stockpiling of this soil. Soil underlying the dispenser and piping was excavated to a depth of 2.5 feet.

On June 26, 2001, the day after the USTs were removed, several inches of petroleum product were observed in a low point at the base of the excavation. The product, totaling approximately 10 to 20 gallons, was removed that day using a vacuum truck and transported offsite for disposal.

Petroleum contaminated soil was identified based on odors and PID readings in the base and sidewalls of the excavation. The excavation was completed at a depth of 11 to 14 feet, and extended out approximately 10 feet in all directions beyond the limits of the USTs in an attempt to remove the contaminated soil. The final size of the excavation was approximately 28 feet by 37 to 43 feet wide by up to 14 feet deep.

#### POST EXCAVATION SOIL SAMPLING

Post excavation soil sample locations are presented on Figure 3. Samples S-2 and S-4 were collected from beneath the former 10,000-gallon UST at depths of 11 and 14 feet, respectively. Samples S-7 and S-8 were collected from beneath the former 20,000-gallon UST at a depth of 14 feet. Sidewall samples were collected at depths of 7 to 11 feet from S-1, S-3, S-5, S-6, S-9 and S-10. Sample S-27 was collected from a depth of 2.5 feet beneath the former dispenser for the 10,000-gallon UST. All soil samples were analyzed for VOCs. In addition, samples S-6, S-7, S-9 and S-10, which are associated with the former diesel UST, were also analyzed for BNs.

#### POST EXCAVATION SOIL SAMPLING RESULTS

The results of soil sampling are presented on Table 4. Of the two samples collected beneath the 10,000-gallon gasoline UST, S-2 had concentrations of benzene (410 ppb), xylenes (5,100) and naphthalene (3,100 ppb) above the RSCOs, while S-4 had no concentrations above the RSCOs. Samples S-7 and S-8, which were collected from beneath the 20,000-gallon diesel UST, both had concentrations of benzene at 130 and 93 ppb, respectively, above the RSCOs.

The highest VOC concentrations from the sidewall samples collected were detected at S-5 and S-6 at the east end of the excavation, with all BTEX compounds and naphthalene significantly above the regulatory standards. Sample S-1, which was collected at the west end of the excavation, had benzene above the RSCO at 0.380 ppm. No VOCs were detected above the

RSCOs at sidewall samples S-3, S-9 or S-10. No VOCs were detected above the RSCOs at sample S-27, which was collected from beneath the former gasoline dispenser location.

Benzo(a)pyrene at S-8 was the only BN detected above its RSCO of 0.061 ppm with a concentration of 0.220 ppm.

#### ADDITIONAL DELINEATION SAMPLING RESULTS

In order to delineate the analytes detected in the post excavation samples around the former 10,000-gallon gasoline and 20,000-gallon diesel tanks, geoprobe soil borings GB-14 through GB-16 were advanced with samples collected at each boring from the interval with the highest PID reading. Borings GB-15 and GB-16 each had total xylenes above the RSCOs (4,850 ppb and 2,090 ppb respectively) although significantly lower than was observed in the nearby post excavation soil samples S-5 and S-6 (73,000 ppb and 326,000 ppb). No other VOCs were detected above the RSCOs in the geoprobe soil borings. Soil sample analytical results from the geoprobe sampling are presented on Table 5.

#### 4,000-GALLON GASOLINE UST

##### UST REMOVAL

A 4,000-gallon gasoline UST identified southeast of the building was removed along with associated piping and contaminated soil between June 25 and June 26, 2001. The UST was examined after removal revealing several holes.

##### SOIL REMOVAL

Based on petroleum odors and elevated PID readings, contaminated soil was removed from the excavation for off-site disposal. The final size of the excavation was 14.5 feet by 33.5 feet by 9.5 feet deep.

## POST EXCAVATION SOIL SAMPLING

Post excavation soil sample locations are presented on Figure 3. Samples S-17 and S-18 were collected from beneath the former 4,000-gallon UST at a depth of 9.5 feet. Samples S-14, S-15, S-16 and S-19 were collected from each of the excavation's four sidewalls at a depth of eight feet. All soil samples from this area were analyzed for VOCs.

## POST EXCAVATION SOIL SAMPLING RESULTS

The results of the soil sampling are presented on Table 4. Samples S-17 and S-18 revealed concentrations of total xylenes (22,900 and 267,000 ppb) above the RSCO of 1,200 ppb, and naphthalene at S-18 at 54,000 ppb, which is above the RSCO of 13,000 ppb.

Sample S-26, which was collected from beneath the former gasoline dispenser for the 4,000-gallon UST, identified xylenes (1,600 ppm and 1,900 ppm) and naphthalene (1,600 ppm) above the RSCOs.

A soil sample was collected during installation of MW-7, which was installed immediately downgradient of the UST excavation. The soil sample, which was collected from a depth of 6.5 to 7.0 feet, was analyzed for VOCs. Although several VOCs were detected in the soil sample, none were at concentrations exceeding the RSCOs.

## ADDITIONAL DELINEATION SAMPLING RESULTS

In order to delineate the analytes detected in the post excavation samples around the former gasoline tanks, geoprobe soil borings GB-8 through GB-12, GB-22 and GB-23 were advanced and sampled with analytical results presented on Table 5. One or more VOC was detected above standard at each of the soil samples collected except at GB-11 located east (downgradient) of the former UST excavation. The VOCs detected above standards were all BTEX as would be expected from a former gasoline release. In an attempt to vertically delineate the BTEX impacts, four samples were collected at GB-13 (the center of the former excavation) from 10 to 15 feet with all samples above the recommended soil cleanup objectives.

## 550-GALLON HEATING OIL UST

### UST REMOVAL

A 550-gallon heating UST that was located south of the building was removed on June 27, 2001. Based on an examination of the UST after removal, several small holes were identified along the bottom seam of the tank.

### SOIL REMOVAL

Soil that was overlying, adjacent and underlying the USTs was observed to have a petroleum odor and elevated PID readings and, as a result, was removed on June 27, 2001. The final extent of the excavation was 9 feet by 10 feet by 5.5 feet deep.

### POST EXCAVATION SOIL SAMPLING

Post excavation soil sample locations are presented on Figure 3. Samples S-24 and S-25 were collected from the base of the excavation at a depth of 5.5 feet. Samples S-20 through S-23 were collected from the sidewalls of the excavation at a depth of 4.5 feet. All samples from this area were analyzed for VOCs and base neutral extractable organics (BNs).

### SOIL SAMPLING RESULTS

The results of the soil sampling are presented on Table 4. Of the two samples collected from the base of the excavation, only one, S-24, had naphthalene (520 ppm) above the RSCO. No other VOCs were detected above the RSCOs in either sample. No VOCs were detected above the RSCOs in any of the four sidewall samples.

One or more BNs were detected above the RSCOs in all but one (S-23) of the soil samples collected from this area. The highest concentrations of BNs were detected at S-20, which is located at the north end of the excavation and adjacent to the building, and included benzo(a)pyrene at 27,000 ppb, above the RSCO. Due to the limited impacts observed in the post excavation samples, no additional investigation of this area was conducted during the geoprobe investigation.

## TWO 5,000-GALLON WASTE OIL USTS

### UST REMOVAL

Based on earlier information it was suspected that only a single 3,000-gallon tank was present north of the building; however, during excavation two 5,000-gallon waste oil USTs were encountered. The two tanks were apparently plumbed together and may have been used as some type of improvised oil-water separator. No 3,000-gallon UST was identified.

The two USTs and associated petroleum contaminated soil were removed between June 27 and June 29, 2001. The contents of the USTs were pumped out for off-site disposal.

Examination of the USTs after removal revealed holes in both of them. In addition, stained soil was observed in the excavation and some floating petroleum product was observed on water that had collected in the excavation.

### SOIL REMOVAL

Based on petroleum odors, staining and elevated PID readings, contaminated soil was removed from the excavation for off-site disposal. The final extent of the excavation was 18 feet by 40 feet by approximately 11 feet deep.

### POST EXCAVATION SOIL SAMPLING

Post-excavation soil sample locations are presented on Figure 3. Samples S-32 and S-33 were collected from beneath the western UST at a depth of 11.5 feet. Samples S-30 and S-31 were collected from beneath the eastern 5,000-gallon UST. Samples S-34 through S-37 were collected from each sidewall of the excavation. The soil samples were analyzed for VOCs, BNs, metals and PCBs.

### POST EXCAVATION SOIL SAMPLING RESULTS

The results of soil sampling are presented on Table 4. Of the four samples collected from beneath the USTs (S-30 through S-33), S-33 had the highest concentrations with TCE detected

at 130,000 ppm, PCE at 100,000 ppm, toluene at 36,000 ppm, and 1,1,1-trichloroethane (1,1,1-TCA) at 1,700 ppm. All of these concentrations exceed RSCOs. S-32 had detections of TCE at 9,600 ppm, 1,1,1 TCA at 930 ppm and chloroform at 350 ppm, which is slightly above its RSCO of 300 ppm. S-30 and S-31 did not have any VOCs above the RSCOs. No VOCs were detected above the RSCOs in the sidewall samples.

The BN diethylphthalate was detected above the RSCO in samples S-30 and S-33 at 16,000 ppm and 11,000 ppm, respectively. The only BN detected above the RSCO in the sidewall samples was benzo(a)pyrene at 130 ppm in location S-35.

All post-excavation soil samples from this area were analyzed for PCBs with none detected.

A soil sample was collected from the location of MW-3, which is located immediately downgradient of the UST excavation, during drilling activities. The soil sample, which was collected from a depth of 6.5 to 7.0 feet, was analyzed for VOCs, BNs, metals and PCBs, with the results presented in Table 4. Total xylenes were the only VOCs detected above the RSCOs with a detection of 5.9 ppm. Several BNs were detected above their respective RSCOs, specifically 2-methylnaphthalene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, and benzo(a)pyrene. No PCBs were detected in the sample.

#### ADDITIONAL DELINEATION SAMPLING RESULTS

In an attempt to vertically delineate the soil impacted from releases from the former waste oil USTs, soil samples were collected from two geoprobe soil borings (GB-18 and GB19) as well as monitoring well MW-3I during installation. Each sample was analyzed for VOCs with the results presented in Table 5. The analytical results from GB-18 identified a number of VOCs above the RSCOs, most significantly TCE detected above the RSCO of 0.7 ppm with concentrations of 1,500 and 1,000 ppm at 9.6 to 10.0 feet and 12.7 to 13.2 feet respectively. PCE and 1,1,1-TCA was identified at similar concentrations. No VOCs were detected above the RSCOs at GB-18 from 16.2 to 16.8 feet, or from the soil samples collected from MW-3I at 28 to 28.8 feet or 36.4 to 37.3 feet. Soil samples collected from GB-19, east of the former waste oil UST excavation identified PCE above the RSCO of 1.4 ppm with concentrations of 6.7 ppm and 8.2 ppm at depths of 9.8 to 10.2 and 13.9 to 14.3 feet respectively. No VOCs above the RSCOs were identified at the sample collected from 18.8 to 19.2 feet.

## 8,000-GALLON FUEL OIL UST

### UST CLEANING

An 8,000-gallon UST was identified west of the building underlying the truck wash rack. The truck wash rack, which is a heavy steel-framed structure covering the entire wash rack area, prevented the removal of the UST at that time. The UST was addressed by pumping out the contents of the tank for off-site disposal. The UST has been gauged several times, verifying that no groundwater is entering the empty tank, indicating it is sound. The UST has also been registered as inactive. No soil removal was conducted at the 8,000-gallon UST.

### SOIL INVESTIGATION

Boring GB-7 was sampled from 10.7 to 11.2 feet to investigate soil quality in the vicinity of the UST. The soil sample identified one VOC, xylenes at 1.75 ppm, above the recommended soil cleanup objective of 1.2 ppm. However, a brown oily product was observed at this location from approximately 10.7 to the completion depth of GB-7 at 12 feet.

### OIL/WATER SEPARATORS AND ASSOCIATED DRAINS AND PIPING

As part of the investigation and remediation activities conducted at the site, two oil/water separators, several drains and associated piping, were identified. The separators, drains and piping areas were cleaned and/or removed, or sealed with concrete, investigated through additional sampling as warranted, and remediated through the removal of contaminated soils.

An aboveground oil/water separator, located within the building, was pumped out and removed. An inground 3,800-gallon oil/water separator located near the south end of the site was cleaned, and influent piping was removed. However, this oil/water separator remains in place as it may be valuable to a future user of the site. The oil/water separator, installed in approximately 1985 based on a site plan reviewed, was examined and determined to be in good condition with no cracks or leaks evident. No soil was removed and no soil sampling was conducted at either oil/water separator.



Seven floor drains were identified within the building, two within the main garage and five within a backroom area to the north. The sludge within the drains was cleaned on July 1, 2001 in order to determine their discharge points. Based on examination of the floor drains, most of the floor drains in the backroom area connect to floor drains in the garage area. The discharge point for the other two drains could not be determined. The floor drains in the garage area continue out the east end of the building where they connect to an interceptor drain that discharges to the exterior oil/water separator. The exterior oil/water separator discharges to the municipal combined sewer system. An interceptor trench identified adjacent to the truck wash rack had discharged to the exterior oil/water separator via the garage area floor drains. After cleaning, all interior floor drains were sealed with concrete.

All exterior underground piping, including the interceptor trench, from the east end of the building to the exterior oil/water separator (approximately 190 feet of piping) was removed. This included piping that had traversed the tops of the 4,000-gallon, 10,000-gallon and 20,000-gallon USTs.

#### SOIL REMOVAL

Soil underlying the trench drain and extending under the piping to the south to the oil/water separator was identified as contaminated based on staining, petroleum odors and elevated PID readings, including some over 2,000 ppm. The soil underlying the pipe was excavated to a depth of three to four feet within a trench that was approximately four feet wide. The trench traversed the excavation for the 4,000-gallon gasoline UST as well as the excavation for the 10,000-gallon gasoline and 20,000-gallon diesel fuel UST.

#### POST EXCAVATION SOIL SAMPLING

Post-excavation soil sample locations are presented on Figure 3. Samples S-11, S-12 and S-13 were collected from the base of the excavation from the interceptor trench at a depth of approximately three to four feet. Samples S-28 and S-29 were collected from the base of the excavation of the drain line between the east end of the building and the excavation for the 10,000 and 20,000-gallon USTs. All samples were analyzed for VOCs, with some samples also analyzed for BNs and PCBs.

## POST EXCAVATION SOIL SAMPLING RESULTS

The results of the soil sampling are presented on Table 4. Sample S-11 detected total xylenes at 2,190 ppb and benzo(a)pyrene at 120 ppb each above their RSCOs of 1,200 ppb and 61 ppb, respectively. Metals detected at S-11 appear to be within the expected range for background concentrations, and no PCBs were detected. No VOCs or BNs were detected above the RSCOs at S-12. At S-13 no VOCs were detected above the RSCOs; however, the BNs chrysene, benzo(a)pyrene and dibenz(a,h)anthracene were detected at concentrations of 560 ppb, 790 ppb and 58 ppb above the RSCOs of 400 ppb, 61 ppb and 14 ppb, respectively. No VOCs, BNs or PCBs were detected at S-28 or S-29 above RSCOs.

## SOIL INVESTIGATION

Borings GB-4 through GB-6 were each sampled from the depth intervals with the highest PID readings (approximately 9 to 10 feet), as detailed in Table 5, to evaluate potential impacts from the existing trench drain. An oily product was observed in the soil from GB-4 from 8.5 to 8.8 feet and GB-5 from 8.8 to 8.9 feet, but not at the downgradient location GB-6. The soil sample analysis identified toluene (2.9 to 5 ppm), ethylbenzene (7.9 to 16 ppm) and xylenes (21.4 to 62 ppm) each above the respective recommended soil cleanup objectives of 1.5, 5.5 and 1.2 ppm in each of the three borings. In addition, 1,1,1-trichloroethane (1,1,1-TCA) was detected above the recommended soil cleanup objective of 0.8 ppm at GB-4 and GB-5 with concentrations of 3.1 and 5.5 ppm, respectively.

## SURFACE SOIL SAMPLING RESULTS

Surface soil sampling results are discussed below by area, based on the initial surface soil sampling previously reported in the SI/RAW. Surface soil sampling locations are presented on Figure 5 with the analytical results presented in Table 6.

Surface soil samples SS-6 through SS-9 were collected around SS-4 near the south end of the site to investigate BNs and metals previously detected at SS-4. The concentrations of one or more BNs were above the RSCOs for all but one sample collected. The highest BN concentrations were observed at S-7 from 0.5 to 1.0 feet where a number of PAHs were detected above their RSCOs, including benzo(a)pyrene which was detected at 30,000 ppb.

Samples were analyzed for VOCs from SS-7 and SS-9. However, the only VOC detected above the RSCO was total xylenes at SS-7 at 1,250 ppb, which is marginally above the RSCO of 1,200 ppb. Samples that were collected from 0 to 0.5 feet and 0.5 to 1.0 feet at SS-7 and SS-9 and analyzed for metals were found to contain five to six metals at concentrations marginally above the RSCOs. Sample SS-7 was analyzed for PCBs with none detected.

Surface soil samples SS-10 through SS-13 were collected immediately south of the building to investigate BNs and metals previously detected at SS-2. The concentrations of one or more BNs were above the RSCOs for all but one sample collected. The highest BN concentrations were observed at SS-10 where a number of PAHs were detected above their RSCOs, including benzo(a)pyrene at 29 ppm. One sample from each of the four locations was analyzed for VOCs, with several detections, primarily xylenes, all below the RSCOs. Samples were collected from SS-9 and SS-13 for metals analysis. The results of the analysis revealed five to six metals at each location that were marginally above the RSCOs. Sample SS-9 was analyzed for PCBs with none detected.

Surface soil samples SS-14 through SS-17 were collected immediately south of the wash rack to investigate VOCs and metals previously detected at SS-1. Samples from S-15 and S-16 were analyzed for VOCs. VOCs were only detected at S-16. The VOCs toluene, ethylbenzene and xylenes were detected at 59,000 ppb, 24,000 ppb and 246,000 ppb, respectively, which are above RSCOs. One or more BNs, all polycyclic aromatic hydrocarbons (PAHs), were detected above the RSCOs in all but one sample analyzed. Metals were found in all four of the soil samples above the RSCOs; however, the detections were generally within the range of regional background levels. The soil sample collected from SS-16 was also analyzed for PCBs with none detected.

Surface soil samples SS-18 through SS-21 were collected north and west of the wash rack to investigate semi-volatile organic compounds (SVOCs) and metals previously detected at SS-3. Samples SS-18 and SS-20 were analyzed for VOCs with none detected above the RSCOs. One or more SVOCs, specifically benzo(a)pyrene, were detected above RSCOs in each soil sample collected from this area, with the highest concentration, 10,000 ppb, detected at SS-19 from 0.5 to 1.0 feet. Five or more metals were detected above the RSCOs in each of the four samples analyzed from this area. The metals concentrations identified were generally within the

range of or slightly above the regional background levels. Two samples from this area, SS-18 and SS-20, were analyzed for PCBs with none detected.

Surface samples SS-22 through SS-25 were collected immediately north of the building to investigate BNs and metals detected at SS-5. Soil samples from SS-23, SS-24 and SS-25 were analyzed for VOCs with none detected above RSCOs. One or more BNs, specifically benzo(a)pyrene, were detected above RSCOs in seven of the eight samples analyzed with concentrations up to 720 ppb at the 0 to 0.5 foot sample from S-25. Five or more metals were detected above RSCOs in each of the four samples analyzed from this area. The metals concentrations identified were generally within the range of or slightly above the regional background levels. Two samples from this area, SS-23 and SS-24 were analyzed for PCBs with none detected.

Two background surface soil samples, BSS-1 and BSS-2, were collected from the western and northeastern ends of the property, respectively, to evaluate background levels onsite. The samples were analyzed for metals. Based on the results of the background sampling, concentrations of beryllium, chromium, copper, iron, mercury, nickel, and zinc were detected in one or both samples above RSCOs and, therefore, the detected values from these samples should be considered as site background for the development of site-specific RSCOs.

## GROUNDWATER SAMPLING RESULTS

### MONITORING WELL SAMPLING

The monitoring wells were sampled on September 5 and 6, 2001, October 22 and 23, 2003 and bedrock wells on December 19, 2003 in accordance with the procedures outlined in the SI/RAW, and as summarized below. Because there was an insufficient volume of water in a number of the wells and piezometers that were sampled or were to be sampled in the 2001 event, not all parameters targeted for analysis could be tested. For example, piezometers PZ-5 and PZ-6 were dry and therefore could not be sampled at all. Only a partial suite of analytes, consisting of only BNs, could be analyzed from the groundwater sample collected from piezometer PZ-3. Monitoring wells MW-5 had only a trace amount of groundwater present and, therefore, could only be sampled for VOCs. Monitoring well MW-9 contained approximately six inches of petroleum product and no groundwater. The product from this well was sampled and

subjected to gas chromatograph fingerprinting and PCBs and specific gravity analyses in lieu of groundwater sampling and analysis. All other groundwater samples from the 2001 event were analyzed for VOCs by USEPA Method 8260 and for BNs by USEPA Method 8270. Selected samples were analyzed for and target analyte list (TAL) metals by appropriate USEPA methods (PZ-7, MW-1, MW-3 and MW-4) and PCBs by method 8082 (PZ-7, MW-3 and MW-4). All monitoring wells except MW-9 were sampled in 2003 for VOCs and analyzed by method 8260. In 2003, monitoring well MW-9 again only contained product and therefore was not sampled.

It should be noted that despite efforts to limit turbidity in the groundwater samples that were collected by reducing pumping rates and allowing the wells to rest between purging and sampling, turbidity above desired levels was nonetheless observed. As directed by the NYSDEC, only unfiltered samples were analyzed during the 2001 sampling event. The discussion of VOC results for each area is presented below, followed by a summary of the BN and metals results for the site.

## GROUNDWATER SAMPLING RESULTS

The results of the groundwater sampling is presented in Table 2 and discussed below. The analytes detected in groundwater above regulatory standards or guidelines are divided into four groups for this discussion based upon chemistry and source types. These groups include chlorinated VOCs, petroleum-related VOCs, BNs and metals. The groundwater analytical results are discussed by area as follows: upgradient, waste oil tanks, wash rack area, gasoline and diesel tanks, and the downgradient area. Groundwater sampling results were used in the generation of VOC concentration contour maps for BTEX in the shallow aquifer presented on Figure 9, chlorinated VOCs in the shallow aquifer on Figure 10 and chlorinated VOCs in the intermediate aquifer in Figure 11.

### Upgradient Area

The upgradient groundwater monitoring consists of MW-1 located approximately 65 feet east of Robinson Street and temporary well GB-1 located approximately 50 feet south of Dickson Street and north of Mill Street and GB-2 installed 100 feet west of GB-1. During the 2001 sampling event, no analytes, with the exception of iron were detected above the respective standard or guidance value and no VOCs were detected. During the 2003 sampling event, cis-1, 2-DCE was detected at 6.1 ppb, above the groundwater standard of 5 ppb and a trace of toluene was

detected at 1.6 ppb, below its standard of 5 ppb. Although localized mounding has been observed in the area of the wash rack, MW-1 is still believed to be upgradient of site operations, therefore, the recent detections are suspected to be related to cross contamination during well purging activities. The temporary well installed at GB-1 was sampled for VOCs on August 28, 2003 with none detected. The groundwater sample from GB-2 contained a total BTEX concentration of 2,850 ppb, with each analyte above its respective groundwater standard.

#### Gasoline and Diesel UST Areas

The gasoline and diesel UST monitoring wells consist of MW-5 and MW-7. The 2001 sampling event identified VOCs, primarily BTEX, above the groundwater guidance values or standards, with total BTEX concentrations ranging from 18,400 ppb at MW-5 to 79,000 ppb at MW-7 where floating product fingerprinted as possible No. 2 fuel oil was identified. Other VOCs detected in 2001 above applicable standards or guidance values included cis-1, 2-DCE at 230 ppb and 1,600 ppb at MW-5 and MW-7 respectively, methyl tertiary butyl ether (MTBE) at 7,800 ppb at MW-7, and TCE at 170 ppb at MW-5. Several semi-volatile organic compounds were detected above standard at MW-7 as would be expected with the presence of floating oil. In addition, lead was detected above the 25 ppb limit at MW-7 with a detection of 140 ppb, likely attributable to sample turbidity.

From 2001 to 2003, groundwater concentrations for total BTEX at MW-5 increased from 18,400 ppb to 42,000 ppb, however, none of the chlorinated VOCs, such as TCE or cis-1, 2-DCE observed in 2001 were detected in 2003. At MW-7, total BTEX concentrations decreased from 79,000 to 41,000, with MTBE decreasing from 7,800 ppb to 4,700 ppb and no chlorinated VOCs were detected in 2003.

#### 5,000-Gallon Waste Oil UST Area

Groundwater in the area of the former waste oil USTs was evaluated through the installation and sampling of water table wells MW-3 and MW-4, intermediate overburden well MW-3I and bedrock well MW-3D. The 2001 sampling of MW-3 identified high levels of chlorinated VOCs, the most significant being TCE at 360,000 ppb, with lesser concentrations of other chlorinated VOCs including PCE at 21,000 ppb and 1,1,1-TCA at 38,000 ppb. The 2003 sampling of MW-3 identified lower concentrations of VOCs, specifically TCE at 35,000 ppb, PCE at 3,400 ppb and 1,1,1-TCA at 4,400 ppb. The 2003 sampling event also identified BTEX compounds consisting of benzene at 130 ppb, toluene at 770 ppb, ethylbenzene at 760 ppb and total xylenes at 820

ppb. The BTEX detected in 2003 is suspected to have been present in 2001, but was likely masked by the higher detection limits resulting from the high chlorinated VOCs encountered. During the 2001 sampling of MW-3, the semi-volatile organic compounds diethylphthalate and naphthalene were detected above their applicable standard or guidance values. In addition, the 2001 sampling event identified the metals iron, manganese and sodium above applicable standards or guidance values, however these detections are attributable to sample turbidity.

The 2001 sampling of MW-4, located downgradient of MW-3 and the waste oil tanks, detected a number of chlorinated and BTEX VOCs above applicable standards or guidelines, with the highest detection being cis-1, 2-DCE at 24,000 ppb, which decreased to 4,200 ppb by the 2003 sampling event. Other notable observations in the detections at MW-4 include MTBE which decreased from 220 ppb in 2001 to non-detect in 2003, vinyl chloride which decreased from 620 ppb in 2001 to 360 ppb in 2003 and TCE which decreased from 220 ppb in 2001 to 24 ppb in 2003.

In order to evaluate the potential for DNAPL, intermediate well MW-3I and bedrock monitoring well MW-3D were installed and sampled in 2003. As an initial evaluation for the presence of DNAPL prior to the installation of bedrock wells a sample was collected on September 24, 2003 from the bottom of MW-3I prior to development or purging. The analysis of this sample identified both chlorinated and BTEX compounds, the highest being PCE at 120,000 ppb and TCE at 48,000 ppb. On October 23, 2003, the well was sampled using standard purging procedures resulting in much lower VOC concentrations, specifically cis-1, 2-DCE at 1,800 ppb, 1,1,1-TCA at 130 ppb and TCE at 190 ppb. Based on the large variation in sample results, it is suspected the September 2003 sampling event is not representative since the well had not been developed or purged, but future monitoring is warranted to verify this assumption.

Bedrock monitoring well was installed to further evaluate groundwater quality and the potential for DNAPL. The December 19, 2003 sampling event identified no detections for any VOCs.

#### 8,000-Gallon UST / Vehicle Wash Rack Area

Groundwater in the area of the 8,000-gallon UST and vehicle wash rack area was evaluated through the installation of piezometers PZ-3, PZ-6 through PZ-11, monitoring wells MW-2, MW-9, MW-10I and MW-10D, and temporary well GB-3. The 2001 sampling of PZ-7 identified both BTEX and chlorinated VOCs above the applicable standards or guidelines, with the highest

concentration detected being cis-1, 2-DCE at 120,000 ppb. The 2003 sampling of PZ-7 identified similar, although generally lower concentrations of the same VOCs with cis-1, 2-DCE decreasing to 83,000 ppb. However, 1, 2-dichloroethane, ethylbenzene and MTBE which not detected in 2001 were identified in 2003 at 2,400 ppb, 350 ppb and 220 ppb respectively.

The sampling of temporary well point GB-3 (for Stars list VOCs) identified benzene at 270 ppb and total xylenes of 7,200 ppb as well as other petroleum related VOCs.

The sampling of monitoring well MW-2, downgradient of the wash rack, in 2001 identified both petroleum related and chlorinated VOCs above applicable standards. The 2003 sampling event of MW-2 revealed similar concentrations of most analytes, although cis-1, 2-DCE decreased from 20,000 ppb in 2001 to 4,100 ppb in 2003 and vinyl chloride increased from 2,200 ppb in 2001 to 5,000 ppb in 2003.

There was not sufficient groundwater in 2001 to get a representative sample at PZ-3. In 2003 PZ-3 was sampled, with total BTEX concentrations of 721 ppb identified and MTBE was detected at 150 ppb, all above their applicable standards.

MW-9 and PZ-8 through PZ-11 were installed to delineate the extent of floating product in the area under the building. Each time MW-9 has been measured it has contained only oil (no water) and, depending on seasonal variations, has ranged from 0.5 to 3.7 feet. A sheen was observed at PZ-8 and PZ-9 while no product has been observed at PZ-10. The product at MW-9 was sampled in 2001 for PCBs with none detected, and fingerprinted as most closely matching diesel fuel.

In order to evaluate the vertical extent of groundwater impacts at the wash rack area, MW-10I was installed to the base of the overburden. As was conducted at MW-3I, the well was initially sampled on September 24, 2003 immediately after installation, but prior to development of purging to evaluate the potential for DNAPL prior to bedrock well installation. The September 2003 sampling identified several petroleum related and chlorinated VOCs above applicable standards, the highest being cis-1, 2-DCE at 1,200 ppb. Several weeks after proper development, the well was purged and sampled on October 23, 2003 identifying essentially the same VOCs identified in the September 24, 2003 but at lower concentrations (most still above applicable standards, including cis-1, 2-DCE at 430 ppb).



In order to evaluate groundwater quality in the bedrock underlying the wash rack area, MW-10 D was installed. The sampling of MW-10D identified no detectable VOCs.

#### Downgradient Areas

Shallow monitoring wells PZ-5, MW-6 and MW-8, intermediate wells MW-6I and MW-11I and bedrock wells MW-6D and MW-11D are located downgradient of the areas of concern previously discussed including the wash rack and various USTs areas.

Piezometer PZ-5 was not sampled in 2001, but was sampled in 2003 with no VOCs detected. The 2001 sampling of MW-6 identified several VOCs above standards, most significantly TCE at 130 ppb, while the 2003 sampling identified generally lower concentrations, with TCE at 40 ppb. A similar trend was observed at MW-8 although higher levels of petroleum related VOCs including BTEX and MTBE were identified. In 2001 MW-8 had cis-1, 2-DCE at 200 ppb and MTBE at 140 ppb, which although still above applicable standards had decreased to 6.2 and 79 ppb respectively by 2003.

Intermediate monitoring wells 6I and MW-11I contained the same VOCs at similar concentrations above applicable standards, most notably cis-1, 2-DCE at 930 ppb in MW-6I and 2,100 ppb in MW-11I and TCE at 81 ppb in MW-6I and 300 ppb at MSW-11I. No VOCs were detected in either bedrock well MW-6D or MW-11D.

In general, one or more BNs were detected above regulatory standards or guidelines in four of the monitoring wells sampled: MW-3, MW-4, MW-7 and PZ-7. The highest concentrations of BNs in groundwater were identified at MW-7 where floating free-product was also present and identified as possibly being No. 2 fuel oil. The floating free-product from MW-9 was identified as possibly being diesel fuel. No BNs above standard were detected at MW-1, MW-2, MW-6, MW-8 or PZ-3.

Metals concentrations detected in the groundwater samples are believed to be largely attributed to turbidity in groundwater and may not be representative of natural conditions within the aquifer as one or more metal was detected above standards at seven of the eight wells sampled, including the upgradient well MW-1. Arsenic was detected above the regulatory standard of 25 ppb at one location at a concentration of 100 ppb. Lead was detected above the regulatory

guideline of 25 ppb at three locations, including MW-3 (duplicate sample only), MW-6 and MW-7, with concentrations of 33 ppb, 67 ppb and 140 ppb, respectively. Calcium, copper, iron, manganese and sodium were detected above their respective standards in one or more monitoring wells sampled.

### SOIL GAS SURVEY

The results of the onsite field analysis of soil gas samples and the results of laboratory confirmation analysis of the select soil gas samples are presented in Table 7. A comparison of the field analysis results to the laboratory analysis results indicates a good correlation between the two sets of data. The field analysis provided effective real-time sample results as well as estimated quantitative results for total volatile organic compounds present in the soil.

During the 2001 soil gas survey, the concentrations of detected target compounds (benzene, toluene, ethylbenzene and xylenes) are significantly lower compared to non-targeted compounds for all samples except for SG-3. The range of benzene concentrations detected in the soil gas samples indicates that benzene concentrations in soil would be very low except at SG-3, where the highest benzene level was identified. Based on the review of the chromatographic information, the non-targeted compounds, although not identified, are expected to be equal in molecular weight or lighter than the targeted compounds.

The concentration isopleths for total VOC concentrations, including those depicting targeted and estimated non-targeted compounds, are presented in Figure 12. Total volatile organic compound concentrations ranged from non-detect to 1,340 ppmv. Very low or undetectable levels of total VOC concentrations were identified near the property lines.

Although the highest VOC concentrations were detected in an area 60 feet southeast of the 10,000-gallon gasoline UST, they may not necessarily be related to the UST. Based on the wide distribution of VOCs detected, it appears that multiple contaminant sources may be present. This view of contaminant sources is supported by the groundwater analytical results. Total VOCs detected at samples collected from SG-4A and SG16A were similar to those from 2001, but through laboratory analysis, the VOCs present were further quantified as a combination of petroleum related and solvent related VOCs indicating a possible commingling of contaminant streams (or plumes) in this area.

Total VOCs detected at SG-20 were 101 parts per billion volume (ppbv) and 217 ppbv for the field and laboratory analysis respectively. Each of the VOCs identified in the laboratory analysis at SG-20, were also identified at SG-4A. Based on the detection of VOCs at SG-20 in the field GC analysis, ambient air samples were collected within the Ridgewood warehouse, A1 and A3, as well as a background sample A2. Samples A1 and A2 were taken over a period of approximately four hours using SUMA canisters. Sample A2 was also collected within the warehouse as a grab sample using a tedlar bag and sample pump. The ambient sample A1 detected a total of 0.108 ppmv of VOCs, including some identified in soil gas sample SG-4A as well as others, such as methyl ethyl ketone (MEK) never detected at the Provan site in soil, water, or soil gas. The ambient sample A3 contained 2.709 ppmv, although it was almost entirely hexane, cyclohexane, and heptane. These compounds were either not identified in soil or groundwater samples at the Provan site, or identified at lower concentrations than were observed at A3. It is suspected this may be related to cross contamination after sampling at SG-16A as these analytes were not observed at these levels in the more representative four-hour sample A1. The background ambient sample A2 was collected outside of the building and contained no VOCs.

#### GROUNDWATER FLOW CHARACTERISTICS

The hydraulic gradient was established based on measured groundwater elevations. Groundwater elevations were established based on depth to groundwater measurements collected on September 5, 2001 and May 12, 2004. Groundwater elevations and groundwater flow direction for the September 5, 2001 and May 12, 2004 measurements are presented on Figures 6 and 7. Based on the groundwater elevation measurements, groundwater flows to the southeast at a gradient of 0.033 to 0.047 ft/ft. Based on a review of groundwater elevations onsite, there appears to be some groundwater mounding in the vicinity of the south end of the wash rack, possibly attributable to artificial recharge associated with the interceptor drain at that location as well as in the vicinity of PZ-5 near the inactive oil water separator.

As previously discussed, vertical hydraulic gradients were evaluated at the monitoring well clusters with little or no vertical gradient between shallow and intermediate overburden wells indicating some connection between the screened intervals. More notable is the upward vertical gradient observed at all locations between the bedrock and intermediate wells.

Aquifer characteristics were evaluated through in-situ hydraulic conductivity tests (slug tests) conducted at three monitoring wells on-site. Due to the low water levels, only wells MW-1, MW-3 and MW-4 could be tested. The slug tests were conducted on November 7, 2001 using a one-inch diameter slug to displace the groundwater within each well. The measurements were taken using an In-Situ® pressure transducer and recorded by an In-Situ® Hermit 3000 Environmental Data Logger.

The hydraulic conductivity values were calculated using Aqtesolv® for Windows software. The slug test calculations are presented in Appendix 2 and summarized in Table 3. Based on a review of the slug test data, hydraulic conductivity values onsite ranged from  $4.3 \times 10^{-2}$  ft/day ( $3.0 \times 10^{-5}$  cm/sec) at MW-4 to  $2.0 \times 10^{-1}$  ft/day ( $7.1 \times 10^{-5}$  cm/sec) at MW-1. Based on the hydraulic gradient identified and the hydraulic conductivities listed above and an assumed effective porosity of 0.3, the estimated groundwater velocity across the site is  $9.8 \times 10^{-2}$  ft/day.

#### WATER-WELL SURVEY

As part of the site investigation, a water well survey was conducted to evaluate whether or not groundwater in the vicinity of the site is used as a potable source. In order to determine the number and locations of wells near the subject property, local, county and state agencies were contacted.

The City of Newburgh was contacted. However, since the City does not have a health department our inquiry was directed to the City Plumbing Inspector, Mr. Jim Nugent. Mr. Nugent stated that he was not aware of any water wells in use nor was he aware of any being installed in the last five years. However, he added that his department is not responsible for maintaining records on wells. No on-site wells were identified for any adjacent or nearby property owners. The State records for new supply wells cover only the last two years. The City of Newburgh public water supply originates from surface water.

Mr. Steven Collins at the Orange County Environmental Health Department was contacted and he reported that he was unaware of any supply wells or domestic wells in the City of Newburgh.

Based on the findings of the water-well search, no supply wells or domestic wells were identified in the vicinity of the site.

## REMEDIAL ALTERNATIVES EVALUATION

A remedial alternatives analysis has been completed to identify and evaluate remedial alternatives for addressing soil and groundwater contamination at the site. The objective of the analysis was to determine and recommend feasible remedial alternatives that will be most effective in achieving the approved cleanup criteria as well as having the most beneficial environmental impacts. Proposed areas of Soil and Groundwater Remediation are presented on Figures 15 and 16 respectively. Estimated costs for various remedial options are presented on Table 9.

### REMEDIAL GOAL

The overall remediation goal is to remediate the site to a level that is protective of human health and the environment based on the intended use of the site for commercial or industrial use purposes. In addition, sources of contamination identified onsite, such as heavily impacted soils or significant thicknesses of floating oil, are to be removed to the extent feasible. As part of the remedial investigation, a Qualitative Human Health Exposure Assessment was completed and is included as Appendix 6.

### SOIL REMEDIAL ACTION OBJECTIVES

The primary remedial action objectives for the soil remediation are to eliminate potential exposure to impacted soils. Specifically, this objective requires preventing ingestion, direct contact with, or inhalation of airborne impacted dust from the site as well as potential inhalation of VOCs from soils due to off-gassing. An additional remedial objective is to remove heavily impacted soils that may be contributing to groundwater degradation.

Soil impacted with VOCs, SVOCs and metals has been identified onsite at concentrations above the NYSDEC TAGM 4046 RSCOs, the applicable Standard Criteria and Guidance (SCG) for the soil remediation. A summary of soil analytical results is presented on Tables 4, 5 and 6 and is summarized below.

## SOIL REMEDIATION TECHNOLOGIES

### EXTENT AND NATURE OF SOIL CONTAMINATION

The soil contamination identified above RSCOs at the site consists primarily of VOCs and, to a lesser extent, BNs and metals.

Petroleum-related VOCs consisting of benzene, toluene, ethylbenzene and xylenes, were identified adjacent to or underlying each of the former USTs and underlying the wash rack area. Chlorinated VOCs, primarily TCE, PCE, and their degradation products were detected above RSCOs underlying the area of the two 5,000-gallon former waste oil USTs, but also at lower concentrations adjacent to the trench drain for the vehicle wash rack.

BNs were detected onsite adjacent to and/or underlying the former 500-gallon fuel oil UST and 20,000-gallon diesel fuel UST.

### EVALUATION OF ALTERNATIVES

Several technologies were evaluated for remediating the soil contamination at the Provan site. The technologies evaluated consist of no further action, ex-situ remediation of the soil through excavation and off-site disposal, in-situ treatment of the soil through soil vapor extraction, or addressing the contaminated soil through institutional and engineering controls.

#### No Further Action

The no further action alternative is provided as a basis of comparison for administrative completeness. This remedial alternative would not involve any soil removal, treatment or containment. The result of this remedial alternative would leave soils underlying the site as they currently exist.

#### *Overall Protectiveness of Human Health and the Environment*

Although ongoing human exposure to impacted soil has not been identified, conducting no action will not be protective of human health and the environment. Specifically, there is no mechanism to prevent the future exposure to impacted soils, or to address future off-gassing of VOCs from impacted soil.

### *Compliance With SCGs*

Conducting no remedial action on soil would allow soil above the TAGM 4046 standard to remain on site without providing any protection to the public. Conducting no action would not be in compliance with the requirements of the applicable SCG TAGM 4046.

### *Short-term Effectiveness*

As there is no activity conducted under the no action alternative, therefore this would result in no community or environmental impact during the remedial action and would require no time to complete.

### *Long-term Effectiveness and Permanence*

As there is no activity conducted under the no action alternative, therefore this option will not have any duration or controls. However, existing risks for future exposure remain under the no further action option for impacted soil.

### *Reduction of Toxicity, Mobility and Volume*

The no further action option provides for no reduction in toxicity, mobility or volume of contaminants.

### *Feasibility*

There are no costs, materials or implementation considerations for the no further action option.

### Excavation and Off-site Treatment and/or Disposal

The ex-situ treatment of the VOC, SVOC and petroleum contaminated soils would consist of excavating the impacted soils and transporting them offsite for treatment and/or disposal. The need for treatment would depend on whether or not any analyte concentrations exceeded federal land disposal requirements. The excavation and off-site treatment and/or disposal of contaminated soils is a proven and highly effective technology that could be completed in a timely manner. However, the cost of the remediation would be dependent on the extent of soil requiring removal as well as the waste classification of the excavated soil.

The actual areas anticipated to be excavated are shown on Figure 13. At each area overlying soils would be stockpiled to allow for removal of the underlying impacted soils, then the overlying soils would be returned to the excavations to backfill the areas.

The areas around the former petroleum USTs would consist of soils from a depth of approximately 8 to 15 feet and would total approximately 1,400 cubic yards of petroleum-impacted soil. Petroleum-impacted soils from under the wash rack to an area around MW-9 would be excavated to address the floating oil observed in that area. This will require the demolition of the building and wash rack and is also anticipated to include the removal of the 8,000-gallon UST under the wash rack. This soil would be excavated across a smear zone anticipated to be from a depth of 8 to 12 feet, generating approximately 1,400 cubic yards of petroleum-impacted soil. Soils impacted with VOCs in the area of the waste oil tanks would be excavated from a depth of 9 to 16 feet generating approximately 750 cubic yards of VOC-impacted soil.

#### *Overall Protectiveness of Human Health and the Environment*

Upon the completion of remediation activities, the potential for exposure for human health and the environment will be greatly reduced. The removal of impacted soils will reduce the potential for human exposure even during future subsurface excavation activities that may be required for redevelopment. Furthermore, residual risk to public health and the environment will be essentially eliminated by the removal of the contaminated soil.

#### *Compliance With SCGs*

The anticipated soil excavation will remove some, although not all, soils identified above the SCG, specifically TAGM 4046. Therefore, conducting the proposed soil removal without any additional measures, specifically engineering and institutional controls, is not in full compliance with the applicable SCG.

#### *Short-Term Effectiveness*

During the remedial action (soil excavation), measures would be required to ensure the protection of the community. These measures would likely include air monitoring for VOCs and potentially dust. Additionally, measures to limit public exposure may be required, including dust and vapor suppression methods. The short-term environmental impact of soil remediation could include soil erosion, however this is easily mitigated through implementing soil erosion control



measures such as silt fences, hay bales, etc. The time to implement the soil excavation is fairly short for a project of this size, approximately two to three months.

#### *Long-Term Effectiveness and Permanence*

The excavation and off-site disposal of impacted soils is a permanent solution, therefore it has no expiration, residual risks, or associated controls.

#### *Reduction of Toxicity, Mobility and Volume*

The excavation and off-site disposal of approximately 750 cubic yards of VOC-impacted soils and 2,900 cubic yards of petroleum-impacted soils will permanently remove these contaminants from the site. The removal of this impacted soil will eliminate the potential for this material to be mobilized to the groundwater in the future.

#### *Feasibility*

The excavation of most impacted soils is easily implemented where there are no overlying structures. The excavation of petroleum-impacted soils underlying the building on site, specifically in the area from the wash rack to MW-9 will require the demolition of the building on site. Although there is an estimated cost of \$55,000 to demolish the building, its removal will expedite not only the remediation but also the redevelopment of the site. Interested parties who have approached the City of Newburgh for site redevelopment have expressed that the existing building would hinder site redevelopment and would prefer it be removed.

Numerous demolition and excavation contractors are available to complete the work. The limiting factor, if any, in the completion of this work may be soil disposal or treatment, which could ultimately extend the duration of field activities due to capacities of receiving facilities. However, it would not prevent the ultimate completion of the work.

The overall cost for the soil removal activities is estimated to be \$664,000 but it should be considered that this is a onetime cost with no additional operation and maintenance (O&M) costs and will also be beneficial in the reduction of future groundwater impacts.

#### Institutional and Engineering Controls

An alternative remedial approach would be to leave some or all soil contaminated above the applicable unrestricted use remedial criteria in place and establish institutional and engineering

controls to protect future users of the site. This would require conducting a risk assessment to identify the contaminant concentrations that are suitable to be left in place based on the future use of the site.

The institutional control would likely consist of a deed restriction that would prohibit future residential development of the property as well as prohibiting future untreated use of groundwater. By restricting the property to non-residential use, less stringent remediation criteria may be applied to the Site thereby reducing the scope and cost of the remediation. The deed restriction would identify the nature and extent of soil contamination onsite that is above the applicable regulatory guidelines, such that future landowners could be aware of the impacts to future development.

The engineering controls that could be implemented onsite are intended to prevent exposure to contaminants remaining above regulatory guidelines. The engineering control would most likely be in the form of a cap covering areas of shallow soil contamination. The construction of a cap would be based on the extent of soil to be covered and the future use of the property. It should be noted that as the cap would most likely be in the form of asphalt pavement suitable for a vehicle parking area or even a building floor slab. Thus, the requirement of a cap would not necessarily preclude future site development.

#### *Overall Protectiveness of Human Health and the Environment*

The proper use of engineering and institutional controls can prevent human exposure to the contaminants present on site. However, institutional controls will provide no benefit for the environment and although an engineering control (cap) may reduce infiltration, it would not otherwise affect the environment.

#### *Compliance With SCGs*

The use of institutional and engineering controls can prevent exposure to soils impacted beyond TAGM 4046, thereby being protective of human health. A cap would also have the effect of reducing surface water infiltration on site (the site is currently partially paved) thereby increasing run off. The cap installation would likely require provisions for stormwater management.

### *Short-Term Effectiveness*

The installation of a cap at the site may have the short-term effect of generating dust, which could pose a short-term exposure for the public. Dust generated during capping activities can be monitored and mitigated, as needed, to prevent the generation of unacceptable level through the application of water.

### *Long-Term Effectiveness and Permanence*

The use of institutional controls can be easily and permanently tied to a property through a deed restriction. Although the implementation of the measures are in part controlled by the future property owner(s), it is anticipated that the compliance with the requirements of a deed restriction will not be an issue as the eventual site developer will be required to go through the City of Newburgh for approval of all permit applications. Therefore a mechanism would remain in place after sale of the property for the City could indirectly maintain some control of site activities to ensure compliance with institutional controls.

The permanence of a cap will be directly related to its construction and maintenance. It is anticipated that the cap will be asphalt although its thickness and sub base will be determined based upon anticipated loads related to eventual site use. In any case, an asphalt cap will require regular inspection and eventual repair to ensure its effectiveness.

### *Reduction of Toxicity, Mobility and Volume*

The use of engineering and institutional and engineering controls will have no affect on reduction of contaminant toxicity and volume. The installation of a cap would have some affect on contaminant mobility, through the reduction of surface water infiltration on site.

### *Feasibility*

The use of a deed restriction on this site to limit its use to non-residential is certainly feasible and suitable for this site as its location on Route 9W places it within an established commercial area. The location and extent of the site cap would be determined by future site use, but it is anticipated much of the site would eventually be capped by either asphalt pavement or future buildings. The installation of an asphalt cap is commonplace and although this would be a large paving project, numerous contractors are available throughout the region to complete the work.

The actual cost for the installation and maintenance of an asphalt cap would be directly related to the size and construction of the cap. For sake of comparison, it is estimated that a three-inch thick cap over 80 percent of the site would cost approximately \$96,000, with an estimated cost of \$10,000 every five years for repairs.

#### Soil Vapor Extraction (SVE)

SVE uses a vacuum pressure to remove volatile contaminants from the soil through extraction wells. This method is primarily utilized for sites having large amounts or particularly deep contaminated soils. This technology is best suited for contaminants that are highly volatile and have a vapor pressure greater than 0.5 mm Hg. TCE, one of the primary contaminants at the site, has a vapor pressure of 57.8 mm Hg at 70°F. Therefore, SVE represents an effective alternative for removing the TCE contamination. It is not expected, however, to be effective at addressing the petroleum-related floating product that was identified on the site.

This technology is most efficient when soil is permeable enough to allow air to flow evenly and effectively throughout the entire stratum. If clays or other low-permeable soils are present, they will restrict the airflow causing the system to lose efficiency and perhaps causing some areas to remain untreated. The soils at the Provan site are composed primarily of fine to medium sands and silts, although discontinuous clay layers were observed at depth. Although soil heterogeneities observed onsite are not ideal for SVE, the technology may be a viable alternative provided the design accounts for the heterogeneities. A pilot test would be required to determine the effectiveness of this technology under site conditions.

Off-gases collected by the system would likely require treatment. Several treatment methods are expected to be applicable for this facility. The specific method of off-gas treatment would be dependent on the findings of a pilot test, which would determine influent VOC concentrations and air volumes. Based on the results of a pilot test it is believed that the appropriate treatment methods would either be thermal destruction such as catalytic oxidation or carbon adsorption.

An SVE system could be combined with an air sparging system, which is discussed in a subsequent section to address groundwater contamination identified on-site, allowing for more efficient contaminant mass removal by the SVE system.

The SVE wells could be installed at locations shown on Figure 15. The SVE system would focus on source areas as well as to mitigate potential off-site vapor intrusion issues. In addition, the SVE system may be combined with an air sparge system, discussed in a subsequent section, to address VOC-impacted groundwater. The source areas to be targeted consist of the wash rack area, the area of the two waste oil USTs, and the area of the three petroleum USTs. Each of the three source areas would be remediated using 5 to 10 SVE wells. In order to address potential vapor intrusion issues for the neighboring property south of the site, it is anticipated that approximately 12 SVE wells would be installed along the eastern half of the southern boundary of the site. Additionally, any new building constructed over an area of VOC-impacted groundwater would likely require a sub-slab venting system, which ultimately could be tied to the same vapor treatment system as the SVE wells.

#### *Overall Protectiveness of Human Health and the Environment*

The proper installation and operation of an SVE system will be effective in reducing human exposure to VOCs as the normal off-gassing of VOCs to the overlying site will be intercepted by the SVE system reducing the potential for inhalation of VOCs. The proper operation of the vapor treatment system is essential to eliminate the potential for human exposure to VOCs from system discharges. Otherwise there is minimal potential for exposure to the public or the environment.

#### *Compliance With SCGs*

It is anticipated that the proper operation of an SVE system would be effective in the treatment of soils impacted with VOCs to levels below the RSCOs. Soils with higher VOC concentrations would likely require longer treatment, but ultimately the RSCOs are attainable for unsaturated soils. An additional SCG for this option would be the potential need for an air discharge permit from the NYSDEC. The air discharge permit, if required, would likely require regular monitoring of the air stream, which would occur anyway as part of the regular system operation.

#### *Short-Term Effectiveness*

The potential for community exposure and environmental impacts during system installation is limited to potential off-gassing from the small volumes of impacted soil generated during the installation of vapor extraction points and piping. The time to install SVE extraction points, piping and a treatment system is directly related to the number and location of points to be installed and the size and type of treatment system needed. For the evaluation of remedial

alternatives, it is estimated that a total of 36 SVE wells and 800 feet of piping would be necessary to manifold the system to an activated carbon system contained within an out building to be constructed on site. The anticipated time to install the system is four to six weeks.

#### *Long-Term Effectiveness and Permanence*

The anticipated duration of operation for the SVE system is expected to be approximately two to five years in the source areas, while the sub-slab venting system and the SVE system along the southern property boundary potentially could operate into perpetuity. Residual risks related to the operation of an SVE system are related to the failure of the treatment system to effectively treat the effluent vapors prior to discharge. This is readily addressed through redundancies in the treatment system, such as multiple activated carbon units installed in series and regular monitoring of the discharge. Numerous SVE systems have been successfully installed and operated at all types of sites with VOC contamination proving it to be a reliable technology.

#### *Reduction of Toxicity, Mobility and Volume*

The operation of an SVE system permanently removes VOCs from the soil, thereby reducing its toxicity. A potential drawback of the system is that an SVE system alone is not effective in reducing VOC concentrations below the water table. In addition, the radius of influence of each vapor extraction point is limited, therefore unless the areas sufficiently overlap, there is potential for isolated pockets of soil to go untreated. The VOCs removed from the unsaturated soil are retained in activated carbon units until disposed of or regenerated off-site by the carbon supplier.

#### *Feasibility*

As discussed above, the contaminants present, depth to groundwater and soil conditions allow for the effective use of SVE to treat VOCs in soil. However, SVE systems are not effective in the treatment of free product observed in several areas of the site. The implementation of an SVE system is further facilitated by the fact that the site is vacant allowing for the easy installation of the vapor extraction points and piping. Contractors for the installation of the system are readily available once designed and the actual installation of the system is fairly straight forward. Extraction points are either installed vertically as shallow wells (above the water table) or horizontally in trenches and connected using PVC piping. The vacuum is provided by an off the shelf blower and the treatment is provided through activated carbon units readily provided by a number of vendors. The estimated cost for the installation of the system

described above is estimated to be approximately \$105,000. The operation and maintenance of the system is anticipated to be approximately \$8,000 to \$15,000 per year for the first five years, but decreasing to \$2,000 to \$5,000 a year for the continued operation of the system as long as is necessary.

GROUNDWATER REMEDIATION TECHNOLOGIES  
GROUNDWATER REMEDIAL ACTION OBJECTIVES

Groundwater impacted with VOCs, SVOCs and metals has been identified onsite at concentrations above the NYSDEC TOGs 1.1.1 groundwater standards or guidance, the applicable Standard, Criteria and Guidance (SCG) for the groundwater remediation. The primary remedial action objective for the groundwater remediation is to eliminate potential exposure to impacted groundwater. Specifically, this objective requires preventing contact with (including ingestion of) impacted groundwater and inhalation of VOCs due to off-gassing from VOC-impacted groundwater. Furthermore, provided all contaminant sources could be removed, groundwater standards may be achievable for on-site groundwater. Additionally, to the extent feasible, the off-site migration of groundwater impacted beyond NYSDEC guidance values is to be reduced or eliminated. Therefore, the intent of the remediation will be to not only eliminate the further degradation of groundwater onsite, but to actually improve groundwater quality while focusing on addressing the off-site migration of impacted groundwater. A summary of groundwater analytical results is presented on Tables 2 and 8 and is summarized below.

EXTENT AND NATURE OF GROUNDWATER CONTAMINATION

The groundwater sampling identified concentrations of VOCs above NYSDEC standards in nearly all the overburden monitoring wells sampled. The primary VOCs identified consist of chlorinated solvents (TCE, PCE vinyl chloride and others) and petroleum related VOCs primarily BTEX.

Free-phase floating product (floating oil) was observed in three monitoring wells while a sheen was observed in six other temporary or permanent monitoring wells. The floating oil, observed to be up to 3.7 feet thick, was identified as possibly being No. 2 fuel oil at MW-7 and diesel fuel at MW-9. BNs were detected above regulatory standards in monitoring wells MW-3, MW-4, MW-7, PZ-3 and PZ-7. The locations with BNs above the regulatory standards correspond with locations where floating product was identified.

One or more metals were detected above regulatory standards in six of seven wells sampled. The metals concentrations identified are believed to be at least in part due to the high sample turbidity. Re-sampling the monitoring wells for metals using a low flow purging and sampling



technique endorsed by the USEPA is recommended if a determination of representative conditions is necessary. No further evaluation of the remediation of metals in groundwater is warranted until representative conditions can be determined through alternative sampling procedures.

## EVALUATION OF ALTERNATIVES

Several technologies were evaluated for remediating the groundwater contamination at the Provan site. The technologies evaluated to remediate VOCs in groundwater were no further action, air sparging/vacuum extraction, groundwater extraction and treatment, and in-situ chemical oxidation.

### No Further Action

The no further action alternative is provided as a basis of comparison for administrative completeness. This remedial alternative would not involve any groundwater removal, treatment or containment. The result of this remedial alternative would leave groundwater underlying the site as it currently exists.

### *Overall Protectiveness of Human Health and the Environment*

Although no current exposure to groundwater has been identified, conducting no action will not be protective of human health from future potential exposures and would not be protective of the environment. Specifically, there is no mechanism to prevent the future potable use of groundwater, potential dermal contact with water during possible excavation activities, or to address future off-gassing of VOCs from impacted groundwater.

### *Compliance With SCGs*

Conducting no remedial action on groundwater would allow groundwater above the TOGS 1.1.1 standard to remain onsite, as well as potentially migrating offsite unchecked. Conducting no action will not be in compliance with the requirements of the applicable SCG TOGs 1.1.1.

### *Short-Term Effectiveness*

As there is no activity conducted under the no action alternative, this will result in no community or environmental impact during the remedial action and would require no time to complete.

### *Long-Term Effectiveness and Permanence*

As there is no activity conducted under the no action alternative, it will not have any duration or controls. However, existing risks for future exposure remain under the no further action option for groundwater.

### *Reduction of Toxicity, Mobility and Volume*

The no further action option provides for no reduction in toxicity, mobility or volume of contaminants.

### *Feasibility*

There are no costs, materials or implementation considerations for the no further action option.

### Air Sparging/Soil Vacuum Extraction

Air sparging and vacuum extraction are used to carry volatile organic compounds upward through an aquifer and to remove the resulting vapors from the vadose zone above the aquifer. This remedial approach has been used for remediation of volatile organic compounds in groundwater at numerous sites. Air introduced into the aquifer promotes the volatilization of the VOCs from the groundwater and aquifer matrix into the air as it migrates upward through the aquifer into the overlying unsaturated zone. A vacuum system would be required to capture all the vapors released from the underlying groundwater. After capturing the vapors, the vacuum system conveys the vapors to an appropriate air treatment system designed to remove the contamination prior to discharging to the atmosphere. The SVE component of an AS/SVE system was discussed in an earlier section of this report.

This remedial approach has been used successfully in the remediation of VOCs in groundwater at numerous other sites. The approach does not require the recovery and treatment of contaminated groundwater. The system would require space for the installation of the air injection and treatment equipment and access for regular maintenance. There is sufficient space on-site for the installation of such a system.

### *Overall Protectiveness of Human Health and the Environment*

The proper operation of an AS/SVE system is effective in the removal of VOCs from soil and groundwater to reduce exposure to human health and the environment. A residual public or environmental risk associated with an AS/SVE system is that isolated pockets of impacted soil

or groundwater may go untreated. However, in the event that areas are identified that have not been treated, the system can be expanded or its operation extended as necessary to treat all VOCs identified with the possible exception of the most heavily impacted area as discussed below.

#### *Compliance With SCGs*

It is anticipated that the proper operation of an AS/SVE system will be effective in treatment of most groundwater on site impacted with VOCs to levels below the TOGs 1.1.1 guidance. However, heavily VOC-impacted groundwater observed at MW-3 and MW-3I is not anticipated to be fully treatable to guidance values. However, it is believed that the proper installation and operation of an AS/SVE system would be effective in ultimately eliminating the off-site migration of VOC-impacted groundwater. An additional SCG for this option would be the potential need for an air discharge permit that would likely be required by the NYSDEC. The discharge permit, if required, would likely require regular monitoring of the air stream, which would typically occur as part of the regular system operation.

#### *Short-Term Effectiveness*

The potential for community exposure and environmental impacts during system installation is limited to potential off-gassing from the small volumes of impacted soil generated during the installation of the air sparge and vapor extraction points and related piping. The time to install AS/SVE extraction points, piping and a treatment system is directly related to the number and location of points to be installed and the size and type of treatment system needed. For the evaluation of remedial alternatives, it is estimated that approximately 20 air sparge points, 40 SVE wells and 1,200 feet of piping would be necessary to manifold the system to an activated carbon system contained in a newly constructed stand alone building. The anticipated time to install the system is two to three months.

#### *Long-Term Effectiveness and Permanence*

The anticipated duration of operation for the AS/SVE system is approximately 3 to 5 years in the source areas, while the sub-slab venting system and the SVE component of the system along the southern property boundary may need to operate into perpetuity. Numerous AS/SVE systems have been successfully installed and operated at all types of sites with VOC contamination proving it to be a reliable technology.

Residual risks related to the operation of an AS/SVE system are related to the failure of the treatment system to effectively treat the effluent vapors prior to discharge and the further volatilization of contaminants. Ensuring the effective treatment of the air discharge is readily addressed through redundancies in the treatment system, such as multiple activated carbon units installed in series. Due to the intended use of the air sparge system to liberate VOCs from groundwater, it is not anticipated to be used under or immediately adjacent to inhabited buildings due to the increased potential for off gassing and related vapor intrusion to those buildings.

#### *Reduction of Toxicity, Mobility and Volume*

The operation of an AS/SVE system permanently removes VOCs from the groundwater and soil, thereby reducing its toxicity and potential mobility for off-site migration. A potential drawback of the system is that an AS/SVE system is that the radius of influence of each vapor extraction point is limited, therefore unless the areas sufficiently overlap, there is potential for isolated pockets of to receive less treatment.

In addition, the nature of an AS/SVE system increases the volatilization of the VOCs thereby temporarily increasing their mobility. However, the VOCs removed from the groundwater are recovered by the SVE system provided the number and location of extraction points is sufficient and the VOCs are then retained in activated carbon units until regenerated off-site by the carbon supplier.

#### *Feasibility*

As discussed above, the contaminants present, depth to groundwater and soil conditions allow for the effective use of AS/SVE to treat VOCs in groundwater. The implementation of an AS/SVE system is further facilitated by the fact that the site is vacant allowing for the easy installation of the air sparge and vapor extraction points and piping. The services and services for the installation of the system are readily available as once designed, the actual installation is fairly straight forward. Sparge points are installed in a similar manner as monitoring wells. Extraction points are either installed as shallow wells or ha matter of excavation or horizontally in trenches and connected using PVC piping. The air for sparging and the vacuum is provided by an off the shelf blower and the treatment is provided through activated carbon units readily provided by a number of venders. The estimated cost for the installation of the system described above is estimated to be approximately \$194,000. The operation and maintenance of

the system is anticipated to be approximately \$12,000 to \$20,000 per year for the first five years, but decreasing to \$5,000 to \$10,000 a year for the continued operation of the system as long as is necessary.

#### Recovery and Treatment

Prior to considering the recommendation for an active recovery and treatment system, one or more groundwater pumping tests would be required. Based on the relatively low hydraulic conductivities identified to date, it is believed that groundwater capture within the overburden aquifer could be achieved; however, further testing would be necessary to accurately quantify extent and locations of pumping necessary for containment. In the event that hydraulic control is necessary at the downgradient property boundary, a groundwater recovery and treatment system is an option

However, given the potential permitting requirements associated with groundwater disposal or re-injection and the cost and anticipated duration of operating a groundwater recovery and treatment system, this option alone was not considered a viable alternative for this site.

#### *Overall Protectiveness of Human Health and the Environment*

The operation of a recovery and treatment system would be effective in reducing VOCs in groundwater thereby reducing the potential for human exposure or further impacts on the environment. The best use of a recovery and treatment system is for the containment of impacted groundwater at the downgradient property boundary to prevent off-site migration of impacted groundwater. Furthermore, operation of a recovery and treatment system at source areas could be effective in reducing the mass on contaminants in groundwater.

#### *Compliance With SCGs*

It is anticipated that the proper operation of a groundwater recovery and treatment system will be effective in treatment of most groundwater on site impacted with VOCs to levels below the TOGs 1.1.1 guidance. However, due to the heavily VOC-impacted groundwater observed at MW-3 and MW-3I is not anticipated to be fully remediated to guidance values. However, the proper installation and operation of recovery and treatment system could be effective in ultimately eliminating the off-site migration of VOC-impacted groundwater. An additional SCG for this option would be the potential need for an air and water discharge permits that will likely be required by the NYSDEC.

### *Short-Term Effectiveness*

The potential for community exposure and environmental impacts during system installation is limited to potential off-gassing from the volumes of impacted soil generated during the installation of the extraction wells and piping. The time to install the groundwater extraction and treatment system (extraction wells, piping and a treatment system) is directly related to the number, location and depths of extraction wells to be installed and the size and type of treatment system needed. For the evaluation of remedial alternatives, it is estimated that a total of up to 20 extraction wells, each 50 feet deep and 1,000 feet of piping will be necessary to manifold the treatment system consisting of cartridge filtration, air stripping and carbon polishing contained in a newly constructed stand alone building. The anticipated time to install the system is four to six months.

### *Long-Term Effectiveness and Permanence*

The anticipated duration of operation for the groundwater recovery and treatment system is anticipated to be approximately 10 years provided contaminant source material has been removed. Residual risks related to the operation of an recovery and treatment system are related to the failure of the treatment system to effectively treat the effluent vapors or water prior to discharge. This is typically addressed through redundancies in the treatment system, such as multiple activated carbon units installed in series. Numerous recovery and treatment systems have been successfully installed and operated at all types of sites with VOC contamination proving it to be a reliable technology.

### *Reduction of Toxicity, Mobility and Volume*

The operation of a groundwater recovery and treatment system permanently removes VOCs from the groundwater, thereby reducing it's toxicity and potential mobility for off-site migration. The VOCs removed from the groundwater are typically retained in activated carbon units until regenerated off-site by the carbon supplier.

### *Feasibility*

The contaminants present, depth to groundwater and site conditions allow for the effective use of a groundwater recovery and treatment system to treat VOCs in groundwater. The installation of recovery wells can be completed by an experienced well driller. The installation of piping and a treatment system can be completed by a number of available contractors. The estimated cost

for the installation of the system and extraction wells described above is estimated to be approximately \$315,000. The operation and maintenance of the system is anticipated to be approximately \$150,000 per year. The anticipated duration of operation of the system is 10 years.

#### In-Situ Chemical Oxidation

Organic compounds can be subject to in-situ chemical oxidation by a variety of oxidizing agents (e.g., sodium permanganate, hydrogen peroxide, ozone, potassium permanganate). This remedial approach has the distinct advantage of potentially reducing the time required to complete remediation. It also has the capability to reduce very high levels of contamination in relatively short periods of time. This technology has been used for remediation of petroleum products, chlorinated and non-chlorinated volatile organic compounds, pesticides and PCBs. Although a relatively new technology, it has the performance record that supports the technical feasibility as a remedial approach.

This technology requires the installation of a well point injection system for the introduction of the chemical oxidation solution to the aquifer. Performance monitoring of groundwater conditions after each application of chemical oxidation solutions provide information on the effectiveness of the remediation.

The technical advantage of this remedial approach includes the application of the oxidizer directly to the contaminated groundwater; and there is no requirement to extract, treat and discharge contaminated groundwater. In addition, since the chemical reaction is relatively rapid, performance of the application can be measured in a short timeframe. Also, cleanup costs for this technology are relatively low since there are no ex-situ treatment systems or long-term operations and maintenance costs required for recovered groundwater. Limitations to this technology include reduced effectiveness on contaminant product, mobilization of metals in the groundwater, and the need for multiple injections in geologically complex settings.

A pilot test would be necessary to evaluate the effectiveness of this technology on the site-specific conditions and contaminants present. Based on past experience with this technology on other sites with similar contaminants, this technology has proven effective. First Environment is currently completing a remediation pilot tests for the in-situ chemical oxidation of petroleum related VOCs and floating oil using hydrogen peroxide and recently oversaw a pilot

test at another facility for the in-situ chemical oxidation of chlorinated VOCs in groundwater using potassium permanganate. Therefore, this technology could be considered as a potentially viable option for treating the groundwater contamination at the site. Due to the high concentrations identified in source areas, this technology alone may not be the best remedial option for contaminant source areas, but would be useful in combination with soil remediation to eliminate source material.

#### *Overall Protectiveness of Human Health and the Environment*

The implementation of in-situ chemical oxidation can be conducted in a controlled manner by adjusting the rate of the reaction by limiting the rate of reagent introduction. Through future monitoring, the quality of groundwater underlying and leaving the site can be determined to ensure the groundwater underlying the site is being treated sufficiently to avoid impacting adjacent properties. Through this monitoring, human health and the environment at adjacent sites would be protected. In the event significant off-site impacts are identified, more aggressive technologies could be considered.

#### *Compliance With SCGs*

In-situ chemical oxidation is consistent with state and federal regulations. In order to implement the process, however, discharge approvals for the injection of reagent may be required.

#### *Short-Term Effectiveness*

By monitoring the groundwater temperature, injection well off-gassing, as well as perimeter air monitoring, the need to decrease or increase the rate of the reaction can be determined. The off-gases would be effectively monitored to ensure levels are safe for human health and the environment.

Because the remedial option is performed primarily in-situ, there is no impact on the local community. Aboveground equipment that will be used for mixing of reagents and other necessary equipment can be located either in the building or mobilized to the site for each injection. The local community will not be subjected to adverse noise or aesthetic issues beyond the initial impacts associated with the installation of injection wells and associated piping.



The installation of injection wells is anticipated to take approximately three weeks to complete. Each injection event is expected to take two weeks to complete with additional injection events occurring quarterly to allow for monitoring between injection events until remedial goals are achieved. The groundwater treatment is expected to take approximately two years to complete although the injection schedule could be made more aggressive if necessary.

#### *Long-Term Effectiveness and Permanence*

The anticipated lifetime of the remedial action is two years. A residual risk associated with the technology is that isolated pockets of impacted groundwater may go untreated due to channeling of the reagent. The partial dechlorination of VOCs can lead to the production of daughter products such as DCE and vinyl chloride, which would require additional treatment. Once treated however, the destruction of the VOCs is permanent.

#### *Reduction of Toxicity, Mobility and Volume*

Through chemical oxidation, contaminants are dechlorinated and/or destroyed in-situ, thereby reducing their toxicity. In the event that contaminants remain after the scheduled chemical oxidation, additional treatments may be applied or the contaminants may be addressed through natural attenuation or enhanced attenuation through the use of a hydrogen release compound.

#### *Feasibility*

First Environment has evaluated several alternatives for treating the groundwater contamination at the site and has determined that based on the extent of groundwater contamination identified to date, this technology, in-situ chemical oxidation, can be readily implemented. The only limiting factor is the reaction rate and the introduction of reagents. Due to the observation of VOCs throughout the overburden, the direct injection of reagents across the overburden aquifer through appropriately constructed wells is recommended.

The anticipated cost for the installation of 20 injection wells is \$100,000. The estimated cost for each reagent injection event is \$10,000. Total estimated cost for this option over two years is \$202,000.

## COMPARATIVE ANALYSIS OF ALTERNATIVES

In order to evaluate how the above listed alternatives would interact to address both affected media (soil and groundwater) compatible technologies were combined in order to determine which combination of technologies would be best suited for the site. The five sets of remediation alternatives are summarized below. Four of the five technology combinations (excluding no action) were then compared to the evaluation criteria listed above. The remediation alternatives consist of the following:

### Description of Alternatives

#### *No Further Action (groundwater monitoring only)*

As previously described, this alternative provides for no active action to address the impacted soil and groundwater identified on site, but does provide for regular groundwater monitoring to evaluate the movement of impacted groundwater.

#### *Soil Excavation, Air Sparging/Soil Vapor Extraction and Site Cover*

This alternative provides for the excavation of grossly contaminated soils, specifically those in the vicinity of the former waste oil tanks as well as soils contributing to floating oil downgradient of the wash rack and fuel tanks. Remaining VOC-impacted soil, as well as all VOC-impacted groundwater would be treated through air sparging and soil vapor extraction (AS/SVE). Shallow fill across the site has been identified to contain SVOC above the applicable SCGs, therefore this option provides for those soils to be addressed through the use of a cap, most likely constructed of asphalt, which could be integrated into the site development. Any option requiring a cap would also include an institutional control consisting of a deed restriction and would likely require contingencies to address potential vapor migration issues to overlying buildings.

#### *Soil Excavation, In-Situ Chemical Oxidation and Site Cover*

This alternative provides for the excavation of grossly contaminated soils, specifically those in the vicinity of the former waste oil tanks to a larger extent than described above as SVE would not be applied to this area, as well as the excavation of soils contributing to floating oil downgradient of the wash rack and fuel tanks. VOC-impacted groundwater would be treated through in-situ chemical oxidation as previously detailed. Shallow fill across the site identified to

contain SVOC above the applicable SCGs, would be addressed through the use of a cap, most likely constructed of asphalt, as described above.

#### *Soil excavation, Groundwater Recovery and Treatment and Site Cover*

This alternative provides for the excavation of grossly contaminated soils, specifically those in the vicinity of the former waste oil tanks to a larger extent than described above as SVE would not be applied to this area, as well as the excavation of soils contributing to floating oil downgradient of the wash rack and fuel tanks. VOC-impacted groundwater would then be pumped from a series of recovery wells and treated through an applicable technology such as air stripping and/or carbon adsorption and then discharged, most likely to the combined sewer. Shallow fill across the site identified to contain SVOC above the applicable SCGs, would be addressed through the use of a cap, most likely constructed of asphalt, as described above.

#### *Soil Excavation (including all SVOC-impacted soil) and In Situ Chemical Oxidation*

This alternative provides for the excavation of all soils impacted beyond the SCGs. This includes all impacted soils including those in the vicinity of the former waste oil tanks, soils contributing to floating oil downgradient of the wash rack and fuel tanks and shallow fill across the site to eliminate the need for any type of cap or institutional control. Although the extent of SVOC-impacted soil has not been fully delineated, it is assumed that all fill on site contains some level of SVOCs. The fill has been identified ranging in thickness from 0 to seven feet so has been assumed to average approximately two feet thick. VOC-impacted groundwater under this option would be treated through in-situ chemical oxidation.

### Comparison of Alternatives

#### *Overall Protectiveness of Human Health and the Environment*

Provided the SCGs are achieved, all four options (excluding no action) would be effective in protecting human health and the environment.

The removal of grossly contaminated soils combined with AS/SVE would eliminate potential for future human exposure provided a sufficient vacuum was maintained to capture all VOCs liberated through the sparging. However, this option would still require the installation and maintenance of a cap to eliminate the potential for direct exposure to SVOC-impacted fill.

The removal of grossly contaminated soils combined with either in-situ chemical oxidation or groundwater recovery and treatment would be protective of human health and the environment through the elimination of groundwater contamination. Due to the reactive nature of the reagents involved, precautions would be required during the in-situ chemical oxidation process to be protective of the workers applying the reagent. As described above, both of these options would also require the installation and maintenance of a cap to prevent direct exposure to impacted fill.

The excavation of all impacted soils (all soils above the SCGs) combined with in-situ chemical oxidation would be protective of human health and the environment. The removal of all impacted soils would result in the elimination of the potential for direct contact with any of these contaminants and thereby eliminate the need for a cap. As detailed above, caution would be required in applying the chemical oxidation reagent.

#### *Compliance with SCGs*

Each of the options listed above (excluding no action) could be completed in conjunction with all applicable SCGs. For the options that include the excavation and off-site disposal of grossly contaminated soils applicable manifesting and reporting in accordance with State and Federal regulations would be required. Those options calling for the removal of grossly contaminated soils but that leave lower levels of soil contamination behind, specifically TAGM 4046, would require the use of engineering and institutional controls to prevent direct human exposure.

The treatment of impacted groundwater whether through AS/SVE, chemical oxidation or recovery and treatment, permitting would likely be required from the State for the discharge of treated air, water or for the injection of reagents. All of these options can be conducted in accordance with applicable SCGs.

#### *Short-Term Effectiveness*

The duration necessary to excavate the grossly contaminated soil is estimated at several weeks to several months. During this period, measures would be required to minimize the potential for exposure of workers and to a lesser degree the surrounding public to the contaminants, specifically VOCs off-gassing from excavated soils and to a lesser extent SVOCs in fill. Similarly, the duration for the installation of the AS/SVE system would be in the order of a few weeks to a month with the potential for exposure being the exposure to off-gassing VOCs from

excavated soil and SVOCs in dust related to excavated fill for the installation of vapor extraction piping. The short-term exposure scenarios can be addressed through the use of vapor/dust monitoring and as necessary applying mitigation measures such as vapor suppression foams or applying water for dust suppression. The duration of the operation of the AS/SVE system is estimated to be three to five years to address impacted groundwater. During this time, measures would be required to be maintained to ensure off-gasses are captured.

The short-term exposure scenario for the excavation of grossly contaminated soil and the installation of injection wells for in-situ chemical oxidation are similar to those discussed above, although there would be a slightly higher potential for exposure during soil removal as additional soils would be excavated, but less potential for exposure during injection well installation versus an AS/SVE system as less earth will be moved. The potential exposures could be mitigated as described above. The duration of the chemical oxidation applications is estimated to two years during which time, conditions would need to be monitored closely during and between applications, but not between events.

The short-term exposure scenario for the excavation of grossly contaminated soil and the installation of a groundwater recovery and treatment system would be the same as those for the in-situ chemical oxidation option in regards to soil removal, but would be significantly higher for the installation of the recovery wells and piping due to the need for workers to enter the trenches to install piping. The potential exposures could be mitigated as described above although additional monitoring will likely be required during system installation. The groundwater recovery and treatment system is estimated to operate for ten years (due to the anticipated removal of most if not all source material) therefore, the discharge of the treatment system would require regular monitoring to ensure it does not degrade the environment.

The short-term exposure scenario for the excavation of all soils above the SCGs (TAGM 4046) would be the longest in duration, likely taking approximately six months to complete and would result in the highest potential exposures to contaminants for the workers on site as well as the surrounding public. The higher potential for short-term exposure would be directly proportional to the amounts of soil excavated. The potential exposures could likely be mitigated, but would require extensive monitoring and application of vapor suppression foam and/or water to control dust.

### *Long-term Effectiveness*

Each option which does not call for the removal of all impacted soils, including SVOC-impacted fill, require the use of engineering and institutional controls to prevent potential direct exposure to SVOC-impacted fill. However, the long-term effectiveness of caps and deed restrictions has been proven in the past at numerous sites.

All soils excavated and disposed of off-site would be effective in the long-term cleanup of the site through the removal of contaminant sources. Any building to be constructed on site should be evaluated for the need for vapor mitigation based on remaining soil or groundwater impacts present, prior to construction.

The long-term effectiveness of groundwater recovery and treatment systems varies from site to site, with some operating well beyond the anticipated durations.

### *Reduction of Toxicity, Mobility and Volume*

Each option providing for the excavation and off-site disposal of contaminated soil would be effective in permanently removing that portion of the contamination from the site thereby reducing the volume of contaminants remaining. The more contaminated soil that is removed, the more contaminants permanently removed from the site.

The result of the proper implementation of the various groundwater treatment options would remove the contaminants from the site. However, groundwater recovery and treatment and AS/SVE systems could potentially discharge the VOCs to the atmosphere or else adsorb them to carbon, which would require off-site disposal.

### *Feasibility*

The feasibility for each option was evaluated based on the ability to implement each option as well as its cost. Costs for each combination of soil and groundwater treatment discussed are presented in Table 10. Estimated costs for no action, only groundwater monitoring is \$323,000. Estimated costs for limited excavation and either AS/SVE, chemical oxidation or groundwater recovery and treatment combined with site capping are \$1,510,000, \$1,580,000 and \$2,820,000 respectively. The cost to excavate all soils above the SCGs is estimated to be \$2,940,000.

The removal of grossly contaminated soil, identified three of the four alternatives can be readily accomplished. However, the excavation and off-site disposal of all impacted soils may prove problematic due to the potential depths of excavation for some VOC-impacted soils, and locating enough disposal facilities in the vicinity of the site for the disposal of all SVOC impacted soils.

The presence of less permeable layers of sands and silts overlying the more permeable sands and gravels observed at depth may make the operation of an AS/SVE system problematic, specifically in the recovery of the sparged VOCs. Site conditions would not prohibit the use of a groundwater recovery and treatment system. The site geology should not negatively affect implementing either option regarding the use of in-situ chemical oxidation.

## RECOMMENDED REMEDIAL ALTERNATIVE

Based on the comparative analysis, soil excavation, in-situ chemical oxidation and a site cover is considered the most feasible remedial alternative for this site. Although some additional investigation regarding the extent of soil contamination is warranted, based on the information available, a combination of remediation methods appears to be applicable to the site. Based on the extent of soil contamination identified to date, excavation and off-site disposal is appropriate for the high levels of chlorinated VOCs identified at GB-18, in the area of the former waste oil tanks. The soil concentrations, up to 1,100 ppm for TCE and 340 ppm for PCE, would allow for significant contaminant mass removal and reduce or prevent further degradation of groundwater quality.

The soil in the areas of the wash rack, the building and former diesel and gasoline USTs, will become more feasible to remediate once the overlying building is demolished. Although the petroleum impacted soil is much more widespread and occurs over a fairly large area, the limited depth interval immediately above the water table reduces the overall volume of soil requiring disposal (provided the overlying soil is returned to the excavation).

The occurrence of impacted soil above the RSCOs in shallow fill over much of the site warrants the use of engineering and institutional controls. The use of a deed notice and cap would be protective of human health and the environment and could be readily implemented in conjunction with future site redevelopment.

Further groundwater delineation is necessary to evaluate the downgradient extent of groundwater impacts, particularly off-site to the southeast. Based on the data collected to date and an evaluation of the advantages, disadvantages, effectiveness and the ability to implement the various remedial alternatives, in-situ chemical oxidation is the preferred remedial option. However, due to the high levels of VOCs in the soil, particularly at the former waste oil UST area, and the presence of floating product underlying the wash rack, building, and a downgradient area onsite, some source removal would also be required to allow the effective implementation of in-situ chemical oxidation. In addition, due to the extent of groundwater impacts identified, as well as a potential off-site source identified at temporary well point GB-2, the future use of untreated groundwater onsite should be prohibited under an institutional control.



Based on VOCs detected above the applicable guidance in downgradient monitoring wells MW-111, additional delineation is warranted to the southeast. Off-site monitoring of the shallow and intermediate aquifers is anticipated to be necessary to fully characterize the extent of the groundwater plume. Regular sampling of the monitoring wells at the site for VOCs will be necessary to evaluate groundwater migration and the effectiveness of the proposed groundwater treatment.

The removal of the floating oil is important to reduce the total volume of reagent necessary for in-situ chemical oxidation. Therefore, it is recommended to remove the floating oil to the extent possible directly from the water table through excavation as previously described. In the event excavation proves infeasible, then product recovery through the use of passive or active skimmers installed in either recovery wells or trenches may be warranted.

Pre-design investigation activities will be necessary to characterize hydrologic conditions in order to evaluate the construction and spacing of the proposed injection wells and to determine the appropriate volumes of reagent to be used. The pre-design activities are anticipated to include aquifer testing and additional groundwater sampling for VOCs.

Since the remedial alternative is performed in-situ within the boundaries of the property under controlled conditions, there is very little potential for the occurrence of natural resource damages related to the proposed remediation. The existing impact to the groundwater contaminant source area identified will be significantly reduced or eliminated after treatment.

## SUMMARY AND CONCLUSIONS

The remedial activities conducted at the site to date have been effective in removing the potential sources of contamination identified. However, additional soil and groundwater contamination still remains on the site. The former sources of contamination identified include six USTs and associated piping and contaminated soil that was removed; one UST that was emptied and remains onsite; two oil-water separators that were cleaned; one AST that was emptied; and the drums and other miscellaneous containers that were removed. Addressing these source areas will assist in preventing further degradation of soil and groundwater quality at the site.

The vertical delineation of soil contamination at the former waste oil tanks has been completed. Additional sampling for VOCs is warranted for horizontal delineation of the three source areas in conjunction with full-scale remediation. **Some metals are present above regional or site background are naturally occurring and most likely attributable to soil background** conditions.

Groundwater contamination has been identified in both the dissolved phase and free phase. The free-phase contamination identified to date consists of floating oil identified as either diesel fuel or No. 2 fuel oil. Although additional free-phase contaminants consisting of TCE or PCE DNAPL were suspected to potentially be present due to groundwater VOC concentrations, no DNAPL has been encountered. The dissolved phase groundwater contaminants can be grouped into chlorinated VOCs, primarily TCE, PCE and 1,1,1-TCA; and petroleum related VOCs consisting of benzene, toluene, ethylbenzene and xylenes and to a lesser extent MTBE. Overall groundwater VOC concentrations have decreased across the site from 2001 to 2003, although significant levels of VOCs above the New York State criteria remain.

The floating oil identified appears to originate in the vicinity of the wash rack, the 20,000-gallon UST, the two 5,000-gallon USTs, and the 4,000-gallon UST. The chlorinated VOCs identified appear to have originated from the two 5,000-gallon waste oil USTs and the area of the wash rack. Based on the calculated groundwater flow direction and the groundwater analytical data, the extent of VOCs in groundwater has been delineated vertically, but not horizontally downgradient of MW-111. Based on groundwater elevation measurements and hydraulic conductivity measurements, groundwater in the unconfined aquifer flows to the southeast at a

rate of approximately  $9.8 \times 10^{-2}$  feet per day. Groundwater contamination above the regulatory standards has been detected at the site's downgradient property boundary, indicating potential off-site migration of contaminants.

## RECOMMENDATIONS

The specific method of soil remediation will be based on the full extent of contamination present as well as any future plans for the redevelopment of the site. Based on the extent of soil contamination identified, a combination of excavation with off-site treatment and/or disposal and implementing institutional and engineering controls is appropriate. Due to the contaminant concentrations, ease of accessibility, and estimated extent; soil removal in the area of the former waste oil USTs is recommended. The presence of petroleum contaminated soils downgradient of the wash rack, including under the building, will require the demolition of the building and wash rack. Removal of the building will not only facilitate a more complete remediation but will expedite the redevelopment of the site, as it is currently a hindrance to development. Shallow site wide soil contamination attributed to historically placed fill is best addressed through the use of institutional and/or engineering controls, specifically through a cap and deed restriction.

The dissolved-phase groundwater contamination identified warrants further investigation and remediation across much of the site. Additional investigation is warranted to evaluate the downgradient horizontal extent of groundwater contamination, including potential off-site migration of contaminants.

Based on the dissolved phase VOC contamination identified, active remediation is warranted. The recommended remedial alternative identified, based on the data obtained to date, is in-situ chemical oxidation, particularly for the chlorinated VOCs detected.

TABLE 1  
GROUNDWATER ELEVATION MEASUREMENTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

Monitoring Well ID	Inner Casing Elevation	September 5, 2001			November 7, 2001		
		Depth to Groundwater	Product Thickness	Groundwater Elevation*	Depth Groundwater	Product Thickness	Groundwater Elevation
MW-1	141.39	10.40	0.00	130.99	10.61	0.00	130.78
MW-2	137.68	12.48	0.00	125.20	13.02	0.00	124.66
MW-3	136.34	9.53	film	126.81	10.16	0.20	126.35
MW-3I	136.04	NM	NM	NM	NM	NM	NM
MW-3D	136.50	NM	NM	NM	NM	NM	NM
MW-4	135.54	10.10	0.00	125.44	10.51	0.00	125.03
MW-5	132.44	13.18	0.00	119.26	13.40	0.00	119.04
MW-6	129.98	12.52	0.00	117.46	12.78	0.00	117.20
MW-6I	130.31	NM	NM	NM	NM	NM	NM
MW-6D	130.82	NM	NM	NM	NM	NM	NM
MW-7	132.74	13.83	~3/4"	118.91	14.04	0.26	118.92
MW-8	129.32	12.94	0.00	116.38	13.09	0.00	116.23
MW-9	Not Accessible	13.50 All Product	6-8"	No Groundwater	Not Accessible	Not Accessible	Not Accessible
MW-10I	139.15	NM	NM	NM	NM	NM	NM
MW-10D	138.96	NM	NM	NM	NM	NM	NM
MW-11I	126.43	NM	NM	NM	NM	NM	NM
MW-11D	126.41	NM	NM	NM	NM	NM	NM
PZ-3	135.81	12.65	0.00	123.16	DRY	DRY	DRY
PZ-5	130.90	DRY	DRY	DRY	DRY	DRY	DRY
PZ-6	140.64	14.82	0.00	125.82	DRY	DRY	DRY
PZ-7	139.83	9.98	film	129.85	10.27	0.07	129.56
PZ-8	NM	NM	NM	NM	NM	NM	NM
PZ-9	NM	NM	NM	NM	NM	NM	NM
PZ-10	NM	NM	NM	NM	NM	NM	NM

All measurements are in feet, elevation is in feet NGVD  
 MW-9, located within the building was not accessible for survey  
 Product measured in PZ-7 on November 7, 2001 with a bailer.  
 NM = Not Measured

TABLE 1  
 GROUNDWATER ELEVATION MEASUREMENTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

Monitoring Well ID	Inner Casing Elevation	October 22, 2003			December 19, 2003		
		Depth Groundwater	Product Thickness	Groundwater Elevation	Depth Groundwater	Product Thickness	Groundwater Elevation*
MW-1	141.39	9.85	0.00	131.54	NM	NM	NM
MW-2	137.68	10.93	0.00	126.75	NM	NM	NM
MW-3	136.34	6.85	0.14	129.61	NM	NM	NM
MW-3I	136.04	9.61	0.00	126.43	NM	NM	NM
MW-3D	136.50	NM	NM	NM	7.05	0.00	129.45
MW-4	135.54	8.15	0.00	127.39	NM	NM	NM
MW-5	132.44	12.43	0.00	120.01	NM	NM	NM
MW-6	129.98	11.34	0.00	118.64	NM	NM	NM
MW-6I	130.31	11.33	0.00	118.98	NM	NM	NM
MW-6D	130.82	NM	NM	NM	10.25	0.00	120.57
MW-7	132.74	12.85	0.14	120.01	NM	NM	NM
MW-8	129.32	11.42	0.00	117.90	NM	NM	NM
MW-9	Not Accessible	Not Accessible	Not Accessible	Not Accessible	NM	NM	NM
MW-10I	139.15	12.66	0.01	126.50	NM	NM	NM
MW-10D	138.96	NM	NM	NM	11.27	0.00	127.69
MW-11I	126.43	9.35	0.00	117.08	NM	NM	NM
MW-11D	126.41	NM	NM	NM	5.32	0.00	121.09
PZ-3	135.81	11.01	0.00	124.80	NM	NM	NM
PZ-5	130.90	5.66	0.00	125.24	NM	NM	NM
PZ-6	140.64	13.61	0.00	127.03	NM	NM	NM
PZ-7	139.83	8.67	0.00	131.16	NM	NM	NM
PZ-8	NM	NM	NM	NM	NM	NM	NM
PZ-9	NM	NM	NM	NM	NM	NM	NM
PZ-10	NM	NM	NM	NM	NM	NM	NM

All measurements are in feet, elevation is in feet NGVD  
 MW-9, located within the building was not accessible for survey  
 Product measured in PZ-7 on November 7, 2001 with a bailer.  
 NM = Not Measured

TABLE 1  
GROUNDWATER ELEVATION MEASUREMENTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

Monitoring Well ID	Inner Casing Elevation	December 22, 2003			May 12, 2004		
		Depth Groundwater	Product Thickness	Groundwater Elevation*	Depth Groundwater	Product Thickness	Groundwater Elevation
MW-1	141.39	NM	NM	NM	10.00	0.00	131.39
MW-2	137.68	NM	NM	NM	10.10	sheen	127.58
MW-3	136.34	NM	NM	NM	9.96	0.20	126.55
MW-3I	136.04	NM	NM	NM	9.86	sheen	126.18
MW-3D	136.50	NM	NM	NM	8.46	0.00	128.04
MW-4	135.54	NM	NM	NM	8.26	sheen	127.28
MW-5	132.44	NM	NM	NM	12.23	0.00	120.21
MW-6	129.98	NM	NM	NM	11.20	0.00	118.78
MW-6I	130.31	NM	NM	NM	11.50	0.00	118.81
MW-6D	130.82	NM	NM	NM	11.85	0.00	118.97
MW-7	132.74	NM	NM	NM	12.85	0.04	119.92
MW-8	129.32	NM	NM	NM	11.01	0.00	118.31
MW-9	Not Accessible	9.80 All Product	3.70	No Groundwater	NM	NM	NM
MW-10I	139.15	NM	NM	NM	12.75	0.00	126.40
MW-10D	138.96	NM	NM	NM	12.03	0.00	126.93
MW-11I	126.43	NM	NM	NM	9.48	sheen	116.95
MW-11D	126.41	NM	NM	NM	9.17	0.00	117.24
PZ-3	135.81	NM	NM	NM	10.46	0.18	125.50
PZ-5	130.90	NM	NM	NM	6.39	0.00	124.51
PZ-6	140.64	NM	NM	NM	14.26	0.00	126.38
PZ-7	139.83	NM	NM	NM	8.25	0.00	131.58
PZ-8	NM	11.18	sheen	Not Surveyed	NM	NM	NM
PZ-9	NM	9.80	sheen	Not Surveyed	NM	NM	NM
PZ-10	NM	11.95	0.00	Not Surveyed	NM	NM	NM

All measurements are in feet, elevation is in feet NGVD  
 MW-9, located within the building was not accessible for survey  
 Product measured in PZ-7 on November 7, 2001 with a bailer.  
 NM = Not Measured

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-1 AB41619 09/05/01			MW-1 R4802-01 10/22/03			MW-2 AB41623 09/05/01			MW-2 R4802-02 10/22/03			MW-3 AB41759 09/06/01			MW-3 (Duplicate) AB41761 09/06/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Acetone	50 (GV)	ND	20	ND	3.5	ND	2000	ND	350	ND	20000	ND	20000	ND	20000	ND	20000	ND	20000
Benzene	0.7 (S)	ND	1	ND	0.71	ND	100	250	J 71	ND	1000	ND	1000	ND	1000	ND	1000	ND	1000
Chloroethane	5 (S)	ND	5	ND	2.4	ND	500	ND	240	ND	5000	ND	5000	ND	5000	ND	5000	ND	5000
Chloroform	7 (S)	ND	5	ND	0.61	ND	500	ND	61	1100	J 5000	1100	J 5000	1100	J 5000	1100	J 5000	1100	J 5000
cis-1,2-Dichloroethene	5 (S)	ND	5	6.1	J 0.62	20000	500	4100	62	100000	5000	99000	5000	99000	5000	99000	5000	99000	5000
1,1-Dichloroethane	5 (S)	ND	5	ND	0.61	960	500	940	66	ND	5000	ND	5000	ND	5000	ND	5000	ND	5000
1,1-Dichloroethene	5 (S)	ND	5	ND	0.69	ND	500	ND	69	ND	5000	ND	5000	ND	5000	ND	5000	ND	5000
1,2-Dichloroethane	5 (S)	ND	5	ND	0.56	14000	500	13000	56	ND	5000	ND	5000	ND	5000	ND	5000	ND	5000
Ethylbenzene	5 (S)	ND	1	ND	0.76	110	100	ND	76	ND	1000	ND	1000	ND	1000	ND	1000	ND	1000
Methylene Chloride	5 (S)	ND	5	ND	1.8	ND	500	ND	180	5600	5000	5600	5000	5600	5000	5600	5000	5600	5000
Methyl Tertiary Butyl Ether (MTBE)	10 (GV)	ND	1	ND	1	ND	100	ND	100	ND	1000	ND	1000	ND	1000	ND	1000	ND	1000
Tetrachloroethene	5 (S)	ND	5	ND	0.7	ND	500	ND	70	21000	5000	23000	5000	23000	5000	23000	5000	23000	5000
Toluene	5 (S)	ND	1	1.6	J 0.71	240	100	780	J 71	5100	1000	5000	1000	5000	1000	5000	1000	5000	1000
1,1,1-Trichloroethane	5 (S)	ND	5	ND	0.75	ND	500	ND	75	38000	5000	38000	5000	38000	5000	38000	5000	38000	5000
Trichloroethene	5 (S)	ND	5	ND	0.72	ND	500	ND	72	360000	5000	360000	5000	360000	5000	360000	5000	360000	5000
Vinyl Chloride	2 (S)	ND	5	ND	0.79	2200	500	5000	79	2700	J 5000	2700	J 5000	2700	J 5000	2700	J 5000	2700	J 5000
m/p Xylenes	5 (S)	ND	2	ND	1.5	620	200	ND	150	ND	2000	ND	2000	ND	2000	ND	2000	ND	2000
o-Xylene	5 (S)	ND	1	ND	0.72	410	100	ND	72	ND	1000	ND	1000	ND	1000	ND	1000	ND	1000
Trans-1,2-Dichloroethene		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Chlorobenzene		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Total BTEX and MTBE		0.0		1.6		1380.0		1030.0		5100.0		23000.0		23000.0		23000.0		23000.0	
Total Chlorinate VOCs		0.0		6.1		37160.0		23040.0		528400.0		511400.0		511400.0		511400.0		511400.0	
Total VOCs		0.0		7.7		38540.0		24070.0		533500.0		534400.0		534400.0		534400.0		534400.0	
<b>Semivolatile Organic Compounds</b>																			
Acenaphthene	20 (S)	ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
Anthracene	50 (S)	ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
Benzo(a)anthracene	0.002 (GV)	ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
Benzo[b]fluoranthene	0.002 (GV)	ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
bis(2-Ethylhexyl)phthalate	50 (S)	ND	10	NA		ND	10	NA		ND	200	93	J 200	93	J 200	93	J 200	93	J 200
Carbazole		ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
Chrysene	0.002 (GV)	ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
Dibenzofuran		ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
Diethylphthalate	50 (GV)	ND	10	NA		2.2	J 10	NA		1800	200	3400	200	3400	200	3400	200	3400	200
Dimethylnaphthalene	50 (GV)	ND	10	NA		ND	10	NA		ND	200	49	J 200	49	J 200	49	J 200	49	J 200
Di-n-butylphthalate		ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
Di-n-octyl phthalate	50 (GV)	ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
Fluoranthene	50 (GV)	ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200
Fluorene	50 (GV)	ND	10	NA		ND	10	NA		ND	200	ND	200	ND	200	ND	200	ND	200



TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-1 AB41619 09/05/01	MW-1 R4802-01 10/22/03	MW-2 AB41623 09/05/01	MW-2 R4802-02 10/22/03	MW-3 AB41759 09/06/01	MW-3 (Duplicate) AB41761 09/06/01						
2-Methylnaphthalene		ND	10	NA	ND	10	NA	ND	200	45	J	200	
Naphthalene	10 (GV)	ND	10	NA	ND	10	NA	44	J	200	89	J	200
n-Nitrosodimethylamine	50 (GV)	ND	10	NA	ND	10	NA	ND	200	ND		200	
Phenanthrene	50 (GV)	ND	10	NA	ND	10	NA	ND	200	ND		200	
Pyrene	50 (GV)	ND	10	NA	ND	10	NA	ND	200	ND		200	
TOTAL SVOCs		0		NA	2	J	NA	1844	J	3676	J		
<b>Metals</b>													
Aluminum	NS	3600	180	NA	NA	NA	NA	4600	180	13000		180	
Antimony	3 (GV)	ND	15	NA	NA	NA	NA	ND	15	ND		15	
Arsenic	25 (S)	ND	7.5	NA	NA	NA	NA	ND	8	ND		7.5	
Barium	1000 (S)	79	50	NA	NA	NA	NA	80	50	130		50	
Beryllium	3 (GV)	ND	15	NA	NA	NA	NA	ND	15	ND		15	
Cadmium	10 (S)	ND	4	NA	NA	NA	NA	ND	4	ND		3.5	
Calcium	NS	72000	2000	NA	NA	NA	NA	120000	2000	140000		2000	
Chromium	50 (S)	ND	50	NA	NA	NA	NA	ND	50	ND		50	
Cobalt	NS	ND	20	NA	NA	NA	NA	ND	20	30		20	
Copper	200 (S)	ND	50	NA	NA	NA	NA	ND	50	56		50	
Iron	300 (S)	8100	280	NA	NA	NA	NA	13000	280	32000		280	
Lead	25 (S)	ND	8	NA	NA	NA	NA	15	8	33		8	
Magnesium	35000 (GV)	15000	2000	NA	NA	NA	NA	20000	2000	25000		2000	
Manganese	300 (S)	40	5800	NA	NA	NA	NA	8700	40	9800		40	
Mercury	2 (S)	ND	1	NA	NA	NA	NA	ND	1	ND		0.7	
Nickel	NS	ND	50	NA	NA	NA	NA	ND	50	66		50	
Potassium	NS	2500	2000	NA	NA	NA	NA	2300	2000	4600		4000	
Selenium	10 (S)	ND	40	NA	NA	NA	NA	ND	40	ND		40	
Silver	50 (S)	ND	20	NA	NA	NA	NA	ND	20	ND		20	
Sodium	20000 (S)	110000	2000	NA	NA	NA	NA	330000	2000	390000		4000	
Thallium	4 (GV)	ND	10	NA	NA	NA	NA	ND	10	ND		10	
Vanadium	NS	ND	50	NA	NA	NA	NA	ND	50	ND		50	
Zinc	300 (S)	ND	62	NA	NA	NA	NA	82	50	160		50	
Polychlorinated Biphenyls (PCBs)	5 (S)	NA		NA	NA	NA	NA	ND	1	ND		0.5	
Specific Gravity	NS	NA		NA	NA	NA	NA	NA		NA		NA	
TPH Finger Print	NS	NA		NA	NA	NA	NA	NA		NA		NA	

NOTES:

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u = Analyzed for but not detected at the MDL

SHADED = Analyte detected in excess of GROUNDWATER STANDARD

dilution = Results from diluted analysis

All compounds measured in parts per billion (ppb)

D = Dilution

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-3 R4802-12 10/23/03			MW-3 dilution R4802-12DL 10/23/03			MW-3I AB94793 09/24/03			MW-3I R4802-11 10/23/03			MW-3D R5474-03 12/19/03			MW-4 AB41760 09/06/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Acetone	50 (GV)	ND		350	ND		3500	ND		20000	ND		350	ND		3.5	ND		1000
Benzene	0.7 (S)	130	J	71	ND		710	ND		1000	ND		71	ND		0.71	170		50
Chloroethane	5 (S)	ND		240	ND		2400	ND		5000	ND		240	ND		2.4	ND		250
Chloroform	7 (S)	ND		61	ND		610	1500	J	5000	ND		61	ND		0.61	430		250
cis-1,2-Dichloroethene	5 (S)	12000		62	14000		620	39000		5000	1800		62	ND		0.62	24000		250
1,1-Dichloroethane	5 (S)	160	J	66	ND		660	ND		5000	ND		66	ND		0.66	320		250
1,1-Dichloroethene	5 (S)	ND		69	ND		690	ND		5000	ND		69	ND		0.69	110	J	250
1,2-Dichloroethane	5 (S)	ND		56	ND		590	ND		5000	ND		56	ND		0.56	ND		250
Ethylbenzene	5 (S)	180	J	76	ND		760	5400		1000	ND		76	ND		0.76	ND		50
Methylene Chloride	5 (S)	760		180	ND		1800	2700	J	5000	ND		180	ND		1.8	1300		250
Methyl Tertiary Butyl Ether (MTBE)	10 (GV)	ND		100	ND		1000	NA		NA	ND		100	ND		1	220		50
Tetrachloroethene	5 (S)	3400		70	3300		700	120000		5000	ND		70	ND		0.7	76	J	250
Toluene	5 (S)	770		71	ND		710	11000		1000	ND		71	ND		0.71	180		50
1,1,1-Trichloroethane	5 (S)	3900		75	4400	J	750	44000		5000	130	J	75	ND		0.75	ND		250
Trichloroethene	5 (S)	30000	E	72	35000		720	48000		5000	ND		72	ND		0.72	220	J	250
Vinyl Chloride	2 (S)	87	J	79	ND		790	ND		5000	190	J	79	ND		0.79	620		250
m/p Xylenes	5 (S)	600		150	ND		1500	1400		2000	ND		150	ND		1.5	54	J	100
o-Xylene	5 (S)	220	J	72	ND		720	4000		1000	ND		72	ND		0.72	ND		50
Trans-1,2-Dichloroethene		ND		81	ND		810	ND		ND	ND		81	ND		0.81	ND		
Chlorobenzene		ND			ND		780	ND		ND	ND			ND		0.78	ND		
Total BTEX and MTBE		1900.0			0.0			21800.0			0.0			0.0			624.0		
Total Chlorinate VOCs		50307.0			56700.0			255200.0			2120.0			0.0			27076.0		
Total VOCs		52207.0			56700.0			277000.0			2120.0			0.0			27700.0		
<b>Semivolatile Organic Compounds</b>																			
Acenaphthene	20 (S)	NA			NA			NA			NA			NA			ND		10
Anthracene	50 (S)	NA			NA			NA			NA			NA			ND		10
Benzo(a)anthracene	0.002 (GV)	NA			NA			NA			NA			NA			ND		10
Benzo[b]fluoranthene	0.002 (GV)	NA			NA			NA			NA			NA			ND		10
bis(2-Ethylhexyl)phthalate	50 (S)	NA			NA			NA			NA			NA			ND		10
Carbazole		NA			NA			NA			NA			NA			ND		10
Chrysene	0.002 (GV)	NA			NA			NA			NA			NA			ND		10
Dibenzofuran		NA			NA			NA			NA			NA			ND		10
Diethylphthalate	50 (GV)	NA			NA			NA			NA			NA			160		10
Dimethylnaphthalene	50 (GV)	NA			NA			NA			NA			NA			ND		10
Di-n-butylphthalate		NA			NA			NA			NA			NA			ND		10
Di-n-octyl phthalate	50 (GV)	NA			NA			NA			NA			NA			ND		10
Fluoranthene	50 (GV)	NA			NA			NA			NA			NA			ND		10
Fluorene	50 (GV)	NA			NA			NA			NA			NA			ND		10

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-3 R4802-12 10/23/03	MW-3 dilution R4802-12DL 10/23/03	MW-3I AB94793 09/24/03	MW-3I R4802-11 10/23/03	MW-3D R5474-03 12/19/03	MW-4 AB41760 09/06/01	
2-Methylnaphthalene		NA	NA	NA	NA	NA	ND	10
Naphthalene	10 (GV)	NA	NA	NA	NA	NA	3.5	J 10
n-Nitrosodimethylamine	50 (GV)	NA	NA	NA	NA	NA	ND	10
Phenanthrene	50 (GV)	NA	NA	NA	NA	NA	ND	10
Pyrene	50 (GV)	NA	NA	NA	NA	NA	ND	10
TOTAL SVOCs		NA	NA	NA	NA	NA	164	J
<b>Metals</b>								
Aluminum	NS	NA	NA	NA	NA	NA	2600	180
Antimony	3 (GV)	NA	NA	NA	NA	NA	ND	15
Arsenic	25 (S)	NA	NA	NA	NA	NA	ND	7.5
Barium	1000 (S)	NA	NA	NA	NA	NA	110	50
Beryllium	3 (GV)	NA	NA	NA	NA	NA	ND	15
Cadmium	10 (S)	NA	NA	NA	NA	NA	ND	3.5
Calcium	NS	NA	NA	NA	NA	NA	67000	2000
Chromium	50 (S)	NA	NA	NA	NA	NA	ND	50
Cobalt	NS	NA	NA	NA	NA	NA	ND	20
Copper	200 (S)	NA	NA	NA	NA	NA	270	50
Iron	300 (S)	NA	NA	NA	NA	NA	6400	280
Lead	25 (S)	NA	NA	NA	NA	NA	8.6	8
Magnesium	35000 (GV)	NA	NA	NA	NA	NA	20000	2000
Manganese	300 (S)	NA	NA	NA	NA	NA	2800	40
Mercury	2 (S)	NA	NA	NA	NA	NA	ND	0.7
Nickel	NS	NA	NA	NA	NA	NA	ND	50
Potassium	NS	NA	NA	NA	NA	NA	ND	2000
Selenium	10 (S)	NA	NA	NA	NA	NA	ND	40
Silver	50 (S)	NA	NA	NA	NA	NA	ND	20
Sodium	20000 (S)	NA	NA	NA	NA	NA	460000	4000
Thallium	4 (GV)	NA	NA	NA	NA	NA	ND	10
Vanadium	NS	NA	NA	NA	NA	NA	ND	50
Zinc	300 (S)	NA	NA	NA	NA	NA	130	50
Polychlorinated Biphenyls (PCBs)	5 (S)	NA	NA	NA	NA	NA	ND	0.5
Specific Gravity	NS	NA	NA	NA	NA	NA	NA	
TPH Finger Print	NS	NA	NA	NA	NA	NA	NA	

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All compounds measured in parts per billion (ppb)

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TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-4 R4802-10 10/23/03			MW-4 dilution R4802-10DL 10/23/03			MW-5 AB41755 09/06/01			MW-5 R4802-03 10/22/03			MW-6 AB41757 09/06/01			MW-6 R4802-05 10/22/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Acetone	50 (GV)	ND		3.5	ND		350	7800		50	ND		350	ND		100	ND		3.5
Benzene	0.7 (S)	73		0.71	100	J	71	ND		250	5700		71	ND		5	2.6	J	0.71
Chloroethane	5 (S)	ND		2.4	ND		240	ND		250	ND		240	ND		25	ND		2.4
Chloroform	7 (S)	ND		0.61	ND		61	ND		250	ND		61	ND		25	ND		0.61
cis-1,2-Dichloroethene	5 (S)	2600	E	0.62	4200	D	62	230	J	250	ND		62	13	J	25	15		0.62
1,1-Dichloroethane	5 (S)	48		0.66	ND		66	ND		250	ND		69	ND		25	1.8	J	0.61
1,1-Dichloroethene	5 (S)	23		0.69	ND		69	ND		250	ND		69	ND		25	ND		0.69
1,2-Dichloroethane	5 (S)	ND		0.56	ND		56	ND		250	ND		56	ND		25	4.3	J	0.56
Ethylbenzene	5 (S)	4.8	J	0.76	ND		76	2100		50	3900		76	ND		5	ND		0.76
Methylene Chloride	5 (S)	ND		1.8	ND		180	ND		250	ND		180	ND		25	ND		1.8
Methyl Tertiary Butyl Ether (MTBE)	10 (GV)	ND		1	ND		100	ND		50	ND		100	ND		5	3.2	J	1
Tetrachloroethene	5 (S)	7.4		0.7	ND		70	ND		250	ND		70	6.3	J	25	3.3	J	0.7
Toluene	5 (S)	17		0.71	ND		71	6700		50	13000		71	ND		5	ND		0.71
1,1,1-Trichloroethane	5 (S)	ND		0.75	ND		75	ND		250	ND		75	ND		25	ND		0.75
Trichloroethene	5 (S)	24		0.72	ND		72	170	J	250	ND		72	130		25	40		0.72
Vinyl Chloride	2 (S)	280	E	0.79	360	J	360	ND		250	ND		79	ND		25	1.1	J	0.79
m/p Xylenes	5 (S)	5.5		1.5	ND		150	6700		100	13000		150	ND		10	ND		1.5
o-Xylene	5 (S)	13		0.72	ND		72	2900		50	6400		72	ND		5	ND		0.72
Trans-1,2-Dichloroethene		ND		0.81	ND		81	ND			ND		ND	ND			ND		
Chlorobenzene		3	J	0.78	ND			ND			ND		ND	ND			ND		
Total BTEX and MTBE		113.3			100.0			18400.0			42000.0			0.0			5.8		
Total Chlorinate VOCs		2985.4			4560.0			8200.0			0.0			149.3			65.5		
Total VOCs		3098.7			4660.0			26600.0			42000.0			149.3			71.3		
<b>Semivolatile Organic Compounds</b>																			
Acenaphthene	20 (S)	NA			NA			NA			NA			ND		10	NA		
Anthracene	50 (S)	NA			NA			NA			NA			ND		10	NA		
Benzo(a)anthracene	0.002 (GV)	NA			NA			NA			NA			ND		10	NA		
Benzo[b]fluoranthene	0.002 (GV)	NA			NA			NA			NA			ND		10	NA		
bis(2-Ethylhexyl)phthalate	50 (S)	NA			NA			NA			NA			ND		10	NA		
Carbazole		NA			NA			NA			NA			ND		10	NA		
Chrysene	0.002 (GV)	NA			NA			NA			NA			ND		10	NA		
Dibenzofuran		NA			NA			NA			NA			ND		10	NA		
Diethylphthalate	50 (GV)	NA			NA			NA			NA			ND		10	NA		
Dimethylnaphthalene	50 (GV)	NA			NA			NA			NA			ND		10	NA		
Di-n-butylphthalate		NA			NA			NA			NA			ND		10	NA		
Di-n-octyl phthalate	50 (GV)	NA			NA			NA			NA			ND		10	NA		
Fluoranthene	50 (GV)	NA			NA			NA			NA			1	J	10	NA		
Fluorene	50 (GV)	NA			NA			NA			NA			ND		10	NA		

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-4 R4802-10 10/23/03	MW-4 dilution R4802-10DL 10/23/03	MW-5 AB41755 09/06/01	MW-5 R4802-03 10/22/03	MW-6 AB41757 09/06/01	MW-6 R4802-05 10/22/03
2-Methylnaphthalene		NA	NA	NA	NA	ND 10	NA
Naphthalene	10 (GV)	NA	NA	NA	NA	ND 10	NA
n-Nitrosodimethylamine	50 (GV)	NA	NA	NA	NA	ND 10	NA
Phenanthrene	50 (GV)	NA	NA	NA	NA	ND 10	NA
Pyrene	50 (GV)	NA	NA	NA	NA	ND 10	NA
TOTAL SVOCs		NA	NA	NA	NA	1 J	NA
<b>Metals</b>							
Aluminum	NS	NA	NA	NA	NA	NA	NA
Antimony	3 (GV)	NA	NA	NA	NA	NA	NA
Arsenic	25 (S)	NA	NA	NA	NA	NA	NA
Barium	1000 (S)	NA	NA	NA	NA	NA	NA
Beryllium	3 (GV)	NA	NA	NA	NA	NA	NA
Cadmium	10 (S)	NA	NA	NA	NA	NA	NA
Calcium	NS	NA	NA	NA	NA	NA	NA
Chromium	50 (S)	NA	NA	NA	NA	NA	NA
Cobalt	NS	NA	NA	NA	NA	NA	NA
Copper	200 (S)	NA	NA	NA	NA	NA	NA
Iron	300 (S)	NA	NA	NA	NA	NA	NA
Lead	25 (S)	NA	NA	NA	NA	67 8	NA
Magnesium	35000 (GV)	NA	NA	NA	NA	NA	NA
Manganese	300 (S)	NA	NA	NA	NA	NA	NA
Mercury	2 (S)	NA	NA	NA	NA	NA	NA
Nickel	NS	NA	NA	NA	NA	NA	NA
Potassium	NS	NA	NA	NA	NA	NA	NA
Selenium	10 (S)	NA	NA	NA	NA	NA	NA
Silver	50 (S)	NA	NA	NA	NA	NA	NA
Sodium	20000 (S)	NA	NA	NA	NA	NA	NA
Thallium	4 (GV)	NA	NA	NA	NA	NA	NA
Vanadium	NS	NA	NA	NA	NA	NA	NA
Zinc	300 (S)	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls (PCBs)	5 (S)	NA	NA	NA	NA	NA	NA
Specific Gravity	NS	NA	NA	NA	NA	NA	NA
TPH Finger Print	NS	NA	NA	NA	NA	NA	NA

NOTES:

Sample suffix "I" = intermediate well, "D" = bedrock well

NA = Not analyzed

J = The concentration was detected at a value below the MDL

u = Analyzed for but not detected at the MDL

SHADED = Analyte detected in excess of GROUNDWATER STANDARD dilution = Results from diluted analysis

All compounds measured in parts per billion (ppb)

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All compounds measured in parts per billion (ppb)

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TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-6I R4802-06 10/22/03			MW-6I dilution R4802-06DL 10/22/03			MW-6D R5474-02 12/19/03			MW-7 AB41621 09/05/01			MW-7 R4802-04 10/22/03			MW-8 AB41622 09/05/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Acetone	50 (GV)	ND		3.5	ND		35	ND		3.5	ND		10000	ND		350	ND		20
Benzene	0.7 (S)	4.3	J	0.71	ND		7.1	ND		0.71	11000		500	9700		71	31		1
Chloroethane	5 (S)	ND		2.4	ND		24	ND		2.4	ND		2500	ND		240	1.8	J	5
Chloroform	7 (S)	ND		0.61	ND		6.1	ND		0.61	ND		2500	ND		61	ND		5
cis-1,2-Dichloroethene	5 (S)	790		0.62	930	D	6.2	ND		0.62	1600	J	2500	ND		62	200		5
1,1-Dichloroethane	5 (S)	8.3		0.61	ND		5.6	ND		0.66	ND		2500	ND		66	ND		5
1,1-Dichloroethene	5 (S)	9.4		0.69	11	J	6.9	ND		0.69	ND		2500	ND		69	12		5
1,2-Dichloroethane	5 (S)	4.3	J	0.56	ND		0.56	ND		0.56	ND		2500	ND		56	ND		5
Ethylbenzene	5 (S)	ND		0.76	ND		0.76	ND		0.76	5400		500	2800		76	ND		1
Methylene Chloride	5 (S)	ND		1.8	ND		18	ND		1.8	1500	J	2500	ND		180	ND		5
Methyl Tertiary Butyl Ether (MTBE)	10 (GV)	4.5	J	1	ND		10	ND		1	7800		500	4700		100	140		1
Tetrachloroethene	5 (S)	14		0.7	16	J	7	ND		0.7	ND		2500	ND		70	ND		5
Toluene	5 (S)	ND		0.71	ND		7.1	ND		0.71	37000		500	15000		71	ND		1
1,1,1-Trichloroethane	5 (S)	52		0.75	52	D	0.75	ND		0.75	ND		2500	ND		75	3.2	J	5
Trichloroethene	5 (S)	81		0.72	78	D	0.72	ND		0.72	ND		2500	ND		72	11		5
Vinyl Chloride	2 (S)	23		0.79	26	J	7.9	ND		0.79	ND		2500	ND		79	46		5
m/p Xylenes	5 (S)	ND		1.5	ND		15	ND		1.5	18000		1000	9100		150	ND		2
o-Xylene	5 (S)	ND		0.72	ND		7.2	ND		0.72	7600		500	4400		72	ND		1
Trans-1,2-Dichloroethene		ND			ND			ND		0.81	ND			ND			ND		
Chlorobenzene		ND			ND			ND		0.78	ND			ND			ND		
Total BTEX and MTBE		8.8			0.0			0.0			86800.0			45700.0			171.0		
Total Chlorinate VOCs		982.0			1113.0			0.0			3100.0			0.0			274.0		
Total VOCs		990.8			1113.0			0.0			89900.0			45700.0			445.0		
<b>Semivolatile Organic Compounds</b>																			
Acenaphthene	20 (S)	NA			NA			NA			72	J	250	NA			ND		10
Anthracene	50 (S)	NA			NA			NA			38	J	250	NA			ND		10
Benzo(a)anthracene	0.002 (GV)	NA			NA			NA			31	J	250	NA			ND		10
Benzo[b]fluoranthene	0.002 (GV)	NA			NA			NA			26	J	250	NA			ND		10
bis(2-Ethylhexyl)phthalate	50 (S)	NA			NA			NA			150	J	250	NA			ND		10
Carbazole		NA			NA			NA			ND		250	NA			ND		10
Chrysene	0.002 (GV)	NA			NA			NA			28	J	250	NA			ND		10
Dibenzofuran		NA			NA			NA			49	J	250	NA			ND		10
Diethylphthalate	50 (GV)	NA			NA			NA			ND		250	NA			1	J	10
Dimethylnaphthalene	50 (GV)	NA			NA			NA			ND		250	NA			ND		10
Di-n-butylphthalate		NA			NA			NA			ND		250	NA			ND		10
Di-n-octyl phthalate	50 (GV)	NA			NA			NA			ND		250	NA			ND		10
Fluoranthene	50 (GV)	NA			NA			NA			96	J	250	NA			ND		10
Fluorene	50 (GV)	NA			NA			NA			110	J	250	NA			ND		10

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-6I R4802-06 10/22/03	MW-6I dilution R4802-06DL 10/22/03	MW-6D R5474-02 12/19/03	MW-7 AB41621 09/05/01	MW-7 R4802-04 10/22/03	MW-8 AB41622 09/05/01
2-Methylnaphthalene		NA	NA	NA	1900	250	NA
Naphthalene	10 (GV)	NA	NA	NA	2300	250	NA
n-Nitrosodimethylamine	50 (GV)	NA	NA	NA	ND	250	NA
Phenanthrene	50 (GV)	NA	NA	NA	260	250	NA
Pyrene	50 (GV)	NA	NA	NA	83	J 250	NA
TOTAL SVOCs		NA	NA	NA	5143	J	NA
<b>Metals</b>							
Aluminum	NS	NA	NA	NA	NA	NA	NA
Antimony	3 (GV)	NA	NA	NA	NA	NA	NA
Arsenic	25 (S)	NA	NA	NA	NA	NA	NA
Barium	1000 (S)	NA	NA	NA	NA	NA	NA
Beryllium	3 (GV)	NA	NA	NA	NA	NA	NA
Cadmium	10 (S)	NA	NA	NA	NA	NA	NA
Calcium	NS	NA	NA	NA	NA	NA	NA
Chromium	50 (S)	NA	NA	NA	NA	NA	NA
Cobalt	NS	NA	NA	NA	NA	NA	NA
Copper	200 (S)	NA	NA	NA	NA	NA	NA
Iron	300 (S)	NA	NA	NA	NA	NA	NA
Lead	25 (S)	NA	NA	NA	140	8	NA
Magnesium	35000 (GV)	NA	NA	NA	NA	NA	NA
Manganese	300 (S)	NA	NA	NA	NA	NA	NA
Mercury	2 (S)	NA	NA	NA	NA	NA	NA
Nickel	NS	NA	NA	NA	NA	NA	NA
Potassium	NS	NA	NA	NA	NA	NA	NA
Selenium	10 (S)	NA	NA	NA	NA	NA	NA
Silver	50 (S)	NA	NA	NA	NA	NA	NA
Sodium	20000 (S)	NA	NA	NA	NA	NA	NA
Thallium	4 (GV)	NA	NA	NA	NA	NA	NA
Vanadium	NS	NA	NA	NA	NA	NA	NA
Zinc	300 (S)	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls (PCBs)	5 (S)	NA	NA	NA	NA	NA	NA
Specific Gravity	NS	NA	NA	NA	NA	NA	NA
TPH Finger Print	NS	NA	NA	NA	NA	NA	NA

NOTES:

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u = Analyzed for but not detected at the MDL

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All compounds measured in parts per billion (ppb)

D = Dilution

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All compounds measured in parts per billion (ppb)

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TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-8 R4802-07 10/22/03			MW-9 (Product) AB41758 09/06/01			MW-10I AB94794 09/24/03			MW-10I R4802-15 10/23/03			MW-10I dilution R4802-15DL 10/23/03			MW-10D R5474-04 12/19/03		
		Conc	Q	MDL				Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Acetone	50 (GV)	ND	3.5	NA			ND	200		ND	3.5	ND	35	ND	3.5				
Benzene	0.7 (S)	5.2	0.71	NA			ND	10		3.8	0.71	ND	7.1	ND	0.71				
Chloroethane	5 (S)	ND	0.51	NA			ND	50		ND	2.4	ND	24	ND	2.4				
Chloroform	7 (S)	ND	0.61	NA			ND	50		ND	0.61	ND	6.1	ND	0.61				
cis-1,2-Dichloroethene	5 (S)	6.2	0.62	NA			1200	50		380	E 0.62	430	6.2	ND	0.62				
1,1-Dichloroethane	5 (S)	ND	0.66	NA			28	J 50		19	0.66	20	6.6	ND	0.66				
1,1-Dichloroethene	5 (S)	ND	0.69	NA			ND	50		ND	0.69	ND	6.9	ND	0.69				
1,2-Dichloroethane	5 (S)	ND	0.56	NA			18	J 50		20	0.56	23	5.6	ND	0.56				
Ethylbenzene	5 (S)	ND	0.76	NA			ND	10		ND	0.76	ND	7.6	ND	0.76				
Methylene Chloride	5 (S)	ND	1.8	NA			ND	50		ND	1.8	ND	18	ND	1.8				
Methyl Tertiary Butyl Ether (MTBE)	10 (GV)	79	1	NA			NA	NA		ND	1	ND	10	ND	1				
Tetrachloroethene	5 (S)	ND	0.7	NA			ND	50		4.5	0.7	ND	7	ND	0.7				
Toluene	5 (S)	ND	0.71	NA			67	10		15	0.71	15	7.1	ND	0.71				
1,1,1-Trichloroethane	5 (S)	ND	0.75	NA			230	50		49	0.75	50	7.5	ND	0.75				
Trichloroethene	5 (S)	ND	0.72	NA			ND	50		5	J 0.72	ND	7.2	ND	0.72				
Vinyl Chloride	2 (S)	16	0.79	NA			10	J 50		9.1	0.79	ND	7.9	ND	0.79				
m/p Xylenes	5 (S)	ND	1.5	NA			260	20		17	1.5	ND	15	ND	1.5				
o-Xylene	5 (S)	ND	0.72	NA			73	10		9.2	0.72	ND	7.2	ND	0.72				
Trans-1,2-Dichloroethene		ND		NA			ND			ND	0.81	ND	8.1	ND	0.81				
Chlorobenzene		ND		NA			ND			ND	0.78	ND	7.8	ND	0.78				
Total BTEX and MTBE		84.2		NA			400.0			45.0		15.0		0.0					
Total Chlorinate VOCs		22.2		NA			1486.0			486.6		523.0		0.0					
Total VOCs		106.4		NA			1886.0			531.6		538.0		0.0					
<b>Semivolatile Organic Compounds</b>																			
Acenaphthene	20 (S)	NA		NA			NA			NA		NA		NA					
Anthracene	50 (S)	NA		NA			NA			NA		NA		NA					
Benzo(a)anthracene	0.002 (GV)	NA		NA			NA			NA		NA		NA					
Benzo[b]fluoranthene	0.002 (GV)	NA		NA			NA			NA		NA		NA					
bis(2-Ethylhexyl)phthalate	50 (S)	NA		NA			NA			NA		NA		NA					
Carbazole		NA		NA			NA			NA		NA		NA					
Chrysene	0.002 (GV)	NA		NA			NA			NA		NA		NA					
Dibenzofuran		NA		NA			NA			NA		NA		NA					
Diethylphthalate	50 (GV)	NA		NA			NA			NA		NA		NA					
Dimethylnaphthalene	50 (GV)	NA		NA			NA			NA		NA		NA					
Di-n-butylphthalate		NA		NA			NA			NA		NA		NA					
Di-n-octyl phthalate	50 (GV)	NA		NA			NA			NA		NA		NA					
Fluoranthene	50 (GV)	NA		NA			NA			NA		NA		NA					
Fluorene	50 (GV)	NA		NA			NA			NA		NA		NA					



TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-8 R4802-07 10/22/03	MW-9 (Product) AB41758 09/06/01	MW-10I AB94794 09/24/03	MW-10I R4802-15 10/23/03	MW-10I dilution R4802-15DL 10/23/03	MW-10D R5474-04 12/19/03
2-Methylnaphthalene		NA	NA	NA	NA	NA	NA
Naphthalene	10 (GV)	NA	NA	NA	NA	NA	NA
n-Nitrosodimethylamine	50 (GV)	NA	NA	NA	NA	NA	NA
Phenanthrene	50 (GV)	NA	NA	NA	NA	NA	NA
Pyrene	50 (GV)	NA	NA	NA	NA	NA	NA
TOTAL SVOCs		NA	NA	NA	NA	NA	NA
<b>Metals</b>							
Aluminum	NS	NA	NA	NA	NA	NA	NA
Antimony	3 (GV)	NA	NA	NA	NA	NA	NA
Arsenic	25 (S)	NA	NA	NA	NA	NA	NA
Barium	1000 (S)	NA	NA	NA	NA	NA	NA
Beryllium	3 (GV)	NA	NA	NA	NA	NA	NA
Cadmium	10 (S)	NA	NA	NA	NA	NA	NA
Calcium	NS	NA	NA	NA	NA	NA	NA
Chromium	50 (S)	NA	NA	NA	NA	NA	NA
Cobalt	NS	NA	NA	NA	NA	NA	NA
Copper	200 (S)	NA	NA	NA	NA	NA	NA
Iron	300 (S)	NA	NA	NA	NA	NA	NA
Lead	25 (S)	NA	NA	NA	NA	NA	NA
Magnesium	35000 (GV)	NA	NA	NA	NA	NA	NA
Manganese	300 (S)	NA	NA	NA	NA	NA	NA
Mercury	2 (S)	NA	NA	NA	NA	NA	NA
Nickel	NS	NA	NA	NA	NA	NA	NA
Potassium	NS	NA	NA	NA	NA	NA	NA
Selenium	10 (S)	NA	NA	NA	NA	NA	NA
Silver	50 (S)	NA	NA	NA	NA	NA	NA
Sodium	20000 (S)	NA	NA	NA	NA	NA	NA
Thallium	4 (GV)	NA	NA	NA	NA	NA	NA
Vanadium	NS	NA	NA	NA	NA	NA	NA
Zinc	300 (S)	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls (PCBs)	5 (S)	NA	NA	NA	NA	NA	NA
Specific Gravity	NS	NA	NA	NA	NA	NA	NA
TPH Finger Print	NS	NA	NA	NA	NA	NA	NA

NOTES:

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dilution = Results from diluted analysis

All compounds measured in parts per billion (ppb)

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TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-111 R4802-08 10/22/03			MW-111 dilution R4802-08DL 10/22/03			MW-11D R5474-01 12/19/03			PZ-3 AB41756 09/06/01			PZ-3 R4802-13 10/23/03			PZ-3 dilution R4802-13DL 10/23/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Acetone	50 (GV)	ND		3.5	ND		180	ND		3.5	NA		ND		3.5	ND		18	
Benzene	0.7 (S)	5.2		0.71	ND		36	ND		0.71	NA		160		0.71	170		3.6	
Chloroethane	5 (S)	ND		0.51	ND		26	ND		2.4	NA		ND		2.4	ND		12	
Chloroform	7 (S)	ND		0.61	ND		30	ND		0.61	NA		ND		0.61	ND		3	
cis-1,2-Dichloroethene	5 (S)	1500	E	0.62	2100		31	ND		0.62	NA		3.5	J	0.62	ND		3.1	
1,1-Dichloroethane	5 (S)	16		0.66	ND		33	ND		0.66	NA		ND		0.66	ND		3.3	
1,1-Dichloroethene	5 (S)	15		0.69	ND		34	ND		0.69	NA		ND		0.69	ND		3.4	
1,2-Dichloroethane	5 (S)	ND		0.56	ND		28	ND		0.56	NA		ND		0.56	ND		2.8	
Ethylbenzene	5 (S)	ND		0.76	ND		38	ND		0.76	NA		240	E	0.76	260		3.8	
Methylene Chloride	5 (S)	ND		1.8	ND		88	ND		1.8	NA		ND		1.8	ND		8.8	
Methyl Tertiary Butyl Ether (MTBE)	10 (GV)	6.9		1	ND		52	ND		1	NA		150		1	170		5.2	
Tetrachloroethene	5 (S)	60		0.7	ND		35	ND		0.7	NA		ND		0.7	ND		3.5	
Toluene	5 (S)	ND		0.71	ND		36	ND		0.71	NA		6.6		0.71	7		3.6	
1,1,1-Trichloroethane	5 (S)	150		0.75	190	J	38	ND		0.75	NA		ND		0.75	ND		3.8	
Trichloroethene	5 (S)	250	E	0.72	300		36	ND		0.72	NA		ND		0.72	ND		3.6	
Vinyl Chloride	2 (S)	61		0.79	71	J	40	ND		0.79	NA		ND		0.79	ND		4	
m/p Xylenes	5 (S)	ND		1.5	ND		76	ND		1.5	NA		310		1.5	340		7.6	
o-Xylene	5 (S)	ND		0.72	ND		36	ND		0.72	NA		4.4	J	0.72	ND		7.6	
Trans-1,2-Dichloroethene		2.5	J	0.81	ND		40	ND		0.81	NA		ND		0.81	ND		4	
Chlorobenzene		ND			ND			ND		0.78	NA-		ND		0.78	ND		3.9	
Total BTEX and MTBE		12.1			0.0			0.0			NA		871.0			947.0			
Total Chlorinate VOCs		2054.5			2661.0			0.0			NA		3.5			0.0			
Total VOCs		2066.6			2661.0			0.0			NA		874.5			947.0			
<b>Semivolatile Organic Compounds</b>																			
Acenaphthene	20 (S)	NA			NA			NA			ND	10	NA			NA		NA	
Anthracene	50 (S)	NA			NA			NA			ND	10	NA			NA		NA	
Benzo(a)anthracene	0.002 (GV)	NA			NA			NA			ND	10	NA			NA		NA	
Benzo[b]fluoranthene	0.002 (GV)	NA			NA			NA			ND	10	NA			NA		NA	
bis(2-Ethylhexyl)phthalate	50 (S)	NA			NA			NA			ND	10	NA			NA		NA	
Carbazole		NA			NA			NA			ND	10	NA			NA		NA	
Chrysene	0.002 (GV)	NA			NA			NA			ND	10	NA			NA		NA	
Dibenzofuran		NA			NA			NA			ND	10	NA			NA		NA	
Diethylphthalate	50 (GV)	NA			NA			NA			ND	10	NA			NA		NA	
Dimethylnaphthalene	50 (GV)	NA			NA			NA			ND	10	NA			NA		NA	
Di-n-butylphthalate		NA			NA			NA			ND	10	NA			NA		NA	
Di-n-octyl phthalate	50 (GV)	NA			NA			NA			ND	10	NA			NA		NA	
Fluoranthene	50 (GV)	NA			NA			NA			ND	10	NA			NA		NA	
Fluorene	50 (GV)	NA			NA			NA			ND	10	NA			NA		NA	

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	MW-111 R4802-08 10/22/03	MW-111 dilution R4802-08DL 10/22/03	MW-11D R5474-01 12/19/03	PZ-3 AB41756 09/06/01	PZ-3 R4802-13 10/23/03	PZ-3 dilution R4802-13DL 10/23/03
2-Methylnaphthalene		NA	NA	NA	9.4 J 10	NA	NA
Naphthalene	10 (GV)	NA	NA	NA	9.9 J 10	NA	NA
n-Nitrosodimethylamine	50 (GV)	NA	NA	NA	ND 10	NA	NA
Phenanthrene	50 (GV)	NA	NA	NA	1.2 J 10	NA	NA
Pyrene	50 (GV)	NA	NA	NA	ND 10	NA	NA
TOTAL SVOCs		NA	NA	NA	21 J	NA	NA
<b>Metals</b>					NA		
Aluminum	NS	NA	NA	NA	NA	NA	NA
Antimony	3 (GV)	NA	NA	NA		NA	NA
Arsenic	25 (S)	NA	NA	NA	NA	NA	NA
Barium	1000 (S)	NA	NA	NA		NA	NA
Beryllium	3 (GV)	NA	NA	NA	NA	NA	NA
Cadmium	10 (S)	NA	NA	NA		NA	NA
Calcium	NS	NA	NA	NA	NA	NA	NA
Chromium	50 (S)	NA	NA	NA	NA	NA	NA
Cobalt	NS	NA	NA	NA	NA	NA	NA
Copper	200 (S)	NA	NA	NA	NA	NA	NA
Iron	300 (S)	NA	NA	NA	NA	NA	NA
Lead	25 (S)	NA	NA	NA	NA	NA	NA
Magnesium	35000 (GV)	NA	NA	NA	NA	NA	NA
Manganese	300 (S)	NA	NA	NA	NA	NA	NA
Mercury	2 (S)	NA	NA	NA	NA	NA	NA
Nickel	NS	NA	NA	NA	NA	NA	NA
Potassium	NS	NA	NA	NA	NA	NA	NA
Selenium	10 (S)	NA	NA	NA	NA	NA	NA
Silver	50 (S)	NA	NA	NA	NA	NA	NA
Sodium	20000 (S)	NA	NA	NA	NA	NA	NA
Thallium	4 (GV)	NA	NA	NA	NA	NA	NA
Vanadium	NS	NA	NA	NA	NA	NA	NA
Zinc	300 (S)	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls (PCBs)	5 (S)	NA	NA	NA	NA	NA	NA
Specific Gravity	NS	NA	NA	NA	NA	NA	NA
TPH Finger Print	NS	NA	NA	NA	NA	NA	NA

NOTES:

Sample suffix "I" = intermediate well, "D" = bedrock well

NA = Not analyzed

J = The concentration was detected at a value below the MDL

u = Analyzed for but not detected at the MDL

SHADED = Analyte detected in excess of GROUNDWATER STANDARD

dilution = Results from diluted analysis

All compounds measured in parts per billion (ppb)

D = Dilution

NOTES:

Sample suffix "I" = intermediate well, "D" = bedrock well

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All compounds measured in parts per billion (ppb)

D = Dilution

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	PZ-5 R4802-14 10/23/03			PZ-7 AB41620 09/05/01			PZ-7 R4802-09 10/22/03			PZ-7 dilution R4802-09DL 10/22/03			FIELD BLANK AB41762 09/06/01			TRIP BLANK AB41763 09/06/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Acetone	50 (GV)	ND	3.5	ND	10000	ND	350	ND	510	ND	20	ND	20						
Benzene	0.7 (S)	ND	0.71	ND	500	260	J 71	ND	710	ND	1	ND	1						
Chloroethane	5 (S)	ND	2.4	ND	2500	ND	240	ND	2400	ND	5	ND	5						
Chloroform	7 (S)	ND	0.61	ND	2500	ND	61	ND	610	ND	5	ND	5						
cis-1,2-Dichloroethene	5 (S)	ND	0.62	r	2500	61000	E 62	83000	D 620	ND	5	ND	5						
1,1-Dichloroethane	5 (S)	ND	0.66	2500	2500	1500	66	2100	J 660	ND	5	ND	5						
1,1-Dichloroethene	5 (S)	ND	0.69	ND	2500	ND	66	ND	690	ND	5	ND	5						
1,2-Dichloroethane	5 (S)	ND	0.56	ND	2500	1700	56	2400	J 560	ND	5	ND	5						
Ethylbenzene	5 (S)	ND	0.76	ND	500	350	J 76	ND	760	ND	1	ND	1						
Methylene Chloride	5 (S)	ND	1.8	ND	2500	ND	180	ND	1800	1.6	J 5	1.6	J 5						
Methyl Tertiary Butyl Ether (MTBE)	10 (GV)	ND	1	ND	500	220	J 100	ND	1000	ND	1	ND	1						
Tetrachloroethene	5 (S)	ND	0.7	ND	2500	ND	70	ND	700	ND	5	ND	5						
Toluene	5 (S)	ND	0.71	1300	500	1100	71	ND	710	ND	1	ND	1						
1,1,1-Trichloroethane	5 (S)	ND	0.75	5500	2500	3200	75	4100	J 750	ND	5	ND	5						
Trichloroethene	5 (S)	ND	0.72	ND	2500	ND	72	ND	720	ND	5	ND	5						
Vinyl Chloride	2 (S)	ND	0.79	1100	J 2500	770	79	830	J 790	ND	5	ND	5						
m/p Xylenes	5 (S)	ND	1.5	870	J 1000	1000	150	ND	1500	ND	2	ND	2						
o-Xylene	5 (S)	ND	0.72	ND	500	360	J 72	ND	720	ND	1	ND	1						
Trans-1,2-Dichloroethene		ND	0.81	ND		ND	81	ND	810	ND		ND							
Chlorobenzene		ND	0.78	ND		ND		ND		ND		ND							
Total BTEX and MTBE		0.0		2170.0		3290.0		0.0		0.0		0.0							
Total Chlorinate VOCs		0.0		9100.0		68170.0		92430.0		1.6		1.6							
Total VOCs		0.0		11270.0		71460.0		92430.0		1.6		1.6							
<b>Semivolatile Organic Compounds</b>																			
Acenaphthene	20 (S)	NA		5	J 10	NA		NA		ND	10	NA							
Anthracene	50 (S)	NA		ND	10	NA		NA		ND	10	NA							
Benzo(a)anthracene	0.002 (GV)	NA		ND	10	NA		NA		ND	10	NA							
Benzo[b]fluoranthene	0.002 (GV)	NA		ND	10	NA		NA		ND	10	NA							
bis(2-Ethylhexyl)phthalate	50 (S)	NA		47	10	NA		NA		ND	10	NA							
Carbazole		NA		5.2	J 10	NA		NA		ND	10	NA							
Chrysene	0.002 (GV)	NA		ND	10	NA		NA		ND	10	NA							
Dibenzofuran		NA		3.7	J 10	NA		NA		ND	10	NA							
Diethylphthalate	50 (GV)	NA		18	B 10	NA		NA		ND	10	NA							
Dimethylnaphthalene	50 (GV)	NA		ND	10	NA		NA		ND	10	NA							
Di-n-butylphthalate		NA		3.2	J 10	NA		NA		ND	10	NA							
Di-n-octyl phthalate	50 (GV)	NA		1.5	J 10	NA		NA		ND	10	NA							
Fluoranthene	50 (GV)	NA		6.7	J 10	NA		NA		ND	10	NA							
Fluorene	50 (GV)	NA		ND	10	NA		NA		ND	10	NA							

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	PZ-5 R4802-14 10/23/03	PZ-7 AB41620 09/05/01	PZ-7 R4802-09 10/22/03	PZ-7 dilution R4802-09DL 10/22/03	FIELD BLANK AB41762 09/06/01	TRIP BLANK AB41763 09/06/01	
2-Methylnaphthalene		NA	110	10	NA	ND	10	NA
Naphthalene	10 (GV)	NA	200	10	NA	ND	10	NA
n-Nitrosodimethylamine	50 (GV)	NA	130	10	NA	ND	10	NA
Phenanthrene	50 (GV)	NA	6.8	J 10	NA	ND	10	NA
Pyrene	50 (GV)	NA	ND	10	NA	ND	10	NA
TOTAL SVOCs		NA	537	J	NA	0		NA
<b>Metals</b>								
Aluminum	NS	NA	660	180	NA	ND	180	NA
Antimony	3 (GV)	NA	ND	15	NA	ND	15	NA
Arsenic	25 (S)	NA	100	7.5	NA	ND	7.5	NA
Barium	1000 (S)	NA	180	50	NA	ND	50	NA
Beryllium	3 (GV)	NA	ND	15	NA	ND	15	NA
Cadmium	10 (S)	NA	ND	3.5	NA	ND	3.5	NA
Calcium	NS	NA	73000	2000	NA	ND	2000	NA
Chromium	50 (S)	NA	ND	50	NA	ND	50	NA
Cobalt	NS	NA	ND	20	NA	ND	20	NA
Copper	200 (S)	NA	ND	50	NA	ND	50	NA
Iron	300 (S)	NA	52000	280	NA	ND	280	NA
Lead	25 (S)	NA	ND	8	NA	ND	8	NA
Magnesium	35000 (GV)	NA	15000	2000	NA	ND	2000	NA
Manganese	300 (S)	NA	7200	40	NA	ND	40	NA
Mercury	2 (S)	NA	ND	0.7	NA	ND	0.7	NA
Nickel	NS	NA	ND	50	NA	ND	50	NA
Potassium	NS	NA	9900	2000	NA	ND	2000	NA
Selenium	10 (S)	NA	ND	40	NA	ND	40	NA
Silver	50 (S)	NA	ND	20	NA	ND	20	NA
Sodium	20000 (S)	NA	260000	2000	NA	ND	2000	NA
Thallium	4 (GV)	NA	ND	10	NA	ND	10	NA
Vanadium	NS	NA	ND	50	NA	ND	50	NA
Zinc	300 (S)	NA	74	50	NA	51	50	NA
Polychlorinated Biphenyls (PCBs)	5 (S)	NA	ND	0.5	NA	ND	0.5	NA
Specific Gravity	NS	NA	NA		NA	NA		NA
TPH Finger Print	NS	NA	NA		NA	NA		NA

NOTES:

Sample suffix "I" = intermediate well, "D" = bedrock well

NA = Not analyzed

J = The concentration was detected at a value below the MDL

u = Analyzed for but not detected at the MDL

SHADED = Analyte detected in excess of GROUNDWATER STANDARD

dilution = Results from diluted analysis

All compounds measured in parts per billion (ppb)

D = Dilution

NOTES:

Sample suffix "I" = intermediate well, "D" = bedrock well

NA = Not analyzed

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SHADED = Analyte detected in excess of GROUNDWATER STANDARD

dilution = Results from diluted analysis

All compounds measured in parts per billion (ppb)

D = Dilution

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	FIELD BLANK R4802-16 10/22/03			TRIP BLANK R4802-17 10/22/03			FIELD BLANK R5474-05 12/19/03			TRIP BLANK R5474-06 12/19/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>													
Acetone	50 (GV)	ND		3.5	ND		3.5	ND		3.5	ND		3.5
Benzene	0.7 (S)	ND		0.71	ND		0.71	ND		0.71	ND		0.71
Chloroethane	5 (S)	ND		2.4	ND		2.4	ND		2.4	ND		2.4
Chloroform	7 (S)	ND		0.61	ND		0.61	ND		0.61	ND		0.61
cis-1,2-Dichloroethene	5 (S)	ND		0.62	ND		0.62	ND		0.62	ND		0.62
1,1-Dichloroethane	5 (S)	ND		0.66	ND		0.66	ND		0.66	ND		0.66
1,1-Dichloroethene	5 (S)	ND		0.69	ND		0.69	ND		0.69	ND		0.69
1,2-Dichloroethane	5 (S)	ND		0.56	ND		0.56	ND		0.56	ND		0.56
Ethylbenzene	5 (S)	ND		0.76	ND		0.76	ND		0.76	ND		0.76
Methylene Chloride	5 (S)	ND		1.8	ND		1.8	ND		1.8	ND		1.8
Methyl Tertiary Butyl Ether (MTBE)	10 (GV)	ND		1	ND		1	ND		1	ND		1
Tetrachloroethene	5 (S)	ND		0.7	ND		0.7	ND		0.7	ND		0.7
Toluene	5 (S)	ND		0.71	ND		0.71	ND		0.71	ND		0.71
1,1,1-Trichloroethane	5 (S)	ND		0.75	ND		0.75	ND		0.75	ND		0.75
Trichloroethene	5 (S)	ND		0.72	ND		0.72	ND		0.72	ND		0.72
Vinyl Chloride	2 (S)	ND		0.79	ND		0.79	ND		0.79	ND		0.79
m/p Xylenes	5 (S)	ND		1.5	ND		1.5	ND		1.5	ND		1.5
o-Xylene	5 (S)	ND		0.72	ND		0.72	ND		0.72	ND		0.72
Trans-1,2-Dichloroethene		ND		0.81	ND		0.81	ND		0.81	ND		0.81
Chlorobenzene		ND		0.78	ND		0.78	ND		0.78	ND		0.78
Total BTEX and MTBE		0.0			0.0			0.0			0.0		
Total Chlorinate VOCs		0.0			0.0			0.0			0.0		
Total VOCs		0.0			0.0			0.0			0.0		
<b>Semivolatile Organic Compounds</b>													
Acenaphthene	20 (S)	NA			NA			NA			NA		
Anthracene	50 (S)	NA			NA			NA			NA		
Benzo(a)anthracene	0.002 (GV)	NA			NA			NA			NA		
Benzo[b]fluoranthene	0.002 (GV)	NA			NA			NA			NA		
bis(2-Ethylhexyl)phthalate	50 (S)	NA			NA			NA			NA		
Carbazole		NA			NA			NA			NA		
Chrysene	0.002 (GV)	NA			NA			NA			NA		
Dibenzofuran		NA			NA			NA			NA		
Diethylphthalate	50 (GV)	NA			NA			NA			NA		
Dimethylnaphthalene	50 (GV)	NA			NA			NA			NA		
Di-n-butylphthalate		NA			NA			NA			NA		
Di-n-octyl phthalate	50 (GV)	NA			NA			NA			NA		
Fluoranthene	50 (GV)	NA			NA			NA			NA		
Fluorene	50 (GV)	NA			NA			NA			NA		

TABLE 2  
GROUNDWATER SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	FIELD BLANK R4802-16 10/22/03	TRIP BLANK R4802-17 10/22/03	FIELD BLANK R5474-05 12/19/03	TRIP BLANK R5474-06 12/19/03
2-Methylnaphthalene		NA	NA	NA	NA
Naphthalene	10 (GV)	NA	NA	NA	NA
n-Nitrosodimethylamine	50 (GV)	NA	NA	NA	NA
Phenanthrene	50 (GV)	NA	NA	NA	NA
Pyrene	50 (GV)	NA	NA	NA	NA
TOTAL SVOCs		NA	NA	NA	NA
<b>Metals</b>					
Aluminum	NS	NA	NA	NA	NA
Antimony	3 (GV)	NA	NA	NA	NA
Arsenic	25 (S)	NA	NA	NA	NA
Barium	1000 (S)	NA	NA	NA	NA
Beryllium	3 (GV)	NA	NA	NA	NA
Cadmium	10 (S)	NA	NA	NA	NA
Calcium	NS	NA	NA	NA	NA
Chromium	50 (S)	NA	NA	NA	NA
Cobalt	NS	NA	NA	NA	NA
Copper	200 (S)	NA	NA	NA	NA
Iron	300 (S)	NA	NA	NA	NA
Lead	25 (S)	NA	NA	NA	NA
Magnesium	35000 (GV)	NA	NA	NA	NA
Manganese	300 (S)	NA	NA	NA	NA
Mercury	2 (S)	NA	NA	NA	NA
Nickel	NS	NA	NA	NA	NA
Potassium	NS	NA	NA	NA	NA
Selenium	10 (S)	NA	NA	NA	NA
Silver	50 (S)	NA	NA	NA	NA
Sodium	20000 (S)	NA	NA	NA	NA
Thallium	4 (GV)	NA	NA	NA	NA
Vanadium	NS	NA	NA	NA	NA
Zinc	300 (S)	NA	NA	NA	NA
Polychlorinated Biphenyls (PCBs)	5 (S)	NA	NA	NA	NA
Specific Gravity	NS	NA	NA	NA	NA
TPH Finger Print	NS	NA	NA	NA	NA

NOTES:

Sample suffix "I" = intermediate well, "D" = bedrock well  
 NA = Not analyzed  
 J = The concentration was detected at a value below the MDL  
 u = Analyzed for but not detected at the MDL  
 SHADED = Analyte detected in excess of GROUNDWATER STANDARD  
 dilution = Results from diluted analysis  
 All compounds measured in parts per billion (ppb)  
 D = Dilution

NOTES:

Sample suffix "I" = intermediate well, "D" = bedrock well  
 NA = Not analyzed  
 J = The concentration was detected at a value below the MDL  
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 SHADED = Analyte detected in excess of GROUNDWATER STANDARD  
 dilution = Results from diluted analysis  
 All compounds measured in parts per billion (ppb)  
 D = Dilution

TABLE 3  
 AQUIFER TEST RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

Monitoring Well	Hydraulic Conductivity		
	ft/min	ft/day	cm/sec
MW-1	1.40E-04	2.02E-01	7.13E-05
MW-3	3.51E-05	5.06E-02	1.79E-05
MW-4	2.95E-05	4.25E-02	1.50E-05
Average Site Hydraulic Conductivity =	6.84E-05	9.84E-02	3.47E-05

ft/min = feet per minute

ft/day = feet per day

cm/sec = centimeters per second



TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-1 N4977-1			S-2 N4977-2			S-3 N4977-3			S-4 N4977-4			S-5 N4977-5			S-6 N4977-6		
		06/26/01			06/26/01			06/26/01			06/26/01			06/26/01			06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
<b>S.T.A.R.S LIST</b>																			
Benzene	60	380		410		ND	5.9	ND	6.3	610		11000							
Toluene	1,500	ND	120	650		ND	5.9	ND	6.3	5400		4100							
Ethylbenzene	5,500	330		3700		ND	5.9	ND	6.3	5700		100000	D						
m&p-Xylenes	1,200 (total)	ND	240	5100		ND	12	ND	13	47000	D	320000	D						
o-Xylenes	1,200 (total)	ND	120	350		28		ND	6.3	26000	D	6200							
Methyl Tert Butyl Ether (MTBE)	~	2000		ND	130	ND	5.9	ND	6.3	ND	120	1500							
Isopropylbenzene	~	ND	120	850		37		ND	6.3	1500		7700							
n-Propylbenzene	~	270		1900		82		ND	6.3	3000		46000	D						
1,3,5-Trimethylbenzene	~	ND	240	ND	260	ND	12	ND	13	ND	230	ND	240						
Tert-Butylbenzene	~	1400		13000		ND	5.9	87		48000	D	220000	D						
1,2,4-Trimethylbenzene	~	ND	120	ND	130	58		ND	6.3	ND	120	ND	120						
sec-Butylbenzene	~	ND	120	600		73		ND	6.3	360		5900							
Isopropyltoluene	~	ND	120	270		71		ND	6.3	ND	120	3300							
n-Butylbenzene	~	2000		9600		ND	5.9	130		38000		150000	D						
Napthalene	13,000	1100		3100		29		230		14000		35000	D						
<b>VOC + MTBE</b>																			
Benzene	60	--	--	--	--	--	--	--	--	--	--	--	--						
Toluene	1,500	--	--	--	--	--	--	--	--	--	--	--	--						
Ethylbenzene	5,500	--	--	--	--	--	--	--	--	--	--	--	--						
m/p Xylenes	1,200	--	--	--	--	--	--	--	--	--	--	--	--						
o-Xylene	1,200	--	--	--	--	--	--	--	--	--	--	--	--						
1,1-Dichloroethene	400	--	--	--	--	--	--	--	--	--	--	--	--						
Acetone	200	--	--	--	--	--	--	--	--	--	--	--	--						
Methylene Chloride	100	--	--	--	--	--	--	--	--	--	--	--	--						
2-Butanone	300	--	--	--	--	--	--	--	--	--	--	--	--						
cis-1,2-Dichloroethene	~	--	--	--	--	--	--	--	--	--	--	--	--						
Chloroform	300	--	--	--	--	--	--	--	--	--	--	--	--						
1,1,1-Trichloroethane	800	--	--	--	--	--	--	--	--	--	--	--	--						
Trichloroethene	700	--	--	--	--	--	--	--	--	--	--	--	--						
Bromodichloromethane	~	--	--	--	--	--	--	--	--	--	--	--	--						
4-Methyl-2-Pentanone	1,000	--	--	--	--	--	--	--	--	--	--	--	--						
1,1,2-Trichloroethane	~	--	--	--	--	--	--	--	--	--	--	--	--						
Tetrachloroethene	1,400	--	--	--	--	--	--	--	--	--	--	--	--						
Chlorobenzene	1,700	--	--	--	--	--	--	--	--	--	--	--	--						
Total BTEX and MTBE		2710		10210		28		0		84710		442800							
Total Chlorinated VOCs		--		--		--		--		--		--							
TOTAL VOC's	10,000	7480	--	39530	--	378	--	447	--	189570	--	910700	--						

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-1 N4977-1 06/26/01			S-2 N4977-2 06/26/01			S-3 N4977-3 8.0 06/26/01			S-4 N4977-4 12.0 06/26/01			S-5 N4977-5 11.0 06/26/01			S-6 N4977-6 13.0 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
<b>S.T.A.R.S LIST</b>																			
Acenaphthylene	41,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND		400	
Naphthalene	13,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8500	D		
Acenaphthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	180	J		
Fluorene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	360	J		
Phenanthrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	700			
Anthracene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	170	J		
Fluoranthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	250	J		
Pyrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	190	J		
Benzo(a)anthracene	224 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	59	J		
Chrysene	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	87	J		
Benzo(b)fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	31	J		
Benzo(k)fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	85	J		
Benzo(a)pyrene	61 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	50	J		
Indeno(1,2,3-cd)pyrene	3,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22	J		
Dibenzo(a,h)anthracene	14 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND		400	
Benzo(g,h,i)perylene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30	J		
<b>SVOCs</b>																			
Nitrobenzene	200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	13,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	36,400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethylphthalate	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	41,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	6,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	7,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	8,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	224 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	61 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	3,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
benzo[g,h,i]perylene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL BN's	500,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-1 N4977-1 06/26/01			S-2 N4977-2 06/26/01			S-3 N4977-3 06/26/01			S-4 N4977-4 06/26/01			S-5 N4977-5 06/26/01			S-6 N4977-6 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7.5 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	300 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.16 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	1 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	10 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	30 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	25 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	2,000 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	13 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	2 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	150 SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	20 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs) (ppb)</b>	1,000 surface or 10,000 subsurface	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOTES:

- SB = Site Background
  - VOC = Volatile Organic Compound
  - BN = Semivolatile Compound
  - TIC = Tentatively Identified Compound
  - ND = Not Detected
  - = Not analyzed
  - J = The concentration was detected at a value below the MDL
  - D = Analyte detected at a secondary dilution factor
  - B = Analyte found in blank as well as the sample
  - SHADED = Analyte detected in excess of recommended soil cleanup objective
  - \* = Results from diluted analysis
- All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-7 N4977-7 14.0 06/26/01			S-8 N4977-8 14.0 06/26/01			S-9 N4995-1 10.0 06/26/01			S-10 N4995-2 06/26/01			S-11 N4995-3 06/26/01			S-12 N4995-4 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
<b>S.T.A.R.S LIST</b>																			
Benzene	60	130		93		ND	1.2	ND	12	ND	250	ND	1.2						
Toluene	1,500	23		33		ND	1.2	230	12	ND	250	ND	1.2						
Ethylbenzene	5,500	11		37		ND	1.2	530	12	530	250	ND	1.2						
m&p-Xylenes	1,200 (total)	ND	13	130		ND	2.5	40	25	690	490	3.5	2.5						
o-Xylenes	1,200 (total)	ND	6.4	210		ND	1.2	73	12	1500	250	ND	1.2						
Methyl Tert Butyl Ether (MTBE)	~	ND	6.4	ND	6.2	ND	1.2	ND	12	ND	250	ND	1.2						
Isopropylbenzene	~	ND	6.4	ND	6.2	ND	1.2	160	12	ND	250	ND	1.2						
n-Propylbenzene	~	ND	6.4	10	6.2	ND	1.2	500	12	1500	250	ND	1.2						
1,3,5-Trimethylbenzene	~	ND	13	ND	12	ND	2.5	ND	25	ND	490	ND	2.5						
Tert-Butylbenzene	~	ND	6.4	10		ND	1.2	250	12	4000	250	3.1	1.2						
1,2,4-Trimethylbenzene	~	ND	6.4	ND	6.2	ND	1.2	380	12	ND	250	ND	1.2						
sec-Butylbenzene	~	ND	6.4	ND	6.2	ND	1.2	370	12	930	250	ND	1.2						
Isopropyltoluene	~	ND	6.4	ND	6.2	ND	1.2	240	12	1900	250	ND	1.2						
n-Butylbenzene	~	ND	6.4	37		ND	1.2	1200	12	13000	250	2.8	1.2						
Napthalene	13,000	ND	6.4	14		ND	1.2	200	12	3100	250	ND	1.2						
<b>VOC + MTBE</b>																			
Benzene	60	--	--	--	--	--	--	--	--	--	--	--	--						
Toluene	1,500	--	--	--	--	--	--	--	--	--	--	--	--						
Ethylbenzene	5,500	--	--	--	--	--	--	--	--	--	--	--	--						
m/p Xylenes	1,200	--	--	--	--	--	--	--	--	--	--	--	--						
o-Xylene	1,200	--	--	--	--	--	--	--	--	--	--	--	--						
1,1-Dichloroethene	400	--	--	--	--	--	--	--	--	--	--	--	--						
Acetone	200	--	--	--	--	--	--	--	--	--	--	--	--						
Methylene Chloride	100	--	--	--	--	--	--	--	--	--	--	--	--						
2-Butanone	300	--	--	--	--	--	--	--	--	--	--	--	--						
cis-1,2-Dichloroethene	~	--	--	--	--	--	--	--	--	--	--	--	--						
Chloroform	300	--	--	--	--	--	--	--	--	--	--	--	--						
1,1,1-Trichloroethane	800	--	--	--	--	--	--	--	--	--	--	--	--						
Trichloroethene	700	--	--	--	--	--	--	--	--	--	--	--	--						
Bromodichloromethane	~	--	--	--	--	--	--	--	--	--	--	--	--						
4-Methyl-2-Pentanone	1,000	--	--	--	--	--	--	--	--	--	--	--	--						
1,1,2-Trichloroethane	~	--	--	--	--	--	--	--	--	--	--	--	--						
Tetrachloroethene	1,400	--	--	--	--	--	--	--	--	--	--	--	--						
Chlorobenzene	1,700	--	--	--	--	--	--	--	--	--	--	--	--						
Total BTEX and MTBE		164		503		0		873		2720		4							
Total Chlorinated VOCs		--		--		--		--		--		--							
TOTAL VOC's	10,000	164	--	574	--	0	--	4173	--	27150	--	9	--						

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-7 N4977-7 14.0 06/26/01			S-8 N4977-8 14.0 06/26/01			S-9 N4995-1 10.0 06/26/01			S-10 N4995-2 06/26/01			S-11 N4995-3 06/26/01			S-12 N4995-4 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
<b>S.T.A.R.S LIST</b>																			
Acenaphthylene	41,000	ND	430	160	J	ND	410	ND	410	ND	410	ND	410	ND	410	ND	410	ND	410
Naphthalene	13,000	ND	430	52	J	ND	410	1300		2300		100	J						
Acenaphthene	50,000	ND	430	99	J	ND	410	150	J	ND	410	40	J						
Fluorene	50,000	ND	430	290	J	24	J	430		1100		52	J						
Phenanthrene	50,000	ND	430	960		62	J	1100		1600		120	J						
Anthracene	50,000	ND	430	260	J	ND	410	230	J	420		27	J						
Fluoranthene	50,000	ND	430	790		56	J	310	J	640		70	J						
Pyrene	50,000	ND	430	700		63	J	180	J	570		63	J						
Benzo(a)anthracene	224 or MDL	ND	430	220	J	21	J	63	J	150	J	22	J						
Chrysene	400	ND	430	300	J	28	J	76	J	190	J	24	J						
Benzo(b)fluoranthene	1,100	ND	430	200	J	ND	410	43	J	140	J	ND	410						
Benzo(k)fluoranthene	1,100	ND	430	230	J	22	J	37	J	130	J	ND	410						
Benzo(a)pyrene	61 or MDL	ND	430	220	J	21	J	47	J	120	J	ND	410						
Indeno(1,2,3-cd)pyrene	3,200	ND	430	56	J	ND	410	21	J	71	J	ND	410						
Dibenzo(a,h)anthracene	14 or MDL	ND	430	ND	410	ND	410	ND	410	ND	410	ND	410						
Benzo(g,h,i)perylene	50,000	ND	430	92	J	ND	410	24	J	82	J	ND	410						
<b>SVOCs</b>																			
Nitrobenzene	200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	13,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	36,400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethylphthalate	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	41,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	6,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	7,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	8,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	224 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	61 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene	3,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
benzo[g,h,i]perylene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL BN's	500,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-7 N4977-7 14.0 06/26/01			S-8 N4977-8 14.0 06/26/01			S-9 N4995-1 10.0 06/26/01			S-10 N4995-2 06/26/01			S-11 N4995-3 06/26/01			S-12 N4995-4 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	SB	--	--	--	--	--	--	--	--	--	--	ND	1.1	--	--	--	--	--	--
Arsenic	7.5 or SB	--	--	--	--	--	--	--	--	--	--	4.2	--	--	--	--	--	--	--
Barium	300 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.16 or SB	--	--	--	--	--	--	--	--	--	--	0.55	B	--	--	--	--	--	--
Cadmium	1 or SB	--	--	--	--	--	--	--	--	--	--	ND	0.07	--	--	--	--	--	--
Calcium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	10 or SB	--	--	--	--	--	--	--	--	--	--	16.5	--	--	--	--	--	--	--
Cobalt	30 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	25 or SB	--	--	--	--	--	--	--	--	--	--	17.4	--	--	--	--	--	--	--
Iron	2,000 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	SB	--	--	--	--	--	--	--	--	--	--	11.6	--	--	--	--	--	--	--
Magnesium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0	--	--	--	--	--	--	--	--	--	--	0.04	--	--	--	--	--	--	--
Nickel	13 or SB	--	--	--	--	--	--	--	--	--	--	19.5	--	--	--	--	--	--	--
Potassium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	2 or SB	--	--	--	--	--	--	--	--	--	--	0.25	B	--	--	--	--	--	--
Silver	SB	--	--	--	--	--	--	--	--	--	--	ND	0.21	--	--	--	--	--	--
Sodium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	SB	--	--	--	--	--	--	--	--	--	--	ND	0.53	--	--	--	--	--	--
Vanadium	150 SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	20 or SB	--	--	--	--	--	--	--	--	--	--	65.9	--	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs) (ppb)</b>	1,000 surface or 10,000 subsurface	--	--	--	--	--	--	--	--	--	--	ND	21	--	--	--	--	--	--

NOTES:  
 SB = Site Background  
 VOC = Volatile Organic Compound  
 BN = Semivolatile Compound  
 TIC = Tentatively Identified Compound  
 ND = Not Detected  
 -- = Not analyzed  
 J = The concentration was detected at a value below the MDL  
 D = Analyte detected at a secondary dilution factor  
 B = Analyte found in blank as well as the sample  
 SHADED = Analyte detected in excess of recommended soil  
 cleanup objective  
 \* = Results from diluted analysis  
 All compounds measured in parts per billion (ppb), except metals  
 which are in parts per million (ppm)

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-13 N4995-5			S-14 N4995-6			S-15 N4995-7			S-16 N4995-8			S-17 N4995-9			S-18 N4995-10		
		06/26/01			06/26/01			06/26/01			06/26/01			06/26/01			06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
<b>S.T.A.R.S LIST</b>																			
Benzene	60	ND	1.2	ND	240	ND	240	ND	240	ND	130	4600	300						
Toluene	1,500	ND	1.2	610	240	ND	240	340	240	2600	130	260000	D 15000						
Ethylbenzene	5,500	ND	1.2	1400	240	5100	240	950	240	7300	130	120000	D 15000						
m&p-Xylenes	1,200 (total)	ND	2.3	230000	D 24000	150000	D 4800	4800	480	3900	D 2500	47000	D 30000						
o-Xylenes	1,200 (total)	ND	1.2	59000	D 12000	35000	D 2400	2200	240	19000	D 1300	220000	D 15000						
Methyl Tert Butyl Ether (MTBE)	~	ND	1.2	ND	240	ND	240	ND	240	ND	130	ND	300						
Isopropylbenzene	~	ND	1.2	3100	240	5000	240	ND	240	1400	130	14000	300						
n-Propylbenzene	~	ND	1.2	890	240	13000	240	730	240	1400	130	56000	D 15000						
1,3,5-Trimethylbenzene	~	ND	2.3	ND	480	ND	480	ND	480	ND	250	ND	610						
Tert-Butylbenzene	~	ND	1.2	210000	D 1200	140000	2400	4900	240	40000	D 1300	400000	D 15000						
1,2,4-Trimethylbenzene	~	ND	1.2	3000	240	ND	240	ND	240	ND	130	ND	300						
sec-Butylbenzene	~	ND	1.2	14000	240	5500	240	ND	240	1100	130	11000	300						
Isopropyltoluene	~	ND	1.2	5300	240	1500	240	ND	240	ND	130	ND	300						
n-Butylbenzene	~	ND	1.2	89000	D 12000	71000	D 2400	2200	240	19000	D 1300	200000	15000						
Napthalene	13,000	ND	1.2	31000	D 12000	28000	D 2400	1600	240	6100	130	54000	D 15000						
<b>VOC + MTBE</b>																			
Benzene	60	--	--	--	--	--	--	--	--	--	--	--	--						
Toluene	1,500	--	--	--	--	--	--	--	--	--	--	--	--						
Ethylbenzene	5,500	--	--	--	--	--	--	--	--	--	--	--	--						
m/p Xylenes	1,200	--	--	--	--	--	--	--	--	--	--	--	--						
o-Xylene	1,200	--	--	--	--	--	--	--	--	--	--	--	--						
1,1-Dichloroethene	400	--	--	--	--	--	--	--	--	--	--	--	--						
Acetone	200	--	--	--	--	--	--	--	--	--	--	--	--						
Methylene Chloride	100	--	--	--	--	--	--	--	--	--	--	--	--						
2-Butanone	300	--	--	--	--	--	--	--	--	--	--	--	--						
cis-1,2-Dichloroethene	~	--	--	--	--	--	--	--	--	--	--	--	--						
Chloroform	300	--	--	--	--	--	--	--	--	--	--	--	--						
1,1,1-Trichloroethane	800	--	--	--	--	--	--	--	--	--	--	--	--						
Trichloroethene	700	--	--	--	--	--	--	--	--	--	--	--	--						
Bromodichloromethane	~	--	--	--	--	--	--	--	--	--	--	--	--						
4-Methyl-2-Pentanone	1,000	--	--	--	--	--	--	--	--	--	--	--	--						
1,1,2-Trichloroethane	~	--	--	--	--	--	--	--	--	--	--	--	--						
Tetrachloroethene	1,400	--	--	--	--	--	--	--	--	--	--	--	--						
Chlorobenzene	1,700	--	--	--	--	--	--	--	--	--	--	--	--						
Total BTEX and MTBE		0		291010		190100		8290		32800		651600							
Total Chlorinated VOCs		--		--		--		--		--		--							
TOTAL VOC's	10,000	0	--	647300	--	454100	--	17720	--	101800	--	1386600	--						

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-13 N4995-5			S-14 N4995-6			S-15 N4995-7			S-16 N4995-8			S-17 N4995-9			S-18 N4995-10		
		06/26/01			06/26/01			06/26/01			06/26/01			06/26/01			06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
<b>S.T.A.R.S LIST</b>																			
Acenaphthylene	41,000	180	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Naphthalene	13,000	33	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acenaphthene	50,000	78	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Fluorene	50,000	100	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenanthrene	50,000	320	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Anthracene	50,000	190	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Fluoranthene	50,000	920	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pyrene	50,000	1200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)anthracene	224 or MDL	360	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Chrysene	400	560	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(b)fluoranthene	1,100	780	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(k)fluoranthene	1,100	830	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)pyrene	61 or MDL	790	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Indeno(1,2,3-cd)pyrene	3,200	230	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dibenzo(a,h)anthracene	14 or MDL	58	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(g,h,i)perylene	50,000	420	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>SVOCs</b>																			
Nitrobenzene	200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Naphthalene	13,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Methylnaphthalene	36,400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dimethylphthalate	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acenaphthylene	41,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acenaphthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dibenzofuran	6,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Diethylphthalate	7,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Fluorene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenanthrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Anthracene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbazole	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Di-n-butylphthalate	8,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Fluoranthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pyrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)anthracene	224 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Chrysene	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
bis(2-Ethylhexyl)phthalate	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Di-n-octyl phthalate	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo[b]fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo[k]fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo[a]pyrene	61 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Indeno[1,2,3-cd]pyrene	3,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
benzo[g,h,i]perylene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TOTAL BN's	500,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	



TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-13 N4995-5			S-14 N4995-6			S-15 N4995-7			S-16 N4995-8			S-17 N4995-9			S-18 N4995-10		
		06/26/01			06/26/01			06/26/01			06/26/01			06/26/01			06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7.5 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	300 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.16 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	1 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	10 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	30 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	25 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	2,000 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	13 or SB	--	--	--	--	--	--	J	--	--	--	--	--	--	--	--	--	--	--
Potassium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	2 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	150 SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	20 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs) (ppb)</b>	1,000 surface or 10,000 subsurface	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOTES:

- SB = Site Background
  - VOC = Volatile Organic Compound
  - BN = Semivolatile Compound
  - TIC = Tentatively Identified Compound
  - ND = Not Detected
  - = Not analyzed
  - J = The concentration was detected at a value below the MDL
  - D = Analyte detected at a secondary dilution factor
  - B = Analyte found in blank as well as the sample
  - SHADED = Analyte detected in excess of recommended soil cleanup objective
  - \* = Results from diluted analysis
- All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-19 N4995-11 06/26/01			S-20 N5029-1 4.50 06/26/01			S-21 N5029-2 4.50 06/26/01			S-22 N5029-3 4.50 06/26/01			S-23 N5029-4 06/26/01			S-24 N5029-5 5.50 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
<b>S.T.A.R.S LIST</b>																			
Benzene	60	ND	1.2	ND	1.2	ND	6.0	ND	5.7	ND	5.7	13							
Toluene	1,500	ND	1.2	ND	1.2	ND	6.0	ND	5.7	ND	5.7	ND	12						
Ethylbenzene	5,500	ND	1.2	ND	1.2	18	6.0	8.3		ND	5.7	38							
m&p-Xylenes	1,200 (total)	ND	2.4	ND	2.4	50	12	ND	11	17		230							
o-Xylenes	1,200 (total)	ND	1.2	ND	1.2	66	6.0	26		14		260							
Methyl Tert Butyl Ether (MTBE)	~	ND	1.2	ND	1.2	ND	6.0	ND	5.7	40		ND	12						
Isopropylbenzene	~	ND	1.2	ND	1.2	21	6.0	ND	5.7	ND	5.7	56							
n-Propylbenzene	~	ND	1.2	ND	1.2	46	6.0	29		ND	5.7	210							
1,3,5-Trimethylbenzene	~	ND	2.4	ND	2.4	ND	12	ND	11	ND	11	ND	23						
Tert-Butylbenzene	~	1.4	1.2	ND	1.2	ND	6.0	ND	5.7	ND	5.7	ND	12						
1,2,4-Trimethylbenzene	~	ND	1.2	ND	1.2	310	6.0	18		38		850							
sec-Butylbenzene	~	ND	1.2	ND	1.2	31	6.0	10		ND	5.7	62							
Isopropyltoluene	~	ND	1.2	ND	1.2	27	6.0	ND	5.7	ND	5.7	110							
n-Butylbenzene	~	ND	1.2	ND	1.2	220	6.0	78		70		910							
Napthalene	13,000	1.8	1.2	ND	1.2	81	6.0	71		34		520							
<b>VOC + MTBE</b>																			
Benzene	60	--	--	--	--	--	--	--	--	--	--	--	--						
Toluene	1,500	--	--	--	--	--	--	--	--	--	--	--	--						
Ethylbenzene	5,500	--	--	--	--	--	--	--	--	--	--	--	--						
m/p Xylenes	1,200	--	--	--	--	--	--	--	--	--	--	--	--						
o-Xylene	1,200	--	--	--	--	--	--	--	--	--	--	--	--						
1,1-Dichloroethene	400	--	--	--	--	--	--	--	--	--	--	--	--						
Acetone	200	--	--	--	--	--	--	--	--	--	--	--	--						
Methylene Chloride	100	--	--	--	--	--	--	--	--	--	--	--	--						
2-Butanone	300	--	--	--	--	--	--	--	--	--	--	--	--						
cis-1,2-Dichloroethene	~	--	--	--	--	--	--	--	--	--	--	--	--						
Chloroform	300	--	--	--	--	--	--	--	--	--	--	--	--						
1,1,1-Trichloroethane	800	--	--	--	--	--	--	--	--	--	--	--	--						
Trichloroethene	700	--	--	--	--	--	--	--	--	--	--	--	--						
Bromodichloromethane	~	--	--	--	--	--	--	--	--	--	--	--	--						
4-Methyl-2-Pentanone	1,000	--	--	--	--	--	--	--	--	--	--	--	--						
1,1,2-Trichloroethane	~	--	--	--	--	--	--	--	--	--	--	--	--						
Tetrachloroethene	1,400	--	--	--	--	--	--	--	--	--	--	--	--						
Chlorobenzene	1,700	--	--	--	--	--	--	--	--	--	--	--	--						
Total BTEX and MTBE		0		0		134		34		71		541							
Total Chlorinated VOCs		--		--		--		--		--		--							
TOTAL VOC's	10,000	3	--	0	--	870	--	240	--	213	--	3259	--						

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-19 N4995-11 06/26/01			S-20 N5029-1 4.50 06/26/01			S-21 N5029-2 4.50 06/26/01			S-22 N5029-3 4.50 06/26/01			S-23 N5029-4 06/26/01			S-24 N5029-5 5.50 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
<b>S.T.A.R.S LIST</b>																			
Acenaphthylene	41,000	--	--	210	J		72	J		26	J		ND	380		440			
Naphthalene	13,000	--	--	1400			220	J		51	J		24	J		730			
Acenaphthene	50,000	--	--	2400			340	J		120	J		ND	380		1100			
Fluorene	50,000	--	--	5900	D		580			260	J		ND	380		2100			
Phenanthrene	50,000	--	--	29000	D		1400			740			77	J		5900	D		
Anthracene	50,000	--	--	13000	D		390	J		170	J		ND	380		1100			
Fluoranthene	50,000	--	--	38000	D		1000			510			92	J		6100	D		
Pyrene	50,000	--	--	37000	D		850			420			70	J		6400	D		
Benzo(a)anthracene	224 or MDL	--	--	24000	D		360	J		160	J		33	J		1800			
Chrysene	400	--	--	21000	D		380	J		180	J		34	J		1800			
Benzo(b)fluoranthene	1,100	--	--	26000	D		250	J		110	J		25	J		1700			
Benzo(k)fluoranthene	1,100	--	--	29000	D		330	J		150	J		33	J		2400			
Benzo(a)pyrene	61 or MDL	--	--	27000	D		310	J		150	J		27	J		2000			
Indeno(1,2,3-cd)pyrene	3,200	--	--	4000	D		89	J		46	J		ND	380		360	J		
Dibenzo(a,h)anthracene	14 or MDL	--	--	1000			ND	400		ND	380		ND	380		62	J		
Benzo(g,h,i)perylene	50,000	--	--	9400	D		120	J		61	J		ND	380		830			
<b>SVOCs</b>																			
Nitrobenzene	200	--	--	--	--		--	--		--	--		--	--		--	--		
Naphthalene	13,000	--	--	--	--		--	--		--	--		--	--		--	--		
2-Methylnaphthalene	36,400	--	--	--	--		--	--		--	--		--	--		--	--		
Dimethylphthalate	~	--	--	--	--		--	--		--	--		--	--		--	--		
Acenaphthylene	41,000	--	--	--	--		--	--		--	--		--	--		--	--		
Acenaphthene	50,000	--	--	--	--		--	--		--	--		--	--		--	--		
Dibenzofuran	6,200	--	--	--	--		--	--		--	--		--	--		--	--		
Diethylphthalate	7,100	--	--	--	--		--	--		--	--		--	--		--	--		
Fluorene	50,000	--	--	--	--		--	--		--	--		--	--		--	--		
Phenanthrene	50,000	--	--	--	--		--	--		--	--		--	--		--	--		
Anthracene	50,000	--	--	--	--		--	--		--	--		--	--		--	--		
Carbazole	~	--	--	--	--		--	--		--	--		--	--		--	--		
Di-n-butylphthalate	8,100	--	--	--	--		--	--		--	--		--	--		--	--		
Fluoranthene	50,000	--	--	--	--		--	--		--	--		--	--		--	--		
Pyrene	50,000	--	--	--	--		--	--		--	--		--	--		--	--		
Benzo(a)anthracene	224 or MDL	--	--	--	--		--	--		--	--		--	--		--	--		
Chrysene	400	--	--	--	--		--	--		--	--		--	--		--	--		
bis(2-Ethylhexyl)phthalate	50,000	--	--	--	--		--	--		--	--		--	--		--	--		
Di-n-octyl phthalate	50,000	--	--	--	--		--	--		--	--		--	--		--	--		
Benzo[b]fluoranthene	1,100	--	--	--	--		--	--		--	--		--	--		--	--		
Benzo[k]fluoranthene	1,100	--	--	--	--		--	--		--	--		--	--		--	--		
Benzo[a]pyrene	61 or MDL	--	--	--	--		--	--		--	--		--	--		--	--		
Indeno[1,2,3-cd]pyrene	3,200	--	--	--	--		--	--		--	--		--	--		--	--		
benzo[g,h,i]perylene	50,000	--	--	--	--		--	--		--	--		--	--		--	--		
TOTAL BN's	500,000	--	--	--	--		--	--		--	--		--	--		--	--		

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-19 N4995-11 06/26/01			S-20 N5029-1 4.50 06/26/01			S-21 N5029-2 4.50 06/26/01			S-22 N5029-3 4.50 06/26/01			S-23 N5029-4 06/26/01			S-24 N5029-5 5.50 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7.5 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	300 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.16 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	1 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	10 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	30 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	25 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	2,000 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	13 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	2 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	150 SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	20 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs) (ppb)</b>	1,000 surface or 10,000 subsurface	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOTES:  
 SB = Site Background  
 VOC = Volatile Organic Compound  
 BN = Semivolatile Compound  
 TIC = Tentatively Identified Compound  
 ND = Not Detected  
 -- = Not analyzed  
 J = The concentration was detected at a value below the MDL  
 D = Analyte detected at a secondary dilution factor  
 B = Analyte found in blank as well as the sample  
 SHADED = Analyte detected in excess of recommended soil  
 cleanup objective  
 \* = Results from diluted analysis  
 All compounds measured in parts per billion (ppb), except metals  
 which are in parts per million (ppm)

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-25 N5029-6 5.50 06/26/01			S-26 N5029-7 2.50 06/26/01			S-27 N5029-8 2.50 06/26/01			S-28 N5029-9 2.50 06/26/01			S-29 N5029-10 2.50 06/26/01			Field Blank N5029-11 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
		<b>Volatile Organic Compounds S.T.A.R.S LIST</b>																	
Benzene	60	ND	110	ND	120	ND	12	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	1,500	ND	110	ND	120	ND	12	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	5,500	320		190		ND	12	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	1,200 (total)	810		1600		ND	24	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylenes	1,200 (total)	750		1900		150		--	--	--	--	--	--	--	--	--	--	--	--
Methyl Tert Butyl Ether (MTBE)	~	ND	110	ND	120	ND	12	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	~	ND	110	ND	120	35		--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	~	490		400		120		--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	~	ND	230	ND	240	ND	24	--	--	--	--	--	--	--	--	--	--	--	--
Tert-Butylbenzene	~	ND	110	ND	120	42		--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	~	4800		5700		76		--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	~	590		ND	120	110		--	--	--	--	--	--	--	--	--	--	--	--
Isopropyltoluene	~	210		ND	120	120		--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	~	4100		5400		650		--	--	--	--	--	--	--	--	--	--	--	--
Napthalene	13,000	3200		1600		250		--	--	--	--	--	--	--	--	--	--	--	--
<b>VOC + MTBE</b>																			
Benzene	60	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	1						
Toluene	1,500	--	--	--	--	--	--	ND	5.6	3	J	ND	1.2						
Ethylbenzene	5,500	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	1.5						
m/p Xylenes	1,200	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	1.5						
o-Xylene	1,200	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	1.7						
1,1-Dichloroethene	400	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	1.6						
Acetone	200	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	5.8						
Methylene Chloride	100	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	1.1						
2-Butanone	300	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	5.6						
cis-1,2-Dichloroethene	~	--	--	--	--	--	--	8.4		980	D	ND	1.8						
Chloroform	300	--	--	--	--	--	--	31		32		ND	1						
1,1,1-Trichloroethane	800	--	--	--	--	--	--	21		54		ND	1.5						
Trichloroethene	700	--	--	--	--	--	--	120		180	D	ND	2.8						
Bromodichloromethane	~	--	--	--	--	--	--	6.6		6.3		ND	1						
4-Methyl-2-Pentanone	1,000	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	3						
1,1,2-Trichloroethane	~	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	1.1						
Tetrachloroethene	1,400	--	--	--	--	--	--	17		61		ND	1.6						
Chlorobenzene	1,700	--	--	--	--	--	--	ND	5.6	ND	5.5	ND	1						
Total BTEX and MTBE		1880		3690		150		0		3		0							
Total Chlorinated VOCs		--		--		--		204		1313		0							
TOTAL VOC's	10,000	15270	--	16790	--	1553	--	204		1316	J	0							

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-25 N5029-6 5.50 06/26/01			S-26 N5029-7 2.50 06/26/01			S-27 N5029-8 2.50 06/26/01			S-28 N5029-9 2.50 06/26/01			S-29 N5029-10 2.50 06/26/01			Field Blank N5029-11 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
<b>S.T.A.R.S LIST</b>																			
Acenaphthylene	41,000	ND	380	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	13,000	620		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	50,000	280	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	50,000	760		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	50,000	1300		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	50,000	310	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	50,000	680		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	50,000	510		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	224 or MDL	210	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	400	220	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	1,100	120	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	1,100	180	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	61 or MDL	180	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	3,200	59	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	14 or MDL	ND	380	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	50,000	79	J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>SVOCs</b>																			
Nitrobenzene	200	--	--	--	--	--	--	--	ND	380	ND	370	ND	370	ND	370	ND	10	10
Naphthalene	13,000	--	--	--	--	--	--	--	ND	380	ND	370	ND	370	ND	370	ND	10	10
2-Methylnaphthalene	36,400	--	--	--	--	--	--	--	30	J	ND	370	ND	370	ND	370	ND	10	10
Dimethylphthalate	~	--	--	--	--	--	--	--	ND	380	ND	370	ND	370	ND	370	ND	10	10
Acenaphthylene	41,000	--	--	--	--	--	--	--	22	J	ND	370	ND	370	ND	370	ND	10	10
Acenaphthene	50,000	--	--	--	--	--	--	--	ND	380	ND	370	ND	370	ND	370	ND	10	10
Dibenzofuran	6,200	--	--	--	--	--	--	--	ND	380	ND	370	ND	370	ND	370	ND	10	10
Diethylphthalate	7,100	--	--	--	--	--	--	--	ND	380	ND	370	ND	370	ND	370	ND	10	10
Fluorene	50,000	--	--	--	--	--	--	--	52	J	ND	370	ND	370	ND	370	ND	10	10
Phenanthrene	50,000	--	--	--	--	--	--	--	150	J	26	J	ND	370	ND	370	ND	10	10
Anthracene	50,000	--	--	--	--	--	--	--	37	J	ND	370	ND	370	ND	370	ND	10	10
Carbazole	~	--	--	--	--	--	--	--	ND	380	ND	370	ND	370	ND	370	ND	10	10
Di-n-butylphthalate	8,100	--	--	--	--	--	--	--	25	J	ND	370	ND	370	ND	370	ND	10	10
Fluoranthene	50,000	--	--	--	--	--	--	--	150	J	43	J	ND	370	ND	370	ND	10	10
Pyrene	50,000	--	--	--	--	--	--	--	160	J	31	J	ND	370	ND	370	ND	10	10
Benzo(a)anthracene	224 or MDL	--	--	--	--	--	--	--	56	J	20	J	ND	370	ND	370	ND	10	10
Chrysene	400	--	--	--	--	--	--	--	77	J	19	J	ND	370	ND	370	ND	10	10
bis(2-Ethylhexyl)phthalate	50,000	--	--	--	--	--	--	--	89	J	40	J	ND	370	ND	370	ND	10	10
Di-n-octyl phthalate	50,000	--	--	--	--	--	--	--	ND	380	ND	370	ND	370	ND	370	ND	10	10
Benzo[b]fluoranthene	1,100	--	--	--	--	--	--	--	64	J	ND	370	ND	370	ND	370	ND	10	10
Benzo[k]fluoranthene	1,100	--	--	--	--	--	--	--	69	J	23	J	ND	370	ND	370	ND	10	10
Benzo[a]pyrene	61 or MDL	--	--	--	--	--	--	--	61	J	ND	370	ND	370	ND	370	ND	10	10
Indeno[1,2,3-cd]pyrene	3,200	--	--	--	--	--	--	--	ND	380	ND	370	ND	370	ND	370	ND	10	10
benzo[g,h,i]perylene	50,000	--	--	--	--	--	--	--	28	J	ND	370	ND	370	ND	370	ND	10	10
TOTAL BN's	500,000	--	--	--	--	--	--	--	1070		202		ND						

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-25 N5029-6 5.50 06/26/01			S-26 N5029-7 2.50 06/26/01			S-27 N5029-8 2.50 06/26/01			S-28 N5029-9 2.50 06/26/01			S-29 N5029-10 2.50 06/26/01			Field Blank N5029-11 06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7.5 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	300 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.16 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	1 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	10 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	30 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	25 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	2,000 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	13 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	2 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	150 SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	20 or SB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Polychlorinated Biphenyls (PCBs) (ppb)</b>	1,000 surface or 10,000 subsurface	--	--	--	--	--	--	--	ND	19	ND	18	--	--	--	--	--	--	--

NOTES:  
 SB = Site Background  
 VOC = Volatile Organic Compound  
 BN = Semivolatile Compound  
 TIC = Tentatively Identified Compound  
 ND = Not Detected  
 -- = Not analyzed  
 J = The concentration was detected at a value below the MDL  
 D = Analyte detected at a secondary dilution factor  
 B = Analyte found in blank as well as the sample  
 SHADED = Analyte detected in excess of recommended soil  
 cleanup objective  
 \* = Results from diluted analysis  
 All compounds measured in parts per billion (ppb), except metals  
 which are in parts per million (ppm)

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	Trip Blank N2029-12			S-30 N5029-13			S-31 N5029-14			S-32 N5029-15			S-33 N5029-16		
		06/26/01			06/26/01			06/26/01			06/26/01			06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																
<b>S.T.A.R.S LIST</b>																
Benzene	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	1,500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	5,500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylenes	1,200 (total)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylenes	1,200 (total)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl Tert Butyl Ether (MTBE)	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tert-Butylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropyltoluene	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Napthalene	13,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>VOC + MTBE</b>																
Benzene	60	ND	1	ND	6.4	ND	6.1	41		ND	6					
Toluene	1,500	ND	1.2	28	JD	4.4	J	220		36000	D					
Ethylbenzene	5,500	ND	1.5	41	JD	3	J	25		26000	D					
m/p Xylenes	1,200	ND	1.5	240	D	22		99		110000	D					
o-Xylene	1,200	ND	1.7	110	D	9.6		46		40000	D					
1,1-Dichloroethene	400	ND	1.6	ND	6.4	ND	6.1	13		ND	6					
Acetone	200	ND	5.8	39		58		56		66						
Methylene Chloride	100	ND	1.1	7.2		5	J	4300		21						
2-Butanone	300	ND	5.6	ND	6.4	12		ND	6.3	ND	6					
cis-1,2-Dichloroethene	~	ND	1.8	70		4.7	J	2100		50						
Chloroform	300	ND	1	26		23		350	E	32						
1,1,1-Trichloroethane	800	ND	1.5	42		4.1	J	930	D	1700	E					
Trichloroethene	700	ND	2.8	70	D	52		9600		130000	D					
Bromodichloromethane	~	ND	1	ND	6.4	5.3	J	ND	6.3	ND	6					
4-Methyl-2-Pentanone	1,000	ND	3	ND	6.4	11		110		ND	6					
1,1,2-Trichloroethane	~	ND	1.1	59		ND	6.1	44		76						
Tetrachloroethene	1,400	ND	1.6	720	D	120		560		100000	D					
Chlorobenzene	1,700	ND	1	ND	6.4	ND	6.1	ND	6.3	ND	6					
Total BTEX and MTBE		0		419		39		431		212000						
Total Chlorinated VOCs		0		1033		295		18063		231945						
TOTAL VOC's	10,000	0		1452	J	334	J	18494		443945						



TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	Trip Blank N2029-12			S-30 N5029-13			S-31 N5029-14			S-32 N5029-15			S-33 N5029-16		
		06/26/01			06/26/01			06/26/01			06/26/01			06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																
<b>S.T.A.R.S LIST</b>																
Acenaphthylene	41,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Naphthalene	13,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acenaphthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Fluorene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenanthrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Anthracene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Fluoranthene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pyrene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)anthracene	224 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Chrysene	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(b)fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(k)fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)pyrene	61 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Indeno(1,2,3-cd)pyrene	3,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dibenzo(a,h)anthracene	14 or MDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(g,h,i)perylene	50,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>SVOCs</b>																
Nitrobenzene	200	--	--	ND	430	ND	410	ND	420	ND	420	ND	400			
Naphthalene	13,000	--	--	640		ND	410	ND	420	1300						
2-Methylnaphthalene	36,400	--	--	630		ND	410	ND	420	1300						
Dimethylphthalate	~	--	--	9900	D	3100		2600		ND		400				
Acenaphthylene	41,000	--	--	ND	430	ND	410	ND	420	ND		400				
Acenaphthene	50,000	--	--	ND	430	ND	410	ND	420	54		J				
Dibenzofuran	6,200	--	--	35	J	ND	410	ND	420	67		J				
Diethylphthalate	7,100	--	--	16000	D	2500		2500		11000		D				
Fluorene	50,000	--	--	ND	430	ND	410	ND	420	93		J				
Phenanthrene	50,000	--	--	240	J	ND	410	ND	420	320		J				
Anthracene	50,000	--	--	31	J	ND	410	ND	420	48		J				
Carbazole	~	--	--	ND	430	ND	410	ND	420	25		J				
Di-n-butylphthalate	8,100	--	--	200	J	21	J	ND	420	250		J				
Fluoranthene	50,000	--	--	ND	430	ND	410	ND	420	ND		400				
Pyrene	50,000	--	--	24	J	ND	410	ND	420	44		J				
Benzo(a)anthracene	224 or MDL	--	--	ND	430	ND	410	ND	420	ND		400				
Chrysene	400	--	--	ND	430	ND	410	ND	420	ND		400				
bis(2-Ethylhexyl)phthalate	50,000	--	--	980		44	J	44	J	1900						
Di-n-octyl phthalate	50,000	--	--	70	J	ND	410	ND	420	110		J				
Benzo[b]fluoranthene	1,100	--	--	ND	430	ND	410	ND	420	ND		400				
Benzo[k]fluoranthene	1,100	--	--	ND	430	ND	410	ND	420	ND		400				
Benzo[a]pyrene	61 or MDL	--	--	ND	430	ND	410	ND	420	ND		400				
Indeno[1,2,3-cd]pyrene	3,200	--	--	ND	430	ND	410	ND	420	ND		400				
benzo[g,h,i]perylene	50,000	--	--	ND	430	ND	410	ND	420	ND		400				
TOTAL BN's	500,000	--	--	28750		5665		5144		16511						

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	Trip Blank N2029-12			S-30 N5029-13			S-31 N5029-14			S-32 N5029-15			S-33 N5029-16		
		06/26/01	06/26/01	06/26/01	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																
Aluminum	SB	--	--	12900			5160			8330			6240			
Antimony	SB	--	--	ND	1.1		ND	1.1		ND	1.1		ND	1.1		
Arsenic	7.5 or SB	--	--	6.7			3.4			5.9			3.4			
Barium	300 or SB	--	--	60			19.2	B		33.0			25.0			
Beryllium	0.16 or SB	--	--	0.56	B		0.22	B		0.38	B		0.25	B		
Cadmium	1 or SB	--	--	0.13	B		ND	0.07		0.09	B		0.12	B		
Calcium	SB	--	--	2440			22200			2200			21600			
Chromium	10 or SB	--	--	17.8			7.4			13.8			10			
Cobalt	30 or SB	--	--	12.2			6.0			10.1			6.8			
Copper	25 or SB	--	--	32.1			17.9			29.4			20.4			
Iron	2,000 or SB	--	--	28900			13900			22600			15200			
Lead	SB	--	--	15.5			6.9			11.1			7.8			
Magnesium	SB	--	--	5100			3760			3620			3910			
Manganese	SB	--	--	756			386			803			613			
Mercury	0	--	--	0.03			0.02			0.02			0.04			
Nickel	13 or SB	--	--	27.4			12.0			21.1			14.6			
Potassium	SB	--	--	1720	E		660	E		965	E		895	E		
Selenium	2 or SB	--	--	ND	0.20		ND	0.19		ND	0.20		0.26	B		
Silver	SB	--	--	0.32	B		0.22	B		0.28	B		0.33	B		
Sodium	SB	--	--	403	B		270	B		173	B		184	B		
Thallium	SB	--	--	0.63	B		ND	0.51		ND	0.54		ND	0.52		
Vanadium	150 SB	--	--	18.0			7.8			12.9			9.4			
Zinc	20 or SB	--	--	85.5			53.0			77.1			60.1			
<b>Polychlorinated Biphenyls (PCBs) (ppb)</b>	1,000 surface or 10,000 subsurface	--	--	ND	21		ND	20		ND	21		ND	20		

NOTES:

- SB = Site Background
  - VOC = Volatile Organic Compound
  - BN = Semivolatile Compound
  - TIC = Tentatively Identified Compound
  - ND = Not Detected
  - = Not analyzed
  - J = The concentration was detected at a value below the MDL
  - D = Analyte detected at a secondary dilution factor
  - B = Analyte found in blank as well as the sample
  - SHADED = Analyte detected in excess of recommended soil cleanup objective
  - \* = Results from diluted analysis
- All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-34 N5029-17			S-35 N5029-18			S-36 N5029-19			S-37 N5029-20		
		06/26/01			06/26/01			06/26/01			06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>													
<b>S.T.A.R.S LIST</b>													
Benzene	60	--	--	--	--	--	--	--	--	--	--	--	
Toluene	1,500	--	--	--	--	--	--	--	--	--	--	--	
Ethylbenzene	5,500	--	--	--	--	--	--	--	--	--	--	--	
m&p-Xylenes	1,200 (total)	--	--	--	--	--	--	--	--	--	--	--	
o-Xylenes	1,200 (total)	--	--	--	--	--	--	--	--	--	--	--	
Methyl Tert Butyl Ether (MTBE)	~	--	--	--	--	--	--	--	--	--	--	--	
Isopropylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	
n-Propylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	
Tert-Butylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	
1,2,4-Trimethylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	
sec-Butylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	
Isopropyltoluene	~	--	--	--	--	--	--	--	--	--	--	--	
n-Butylbenzene	~	--	--	--	--	--	--	--	--	--	--	--	
Napthalene	13,000	--	--	--	--	--	--	--	--	--	--	--	
<b>VOC + MTBE</b>													
Benzene	60	ND	5.7	ND	5.8	ND	6.2	ND	5.7				
Toluene	1,500	31		ND	5.8	ND	6.2	1.7	J				
Ethylbenzene	5,500	12		ND	5.8	ND	6.2	ND	5.7				
m/p Xylenes	1,200	77		ND	5.8	ND	6.2	ND	5.7				
o-Xylene	1,200	31		ND	5.8	ND	6.2	ND	5.7				
1,1-Dichloroethene	400	ND	5.7	ND	5.8	ND	6.2	ND	5.7				
Acetone	200	15		65		43		31					
Methylene Chloride	100	ND	5.7	ND	5.8	5.4	J	27					
2-Butanone	300	ND	5.7	ND	5.8	ND	6.2	ND	5.7				
cis-1,2-Dichloroethene	~	4.6	J	ND	5.8	3.9	J	22					
Chloroform	300	19		25		20		18					
1,1,1-Trichloroethane	800	3.9	J	ND	5.8	2.7	J	2.5	J				
Trichloroethene	700	170	D	36		14		23					
Bromodichloromethane	~	4.5	J	4.5	J	4.5	J	4.2	J				
4-Methyl-2-Pentanone	1,000	ND	5.7	ND	5.8	5.7	J	ND	5.7				
1,1,2-Trichloroethane	~	ND	5.7	ND	5.8	ND	6.2	ND	5.7				
Tetrachloroethene	1,400	500	D	31		6.5		12					
Chlorobenzene	1,700	ND	5.7	ND	5.8	ND	6.2	ND	5.7				
Total BTEX and MTBE		151		0		0		2					
Total Chlorinated VOCs		717		162		106		140					
TOTAL VOC'S	10,000	868	J	162	J	106	J	141	J				

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-34 N5029-17			S-35 N5029-18			S-36 N5029-19			S-37 N5029-20		
		06/26/01			06/26/01			06/26/01			06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>													
<b>S.T.A.R.S LIST</b>													
Acenaphthylene	41,000	--	--	--	--	--	--	--	--	--	--	--	
Naphthalene	13,000	--	--	--	--	--	--	--	--	--	--	--	
Acenaphthene	50,000	--	--	--	--	--	--	--	--	--	--	--	
Fluorene	50,000	--	--	--	--	--	--	--	--	--	--	--	
Phenanthrene	50,000	--	--	--	--	--	--	--	--	--	--	--	
Anthracene	50,000	--	--	--	--	--	--	--	--	--	--	--	
Fluoranthene	50,000	--	--	--	--	--	--	--	--	--	--	--	
Pyrene	50,000	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)anthracene	224 or MDL	--	--	--	--	--	--	--	--	--	--	--	
Chrysene	400	--	--	--	--	--	--	--	--	--	--	--	
Benzo(b)fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	
Benzo(k)fluoranthene	1,100	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)pyrene	61 or MDL	--	--	--	--	--	--	--	--	--	--	--	
Indeno(1,2,3-cd)pyrene	3,200	--	--	--	--	--	--	--	--	--	--	--	
Dibenzo(a,h)anthracene	14 or MDL	--	--	--	--	--	--	--	--	--	--	--	
Benzo(g,h,i)perylene	50,000	--	--	--	--	--	--	--	--	--	--	--	
<b>SVOCs</b>													
Nitrobenzene	200	ND	380	ND	380	ND	410	ND	380	ND	380	380	
Naphthalene	13,000	ND	380	29	J	1500		ND	380	ND	380	380	
2-Methylnaphthalene	36,400	ND	380	29	J	1900		ND	380	ND	380	380	
Dimethylphthalate	~	ND	380	ND	380	180	J	ND	380	ND	380	380	
Acenaphthylene	41,000	ND	380	37	J	ND	410	ND	380	ND	380	380	
Acenaphthene	50,000	ND	380	20	J	140	J	ND	380	ND	380	380	
Dibenzofuran	6,200	ND	380	ND	380	180	J	ND	380	ND	380	380	
Diethylphthalate	7,100	25	J	88	J	2500		270	J	ND	380	380	
Fluorene	50,000	ND	380	54	J	430		ND	380	ND	380	380	
Phenanthrene	50,000	24	J	180	J	650		ND	380	ND	380	380	
Anthracene	50,000	ND	380	52	J	75	J	ND	380	ND	380	380	
Carbazole	~	ND	380	30	J	ND	410	ND	380	ND	380	380	
Di-n-butylphthalate	8,100	ND	380	ND	380	41	J	ND	380	ND	380	380	
Fluoranthene	50,000	27	J	250	J	120	J	ND	380	ND	380	380	
Pyrene	50,000	29	J	240	J	98	J	ND	380	ND	380	380	
Benzo(a)anthracene	224 or MDL	ND	380	100	J	31	J	ND	380	ND	380	380	
Chrysene	400	ND	380	120	J	36	J	ND	380	ND	380	380	
bis(2-Ethylhexyl)phthalate	50,000	46	J	280	J	450		63	J	ND	380	380	
Di-n-octyl phthalate	50,000	ND	380	42	J	150	J	ND	380	ND	380	380	
Benzo[b]fluoranthene	1,100	ND	380	100	J	ND	410	ND	380	ND	380	380	
Benzo[k]fluoranthene	1,100	ND	380	170	J	25	J	ND	380	ND	380	380	
Benzo[a]pyrene	61 or MDL	ND	380	130	J	ND	410	ND	380	ND	380	380	
Indeno[1,2,3-cd]pyrene	3,200	ND	380	42	J	ND	410	ND	380	ND	380	380	
benzo[g,h,i]perylene	50,000	ND	380	69	J	ND	410	ND	380	ND	380	380	
TOTAL BN's	500,000	151		2062		8506		333					

TABLE 4  
 POST EXCAVATION SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	S-34 N5029-17			S-35 N5029-18			S-36 N5029-19			S-37 N5029-20		
		06/26/01			06/26/01			06/26/01			06/26/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>													
Aluminum	SB	9660			14400			17100			9320		
Antimony	SB	ND	0.98		ND	1.0		ND	1.1		ND	1.0	
Arsenic	7.5 or SB	5.0			7.0			6.8			5.8		
Barium	300 or SB	41.8			83.6			97.3			43.5		
Beryllium	0.16 or SB	0.46	B		0.71			0.80			0.42	B	
Cadmium	1 or SB	0.15	B		0.11	B		0.22	B		0.12	B	
Calcium	SB	2000			3430			3090			22300		
Chromium	10 or SB	14.3			29.4			22.6			13.2		
Cobalt	30 or SB	8.7			10.7			14.9			9.8		
Copper	25 or SB	26.4			14.9			39.9			29.4		
Iron	2,000 or SB	19700			26400			35400			22200		
Lead	SB	42.4			16.4			18.9			17.5		
Magnesium	SB	3990			4490			6520			4940		
Manganese	SB	579			1730			2440			612		
Mercury	0	0.10			0.08			0.02			0.05		
Nickel	13 or SB	18.3			21.7			33.0			21.5		
Potassium	SB	753	E		883	E		2100	E		1140	E	
Selenium	2 or SB	0.40	B		0.26	B		ND	0.19		ND	0.18	
Silver	SB	0.28	B		0.49	B		0.53	B		0.21	B	
Sodium	SB	87.6	B		367	B		232	B		103	B	
Thallium	SB	ND	0.47		0.59	B		ND	0.52		ND	0.49	
Vanadium	150 SB	14.9			22.4			22.3			13.0		
Zinc	20 or SB	76.0			64.5			92.8			69.7		
<b>Polychlorinated Biphenyls (PCBs) (ppb)</b>	1,000 surface or 10,000 subsurface	ND	19		ND	19		ND	21		ND	19	

NOTES:  
 SB = Site Background  
 VOC = Volatile Organic Compound  
 BN = Semivolatile Compound  
 TIC = Tentatively Identified Compound  
 ND = Not Detected  
 -- = Not analyzed  
 J = The concentration was detected at a value below the MDL  
 D = Analyte detected at a secondary dilution factor  
 B = Analyte found in blank as well as the sample  
 SHADED = Analyte detected in excess of recommended soil cleanup objective  
 \* = Results from diluted analysis  
 All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	MW-3 N5493LP-1 6.5'-7.5' 08/06/01			MW-3I 08460-001 28'-28.8' 09/22/03			MW-3I 08460-002 36.4'-37.3' 09/22/03			MW-4 N5493LP-2 8.0'-9.0' 08/06/01			Field Blank N5493LP-3 08/06/01			Trip Blank N5493LP-4 08/06/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	27			ND	28	ND	28	ND	1.1	ND	5	ND	5					
Toluene	1,500	1400			ND	28	ND	28	ND	1.4	ND	5	ND	5					
Ethylbenzene	5,500	4500			6.11	J 28	ND	28	ND	1.6	ND	5	ND	5					
m/p Xylenes	1,200	4500			12	J 28	ND	28	ND	1.7	ND	5	ND	5					
o-Xylene	1,200	1400			ND	28	ND	28	ND	1.8	ND	5	ND	5					
Vinyl Chloride	120	NA			ND	28	ND	28	NA	NA	NA	NA	NA	NA					
Acetone	200	210	B		NA		NA		22	B	ND	5	ND	5					
Carbon Disulfide	2,700	ND			NA	28	NA	28	ND	1.1	ND	5	ND	5					
Methylene Chloride	100	100			ND	28	ND	28	4.2		ND	5	2.3	J					
cis-1,2-Dichloroethene	~	440			NA		80	J TIC	ND	2	ND	5	ND	5					
1,1,1-Trichloroethane	800	220			ND	28	ND	28	ND	1.6	ND	5	ND	5					
Tetrachloroethene	1,400	270			189	28	85	28	ND	1.8	ND	5	ND	5					
Chlorobenzene	1,700	ND			ND	28	ND	28	ND	1.1	ND	5	ND	5					
2-Butanone	~	NA			NA		NA		NA	NA	NA	NA	NA	NA					
Trichloroethene	700	ND			243	28	326	28	ND	1.8	ND	5	ND	5					
Total BTEX		11827			18.11		0		0		0		0						
Total Chlorinated VOCs		1030			432		491		26		0		2						
TOTAL VOC's	10,000	12857			450.11	J	491	J	26.2		0		2.3	J					
TOTAL TIC's		43200	J		1.38		132		ND		ND		5.2	J					
TOTAL VOC's & TIC's		56057	J		451.49	J	623		26.2		ND		7.5	J					
<b>Semivolatile Organic Compounds</b>																			
Naphthalene	13,000	9900			NA		NA		ND	410	ND	10	NA						
2-Methylnaphthalene	36,400	20000			NA		NA		ND	410	ND	10	NA						
Acenaphthene	50,000	1900	J		NA		NA		ND	410	ND	10	NA						
Dibenzofuran	6,200	2000	J		NA		NA		ND	410	ND	10	NA						
Diethylphthalate	7,100	4100			NA		NA		ND	410	ND	10	NA						
Fluorene	50,000	4500			NA		NA		ND	410	ND	10	NA						
Phenanthrene	50,000	8500			NA		NA		46	J	ND	10	NA						
Anthracene	50,000	2100	J		NA		NA		ND	410	ND	10	NA						
Carbazole	~	630	J		NA		NA		ND	410	ND	10	NA						
Fluoranthene	50,000	3100	J		NA		NA		66	J	ND	10	NA						
Pyrene	50,000	4100			NA		NA		75	J	ND	10	NA						
Benzo(a)anthracene	224 or MDL	1300	J		NA		NA		ND	410	ND	10	NA						
Chrysene	400	1400	J		NA		NA		47	J	ND	10	NA						
bis(2-Ethylhexyl)phthalate	50,000	4000			NA		NA		ND	410	ND	10	NA						
Benzo[b]fluoranthene	1,100	1300	J		NA		NA		53	J	ND	10	NA						
Benzo[k]fluoranthene	1,100	1500	J		NA		NA		45	J	ND	10	NA						
Benzo[a]pyrene	61 or MDL	1400	J		NA		NA		58	J	ND	10	NA						
benzo[g,h,i]perylene	50,000	660	J		NA		NA		47	J	ND	10	NA						
TOTAL BN's	500,000	72390	J		NA		NA		437	J	ND		NA						

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	MW-3 N5493LP-1 6.5'-7.5' 08/06/01			MW-3I 08460-001 28'-28.8' 09/22/03			MW-3I 08460-002 36.4'-37.3' 09/22/03			MW-4 N5493LP-2 8.0'-9.0' 08/06/01			Field Blank N5493LP-3 08/06/01			Trip Blank N5493LP-4 08/06/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	10300			NA			NA			17200			ND	46	NA			
Antimony	SB	0.82	B		NA			NA			0.66	B		ND	3.7	NA			
Arsenic	7.5 or SB	4.3			NA			NA			2.6			ND	5.0	NA			
Barium	300 or SB	46.9			NA			NA			104			ND	2.0	NA			
Beryllium	0.16 or SB	0.47	B		NA			NA			0.51	B		ND	0.10	NA			
Cadmium	1 or SB	0.33	B		NA			NA			ND	0.36		ND	3.0	NA			
Calcium	SB	1960			NA			NA			3050			ND	11	NA			
Chromium	10 or SB	14.9			NA			NA			21.0			ND	5.0	NA			
Cobalt	30 or SB	9.9			NA			NA			6.3			ND	1.8	NA			
Copper	25 or SB	29.3			NA			NA			20.8			ND	2.2	NA			
Iron	2,000 or SB	21800			NA			NA			19500			31.6	B	NA			
Lead	SB	17.2			NA			NA			11.4			ND	3.0	NA			
Magnesium	SB	4650			NA			NA			3530			ND	76	NA			
Manganese	SB	1030			NA			NA			427			1.4	B	NA			
Mercury	0	ND	0.04		NA			NA			ND	0.04		ND	0.20	NA			
Nickel	13 or SB	21.1			NA			NA			18.6			ND	4.0	NA			
Potassium	SB	893			NA			NA			832			ND	22	NA			
Selenium	2 or SB	ND	0.55		NA			NA			ND	0.60		ND	5.0	NA			
Silver	SB	ND	0.55		NA			NA			0.69	B		ND	5.0	NA			
Sodium	SB	305	B		NA			NA			1610			ND	490	NA			
Thallium	SB	ND	0.63		NA			NA			ND	0.68		ND	5.7	NA			
Vanadium	150 SB	14.4			NA			NA			17.5			ND	3.2	NA			
Zinc	20 or SB	72.6			NA			NA			68.2			ND	8.5	NA			
<b>Polychlorinated Biphenyls (PCBs)</b>	1,000 surface or 10,000 subsurface	ND	18		NA			NA			ND	20		ND	0.50	NA			

NOTES:  
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VOC = Volatile Organic Compound  
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ND = Not Detected  
NA = Not analyzed  
J = The concentration was detected at a value below the MDL  
D = Analyte detected at a secondary dilution factor  
B = Analyte found in blank as well as the sample  
SHADED = Analyte detected in excess of recommended soil cleanup objective  
\* = Results from diluted analysis  
All compounds except metals measured in parts per billion (ppb)  
Total VOCs does not include blank contamination

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	MW-6 N5446ASP-2 7.0'-7.5' 08/06/01			MW-7 N544SASP-3 6.5'-7.0' 06/26/01			MW-8 N5446ASP-1 7.0'-7.5' 08/06/01			MW-9 N5517-09 6.5'-7.0' 08/07/01			MW-111 08460-003 1.5'-2' 09/22/03			GB-1 R4049-01 5.8'-6.0' 08/28/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	ND	5.8	ND	28	ND	5.9	ND	6.2	9.22	J	31	ND			ND			1.5
Toluene	1,500	ND	5.8	ND	28	ND	5.9	ND	6.2	8.93	J	31	4.5	J					1.7
Ethylbenzene	5,500	ND	5.8	5.3	J	28	ND	5.9	ND	6.2		31	1.7	J					1.5
m/p Xylenes	1,200	ND	5.8	29		28	ND	5.9	ND	6.2	21	31	ND						4.3
o-Xylene	1,200	ND	5.8	17	J	28	ND	5.9	ND	6.2	ND	31	ND						1.7
Vinyl Chloride	120	NA	NA	NA	NA	NA	NA	NA	NA	3.10		31	ND						1.5
Acetone	200	29	B	66	B		ND	5.9	ND	6.2	NA	31	49						5.4
Carbon Disulfide	2,700	ND	5.8	ND	28	ND	5.9	ND	6.2	NA		31	ND						2
Methylene Chloride	100	6.1		28			6.7		ND	6.2	ND	31	8.2	B					2
cis-1,2-Dichloroethene	~	ND	5.8	ND	28	ND	5.9	ND	6.2	80		31	ND						1.4
1,1,1-Trichloroethane	800	ND	5.8	ND	28	ND	5.9	ND	6.2	ND		31	ND						1.5
Tetrachloroethene	1,400	ND	5.8	ND	28	ND	5.9	ND	6.2	85		31	ND						1.8
Chlorobenzene	1,700	ND	5.8	ND	28	ND	5.9	ND	6.2	ND		31	ND						1.7
2-Butanone	~	NA	NA	NA	NA	NA	NA	NA	NA	NA		31	50						7.7
Trichloroethene	700	ND	5.8	ND	28	ND	5.9	ND	6.2	ND		31	ND						1.8
Total BTEX		0		51.3			0			39.2			6.2						
Total Chlorinated VOCs		6		94			7			168			107						
TOTAL VOC's	10,000	6.1		145.3	J		6.7			0		207	J						113.4
TOTAL TIC's		ND		610	J		ND			558	J								
TOTAL VOC's & TIC's		6.1		755.3	J		6.7			ND		765	J						113.4
<b>Semivolatile Organic Compounds</b>																			
Naphthalene	13,000	NA		NA		NA		ND	410	ND		410	NA						
2-Methylnaphthalene	36,400	NA		NA		NA		ND	410	ND		410	NA						
Acenaphthene	50,000	NA		NA		NA		ND	410	ND		410	NA						
Dibenzofuran	6,200	NA		NA		NA		ND	410	ND		410	NA						
Diethylphthalate	7,100	NA		NA		NA		ND	410	ND		410	NA						
Fluorene	50,000	NA		NA		NA		ND	410	ND		410	NA						
Phenanthrene	50,000	NA		NA		NA		ND	410	ND		410	NA						
Anthracene	50,000	NA		NA		NA		ND	410	ND		410	NA						
Carbazole	~	NA		NA		NA		ND	410	ND		410	NA						
Fluoranthene	50,000	NA		NA		NA		ND	410	ND		410	NA						
Pyrene	50,000	NA		NA		NA		ND	410	ND		410	NA						
Benzo(a)anthracene	224 or MDL	NA		NA		NA		ND	410	ND		410	NA						
Chrysene	400	NA		NA		NA		ND	410	ND		410	NA						
bis(2-Ethylhexyl)phthalate	50,000	NA		NA		NA		1300		1300			NA						
Benzo[b]fluoranthene	1,100	NA		NA		NA		ND	410	ND		410	NA						
Benzo[k]fluoranthene	1,100	NA		NA		NA		ND	410	ND		410	NA						
Benzo[a]pyrene	61 or MDL	NA		NA		NA		ND	410	ND		410	NA						
benzo[g,h,i]perylene	50,000	NA		NA		NA		ND	410	ND		410	NA						
TOTAL BN's	500,000	NA		NA		NA		1300		1300			NA						



TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	MW-6 N5446ASP-2 7.0'-7.5' 08/06/01			MW-7 N544SASP-3 6.5'-7.0' 06/26/01			MW-8 N5446ASP-1 7.0'-7.5' 08/06/01			MW-9 N5517-09 6.5'-7.0' 08/07/01			MW-111 08460-003 1.5'-2' 09/22/03			GB-1 R4049-01 5.8'-6.0' 08/28/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	NA			NA			NA			NA			NA			NA		
Antimony	SB	NA			NA			NA			NA			NA			NA		
Arsenic	7.5 or SB	NA			NA			NA			NA			NA			NA		
Barium	300 or SB	NA			NA			NA			NA			NA			NA		
Beryllium	0.16 or SB	NA			NA			NA			NA			NA			NA		
Cadmium	1 or SB	NA			NA			NA			NA			NA			NA		
Calcium	SB	NA			NA			NA			NA			NA			NA		
Chromium	10 or SB	NA			NA			NA			NA			NA			NA		
Cobalt	30 or SB	NA			NA			NA			NA			NA			NA		
Copper	25 or SB	NA			NA			NA			NA			NA			NA		
Iron	2,000 or SB	NA			NA			NA			NA			NA			NA		
Lead	SB	NA			NA			NA			NA			NA			NA		
Magnesium	SB	NA			NA			NA			NA			NA			NA		
Manganese	SB	NA			NA			NA			NA			NA			NA		
Mercury	0	NA			NA			NA			NA			NA			NA		
Nickel	13 or SB	NA			NA			NA			NA			NA			NA		
Potassium	SB	NA			NA			NA			NA			NA			NA		
Selenium	2 or SB	NA			NA			NA			NA			NA			NA		
Silver	SB	NA			NA			NA			NA			NA			NA		
Sodium	SB	NA			NA			NA			NA			NA			NA		
Thallium	SB	NA			NA			NA			NA			NA			NA		
Vanadium	150 SB	NA			NA			NA			NA			NA			NA		
Zinc	20 or SB	NA			NA			NA			NA			NA			NA		
<b>Polychlorinated Biphenyls (PCBs)</b>	1,000 surface or 10,000 subsurface	NA			NA			NA			NA			NA			NA		

NOTES:  
SB = Site Background  
VOC = Volatile Organic Compound  
BN = Semivolatle Compound  
TIC = Tentatively Identified Compound  
ND = Not Detected  
NA = Not analyzed  
J = The concentration was detected at a value below the MD  
D = Analyte detected at a secondary dilution factor  
B = Analyte found in blank as well as the sample  
SHADED = Analyte detected in excess of recommended soil  
\* = Results from diluted analysis  
All compounds except metals measured in parts per billion (p  
Total VOCs does not include blank contamination

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-2 R4049-02 14'-14.4' 08/28/03			GB-3 R4049-03 8.4'-8.7' 08/28/03			GB-4 R4049-04 8.5'-8.8' 08/28/03			GB-5 R4049-05 9.3'-9.7' 08/28/03			GB-6 R4049-06 9.9'-10.3' 08/28/03			GB-7 R4049-07 10.7'-11.2' 08/28/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	ND	96	ND		ND	400	ND	400	ND	370	ND	95						
Toluene	1,500	ND	96	ND		5000	400	2900	400	4800	370	140	J 95						
Ethylbenzene	5,500	1900	100	2800	JD 880	16000	430	7900	430	8600	800	1500	100						
m/p Xylenes	1,200	6500	210	8500	JD 2000	40000	870	19000	870	33000	380	1400	210						
o-Xylene	1,200	1200	98	7400	JD 1100	22000	410	2400	J 410	12000	410	350	J 97						
Vinyl Chloride	120	ND	110	ND		ND	450	ND	450	ND	420	ND	110						
Acetone	200	ND	480	ND		ND	2000	ND	2000	ND	1900	ND	470						
Carbon Disulfide	2,700	ND	98	ND		ND	410	ND	410	ND	380	ND	97						
Methylene Chloride	100	ND	240	ND		ND	1000	ND	1000	ND	920	ND	240						
cis-1,2-Dichloroethene	~	ND	84	ND		6900	350	9300	350	670	J 320	ND	83						
1,1,1-Trichloroethane	800	ND	100	ND		3100	430	5500	430	ND	400	ND	100						
Tetrachloroethene	1,400	ND	95	ND		ND	400	ND	400	ND	370	240	J 94						
Chlorobenzene	1,700	ND	110	ND		ND	450	ND	450	ND	410	ND	110						
2-Butanone	~	ND	310	ND		ND	1300	ND	1300	ND	1300	ND	310						
Trichloroethene	700	ND	95	ND		ND		ND		ND		ND							
Total BTEX		9600		18700		83000		32200		58400		3390							
Total Chlorinated VOCs		0		0		10000		14800		670		240							
TOTAL VOC's	10,000	9600		18700	JD	93000		47000	J	59070	J	3630	J						
TOTAL TIC's		129400	J	0		760000	J	457000	J	389000	J	169200	J						
TOTAL VOC's & TIC's		139000	J	18700	JD	853000	J	504000	J	448070	J	172830	J						
<b>Semivolatile Organic Compounds</b>																			
Naphthalene	13,000	NA		NA		NA		NA		NA		NA							
2-Methylnaphthalene	36,400	NA		NA		NA		NA		NA		NA							
Acenaphthene	50,000	NA		NA		NA		NA		NA		NA							
Dibenzofuran	6,200	NA		NA		NA		NA		NA		NA							
Diethylphthalate	7,100	NA		NA		NA		NA		NA		NA							
Fluorene	50,000	NA		NA		NA		NA		NA		NA							
Phenanthrene	50,000	NA		NA		NA		NA		NA		NA							
Anthracene	50,000	NA		NA		NA		NA		NA		NA							
Carbazole	~	NA		NA		NA		NA		NA		NA							
Fluoranthene	50,000	NA		NA		NA		NA		NA		NA							
Pyrene	50,000	NA		NA		NA		NA		NA		NA							
Benzo(a)anthracene	224 or MDL	NA		NA		NA		NA		NA		NA							
Chrysene	400	NA		NA		NA		NA		NA		NA							
bis(2-Ethylhexyl)phthalate	50,000	NA		NA		NA		NA		NA		NA							
Benzo[b]fluoranthene	1,100	NA		NA		NA		NA		NA		NA							
Benzo[k]fluoranthene	1,100	NA		NA		NA		NA		NA		NA							
Benzo[a]pyrene	61 or MDL	NA		NA		NA		NA		NA		NA							
benzo[g,h,i]perylene	50,000	NA		NA		NA		NA		NA		NA							
TOTAL BN's	500,000	NA		NA		NA		NA		NA		NA							

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-2 R4049-02 14'-14.4' 08/28/03			GB-3 R4049-03 8.4'-8.7' 08/28/03			GB-4 R4049-04 8.5'-8.8' 08/28/03			GB-5 R4049-05 9.3'-9.7' 08/28/03			GB-6 R4049-06 9.9'-10.3' 08/28/03			GB-7 R4049-07 10.7'-11.2' 08/28/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	NA			NA			NA			NA			NA			NA		
Antimony	SB	NA			NA			NA			NA			NA			NA		
Arsenic	7.5 or SB	NA			NA			NA			NA			NA			NA		
Barium	300 or SB	NA			NA			NA			NA			NA			NA		
Beryllium	0.16 or SB	NA			NA			NA			NA			NA			NA		
Cadmium	1 or SB	NA			NA			NA			NA			NA			NA		
Calcium	SB	NA			NA			NA			NA			NA			NA		
Chromium	10 or SB	NA			NA			NA			NA			NA			NA		
Cobalt	30 or SB	NA			NA			NA			NA			NA			NA		
Copper	25 or SB	NA			NA			NA			NA			NA			NA		
Iron	2,000 or SB	NA			NA			NA			NA			NA			NA		
Lead	SB	NA			NA			NA			NA			NA			NA		
Magnesium	SB	NA			NA			NA			NA			NA			NA		
Manganese	SB	NA			NA			NA			NA			NA			NA		
Mercury	0	NA			NA			NA			NA			NA			NA		
Nickel	13 or SB	NA			NA			NA			NA			NA			NA		
Potassium	SB	NA			NA			NA			NA			NA			NA		
Selenium	2 or SB	NA			NA			NA			NA			NA			NA		
Silver	SB	NA			NA			NA			NA			NA			NA		
Sodium	SB	NA			NA			NA			NA			NA			NA		
Thallium	SB	NA			NA			NA			NA			NA			NA		
Vanadium	150 SB	NA			NA			NA			NA			NA			NA		
Zinc	20 or SB	NA			NA			NA			NA			NA			NA		
<b>Polychlorinated Biphenyls (PCBs)</b>	1,000 surface or 10,000 subsurface	NA			NA			NA			NA			NA			NA		

NOTES:  
SB = Site Background  
VOC = Volatile Organic Compound  
BN = Semivolatile Compound  
TIC = Tentatively Identified Compound  
ND = Not Detected  
NA = Not analyzed  
J = The concentration was detected at a value below the MD  
D = Analyte detected at a secondary dilution factor  
B = Analyte found in blank as well as the sample  
SHADED = Analyte detected in excess of recommended soil  
\* = Results from diluted analysis  
All compounds except metals measured in parts per billion (ppb)  
Total VOCs does not include blank contamination

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-8 R4049-08 8.8'-9.2' 08/28/03			GB-9 R4049-09 6.7'-7.0' 08/28/03			GB-10 R4049-10 8.0'-8.3' 08/28/03			GB-10 R4049-11 12.1'-12.4' 08/28/03			GB-11 R4049-12 8.0'-8.4' 08/28/03			GB-12 R4049-14 15'-16' 08/28/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	720	46	9400	J	950	480	J	51	5400	JD	980	ND			ND			
Toluene	1,500	ND		180000	D	3000	4500	D	130	88000	D	1200	ND			550		54	
Ethylbenzene	5,500	9000	D 460	57000	D	2400	1900	D	100	23000	D	980	ND			19000	D	860	
m/p Xylenes	1,200	22000	D 1000	210000	D	5400	7500	D	230	87000	D	2200	ND			21000	JD	1900	
o-Xylene	1,200	3400	JD 580	110000	D	3000	4500	D	130	44000	D	1200	ND			5600	JD	1100	
Vinyl Chloride	120	ND		ND			ND			ND			ND			ND			
Acetone	200	ND		ND			ND			ND			ND			ND			
Carbon Disulfide	2,700	ND		ND			ND			ND			ND			ND			
Methylene Chloride	100	ND		ND			ND			ND			ND			ND			
cis-1,2-Dichloroethene	~	ND		ND			ND			ND			ND			ND			
1,1,1-Trichloroethane	800	ND		ND			ND			ND			ND			ND			
Tetrachloroethene	1,400	ND		ND			ND			ND			ND			ND			
Chlorobenzene	1,700	ND		ND			ND			ND			ND			ND			
2-Butanone	~	ND		ND			ND			ND			ND			ND			
Trichloroethene	700	ND		ND			ND			ND			ND			ND			
Total BTEX		35120		566400			18880			247400			0			46150			
Total Chlorinated VOCs		0		0			0			0			0			0			
TOTAL VOC's	10,000	35120		566400			18880			247400			0			46150			
TOTAL TIC's		0		0			0			0			ND						
TOTAL VOC's & TIC's		35120		566400			18880			247400			ND			46150			
<b>Semivolatile Organic Compounds</b>																			
Naphthalene	13,000	NA		NA			NA			NA			NA			NA			
2-Methylnaphthalene	36,400	NA		NA			NA			NA			NA			NA			
Acenaphthene	50,000	NA		NA			NA			NA			NA			NA			
Dibenzofuran	6,200	NA		NA			NA			NA			NA			NA			
Diethylphthalate	7,100	NA		NA			NA			NA			NA			NA			
Fluorene	50,000	NA		NA			NA			NA			NA			NA			
Phenanthrene	50,000	NA		NA			NA			NA			NA			NA			
Anthracene	50,000	NA		NA			NA			NA			NA			NA			
Carbazole	~	NA		NA			NA			NA			NA			NA			
Fluoranthene	50,000	NA		NA			NA			NA			NA			NA			
Pyrene	50,000	NA		NA			NA			NA			NA			NA			
Benzo(a)anthracene	224 or MDL	NA		NA			NA			NA			NA			NA			
Chrysene	400	NA		NA			NA			NA			NA			NA			
bis(2-Ethylhexyl)phthalate	50,000	NA		NA			NA			NA			NA			NA			
Benzo[b]fluoranthene	1,100	NA		NA			NA			NA			NA			NA			
Benzo[k]fluoranthene	1,100	NA		NA			NA			NA			NA			NA			
Benzo[a]pyrene	61 or MDL	NA		NA			NA			NA			NA			NA			
benzo[g,h,i]perylene	50,000	NA		NA			NA			NA			NA			NA			
TOTAL BN's	500,000	NA		NA			NA			NA			NA			NA			

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-8 R4049-08 8.8'-9.2' 08/28/03			GB-9 R4049-09 6.7-7.0 08/28/03			GB-10 R4049-10 8.0'-8.3' 08/28/03			GB-10 R4049-11 12.1'-12.4' 08/28/03			GB-11 R4049-12 8.0'-8.4' 08/28/03			GB-12 R4049-14 15'-16' 08/28/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	NA			NA			NA			NA			NA			NA		
Antimony	SB	NA			NA			NA			NA			NA			NA		
Arsenic	7.5 or SB	NA			NA			NA			NA			NA			NA		
Barium	300 or SB	NA			NA			NA			NA			NA			NA		
Beryllium	0.16 or SB	NA			NA			NA			NA			NA			NA		
Cadmium	1 or SB	NA			NA			NA			NA			NA			NA		
Calcium	SB	NA			NA			NA			NA			NA			NA		
Chromium	10 or SB	NA			NA			NA			NA			NA			NA		
Cobalt	30 or SB	NA			NA			NA			NA			NA			NA		
Copper	25 or SB	NA			NA			NA			NA			NA			NA		
Iron	2,000 or SB	NA			NA			NA			NA			NA			NA		
Lead	SB	NA			NA			NA			NA			NA			NA		
Magnesium	SB	NA			NA			NA			NA			NA			NA		
Manganese	SB	NA			NA			NA			NA			NA			NA		
Mercury	0	NA			NA			NA			NA			NA			NA		
Nickel	13 or SB	NA			NA			NA			NA			NA			NA		
Potassium	SB	NA			NA			NA			NA			NA			NA		
Selenium	2 or SB	NA			NA			NA			NA			NA			NA		
Silver	SB	NA			NA			NA			NA			NA			NA		
Sodium	SB	NA			NA			NA			NA			NA			NA		
Thallium	SB	NA			NA			NA			NA			NA			NA		
Vanadium	150 SB	NA			NA			NA			NA			NA			NA		
Zinc	20 or SB	NA			NA			NA			NA			NA			NA		
<b>Polychlorinated Biphenyls (PCBs)</b>	1,000 surface or 10,000 subsurface	NA			NA														

NOTES:  
SB = Site Background  
VOC = Volatile Organic Compound  
BN = Semivolatile Compound  
TIC = Tentatively Identified Compound  
ND = Not Detected  
NA = Not analyzed  
J = The concentration was detected at a value below the MD  
D = Analyte detected at a secondary dilution factor  
B = Analyte found in blank as well as the sample  
SHADED = Analyte detected in excess of recommended soil  
\* = Results from diluted analysis  
All compounds except metals measured in parts per billion (ppb)  
Total VOCs does not include blank contamination

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-13 R4049-15 9.9'-10.3' 08/28/03			GB-13 R4049-16 11.6'-11.8' 08/28/03			GB-13 R4049-17 13.0'-13.3' 08/28/03			GB-13 R4049-18 14.8'-15.1' 08/28/03			GB-14 R4049-26 6.7'-7.1' 08/28/03			GB-14 R4049-25 12.1'-12.5' 08/28/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	3900	JD	1000	ND			1800	JD	520	930	JD	200	ND			26	J	2.5
Toluene	1,500	29000	D	1300	300	J	61	16000	D	650	19000	D	250	ND			230		3.2
Ethylbenzene	5,500	39000	D	1000	370	J	49	1500	JD	520	2400	JD	200	23	JD	23	72		2.5
m/p Xylenes	1,200	120000	D	2300	1500		110	6200	JD	1200	9000	D	460	180	JD	51	320		5.7
o-Xylene	1,200	63000	D	1300	1100		61	3400	JD	650	4800	D	250	35		2.8	170		3.2
Vinyl Chloride	120	ND			ND			ND			ND			ND			ND		
Acetone	200	ND			ND			ND			ND			ND			ND		
Carbon Disulfide	2,700	ND			ND			ND			ND			ND			ND		
Methylene Chloride	100	ND			ND			ND			ND			ND			ND		
cis-1,2-Dichloroethene	~	ND			ND			ND			ND			ND			ND		
1,1,1-Trichloroethane	800	ND			ND			ND			ND			ND			ND		
Tetrachloroethene	1,400	ND			ND			ND			ND			ND			ND		
Chlorobenzene	1,700	ND			ND			ND			ND			ND			ND		
2-Butanone	~	ND			ND			ND			ND			ND			ND		
Trichloroethene	700	ND			ND			ND			ND			ND			ND		
Total BTEX		254900			3270			28900			36130			238			818		
Total Chlorinated VOCs		0			0			0			0			0			0		
TOTAL VOC's	10,000	254900			3270			28900			36130			238			818		
TOTAL TIC's																	0		
TOTAL VOC's & TIC's		254900			3270			28900			36130			238			818		
<b>Semivolatile Organic Compounds</b>																			
Naphthalene	13,000	NA			NA			NA			NA			NA			NA		
2-Methylnaphthalene	36,400	NA			NA			NA			NA			NA			NA		
Acenaphthene	50,000	NA			NA			NA			NA			NA			NA		
Dibenzofuran	6,200	NA			NA			NA			NA			NA			NA		
Diethylphthalate	7,100	NA			NA			NA			NA			NA			NA		
Fluorene	50,000	NA			NA			NA			NA			NA			NA		
Phenanthrene	50,000	NA			NA			NA			NA			NA			NA		
Anthracene	50,000	NA			NA			NA			NA			NA			NA		
Carbazole	~	NA			NA			NA			NA			NA			NA		
Fluoranthene	50,000	NA			NA			NA			NA			NA			NA		
Pyrene	50,000	NA			NA			NA			NA			NA			NA		
Benzo(a)anthracene	224 or MDL	NA			NA			NA			NA			NA			NA		
Chrysene	400	NA			NA			NA			NA			NA			NA		
bis(2-Ethylhexyl)phthalate	50,000	NA			NA			NA			NA			NA			NA		
Benzo[b]fluoranthene	1,100	NA			NA			NA			NA			NA			NA		
Benzo[k]fluoranthene	1,100	NA			NA			NA			NA			NA			NA		
Benzo[a]pyrene	61 or MDL	NA			NA			NA			NA			NA			NA		
benzo[g,h,i]perylene	50,000	NA			NA			NA			NA			NA			NA		
TOTAL BN's	500,000	NA			NA			NA			NA			NA			NA		

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-13 R4049-15 9.9'-10.3' 08/28/03			GB-13 R4049-16 11.6'-11.8' 08/28/03			GB-13 R4049-17 13.0'-13.3' 08/28/03			GB-13 R4049-18 14.8'-15.1' 08/28/03			GB-14 R4049-26 6.7'-7.1' 08/28/03			GB-14 R4049-25 12.1'-12.5' 08/28/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	NA			NA			NA			NA			NA			NA		
Antimony	SB	NA			NA			NA			NA			NA			NA		
Arsenic	7.5 or SB	NA			NA			NA			NA			NA			NA		
Barium	300 or SB	NA			NA			NA			NA			NA			NA		
Beryllium	0.16 or SB	NA			NA			NA			NA			NA			NA		
Cadmium	1 or SB	NA			NA			NA			NA			NA			NA		
Calcium	SB	NA			NA			NA			NA			NA			NA		
Chromium	10 or SB	NA			NA			NA			NA			NA			NA		
Cobalt	30 or SB	NA			NA			NA			NA			NA			NA		
Copper	25 or SB	NA			NA			NA			NA			NA			NA		
Iron	2,000 or SB	NA			NA			NA			NA			NA			NA		
Lead	SB	NA			NA			NA			NA			NA			NA		
Magnesium	SB	NA			NA			NA			NA			NA			NA		
Manganese	SB	NA			NA			NA			NA			NA			NA		
Mercury	0	NA			NA			NA			NA			NA			NA		
Nickel	13 or SB	NA			NA			NA			NA			NA			NA		
Potassium	SB	NA			NA			NA			NA			NA			NA		
Selenium	2 or SB	NA			NA			NA			NA			NA			NA		
Silver	SB	NA			NA			NA			NA			NA			NA		
Sodium	SB	NA			NA			NA			NA			NA			NA		
Thallium	SB	NA			NA			NA			NA			NA			NA		
Vanadium	150 SB	NA			NA			NA			NA			NA			NA		
Zinc	20 or SB	NA			NA			NA			NA			NA			NA		
<b>Polychlorinated Biphenyls (PCBs)</b>	1,000 surface or 10,000 subsurface																		

NOTES:  
SB = Site Background  
VOC = Volatile Organic Compound  
BN = Semivolatile Compound  
TIC = Tentatively Identified Compound  
ND = Not Detected  
NA = Not analyzed  
J = The concentration was detected at a value below the MD  
D = Analyte detected at a secondary dilution factor  
B = Analyte found in blank as well as the sample  
SHADED = Analyte detected in excess of recommended soil  
\* = Results from diluted analysis  
All compounds except metals measured in parts per billion (ppb)  
Total VOCs does not include blank contamination

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-15 R4049-27 8'-8.8' 08/28/03			GB-16 R4049-28 14.9'-15.2' 08/28/03			GB-17 R4049-29 12'-12.5' 08/28/03			GB-18 R4049-30 9.6'-10.0' 08/29/03			GB-18 R4049-30 12.7'-13.2' 08/29/03			GB-18 R4049-32 16.2' to 16.6' 08/29/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
		<b>Volatile Organic Compounds</b>																	
Benzene	60	ND		ND			ND			ND	1100	ND			ND			ND	
Toluene	1,500	ND		160	J	61	770		60	70000	1100	31000	JD	11000	ND			ND	
Ethylbenzene	5,500	810	JD	98	660	48	90	J	48	23000	7600	12000		1200	ND			ND	
m/p Xylenes	1,200	4300	D	220	1300	110	960	J	110	84000	2300	37000	JD	24000	ND			ND	
o-Xylene	1,200	550	JD	120	790	61	420	J	60	31000	1100	14000		1100	ND			ND	
Vinyl Chloride	120	ND			ND		ND			ND	1200	ND			ND			ND	
Acetone	200	ND			ND		ND			ND	5400	ND			ND			ND	
Carbon Disulfide	2,700	ND			ND		ND			ND	1100	ND			ND			ND	
Methylene Chloride	100	ND			ND		ND			ND	2700	1500			ND			ND	
cis-1,2-Dichloroethane	~	ND			ND		ND			19000	940	15000		950	1300			96	
1,1,1-Trichloroethane	800	ND			ND		ND			90000	1100	82000		1200	ND			ND	
Tetrachloroethene	1,400	ND			ND		ND			820000	E	1100	340000	D	11000			180	100
Chlorobenzene	1,700	ND			ND		ND			ND	1200	ND			ND			ND	
2-Butanone	~	ND			ND		ND			ND	3500	ND			ND			ND	
Trichloroethene	700	ND			ND		ND			1500000	E	7600	1100000	D	1100			980	110
Total BTEX		5660			2910		2240			208000		94000			0				
Total Chlorinated VOCs		0			0		0			2429000		1537000			2460				
TOTAL VOC's	10,000	5660			2910		2240			2637000		1631000			2480				
TOTAL TIC's		0			0		0			306000	J	216500			3700				
TOTAL VOC's & TIC's		5660			2910		2240			2943000		1847500			6160				
<b>Semivolatile Organic Compounds</b>																			
Naphthalene	13,000	NA			NA		NA			NA		NA			NA			NA	
2-Methylnaphthalene	36,400	NA			NA		NA			NA		NA			NA			NA	
Acenaphthene	50,000	NA			NA		NA			NA		NA			NA			NA	
Dibenzofuran	6,200	NA			NA		NA			NA		NA			NA			NA	
Diethylphthalate	7,100	NA			NA		NA			NA		NA			NA			NA	
Fluorene	50,000	NA			NA		NA			NA		NA			NA			NA	
Phenanthrene	50,000	NA			NA		NA			NA		NA			NA			NA	
Anthracene	50,000	NA			NA		NA			NA		NA			NA			NA	
Carbazole	~	NA			NA		NA			NA		NA			NA			NA	
Fluoranthene	50,000	NA			NA		NA			NA		NA			NA			NA	
Pyrene	50,000	NA			NA		NA			NA		NA			NA			NA	
Benzo(a)anthracene	224 or MDL	NA			NA		NA			NA		NA			NA			NA	
Chrysene	400	NA			NA		NA			NA		NA			NA			NA	
bis(2-Ethylhexyl)phthalate	50,000	NA			NA		NA			NA		NA			NA			NA	
Benzo[b]fluoranthene	1,100	NA			NA		NA			NA		NA			NA			NA	
Benzo[k]fluoranthene	1,100	NA			NA		NA			NA		NA			NA			NA	
Benzo[a]pyrene	61 or MDL	NA			NA		NA			NA		NA			NA			NA	
benzo[g,h,i]perylene	50,000	NA			NA		NA			NA		NA			NA			NA	
TOTAL BN's	500,000	NA			NA		NA			NA		NA			NA			NA	



TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-15 R4049-27 8'-8.8' 08/28/03			GB-16 R4049-28 14.9'-15.2' 08/28/03			GB-17 R4049-29 12'-12.5' 08/28/03			GB-18 R4049-30 9.6'-10.0' 08/29/03			GB-18 R4049-30 12.7'-13.2' 08/29/03			GB-18 R4049-32 16.2' to 16.6' 08/29/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	NA			NA			NA			NA			NA			NA		
Antimony	SB	NA			NA			NA			NA			NA			NA		
Arsenic	7.5 or SB	NA			NA			NA			NA			NA			NA		
Barium	300 or SB	NA			NA			NA			NA			NA			NA		
Beryllium	0.16 or SB	NA			NA			NA			NA			NA			NA		
Cadmium	1 or SB	NA			NA			NA			NA			NA			NA		
Calcium	SB	NA			NA			NA			NA			NA			NA		
Chromium	10 or SB	NA			NA			NA			NA			NA			NA		
Cobalt	30 or SB	NA			NA			NA			NA			NA			NA		
Copper	25 or SB	NA			NA			NA			NA			NA			NA		
Iron	2,000 or SB	NA			NA			NA			NA			NA			NA		
Lead	SB	NA			NA			NA			NA			NA			NA		
Magnesium	SB	NA			NA			NA			NA			NA			NA		
Manganese	SB	NA			NA			NA			NA			NA			NA		
Mercury	0	NA			NA			NA			NA			NA			NA		
Nickel	13 or SB	NA			NA			NA			NA			NA			NA		
Potassium	SB	NA			NA			NA			NA			NA			NA		
Selenium	2 or SB	NA			NA			NA			NA			NA			NA		
Silver	SB	NA			NA			NA			NA			NA			NA		
Sodium	SB	NA			NA			NA			NA			NA			NA		
Thallium	SB	NA			NA			NA			NA			NA			NA		
Vanadium	150 SB	NA			NA			NA			NA			NA			NA		
Zinc	20 or SB	NA			NA			NA			NA			NA			NA		
<b>Polychlorinated Biphenyls (PCBs)</b>	1,000 surface or 10,000 subsurface													NA					

NOTES:  
SB = Site Background  
VOC = Volatile Organic Compound  
BN = Semivolatile Compound  
TIC = Tentatively Identified Compound  
ND = Not Detected  
NA = Not analyzed  
J = The concentration was detected at a value below the MD  
D = Analyte detected at a secondary dilution factor  
B = Analyte found in blank as well as the sample  
SHADED = Analyte detected in excess of recommended soil  
\* = Results from diluted analysis  
All compounds except metals measured in parts per billion (ppb)  
Total VOCs does not include blank contamination

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-19 R4049-33 9.8' to 10.2' 08/29/03			GB-19 R4049-34 13.9' to 14.3' 08/29/03			GB-19 R4049-35 18.8' to 19.2' 08/29/03			GB-21 R4049-39 13.3' to 14.0' 08/29/03			GB-22 R4049-40 8.1'-8.5' 08/29/03			GB-23 R4049-41 7.4'-7.7' 08/29/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	ND			ND			ND			ND			12000	JD	2600	180	J	49
Toluene	1,500	220	J	110	1100		90	ND			380	J	120	220000	D	3200	830		62
Ethylbenzene	5,500	300	J	110	270	J	96	ND			240	J	120	61000	D	2600	1100		49
m/p Xylenes	1,200	810	J	230	890	J	190	ND			1100	J	250	220000	D	5800	3600		110
o-Xylene	1,200	240	J	110	320	J	91	ND			360	J	120	100000	D	3200	1900		62
Vinyl Chloride	120	ND			ND			ND			ND			ND			ND		
Acetone	200	ND			ND			ND			ND			ND			ND		
Carbon Disulfide	2,700	ND			ND			ND			ND			ND			ND		
Methylene Chloride	100	ND			ND			ND			ND			ND			ND		
cis-1,2-Dichloroethene	~	1400		93	1000		78	800	J	100	4600		100	ND			ND		
1,1,1-Trichloroethane	800	ND			3200		95	ND			ND			ND			ND		
Tetrachloroethene	1,400	6700		110	8200		89	160	J	110	ND			ND			ND		
Chlorobenzene	1,700	ND			ND			ND			ND			ND			ND		
2-Butanone	~	ND			ND			ND			ND			ND			ND		
Trichloroethene	700	9300		110	ND			980		120	ND			ND			ND		
Total BTEX		1570			2580			0			2080			613000			7610		
Total Chlorinated VOCs		17400			12400			1940			4600			0			0		
TOTAL VOC's	10,000	18970			14980			1940			6680			613000			7610		
TOTAL TIC's		20660			0			5860			30500			0			0		
TOTAL VOC's & TIC's		39630			14980			7800			37180			613000			7610		
<b>Semivolatile Organic Compounds</b>																			
Naphthalene	13,000	NA			NA			NA			NA			NA			NA		
2-Methylnaphthalene	36,400	NA			NA			NA			NA			NA			NA		
Acenaphthene	50,000	NA			NA			NA			NA			NA			NA		
Dibenzofuran	6,200	NA			NA			NA			NA			NA			NA		
Diethylphthalate	7,100	NA			NA			NA			NA			NA			NA		
Fluorene	50,000	NA			NA			NA			NA			NA			NA		
Phenanthrene	50,000	NA			NA			NA			NA			NA			NA		
Anthracene	50,000	NA			NA			NA			NA			NA			NA		
Carbazole	~	NA			NA			NA			NA			NA			NA		
Fluoranthene	50,000	NA			NA			NA			NA			NA			NA		
Pyrene	50,000	NA			NA			NA			NA			NA			NA		
Benzo(a)anthracene	224 or MDL	NA			NA			NA			NA			NA			NA		
Chrysene	400	NA			NA			NA			NA			NA			NA		
bis(2-Ethylhexyl)phthalate	50,000	NA			NA			NA			NA			NA			NA		
Benzo[b]fluoranthene	1,100	NA			NA			NA			NA			NA			NA		
Benzo[k]fluoranthene	1,100	NA			NA			NA			NA			NA			NA		
Benzo[a]pyrene	61 or MDL	NA			NA			NA			NA			NA			NA		
benzo[g,h,i]perylene	50,000	NA			NA			NA			NA			NA			NA		
TOTAL BN's	500,000	NA			NA			NA			NA			NA			NA		

TABLE 5  
SOIL BORING SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	GB-19 R4049-33 9.8' to 10.2' 08/29/03			GB-19 R4049-34 13.9' to 14.3' 08/29/03			GB-19 R4049-35 18.8' to 19.2' 08/29/03			GB-21 R4049-39 13.3' to 14.0' 08/29/03			GB-22 R4049-40 8.1'-8.5' 08/29/03			GB-23 R4049-41 7.4'-7.7' 08/29/03		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	NA			NA			NA			NA			NA			NA		
Antimony	SB	NA			NA			NA			NA			NA			NA		
Arsenic	7.5 or SB	NA			NA			NA			NA			NA			NA		
Barium	300 or SB	NA			NA			NA			NA			NA			NA		
Beryllium	0.16 or SB	NA			NA			NA			NA			NA			NA		
Cadmium	1 or SB	NA			NA			NA			NA			NA			NA		
Calcium	SB	NA			NA			NA			NA			NA			NA		
Chromium	10 or SB	NA			NA			NA			NA			NA			NA		
Cobalt	30 or SB	NA			NA			NA			NA			NA			NA		
Copper	25 or SB	NA			NA			NA			NA			NA			NA		
Iron	2,000 or SB	NA			NA			NA			NA			NA			NA		
Lead	SB	NA			NA			NA			NA			NA			NA		
Magnesium	SB	NA			NA			NA			NA			NA			NA		
Manganese	SB	NA			NA			NA			NA			NA			NA		
Mercury	0	NA			NA			NA			NA			NA			NA		
Nickel	13 or SB	NA			NA			NA			NA			NA			NA		
Potassium	SB	NA			NA			NA			NA			NA			NA		
Selenium	2 or SB	NA			NA			NA			NA			NA			NA		
Silver	SB	NA			NA			NA			NA			NA			NA		
Sodium	SB	NA			NA			NA			NA			NA			NA		
Thallium	SB	NA			NA			NA			NA			NA			NA		
Vanadium	150 SB	NA			NA			NA			NA			NA			NA		
Zinc	20 or SB	NA			NA			NA			NA			NA			NA		
<b>Polychlorinated Biphenyls (PCBs)</b>	1,000 surface or 10,000 subsurface																		

NOTES:  
SB = Site Background  
VOC = Volatile Organic Compound  
BN = Semivolatile Compound  
TIC = Tentatively Identified Compound  
ND = Not Detected  
NA = Not analyzed  
J = The concentration was detected at a value below the MD  
D = Analyte detected at a secondary dilution factor  
B = Analyte found in blank as well as the sample  
SHADED = Analyte detected in excess of recommended soil  
\* = Results from diluted analysis  
All compounds except metals measured in parts per billion (p  
Total VOCs does not include blank contamination

TABLE 6  
 SURFACE SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-6 N5524-01 0 - 0.5 08/07/01			SS-6 N5524-02 0.5 - 1.0 08/07/01			SS-7 N5524-03 0 - 0.5 08/07/01			SS-7 N5524-04 0.5 - 1.0 08/07/01			SS-8 N5524-05 0 - 0.5 08/07/01			SS-8 N5524-06 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
Toluene	1,500	--	--	--	--	--	--	130			--	--	--	--	--	--	--	--	--
Ethylbenzene	5,500	--	--	--	--	--	--	200			--	--	--	--	--	--	--	--	--
o-Xylene	1,200	--	--	--	--	--	--	410			--	--	--	--	--	--	--	--	--
m/p Xylenes	1,200	--	--	--	--	--	--	840			--	--	--	--	--	--	--	--	--
Total Xylenes	1,200	--	--	--	--	--	--	840			--	--	--	--	--	--	--	--	--
Bromomethane	~	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	400	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
Acetone	200	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
Methylene Chloride	100	--	--	--	--	--	--	74	B		--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	200	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	~	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
Chloroform	300	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	800	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	100	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
Trichloroethene	700	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
Tetrachloroethene	1,400	--	--	--	--	--	--	22	J		--	--	--	--	--	--	--	--	--
Chlorobenzene	1,700	--	--	--	--	--	--	ND		26	--	--	--	--	--	--	--	--	--
Total BTEX		--	--	--	--	--	--	1580			--	--	--	--	--	--	--	--	--
Total Chlorinated VOCS		--	--	--	--	--	--	96			--	--	--	--	--	--	--	--	--
TOTAL VOC's	10,000	--	--	--	--	--	--	2516	J		--	--	--	--	--	--	--	--	--
TOTAL TIC's	n/a	--	--	--	--	--	--	1366	J		--	--	--	--	--	--	--	--	--
TOTAL VOC's & TIC's	n/a	--	--	--	--	--	--	3882	J		--	--	--	--	--	--	--	--	--

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-6 N5524-01 0 - 0.5 08/07/01			SS-6 N5524-02 0.5 - 1.0 08/07/01			SS-7 N5524-03 0 - 0.5 08/07/01			SS-7 N5524-04 0.5 - 1.0 08/07/01			SS-8 N5524-05 0 - 0.5 08/07/01			SS-8 N5524-06 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
Trichlorobenzene	~	ND		350	ND		350	ND		370	ND		3,500	ND		350	ND		350
Naphthalene	13,000	ND		350	ND		350	270	J		130000	D		51	J		ND		350
Hexachlorobutadiene	~	ND		350	ND		350	ND		370	ND		3,500	ND		350	ND		350
2-Methylnaphthalene	36,400	ND		350	ND		350	110	J		61000	D		ND		350	ND		350
2-Chloronaphthalene	~	ND		350	ND		350	ND		370	ND		3,500	ND		350	ND		350
2-Nitroaniline	~	ND		350	ND		350	ND		370	ND		3,500	ND		350	ND		350
Dimethylnaphthalene	~	ND		350	ND		350	ND		370	ND		3,500	ND		350	ND		350
Acenaphthylene	41,000	170	J		120	J		60	J		7200			560			1000		
Acenaphthene	50,000	ND		350	ND		350	71	J		32000	JD		65	J		56	J	
Dibenzofuran	6,200	ND		350	ND		350	38	J		27000			47	J		64	J	
Diethylphthalate	7,100	ND		350	ND		350	ND		370	ND		3,500	41	J		41	J	
Fluorene	50,000	ND		350	ND		350	78	J		48000	D		84	J		160	J	
n-Nitrosodiphenylamine	~	ND		350	ND		350	ND		370	ND		3,500	ND		350	ND		350
Phenanthrene	50,000	230	J		83	J		540			280000	D		1500			2300	D	
Anthracene	50,000	190	J		63	J		83	J		44000	D		680			880		
Carbazole	~	46	J		ND		350	ND		370	18000			340	J		260	J	
Di-n-butylphthalate	8,100	ND		350	ND		351	ND		370	ND		3,500	68	J		47	J	
Fluoranthene	50,000	620			150	J		290	J		120000	D		3700	D		6000	D	
Pyrene	50,000	490			160	J		450			180000	D		2600	D		4400	D	
Butylbenzylphthalate	50,000	46	J		ND		350	ND		370	ND		3,500	ND		350	ND		350
Benzo(a)anthracene	224 or MDL	250	J		120	J		120	J		33000	JD		1400			2800		
Chrysene	400	300	J		110	J		120	J		28000	JD		1900			2500		
bis(2-Ethylhexyl)phthalate	50,000	85	J		37	J		440			280000	D		670			460		
Di-n-octyl phthalate	50,000	ND		350	ND		350	ND		370	ND		3,500	64	J		ND		350
Benzo[b]fluoranthene	1,100	510			260	J		140	J		35000	JD		2700	D		3500	D	
Benzo[k]fluoranthene	1,100	520			110	J		120	J		14000			1900			2100		
Benzo[a]pyrene	61 or MDL	460			180	J		110	J		30000	JD		2000			2200		
Indeno[1,2,3-cd]pyrene	3,200	44	J		37	J		ND		37	2600	J		540			1000		
Dibenz[a,h]anthracene	14 or MDL	ND		350	ND		350	ND		37	550	J		74	J		100	J	
benzo[g,h,i]perylene	50,000	100	J		77	J		ND		37	5100			1100			1400		
TOTAL BN's	n/a	4061	J		1507	J		3040	J		1375450	JD		22084	JD		31268	JD	
TOTAL TIC's	n/a	5780	J		3607	J		2308	J		218800	J		17070	J		8050	J	
TOTAL BN's & TIC's	n/a	9841	J		5114	J		5348	J		1594250	JD		39154	JD		39318	JD	

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-6 N5524-01 0 - 0.5 08/07/01			SS-6 N5524-02 0.5 - 1.0 08/07/01			SS-7 N5524-03 0 - 0.5 08/07/01			SS-7 N5524-04 0.5 - 1.0 08/07/01			SS-8 N5524-05 0 - 0.5 08/07/01			SS-8 N5524-06 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	--	--	--	--	--	12400	--	--	8020	--	--	--	--	--	--	--	--	
Antimony	SB	--	--	--	--	--	ND	0.98	--	ND	0.93	--	--	--	--	--	--	--	
Arsenic	7.5 or SB	--	--	--	--	--	5.4	--	--	3.9	--	--	--	--	--	--	--	--	
Barium	300 or SB	--	--	--	--	--	48.7	--	--	39.0	--	--	--	--	--	--	--	--	
Beryllium	0.16 or SB	--	--	--	--	--	0.55	--	--	0.39	B	--	--	--	--	--	--	--	
Cadmium	1 or SB	--	--	--	--	--	ND	0.07	--	ND	0.06	--	--	--	--	--	--	--	
Calcium	SB	--	--	--	--	--	7960	--	--	15100	--	--	--	--	--	--	--	--	
Chromium	10 or SB	--	--	--	--	--	15.8	--	--	10.9	--	--	--	--	--	--	--	--	
Cobalt	30 or SB	--	--	--	--	--	11.8	--	--	7.9	--	--	--	--	--	--	--	--	
Copper	25 or SB	--	--	--	--	--	33.2	--	--	27.4	--	--	--	--	--	--	--	--	
Iron	2,000 or SB	--	--	--	--	--	23600	--	--	16800	--	--	--	--	--	--	--	--	
Lead	SB	--	--	--	--	--	26.3	--	--	34.9	--	--	--	--	--	--	--	--	
Magnesium	SB	--	--	--	--	--	6090	--	--	8210	--	--	--	--	--	--	--	--	
Manganese	SB	--	--	--	--	--	654	--	--	480	--	--	--	--	--	--	--	--	
Mercury	0.1	--	--	--	--	--	ND	0.04	--	ND	0.03	--	--	--	--	--	--	--	
Nickel	13 or SB	--	--	--	--	--	22.9	--	--	15.5	--	--	--	--	--	--	--	--	
Potassium	SB	--	--	--	--	--	932	E	--	658	E	--	--	--	--	--	--	--	
Selenium	2 or SB	--	--	--	--	--	ND	0.18	--	ND	0.17	--	--	--	--	--	--	--	
Silver	SB	--	--	--	--	--	0.25	B	--	0.22	B	--	--	--	--	--	--	--	
Sodium	SB	--	--	--	--	--	88.5	B	--	55.8	B	--	--	--	--	--	--	--	
Thallium	SB	--	--	--	--	--	ND	0.47	--	ND	0.45	--	--	--	--	--	--	--	
Vanadium	150 SB	--	--	--	--	--	16.9	--	--	12.6	--	--	--	--	--	--	--	--	
Zinc	20 or SB	--	--	--	--	--	85.0	--	--	67.1	--	--	--	--	--	--	--	--	
Polychlorinated Biphenyls (PCBs) (ppb)	1,000 surface or 10,000 subsurface	--	--	--	--	--	ND	18	--	--	--	--	--	--	--	--	--	--	

NOTES:

SB = Site Background

VOC = Volatile Organic Compound

BN = Semivolatile Compound

TIC = Tentatively Identified Compound

ND = Not Detected

-- = Not analyzed

J = The concentration was detected at a value below the MDL

D = Analyte detected at a secondary dilution factor

B = Analyte found in blank as well as the sample

SHADED = Analyte detected in excess of recommended soil cleanup objective

\* = Results from diluted analysis

All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 6  
 SURFACE SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-9 N5524-07 0 - 0.5 08/07/01			SS-9 N5524-08 0.5 - 1.0 08/07/01			SS-10 N5524-09 0 - 0.5 08/07/01			SS-10 N5524-10 0.5 - 1.0 08/07/01			SS-11 N5524-11 0 - 0.5 08/07/01			SS-11 N5524-12 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	--			ND		6	--			ND		5.4	--			ND		25
Toluene	1,500	--			ND		6	--			ND		5.4	--			170		
Ethylbenzene	5,500	--			4.4		J	--			ND		5.4	--			350		
o-Xylene	1,200	--			ND		6	--			7.9			--			240		
m/p Xylenes	1,200	--			12			--			6.8			--			530		
Total Xylenes	1,200	--			12			--			6.8			--			530		
Bromomethane	~	--			ND		6	--			ND		5.4	--			ND		25
1,1-Dichloroethene	400	--			ND		6	--			ND		5.4	--			ND		25
Acetone	200	--			ND		6	--			ND		5.4	--			ND		25
Methylene Chloride	100	--			20		B	--			20		B	--			72		B
1,1-Dichloroethane	200	--			ND		6	--			ND		5.4	--			ND		25
cis-1,2-Dichloroethene	~	--			ND		6	--			ND		5.4	--			ND		25
Chloroform	300	--			ND		6	--			ND		5.4	--			ND		25
1,1,1-Trichloroethane	800	--			ND		6	--			ND		5.4	--			ND		25
1,2-Dichloroethane	100	--			ND		6	--			ND		5.4	--			ND		25
Trichloroethene	700	--			ND		6	--			ND		5.4	--			ND		25
Tetrachloroethene	1,400	--			ND		6	--			ND		5.4	--			ND		25
Chlorobenzene	1,700	--			ND		6	--			ND		5.4	--			ND		25
Total BTEX		--			16			--			15			--			1290		
Total Chlorinated VOCS		--			20			--			20			--			72		
TOTAL VOC's	10,000	--			48		J	--			42		J	--			1892		J
TOTAL TIC's	n/a	--			1272		J	--			467		J	--			1686		J
TOTAL VOC's & TIC's	n/a	--			1320		J	--			509		J	--			3578		J

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-9 N5524-07 0 - 0.5 08/07/01			SS-9 N5524-08 0.5 - 1.0 08/07/01			SS-10 N5524-09 0 - 0.5 08/07/01			SS-10 N5524-10 0.5 - 1.0 08/07/01			SS-11 N5524-11 0 - 0.5 08/07/01			SS-11 N5524-12 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
Trichlorobenzene	~	ND		380	ND		400	ND		3,500	ND		360	ND		3,400	ND		3,500
Naphthalene	13,000	23000	D		200	J		3900		5900	D		20000		130000	D			
Hexachlorobutadiene	~	ND		380	ND		400	ND		3,500	ND		360	ND		3,400	ND		3,500
2-Methylnaphthalene	36,400	13000	D		240	J		5600		5500	D		7600		57000	D			
2-Chloronaphthalene	~	ND		380	ND		400	ND		3,500	ND		360	ND		3,400	ND		3,500
2-Nitroaniline	~	ND		380	ND		400	ND		3,500	ND		360	ND		3,400	ND		3,500
Dimethylnaphthalene	~	ND		380	ND		400	ND		3,500	ND		360	ND		3,400	ND		3,500
Acenaphthylene	41,000	ND		380	ND		400	11000		1300	JD		2100	J		6200			
Acenaphthene	50,000	19000	D		54	J		13000		16000	D		5800		35000	D			
Dibenzofuran	6,200	8100	D		ND		400	4700		5100	D		4000		20000	D			
Diethylphthalate	7,100	ND		380	ND		400	ND		3,500	ND		360	ND		3,400	ND		3,500
Fluorene	50,000	23000	D		53	J		16000		16000	D		9400		58000	D			
n-Nitrosodiphenylamine	~	ND		380	ND		400	ND		3,500	ND		360	ND		3,400	ND		3,500
Phenanthrene	50,000	62000	D		190	J		39000	D	28000	JD		44000	D	290000	D			
Anthracene	50,000	2500	JD		ND		400	20000		2500			8600		14000				
Carbazole	~	870			ND		400	4000		2300	JD		5000		13000				
Di-n-butylphthalate	8,100	770			41	J		440	J	ND		360	480	J	ND		3,500		
Fluoranthene	50,000	37000	D		180	J		73000	D	12000	JD		22000	D	88000	D			
Pyrene	50,000	46000	D		270	J		110000	D	25000	D		21000	D	130000	D			
Butylbenzylphthalate	50,000	ND		380	ND		400	560	J	ND		360	ND		3,400	ND			3,500
Benzo(a)anthracene	224 or MDL	15000	D		100	J		23000	D	6200	D		7600		29000	D			
Chrysene	400	14000	D		100	J		26000	D	2600			14000		56000	D			
bis(2-Ethylhexyl)phthalate	50,000	ND		380	64	J		130000	D	ND		360	23000	D	490	J			
Di-n-octyl phthalate	50,000	ND		380	ND		400	ND		3,500	ND		360	ND		3,400	ND		3,500
Benzo[b]fluoranthene	1,100	17000	D		110	J		30000	D	6000	D		15000		35000	D			
Benzo[k]fluoranthene	1,100	4400	D		ND		400	22000		2600			6700		10000	JD			
Benzo[a]pyrene	61 or MDL	14000	D		77	J		29000	D	5100	D		10000		33000	D			
Indeno[1,2,3-cd]pyrene	3,200	2200			ND		400	1200	J	540			ND		3,400	1100	J		
Dibenz[a,h]anthracene	14 or MDL	330	J		ND		400	480	J	140	J		ND		3,400	740	J		
benzo[g,h,i]perylene	50,000	2600			ND		400	4200		860			1400	J	7200				
TOTAL BN's	n/a	304770	JD		1679	J		567080	JD	143640	JD		227680	JD	1013730	JD			
TOTAL TIC's	n/a	30410	J		8804	J		152700	J	36940	J		210900	J	179800	J			
TOTAL BN's & TIC's	n/a	335180	JD		10483	J		719780	JD	180580	JD		438580	JD	1193530	JD			



TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-9 N5524-07 0 - 0.5 08/07/01			SS-9 N5524-08 0.5 - 1.0 08/07/01			SS-10 N5524-09 0 - 0.5 08/07/01			SS-10 N5524-10 0.5 - 1.0 08/07/01			SS-11 N5524-11 0 - 0.5 08/07/01			SS-11 N5524-12 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>																			
Aluminum	SB	9580			144000			--			--			4900			8150		
Antimony	SB	ND	1.0		ND	1.0		--			--			ND	0.88		ND		0.93
Arsenic	7.5 or SB	4.8			6.5			--			--			5.9			4.5		
Barium	300 or SB	57.9			80.2			--			--			43.0			40.0		
Beryllium	0.16 or SB	0.45	B		0.67			--			--			0.28	B		0.40	B	
Cadmium	1 or SB	ND	0.07		ND	0.07		--			--			0.68			ND		0.06
Calcium	SB	9590			1880			--			--			55300			5510		
Chromium	10 or SB	12.0			17.1			--			--			8.9			11.0		
Cobalt	30 or SB	8.8			8.9			--			--			4.0	B		6.9		
Copper	25 or SB	26.7			21.7			--			--			28.9			22.3		
Iron	2,000 or SB	19200			22200			--			--			11200			17100		
Lead	SB	39.8			36.8			--			--			85.9			11.6		
Magnesium	SB	4610			4630			--			--			32200			5410		
Manganese	SB	739			767			--			--			332			569		
Mercury	0.1	0.05			0.08			--			--			ND	0.03		ND		0.03
Nickel	13 or SB	15.9			18.2			--			--			9.9			13.4		
Potassium	SB	603	E		727	E		--			--			908	E		568		E
Selenium	2 or SB	ND	0.18		1.2			--			--			ND	0.16		0.39		B
Silver	SB	0.26	B		0.22	B		--			--			ND	0.17		ND		0.18
Sodium	SB	66.8	B		122	B		--			--			259	B		76.9		B
Thallium	SB	ND	0.48		0.77	B		--			--			ND	0.43		ND		0.45
Vanadium	150 SB	14.4			23.4			--			--			14.4			13.1		
Zinc	20 or SB	73.9			78.0			--			--			68.8			49.2		
Polychlorinated Biphenyls (PCBs) (ppb)	1,000 surface or 10,000 subsurface	ND	19		--			--			--			ND	17		--		

NOTES:

SB = Site Background

VOC = Volatile Organic Compound

BN = Semivolatile Compound

TIC = Tentatively Identified Compound

ND = Not Detected

-- = Not analyzed

J = The concentration was detected at a value below the MDL

D = Analyte detected at a secondary dilution factor

B = Analyte found in blank as well as the sample

SHADED = Analyte detected in excess of recommended soil cleanup objective

\* = Results from diluted analysis

All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 6  
 SURFACE SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-12 N5524-13 0 - 0.5 08/07/01			SS-12 N5524-14 0.5 - 1.0 08/07/01			SS-13 N5524-15 0 - 0.5 08/07/01			SS-13 N5524-16 0.5 - 1.0 08/07/01			SS-14 N5516-01 0 - 0.5 08/07/01			SS-14 N5516-02 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	--			ND	5.8	--			26			--			--			
Toluene	1,500	--			ND	5.8	--			9.7			--			--			
Ethylbenzene	5,500	--			ND	5.8	--			21			--			--			
o-Xylene	1,200	--			ND	5.8	--			11			--			--			
m/p Xylenes	1,200	--			ND	5.8	--			9.8			--			--			
Total Xylenes	1,200	--			ND	5.8	--			9.8			--			--			
Bromomethane	~	--			ND	5.8	--			ND	5.4		--			--			
1,1-Dichloroethene	400	--			ND	5.8	--			ND	5.4		--			--			
Acetone	200	--			ND	5.8	--			35			--			--			
Methylene Chloride	100	--			28	B	--			17	B		--			--			
1,1-Dichloroethane	200	--			ND	5.8	--			11			--			--			
cis-1,2-Dichloroethene	~	--			ND	5.8	--			120			--			--			
Chloroform	300	--			ND	5.8	--			ND	5.4		--			--			
1,1,1-Trichloroethane	800	--			ND	5.8	--			ND	5.4		--			--			
1,2-Dichloroethane	100	--			ND	5.8	--			38			--			--			
Trichloroethene	700	--			ND	5.8	--			25			--			--			
Tetrachloroethene	1,400	--			ND	5.8	--			ND	5.4		--			--			
Chlorobenzene	1,700	--			ND	5.8	--			ND	5.4		--			--			
Total BTEX		--			0		--			78			--			--			
Total Chlorinated VOCS		--			28		--			246			--			--			
TOTAL VOC's	10,000	--			ND		--			333	J		--			--			
TOTAL TIC's	n/a	--			1133	J	--			782	J		--			--			
TOTAL VOC's & TIC's	n/a	--			1133	J	--			1115	J		--			--			

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-12 N5524-13 0 - 0.5 08/07/01			SS-12 N5524-14 0.5 - 1.0 08/07/01			SS-13 N5524-15 0 - 0.5 08/07/01			SS-13 N5524-16 0.5 - 1.0 08/07/01			SS-14 N5516-01 0 - 0.5 08/07/01			SS-14 N5516-02 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
Trichlorobenzene	~	ND		410	ND		380	ND		3,500	ND		360	ND		350	ND		350
Naphthalene	13,000	ND		410	ND		380	5400			2800			ND		350	ND		350
Hexachlorobutadiene	~	ND		410	ND		380	ND		3,500	ND		360	ND		350	ND		350
2-Methylnaphthalene	36,400	ND		410	ND		380	7400			15000	D		ND		350	ND		350
2-Chloronaphthalene	~	ND		410	ND		380	ND		3,500	ND		360	ND		350	ND		350
2-Nitroaniline	~	ND		410	ND		380	ND		3,500	ND		360	ND		350	ND		350
Dimethylnaphthalene	~	ND		410	ND		380	ND		3,500	ND		360	ND		350	ND		350
Acenaphthylene	41,000	ND		410	ND		380	1400	J		ND		360	52	J		ND		350
Acenaphthene	50,000	ND		410	ND		380	2200	J		1500			ND		350	ND		350
Dibenzofuran	6,200	ND		410	ND		380	800	J		ND		360	ND		350	ND		350
Diethylphthalate	7,100	ND		410	ND		380	ND		3,500	ND		360	ND		350	ND		350
Fluorene	50,000	ND		410	ND		380	3100	J		4200	D		ND		350	ND		350
n-Nitrosodiphenylamine	~	ND		410	ND		380	ND		3,500	ND		360	ND		350	ND		350
Phenanthrene	50,000	280	J		ND		380	12000			12000	D		110	J		ND		350
Anthracene	50,000	70	J		ND		380	2500	J		1500			53	J		ND		350
Carbazole	~	42	J		ND		380	500	J		1600			ND		350	ND		350
Di-n-butylphthalate	8,100	120	J		46	J		ND		3,500	ND		360	ND		350	ND		350
Fluoranthene	50,000	590			56	J		9400			ND		360	240	J		ND		350
Pyrene	50,000	510			48	J		18000			1100			290	J		ND		350
Butylbenzylphthalate	50,000	ND		410	ND		380	ND		3,500	ND		360	ND		350	ND		350
Benzo(a)anthracene	224 or MDL	250	J		ND		380	3300	J		1000			150	J		ND		350
Chrysene	400	260	J		ND		380	4300			1400			190	J		ND		350
bis(2-Ethylhexyl)phthalate	50,000	98	J		ND		380	120000	D		650			72	J		ND		350
Di-n-octyl phthalate	50,000	ND		410	ND		380	620	J		ND		360	ND		350	ND		350
Benzo[b]fluoranthene	1,100	310	J		ND		380	4600			470			300	J		ND		350
Benzo[k]fluoranthene	1,100	110	J		ND		380	1900	J		530			99	J		ND		350
Benzo[a]pyrene	61 or MDL	250	J		ND		380	4200			730			220	J		ND		350
Indeno[1,2,3-cd]pyrene	3,200	200	J		ND		380	ND		3,500	76	J		42	J		ND		350
Dibenz[a,h]anthracene	14 or MDL	ND		410	ND		380	ND		3,500	ND		360	ND		350	ND		350
benzo[g,h,i]perylene	50,000	240	J		ND		380	510	J		250	J		88	J		ND		350
TOTAL BN's	n/a	3330	J		150	J		202130	JD		44806	JD		1906	J		ND		
TOTAL TIC's	n/a	5022	J		4230	J		152700	J		11300	J		6360	J		6372	J	
TOTAL BN's & TIC's	n/a	8352	J		4380	J		354830	JD		56106	JD		8266	J		6372	J	

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID	RECOMMENDED	SS-12	SS-12	SS-13	SS-13	SS-14	SS-14
LABORATORY SAMPLE NUMBER	SOIL	N5524-13	N5524-14	N5524-15	N5524-16	N5516-01	N5516-02
SAMPLE DEPTH (feet)	CLEANUP	0 - 0.5	0.5 - 1.0	0 - 0.5	0.5 - 1.0	0 - 0.5	0.5 - 1.0
SAMPLE DATE	OBJECTIVE	08/07/01	08/07/01	08/07/01	08/07/01	08/07/01	08/07/01
		Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL
<b>Metals (PPM)</b>							
Aluminum	SB	--	--	7700		13000	--
Antimony	SB	--	--	ND	0.93	ND	0.96
Arsenic	7.5 or SB	--	--	3.2		14.2	--
Barium	300 or SB	--	--	46.3		158	--
Beryllium	0.16 or SB	--	--	0.33	B	0.81	--
Cadmium	1 or SB	--	--	0.35	B	0.86	--
Calcium	SB	--	--	36400		7600	--
Chromium	10 or SB	--	--	12.6		38.4	--
Cobalt	30 or SB	--	--	6.0		13.9	--
Copper	25 or SB	--	--	30.9		66.4	--
Iron	2,000 or SB	--	--	16200		28400	--
Lead	SB	--	--	52.6		138	--
Magnesium	SB	--	--	19100		5520	--
Manganese	SB	--	--	619		809	--
Mercury	0.1	--	--	0.05		0.06	--
Nickel	13 or SB	--	--	16.3		25.4	--
Potassium	SB	--	--	1010	E	1080	E
Selenium	2 or SB	--	--	ND	0.17	ND	0.17
Silver	SB	--	--	ND	0.18	ND	0.18
Sodium	SB	--	--	231	B	277	B
Thallium	SB	--	--	ND	0.45	ND	0.46
Vanadium	150 SB	--	--	17.3		26.7	--
Zinc	20 or SB	--	--	59.9		224	--
Polychlorinated Biphenyls (PCBs) (ppb)	1,000 surface or 10,000 subsurface	--	--	ND	18	--	--

NOTES:

SB = Site Background

VOC = Volatile Organic Compound

BN = Semivolatile Compound

TIC = Tentatively Identified Compound

ND = Not Detected

-- = Not analyzed

J = The concentration was detected at a value below the MDL

D = Analyte detected at a secondary dilution factor

B = Analyte found in blank as well as the sample

SHADED = Analyte detected in excess of recommended soil cleanup objective

\* = Results from diluted analysis

All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID	RECOMMENDED	SS-15	SS-15	SS-16	SS-16	SS-17	SS-17
LABORATORY SAMPLE NUMBER	SOIL	N5516-03	N5516-04	N5516-05	N5516-06	N5516-07	N5516-08
SAMPLE DEPTH (feet)	CLEANUP	0 - 0.5	0.5 - 1.0	0 - 0.5	0.5 - 1.0	0 - 0.5	0.5 - 1.0
SAMPLE DATE	OBJECTIVE	08/07/01	08/07/01	08/07/01	08/07/01	08/07/01	08/07/01
		Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL
<b>Volatile Organic Compounds</b>							
Benzene	60	--	ND 5.1	--	25	--	--
Toluene	1,500	--	ND 5.1	--	59000 D	--	--
Ethylbenzene	5,500	--	ND 5.1	--	24000 D	--	--
o-Xylene	1,200	--	ND 5.1	--	86000 D	--	--
m/p Xylenes	1,200	--	ND 5.1	--	160000 D	--	--
Total Xylenes	1,200	--	ND 5.1	--	160000	--	--
Bromomethane	~	--	ND 5.1	--	ND 5.3	--	--
1,1-Dichloroethene	400	--	ND 5.1	--	8.6	--	--
Acetone	200	--	ND 5.1	--	1.5	--	--
Methylene Chloride	100	--	2.5 J	--	ND 5.3	--	--
1,1-Dichloroethane	200	--	ND 5.1	--	10	--	--
cis-1,2-Dichloroethene	~	--	ND 5.1	--	ND 5.3	--	--
Chloroform	300	--	ND 5.1	--	3.1 J	--	--
1,1,1-Trichloroethane	800	--	ND 5.1	--	90	--	--
1,2-Dichloroethane	100	--	ND 5.1	--	55	--	--
Trichloroethene	700	--	ND 5.1	--	37	--	--
Tetrachloroethene	1,400	--	2.8 J	--	82	--	--
Chlorobenzene	1,700	--	ND 5.1	--	ND 5.3	--	--
Total BTEX		--	0	--	329025	--	--
Total Chlorinated VOCS		--	5	--	287	--	--
TOTAL VOC's	10,000	--	5 J	--	489312 JD	--	--
TOTAL TIC's	n/a	--	6.1 J	--	3823 J	--	--
TOTAL VOC's & TIC's	n/a	--	11.4 J	--	493135 JD	--	--

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-15 N5516-03 0 - 0.5 08/07/01			SS-15 N5516-04 0.5 - 1.0 08/07/01			SS-16 N5516-05 0 - 0.5 08/07/01			SS-16 N5516-06 0.5 - 1.0 08/07/01			SS-17 N5516-07 0 - 0.5 08/07/01			SS-17 N5516-08 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
Trichlorobenzene	~	ND		340	ND		340	2200	J		ND		3,500	ND		350	ND		350
Naphthalene	13,000	72	J		170	J		ND		3,500	13000			47	J		36	J	
Hexachlorobutadiene	~	ND		340	ND		340	4300			ND		3,500	ND		350	ND		350
2-Methylnaphthalene	36,400	45	J		76	J		ND		3,500	22000			65	J		ND		350
2-Chloronaphthalene	~	59	J		ND		340	ND		3,500	ND		3,500	ND		350	ND		350
2-Nitroaniline		ND		340	ND		340	ND		3,500	ND		3,500	ND		350	ND		350
Dimethylnaphthalene	~	ND		340	60	J		ND		3,500	ND		3,500	ND		350	ND		350
Acenaphthylene	41,000	290	J		330	J		ND		3,500	ND		3,500	1000			740		
Acenaphthene	50,000	81	J		340			1700	J		4100			47	J		ND		350
Dibenzofuran	6,200	38	J		210	J		660	J		2100	J		ND		350	ND		350
Diethylphthalate	7,100	140	J		120	J		ND		3,500	630	J		ND		350	ND		350
Fluorene	50,000	75	J		440			2100	J		4800			85	J		62	J	
n-Nitrosodiphenylamine	~	85	J		ND		340	ND		3,500	44000	D		160	J		170	J	
Phenanthrene	50,000	1100			3100	D		3700			11000			350			120	J	
Anthracene	50,000	420			1000			950	J		ND		3,500	610			450		
Carbazole	~	250	J		590			ND		3,500	ND		3,500	130	J		66	J	
Di-n-butylphthalate	8,100	61	J		ND		340	480	J		830	J		ND		350	ND		350
Fluoranthene	50,000	3300	D		3500	D		4400			5300			500			150	J	
Pyrene	50,000	3200	D		6800	D		4600			4700			1400			500		
Butylbenzylphthalate	50,000	ND		340	ND		340	ND		3,500	5400			4300	D		2200		
Benzo(a)anthracene	224 or MDL	1600			2100			1500	J		1700	J		430			220	J	
Chrysene	400	2100			2300			1900	J		1700	J		600			270	J	
bis(2-Ethylhexyl)phthalate	50,000	1200			1200			110000	D		180000	D		4600	D		2800	JD	
Di-n-octyl phthalate	50,000	77	J		ND		340	5900			6900			490			1000		
Benzo[b]fluoranthene	1,100	3800	D		2400	D		1600	J		1600	J		1300			720		
Benzo[k]fluoranthene	1,100	1400			2700			750	J		860	J		980			670		
Benzo[a]pyrene	61 or MDL	2400			2700	D		1100	J		1400	J		1200			760		
Indeno[1,2,3-cd]pyrene	3,200	610			760			510	J		800	J		510			360		
Dibenz[a,h]anthracene	14 or MDL	110	J		170	J		ND		3,500	ND		3,500	110	J		61	J	
benzo[g,h,i]perylene	50,000	1400			2500			250	J		910	J		1900			1300		
TOTAL BN's	n/a	23913	JD		33566	JD		148600	JD		313730	JD		20814	JD		12655	JD	
TOTAL TIC's	n/a	10160	J		3960	J		173600	J		181400	J		12270	J		7730	J	
TOTAL BN's & TIC's	n/a	34073	JD		37526	JD		322200	JD		495130	JD		33084	JD		20385	JD	

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-15 N5516-03 0 - 0.5 08/07/01	SS-15 N5516-04 0.5 - 1.0 08/07/01	SS-16 N5516-05 0 - 0.5 08/07/01	SS-16 N5516-06 0.5 - 1.0 08/07/01	SS-17 N5516-07 0 - 0.5 08/07/01	SS-17 N5516-08 0.5 - 1.0 08/07/01
		Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL
<b>Metals (PPM)</b>							
Aluminum	SB	10300	--	6230		9680	--
Antimony	SB	1.2 BN	--	ND N 0.93		ND 0.91	--
Arsenic	7.5 or SB	22.1	--	3.8		3.3	--
Barium	300 or SB	70.4	--	78.1		43.8	--
Beryllium	0.16 or SB	0.55	--	0.29 B		0.39 B	--
Cadmium	1 or SB	0.67	--	2.1		0.35 B	--
Calcium	SB	13300 *	--	46200 *		10500 *	--
Chromium	10 or SB	16.7	--	14.2		14.7	--
Cobalt	30 or SB	8.7	--	5.0 B		8.1	--
Copper	25 or SB	46.2	--	60.1		39.4	--
Iron	2,000 or SB	24100	--	14800		21000	--
Lead	SB	60.4	--	164		56.2	--
Magnesium	SB	6560 *	--	25300 *		6330 *	--
Manganese	SB	661	--	385		581	--
Mercury	0.1	0.08 *	--	0.05		0.04 *	--
Nickel	13 or SB	21.4	--	22.3		18.2	--
Potassium	SB	1010 E	--	942		1020 E	--
Selenium	2 or SB	ND 0.17	--	ND 0.17		0.51 B	--
Silver	SB	ND 0.18	--	ND 0.18		ND 0.17	--
Sodium	SB	154 B	--	226 B		261 B	--
Thallium	SB	1.0 B	--	ND 0.45		1.3	--
Vanadium	150 SB	19.9	--	13.2		12.2	--
Zinc	20 or SB	123	--	194		77.0	--
Polychlorinated Biphenyls (PCBs) (ppb)	1,000 surface or 10,000 subsurface			ND 18		--	--

NOTES:

- SB = Site Background
  - VOC = Volatile Organic Compound
  - BN = Semivolatile Compound
  - TIC = Tentatively Identified Compound
  - ND = Not Detected
  - = Not analyzed
  - J = The concentration was detected at a value below the MDL
  - D = Analyte detected at a secondary dilution factor
  - B = Analyte found in blank as well as the sample
  - SHADED = Analyte detected in excess of recommended soil cleanup objective
  - \* = Results from diluted analysis
- All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 6  
 SURFACE SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-18 N5516-09 0 - 0.5 08/07/01			SS-18 N5516-10 0.5 - 1.0 08/07/01			SS-19 N5516-11 0 - 0.5 08/07/01			SS-19 N5516-12 0.5 - 1.0 08/07/01			SS-20 N5516-13 0 - 0.5 08/07/01			SS-20 N5516-14 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	--			ND		5.4	--			--			--			ND		5.2
Toluene	1,500	--			ND		5.4	--			--			--			ND		5.2
Ethylbenzene	5,500	--			ND		5.4	--			--			--			ND		5.2
o-Xylene	1,200	--			ND		5.4	--			--			--			ND		5.2
m/p Xylenes	1,200	--			ND		5.4	--			--			--			ND		5.2
Total Xylenes	1,200	--			ND		5.4	--			--			--			ND		5.2
Bromomethane	~	--			3.2		J	--			--			--			ND		5.2
1,1-Dichloroethene	400	--			ND		5.4	--			--			--			ND		5.2
Acetone	200	--			ND		5.4	--			--			--			ND		5.2
Methylene Chloride	100	--			12		B	--			--			--			3.2		J
1,1-Dichloroethane	200	--			ND		5.4	--			--			--			ND		5.2
cis-1,2-Dichloroethene	~	--			ND		5.4	--			--			--			ND		5.2
Chloroform	300	--			ND		5.4	--			--			--			ND		5.2
1,1,1-Trichloroethane	800	--			ND		5.4	--			--			--			ND		5.2
1,2-Dichloroethane	100	--			ND		5.4	--			--			--			ND		5.2
Trichloroethene	700	--			ND		5.4	--			--			--			4.8		J
Tetrachloroethene	1,400	--			ND		5.4	--			--			--			7.6		
Chlorobenzene	1,700	--			ND		5.4	--			--			--			ND		5.2
Total BTEX		--			0			--			--			--			0		
Total Chlorinated VOCS		--			15			--			--			--			16		
TOTAL VOC's	10,000	--			15		J	--			--			--			16		
TOTAL TIC's	n/a	--			316		J	--			--			--			19		
TOTAL VOC's & TIC's	n/a	--			331		J	--			--			--			34		



TABLE 6  
 SURFACE SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-18 N5516-09 0 - 0.5 08/07/01			SS-18 N5516-10 0.5 - 1.0 08/07/01			SS-19 N5516-11 0 - 0.5 08/07/01			SS-19 N5516-12 0.5 - 1.0 08/07/01			SS-20 N5516-13 0 - 0.5 08/07/01			SS-20 N5516-14 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
Trichlorobenzene	~	ND		370	ND		360	ND		340	ND		340	ND		340	ND		350
Naphthalene	13,000	ND		370	ND		360	43	J		79	J		49	J		ND		350
Hexachlorobutadiene	~	ND		370	ND		360	ND		340	ND		340	ND		340	ND		350
2-Methylnaphthalene	36,400	160	J		ND		360	38	J		53	J		42	J		ND		350
2-Chloronaphthalene	~	ND		370	ND		360	ND		340	ND		340	ND		340	ND		350
2-Nitroaniline	~	ND		370	ND		360	ND		340	ND		340	ND		340	ND		350
Dimethylnaphthalene	~	ND		370	ND		360	ND		340	ND		340	ND		340	ND		350
Acenaphthylene	41,000	ND		370	58	J		970			2700			280	J		75	J	
Acenaphthene	50,000	150	J		49	J		44	J		130	J		130	J		ND		350
Dibenzofuran	6,200	ND		370	ND		360	76	J		110	J		57	J		ND		350
Diethylphthalate	7,100	ND		370	120	J		ND		340	ND		340	110	J		ND		350
Fluorene	50,000	310	J		ND		360	200	J		540			160	J		ND		350
n-Nitrosodiphenylamine	~	ND		370	ND		360	ND		340	ND		340	ND		340	ND		350
Phenanthrene	50,000	460			130	J		1800			5200	D		1300			ND		350
Anthracene	50,000	170	J		79	J		730			2500			540			120	J	
Carbazole	~	ND		370	41	J		110	J		290	J		360			ND		350
Di-n-butylphthalate	8,100	ND		370	ND		360	ND		340	ND		340	ND		340	ND		350
Fluoranthene	50,000	270	J		290	J		4700	D		25000	D		2100			ND		350
Pyrene	50,000	310	J		270	J		3800	D		19000	D		2800	D		240	J	
Butylbenzylphthalate	50,000	ND		370	ND		360	ND		340	ND		340	ND		340	ND		350
Benzo(a)anthracene	224 or MDL	93	J		130	J		2600			12000	D		1400			58	J	
Chrysene	400	120	J		180	J		2400			10000	D		1700			69	J	
bis(2-Ethylhexyl)phthalate	50,000	12000	D		2800			100	J		220	J		1000			210	J	
Di-n-octyl phthalate	50,000	2700			650			ND		340	ND		340	ND		340	ND		350
Benzo[b]fluoranthene	1,100	110	J		370			2600	D		13000	D		2200			130	J	
Benzo[k]fluoranthene	1,100	250	J		110	J		1600			4200	D		1100	JD		170	J	
Benzo[a]pyrene	61 or MDL	120	J		200	J		2600			10000	D		2400			180	J	
Indeno[1,2,3-cd]pyrene	3,200	61	J		95	J		920			1700			860			150	J	
Dibenz[a,h]anthracene	14 or MDL	ND		370	ND		360	150	J		500			150	J		ND		350
benzo[g,h,i]perylene	50,000	160	J		240	J		1100			2700	D		2200	D		1100		
TOTAL BN's	n/a	17444	JD		5812	J		26581	JD		109922	JD		20938	JD		2502	J	
TOTAL TIC's	n/a	25440	J		17800	J		18620	J		4881	J		2419	J		3329	J	
TOTAL BN's & TIC's	n/a	42884	JD		23612	J		45201	JD		114803	JD		23357	JD		5831	J	

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-18 N5516-09 0 - 0.5 08/07/01	SS-18 N5516-10 0.5 - 1.0 08/07/01	SS-19 N5516-11 0 - 0.5 08/07/01	SS-19 N5516-12 0.5 - 1.0 08/07/01	SS-20 N5516-13 0 - 0.5 08/07/01	SS-20 N5516-14 0.5 - 1.0 08/07/01
		Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL
<b>Metals (PPM)</b>							
Aluminum	SB	11000		8900	--	8770	11400
Antimony	SB	ND N 0.96	ND N 0.95	--	--	0.93 BN	ND N 0.93
Arsenic	7.5 or SB	4.1	4.1	--	--	6.0	7.3
Barium	300 or SB	56.6	63.1	--	--	88.1	43.5
Beryllium	0.16 or SB	0.48 B	0.42 B	--	--	0.42	0.51 B
Cadmium	1 or SB	0.07 B	0.24 B	--	--	1.9	ND 0.06
Calcium	SB	11500	19900 *	--	--	7490 *	11700 *
Chromium	10 or SB	13.0	13.5	--	--	16.9	16.1
Cobalt	30 or SB	7.1	6.5	--	--	8.8	10.4
Copper	25 or SB	21.0	23.5	--	--	49.5	30.2
Iron	2,000 or SB	19200	18600	--	--	24000	25400
Lead	SB	21.6	31.0	--	--	82.4	15.6
Magnesium	SB	6830 *	13500 *	--	--	6300 *	6580 *
Manganese	SB	1160	587	--	--	699	610
Mercury	0.1	ND 0.04	0.07 *	--	--	0.07 *	0.05 *
Nickel	13 or SB	14.3	16.2	--	--	22.2	22.9
Potassium	SB	666 E	967 E	--	--	1010 E	1290 E
Selenium	2 or SB	0.18 B	ND 0.17	--	--	0.56	ND 0.17
Silver	SB	ND 0.18	ND 0.18	--	--	ND 0.17	ND 0.18
Sodium	SB	448 B	297 B	--	--	401 B	462 B
Thallium	SB	1.1	ND 0.46	--	--	0.51 B	2.5
Vanadium	150 SB	16.6	16.5	--	--	18.2	17.6
Zinc	20 or SB	53.0	65.6	--	--	153	79.3
Polychlorinated Biphenyls (PCBs) (ppb)	1,000 surface or 10,000 subsurface	ND 18	--	--	--	ND 17	--

NOTES:

SB = Site Background

VOC = Volatile Organic Compound

BN = Semivolatile Compound

TIC = Tentatively Identified Compound

ND = Not Detected

-- = Not analyzed

J = The concentration was detected at a value below the MDL

D = Analyte detected at a secondary dilution factor

B = Analyte found in blank as well as the sample

SHADED = Analyte detected in excess of recommended soil cleanup objective

\* = Results from diluted analysis

All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 6  
 SURFACE SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-21 N5516-15 0 - 0.5 08/07/01	SS-21 N5516-16 0.5 - 1.0 08/07/01	SS-22 N5517-01 0 - 0.5 08/07/01	SS-22 N5517-02 0.5 - 1.0 08/07/01	SS-23 N5517-03 0 - 0.5 08/07/01	SS-23 N5517-04 0.5 - 1.0 08/07/01
		Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL
<b>Volatile Organic Compounds</b>							
Benzene	60	--	--	--	--	--	ND 5.4
Toluene	1,500	--	--	--	--	--	ND 5.4
Ethylbenzene	5,500	--	--	--	--	--	ND 5.4
o-Xylene	1,200	--	--	--	--	--	ND 5.4
m/p Xylenes	1,200	--	--	--	--	--	ND 5.4
Total Xylenes	1,200	--	--	--	--	--	ND 5.4
Bromomethane	~	--	--	--	--	--	ND 5.4
1,1-Dichloroethene	400	--	--	--	--	--	ND 5.4
Acetone	200	--	--	--	--	--	ND 5.4
Methylene Chloride	100	--	--	--	--	--	ND 5.4
1,1-Dichloroethane	200	--	--	--	--	--	ND 5.4
cis-1,2-Dichloroethene	~	--	--	--	--	--	ND 5.4
Chloroform	300	--	--	--	--	--	ND 5.4
1,1,1-Trichloroethane	800	--	--	--	--	--	ND 5.4
1,2-Dichloroethane	100	--	--	--	--	--	ND 5.4
Trichloroethene	700	--	--	--	--	--	ND 5.4
Tetrachloroethene	1,400	--	--	--	--	--	ND 5.4
Chlorobenzene	1,700	--	--	--	--	--	ND 5.4
Total BTEX		--	--	--	--	--	0
Total Chlorinated VOCS		--	--	--	--	--	0
TOTAL VOC's	10,000	--	--	--	--	--	ND
TOTAL TIC's	n/a	--	--	--	--	--	340 J
TOTAL VOC's & TIC's	n/a	--	--	--	--	--	340 J

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-21 N5516-15 0 - 0.5 08/07/01			SS-21 N5516-16 0.5 - 1.0 08/07/01			SS-22 N5517-01 0 - 0.5 08/07/01			SS-22 N5517-02 0.5 - 1.0 08/07/01			SS-23 N5517-03 0 - 0.5 08/07/01			SS-23 N5517-04 0.5 - 1.0 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
Trichlorobenzene	~	ND		340	ND		350	ND		350	ND		360	ND		370	ND		360
Naphthalene	13,000	410			58	J		56	J		36	J		ND		370	66	J	
Hexachlorobutadiene	~	ND		340	ND		350	ND		350	ND		360	ND		370	ND		360
2-Methylnaphthalene	36,400	170	J		47	J		93	J		52	J		ND		370	150	J	
2-Chloronaphthalene	~	ND		340	ND		350	ND		350	ND		360	ND		370	ND		360
2-Nitroaniline	~	ND		340	ND		350	ND		350	ND		360	ND		370	ND		360
Dimethylnaphthalene	~	84	J		ND		350	ND		350	ND		360	ND		370	ND		360
Acenaphthylene	41,000	570			620			630			360			ND		370	66	J	
Acenaphthene	50,000	950			86	J		35	J		ND		360	ND		370	ND		360
Dibenzofuran	6,200	360			40	J		ND		350	ND		360	ND		370	ND		360
Diethylphthalate	7,100	360			110	J		ND		350	ND		360	ND		370	ND		360
Fluorene	50,000	690			120	J		63	J		ND		360	ND		370	ND		360
n-Nitrosodiphenylamine	~	ND		340	ND		350	ND		350	ND		360	ND		370	ND		360
Phenanthrene	50,000	6100	D		910			170	J		86	J		ND		370	80	J	
Anthracene	50,000	1400			470			290	J		170	J		ND		370	ND		360
Carbazole	~	990			220	J		69	J		39	J		ND		370	ND		360
Di-n-butylphthalate	8,100	ND		340	ND		350	ND		350	ND		360	ND		370	ND		360
Fluoranthene	50,000	7500	D		3600	D		200	J		97	J		ND		370	100	J	
Pyrene	50,000	7200	D		3500	D		650			380			ND		370	70	J	
Butylbenzylphthalate	50,000	ND		340	ND		350	50	J		ND		360	ND		370	ND		360
Benzo(a)anthracene	224 or MDL	4200	D		2100			260	J		120	J		ND		370	52	J	
Chrysene	400	4600	D		2500			340	J		190	J		ND		370	56	J	
bis(2-Ethylhexyl)phthalate	50,000	750			490			1300			3200	D		ND		370	ND		360
Di-n-octyl phthalate	50,000	ND		340	ND		350	ND		350	ND		360	ND		370	ND		360
Benzo[b]fluoranthene	1,100	5100	D		3800	D		730			430			ND		370	78	J	
Benzo[k]fluoranthene	1,100	5400	D		2300			600			410			ND		370	65	J	
Benzo[a]pyrene	61 or MDL	4600	D		2400			870			480			ND		370	74	J	
Indeno[1,2,3-cd]pyrene	3,200	1100			ND		350	780			330	J		ND		370	140	J	
Dibenz[a,h]anthracene	14 or MDL	200	J		110	J		190	J		110	J		ND		370	ND		360
benzo[g,h,i]perylene	50,000	2400			1400			2200			1300			ND		370	170	J	
TOTAL BN's	n/a	55134	JD		24881	JD		9576	J		7790	JD		ND			1167	J	
TOTAL TIC's	n/a	2680	J		4140	J		7920	J		4200	J		6200	J		5400	J	
TOTAL BN's & TIC's	n/a	57814	JD		29021	JD		17496	J		11990	JD		6200	J		6567	J	

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID	RECOMMENDED	SS-21	SS-21	SS-22	SS-22	SS-23	SS-23
LABORATORY SAMPLE NUMBER	SOIL	N5516-15	N5516-16	N5517-01	N5517-02	N5517-03	N5517-04
SAMPLE DEPTH (feet)	CLEANUP	0 - 0.5	0.5 - 1.0	0 - 0.5	0.5 - 1.0	0 - 0.5	0.5 - 1.0
SAMPLE DATE	OBJECTIVE	08/07/01	08/07/01	08/07/01	08/07/01	08/07/01	08/07/01
		Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL
<b>Metals (PPM)</b>							
Aluminum	SB	--	--	--	--	9000	7910
Antimony	SB	--	--	--	--	ND 0.96	ND 0.94
Arsenic	7.5 or SB	--	--	--	--	2.5	2.8
Barium	300 or SB	--	--	--	--	107	202
Beryllium	0.16 or SB	--	--	--	--	0.35 B	0.31 B
Cadmium	1 or SB	--	--	--	--	0.36 B	1.8
Calcium	SB	--	--	--	--	58900 *	52700 *
Chromium	10 or SB	--	--	--	--	12.7 *	11.0 *
Cobalt	30 or SB	--	--	--	--	5.4 BE	4.9 BE
Copper	25 or SB	--	--	--	--	48.3	24.5
Iron	2,000 or SB	--	--	--	--	16100	13600
Lead	SB	--	--	--	--	198.0 E	311 E
Magnesium	SB	--	--	--	--	5380 *	7890 *
Manganese	SB	--	--	--	--	637	411
Mercury	0.1	--	--	--	--	ND 0.04	ND 0.04
Nickel	13 or SB	--	--	--	--	11.1 E	11.3 E
Potassium	SB	--	--	--	--	676 E	889 E
Selenium	2 or SB	--	--	--	--	0.62	ND 0.17
Silver	SB	--	--	--	--	ND 0.18	ND 0.18
Sodium	SB	--	--	--	--	148 B	381 B
Thallium	SB	--	--	--	--	2.5	ND 0.45
Vanadium	150 SB	--	--	--	--	11.5	11.2
Zinc	20 or SB	--	--	--	--	120	371
Polychlorinated Biphenyls (PCBs) (ppb)	1,000 surface or 10,000 subsurface	--	--	--	--	ND 18	--

NOTES:

SB = Site Background

VOC = Volatile Organic Compound

BN = Semivolatile Compound

TIC = Tentatively Identified Compound

ND = Not Detected

-- = Not analyzed

J = The concentration was detected at a value below the MDL

D = Analyte detected at a secondary dilution factor

B = Analyte found in blank as well as the sample

SHADED = Analyte detected in excess of recommended soil cleanup objective

\* = Results from diluted analysis

All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-24 N5517-05 0 - 0.5 08/07/01			SS-24 N5517-06 0.5 - 1.0 08/07/01			SS-25 N5517-07 0 - 0.5 08/07/01			SS-25 N5517-08 0.5 - 1.0 08/07/01			BSS-1 N5517-12 0-0.5			BSS-2 N5517-13 0-0.5		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>																			
Benzene	60	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
Toluene	1,500	--	--	ND	5.3	--	--	2.9	J	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	5,500	--	--	ND	5.3	--	--	1.2	J	--	--	--	--	--	--	--	--	--	--
o-Xylene	1,200	--	--	ND	5.3	--	--	2	J	--	--	--	--	--	--	--	--	--	--
m/p Xylenes	1,200	--	--	ND	5.3	--	--	5.9	J	--	--	--	--	--	--	--	--	--	--
Total Xylenes	1,200	--	--	ND	5.3	--	--	5.9	J	--	--	--	--	--	--	--	--	--	--
Bromomethane	~	--	--	ND	5.3	--	--	8.7		--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	400	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
Acetone	200	--	--	ND	5.3	--	--	28	B	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	100	--	--	ND	5.3	--	--	11	B	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	200	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	~	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
Chloroform	300	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	800	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	100	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
Trichloroethene	700	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	1,400	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	1,700	--	--	ND	5.3	--	--	ND	6	--	--	--	--	--	--	--	--	--	--
Total BTEX		--	--	0		--	--	12		--	--	--	--	--	--	--	--	--	--
Total Chlorinated VOCS		--	--	0		--	--	48		--	--	--	--	--	--	--	--	--	--
TOTAL VOC's	10,000	--	--	ND		--	--	66	J	--	--	--	--	--	--	--	--	--	--
TOTAL TIC's	n/a	--	--	511	J	--	--	713	J	--	--	--	--	--	--	--	--	--	--
TOTAL VOC's & TIC's	n/a	--	--	511	J	--	--	779	J	--	--	--	--	--	--	--	--	--	--

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-24 N5517-05 0 - 0.5 08/07/01			SS-24 N5517-06 0.5 - 1.0 08/07/01			SS-25 N5517-07 0 - 0.5 08/07/01			SS-25 N5517-08 0.5 - 1.0 08/07/01			BSS-1 N5517-12 0-0.5			BSS-2 N5517-13 0-0.5		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>																			
Trichlorobenzene	~	ND		360	ND		350	ND		400	ND		400	--		--		--	
Naphthalene	13,000	40	J		88	J		80	J		ND		400	--		--		--	
Hexachlorobutadiene	~	ND		360	ND		350	ND		400	ND		400	--		--		--	
2-Methylnaphthalene	36,400	ND		360	690			760			ND		400	--		--		--	
2-Chloronaphthalene	~	ND		360	ND		350	ND		400	ND		400	--		--		--	
2-Nitroaniline	~	ND		360	ND		350	ND		400	ND		400	--		--		--	
Dimethylnaphthalene	~	ND		360	ND		350	ND		400	ND		400	--		--		--	
Acenaphthylene	41,000	230	J		750			ND		400	ND		400	--		--		--	
Acenaphthene	50,000	ND		360	170	J		ND		400	ND		400	--		--		--	
Dibenzofuran	6,200	ND		360	ND		350	ND		400	ND		400	--		--		--	
Diethylphthalate	7,100	ND		360	ND		350	ND		400	ND		400	--		--		--	
Fluorene	50,000	ND		360	ND		350	ND		400	ND		400	--		--		--	
n-Nitrosodiphenylamine	~	ND		360	ND		350	ND		400	ND		400	--		--		--	
Phenanthrene	50,000	290	J		430			1100			ND		400	--		--		--	
Anthracene	50,000	180	J		240	J		350	J		ND		400	--		--		--	
Carbazole	~	61	J		ND		350	ND		400	ND		400	--		--		--	
Di-n-butylphthalate	8,100	ND		360	ND		350	ND		400	ND		400	--		--		--	
Fluoranthene	50,000	620			440			560			370	J		--		--		--	
Pyrene	50,000	1000			980			2200			2000			--		--		--	
Butylbenzylphthalate	50,000	ND		360	ND		350	ND		400	ND		400	--		--		--	
Benzo(a)anthracene	224 or MDL	370			260	J		420			250	J		--		--		--	
Chrysene	400	510			470			710			960			--		--		--	
bis(2-Ethylhexyl)phthalate	50,000	180	J		76	J		7100	D		6700	D		--		--		--	
Di-n-octyl phthalate	50,000	46	J		ND		350	ND		400	ND		400	--		--		--	
Benzo[b]fluoranthene	1,100	590			500			840			600			--		--		--	
Benzo[k]fluoranthene	1,100	670			360			660			630			--		--		--	
Benzo[a]pyrene	61 or MDL	600			530			720			290	J		--		--		--	
Indeno[1,2,3-cd]pyrene	3,200	200	J		210	J		780			190	J		--		--		--	
Dibenz[a,h]anthracene	14 or MDL	83	J		63	J		180	J		ND		400	--		--		--	
benzo[g,h,i]perylene	50,000	660			640			2300			530			--		--		--	
TOTAL BN's	n/a	6330	J		6897	J		18760	J		12520	JD		--		--		--	
TOTAL TIC's	n/a	4680	J		19540	J		14320	J		25450	J		--		--		--	
TOTAL BN's & TIC's	n/a	11010	J		26437	J		33080			37970	JD		--		--		--	

TABLE 6  
SURFACE SOIL SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	SS-24 N5517-05 0 - 0.5 08/07/01	SS-24 N5517-06 0.5 - 1.0 08/07/01	SS-25 N5517-07 0 - 0.5 08/07/01	SS-25 N5517-08 0.5 - 1.0 08/07/01	BSS-1 N5517-12 0-0.5	BSS-2 N5517-13 0-0.5
		Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL
<b>Metals (PPM)</b>							
Aluminum	SB	8490	9810	--	--	6940	10900
Antimony	SB	ND	ND 0.94	--	--	1.5 B	ND 0.96
Arsenic	7.5 or SB	4.6	4.1	--	--	6.9	6
Barium	300 or SB	39.0	54.2	--	--	41.3	48.4
Beryllium	0.16 or SB	0.36 B	0.42 B	--	--	0.38 B	0.47 B
Cadmium	1 or SB	0.19 B	0.23 B	--	--	1.1	ND 0.06
Calcium	SB	19300 *	16100 *	--	--	53700	4440
Chromium	10 or SB	13.0 *	13.7 *	--	--	10.6	14.7
Cobalt	30 or SB	7.0 E	8.0 E	--	--	7.3	9.8
Copper	25 or SB	26.5	33.3	--	--	34.9	31.3
Iron	2,000 or SB	19000	21900	--	--	17600	24200
Lead	SB	26.6 E	59.6 E	--	--	107	34.7
Magnesium	SB	5420 *	5860 *	--	--	27900	5700
Manganese	SB	648	724	--	--	645	667
Mercury	0.1	ND 0.03	ND 0.04	--	--	0.21	0.06
Nickel	13 or SB	15.5 E	18.0 E	--	--	16.4	19.1
Potassium	SB	788 E	954 E	--	--	821	1020
Selenium	2 or SB	0.53	0.53 B	--	--	ND 0.22	0.41
Silver	SB	ND 0.18	ND 0.18	--	--	ND 0.23	ND 0.18
Sodium	SB	161 B	142 B	--	--	299 B	440 B
Thallium	SB	1.4	1.5	--	--	ND 0.59	1.8
Vanadium	150 SB	12.2	13.8	--	--	16.7	16.5
Zinc	20 or SB	70.2	78.8	--	--	99.7	77
Polychlorinated Biphenyls (PCBs) (ppb)	1,000 surface or 10,000 subsurface	ND 18	--	--	--	--	--

NOTES:

SB = Site Background

VOC = Volatile Organic Compound

BN = Semivolatile Compound

TIC = Tentatively Identified Compound

ND = Not Detected

-- = Not analyzed

J = The concentration was detected at a value below the MDL

D = Analyte detected at a secondary dilution factor

B = Analyte found in blank as well as the sample

SHADED = Analyte detected in excess of recommended soil cleanup objective

\* = Results from diluted analysis

All compounds measured in parts per billion (ppb), except metals which are in parts per million (ppm)



TABLE 6  
 SURFACE SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	Field Blank N5517-10			Trip Blank N5517-11		
		08/07/01			08/07/01		
		Conc	Q	MDL	Conc	Q	MDL
<b>Volatile Organic Compounds</b>							
Benzene	60	ND		5.0	ND		5.0
Toluene	1,500	ND		5.0	ND		5.0
Ethylbenzene	5,500	ND		5.0	ND		5.0
o-Xylene	1,200	ND		5.0	ND		5.0
m/p Xylenes	1,200	ND		5.0	ND		5.0
Total Xylenes	1,200	ND		5.0	ND		5.0
Bromomethane	~	ND		5.0	ND		5.0
1,1-Dichloroethene	400	ND		5.0	ND		5.0
Acetone	200	ND		5.0	ND		5.0
Methylene Chloride	100	2.8	JB		2.3	JB	
1,1-Dichloroethane	200	ND		5.0	ND		5.0
cis-1,2-Dichloroethene	~	ND		5.0	ND		5.0
Chloroform	300	ND		5.0	ND		5.0
1,1,1-Trichloroethane	800	ND		5.0	ND		5.0
1,2-Dichloroethane	100	ND		5.0	ND		5.0
Trichloroethene	700	ND		5.0	ND		5.0
Tetrachloroethene	1,400	ND		5.0	ND		5.0
Chlorobenzene	1,700	ND		5.0	ND		5.0
Total BTEX		0			0		
Total Chlorinated VOCS		3			2		
TOTAL VOC's	10,000	ND			ND		
TOTAL TIC's	n/a	ND			ND		
TOTAL VOC's & TIC's	n/a	ND			ND		

TABLE 6  
 SURFACE SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	Field Blank N5517-10			Trip Blank N5517-11		
		08/07/01			08/07/01		
		Conc	Q	MDL	Conc	Q	MDL
<b>Semivolatile Organic Compounds</b>							
Trichlorobenzene	~	ND	10	--	--	--	--
Naphthalene	13,000	ND	10	--	--	--	--
Hexachlorobutadiene	~	ND	10	--	--	--	--
2-Methylnaphthalene	36,400	ND	10	--	--	--	--
2-Chloronaphthalene	~	ND	10	--	--	--	--
2-Nitroaniline	~	ND	10	--	--	--	--
Dimethylnaphthalene	~	ND	10	--	--	--	--
Acenaphthylene	41,000	ND	10	--	--	--	--
Acenaphthene	50,000	ND	10	--	--	--	--
Dibenzofuran	6,200	ND	10	--	--	--	--
Diethylphthalate	7,100	ND	10	--	--	--	--
Fluorene	50,000	ND	10	--	--	--	--
n-Nitrosodiphenylamine	~	ND	10	--	--	--	--
Phenanthrene	50,000	ND	10	--	--	--	--
Anthracene	50,000	ND	10	--	--	--	--
Carbazole	~	ND	10	--	--	--	--
Di-n-butylphthalate	8,100	ND	10	--	--	--	--
Fluoranthene	50,000	ND	10	--	--	--	--
Pyrene	50,000	ND	10	--	--	--	--
Butylbenzylphthalate	50,000	ND	10	--	--	--	--
Benzo(a)anthracene	224 or MDL	ND	10	--	--	--	--
Chrysene	400	ND	10	--	--	--	--
bis(2-Ethylhexyl)phthalate	50,000	ND	10	--	--	--	--
Di-n-octyl phthalate	50,000	ND	10	--	--	--	--
Benzo[b]fluoranthene	1,100	ND	10	--	--	--	--
Benzo[k]fluoranthene	1,100	ND	10	--	--	--	--
Benzo[a]pyrene	61 or MDL	ND	10	--	--	--	--
Indeno[1,2,3-cd]pyrene	3,200	ND	10	--	--	--	--
Dibenz[a,h]anthracene	14 or MDL	ND	10	--	--	--	--
benzo[g,h,i]perylene	50,000	ND	10	--	--	--	--
TOTAL BN's	n/a	ND		--	--	--	--
TOTAL TIC's	n/a	2.3	J	--	--	--	--
TOTAL BN's & TIC's	n/a	2.3	J	--	--	--	--

TABLE 6  
 SURFACE SOIL SAMPLING RESULTS  
 FORMER PROVAN FORD FACILITY  
 NEWBURGH, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DEPTH (feet) SAMPLE DATE	RECOMMENDED SOIL CLEANUP OBJECTIVE	Field Blank N5517-10 08/07/01			Trip Blank N5517-11 08/07/01		
		Conc	Q	MDL	Conc	Q	MDL
<b>Metals (PPM)</b>							
Aluminum	SB	ND		16.9	--		
Antimony	SB	ND		8.9	--		
Arsenic	7.5 or SB	ND		6.2	--		
Barium	300 or SB	ND		1.3	--		
Beryllium	0.16 or SB	ND		0.10	--		
Cadmium	1 or SB	ND		0.60	--		
Calcium	SB	ND		3.4	--		
Chromium	10 or SB	ND		0.60	--		
Cobalt	30 or SB	ND		0.90	--		
Copper	25 or SB	ND		1.5	--		
Iron	2,000 or SB	ND		15.8	--		
Lead	SB	ND		3.0	--		
Magnesium	SB	ND		16.2	--		
Manganese	SB	ND		0.20	--		
Mercury	0.1	ND		0.20	--		
Nickel	13 or SB	ND		1.6	--		
Potassium	SB	ND		18.4	--		
Selenium	2 or SB	ND		1.6	--		
Silver	SB	ND		1.7	--		
Sodium	SB	ND		357	--		
Thallium	SB	4.8	B	4.8	--		
Vanadium	150 SB	ND		1.2	--		
Zinc	20 or SB	ND		1.1	--		
Polychlorinated Biphenyls (PCBs) (ppb)	1,000 surface or 10,000 subsurface	ND		0.50	--		

NOTES:

SB = Site Background  
 VOC = Volatile Organic Compound  
 BN = Semivolatile Compound  
 TIC = Tentatively Identified Compound  
 ND = Not Detected  
 -- = Not analyzed  
 J = The concentration was detected at a value below the MDL  
 D = Analyte detected at a secondary dilution factor  
 B = Analyte found in blank as well as the sample  
 SHADED = Analyte detected in excess of recommended soil  
 cleanup objective  
 \* = Results from diluted analysis  
 All compounds measured in parts per billion (ppb), except metals  
 which are in parts per million (ppm)

TABLE 7  
SOIL GAS SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE LOCATION	SG-2	SG-3	SG-3	SG-4	SG-4	SG-4A		
LABORATORY SAMPLE NUMBER			101223-1		101223-2			
SAMPLE DATE	5/30/2001	5/30/2001	5/30/2001	5/30/2001	5/30/2001	12/19/2003		
Analysis Method	Field	Field	Field	Field	Field	TO-15	MDL	Field
Volatile Organic Compounds (ppbv)								
Benzene	0.06	7	4.7	0.05	1.2	32		NA
Toluene	0.46	3.8	2.8	6.2	u	7.2		NA
Ethylbenzene	u	u	0.2*	u	u	u		NA
Xylenes	u	u	0.3*	u	u	NA		NA
Tetrachloroethene (PCE)	NA	NA	NA	NA	NA	u		NA
Trichloroethylene (TCE)	NA	NA	NA	NA	NA	170		860
Vinyl Chloride	NA	NA	NA	NA	NA	u		NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	10		NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	150		NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	57		NA
m,p-Xylene	NA	NA	NA	NA	NA	u		NA
o-Xylene	NA	NA	NA	NA	NA	u		NA
Styrene	NA	NA	NA	NA	NA	u		NA
Hexane	NA	NA	NA	NA	NA	65		NA
Cyclohexane	NA	NA	NA	NA	NA	u		NA
Heptane	NA	NA	NA	NA	NA	72		NA
Acetone	NA	NA	NA	NA	NA	23		NA
2-Propanol	NA	NA	NA	NA	NA	u		NA
2-Butanone (Methyl Ethyl Ketone)	NA	NA	NA	NA	NA	u		NA
Tetrahydrofuran	NA	NA	NA	NA	NA	46		NA
Ethanol	NA	NA	NA	NA	NA	u		NA
Total Targeted Compounds	0.5	10.8	7.5	6.3	1.2	NA		NA
Total Non-Targeted Peaks <sup>(1)</sup>	u	9		110		NA		NA
Total Volatile Organic Compounds (ppbv)	0.5	19.8		116.3		632.0		860.0

Notes:

u = Undetected

NA = Not analyzed

\* = Estimated value; below detection limit

\*\* = Coeluting peaks, possibly benzene; retention time registered as TCE; estimated peak area for calculation of TCE concentration.

\*\*\* = Concentration estimated using TCE response.

<sup>(1)</sup> = Estimated concentration of tentatively identified peaks. Estimated concentration based on benzene or toluene response.

Samples with a laboratory sample number are confirmational samples analyzed at laboratory rather than in field.

TABLE 7  
SOIL GAS SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE LOCATION	SG-5	SG-6	SG-7	SG-7	SG-8	SG-8	SG-9
LABORATORY SAMPLE NUMBER				101223-3		101223-4	
SAMPLE DATE	5/30/2001	5/30/2001	5/30/2001	5/30/2001	5/30/2001	5/30/2001	5/30/2001
Analysis Method	Field	Field	Field	Field	Field	Field	Field
Volatile Organic Compounds (ppbv)							
Benzene	u	u	0.69	1.5	0.03	u	u
Toluene	u	0.51	u	u	0.07	u	u
Ethylbenzene	u	u	u	u	u	u	u
Xylenes	u	1	u	u	u	u	u
Tetrachloroethene (PCE)	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene (TCE)	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	NA	NA	NA	NA	NA	NA	NA
o-Xylene	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA
Hexane	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	NA	NA
Heptane	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
2-Propanol	NA	NA	NA	NA	NA	NA	NA
2-Butanone (Methyl Ethyl Ketone)	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	NA	NA	NA	NA	NA	NA	NA
Ethanol	NA	NA	NA	NA	NA	NA	NA
Total Targeted Compounds	u	1.5	0.7	1.5	0.1	u	u
Total Non-Targeted Peaks <sup>(1)</sup>	u	33	2		u		0.3
Total Volatile Organic Compounds (ppbv)	u	34.5	2.7		0.1		0.3

Notes:

u = Undetected

NA = Not analyzed

\* = Estimated value; below detection limit

\*\* = Coeluting peaks, possibly benzene; retention time registered as TCE; estimated peak area for calculation of TCE concentration.

\*\*\* = Concentration estimated using TCE response.

<sup>(1)</sup>=Estimated concentration of tentatively identified peaks. Estimated concentration based on benzene or toluene response.

Samples with a laboratory sample number are confirmational samples analyzed at laboratory rather than in field.

TABLE 7  
SOIL GAS SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE LOCATION	SG-10	SG-11	SG-12	SG-13	SG-14	SG-15	SG-16
LABORATORY SAMPLE NUMBER							
SAMPLE DATE	5/30/2001	5/30/2001	5/30/2001	5/30/2001	5/30/2001	5/31/2001	5/31/2001
Analysis Method	Field	Field	Field	Field	Field	Field	Field
Volatile Organic Compounds (ppbv)							
Benzene	u	u	u	u	u	u	u
Toluene	u	u	u	1.7	5.5	4	u
Ethylbenzene	u	u	u	u	u	u	u
Xylenes	u	u	u	u	u	u	u
Tetrachloroethene (PCE)	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene (TCE)	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA	NA	NA	NA	NA
m,p-Xylene	NA	NA	NA	NA	NA	NA	NA
o-Xylene	NA	NA	NA	NA	NA	NA	NA
Styrene	NA	NA	NA	NA	NA	NA	NA
Hexane	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	NA	NA	NA	NA	NA	NA	NA
Heptane	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA
2-Propanol	NA	NA	NA	NA	NA	NA	NA
2-Butanone (Methyl Ethyl Ketone)	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	NA	NA	NA	NA	NA	NA	NA
Ethanol	NA	NA	NA	NA	NA	NA	NA
Total Targeted Compounds	u	u	u	1.7	5.5	4.0	u
Total Non-Targeted Peaks <sup>(1)</sup>	u	u	0.3	316	382	772	1340
Total Volatile Organic Compounds (ppbv)	u	u	0.3	317.7	387.5	776	1340

## Notes:

u = Undetected

NA = Not analyzed

\* = Estimated value; below detection limit

\*\* = Coeluting peaks, possibly benzene; retention time registered as TCE; estimated peak area for calculation of TCE concentration.

\*\*\* = Concentration estimated using TCE response.

<sup>(1)</sup>=Estimated concentration of tentatively identified peaks. Estimated concentration based on benzene c or toluene response.

Samples with a laboratory sample number are confirmational samples analyzed at laboratory rather than in field.

TABLE 7  
SOIL GAS SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE LOCATION	SG-16A	SG-16A		SG-17	SG-18	SG-19
LABORATORY SAMPLE NUMBER						
SAMPLE DATE	12/19/2003	12/19/2003		5/31/2001	5/31/2001	5/31/2001
Analysis Method	Field	TO-15	MDL	Field	Field	Field
Volatile Organic Compounds (ppbv)						
Benzene	NA	1000		NA	u	u
Toluene	NA	u		NA	u	u
Ethylbenzene	NA	u		NA	u	u
Xylenes	NA	NA		NA	u	u
Tetrachloroethene (PCE)	u	u		NA	NA	NA
Trichloroethylene (TCE)	550**	u		505 **	NA	NA
Vinyl Chloride	NA	660		NA	NA	NA
1,1-Dichloroethene	NA	u		NA	NA	NA
cis-1,2-Dichloroethene	NA	u		NA	NA	NA
1,1,1-Trichloroethane	NA	u		NA	NA	NA
m,p-Xylene	NA	u		NA	NA	NA
o-Xylene	NA	u		NA	NA	NA
Styrene	NA	u		NA	NA	NA
Hexane	NA	71000		NA	NA	NA
Cyclohexane	NA	29000		NA	NA	NA
Heptane	NA	5300		NA	NA	NA
Acetone	NA	u		NA	NA	NA
2-Propanol	NA	u		NA	NA	NA
2-Butanone (Methyl Ethyl Ketone)	NA	u		NA	NA	NA
Tetrahydrofuran	NA	u		NA	NA	NA
Ethanol	NA	u		NA	NA	NA
Total Targeted Compounds	NA	NA		NA	u	4.0
Total Non-Targeted Peaks <sup>(1)</sup>	NA	NA		NA	1070	125
Total Volatile Organic Compounds (ppbv)	35000***	1660.0		0.0	1070	129

Notes:

u = Undetected

NA = Not analyzed

\* = Estimated value; below detection limit

\*\* = Coeluting peaks, possibly benzene; retention time registered as TCE; estimated peak area for calculation of TCE concentration.

\*\*\* = Concentration estimated using TCE response.

<sup>(1)</sup>=Estimated concentration of tentatively identified peaks. Estimated concentration based on or toluene response.

Samples with a laboratory sample number are confirmational samples analyzed at laboratory rather than in field.

TABLE 7  
SOIL GAS SAMPLING RESULTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

SAMPLE LOCATION LABORATORY SAMPLE NUMBER SAMPLE DATE	SG-20			SG-21	SG-22	SG-23	A-1	A-2	A-3
	12/19/2003			12/19/2003	12/19/2003	12/19/2003	12/19/2003	12/19/2003	12/19/2003
Analysis Method	TO-15	MDL	Field	Field	Field	Field	TO-15	TO-15	TO-15
Volatile Organic Compounds (ppbv)									
Benzene	u		NA	NA	NA	NA	1.2	u	67
Toluene	8.4		NA	NA	NA	NA	2.1	u	13
Ethylbenzene	u		NA	NA	NA	NA	u	u	11
Xylenes	NA		NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene (PCE)	u		NA	NA	NA	NA	u	u	u
Trichloroethylene (TCE)	83		101	NA	NA	NA	u	u	u
Vinyl Chloride	u		NA	NA	NA	NA	u	u	u
1,1-Dichloroethene	u		NA	NA	NA	NA	u	u	u
cis-1,2-Dichloroethene	39		NA	NA	NA	NA	u	u	5
1,1,1-Trichloroethane	u		NA	NA	NA	NA	u	u	u
m,p-Xylene	u		NA	NA	NA	NA	u	u	16
o-Xylene	u		NA	NA	NA	NA	u	u	6.1
Styrene	u		NA	NA	NA	NA	0.9	u	u
Hexane	15		NA	NA	NA	NA	u	u	1500
Cyclohexane	u		NA	NA	NA	NA	u	u	720
Heptane	24		NA	NA	NA	NA	u	u	350
Acetone	38		NA	NA	NA	NA	21	u	u
2-Propanol	u		NA	NA	NA	NA	3.8	u	u
2-Butanone (Methyl Ethyl Ketone)	u		NA	NA	NA	NA	34	u	u
Tetrahydrofuran	u		NA	NA	NA	NA	38	u	21
Ethanol	u		NA	NA	NA	NA	7	u	u
Total Targeted Compounds	NA		NA	NA	NA	NA	NA	NA	NA
Total Non-Targeted Peaks <sup>(1)</sup>	NA		NA	NA	NA	NA	NA	NA	NA
Total Volatile Organic Compounds (ppbv)	217.0		131***	1500000***	25000***	8000***	108.0	0.0	2709

Notes:

u = Undetected

NA = Not analyzed

\* = Estimated value; below detection limit

\*\* = Coeluting peaks, possibly benzene; retention time registered as TCE; estimated peak area for calculation of TCE concentration.

\*\*\* = Concentration estimated using TCE response.

<sup>(1)</sup>=Estimated concentration of tentatively identified peaks. Estimated concentration based on benzene or toluene response.

Samples with a laboratory sample number are confirmational samples analyzed at laboratory rather than in field.



TABLE 8  
 TEMPORARY WELL POINT GROUNDWATER ANALYTICAL DATA  
 FORMER PROVAN FORD FACILITY  
 NEW BURG, NEW YORK

SAMPLE ID LABORATORY SAMPLE NUMBER SAMPLE DATE	GROUNDWATER STANDARD OR GUIDANCE VALUE	TGB-1 R4049-19 08/28/03		TGB-2 R4049-20 08/28/03		TGB-2DL R4049-20DL 08/28/03		TGB-3 R4049-20 08/28/03		TGB-3DL R4049-20DL 08/28/03	
		Conc	Q	Conc	Q	Conc	Q	Conc	Q	Conc	Q
<b>Volatile Organic Compounds</b>											
Acetone	50 (GV)	ND		27		64	D	ND		ND	
Benzene	0.7 (S)	ND		200	E	190	D	270		ND	
Ethylbenzene	5 (S)	ND		800	E	760	D	ND		1500	D
Tetrachloroethene	5 (S)	ND		ND		ND	D	ND		ND	
Toluene	5 (S)	ND		200		190	D	330		380	JD
m/p Xylenes	5 (S)	ND		1400	E	1400	D	ND		5700	D
o-Xylene	5 (S)	ND		250	E	220	D	ND		1500	D
Isopropyl benzene	5 (S)	ND		ND		ND		270		ND	
N-propyl benzene	5 (S)	ND		ND		ND		670		670	JD
sec-butyl benzene	5 (S)	ND		ND		ND		470		ND	
p-Isopropyl toluene	5 (S)	ND		ND		ND		160		ND	
1,3,5-Trimethylbenzene	5 (S)	ND		ND		ND		ND		1500	D
1,2,4-Trimethylbenzene	5 (S)	ND		ND		ND		ND		5400	D
Naphtalene	10	ND		ND		ND		ND		2000	D
TOTAL VOC's		ND		2877		2824		2170		20550	JD
TOTAL TIC's		ND		3875	J	3875	J	0		0	
TOTAL VOC's & TIC's		ND		6752	J	6699	J	2170		20550	JD

NOTES:

BN = Semivolatile Compound

TIC = Tentatively Identified Compound

-- = Not analyzed

J = The concentration was detected at a value below the MDL

u = Analyzed for but not detected at the MDL

SHADED = Analyte detected in excess of recommended soil cleanup objective

\* = Results from diluted analysis

All compounds measured in parts per billion (ppb)

DL = Diluted sample

TABLE 9  
SUMMARY OF REMEDIATION COSTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

Media	Remedial Alternative	Components	Description	Component Cost	Capital Costs	Annual Operation and Maintenance Cost	Total Anticipated Operation and Maintenance Cost (30 Years maximum)	Total Cost	Present Value (assumes 5% interest)	
Soil	No Action			\$0	\$0	\$0	\$0	\$0	\$0	
	Excavation and Off-site Disposal	Building Demolition	Demolition of 18,000 sq ft building including removal of slab and wash rack. Does not include asbestos survey or abatement is necessary.	\$55,000						
		Develop Remedial Action Work Plan	Prepare Work Plan and project bid documents	\$15,000						
		Excavate and dispose of petroleum contaminated soil at wash rack area	Excavate and dispose of 1,875 Cubic yards at \$75/cubic yard	\$141,000						
		Excavate and dispose of petroleum contaminated soil at former petroleum UST area	Excavate and dispose of 1,750 Cubic yards at \$75/cubic yard	\$131,000						
		Removal of 8,000-gallon UST	Remove and clean UST (tank previously pumped dry)	\$4,000						
		Excavate and dispose of VOC contaminated soil at former waste oil UST area	Excavate and dispose of 1,000 Cubic yards at \$350/cubic yard	\$350,000						
		Backfill all areas with clean fill	Place 4,625 cubic yards at \$25/yard	\$116,000						
		Total				\$812,000	\$0	\$0	\$812,000	\$812,000
	Institutional and Engineering Controls	Deed restriction	Obtain property survey, complete and file deed restriction	\$15,000						
		Develop Remedial Action Work Plan	Prepare Work Plan, and project bid documents	\$10,000						
		Asphalt pave site	6,400 Square yards at \$15/square yard	\$96,000						
		Inspect annually, assume to repair part of lot every 5 years	10,000 every five years for 30 years	\$60,000						
		Total				\$121,000	\$2,000	\$60,000	\$181,000	\$152,000.00
	Soil Vapor Extraction	Develop Remedial Action Work Plan	Prepare Work Plan and project bid documents	\$15,000						
		Install SVE Wells	Install 36 wells at \$1,000 per well	\$36,000						
		Trenching/Installation of Piping	800 feet of trenching and piping at \$30/ foot	\$24,000						
		Treatment system installation	Installation of prefabricated structure, electrical connections, Installation of blowers and activated carbon vessels	\$30,000						
		Operation and maintenance	First five years at \$15,000/year	\$75,000						
		Operation and maintenance	Next 25 years at \$4,000 per year	\$100,000						
		Total				\$105,000	\$6,000	\$175,000	\$280,000	\$197,000.00

TABLE 9  
SUMMARY OF REMEDIATION COSTS  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

Media	Remedial Alternative	Components	Description	Component Cost	Capital Costs	Annual Operation and Maintenance Cost	Total Anticipated Operation and Maintenance Cost (30 Years maximum)	Total Cost	Present Value (assumes 5% interest)	
Groundwater	No Action			\$0	\$0	\$0	\$0	\$0	\$0	
	Air Sparge/Soil Vapor Extraction	Cost for installation of SVE system	Installation of SVE system as described above	\$90,000				\$269,000	\$259,000.00	
		Install Air Sparge Wells	Install 20 Air Sparge Wells to 40 feet at \$3000 per well	\$60,000						
		Install Additional SVE Wells (beyond those listed above for SVE System)	Install 5 wells at \$1,000 each	\$5,000						
		Install Additional Piping (beyond that listed above for the SVE system)	800 feet of trenching and piping at \$30/ foot	\$24,000						
		Expansion of SVE System for AS/SVE	Install larger structure, additional blowers, controls, etc.	\$15,000						
		Operation and maintenance	First five years at \$15,000/year	\$75,000						
	Total				\$194,000	\$15,000	\$75,000	\$269,000	\$259,000.00	
Groundwater Recovery and Treatment	Pre design investigation and work plan	Pre-design investigation including aquifer tests. Prepare Work Plan and project bid documents and obtain permits.	\$35,000					\$4,815,000	\$2,621,000.00	
	Installation of groundwater extraction wells	Installation of 20 four-inch diameter extraction wells to a typical depth of 50 feet at a cost of \$5,000 each	\$100,000							
	Installation of Piping	Installation of approximately 1,000 feet of underground piping at an estimated cost of \$60 per foot	\$60,000							
	Construction of Treatment System	Installation of prefabricated structure, electrical connections, installation of pumps, controls, filters, air stripper and activated carbon vessels	\$120,000							
	Operation and maintenance	Assumes \$150,000 per year for 30 years	\$4,500,000							
	Total				\$315,000	\$150,000	\$4,500,000	\$4,815,000	\$2,621,000.00	
In-situ Chemical Oxidation	Pre design investigation and work plan	Pre-design investigation including aquifer tests. Prepare Work Plan and project bid documents and obtain approvals.	\$22,000					\$202,000	\$196,000.00	
	Installation of reagent injection wells	Installation of 20 four-inch diameter extraction wells to a typical depth of 50 feet at a cost of \$5,000 each	\$100,000							
	Conduct reagent injection events	Each injection event will require a two person crew one week to compete and with equipment and expendable reagent is estimated to cost \$10,000 per event. Up to eight injection events are anticipated	\$80,000							
	Total				\$122,000	\$40,000	\$80,000			\$202,000
Groundwater Monitoring*	Semi-annual groundwater sampling and analysis.	Five years of semi-annual groundwater sampling of up to 20 wells with sample analysis for volatile organic compounds at an estimated cost of \$800 per well for sampling and analysis for 10 events	\$160,000					\$210,000	\$182,000.00	
	Semi-annual reporting	Assumes \$5,000 per report for 10 events	\$50,000		\$0	\$42,000	\$210,000			\$210,000

\*Groundwater monitoring is not a proposed remedy, but is listed as it is expected to be a component of any remedy selected. The actual duration of monitoring would be related to type and effectiveness of groundwater remediation method selected

Excavation and Off-site Disposal is for grossly contaminated soils impacted with VOCs or petroleum hydrocarbons (Alternative 2 on Table 10).

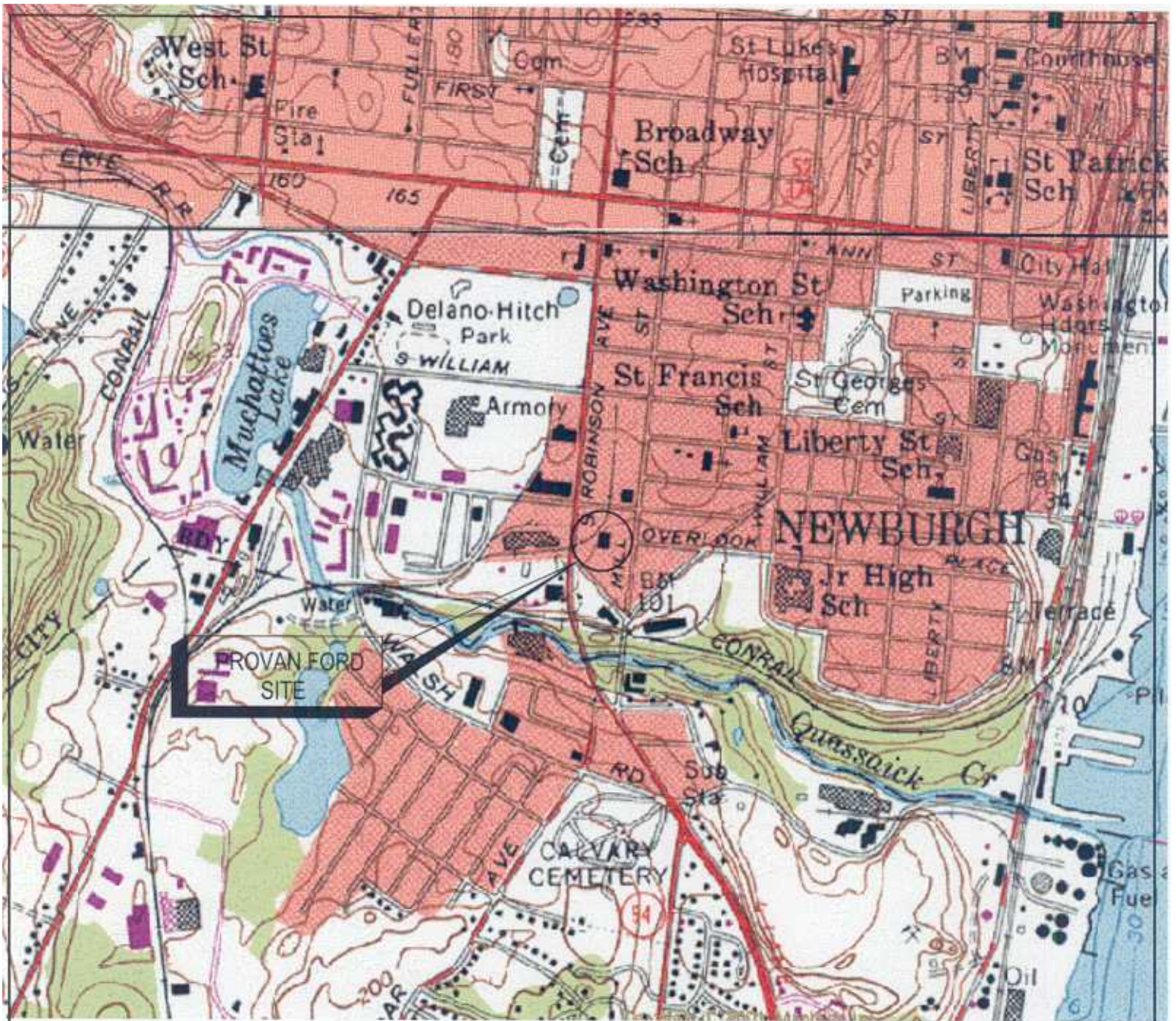
Some values have been rounded

TABLE 10  
REMEDIAL ALTERNATIVE COST ESTIMATES  
FORMER PROVAN FORD FACILITY  
NEWBURGH, NEW YORK

	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4	ALTERNATIVE 5
Soil: Groundwater:	NA Monitoring	Exc./SVE Air Sparge	Excavate ChemOx	Excavate P&T	Excavate ChemOx
<b>Element:</b>					
Remedial Design	0	50,000	50,000	50,000	50,000
Building Demolition	0	55,000	55,000	55,000	55,000
Remove 8,000 gal UST	0	4,000	4,000	4,000	4,000
Exc/Disposal - Non-Haz	0	272,000	340,000	340,000	340,000
Exc/Disposal - Haz	0	350,000	437,500	437,500	437,500
Backfill	0	116,000	145,000	145,000	145,000
Exc/Disposal - SVOC	0	0	0	0	900,000
Backfill - SVOC	0	0	0	0	300,000
SVE System	0	90,000	0	0	0
Asphalt Pave	0	96,000	96,000	96,000	96,000
Deed Restriction	0	15,000	15,000	15,000	0
Air Sparging System	0	104,000	0	0	0
P&T	0	0	0	280,000	0
Chem-Ox	0	0	100,000	0	100,000
<b>Subtotal</b>	<b>0</b>	<b>1,152,000</b>	<b>1,242,500</b>	<b>1,422,500</b>	<b>2,427,500</b>
Plus 15% Contingency	0	172,800	186,375	213,375	364,125
<b>Total Capital Cost</b>	<b>0</b>	<b>1,320,000</b>	<b>1,430,000</b>	<b>1,636,000</b>	<b>2,790,000</b>
Annual O&M	0	15,000	40,000	150,000	40,000
	NA	5 Years	2 Years	10 Years	2 Years
PW Factor	0.0000	4.3295	1.8594	7.7217	1.8594
<b>Present Worth</b>	<b>0</b>	<b>65,000</b>	<b>74,000</b>	<b>1,160,000</b>	<b>74,000</b>
Annual O&M - GW Mont.	21,000	21,000	21,000	0	21,000
Period	30 yrs	5 years	2 years	(see above)	2 Years
PW Factor	15.3725	4.3295	1.8594	0.0000	1.8594
<b>Present Worth</b>	<b>323,000</b>	<b>90,000</b>	<b>39,000</b>	<b>0</b>	<b>39,000</b>
<b>O&amp;M Subtotal:</b>	<b>323,000</b>	<b>155,000</b>	<b>113,000</b>	<b>1,160,000</b>	<b>113,000</b>
2-Yr Post GW Mont.	0	21,000	21,000	21,000	21,000
Period	NA	Years 6&7	Years 3&4	Years 11&12	Years 3&4
PW Factor	15.3725	1.4569	1.6866	1.1416	1.6866
<b>Present Worth</b>	<b>0</b>	<b>30,600</b>	<b>35,400</b>	<b>24,000</b>	<b>35,400</b>
5 Yr. Equip. Change	0	0	0	0	0
PW Factor	0	0	0	0	0
<b>Present Worth</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>O&amp;M Total</b>	<b>323,000</b>	<b>185,600</b>	<b>148,400</b>	<b>1,184,000</b>	<b>148,400</b>
<b>Total Present Worth</b>	<b>323,000</b>	<b>1,510,000</b>	<b>1,580,000</b>	<b>2,820,000</b>	<b>2,940,000</b>

**Notes:**

Differences in costs between tables 9 and 10 are related to combining technologies and varying assumptions  
Soil excavation cost for Alternative 2 based on Table 9, alternatives 3,4 and 5 represent a 25% increase in soil volumes.  
Soil excavation cost for Alternative 5 also include excavating an additional two feet of non-haz fill over entire site (12,000 yards).

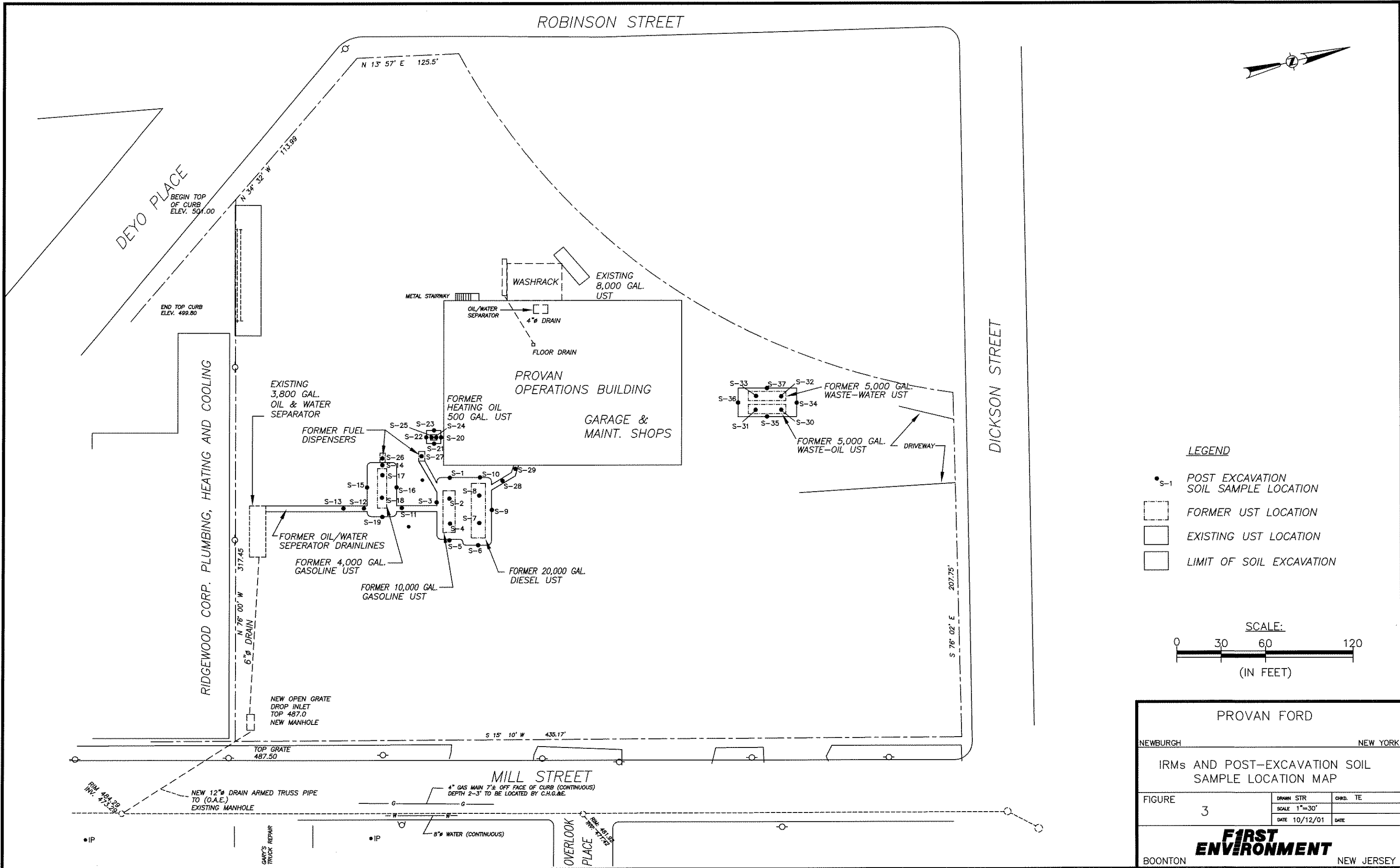


NEWBURGH AND CORNWALL USGS  
 7.5 MIN QUADRANGLES  
 1:24,000, NA DATUM 1927  
 DATED 1957, PHOTO REVISED 1981

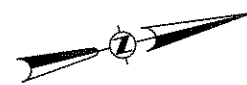
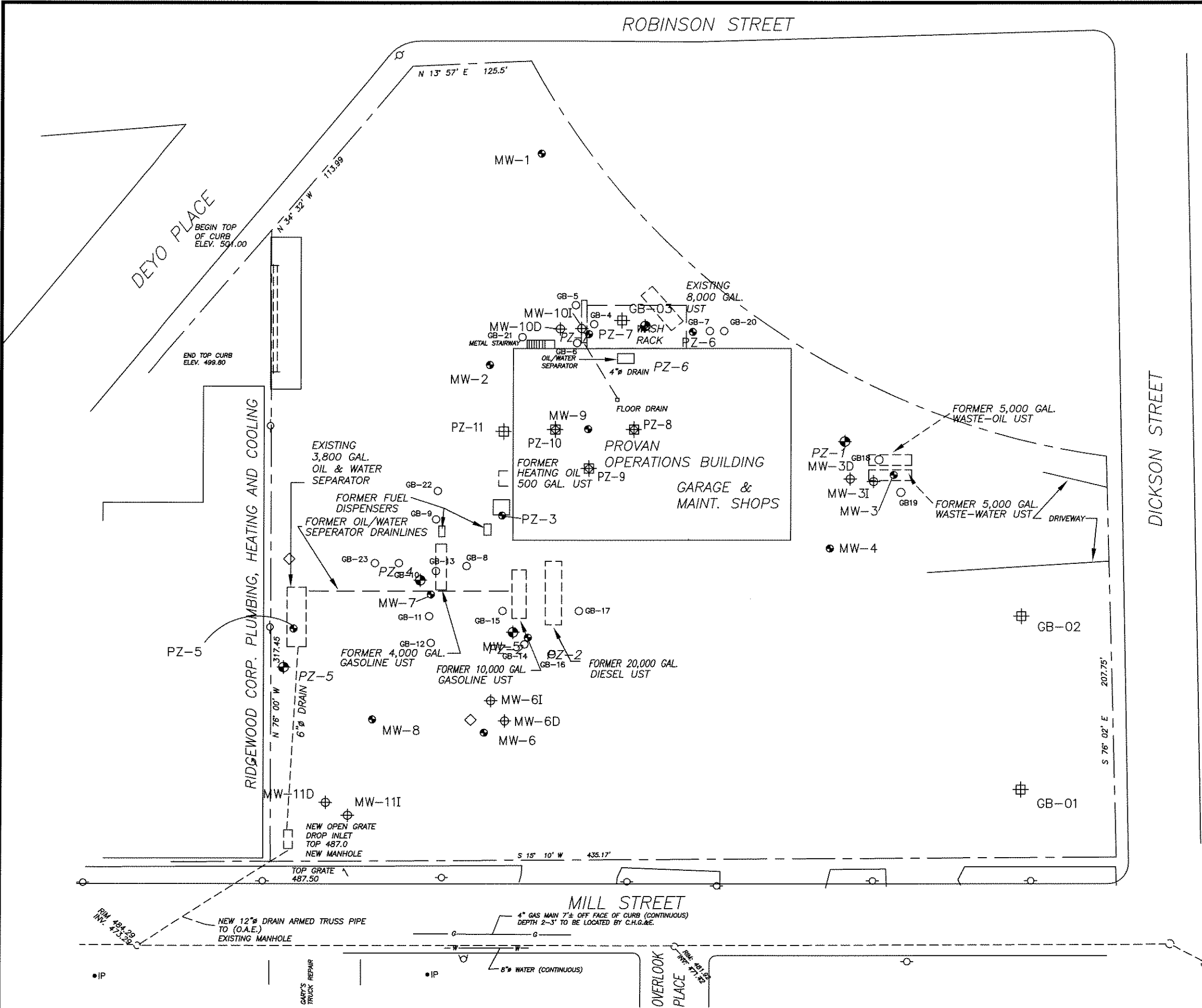
FIGURE 1  
 SITE LOCATION MAP  
 FORMER PROVAN  
 FORD FACILITY  
 NEWBURGH, NEW YORK



G:\data\projects\provan\unofficial report folder\06\_04 SIRAR\figures\fig 2 (post excavation soil sample loc map).dwg 06/07/2004 10:45:09 AM EST

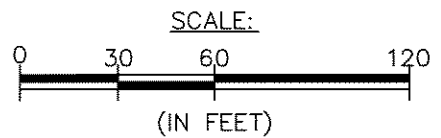


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**LEGEND**

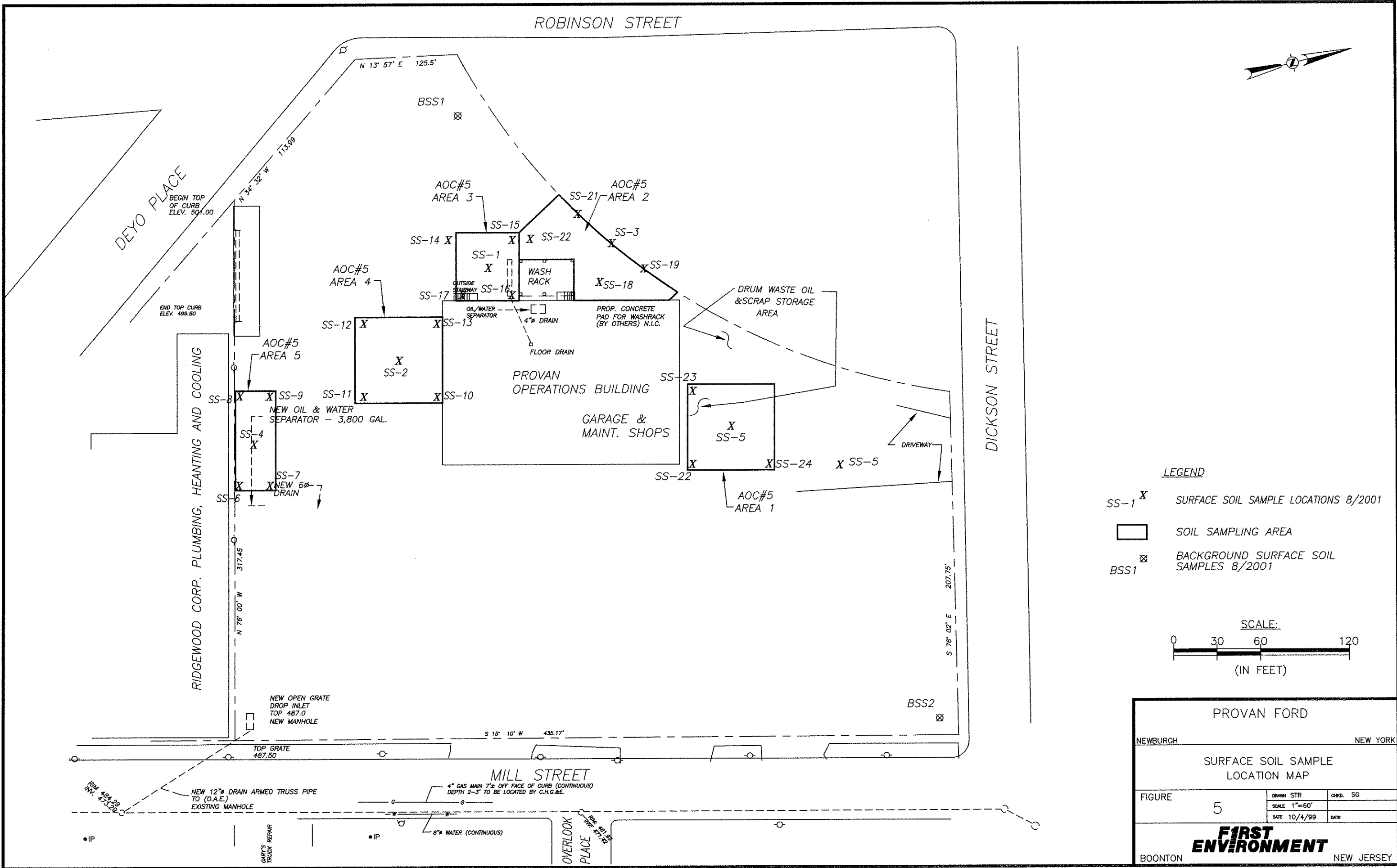
- MW-1 EXISTING MONITORING WELL OR PIEZOMETER
- GEOPROBE SOIL SAMPLE LOCATION (2003)
- ⊕ TEMPORARY WELL POINT LOCATION (2003)
- ⊗ MONITORING WELL LOCATION (2003)
- MW-11"I" INTERMEDIATE WELL SCREENED AT BASE OF OVERBURDEN OR WEATHERED BEDROCK
- MW-11"D" DEEP WELL SCREENED IN BEDROCK
- ⊗ PIEZOMETER (2003)



PROVAN FORD		
NEWBURGH		NEW YORK
2003 SOIL AND GROUNDWATER SAMPLE LOCATIONS		
FIGURE	4	DRWN AMW
		CHKD. TE
		SCALE 1"=60'
		DATE 4/25/03
		DATE
<b>FIRST ENVIRONMENT</b>		
BOONTON		NEW JERSEY



C:\data\projects\provan\official reports folder\04.02\srari\figures\fig 4 (surface soil sample loc map).dwg 04/05/2002 02:10:09 PM EST



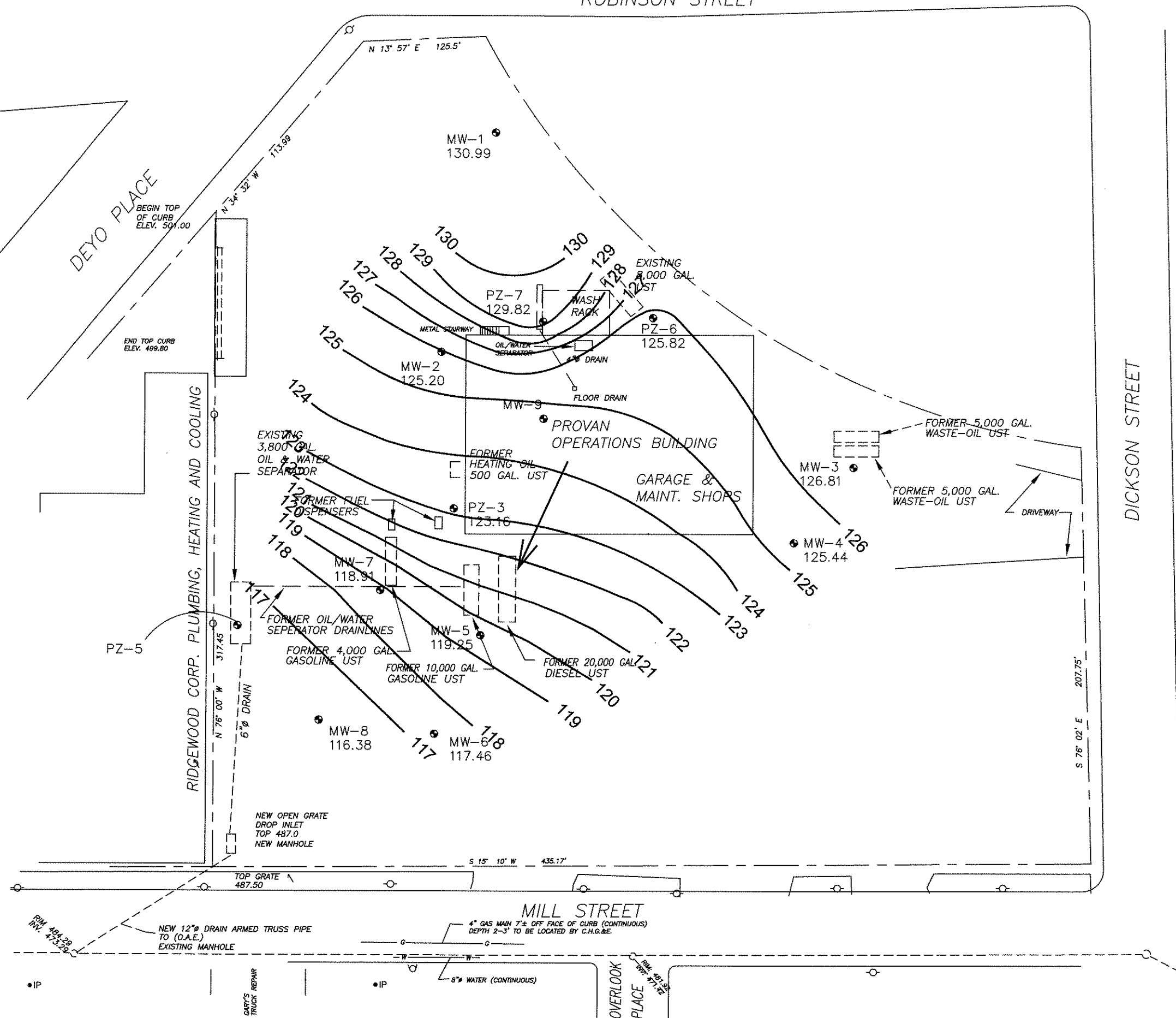
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G:\data\project\provan\unofficial reports folder\06\_04sirari\figures\fig 6 (groundwater con map unconfined aquifer 9-5-01).dwg 06/17/2004 11:48:09 AM EST

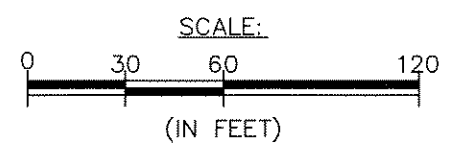
ROBINSON STREET

DEYO PLACE

DICKSON STREET

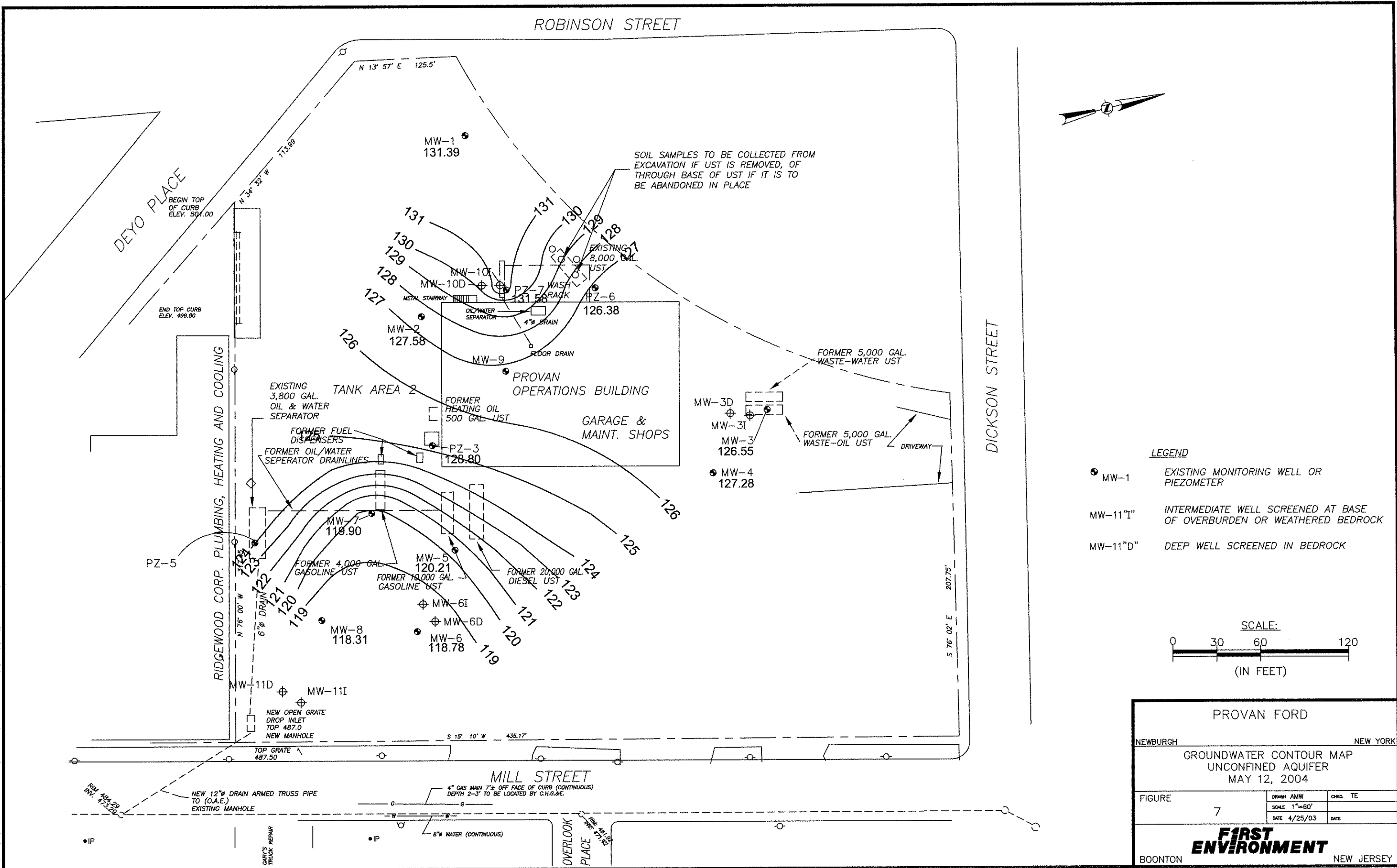


- LEGEND**
- MW-1 130.99 MONITORING WELL
  - 130 GROUNDWATER ELEVATION (FEET)
  - 130 GROUNDWATER ELEVATION CONTOUR
  - ← GROUNDWATER FLOW DIRECTION



PROVAN FORD		
NEWBURGH		NEW YORK
GROUNDWATER CONTOUR MAP UNCONFINED AQUIFER SEPTEMBER 5, 2001		
FIGURE	6	CHKD. TE
	SCALE 1"=60'	DATE
	DATE 2/1/02	
<b>FIRST ENVIRONMENT</b>		
BOONTON		NEW JERSEY

G:\Data\Project\Provan\Unofficials\Report\Folder\_06\_04 Draft SRAR\Figures\Fig 7 (gw contour map unconfined aquifer 5-12-04).dwg 6/17/2004 12:12:43 PM EDT



SOIL SAMPLES TO BE COLLECTED FROM EXCAVATION IF UST IS REMOVED, OF THROUGH BASE OF UST IF IT IS TO BE ABANDONED IN PLACE

**LEGEND**

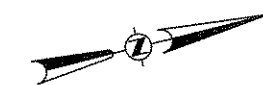
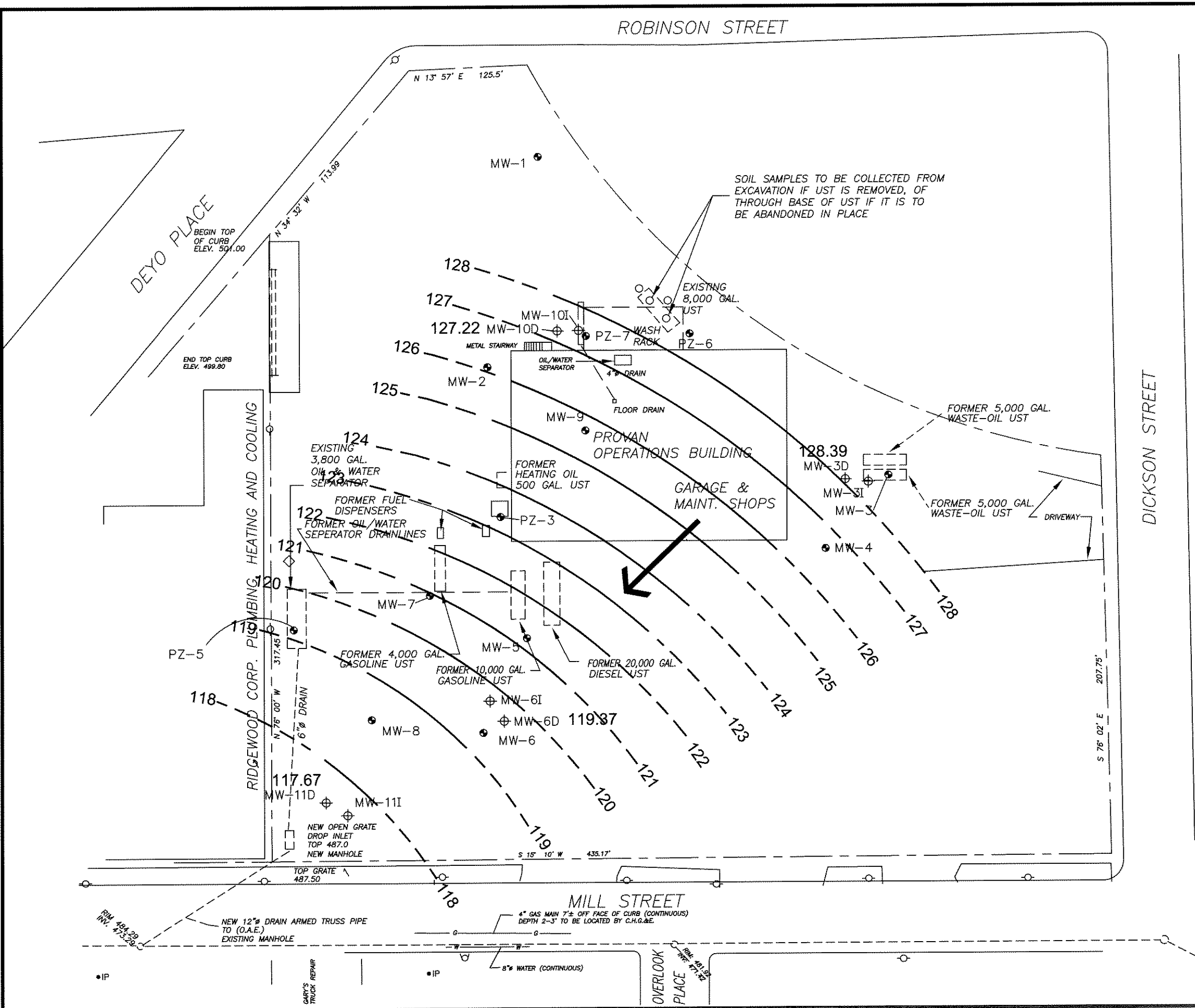
- MW-1 EXISTING MONITORING WELL OR PIEZOMETER
- MW-11" INTERMEDIATE WELL SCREENED AT BASE OF OVERBURDEN OR WEATHERED BEDROCK
- MW-11"D DEEP WELL SCREENED IN BEDROCK

**SCALE:**

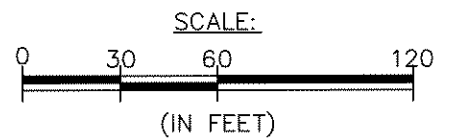


PROVAN FORD		
NEWBURGH	NEW YORK	
GROUNDWATER CONTOUR MAP UNCONFINED AQUIFER MAY 12, 2004		
FIGURE 7	DRAWN AMW SCALE 1"=60' DATE 4/25/03	CHKD. TE DATE
<b>FIRST ENVIRONMENT</b>		
BOONTON	NEW JERSEY	

G:\Data\Project\Provan\Unofficial Report\Folder\06\_04 Draft\_SRRAR\Figures\Fig 8 (groundwater contour bedrock aquifer 5-12-04).dwg 6/17/2004 02:00:40 PM EST

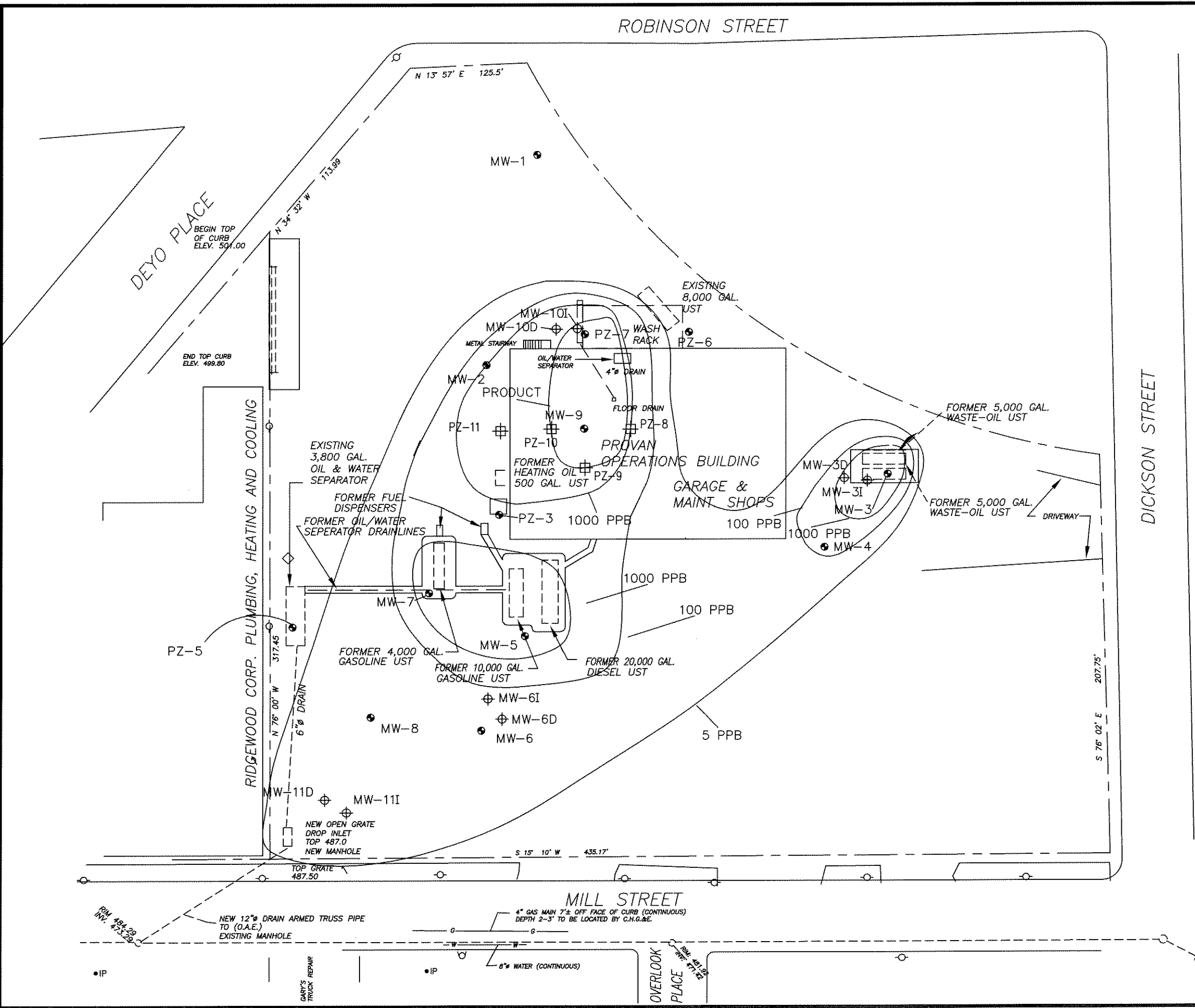


- LEGEND**
- MW-1 EXISTING MONITORING WELL OR PIEZOMETER
  - MW-11"I" INTERMEDIATE WELL SCREENED AT BASE OF OVERBURDEN OR WEATHERED BEDROCK
  - MW-11"D" DEEP WELL SCREENED IN BEDROCK
  - GROUNDWATER CONTOUR
  - ↘ GROUNDWATER FLOW DIRECTION

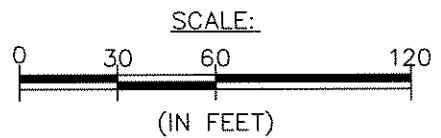


PROVAN FORD		
NEWBURGH NEW YORK		
GROUNDWATER CONTOUR MAP BEDROCK AQUIFER MAY 12, 2004		
FIGURE	8	DRAWN AMW SCALE 1"=60' DATE 4/25/03
		CHKD. TE DATE
<b>FIRST ENVIRONMENT</b>		
BOONTON		NEW JERSEY

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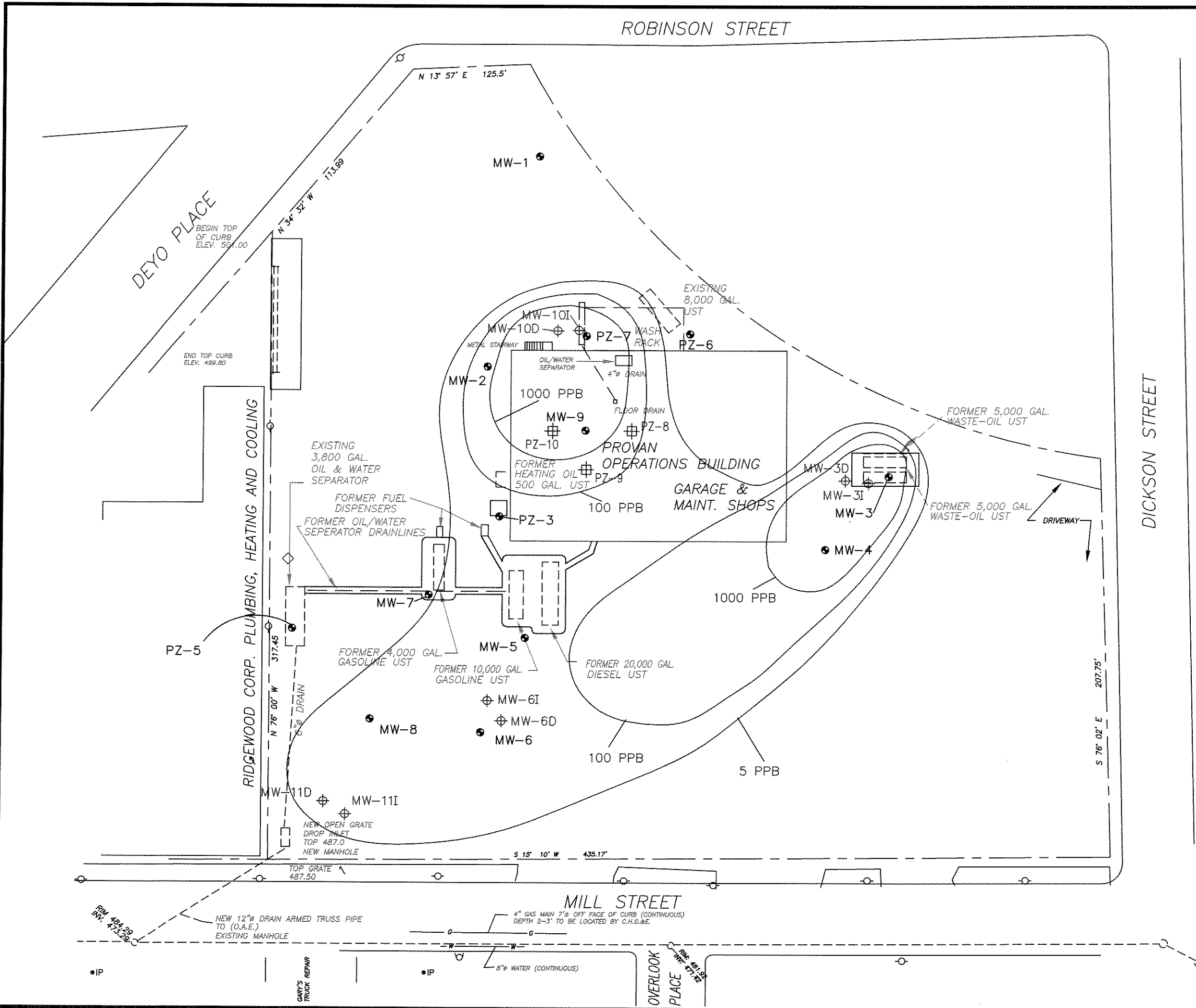


- LEGEND**
- MW-1 EXISTING MONITORING WELL OR PIEZOMETER
  - GEOPROBE SOIL SAMPLE LOCATION (2003)
  - ⊕ TEMPORARY WELL POINT LOCATION (2003)
  - ⊗ MONITORING WELL LOCATION (2003)
  - MW-11"I" INTERMEDIATE WELL SCREENED AT BASE OF OVERBURDEN OR WEATHERED BEDROCK
  - MW-11"D" DEEP WELL SCREENED IN BEDROCK

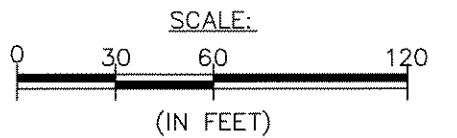


PROVAN FORD	
NEWBURGH	NEW YORK
TOTAL BTEX CONCENTRATION SHALLOW AQUIFER	
FIGURE	9
DRWN. TE.	CHKD. TE.
SCALE 1"=60'	DATE 4/25/03
<b>FIRST ENVIRONMENT</b>	
BOONTON	NEW JERSEY

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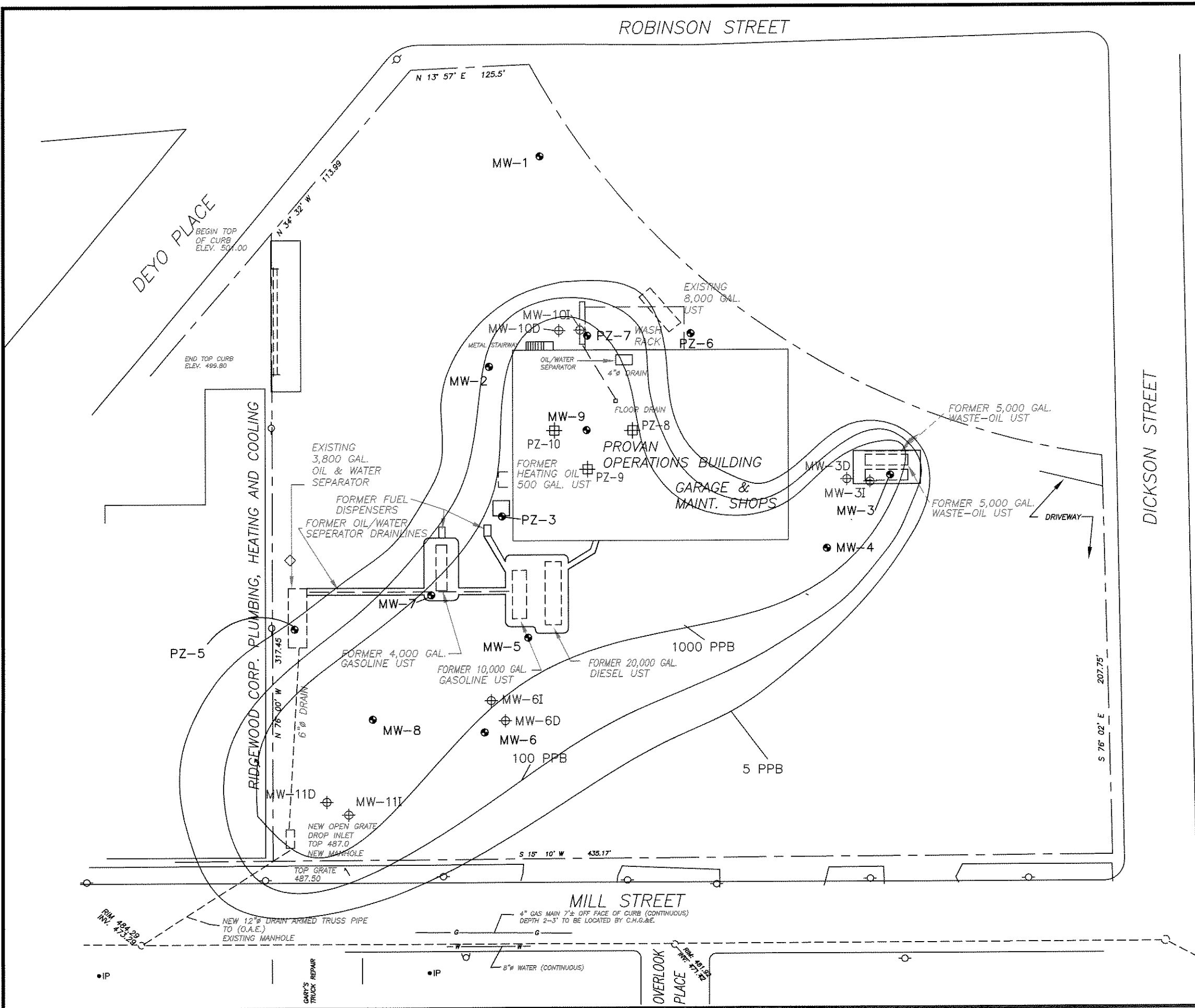


- LEGEND**
- MW-1 EXISTING MONITORING WELL OR PIEZOMETER
  - GEOPROBE SOIL SAMPLE LOCATION (2003)
  - ⊕ TEMPORARY WELL POINT LOCATION (2003)
  - ⊕ MONITORING WELL LOCATION (2003)
  - MW-11"I" INTERMEDIATE WELL SCREENED AT BASE OF OVERBURDEN OR WEATHERED BEDROCK
  - MW-11"D" DEEP WELL SCREENED IN BEDROCK

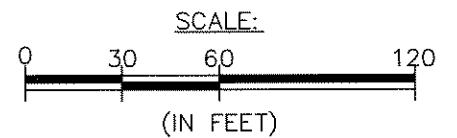


<b>PROVAN FORD</b>			
NEWBURGH		NEW YORK	
TOTAL CHLORINATED VOC CONCENTRATION SHALLOW AQUIFER			
FIGURE	10	DRAWN TE	CHKD. TE
		SCALE 1"=60'	
		DATE 4/25/03	DATE
<b>FIRST ENVIRONMENT</b>			
BOONTON		NEW JERSEY	

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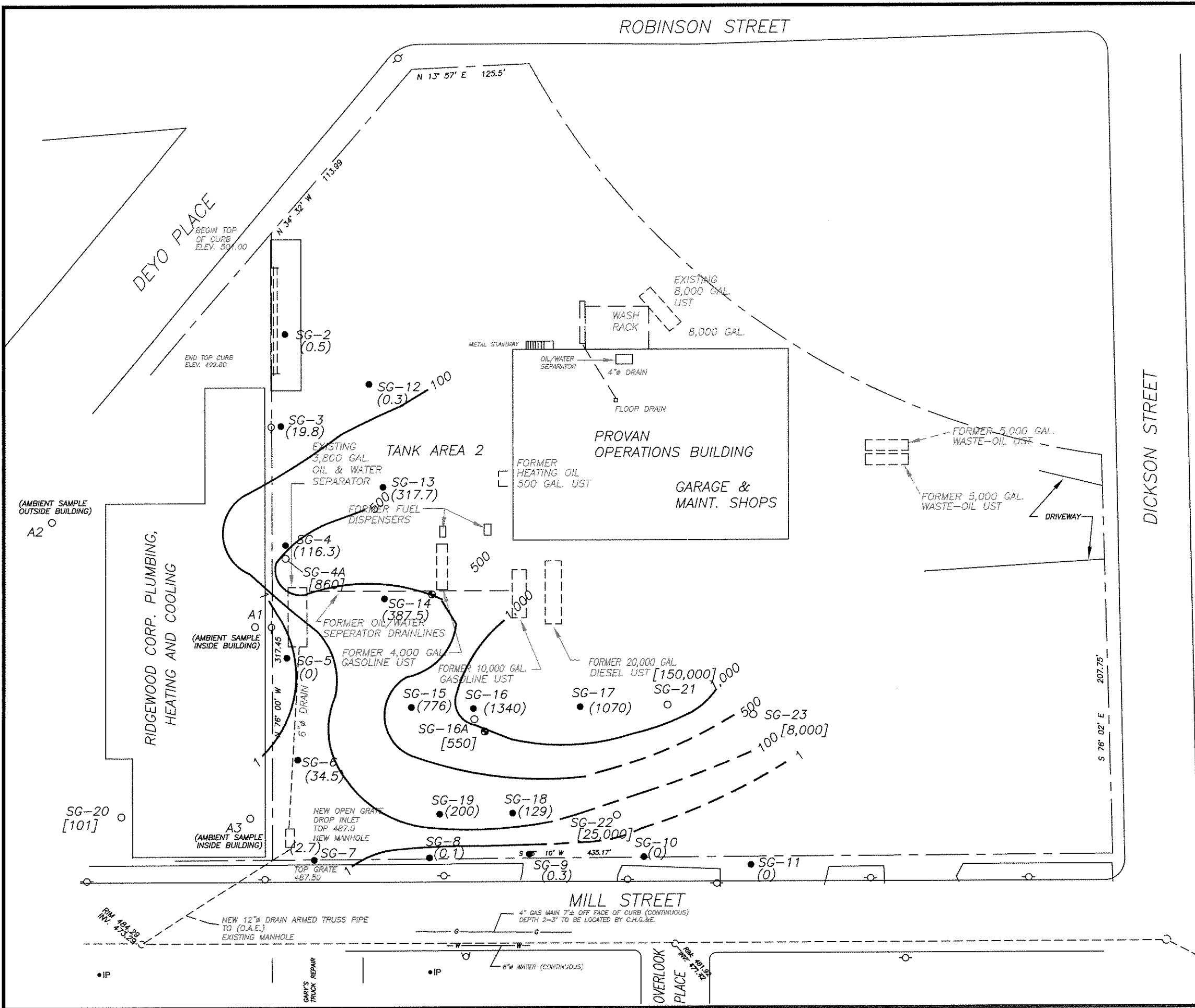


- LEGEND**
- MW-1 EXISTING MONITORING WELL OR PIEZOMETER
  - GEOPROBE SOIL SAMPLE LOCATION
  - ⊕ TEMPORARY WELL POINT LOCATION (2003)
  - ⊕ MONITORING WELL LOCATION (2003)
  - MW-11" I" INTERMEDIATE WELL SCREENED AT BASE OF OVERBURDEN OR WEATHERED BEDROCK
  - MW-11" D" DEEP WELL SCREENED IN BEDROCK



<b>PROVAN FORD</b>		
NEWBURGH		NEW YORK
TOTAL CHLORINATED VOC CONCENTRATION INTERMEDIATE AQUIFER		
FIGURE	11	DATE 4/25/03
DRWN. TE	CHKD. TE	DATE
<b>FIRST ENVIRONMENT</b>		
BOONTON		NEW JERSEY

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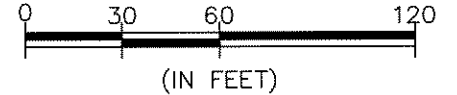
**LEGEND**

- SG-3 (19.8) SOIL GAS SAMPLING LOCATION TOTAL VOLATILE ORGANIC COMPOUND CONCENTRATION 2001 (ppbv)
- SG-22 [25] SOIL GAS SAMPLING LOCATION TOTAL VOLATILE ORGANIC COMPOUND CONCENTRATION 2003 (ppbv)
- TOTAL VOC ISOPLETH (ppbv)
- A3 AMBIENT AIR SAMPLE

**NOTE:**

CONCENTRATIONS LISTED ARE TOTAL TOTAL VOC CONCENTRATIONS BASED ON FIELD GC ANALYSIS W/TICS. TICS IDENTIFIED AT SG-22 AND 23, NOT USED FOR CONTOURS, (ESTIMATED)

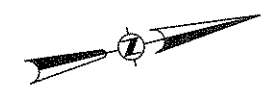
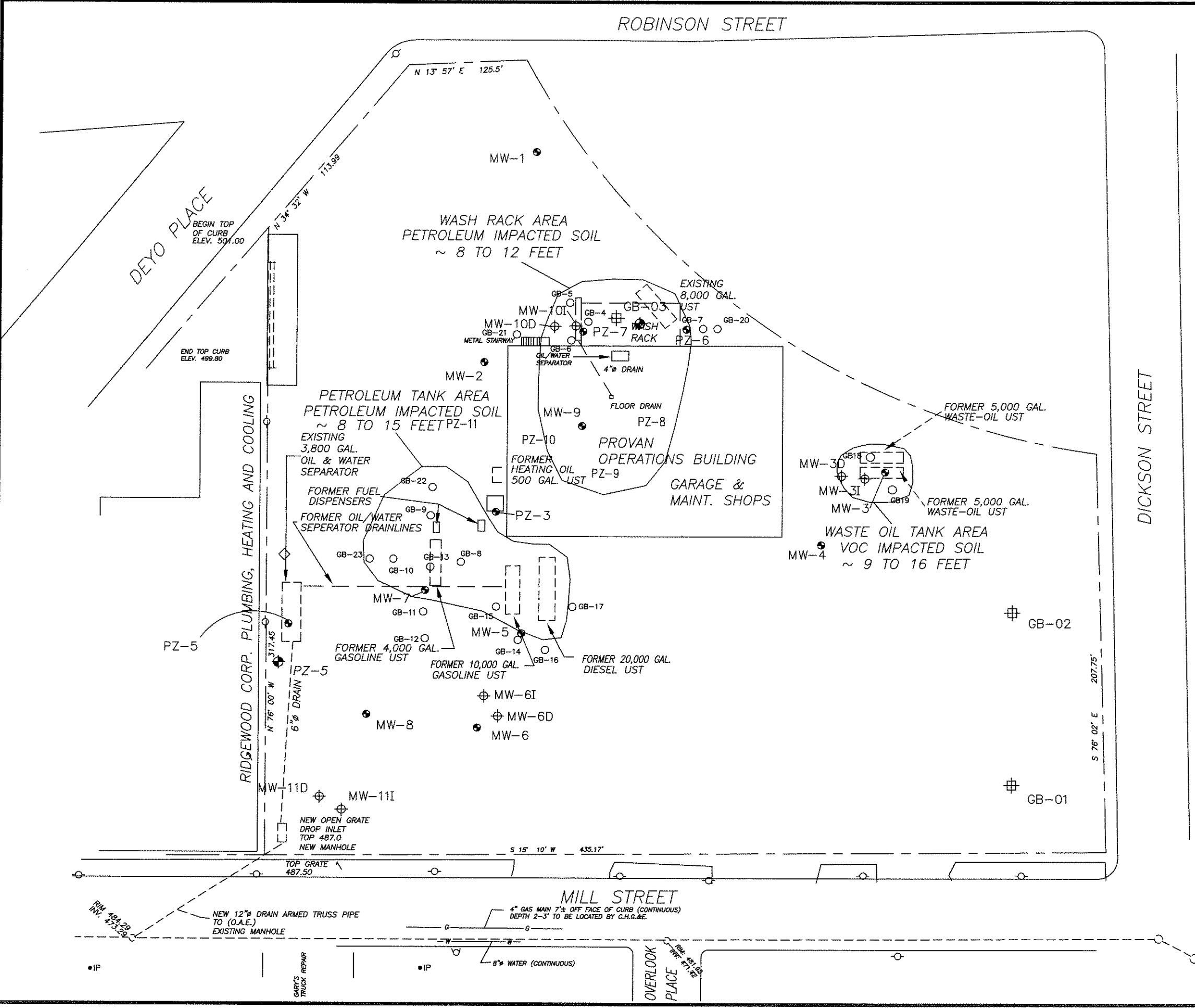
**SCALE:**



PROVAN FORD			
NEWBURGH		NEW YORK	
SOIL GAS TOTAL VOC CONCENTRATION ISOPLETHS			
FIGURE	12	DRWN STR	CHKD TE
		SCALE 1"=60'	
		DATE 10/4/99	DATE 1/17/02
<b>FIRST ENVIRONMENT</b>			
BOONTON		NEW JERSEY	

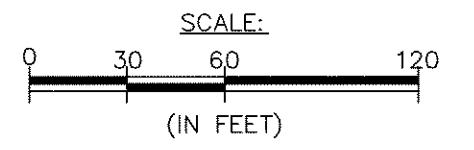


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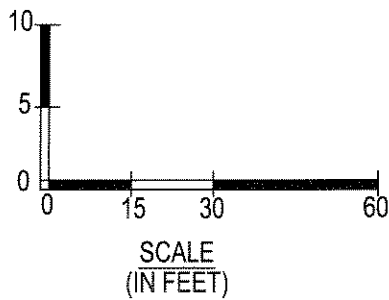
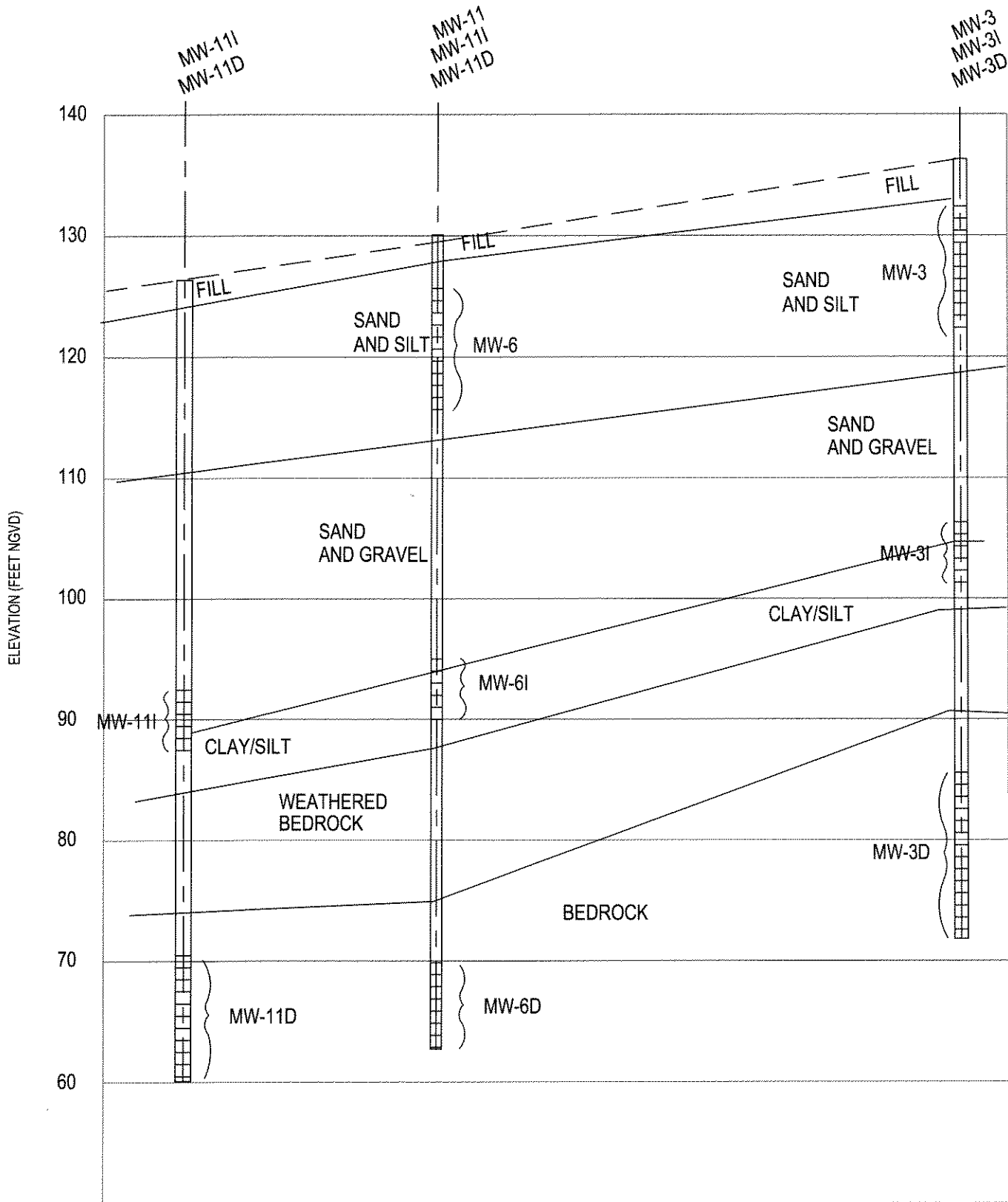


**LEGEND**

- MW-1 EXISTING MONITORING WELL OR PIEZOMETER
- GEOPROBE SOIL SAMPLE LOCATION (2003)
- ⊕ TEMPORARY WELL POINT LOCATION (2003)
- ⊕ MONITORING WELL LOCATION (2003)
- MW-11"I" INTERMEDIATE WELL SCREENED AT BASE OF OVERBURDEN OR WEATHERED BEDROCK
- MW-11"D" DEEP WELL SCREENED IN BEDROCK PIEZOMETER (2003)

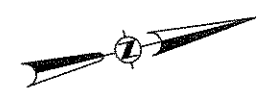
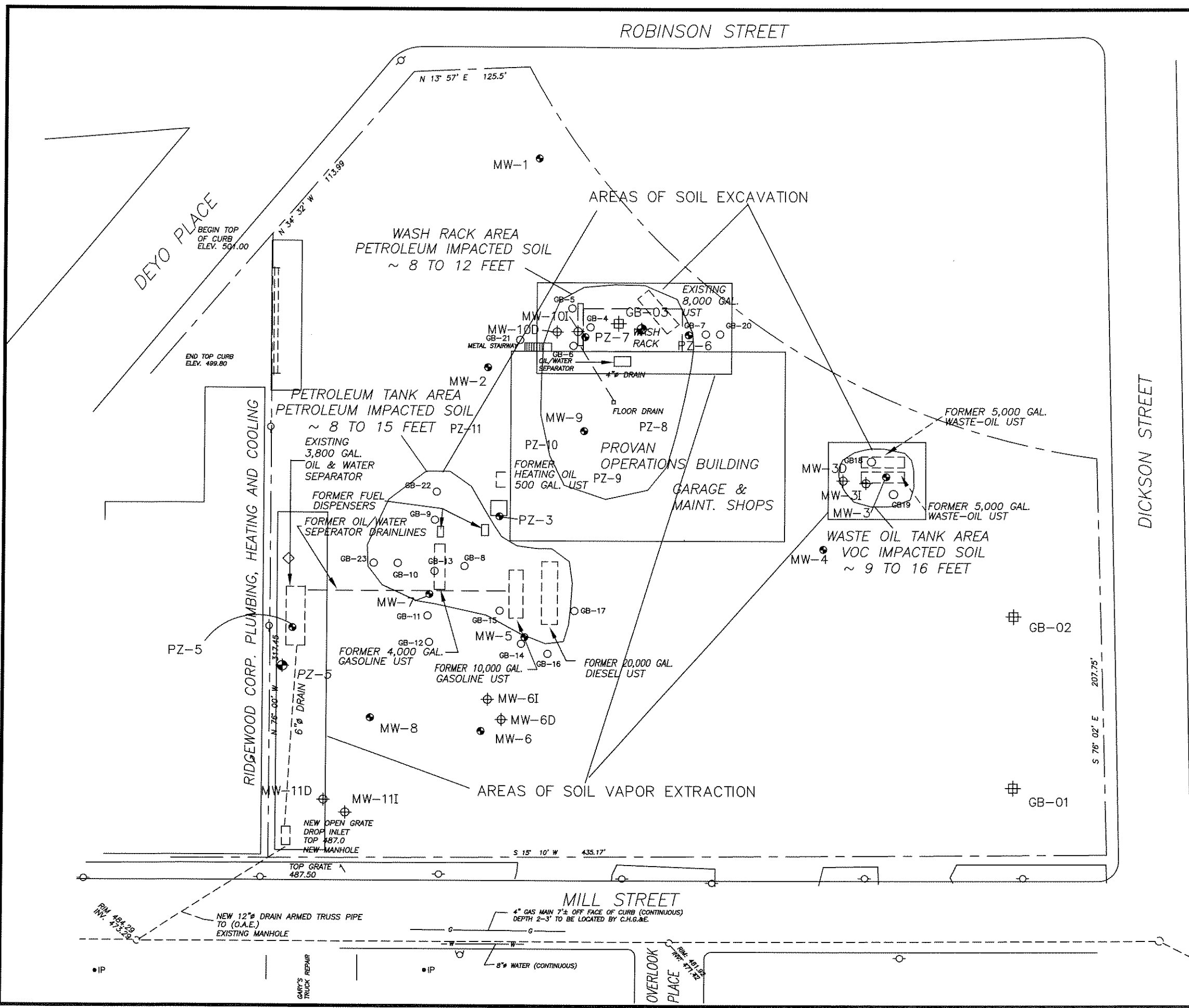


PROVAN FORD		
NEWBURGH	NEW YORK	
EXTENT OF IMPACTED SOILS		
FIGURE	13	
	DRAWN STR	CHKD. TE
	SCALE 1"=60'	DATE
	DATE 1/5/05	DATE
<b>FIRST ENVIRONMENT</b>		
BOONTON	NEW JERSEY	



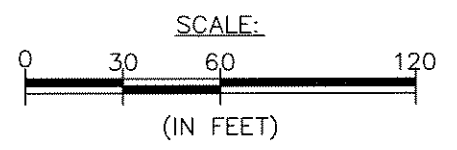
PROVAN FORD								
NEWBURGH	NEW YORK							
CROSS SECTION								
FIGURE	14	<table border="1"> <tr> <td>DRWING STR</td> <td>CRD: TBE</td> </tr> <tr> <td>SCALE AS SHOWN</td> <td></td> </tr> <tr> <td>DATE: 01/3/04</td> <td>REV. DATE:</td> </tr> </table>	DRWING STR	CRD: TBE	SCALE AS SHOWN		DATE: 01/3/04	REV. DATE:
DRWING STR	CRD: TBE							
SCALE AS SHOWN								
DATE: 01/3/04	REV. DATE:							
<b>FIRST ENVIRONMENT</b>		BOONTON NEW JERSEY						

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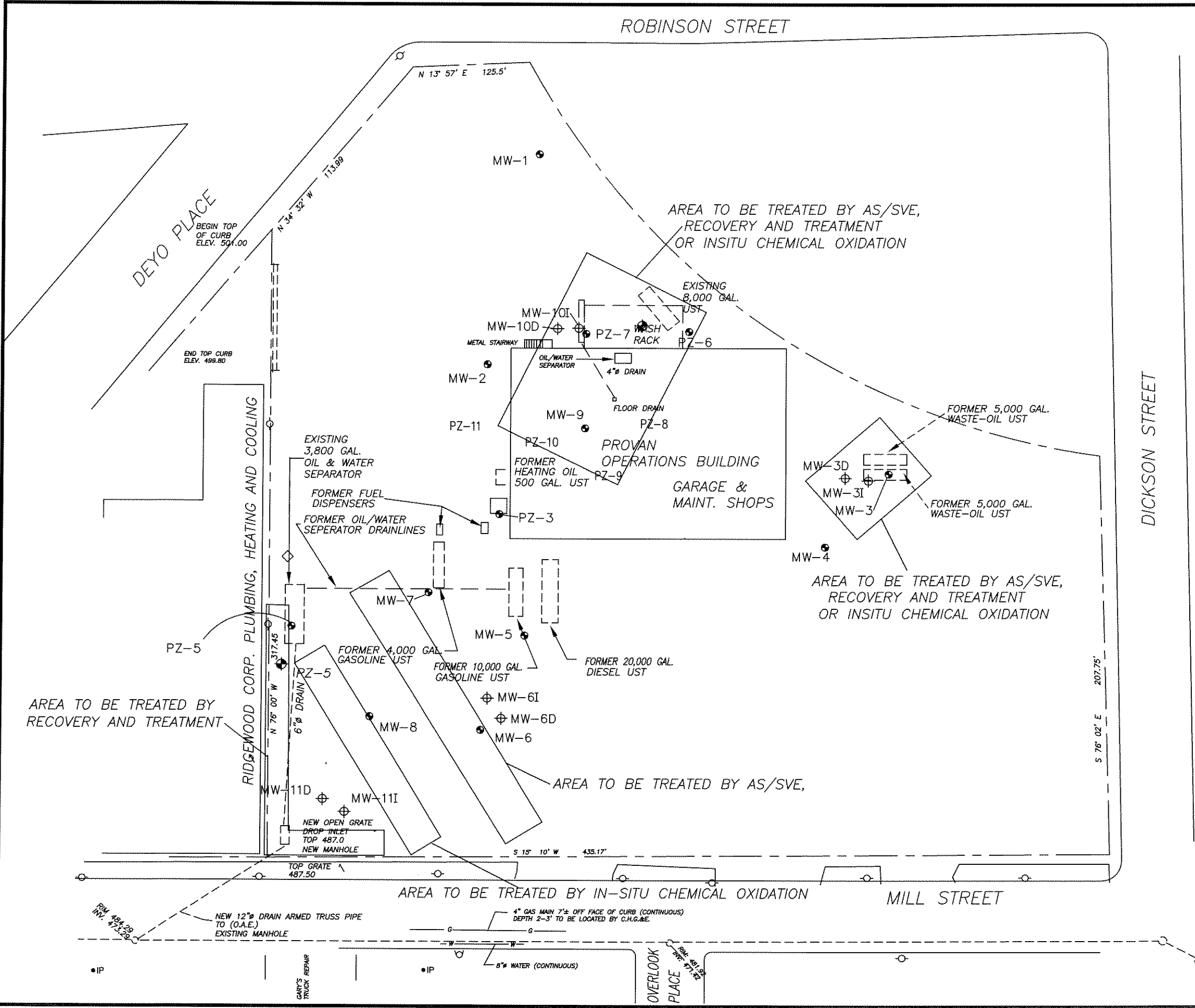
**LEGEND**

- (ENTIRE SITE TO BE CAPPED)
- AREAS OF SOIL VAPOR EXTRACTION
- AREAS OF SOIL EXCAVATION
- MW-1 EXISTING MONITORING WELL OR PIEZOMETER
- GEOPROBE SOIL SAMPLE LOCATION (2003)
- TEMPORARY WELL POINT LOCATION (2003)
- MONITORING WELL LOCATION (2003)
- MW-11" I" INTERMEDIATE WELL SCREENED AT BASE OF OVERBURDEN OR WEATHERED BEDROCK
- MW-11" D" DEEP WELL SCREENED IN BEDROCK PIEZOMETER (2003)



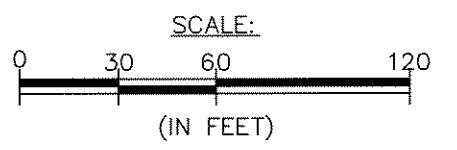
<b>PROVAN FORD</b>		
NEWBURGH	NEW YORK	
PROPOSED AREAS OF SOIL REMEDIATION		
FIGURE	15	DRAWN TE CHKD. TE
		SCALE 1"=50' DATE 1/5/05
<b>FIRST ENVIRONMENT</b>		
BOONTON	NEW JERSEY	

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**LEGEND**

- AREAS OF GROUNDWATER TREATMENT
- MW-1 EXISTING MONITORING WELL OR PIEZOMETER
- TEMPORARY WELL POINT LOCATION (2003)
- MONITORING WELL LOCATION (2003)
- MW-11"I" INTERMEDIATE WELL SCREENED AT BASE OF OVERBURDEN OR WEATHERED BEDROCK
- MW-11"D" DEEP WELL SCREENED IN BEDROCK PIEZOMETER (2003)



<b>PROVAN FORD</b>		
NEWBURGH	NEW YORK	
PROPOSED AREAS OF GROUNDWATER REMEDIATION		
FIGURE	16	DATE
	SCALE 1"=60'	DATE
	DATE 1/5/05	DATE
<b>FIRST ENVIRONMENT</b>		
BOONTON	NEW JERSEY	

**Project No:** Prova001

**Soil Boring ID.:** GB-01

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, NJ**  
**07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE			Well Construction Details		
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft		Recovery	PID Reading (ppm)
0		Ground Surface						0	
1		Brown Sandy <b>SILT</b> some Clay trace gravel fill red iron staining throughout moist						8	
2		Black Sandy <b>SILT</b> some Clay trace Gravel fill moist		1	MC			12	
3									
4		Brown Sandy <b>CLAY</b>						13	
5								10	
6		Gray Sandy <b>SILT</b> some Gravel moist		2	MC			15	
7									
8		Gray f Gravely <b>SILT</b> trace Sand red streaks throughout						9	
9								11	
10		Gray Sandy <b>GRAVEL</b> wet Gray <b>CLAY</b> wet		3	MC			1	
11								10	
12		Gray Sandy c <b>GRAVEL</b> wet						2	
13								4	
14		End of Borehole		4	MC				
15									
16									
17									
18									

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 28 August 2003

Notes: Sample collected 5.8-6.2 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.:** GB-02

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, NJ**  
**07005**

**Project:** Provan Ford

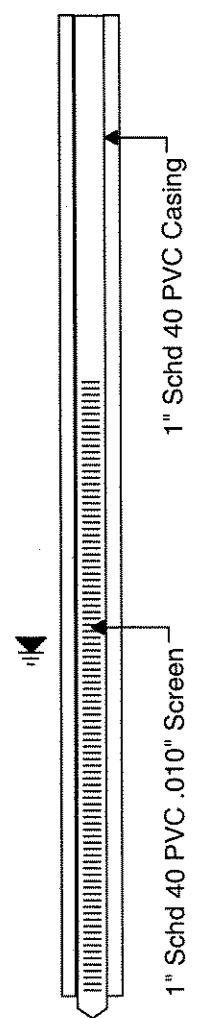
**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE			Well Construction Details		
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft		Recovery	PID Reading (ppm)
0		Ground Surface							
0		Brown Clayey <b>SILT</b> some C Gravel wood roganic material fill dry							8
1									1
2				1	MC				2
3									
4									3
5		Red to brown <b>SILT</b> some clay moist							10
6		White to Gray <b>COBBLE</b>		2	MC				3
7		Black Silty f-c <b>SAND</b> some Clay moist							
8		Brown Silty f-c <b>SAND</b> some Clay moist							
9									1
10		Brown Silty f-c <b>SAND</b> some Clay trace c Gravel red brick fill at 10 ft bgs moist		3	MC				0
11		Dark borwn to black <b>CLAY</b> trace f Gravel							0
12		Gray c <b>GRAVEL</b> some Silt							
13		Gray Silty <b>CLAY</b> Trace c Gravel							0
14		Gray Sandy f <b>GRAVEL</b> wet petroleum odor		4	MC				150
15		Gray f <b>SAND</b>							0
16		Brown <b>CLAY</b>							
17		End of Borehole							
18									



Driller: Probe Support  
 Drilling Method: Geoprobe  
 Completion Date: 28 August 2003  
 Notes: Sample collected 14.0 - 14.4 ft bgs

Borehole Diameter: 2"  
 Datum: Grade  
 Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.:** GB-03

**First Environment, Inc.**  
 91 Fulton Street  
 Boonton, NJ  
 07005

**Project:** Provan Ford

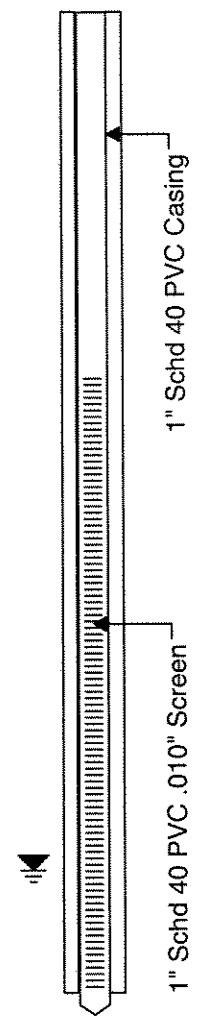
**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				Well Construction Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
0		Ground Surface						
0		Concrete						200
1		Black Silty f-m SAND trace f Gravel moist petroleum odor						300
2		Brown Sandy c GRAVEL trace Silt light petroleum odor moist		1	MC			50
3								10
4		Brown Gravely f-c SAND moist						42
5								9
6				2	MC			11
7								8
8								40
9		Gray Sandy c GRAVEL wet						70
10		Gray CLAY wet petroleum odor						100
10		Gray Sandy c GRAVEL wet petroleum odor		3	MC			
11								
12		Gray f-c SAND some c Gravel wet petroleum odor						90
13								170
14				4	MC			170
15								
16		End of Borehole						
17								
18								



Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 28 August 2003

Notes: Sample collected 8.4 - 8.7 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.:** GB-04

First Environment, Inc.  
91 Fulton Street  
Boonton, New Jersey  
07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Concrete						200*
1		Brown Silty <b>SAND</b> some c Gravel moist slight petroleum odor						14
2				1	MC			3
3								
4								40
5								20
6		Brown to black Gravely <b>SAND</b> some Clay moist		2	MC			14
7								
8								60
9		Gray Gravely <b>SAND</b> some Clay moist, wet at 8.6 ft bgs dark oily material 8.5 - 8.8 ft bgs strong petroleum odor						130
10		Gray <b>CLAY</b> wet		3	MC			170
11								
12		End of Borehole						
13								
14								
15								
16								
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 28 August 2003

Notes: Sample collected 8.5 - 8.8 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

\*Indicates sample was heated from Geoprobe



**Project No:** Prova001

**Soil Boring ID.: GB-05**

**First Environment, Inc.**  
 91 Fulton Street  
 Boonton, New Jersey  
 07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0	■	Asphalt						2
1	▨	Black Silt <b>SAND</b> trace c Gravel moist at 2 ft bgs strong petroleum odor						40
2	▨	Brown Silty <b>CLAY</b> trace f Gravel moist petroleum odor		1	MC			100
3	▨							80
4	▨	Brown f-c <b>SAND</b> trace Gravel moist						80
5	▨							40
6	▨	Brown Sandy <b>CLAY</b> moist						
6	▨	Brown f-c <b>SAND</b> trace Gravel moist petroleum odor		2	MC			80
7	▨							
8	▨	Black f-c <b>SAND</b> trace Gravel moist dark brown oily material visible at 8.8 - 8.9 ft bgs strong petroleum odor						61
9	▨							130
10	▨	Gray <b>CLAY</b> moist petroleum odor		3	MC			200
11	▨							100
12		End of Borehole						
13								
14								
15								
16								
17								
18								

Driller: Probe Support  
 Drilling Method: Geoprobe  
 Completion Date: 28 August 2003  
 Notes: Sample collected 9.3 - 9.7 ft bgs

Borehole Diameter: 2"  
 Datum: Grade  
 Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.: GB-06**

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, New Jersey**  
**07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Asphalt						200
1		Brown Gravelly f-c <b>SAND</b> moist						60
2				1	MC			40
3								40
4								50
5		Black f-m <b>SAND</b> trace f Gravel moist slight petroleum odor						90
6		Brown to gray <b>CLAY</b> some silt petroleum odor		2	MC			140
7								
8		Black Silty <b>SAND</b> trace C Gravel moist petroleum odor						60
9								95
10				3	MC			60
11								
12		End of Borehole						
13								
14								
15								
16								
17								
18								

Driller: Probe Support  
 Drilling Method: Geoprobe  
 Completion Date: 28 August 2003  
 Notes: Sample collected 9.9 - 10.3

Borehole Diameter: 2"  
 Datum: Grade  
 Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.:** GB-07

**First Environment, Inc.**  
91 Fulton Street  
Boonton, New Jersey  
07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Gray c <b>GRAVEL</b>						60
1		Brown to black Silty <b>SAND</b> some f Gravel moist slight petroleum odor						47
2				1	MC			15
3								7
4								17
5		Gray c <b>GRAVEL</b> some Silt trace Clay						13
6		Olive brown Silty <b>CLAY</b> moist petroleum odor wet at 8.4 ft bgs		2	MC			40
7								
8								90
9								7
10				3	MC			3.7
11		Black Silty <b>SAND</b> some c Gravel brown product visible throughout petroleum odor						100
12		End of Borehole						
13								
14								
15								
16								
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 28 August 2003

Notes: Sample collected 10.7 - 11.2

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.:** GB-08

**First Environment, Inc.**  
 91 Fulton Street  
 Boonton, New Jersey  
 07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0	■	Weathered Asphalt						40
1	▨	Gray f <b>SAND</b> some Gravel						120
2	▨	Black f-c <b>SAND</b> moist gasoline-like petroleum odor		1	MC			90
3	▨	Gray Clayey <b>SILT</b>						50
4	▨							6
5	▨	Red gray Clayey <b>SILT</b>						4
6	▨			2	MC			4
7	▨	Gray Clayey <b>SILT</b> slight petroleum odor						18
8	▨							160
9	▨							180
10	▨	Gray Silty <b>CLAY</b>		3	MC			20
11	▨							110
12	▨	Gray <b>CLAY</b>						70
13	▨							140
14	▨	Gray to Black Sandy f-c <b>GRAVEL</b>		4	MC			50
15								10
16		End of Borehole						
17								
18								

Driller: Probe Support  
 Drilling Method: Geoprobe  
 Completion Date: 28 August 2003  
 Notes: Sample collected 8.8 - 9.2

Borehole Diameter: 2"  
 Datum: Grade  
 Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.:** GB-09

**First Environment, Inc.**  
 91 Fulton Street  
 Boonton, New Jersey  
 07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Brown f-c <b>SAND</b> some c Gravel asphalt fill at 0.5 ft bgs black shale at 1.2 - 1.8 ft bgs moist						62
1								148
2		Gray <b>SILT</b> some Clay Gasoline odor		1	MC			190
3								180
4								130
5								130
6		Red gray <b>SILT</b> some Clay moist gasoline odor		2	MC			200
7								250
8		Gray <b>SILT</b> some Clay wet gasoline odor						70
9								10
10					3	MC		
11		Gray <b>CLAY</b> wet red striations slight petroleum odor						10
12								25
13					4	MC		
14		Gray to brown Sandy <b>GRAVEL</b> wet						9
15								6
16		End of Borehole						
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 28 August 2003

Notes: Sample collected 6.7 - 7.0 Product visible along macrocore sleeve at 7.0 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.: GB-10**

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, New Jersey**  
**07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE					
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)	
0		Ground Surface							
0		Brown to black Silty f-c <b>SAND</b> some c Gravel moist petroleum odor						38	
1								160	
2		Black <b>SILT</b> some f Sand moist gasoline odor		1	MC			120	
2		Gray to brown <b>SILT</b> some f-c Sand							170
3									180
4									185
5		Gray <b>SILT</b> moist gasoline odor		2	MC			68	
6		Gray Clayey <b>SILT</b> moist gasoline odor							200
7									220
8		Brown <b>CLAY</b> some Silt moist wet 9.9 - 11.0 ft bgs gasoline odor							40
9				3	MC			170	
10									200
11		Gray <b>SILT</b> black moist black color at 13.2 ft bgs							220
12		Brown <b>CLAY</b>							210
13		Gray <b>CLAY</b>		4	MC			55	
14									65
15		Lt Gray <b>CLAY</b>							
16		Gray <b>GRAVEL</b>							
17		End of Borehole							
18									

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 28 August 2003

Notes: Samples collected at 8.0 - 8.3 and 12.1 - 12.4 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.:** GB-11

**First Environment, Inc.**  
 91 Fulton Street  
 Boonton, New Jersey  
 07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Gray Sandy <b>GRAVEL</b>						1
1		Gray f-c <b>SAND</b> some Silt moist petroleum odor at 4 ft bgs						3
2				1	MC			1
3								
4								
5		Gray <b>SILT</b> moist slight petroleum odor						10
6		Red Gray Silty <b>CLAY</b> moist slight petroleum odor		2	MC			10
7								5
8								
9								50
10		Gray Gravely f-c <b>SAND</b> moist		3	MC			10
11								0
12		Gray f <b>SAND</b>						45
13		Gray f-m <b>SAND</b> wet at 13 ft bgs						5
14		Red gray Silty f-m <b>SAND</b>		4	MC			0
15		Red brown Clayey <b>SILT</b>						2
16		End of Borehole						
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 28 August 2003

Notes: Samples collected at 8.0 - 8.4 and 12.0 - 12.5 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.:** GB-12

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, New Jersey**  
**07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Black Gravely f-c <b>SAND</b> trace red brick cinder fill dry						12
1								70
2		Brown Silty f-c <b>SAND</b> some gravel moist		1	MC			20
3		Red brown f-c <b>SAND</b> moist						3
4		Gray <b>SILT</b> moist						12
5								10
6		Red brown Silty <b>CLAY</b> moist		2	MC			9
7								2
8								50
9								8
10		Dark Gray to black Sandy c <b>GRAVEL</b> moist		3	MC			5
11								
12								2
13								200
14		Black Sandy f-c <b>GRAVEL</b> wet strong gasoline odor		4	MC			
15								
16		End of Borehole						
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 28 August 2003

Notes: Sample collected at 15.0 - 16.0 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1



**Project No:** Prova001

**Soil Boring ID.:** GB-13

**First Environment, Inc.**  
 91 Fulton Street  
 Boonton, New Jersey  
 07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Lt Gray Sandy <b>GRAVEL</b> dry						3.5
1								2
2		Red brown Silty f <b>SAND</b>		1	MC			0
3								
4								0
5								0
6				2	MC			
7								
8								
9								4
10		Tan to gray <b>CLAY</b> wet slight petroleum odor		3	MC			1
11								200
12								30
13								200
14		Gray <b>CLAY</b>						110
15				4	MC			80
16								30
17								20
18		End of Borehole						

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 28 August 2003

Notes: Samples collected at 9.9 - 10.3 ft, 11.6 - 11.8 ft, 13.0 - 13.3 ft, and 14.8 - 15.1 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.: GB-14**

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, New Jersey**  
**07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Lt tan Sandy <b>SILT</b> some c Gravel dry slight petroleum odor						32
1								20
2		Dark brown Clayey <b>SILT</b> moist		1	MC			18
3		Lt brown Clayey <b>SILT</b> moist						20
4								28
5		Lt brown Silty f-c <b>SAND</b> some c Gravel moist						30
6		Brown to gray Clayey <b>SILT</b> moist trace f Gravel		2	MC			40
7								170
8								20
9								80
10		Brown to gray Silty <b>CLAY</b> moist slight petroleum odor		3	MC			140
11								150
12								170
13		Gray to lt tan <b>CLAY</b> trace Sand wet at 13.4 ft bgs Sandy Gravel layer at 13.8 to 14.0 ft bgs		4	MC			50
14								120
15								
16		End of Borehole						
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected at 6.7 - 7.1 and 12.1 - 12.5 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.: GB-15**

**First Environment, Inc.**  
 91 Fulton Street  
 Boonton, New Jersey  
 07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Weathered Asphalt dry						8
1		Brown Silty <b>SAND</b> some c Gravel moist						30
2		Brown Clayey <b>SILT</b>		1	MC			20
3								2
4								20
5								24
6				2	MC			24
7		Brown to Gray <b>SILT</b> some Clay trace c Sand moist petroleum odor						130
8								200
9								150
10		Gray <b>CLAY</b> moist red staining slight gasoline odor		3	MC			80
11								130
12								170
13		Gray Sandy <b>GRAVEL</b> moist						9
14		Gray <b>CLAY</b> moist red staining slight gasoline odor		4	MC			150
15		Gray Sandy <b>GRAVEL</b> moist						
16		Black f-c <b>SAND</b> some Gravel wet petroleum odor						
16		End of Borehole						
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected at 8.0 - 8.8 ft bgs.

Duplicate sample D-1 collected at this interval

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.: GB-16**

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, New Jersey**  
**07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Gray <b>GRAVEL</b>						1
1		Brown Silty <b>SAND</b> some c Gravel moist						1
2				1	MC			5
3								
4								
5								17
6		Gray to Brown <b>SILT</b> some Clay trace f Gravel moist petroleum odor		2	MC			50
7								50
8								30
9								5
10		Gray Cobble dry		3	MC			50
11		Gray Silty <b>CLAY</b> moist wet at 12.5 ft bgs light petroleum odor						20
12								10
13								65
14				4	MC			145
15								130
16		End of Borehole						130
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected at 14.9 - 15.2 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

Project No: Prova001

**Soil Boring ID.: GB-17**

First Environment, Inc.  
91 Fulton Street  
Boonton, New Jersey  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Asphalt						8
1		Dark brown to Gray Silty f <b>SAND</b> some f Gravel moist						4
2				1	MC			5
3								
4								
5		Gray to tan f Sandy <b>SILT</b> trace f Gravel moist wet from 8.5 to 9.2 ft bgs petroleum odor						39
6				2	MC			11
7								0
8								0
9								0
10		Gray Sandy <b>GRAVEL</b>		3	MC			0
11		Olive Gray <b>CLAY</b>						
12								
13								140
14		Gray Sandy <b>GRAVEL</b> wet						70
15		Olive gray <b>CLAY</b> some c Gravel wet		4	MC			7
16								3
17		End of Borehole						
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected from 12.0 - 12.5 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.:** GB-18

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, New Jersey**  
**07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Brown to gray Gravely f-c <b>SAND</b> moist fill						
1								
2		Dark brown Silty f <b>SAND</b> some Gravel moist		1	MC			
3								
4		Dark brown to black f-c <b>SAND</b> some c Gravel moist						
5								
6				2	MC			
7								
8		Gray <b>SILT</b> wet, visible product throughout used oil odor product seeps out of silt after disturbance with lab spoon						7
9								30
10				3	MC			250
11		Red brown to Gray Clayey <b>SILT</b> brown product visible at 13 ft bgs.						200
12		wet at 16 ft bgs.						250
13		no petroluem or used oil odor below 17 ft bgs						300
14				4	MC			150
15								100
16								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected from 9.6 - 10.0 ft, 12.7 - 13.2 ft, and 16.2 - 16.6 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 2

**Project No:** Prova001

**Soil Boring ID.: GB-18**

**First Environment, Inc.  
91 Fulton Street  
Boonton, New Jersey  
07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
17				5	MC		[Shaded Box]	160
18								40
19		MC sample 5 was 1.8 ft of material cave in from boring  MC sample 6 was 90 - 100% of material cave in from boring, could not log any soils from this interval (20 - 24 ft bgs) For this interval, MC was full at 21 ft bgs, drove to 22 ft bgs		6	MC			35
20								
21								
22								
23								
24		End of Borehole						
25								
26								
27								
28								
29								
30								
31								
32								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected from 9.6 - 10.0 ft, 12.7 - 13.2 ft, and 16.2 - 16.6 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 2 of 2

Project No: Prova001

**Soil Boring ID.: GB-19**

First Environment, Inc.  
 91 Fulton Street  
 Boonton, New Jersey  
 07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Dark brown to black f-c <b>SAND</b> some c Gravel moist fill		1	MC			
1								
2								
3		Brown Sandy <b>SILT</b> some Clay moist fill						
4								
4		Gray f-c <b>SAND</b> some c Gravel moist		2	MC			
5		Dark brown to black <b>CLAY</b> some Silt trace c Sand moist						
6		Gray Sandy <b>GRAVEL</b> some clay moist slight petroleum odor						
7								
8		Gray to olive brown Clayey <b>SILT</b> moist wet at 8.9 ft bgs sheens and petroleum odor observed throughout						8
9								70
10		Possible gravel layer at 13.8 to 14.2 ft bgs (may be material from borehole walls)		3	MC			140
11								
12								40
13								180
14				4	MC			200
15								
16								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected from 9.8 - 10.2 ft, 13.9 - 14.3 ft, and 18.8 - 19.2 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 2



Project No: Prova001

Soil Boring ID.: GB-19

First Environment, Inc.  
91 Fulton Street  
Boonton, New Jersey  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
17	[Hatched]			5	MC		[Hatched]	160
18								200
19	[Hatched]	No Recovery		6	MC		[Hatched]	200
20								
21								
22								
23								
24		End of Borehole						
25								
26								
27								
28								
29								
30								
31								
32								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected from 9.8 - 10.2 ft, 13.9 - 14.3 ft, and 18.8 - 19.2 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 2 of 2

**Project No:** Prova001

**Soil Boring ID.: GB-20**

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, New Jersey**  
**07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Dark Gray Silty <b>SAND</b> some Gravel trace red brick fill at 1.2 ft bgs moist						7
1								4
2		Dark gray to black f-c Sandy <b>CLAY</b> some c Gravel moist		1	MC			3
3								
4								
5		Sandy f <b>GRAVEL</b> moist						0
6		Tan to brown Clayey <b>SILT</b> moist wet at 9 ft bgs		2	MC			0
7								0
8								0
9								0
10				3	MC			9
11								0
12								0
13		Gray <b>CLAY</b> wet						2
14		Gravelly f-c <b>SAND</b> wet		4	MC			5
15								
16		End of Borehole						
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected from 6.0 - 6.3 ft and 13.5 - 13.8 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

Project No: Prova001

**Soil Boring ID.: GB-21**

First Environment, Inc.  
91 Fulton Street  
Boonton, New Jersey  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0	■	Asphalt						140
1	□	Gray Sandy <b>GRAVEL</b> moist						130
2	□	Brown Clayey <b>SILT</b> moist petroleum odor		1	MC			140
3	□							70
4	□							130
5	□	Gray Sandy <b>GRAVEL</b> moist						90
6	□	Gray <b>SILT</b> some Clay moist wet at 8.5 ft bgs		2	MC			
7	□	drak brown product visible at 13.4 - 14.1 ft bgs and in macrocore liner at 13.5 to 14.7 ft bgs						
8	□							5
9	□							50
10	□			3	MC			
11	□							
12	□							160
13	□							80
14	□	Gray Sandy <b>GRAVEL</b> wet		4	MC			130
15	□	Gray <b>SILT</b> some Clay wet						100
16	□	Gray Sandy <b>GRAVEL</b> wet						
17	□	Gray <b>SILT</b> some Clay wet						
18		End of Borehole						

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Samples collected from 8.4 - 8.7 ft and 13.3 - 14.0 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

Duplicate sample D-2 (13.3 - 14.0 ft bgs)

**Project No:** Prova001

**Soil Boring ID.: GB-22**

**First Environment, Inc.  
91 Fulton Street  
Boonton, New Jersey  
07005**

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Dark gray to black Silty f-c SAND some c Gravel moist fill						60
1								90
2				1	MC			80
3								
4								80
5		Brown Silty CLAY moist hard petroleum odor						30
6				2	MC			25
7		Gray SILT some Clay moist gasoline odor						20
8		wet at 8.7 ft bgs						200
9								70
10		Brown Clayey SILT wet		3	MC			10
11								20
12								100
13		Gray CLAY wet						50
14				4	MC			80
15								0
16		End of Borehole						
17								
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Sample collected from 8.1 - 8.5 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

**Project No:** Prova001

**Soil Boring ID.: GB-23**

**First Environment, Inc.**  
 91 Fulton Street  
 Boonton, New Jersey  
 07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)
0		Ground Surface						
0		Asphalt						16
1		Gray to Black Silty <b>SAND</b> some c Gravel moist						6
2		Olive gray <b>SILT</b> some Clay moist redish hue 3.0 to 4.7 ft bgs		1	MC			2
3		gasoline odor, strongest at 7.4 ft bgs sheen on macrocore and soil						2
4								0
5								3
6				2	MC			6
7								9
8								130
9								110
10		Gray <b>CLAY</b>		3	MC			20
11								15
12								0
13		Olive <b>CLAY</b> becoming red at 14 ft bgs						70
14								70
15				4	MC			5
16		Sandy f-c <b>GRAVEL</b>						5
17		End of Borehole						
18								

Driller: Probe Support

Drilling Method: Geoprobe

Completion Date: 29 August 2003

Notes: Sample collected from 7.4 - 7.7 ft bgs

Borehole Diameter: 2"

Datum: Grade

Sheet: 1 of 1

Project No: Prova001

**Monitoring Well ID.: MW-1**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

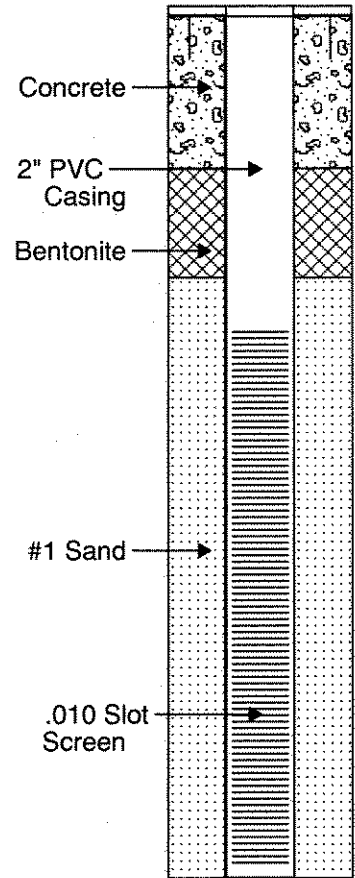
Client: City of Newburgh

Permit No.:

Site Location: Newburgh, NY

Geologist: Chris Viani

SUBSURFACE PROFILE				SAMPLE				Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
0		Ground Surface	0.0					
1		<b>SAND and SILT</b> Brown fine to medium sand and silt; little sub-angular fine to medium gravel. Dry. No staining/odors.			SS			
2					SS			
3					SS			
4					SS			
5					SS			
6		<b>SILT</b> Gray silt, with reddish brown mottles in upper few feet; trace gravel. Wet at 10'.	8.0		SS			
7					SS			
8					SS			
9					SS			
10					SS			
11		End of Borehole	16.0		SS			
12					SS			
13					SS			
14					SS			
15					SS			
16								
17								
18								
19								
20								



Driller: ADT  
Drilling Method: Hollow-stem auger  
Well Completion Date: 8/2/1  
Notes:

Borehole Diameter: 8"  
Datum: Grade  
Sheet: 1 of 1

Project No: Prova001

**Monitoring Well ID.: MW-2**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.:

Site Location: Newburgh, NY

Geologist: Chris Viani

SUBSURFACE PROFILE			SAMPLE					Well Completion Details	
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery		PID Reading (ppm)
0		Ground Surface							
0.0		<b>ASPHALT and SUB-BASE</b>	0.0		SS				
1.5		<b>FINE SAND and SILT</b> Reddish brown fine sand and silt; little well-rounded fine gravel. Moist. Faint hydrocarbon odor.	1.5		SS				
4.0		<b>SILT</b> Silt, light brown to light reddish brown, becoming light greenish gray at 8', with horizontal bedding planes. Thin layers of fine sand in bottom 1'. Faint hydrocarbon odor in top 1'. Moist, to wet at 10'.	4.0		SS				
11.5		<b>FINE SAND and SILT</b> Light greenish gray fine sand, to fine sand and silt. Wet. No staining/odor.	11.5		SS				
16.0		End of Borehole	16.0						
17									
18									
19									
20									

Driller: ADT  
Drilling Method: Hollow-stem auger  
Well Completion Date: 8/2/1  
Notes:

Borehole Diameter: 8"  
Datum: Grade  
Sheet: 1 of 1

Project No: Prova001

**Monitoring Well ID.: MW-3**

First Environment, Inc.  
 91 Fulton Street  
 Boonton, NJ  
 07005

Project: Provan Ford

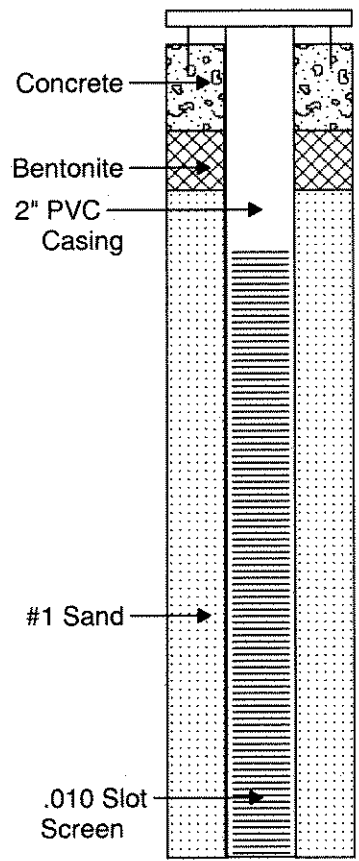
Client: City of Newburgh

Permit No.:

Site Location: Newburgh, NY

Geologist: Chris Viani

SUBSURFACE PROFILE				SAMPLE				Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
0		Ground Surface	0.0					
1		<b>SAND and GRAVEL (FILL)</b> Greenish gray very angular gravel and fine to coarse sand. Strong hydrocarbon odors at 2'.			SS			2
2								
3		<b>SILT</b> Greenish gray silt; little fine sand; trace angular gravel. Hydrocarbon odor. Very moist.	3.0		SS			1200
4								
5					SS			70
6								
7		<b>SAND</b> Greenish gray fine to medium sand; some silt; little fine angular gravel. Hydrocarbon odor. Moist.	6.0		SS			1200
8			8.0					
9		<b>SILT</b> Greenish gray silt, grading downward to light brown. Wet.			SS			40
10			10.0					
11		<b>FINE SAND and SILT</b> Fine sand and silt, greenish gray, grading downward to brown. Wet. Oily free product present in a thin layer of fine sand at 13'.			SS			140
12								
13					SS			1300
14		End of Borehole	14.0					
15								
16								
17								
18								



Driller: ADT  
 Drilling Method: Hollow-stem auger  
 Well Completion Date: 8/2/1  
 Notes:

Borehole Diameter: 8"  
 Datum: Grade  
 Sheet: 1 of 1



Project No: Prova001

**Monitoring Well ID.: MW-3I**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				Well Completion Details	
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery		PID Reading (ppm)
0		Ground Surface	0.0						
1		See logs for MW-3 for details to 14 ft bgs							
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14		Gray <b>SILT</b> trace Clay wet. color change to red at 15 ft bgs. used oil odor noticed in drill cuttings.	14.0	1	SS	1	■	233	
15	1					■	72		
16	2					■	67		
17	2			SS	2	■	134		
17					2	■	123		
17					6	■	101		
18			17.8			10	■	7	

Driller: Aquifer Drilling & Testing (ADT)  
 Drilling Method: Hollow Stem Auger  
 Well Completion Date: 22 September 2003  
 Notes:

Borehole Diameter: 8"  
 Datum: Grade  
 Sheet: 1 of 3

Project No: Prova001

**Monitoring Well ID.: MW-3I**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

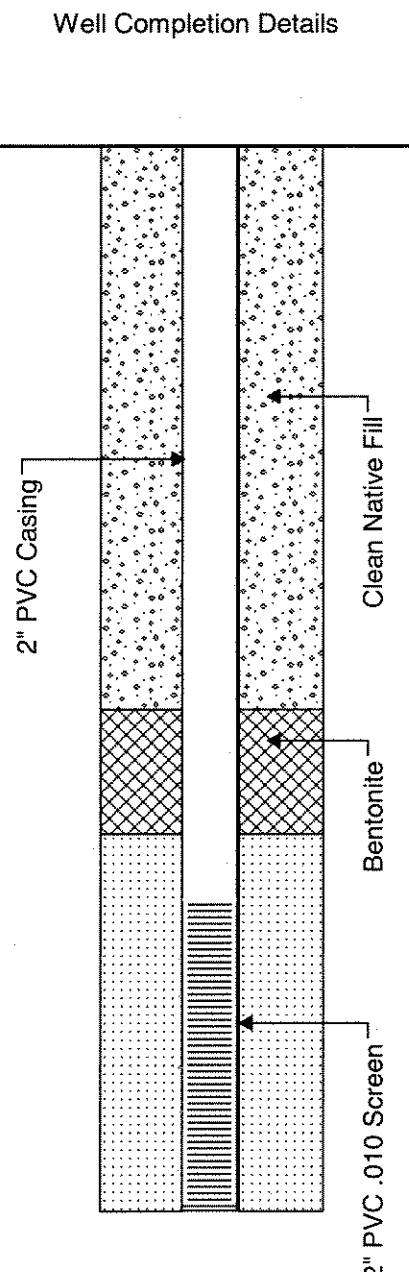
Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
19		Gray f-c Sandy <b>GRAVEL</b> wet. sheens in water from spilt spoon. slight petroleum odor. color changes to gray to brown below 20 ft		3	SS	9 10 5 4		7
20				4	SS	8 5 9 5		18
21				5	SS	3 4 7 8		25.2
22				6	SS	21 12 14 9		26.5
23				7	SS	3 5 4 5		6 5 0
24				8	SS	7 10 10 9		29 44 22
25		Brown f-c <b>SAND</b> Some c Gravel wet	26.0	9	SS	16 18 25		25 62 86
26				10	SS	15 13 15 17		No Recovery
27		Brown Silty <b>CLAY</b> some c Sand wet. slight petroleum odor.	30.9	11	SS	9 8 10 27		0 0 1.5 0.7
28				12	SS			
29				13	SS			
30		Gray <b>SILT</b>	31.7	14	SS			
31				15	SS			
32		Gray Clayey <b>SILT</b> wet. very hard. no petroleum odor.	34.0	16	SS			
33				17	SS			
34				18	SS			
35								
36								



Driller: Aquifer Drilling & Testing (ADT)  
Drilling Method: Hollow Stem Auger  
Well Completion Date: 22 September 2003  
Notes:

Borehole Diameter: 8"  
Datum: Grade  
Sheet: 2 of 3

Project No: Prova001

**Monitoring Well ID.: MW-3I**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
37		black shale fragments at 38 ft bgs	37.0	12	SS	21	■	0
38			63			0		
38		End of Borehole	38.0			27		0
39						42		0
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								

Driller: Aquifer Drilling & Testing (ADT)  
Drilling Method: Hollow Stem Auger  
Well Completion Date: 22 September 2003  
Notes:

Borehole Diameter: 8"  
Datum: Grade  
Sheet: 3 of 3

Project No: Prova001

**Monitoring Well ID.: MW-4**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.:

Site Location: Newburgh, NY

Geologist: Chris Viani

SUBSURFACE PROFILE			SAMPLE					Well Completion Details	
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery		PID Reading (ppm)
0		Ground Surface	0.0						
1		<b>SAND (FILL)</b> Gray fine to medium sand; little angular gravel (with coal fragments). Faint hydrocarbon odor.	2.0		SS			117	<p>Concrete</p> <p>Bentonite</p> <p>2" PVC Casing</p> <p>#1 Sand</p> <p>.010 Slot Screen</p>
2		<b>SILT and FINE SAND</b> Brown silt and fine sand; trace to little fine gravel. No staining/odor. Moist.			SS			68	
3					SS				
4					SS				
5					SS				
6		<b>SILT</b> Gray silt; little to some clay; trace fine rounded gravel. Occasional reddish brown mottles. Very stiff. No staining/odor. Wet at 9'.	6.0		SS				
7					SS				
8					SS				
9					SS			0	
10					SS				
11		<b>FINE SAND</b> Light reddish brown fine sand, w/brown fine laminae; some silt. No staining/odors. Wet.	11.0		SS				
12					SS				
13					SS			0	
14		End of Borehole	14.0						
15									
16									
17									
18									

Driller: ADT  
Drilling Method: Hollow-stem auger  
Well Completion Date: 8/2/1  
Notes:

Borehole Diameter: 8"  
Datum: Grade  
Sheet: 1 of 1

Project No: Prova001

**Monitoring Well ID.: MW-5**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

Client: City of Newburgh

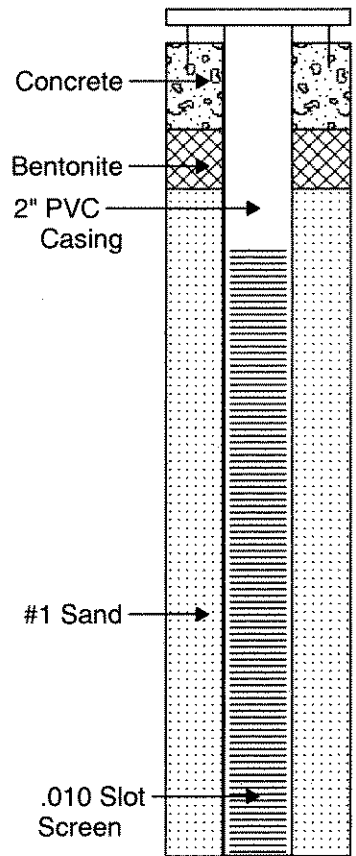
Permit No.:

Site Location: Newburgh, NY

Geologist: Chris Viani

SUBSURFACE PROFILE			SAMPLE					Well Completion Details	
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery		PID Reading (ppm)
0		Ground Surface							
0		<b>SAND, SILT and GRAVEL (F)</b> Brown heterogeneous mixture of sand, silt and gravel.	0.0						
1					SS			100	
2		<b>SILT</b> Light reddish brown silt; trace fine well-rounded gravel. Brown and dark gray mottles common.	1.5						
3					SS			20	
4									
5		<b>MEDIUM SAND</b> Reddish brown medium sand; trace well-rounded fine gravel. Faint hydrocarbon odor.	4.5					190	
6									
7		<b>SILT</b> Greenish gray silt, grading downward to silt w/ little to some fine sand; trace gravel. Black and reddish brown mottles common. Faint hydrocarbon odor. Wet at 8'.	6.5					7	
8									
9					SS			255	
10									
11		<b>SILT</b> Reddish brown silt; trace to little fine rounded gravel. Occasional mottles (gray, black and brown) and sand laminae. Slight hydrocarbon odor. No sheen. Wet.	9.0					460	
12									
13					SS			375	
14		End of Borehole	14.0						
15									
16									
17									
18									

Well Completion Details



Driller: ADT  
Drilling Method: Hollow-stem auger  
Well Completion Date: 8/2/1  
Notes:

Borehole Diameter: 8"  
Datum: Grade  
Sheet: 1 of 1

Project No: Prova001

Monitoring Well ID.: MW-6

First Environment, Inc.  
 91 Fulton Street  
 Boonton, NJ  
 07005

Project: Provan Ford

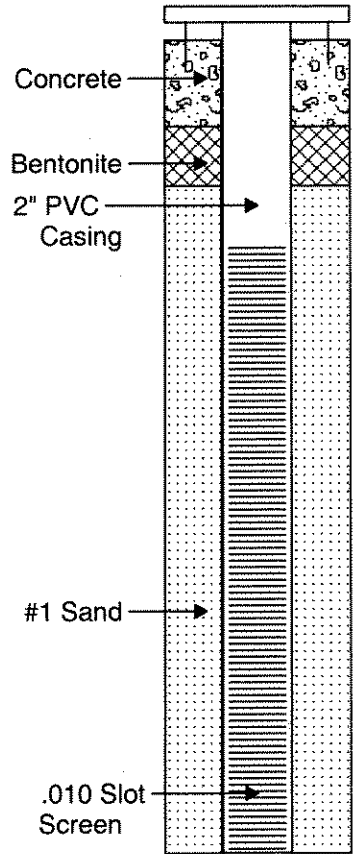
Client: City of Newburgh

Permit No.:

Site Location: Newburgh, NY

Geologist: Chris Viani

SUBSURFACE PROFILE				SAMPLE				Well Completion Details	
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery		PID Reading (ppm)
0		Ground Surface							
0.0		<b>ASPHALT and SUB-BASE</b>	0.0						
0.5		<b>SAND (FILL)</b> Dark gray medium sand; some fine angular gravel, with cinders.	0.5		SS			0	
1.5			1.5						
3.0		<b>SILT</b> Greenish brown silt; trace to little fine subangulat gravel. No staining/odor. Very moist.	3.0		SS			0	
4.0			4.0						
5.0		<b>MEDIUM SAND</b> Greenish brown medium sand; little gravel.	5.0		SS			0	
7.0		<b>FINE SAND</b> Fine sand, to fine sand w/ some silt; greenish brown to greenish gray. Color becomes reddish brown at 10.5'. Thin silt layers and laminae common. Wet at 8'.	7.0		SS			42	
8.0			8.0						
9.0			9.0		SS			0	
10.0			10.0						
11.0			11.0		SS			0	
12.0			12.0						
13.0			13.0		SS			0	
14.0		End of Borehole	14.0						
15.0									
16.0									
17.0									
18.0									



Driller: ADT  
 Drilling Method: Hollow-stem auger  
 Well Completion Date: 8/3/1  
 Notes:

Borehole Diameter: 8"  
 Datum: Grade  
 Sheet: 1 of 1

Project No: Prova001

### Monitoring Well ID.: MW-6I

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE					Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)	
0		Ground Surface	0.0						
1		See logs for MW-6 for details to 14 ft bgs.							
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15			15.0						

Driller: Aquifer Drilling & Testing (ADT)  
 Drilling Method: Hollow Stem Auger  
 Well Completion Date: 22 September 2003  
 Notes:

Borehole Diameter: 8"  
 Datum: Grade  
 Sheet: 1 of 3

**Project No:** Prova001

**Monitoring Well ID.:** MW-6I

**First Environment, Inc.**  
 91 Fulton Street  
 Boonton, NJ  
 07005

**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE				Well Completion Details	
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery		PID Reading (ppm)
16		Light brown SILT wet		1	SS	3 7 7 14		18 7 2	
17		Brown Silty f-c GRAVEL wet	17.0	2	SS	14 11 9 9		4 12	
18									
19									
20									
21		Brown Gravely f-c SAND wet	23.0	3	SS	11 5 6 4		29 28	
22									
23									
24									
25		Cobbles at 29 ft and 31 to 31.4 ft bgs		4	SS	5 5 10 11		5 10	
26									
27									
28									
29				5	SS	8 8 6 8		13	
30									
31									
32									
33				6	SS	13 7 11 15		4 4 26	
34									
35									
36									
37				7	SS	15 9 10 14		44	
38									
39									
40									
41				8	SS	16 9 11		3 9 4	
42									
43									
44									

Driller: Aquifer Drilling & Testing (ADT)  
 Drilling Method: Hollow Stem Auger  
 Well Completion Date: 22 September 2003  
 Notes:

Borehole Diameter: 8"  
 Datum: Grade  
 Sheet: 2 of 3



Project No: Prova001

**Monitoring Well ID.: MW-6I**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

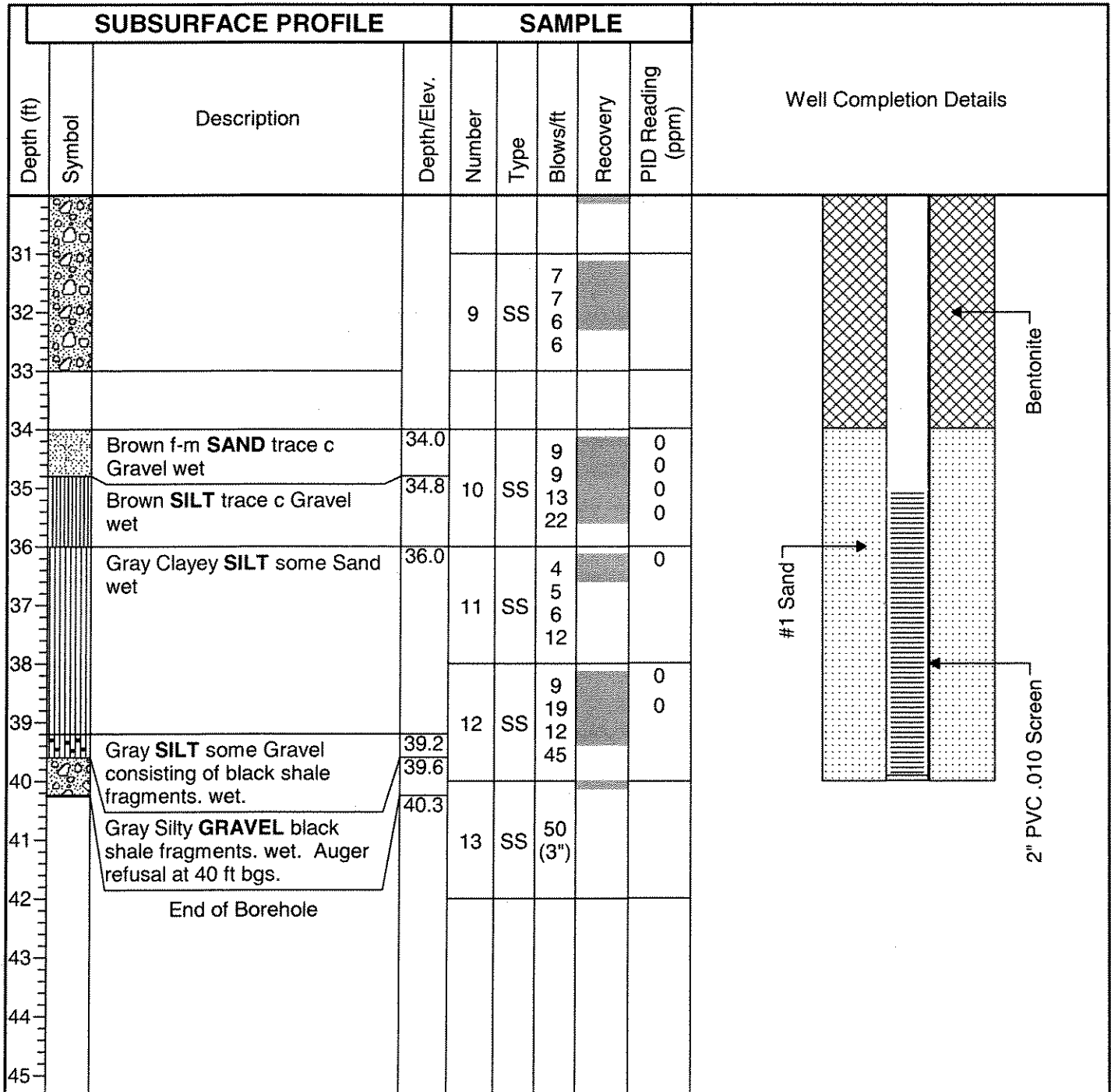
Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt



Driller: Aquifer Drilling & Testing (ADT)  
Drilling Method: Hollow Stem Auger  
Well Completion Date: 22 September 2003  
Notes:

Borehole Diameter: 8"  
Datum: Grade  
Sheet: 3 of 3

Project No: Prova001

Monitoring Well ID.: MW-7

First Environment, Inc.  
 91 Fulton Street  
 Boonton, NJ  
 07005

Project: Provan Ford

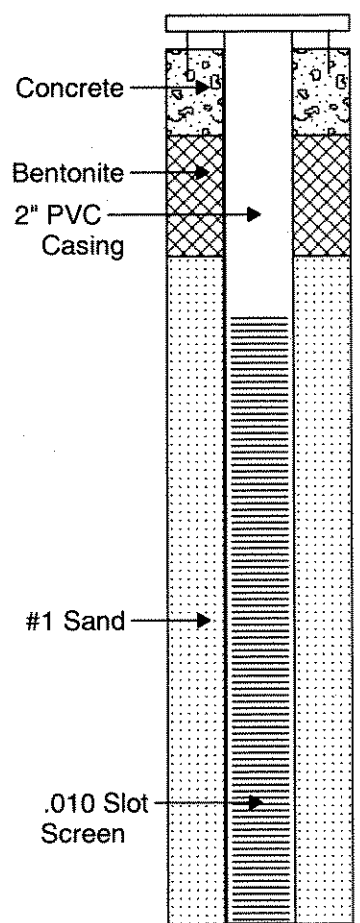
Client: City of Newburgh

Permit No.:

Site Location: Newburgh, NY

Geologist: Chris Viani

SUBSURFACE PROFILE				SAMPLE				Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
0		Ground Surface	0.0					
0		<b>FINE SAND (FILL)</b> Dark brown fine sand; some silt; little fine angular gravel. No staining/odor.			SS			
2		<b>SILT (FILL)</b> Brown silt; little fine angular gravel. No staining/odor.	2.0		SS			60
3					SS			2
4					SS			32
7		<b>SILT</b> Light reddish brown silt; trace to little fine sand; occasional gray laminae. No staining/odor. Stiff. Wet at 8'.	7.0		SS			800
8					SS			
9					SS			
10					SS			
12					SS			57
13					SS			
14		End of Borehole	14.0					
15								
16								
17								
18								



Driller: ADT  
 Drilling Method: Hollow-stem auger  
 Well Completion Date: 8/3/1  
 Notes:

Borehole Diameter: 8"  
 Datum: Grade  
 Sheet: 1 of 1

Project No: Prova001

**Monitoring Well ID.: MW-8**

First Environment, Inc.  
 91 Fulton Street  
 Boonton, NJ  
 07005

Project: Provan Ford

Client: City of Newburgh

Permit No.:

Site Location: Newburgh- NY

Geologist: Chris Viani

SUBSURFACE PROFILE			SAMPLE					Well Completion Details	
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery		PID Reading (ppm)
0		Ground Surface	0.0						
0		<b>ASPHALT and SUB-BASE</b>	0.0						
1		<b>SAND and SILT</b> Light brown fine sand and silt. Slightly moist. No odor/staining.	1.0		SS			0	
3		<b>FINE SAND</b> Fine sand, grading downward to fine sand and fine sand w/ some silt; light brown, with gray mottles below 8'. No staining/odor. Moist, to wet at 8'.	3.0		SS			0	
4									
5					SS			0	
6									
7					SS			0	
8									
9					SS			0	
10			-10.0						
11		<b>SILT</b> Light reddish brown silt, gray at 12'-13'. Fine sand laminae present in bottom 6". No staining/odor. Wet.	10.0		SS			0	
12									
13					SS			0	
14		End of Borehole	-14.0						
14			14.0						
15									
16									
17									
18									

Driller: ADT  
 Drilling Method: Hollow-stem auger  
 Well Completion Date: 8/2/1  
 Notes:

Borehole Diameter: 8"  
 Datum: Grade  
 Sheet: 1 of 1

Project No: Prova001

**Monitoring Well ID.: MW-9**

First Environment, Inc.  
 91 Fulton Street  
 Boonton, NJ  
 07005

Project: Provan Ford

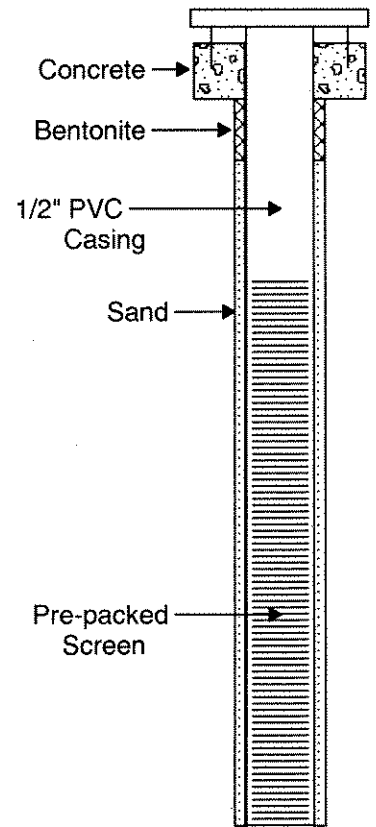
Client: City of Newburgh

Permit No.:

Site Location: Newburgh- NY

Geologist: Scott Green

SUBSURFACE PROFILE				SAMPLE				Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
0		Ground Surface						
		<b>CONCRETE</b>	0.0					
1		<b>GRAVEL FILL</b>	0.8					
2		<b>SAND and SILT</b> Light brown fine to medium sand, lilt trace gravel.	1.2	1	MC	N A		14.5
4		<b>SAND</b> Light Brown SAND	4.0					
5		<b>SILT</b> Greenish Brown SILT Wet at 7 feet	5.1	2	MC	N A		875
8		<b>SILT</b> Greenish SILT, trace fine sand	8.0					
10		Inside of macro core liner saturated with oil		3	MC	N A		
13.5		End of Borehole	13.5					



Driller: Probe Services  
 Drilling Method: Direct Push  
 Well Completion Date: 8/7/1  
 Notes: MC = Macrocore

Borehole Diameter: 3"  
 Datum: Grade  
 Sheet: 1 of 1

**Project No:** Prova001

**Monitoring Well ID.: MW-10I**

**First Environment, Inc.**  
91 Fulton Street  
Boonton, NJ  
07005

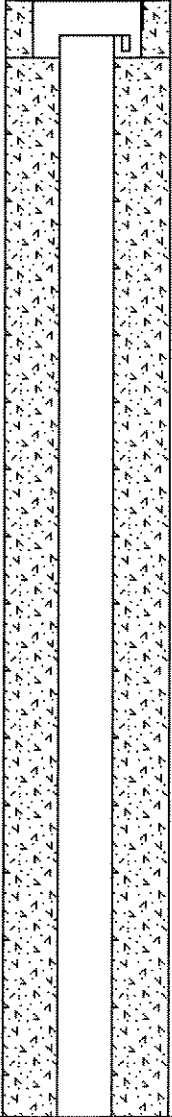
**Project:** Provan Ford

**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

**Geologist:** Michael Van Brunt

SUBSURFACE PROFILE				SAMPLE					Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	PID Reading (ppm)	
0		Ground Surface							
0		See logs for GB-6 for details to 12 ft bgs	0.0						
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15			15.0						

Driller: Aquifer Drilling & Testing (ADT)  
Drilling Method: Hollow Stem Auger  
Well Completion Date: 18 September 2003  
Notes:

Borehole Diameter: 6"  
Datum: Grade  
Sheet: 1 of 3

Project No: Prova001

**Monitoring Well ID.: MW-10I**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE			SAMPLE					Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
16	[Symbol: Gravel]	Sandy <b>GRAVEL</b> wet. dark brown product 15-17 ft bgs		1	SS	7	[Recovery: 50%]	610
						4		1300
17	[Symbol: Sand]	Gray f-c <b>SAND</b> some f Gravel wet. petroleum sheens observed on split spoons. brown product observed from 17 - 18.3 ft bgs.	17.0	2	SS	6	[Recovery: 50%]	339
18						5		548
19						7		>2000
20						9		
21						9		
22						6		
23						4		497
24						4		370
25	[Symbol: Sand]	Gray f-m <b>SAND</b> wet	25.0	3	SS	4	[Recovery: 50%]	160
26						4		78
27						5		
28						4		
29	[Symbol: Sand]			7	SS	4	[Recovery: 50%]	260
						4		80
30	[Symbol: Sand]		29.5	8	SS	5	[Recovery: 50%]	249
						4		480
						5		102

2" PVC Casing

Concrete

Driller: Aquifer Drilling & Testing (ADT)  
Drilling Method: Hollow Stem Auger  
Well Completion Date: 18 September 2003  
Notes:

Borehole Diameter: 6"  
Datum: Grade  
Sheet: 2 of 3

Project No: Prova001

**Monitoring Well ID.: MW-101**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Michael Van Brunt

SUBSURFACE PROFILE			SAMPLE					Well Completion Details	
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery		PID Reading (ppm)
31		Brown Gravelly f-c SAND wet petroleum odor							
32		Brown f-m SAND trace f Gravel wet, slight petroleum odor	32.0	9	SS	4	5	139	
33		Brown f-c GRAVEL some Sand wet, slight petroleum odor	32.4			4		52	
34		Brown f-c SAND wet, slight petroleum odor	34.0			3		85	
35		Brown f-c SAND wet, slight petroleum odor		10	SS	5	9	36	
36		Brown f-c SAND wet, slight petroleum odor				11		46	
37		Gray SILT trace c Sand wet no odor	36.7	11	SS	5	6	32	
38		Brown f-c SAND wet	38.0			11		14	
39		Brown SILT trace c Sand and Gravel wet, black shale fragments at 40 ft bgs	39.0			11		4	
40				12	SS	16	17	0	
41						15		2	
41		End of Borehole	41.2	13	SS	31	24	42	
42						50 (2")		20	
43									
44									
45									

Driller: Aquifer Drilling & Testing (ADT)  
Drilling Method: Hollow Stem Auger  
Well Completion Date: 18 September 2003  
Notes:

Borehole Diameter: 6"  
Datum: Grade  
Sheet: 3 of 3

Project No: Prova001

**Monitoring Well ID.: MW-111**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

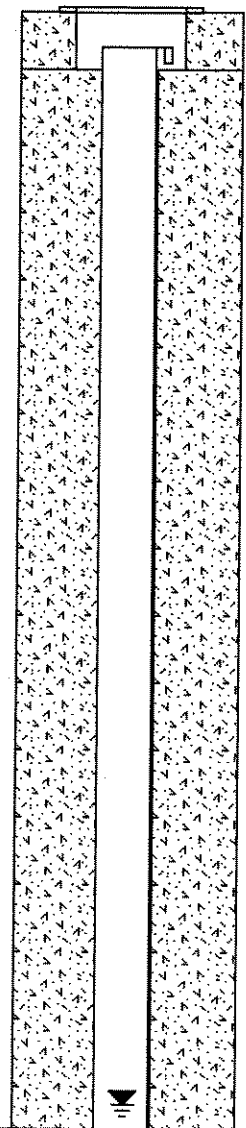
Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Kim Zdenek

SUBSURFACE PROFILE				SAMPLE				Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
0		Ground Surface						
0	■	Asphalt	0.0					
1	□	Lt brown f SAND slight odor, dry	0.5	1	SS	15 11 9	■	
2	□	Gray f SAND some Silt slight odor, dry	1.5					
2	□	Lt brown f SAND slight odor, dry	2.0					
3	□							
4	□							
5	□							
6	□	Lt gray f SAND, dry to moist	6.1	2	SS	3 3 4 5	■	6 0
7	□							
8	□							
9	□							
10	▨	Lt brown CLAY, trace silt, moist	10.0	3	SS	1 2 2 5	■	0
11	▨							
12	□							
13	□							
14	□							
15	□		15.0					



Driller: Aquifer Drilling & Testing (ADT)  
Drilling Method: Hollow Stem Auger  
Well Completion Date: 18 September 2003  
Notes:

Borehole Diameter: 8"  
Datum: Grade  
Sheet: 1 of 3



Project No: Prova001

**Monitoring Well ID.: MW-111**

First Environment, Inc.  
91 Fulton Street  
Boonton, NJ  
07005

Project: Provan Ford

Client: City of Newburgh

Permit No.: N/A

Site Location: Newburgh, NY

Geologist: Kim Zdenek

SUBSURFACE PROFILE			SAMPLE					Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
16		Brown m <b>SAND</b> wet		4	SS	2 2 3 3		0
17								
18								
19								
20		Brown f-m <b>SAND</b> wet	20.0	5	SS	1 3 3 5		0
21								
22								
23								
24								
25								
26				6	SS	33 7 8 16		0
27		Gray f-c <b>GRAVEL</b> , wet	26.5					
28								
29								
30								

2" PVC Casing

Concrete

Driller: Aquifer Drilling & Testing (ADT)  
Drilling Method: Hollow Stem Auger  
Well Completion Date: 18 September 2003  
Notes:

Borehole Diameter: 8"  
Datum: Grade  
Sheet: 2 of 3

**Project No:** Prova001

**Monitoring Well ID.:** MW-111

**First Environment, Inc.**  
**91 Fulton Street**  
**Boonton, NJ**  
**07005**

**Project:** Provan Ford

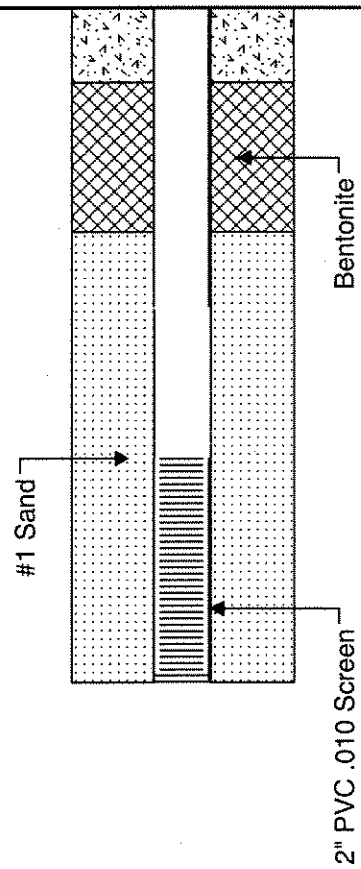
**Client:** City of Newburgh

**Permit No.:** N/A

**Site Location:** Newburgh, NY

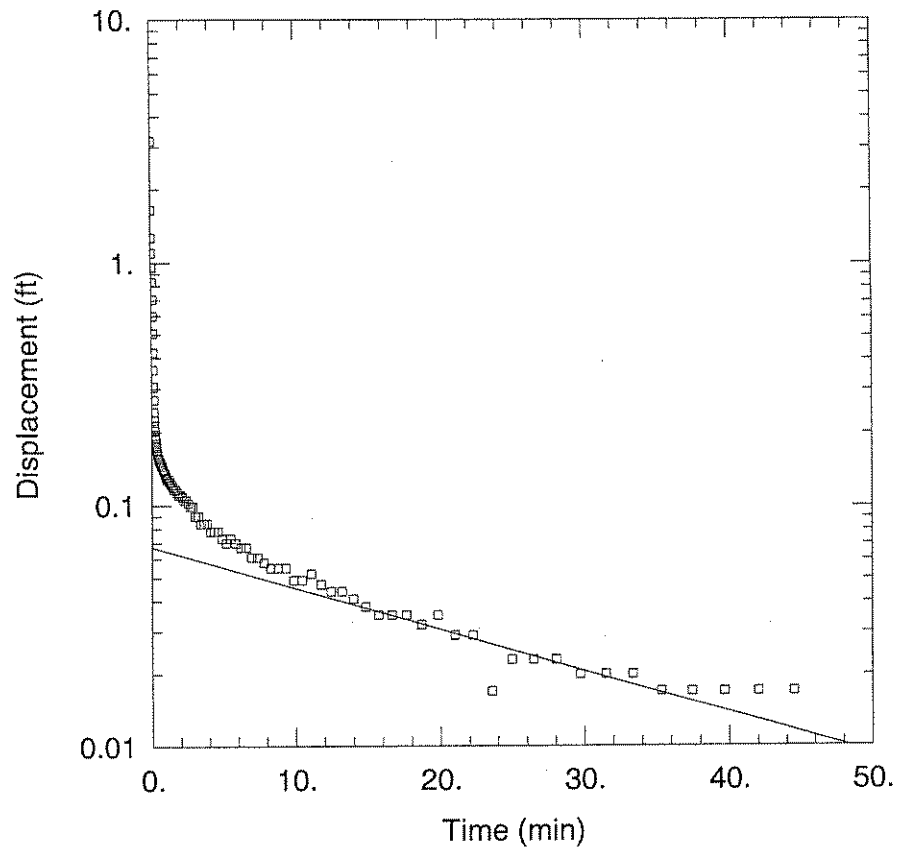
**Geologist:** Kim Zdenek

SUBSURFACE PROFILE				SAMPLE				Well Completion Details
Depth (ft)	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	
31				7	SS	13 7 6 5		
32		Gray f-c <b>GRAVEL</b> , wet	31.5					
33								
34								
35								
36				8	SS	24 15 6 7		0
37		Gray f-c <b>GRAVEL</b> , wet	36.5					0
		Gray <b>SILT</b> trace Clay, moist						0
38		Gray <b>CLAY</b> trace fine gravel	38.0	9	SS	7 7 11 13		0
39								
40								
41				10	SS	1 2 2 6		
42		End of Borehole	42.0					
43								
44								
45								



Driller: Aquifer Drilling & Testing (ADT)  
 Drilling Method: Hollow Stem Auger  
 Well Completion Date: 18 September 2003  
 Notes:

Borehole Diameter: 8"  
 Datum: Grade  
 Sheet: 3 of 3



SLUG TEST RESULTS - MW-1

Data Set: G:\...\MW-1\_1 Provan.aqt

Date: 01/06/05

Time: 13:47:55

PROJECT INFORMATION

Company: First Environment, Inc.

Client: City of Newburgh, NY

Project: PROVA001

Test Location: Newburgh, NY

Test Well: MW-1

Test Date: November 7, 2001

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

$K = 0.0001404$  ft/min

$y_0 = 0.06714$  ft

AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

WELL DATA (MW-1)

Initial Displacement: 3.181 ft

Wellbore Radius: 0.333 ft

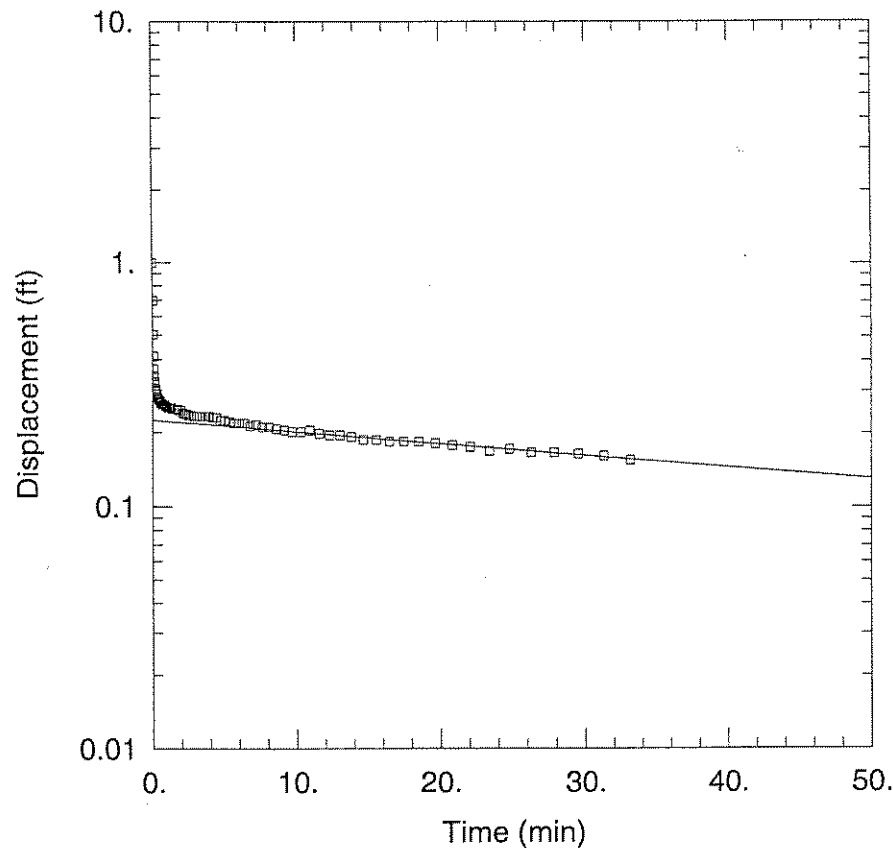
Screen Length: 10. ft

Gravel Pack Porosity: 0.3

Casing Radius: 0.083 ft

Well Skin Radius: 0.333 ft

Total Well Penetration Depth: 5.39 ft



SLUG TEST RESULTS - MW-3

Data Set: G:\...\MW-3\_1 Provan.aqt  
 Date: 01/06/05 Time: 13:48:49

PROJECT INFORMATION

Company: First Environment, Inc.  
 Client: City of Newburgh, NY  
 Project: PROVA001  
 Test Location: Newburgh, NY  
 Test Well: MW-3  
 Test Date: November 7, 2001

SOLUTION

Aquifer Model: Unconfined  
 Solution Method: Bower-Rice  
 $K = 3.514E-05$  ft/min  
 $y_0 = 0.2244$  ft

AQUIFER DATA

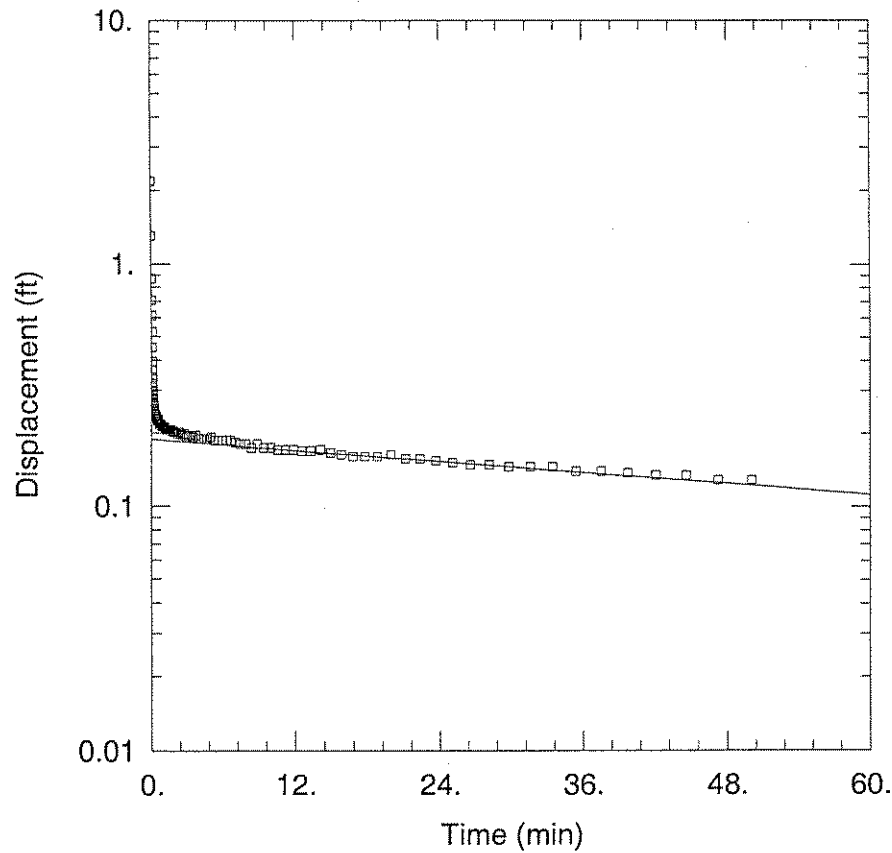
Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

WELL DATA (MW-3)

Initial Displacement: 0.994 ft  
 Wellbore Radius: 0.333 ft  
 Screen Length: 10. ft  
 Gravel Pack Porosity: 0.3

Casing Radius: 0.083 ft  
 Well Skin Radius: 0.333 ft  
 Total Well Penetration Depth: 3.84 ft



SLUG TEST RESULTS - MW-4

Data Set: G:\...MW-4\_1 Provan.aqt  
 Date: 01/06/05 Time: 13:49:08

PROJECT INFORMATION

Company: First Environment, Inc.  
 Client: City of Newburgh, NY  
 Project: PROVA001  
 Test Location: Newburgh, NY  
 Test Well: MW-4  
 Test Date: November 7, 2001

SOLUTION

Aquifer Model: Unconfined  
 Solution Method: Bowyer-Rice  
 $K = 2.954E-05$  ft/min  
 $y_0 = 0.1884$  ft

AQUIFER DATA

Saturated Thickness: 30 ft

Anisotropy Ratio ( $K_z/K_r$ ): 1

WELL DATA (MW-4)

Initial Displacement: 2.187 ft  
 Wellbore Radius: 0.333 ft  
 Screen Length: 10 ft  
 Gravel Pack Porosity: 0.3

Casing Radius: 0.083 ft  
 Well Skin Radius: 0.333 ft  
 Total Well Penetration Depth: 4.49 ft

## QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PLAN

The soil, groundwater, surface water and sediment sampling techniques to be employed at the Provan facility in Newburgh, New York, are detailed below. All efforts will be made to eliminate sample contamination and maximize the reliability to the analytical results. These efforts include proper use and cleaning of sampling equipment and sample containers to eliminate sample contamination, use of a quality assurance program to maximize accuracy and precision of the analytical results, proper installation of groundwater monitoring wells and the use of chain-of-custody procedures to track the samples from source to analysis and minimize the opportunity for tampering.

### SAMPLING EQUIPMENT AND PROCEDURES

#### SAMPLING EQUIPMENT AND CLEANING PROCEDURES

The sample containers, glass jars with Teflon™ lined-plastic screw-on lids, will be provided by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) Certified Laboratory. Containers used to collect soil and water samples will be specifically designed for that purpose. The containers will be cleaned prior to shipment by the laboratory, using standard, in-house procedures.

Soil samples will be collected with either a hand auger, split-spoon sampler or Geoprobe Macrocore device. If a split-spoon sampler or Macrocore device is used, a drill rig will be used to drive the sampler to the required depth and obtain soil samples. The split-spoon sampler will be 24 inches in length and in accordance with ASTM D1586-67. The Macrocore will be 48 inches in length. The Macrocore sampler will be equipped with a sample retention device and acetate liner to ensure sample quality.

- One field blank for each media sampled that day will be submitted for analysis for volatile organics.

## SAMPLING METHODOLOGY

All subsurface work will be conducted in a manner that produces reliable information of subsurface conditions and representative soil, sediment, surface water and groundwater samples for analysis. A First Environment degreed hydrogeologist, geologist, engineer or equivalent will supervise all drilling and sampling procedures.

### Soil Sample Collection Methodology

#### Soil Samples.

The location of each borehole will be referenced by a grid system or some other survey control. A drill rig/Geoprobe or hand auger will be used to produce boreholes at the proper depths at each predetermined sampling location. Sample depths will be measured to ensure they are correct. Samples will be taken by driving a split-spoon sampler, Macrocore or hand auger into the undisturbed material below the bottom of the borehole. The sampler will be equipped with a sample retention device.

Prior to sample collection, sample depths will be screened with Photoionization Detector (PID) to insure that collected samples are representative of actual soil conditions. This will be accomplished through head space analysis. The PID will be calibrated to 100 ppm isobutylene prior to each days activities.

A soil sample will be collected from the appropriate sampler or hand auger. To prevent contamination of sample bottle by windblown soils, each bottle will remain sealed until sample collection. Upon soil collection, the sample will be split in two bottles for headspace analysis and laboratory analysis. The sample containing the highest

below to 5 feet above the water table. Should the water table be encountered within 7 feet or less of the ground surface, the well screen will extend to within 2 feet of the ground surface. The remainder of the well will consist of 2-inch PVC casing which will extend over the ground surface. Filter sand will be placed in the annulus between the screen and the borehole to a level of at least 6 inches above the top of the screen. A bentonite pellet seal will be placed on top of the filter sand. The remainder of the annulus will be grouted with a cement bentonite grout acceptable for use in monitoring wells. The surface protection will consist of a lockable steel casing, extending approximately 2 feet above the ground surface and anchored in cement. In areas accessible to vehicular traffic, road boxes may be installed.

To complete the monitoring well installation, each well will be developed by pumping, bailing or an equivalent method. This will remove fines generated during the installation and ensure that hydraulic continuity is established between the well and the aquifer.

#### Groundwater Flow Direction

A New York registered land surveyor will survey the reference elevation of the top of the PVC monitoring well casings. Water level measurements will be recorded to within 0.01 feet, using an electric water-level indicator. This information will be used to determine groundwater flow direction and construct groundwater contour maps.

#### Groundwater Sample Collection Methodology

Water samples will be collected no sooner than two weeks after development of the monitoring wells. Prior to sample collection, a minimum of three well volumes will be evacuated using a pump or dedicated bailer depending on well production. After purging, a bailer will be submerged beneath the water column in the well, filled and raised to the surface. The sample collection jar will be filled directly from the bailer. Bailing will continue until each sample jar is filled and closed. Care will be taken to ensure that samples tested for volatile organics have no air space. Sample jars will be



A field log will also be kept and the following information recorded for each sample:

- Time and Date of Sampling
- Weather
- Name of Sampler
- Water Level Prior to Purge
- Total Well Depth
- Volume Purged
- Purging Method
- Sampler Type
- Presence and Description of any Free Product
- pH and Specific Conductance
- Other Characteristics (odor, color, etc.)
- Turbidity

#### CHAIN-OF-CUSTODY PROCEDURES

Each sample will be recorded separately on the chain-of-custody manifest as part of the sampling procedure. The information obtained for each sample will include the following:

- Sample Identification
- Sampler's Name
- Time and Date of Sampling
- Sample Laboratory Number
- Analysis to be Performed
- Laboratory Name

## ANALYTICAL LABORATORY AND METHODS

### ANALYTICAL LABORATORY

#### INTEGRATED ANALYTICAL LABORATORIES (IAL)

Randolph, New Jersey 07869

### ANALYTICAL METHODS

For soil impacted by gasoline compounds, the STARS guidance document specifies analysis for VOCs and MTBE using Method 8021. For soil impacted by fuel oil, STARS recommends analysis for both VOCs and base/neutral compounds using Methods 8021 and 8270, respectively. In areas impacted by waste oil, soil will be analyzed for VOCs (method 8260) plus TICs and SVOCs (Method 8270) plus TICs as well as PCBs (method 8082) plus sulfuric acid clean up for PCBs and TAL metals. The analytical methods to be used for drum characterization are as follows: total organic halides - EPA SW- 846 method 3540A/9020A; Ignitability - SW-846 method 1020; and PCBs - SW-846 methods 3540A/9020A. The detection limits are attached to this Plan.

# SEMIVOLATILE COMPOUNDS

	TCL	Instrument MDL, C (Aqueous)	Reported MDL's, Soil (ppb)	
acenaphthene	x	0.111	33.3	
acenaphthylene	x	0.176	33.3	
acetophenone	x			X - MDL Not Available
anthracene	x	0.182	33.3	
benzidine	x			X - MDL Not Available
benzaldehyde	x			X - MDL Not Available
benzo[a]anthracene	x	0.249	33.3	
benzo[a]pyrene	x	0.335	33.3	
benzo[b]fluoranthene	x	0.545	33.3	
benzo[g,h,i]perylene	x	0.546	33.3	
benzo[k]fluoranthene	x	0.690	33.3	
biphenyl	x			X - MDL Not Available
bis(2-chloroethoxy)methane	x	0.161	33.3	
bis(2-chloroethyl)ether	x	0.167	33.3	
bis(2-chloroisopropyl)ether **	x	0.548	33.3	** Compound also known as 2,2-oxybis (1-Chloropropane)
bis(2-ethylhexyl)phthalate	x	0.732	33.3	
bromophenyl-phenylether	x	0.447	33.3	
benzylphthalate	x	0.570	33.3	
caprolactam	x			X - MDL Not Available
carbazole	x	0.289	33.3	
2-chloro-3-methylphenol	x	0.432	33.3	
2-chloroaniline	x	0.563	33.3	
1-chloronaphthalene	x	0.295	33.3	
2-chlorophenol	x	0.167	33.3	
2-chlorophenyl-phenylether	x	0.442	33.3	
cresol	x	0.402	33.3	
1-methylanthracene	x	0.421	33.3	
1-methylfuran	x	0.168	33.3	
1,2-Dichlorobenzidine	x	0.337	33.3	
1,2-Dichlorophenol	x	0.516	33.3	
1,2-dichlorophthalate	x	0.297	33.3	
1,3-dimethylphthalate	x	0.248	33.3	
1,4-dimethylphenol	x	0.260	33.3	
1,4-dimethylphthalate	x	0.478	33.3	
1,4-dinitro-2-methylphenol	x	0.887	33.3	
1,4-dinitrophenol	x	0.405	33.3	
1,4-dinitrotoluene	x	0.864	33.3	
1,3-dinitrotoluene	x	0.444	33.3	
1-n-octylphthalate	x	0.629	33.3	
1-naphthene	x	0.409	33.3	
1-naphthene	x	0.372	33.3	
1,2-dichlorobenzene	x	0.502	33.3	
1,2-dichlorobutadiene	x	0.418	33.3	
1,2-dichlorocyclopentadiene	x	0.332	33.3	
1,2-dichloroethane	x	0.415	33.3	
1-methylanthro[1,2,3-cd]pyrene	x	0.623	33.3	
1-methylphenol	x	0.259	33.3	
1-methylnaphthalene	x	0.184	33.3	

# PCB'S

COMPOUNDS	TCL 8082	Reported Aq (ppb) MDL's	Reported Soil (ppb) MDL's
Aroclor 1016	X	0.2	6.68
Aroclor 1221	X	0.2	6.68
Aroclor 1232	X	0.2	6.68
Aroclor 1242	X	0.2	6.68
Aroclor 1248	X	0.2	6.68
Aroclor 1254	X	0.2	6.68
Aroclor 1260	X	0.2	6.68

COMPOUNDS	Aqueous - MDL (ppm) - ICP 6010	Monitoring Well - MDL (ppm) - ICP/MS 200.8	Soil MDL (ppm) - ICP/MS 6020
Aluminum	0.1	0.1	2.0
Antimony	0.1	0.008	2.0
Arsenic	0.1	0.004	0.2
Barium	0.01	0.02	5.0
Beryllium	0.02	0.004	0.2
Cadmium	0.005	0.0006	0.2
Calcium	0.4	0.8	20.0
Chromium	0.01	0.02	0.6
Cobalt	0.02	0.04	0.4
Copper	0.02	0.04	0.4
Iron	0.05	0.10	3.0
Lead	0.004/0.029	0.004/0.029	2.0
Magnesium	0.10		20.0
Manganese	0.005	0.01	0.4
Mercury	☒	☒	☒
Nickel	0.01	0.02	0.6
Potassium	0.1		20.0
Selenium	0.1	0.008	2.0
Silver	0.02	0.0004	
Sodium	0.1		20.0
Thallium	0.004	0.008	0.08
Vanadium	0.015	0.03	0.3
Zinc	0.01	0.02	1.0

☒ = MDL for TCLP, Wastewater & Monitoring Well is 0.0005 by ColdVapor and 0.0125 for Soil by Cold Vapor.

**Project Name:** Former Provan Ford  
**Project #:** PROVA001  
**Laboratory:** Hampton-Clarke, Inc. Veritech Laboratories  
**Laboratory Report #:** HCI Project 09062004

Lab Sample #	FEI Sample #	Analysis (Method)
AB41619	MW-1	8260, 8270, 8082, 6010, 7471A
AB41620	PZ-7	8260, 8270, 8082, 6010, 7471A
AB41621	MW-7	8260, 8270, 6010
AB41622	MW-8	8260, 8270, 6010
AB41623	MW-2	8260, 8270
AB41624	MW-7 Product	GC Fingerprint, Specific gravity, 8082

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on narrative
2. Have all holding times been met? Yes, except for extraction of sample of product from MW-7 (AB41624)
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Surrogate recovery and MS/MSD outside criteria.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes
6. Have the correct data qualifiers been used? Yes
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford  
**Project #:** PROVA001  
**Laboratory:** Hampton-Clarke, Inc. Veritech Laboratories  
**Laboratory Report #:** HCI Project 09081135

Lab Sample #	FEI Sample #	Analysis (Method)
AB41755	MW-5	8260
AB41756	PZ-3	8270
AB41757	MW-6	8260, 8270, 6010
AB41758	MW-9	8082, spec. gravity, GC fingerprint
AB41759	MW-3	8260, 8270, 6010, 8082
AB41760	MW-4	8260, 8270, 6010, 8082
AB41761	Duplicate	8260, 8270, 6010, 8082
AB41762	FB	8260, 8270, 6010, 8082
AB41763	TB	8260

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on narrative
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes except spike recovery data
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on narrative
6. Have the correct data qualifiers been used? Yes
7. Is any data rejected? If yes, specify. No.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Cetification No. 11376  
**Laboratory Report #:** L5516ASP Part III PCBs

Lab Sample #	FEI Sample #	Analysis (Method)
N5516-05	SS-16 (0"-6")	8082
N5516-09	SS-18 (0"-6")	8082
N5516-13	SS-20 (0"-6")	8082

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on narrative.
2. Have all holding times been met? Yes.
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except for matrix interference, and surrogate recovery for N5516-05 and N5516-09 and MS/MSD for arochlor 1260.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on narrative.
6. Have the correct data qualifiers been used? Yes, based on narrative.
7. Is any data rejected? If yes, specify. No data was rejected.



**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** L5516ASP Part V Metals

Lab Sample #	FEI Sample #	Analysis (Method)
N5516-03	SS-15 (0"-6")	6010, 7471
N5516-05	SS-16 (0"-6")	6010, 7471
N5516-06	SS-16 (6"-12")	6010, 7471
N5516-09	SS-18 (0"-6")	6010, 7471
N5516-10	SS-18 (6"-12")	6010, 7471
N5516-13	SS-20 (0"-6")	6010, 7471
N5516-14	SS-20 (6"-12")	6010, 7471

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes.
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except potassium did not meet serial dilutions. MS/MSD outside criteria (73%) for antimony. Duplicate analysis met requirements except for calcium, mercury, calcium and magnesium.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on a review of the narrative.
6. Have the correct data qualifiers been used? Yes, based on a review of the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Cetification No. 11376  
**Laboratory Report #:** L5517ASP Part II PCBs

Lab Sample #	FEI Sample #	Analysis (Method)
N5517-03	SS-23 (0"-6")	8082
N5517-05	SS-24 (0"-6")	8082
N5517-10	Field Blank	8082

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on narrative.
2. Have all holding times been met? Yes.
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes. Blank contamination was identified, does not affect results.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on narrative.
6. Have the correct data qualifiers been used? Yes, based on narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Cetification No. 11376  
**Laboratory Report #:** L5517ASP Part IV PCBs

Lab Sample #	FEI Sample #	Analysis (Method)
L5517-03	SS-23 (0"-6")	8082
L5517-05	SS-24 (0"-6")	8082
L5517-05	Field Blank	8082

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on narrative.
2. Have all holding times been met? Yes.
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except for matrix interference, and surrogate recovery for arochlor 1260 below standard (45% versus 50% required).
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on narrative.
6. Have the correct data qualifiers been used? Yes, based on narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** L5517ASP Part V Metals

Lab Sample #	FEI Sample #	Analysis (Method)
N5517-03	SS-23 (0"-6")	6010, 7471
N5517-04	SS-23 (6"-12")	6010, 7471
N5517-05	SS-24 (0"-6")	6010, 7471
N5517-06	SS-24 (6"-12")	6010, 7471
N5517-10	Field Blank	6010, 7471
N5517-12	BSS-1 (6'-12")	6010, 7471
N5517-13	BSS-1 (6'-12")	6010, 7471

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes.
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except serial dilutions for cobalt, lead, nickel and potassium. Duplicate analysis met requirements except for calcium chromium and magnesium.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on a review of the narrative.
6. Have the correct data qualifiers been used? Yes, based on a review of the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N4977ASP Part II SVOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N4977-06	SS-6	8270
N4977-07	SS-7	8270
N4977-08	SS-8	8270

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except internal standard S-6 and S-8.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N4977ASP VOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N4977-01	S-1 (soil)	8260
N4977-02	S-2 (soil)	8260
N4977-03	S-3 (soil)	8260
N4977-04	S-4 (soil)	8260
N4977-05	S-5 (soil)	8260
N4977-06	S-6 (soil)	8260
N4977-07	S-7 (soil)	8260
N4977-08	S-8 (soil)	8260

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? MS recovery for 1,2,4-trichlorobenzene and naphthalene did not meet requirements. Rpd for n-propylbenzene, 1,2,4-trichlorobenzene and naphthalene did not meet requirements, all other within requirements.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N4995 Part 1 VOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N4995-01	S-9	8021
N4995-02	S-10	8021
N4995-03	S-11	8021
N4995-04	S-12	8021
N4995-05	S-12	8021
N4995-06	Field Blank	8021
N4995-07	S-14	8021
N4995-08	S-15	8021
N4995-09	S-16	8021
N4995-10	S-17	8021
N4995-11	S-18	8021
N4995-12	S-19	8021

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N4995 Part II SVOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N4995-01	SS-9	8270
N4995-02	SS-10	8270
N4995-03	SS-11	8270
N4995-04	SS-12	8270
N4995-05	SS-13	8270
N4995-06	Field Blank	8270

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except internal standard areas for S-11 and S-13.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.



**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N4995 Part III PCBs

Lab Sample #	FEI Sample #	Analysis (Method)
N4995-03	S-11	8082
N4995-04	S-12	8082
N4995-05	S-13	8082
N4995-06	Field Blank	8082

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes.
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N4995 Part V Metals

Lab Sample #	FEI Sample #	Analysis (Method)
N4995-03	S-11	6010, 7471
N4995-04	S-12	6010, 7471
N4995-05	S-13	6010, 7471
N4995-06	Field Blank	6010, 7471

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes.
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on a review of the narrative.
6. Have the correct data qualifiers been used? Yes, based on a review of the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5493LP Part III SVOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N5493-01	MW-3 6.5'-7.5' (soil)	8270
N5493-02	MW-4 8'-9' (soil)	8270
N5493-03	Field Blank	8270

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except internal standard for MW-3.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5446ASP VOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N5446-01	MW-8 7'-7.5' (soil)	8260
N5446-01	MW-6 7'-7.5' (soil)	8260
N5446-01	MW-7 6.5'-7' (soil)	8260

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5493LP Parts I and II VOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N5493-01	MW-3 6.5'-7.5'	8260
N5493-02	MW-4 8'-9'	8260
N5493-03	Field Blank	8260
N5493-04	Trip Blank	8260

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes. Blank contamination (acetone) identified.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5493LP Part V Metals

Lab Sample #	FEI Sample #	Analysis (Method)
N5493-01	MW-3 6.5'-7.5'	6010, 7471
N5493-02	MW-4 8'-9'	6010, 7471
N5493-03	Field Blank	6010, 7471

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5493LP Part V PCBs

Lab Sample #	FEI Sample #	Analysis (Method)
N5493-01	MW-3 6.5'-7.5'	8082
N5493-02	MW-4 8'-9'	8082
N5493-03	Field Blank	8082

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except MS/MSD recovery for arochlor 1260 did not meet requirements.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5516ASP Part II SVOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N5516-01	SS-14 (0-6")	8270
N5516-02	SS-14 (6-12")	8270
N5516-03	SS-15 (0-6")	8270
N5516-04	SS-15 (6-12")	8270
N5516-05	SS-16 (0-6")	8270
N5516-06	SS-16 (6-12")	8270
N5516-07	SS-17 (0-6")	8270
N5516-08	SS-17 (6-12")	8270
N5516-09	SS-18 (0-6")	8270
N5516-10	SS-18 (6-12")	8270
N5516-12	SS-19 (0-6")	8270
N5516-13	SS-19 (6-12")	8270
N5516-14	SS-20 (0-6")	8270
N5516-15	SS-20 (6-12")	8270
N5516-16	SS-21 (0-6")	8270
N5516-15	SS-21 (6-12")	8270

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Surrogate recoveries did not meet requirements except for SS-14 0-6 and 6-12. Internal standards areas met requirements except for SS-20 6-12", SS-15 0-6", SS-17 6-12", SS-17 0-6", SS-15 6-12", SS-21 0-6", SS-18 0-6", SS21-6-12", SS-19 6-12", SS-20 6-12" and SS-21 0-6".
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.



**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5516ASP VOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N5516-04	SS-15 (6"-12")	8260
N5516-06	SS-16 (6"-12")	8260
N5516-10	SS-18 (6"-12")	8260
N5516-14	SS-20 (6"-12")	8260

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? RPDs recovery of 1,1-DCE did not meet requirements. Internal standard for SS-16 outside of standard. Methylene chloride contamination present.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5517ASP VOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N5517-04	SS-23 (6"-12")	8260
N5517-06	SS-24 (6"-12")	8260
N5517-08	SS-25 (6"-12")	8260
N5517-09	MW-9	8260
N5517-10	Field Blank	8260
N5517-11	Trip Blank	8260

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? RPDs recovery of 1,1-DCE did not meet requirements. Internal standard except for SS-25. Methylene chloride and acetone contamination present.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5517ASP Part III SVOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N5517-01	SS-22 (0-6")	8270
N5517-02	SS-22 (6-12")	8270
N5517-03	SS-23 (0-6")	8270
N5517-04	SS-23 (6-12")	8270
N5517-05	SS-24 (0-6")	8270
N5517-06	SS-24 (6-12")	8270
N5517-07	SS-25 (0-6")	8270
N5517-08	SS-25 (6-12")	8270
N5517-09	SS-25 (6-12")	8270
N5517-10	MW-9	8270
N5517-11	Field Blank	8270
N5517-12	BSS-1 (0-6")	8270
N5517-13	BSS-2 (0-6")	8270

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? MS/MSD recovery of 2,4-dinitrotoluene did not meet requirements. Internal standards areas met requirements except for MS/MSD, SS-24 6-12", SS-25 6-12", SS-24 0-6", SS-22 6-12", SS-25 0-6", and SS-22 0-6".
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5524ASP Part II SVOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N5524-01	SS-6 (0-6")	8270
N5524-02	SS-6 (6-12")	8270
N5524-03	SS-7 (0-6")	8270
N5524-04	SS-7 (6-12")	8270
N5524-05	SS-8 (0-6")	8270
N5524-06	SS-8 (6-12")	8270
N5524-07	SS-9 (0-6")	8270
N5524-08	SS-9 (6-12")	8270
N5524-09	SS-10 (0-6")	8270
N5524-10	SS-10 (6-12")	8270
N5524-11	SS-11 (0-6")	8270
N5524-12	SS-11 (6-12")	8270
N5524-13	SS-12 (0-6")	8270
N5524-14	SS-12 (6-12")	8270
N5524-15	SS-13 (0-6")	8270
N5524-16	SS-13 (6-12")	8270

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Surrogate recoveries did not meet requirements for SS-9 6-12 SS-7 6-12, and MS samples 11 6-12, SS-13 0-6 and SS-10. Matrix spike duplicate or 1,2,4-trichlorobenzene and pyrene. RPDs met requirements except for 1,2,4-trichlorobenzene and acenaphthene. Internal standards areas met requirements except for SS-13 6-12", SS-9 0-6", SS-7 6-12", SS-11 6-12", SS-10 0-6", SS-11 0-6", SS-13 6-12", SS-13 0-6", SS-9 6-12", SS-7 0-6" and SS-12MSD.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5524ASP Part III PCBs

Lab Sample #	FEI Sample #	Analysis (Method)
N5524-03	SS-7 0"-6"	8082
N5524-07	SS-9 0"-6"	8082
N5524-11	SS-11 0"-6"	8082
N5524-15	SS-13 6"-12"	8082

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes.
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Provan Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5524ASP Part IV Metals

Lab Sample #	FEI Sample #	Analysis (Method)
N5524-03	SS-7 0"-6"	6010, 7471
N5524-04	SS-7 6"-12"	6010, 7471
N5524-07	SS-9 0"-6"	6010, 7471
N5524-08	SS-9 6"-12"	6010, 7471
N5524-11	SS-11 0"-6"	6010, 7471
N5524-12	SS-11 6"-12"	6010, 7471
N5524-15	SS-13 0"-6"	6010, 7471
N5524-15	SS-13 6"-12"	6010, 7471

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes.
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except serial dilution for potassium did not meet requirements.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

**Project Name:** Former Ford Facility  
**Project #:** PROVA001  
**Laboratory:** Chemtech: NYSDOH Certification No. 11376  
**Laboratory Report #:** N5524ASP VOCs

Lab Sample #	FEI Sample #	Analysis (Method)
N5524-04	SS-7 6"-12"	8260
N5524-08	SS-9 6"-12"	8260
N5524-10	SS-10 6"-12"	8260
N5524-12	SS-11 6"-12"	8260
N5524-14	SS-12 6"-12"	8260
N5524-16	SS-13 6"-12"	8260

1. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables? Yes, based on the narrative.
2. Have all holding times been met? Yes
3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications? Yes, except RPD for 1,1-DCE. Blnak contamination for methylene chloride and 1,1,1-TCA identified.
4. Have all of the data been generated using established and agreed upon analytical protocols? Yes.
5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms? Yes, based on the narrative.
6. Have the correct data qualifiers been used? Yes, based on the narrative.
7. Is any data rejected? If yes, specify. No data was rejected.

Round 14 Soil Disposal Site p1-c

# SOIL TRACKING FORM



TRACKING FORM NO. (GIVEN BY TPS)

DATE OF SHIPMENT 5-2-01	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO. 3746929A	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.
	GENERATOR CONTACT
	GENERATOR FAX NO.      CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.
	CONSULTANT CONTACT
	CONSULTANT FAX NO.      CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.
	SITE CONTACT
	SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO. 0317-163
	TRANSPORTER CONTACT	TRANSPORTER DOT NO.
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> LEAD (TCLP) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> HEAVY METALS (TCLP) <input type="checkbox"/> OTHER (PLEASE LIST):	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

**GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION:** I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS \_\_\_\_\_ (TITLE) OF \_\_\_\_\_ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME <input type="checkbox"/> GENERATOR <input type="checkbox"/> CONSULTANT William J. Hausser	SIGNATURE William J. Hausser	MONTH 8	DATE 2	YEAR 01
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**TRANSPORTER'S CERTIFICATION:** I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME IRC	SIGNATURE James P. D.	MONTH 8	DATE 2	YEAR 01
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TRANSPORTER DISCREPANCY BOX (ANY DISCREPANCIES IN THE TRANSPORTER NAME OR LOCATION, PCS PROCESSING NAME OR LOCATION, OR MATERIAL TESTING OR QUANTITY SHOULD BE NOTED HERE.)

PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
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PROCESSING FACILITY DISCREPANCY BOX (ANY DISCREPANCIES IN ABOVE INFORMATION SHOULD BE NOTED HERE.)

- INSTRUCTIONS**
1. GENERATOR COMPLETES ALL ITEMS IN GENERATOR AND/OR CONSULTANT BOXES, RETAINS COPY #4, AND GIVES REMAINING COPIES TO TRANSPORTER.
  2. TRANSPORTER COMPLETES ALL ITEMS IN TRANSPORTER BOXES, RETAINS COPY #3, AND GIVES REMAINING COPIES TO THE PROCESSING FACILITY.
  3. PROCESSING FACILITY COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.



# SOIL TRACKING FORM

**TPS**  
TECHNOLOGIES INC.

TRACKING FORM NO.  
(GIVEN BY TPS)

*Round 1 Soil Disposal Stockpile*

DATE OF SHIPMENT <b>8.2.01</b>	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO. <b>55039.4V</b>	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.
	GENERATOR CONTACT
	GENERATOR FAX NO.      CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.
	CONSULTANT CONTACT
	CONSULTANT FAX NO.      CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.
	SITE CONTACT
	SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO. <b>3A.165</b>
	TRANSPORTER CONTACT	TRANSPORTER DOT NO.
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> LEAD (TCLP) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> HEAVY METALS (TCLP) <input type="checkbox"/> OTHER (PLEASE LIST):	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION: I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS \_\_\_\_\_ (TITLE) OF \_\_\_\_\_ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME <input checked="" type="checkbox"/> GENERATOR <input type="checkbox"/> CONSULTANT <i>William J. Hansen</i>	SIGNATURE <i>William J. Hansen</i>	MONTH <b>8</b>	DATE <b>2</b>	YEAR <b>01</b>
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TRANSPORTER'S CERTIFICATION: I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME <b>IDC</b>	SIGNATURE <i>Agent IDC</i>	MONTH <b>8</b>	DATE <b>2</b>	YEAR <b>01</b>
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TRANSPORTER DISCREPANCY BOX (ANY DISCREPANCIES IN THE TRANSPORTER NAME OR LOCATION, PCS PROCESSING NAME OR LOCATION, OR MATERIAL TESTING OR QUANTITY SHOULD BE NOTED HERE.)

PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
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PROCESSING FACILITY DISCREPANCY BOX (ANY DISCREPANCIES IN ABOVE INFORMATION SHOULD BE NOTED HERE.)

- INSTRUCTIONS**
1. GENERATOR COMPLETES ALL ITEMS IN GENERATOR AND/OR CONSULTANT BOXES, RETAINS COPY #4, AND GIVES REMAINING COPIES TO TRANSPORTER.
  2. TRANSPORTER COMPLETES ALL ITEMS IN TRANSPORTER BOXES, RETAINS COPY #3, AND GIVES REMAINING COPIES TO THE PROCESSING FACILITY.
  3. PROCESSING FACILITY COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.

Round 74

Soil Disposal  
Stock pile 1 of

# SOIL TRACKING FORM

# TPS

TECHNOLOGIES INC.

TRACKING FORM NO.  
(GIVEN BY TPS)

DATE OF SHIPMENT <i>7/2/01</i>	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO. <i>TW 5416</i>	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.
	GENERATOR CONTACT
	GENERATOR FAX NO.      CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.
	CONSULTANT CONTACT
	CONSULTANT FAX NO.      CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.
	SITE CONTACT
	SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO. <i>NY 3A-165</i>
	TRANSPORTER CONTACT	TRANSPORTER DOT NO. <i>440798</i>
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> LEAD (TCLP) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> HEAVY METALS (TCLP) <input type="checkbox"/> OTHER (PLEASE LIST):	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

**GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION:** I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS \_\_\_\_\_ (TITLE) OF \_\_\_\_\_ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME <input type="checkbox"/> GENERATOR <input type="checkbox"/> CONSULTANT	SIGNATURE	MONTH	DATE	YEAR
<i>William J. Hanson</i>	<i>William J. Hanson</i>	<i>8</i>	<i>2</i>	<i>01</i>

**TRANSPORTER'S CERTIFICATION:** I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
<i>Russell J. Napoli</i>	<i>Russell J. Napoli</i>	<i>8</i>	<i>2</i>	<i>01</i>

TRANSPORTER DISCREPANCY BOX (ANY DISCREPANCIES IN THE TRANSPORTER NAME OR LOCATION, PCS PROCESSING NAME OR LOCATION, OR MATERIAL TESTING OR QUANTITY SHOULD BE NOTED HERE.)

PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR

PROCESSING FACILITY DISCREPANCY BOX (ANY DISCREPANCIES IN ABOVE INFORMATION SHOULD BE NOTED HERE.)

- INSTRUCTIONS**
1. GENERATOR COMPLETES ALL ITEMS IN GENERATOR AND/OR CONSULTANT BOXES, RETAINS COPY #4, AND GIVES REMAINING COPIES TO TRANSPORTER.
  2. TRANSPORTER COMPLETES ALL ITEMS IN TRANSPORTER BOXES, RETAINS COPY #3, AND GIVES REMAINING COPIES TO THE PROCESSING FACILITY.
  3. PROCESSING FACILITY COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.

# SOIL TRACKING FORM

**TPS**  
TECHNOLOGIES INC.

TRACKING FORM NO.  
(GIVEN BY TPS)

DATE OF SHIPMENT <i>8-2-01</i>	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO. <i>2749691A</i>	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.
	GENERATOR CONTACT
	GENERATOR FAX NO.      CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.
	CONSULTANT CONTACT
	CONSULTANT FAX NO.      CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.
	SITE CONTACT
	SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO. <i>3A-</i>
	TRANSPORTER CONTACT	TRANSPORTER DOT NO.
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> LEAD (TCLP) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> HEAVY METALS (TCLP) <input type="checkbox"/> OTHER (PLEASE LIST):	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION: I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS \_\_\_\_\_ (TITLE) OF \_\_\_\_\_ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME <input checked="" type="checkbox"/> GENERATOR <input type="checkbox"/> CONSULTANT	SIGNATURE <i>William J. Hauser</i>	MONTH <i>8</i>	DATE <i>2</i>	YEAR <i>01</i>
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TRANSPORTER'S CERTIFICATION: I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME <i>JDC</i>	SIGNATURE <i>[Signature]</i>	MONTH <i>8</i>	DATE <i>2</i>	YEAR <i>01</i>
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TRANSPORTER DISCREPANCY BOX (ANY DISCREPANCIES IN THE TRANSPORTER NAME OR LOCATION, PCS PROCESSING NAME OR LOCATION, OR MATERIAL TESTING OR QUANTITY SHOULD BE NOTED HERE.)

PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
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PROCESSING FACILITY DISCREPANCY BOX (ANY DISCREPANCIES IN ABOVE INFORMATION SHOULD BE NOTED HERE.)

- INSTRUCTIONS**
1. GENERATOR COMPLETES ALL ITEMS IN GENERATOR AND/OR CONSULTANT BOXES, RETAINS COPY #4, AND GIVES REMAINING COPIES TO TRANSPORTER.
  2. TRANSPORTER COMPLETES ALL ITEMS IN TRANSPORTER BOXES, RETAINS COPY #3, AND GIVES REMAINING COPIES TO THE PROCESSING FACILITY.
  3. PROCESSING FACILITY COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.

# SOIL TRACKING FORM

# TPS

TECHNOLOGIES INC.

TRACKING FORM NO.  
(GIVEN BY TPS)

DATE OF SHIPMENT <i>2/2/01</i>	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO. <i>TW 5416</i>	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.
	GENERATOR CONTACT
	GENERATOR FAX NO.      CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.
	CONSULTANT CONTACT
	CONSULTANT FAX NO.      CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.
	SITE CONTACT
	SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO. <i>NY 3A-165</i>
	TRANSPORTER CONTACT	TRANSPORTER DOT NO. <i>646798</i>
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> LEAD (TCLP) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> HEAVY METALS (TCLP) <input type="checkbox"/> OTHER (PLEASE LIST):	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION: I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS \_\_\_\_\_ (TITLE) OF \_\_\_\_\_ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME <input checked="" type="checkbox"/> GENERATOR <input type="checkbox"/> CONSULTANT <i>William J. Hauser</i>	SIGNATURE <i>William J. Hauser</i>	MONTH <i>8</i>	DATE <i>02</i>	YEAR <i>01</i>
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TRANSPORTER'S CERTIFICATION: I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME <i>William J. Hauser</i>	SIGNATURE <i>William J. Hauser</i>	MONTH <i>8</i>	DATE <i>02</i>	YEAR <i>01</i>
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TRANSPORTER DISCREPANCY BOX (ANY DISCREPANCIES IN THE TRANSPORTER NAME OR LOCATION, PCS PROCESSING NAME OR LOCATION, OR MATERIAL TESTING OR QUANTITY SHOULD BE NOTED HERE.)

PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR

PROCESSING FACILITY DISCREPANCY BOX (ANY DISCREPANCIES IN ABOVE INFORMATION SHOULD BE NOTED HERE.)

- INSTRUCTIONS**
1. GENERATOR COMPLETES ALL ITEMS IN GENERATOR AND/OR CONSULTANT BOXES, RETAINS COPY #4, AND GIVES REMAINING COPIES TO TRANSPORTER.
  2. TRANSPORTER COMPLETES ALL ITEMS IN TRANSPORTER BOXES, RETAINS COPY #3, AND GIVES REMAINING COPIES TO THE PROCESSING FACILITY.
  3. PROCESSING FACILITY COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.

# SOIL TRACKING FORM

# TPS

TECHNOLOGIES INC.

TRACKING FORM NO.  
(GIVEN BY TPS)

DATE OF SHIPMENT <b>8.02.01</b>	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO. <b>TW5416</b>	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.
	GENERATOR CONTACT
	GENERATOR FAX NO.      CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.
	CONSULTANT CONTACT
	CONSULTANT FAX NO.      CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.
	SITE CONTACT
	SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO. <b>NY 3A-165</b>
	TRANSPORTER CONTACT	TRANSPORTER DOT NO. <b>440798</b>
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> LEAD (TCLP) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> HEAVY METALS (TCLP) <input type="checkbox"/> OTHER (PLEASE LIST):	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

**GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION:** I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS \_\_\_\_\_ (TITLE) OF \_\_\_\_\_ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME <input checked="" type="checkbox"/> GENERATOR <input type="checkbox"/> CONSULTANT	SIGNATURE	MONTH	DATE	YEAR
<i>William T. Hansen</i>	<i>William T. Hansen</i>	8	02	01

**TRANSPORTER'S CERTIFICATION:** I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
<i>Russell S. Napoli</i>	<i>Russell S. Napoli</i>	8	02	01

TRANSPORTER DISCREPANCY BOX (ANY DISCREPANCIES IN THE TRANSPORTER NAME OR LOCATION, PCS PROCESSING NAME OR LOCATION, OR MATERIAL TESTING OR QUANTITY SHOULD BE NOTED HERE.)

PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR

PROCESSING FACILITY DISCREPANCY BOX (ANY DISCREPANCIES IN ABOVE INFORMATION SHOULD BE NOTED HERE.)

- INSTRUCTIONS**
1. GENERATOR COMPLETES ALL ITEMS IN GENERATOR AND/OR CONSULTANT BOXES, RETAINS COPY #4, AND GIVES REMAINING COPIES TO TRANSPORTER.
  2. TRANSPORTER COMPLETES ALL ITEMS IN TRANSPORTER BOXES, RETAINS COPY #3, AND GIVES REMAINING COPIES TO THE PROCESSING FACILITY.
  3. PROCESSING FACILITY COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.

# SOIL TRACKING FORM

# TPS

TECHNOLOGIES INC.

TRACKING FORM NO.  
(GIVEN BY TPS)

DATE OF SHIPMENT <i>8.02.01</i>	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO. <i>874969-A</i>	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.	
	GENERATOR CONTACT	
	GENERATOR FAX NO.	CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.	
	CONSULTANT CONTACT	
	CONSULTANT FAX NO.	CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.	
	SITE CONTACT	
	SITE FAX NUMBER	

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO. <i>3A 161</i>
	TRANSPORTER CONTACT	TRANSPORTER DOT NO.
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> OTHER (PLEASE LIST):	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)	
	<input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TCLP)				
	<input type="checkbox"/> HEAVY METALS (TCLP)				

**GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION:** I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS \_\_\_\_\_ (TITLE) OF \_\_\_\_\_ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME <input type="checkbox"/> GENERATOR <input type="checkbox"/> CONSULTANT	SIGNATURE	MONTH	DATE	YEAR
<i>[Signature]</i>	<i>[Signature]</i>	<i>8</i>	<i>02</i>	<i>01</i>

**TRANSPORTER'S CERTIFICATION:** I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
<i>JDC</i>	<i>[Signature]</i>	<i>8</i>	<i>02</i>	<i>01</i>

TRANSPORTER DISCREPANCY BOX (ANY DISCREPANCIES IN THE TRANSPORTER NAME OR LOCATION, PCS PROCESSING NAME OR LOCATION, OR MATERIAL TESTING OR QUANTITY SHOULD BE NOTED HERE.)

PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR

PROCESSING FACILITY DISCREPANCY BOX (ANY DISCREPANCIES IN ABOVE INFORMATION SHOULD BE NOTED HERE.)

- INSTRUCTIONS**
1. GENERATOR COMPLETES ALL ITEMS IN GENERATOR AND/OR CONSULTANT BOXES, RETAINS COPY #4, AND GIVES REMAINING COPIES TO TRANSPORTER.
  2. TRANSPORTER COMPLETES ALL ITEMS IN TRANSPORTER BOXES, RETAINS COPY #3, AND GIVES REMAINING COPIES TO THE PROCESSING FACILITY.
  3. PROCESSING FACILITY COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.

GENERATOR/CONSULTANT COPY



# SOIL TRACKING FORM

# TPS

TECHNOLOGIES INC.

TRACKING FORM NO.  
(GIVEN BY TPS)

DATE OF SHIPMENT 8 02 01	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO. 35 10	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.
	GENERATOR CONTACT
	GENERATOR FAX NO.      CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.
	CONSULTANT CONTACT
	CONSULTANT FAX NO.      CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.
	SITE CONTACT
	SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO. 34 165
	TRANSPORTER CONTACT	TRANSPORTER DOT NO. 440798
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> LEAD (TCLP) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> HEAVY METALS (TCLP) <input type="checkbox"/> OTHER (PLEASE LIST):	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION: I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS \_\_\_\_\_ (TITLE) OF \_\_\_\_\_ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME <input checked="" type="checkbox"/> GENERATOR <input type="checkbox"/> CONSULTANT William J. Anusca	SIGNATURE William J. Anusca	MONTH 8	DATE 02	YEAR 01
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TRANSPORTER'S CERTIFICATION: I ACKNOWLEDGE RECEIPT OF THE SOIL DESCRIBED ABOVE AND CERTIFY THAT SUCH SOIL IS BEING DELIVERED IN EXACTLY THE SAME CONDITION AS WHEN RECEIVED. I FURTHER CERTIFY THAT THIS SOIL IS BEING DIRECTLY TRANSPORTED FROM THE GENERATION SITE TO THE PCS PROCESSING FACILITY WITHOUT OFF-LOADING, ADDING TO, SUBTRACTING FROM OR IN ANY WAY DELAYING DELIVERY TO SUCH SITE.

PRINT OR TYPE NAME Russell S. Napoli	SIGNATURE Russell S. Napoli	MONTH 8	DATE 02	YEAR 01
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TRANSPORTER DISCREPANCY BOX (ANY DISCREPANCIES IN THE TRANSPORTER NAME OR LOCATION, PCS PROCESSING NAME OR LOCATION, OR MATERIAL TESTING OR QUANTITY SHOULD BE NOTED HERE.)

PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR

PROCESSING FACILITY DISCREPANCY BOX (ANY DISCREPANCIES IN ABOVE INFORMATION SHOULD BE NOTED HERE.)

- INSTRUCTIONS**
1. GENERATOR COMPLETES ALL ITEMS IN GENERATOR AND/OR CONSULTANT BOXES, RETAINS COPY #4, AND GIVES REMAINING COPIES TO TRANSPORTER.
  2. TRANSPORTER COMPLETES ALL ITEMS IN TRANSPORTER BOXES, RETAINS COPY #3, AND GIVES REMAINING COPIES TO THE PROCESSING FACILITY.
  3. PROCESSING FACILITY COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.



# SOIL TRACKING FORM

# TPS

TECHNOLOGIES INC.

TRACKING FORM NO.  
(GIVEN BY TPS)

DATE OF SHIPMENT <i>02-02-01</i>	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO. <i>2749L9A</i>	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.
	GENERATOR CONTACT
	GENERATOR FAX NO.      CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.
	CONSULTANT CONTACT
	CONSULTANT FAX NO.      CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.
	SITE CONTACT
	SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO.
	TRANSPORTER CONTACT	<i>317-168</i> TRANSPORTER DOT NO.
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> LEAD (TCLP) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> HEAVY METALS (TCLP) <input type="checkbox"/> OTHER (PLEASE LIST)	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

**GENERATOR'S AND/OR CONSULTANT'S CERTIFICATION:** I CERTIFY THAT THE SOIL REFERENCED HEREIN IS TAKEN ENTIRELY FROM THOSE SOILS DESCRIBED IN THE GENERATOR WASTE PROFILE SHEET COMPLETED AND CERTIFIED BY ME FOR THE GENERATION SITE SHOWN ABOVE AND NOTHING HAS BEEN ADDED OR DONE TO SUCH SOIL THAT WOULD ALTER IT IN ANY WAY. I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT INFORMATION PROVIDED ON THIS DOCUMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE THE AUTHORITY AS \_\_\_\_\_ (TITLE) OF \_\_\_\_\_ (ENTITY) TO SIGN THIS TRACKING DOCUMENT PURSUANT TO 6 NYCRR PART 360. I AM AWARE THAT ANY FALSE STATEMENT MADE HEREIN IS PUNISHABLE AS A CLASS A MISDEMEANOR PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

PRINT OR TYPE NAME <input checked="" type="checkbox"/> GENERATOR <input type="checkbox"/> CONSULTANT	SIGNATURE <i>William T. Hauser</i>	MONTH <i>2</i>	DATE <i>02</i>	YEAR <i>01</i>
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PRINT OR TYPE NAME <i>LR</i>	SIGNATURE <i>[Signature]</i>	MONTH <i>3</i>	DATE <i>02</i>	YEAR <i>01</i>
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PCS PROCESSING FACILITY CERTIFIES THE RECEIPT OF THE SOIL COVERED BY THIS SOIL TRACKING FORM EXCEPT AS NOTED BELOW.

PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
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 3. PROCESSING FACILITY COMPLETES ALL ITEMS IN PROCESSING FACILITY BOXES, RETAINS COPY #2, AND RETURNS COPY #1 TO THE GENERATOR WITHIN TWO (2) WEEKS.

# SOIL TRACKING FORM

# TPS

TECHNOLOGIES INC.

TRACKING FORM NO.  
(GIVEN BY TPS)

DATE OF SHIPMENT <i>8/2/01</i>	RESPONSIBLE FOR PAYMENT	PART 364 VEHICLE PLATE NO.	FACILITY NO.	JOB NO.	LOAD NO.
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GENERATOR NAME AND BILLING ADDRESS	GENERATOR PHONE NO.
	GENERATOR CONTACT
	GENERATOR FAX NO.      CUSTOMER ACCT. NO. WITH TPS

CONSULTANT NAME AND BILLING ADDRESS	CONSULTANT PHONE NO.
	CONSULTANT CONTACT
	CONSULTANT FAX NO.      CUSTOMER ACCT. NO. WITH TPS

GENERATION SITE (TRANSPORT FROM) NAME AND ADDRESS	SITE PHONE NO.
	SITE CONTACT
	SITE FAX NUMBER

PCS PROCESSING FACILITY (TRANSPORT TO) NAME AND ADDRESS	FACILITY PHONE NO.	PART 360 PERMIT NO.
	FACILITY CONTACT	
	FACILITY FAX NO.	

TRANSPORTER NAME AND ADDRESS	TRANSPORTER PHONE NO.	TRANSPORTER PART 364 PERMIT NO. <i>3A-165</i>
	TRANSPORTER CONTACT	TRANSPORTER DOT NO.
	TRANSPORTER FAX NO.	CUSTOMER ACCT. NO. WITH TPS

<b>MATERIAL TESTING</b> (CHECK APPROPRIATE BOXES FOR TESTS CONDUCTED) <input type="checkbox"/> TOTAL PETROLEUM HYDROCARBONS <input type="checkbox"/> BENZENE (TOTAL) <input type="checkbox"/> BENZENE (TCLP) <input type="checkbox"/> LEAD (TOTAL) <input type="checkbox"/> LEAD (TCLP) <input type="checkbox"/> BENZENE/TOLUENE/ETHYL BENZENE/XYLENE <input type="checkbox"/> METHYL T-BUTYL ETHER (MTBE) <input type="checkbox"/> HALOGENATED VOLATILE ORGANICS <input type="checkbox"/> HEAVY METALS (TOTAL) <input type="checkbox"/> HEAVY METALS (TCLP) <input type="checkbox"/> OTHER (PLEASE LIST)	DESCRIPTION OF DELIVERY	GROSS WEIGHT (TONS)	TARE WEIGHT (TONS)	NET WEIGHT (TONS)

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PRINT OR TYPE NAME <i>William J. Hanson</i>	SIGNATURE <i>William J. Hanson</i>	MONTH <i>8</i>	DATE <i>02</i>	YEAR <i>01</i>
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PRINT OR TYPE NAME <i>Agent</i>	SIGNATURE <i>[Signature]</i>	MONTH <i>8</i>	DATE <i>02</i>	YEAR <i>01</i>
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PRINT OR TYPE NAME	SIGNATURE	MONTH	DATE	YEAR
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FIGURES

- 1 Site Location Map
- 2 Site Plan

## INTRODUCTION

First Environment, Inc. (First Environment) has prepared this Qualitative Human Health Exposure Assessment (Health Assessment) for the Former Provan Ford Facility on behalf of the City of Newburgh. This Health Assessment has been prepared in accordance with New York State Department of Health guidelines as detailed in Appendix 3B of the NYSDEC's Draft DER-10 Technical Guidance for Site Investigation and Remediation and guidance document prepared by the New York State Department of Health (NYDOH).

As detailed in the above-referenced guidance document, a Health Assessment is conducted by characterizing site conditions to evaluate whether a site poses an existing or potential hazard to the exposed or potentially exposed populations. Site conditions are evaluated including the presence of contaminants in various media both on-site and off-site and potential transport mechanisms. Potential exposure requires the examination of five criteria: contaminant source, contaminant release and transport, a point of exposure, a route of exposure, and a receptor population.

Based on the soil and groundwater investigation conducted to date, it has been determined that soil and groundwater at the Former Provan Ford Facility in Newburgh, New York has been impacted to levels that exceed State regulatory standards. The site investigation and remediation work has been completed as part of the municipal assistance environmental restoration projects "Brownfields Project." The subject site has been assigned Environmental Restoration Project No. B00127-3 by the New York State Department of Environmental Conservation (NYSDEC).

## CHARACTERIZATION OF EXPOSURE SETTING

### PHYSICAL ENVIRONMENT

The Provan site is located at 146-172 Mill Street in the City of Newburgh, Orange County, New York (Figure 1). The site is approximately 3.5 acres in area and gently slopes to the southeast. The majority of the site is concrete or asphalt-paved, while some areas are gravel covered. The northwest end of the property is largely covered with earthen fill and vegetation. The site is located approximately 130 feet above mean sea level and slopes to the southeast towards Quassiac Creek which is approximately one-eighth of a mile southeast of the site.

The main structure onsite, the location of the former Provan Ford operations, consists of a slab-on-grade brick and concrete block building with a footprint of approximately 18,000 square feet. The building had reportedly been used primarily for garage and storage space since the 1940s but is now vacant. The building is currently boarded up and has not been occupied for several years.

The site is located in a mixed-use area of commercial and residential parcels. To the north of the site is Dickson Street with a vacant brick warehouse/light manufacturing building. To the east of the site is Mill Street, and on the other side of Mill street are residences and commercial properties including an automotive repair building currently occupied by Gary's Truck Repair, a former tenant of the subject site. To the south of the site is the Ridgewood Corporation Plumbing, Heating and Cooling. The west of the site is bound by Deyo Place and Robinson Street (Route 9W) beyond which are commercial businesses. Adjacent to the site to the northwest is a railroad spur, beyond which is a Dairy Cone Ice Cream Store and a warehouse/commercial building occupied by Visconte Limousines, Inc.

The former Provan site lies within the Valley and Ridge Physiographic Province. The predominant features associated with this province are narrow valleys and ridges formed as a result of differential erosion of the underlying sandstone and shale formations. Specifically, the Newburgh area is characterized by alluvial deposits underlain by meta-sedimentary and sedimentary bedrock formations.

Alluvium in the area is comprised of flood plain sediments (sand, silt and clay) associated with the Hudson River. Glacial deposition in the area consists primarily of till and unsorted outwash.

The outwash is predominantly a mixture of gravel, sand, silt and clay. The bedrock underlying this region consists of middle Ordovician Taconian Sequence, which is composed primarily of shale and graywacke. Based on observations during monitoring well installation, the site is underlain by approximately zero to seven feet of fill consisting primarily of sand, silt, and gravel with traces of building debris. Underlying the fill are naturally-occurring alternating layers of sand and silt with discontinuous clay or silt layers identified at several locations. Bedrock (graywacke) was encountered during the installation of the four bedrock monitoring wells (MW-3D, MW-6D, MW-10D and MW-11D) at depths of approximately 47 to 50 feet.

Regional groundwater occurs in both overburden and bedrock in confined or unconfined conditions. Regional groundwater flow in the Newburgh area is to the east, towards the Hudson River. Based on observations made during the site investigation, groundwater occurs at the site at depths ranging from approximately 6 to 15 feet, depending on topography and seasonal variations. Based on groundwater elevations, groundwater in the bedrock aquifer also flows to the southeast. As identified in a water well survey that was conducted as part of this investigation, no supply or domestic wells were identified in the immediate vicinity of the site.

## EXPOSURE PATHWAYS

### CONTAMINANT SOURCES

Three contaminant source areas were identified onsite. The three contaminant source areas consist of a truck wash rack, two waste water/waste oil underground storage tanks (USTs), and three petroleum USTs as shown on Figure 2.

The wash rack was the site of tanker truck washing which is suspected to have included the use of chlorinated solvents. Two 5,000-gallon waste oil tanks were removed in 2001. Three petroleum USTs consisting of 4,000 and 10,000-gallon gasoline USTs and a 20,000-gallon diesel fuel UST were also removed in 2001.

### CONTAMINANT RELEASE AND TRANSPORT MECHANISMS

#### WASH RACK

Contaminant release from the truck wash rack is believed to have occurred through a drain at the south end of the wash rack. Soil sampling conducted in the vicinity of the drain at borings GB-4, GB-5 and GB-6 identified the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene and xylenes (BTEX) and 1,1,1-trichloroethane (1,1,1-TCA) above the recommended soil cleanup objectives (RSCOs).

Groundwater underlying the wash rack was identified to be impacted with BTEX and chlorinated VOCs, most notably cis-1, 2 dichloroethene (cis-1, 2 DCE) and 1,1,1-TCA. Floating oil was observed at PZ-7 and MW-9. The underlying intermediate aquifer is impacted with VOCs, primarily chlorinated VOCs cis-1, 2 DCE and 1,1,1-TCA at MW-10I. The underlying bedrock aquifer is not impacted as evident by the sampling of MW-10D.

#### TWO 5,000-GALLON WASTE OIL TANKS

The two 5,000-gallon waste oil USTs were each observed to have numerous holes during their removal in 2001. Soil observed to be petroleum impacted, adjacent and underlying the former USTs, was excavated during the UST removal activities. Sampling of soils remaining in this area identified various VOCs above the RSCOs, specifically BTEX and the chlorinated VOCs



trichloroethene (TCE) and tetrachloroethene (PCE). Based on soil sampling conducted in August 2003, the vertical extent of VOC-impacted soils was defined to be primarily from 8 to 15 feet below grade as observed at borings GB-18 and GB-19.

Groundwater in the water table aquifer underlying the former waste oil tanks at MW-3 has been identified as impacted with floating oil, VOCs BTEX, and chlorinated VOCs including TCE, PCE, cis-1, 2-DCE and 1,1,1-TCA. The underlying intermediate aquifer has been identified as being impacted primarily with the same chlorinated VOCs identified at MW-3I and to a lesser extent at downgradient locations MW-6I and MW-11I. Sampling of bedrock wells MW-3D, MW-6D and MW-11D have verified that there have been no impacts to this aquifer.

### PETROLEUM USTS

Three USTs consisting of a 4,000-gallon gasoline, 10,000-gallon gasoline and 20,000-diesel were each observed to have numerous holes during their removal in 2001. Soil observed to be petroleum impacted, adjacent to and underlying the former USTs, was excavated during the UST removal activities. Post excavation sampling of soils in this area identified BTEX remaining above the RSCOs. Subsequent sampling conducted in August 2003 has largely delineated the extent of soil impacts to the area around the former tank excavations.

Groundwater in the water table aquifer underlying the former petroleum tanks has been identified as being impacted with BTEX at MW-5 and MW-7, and to a lesser extent with chlorinated VOCs as identified at MW-8. The chlorinated VOCs are suspected to be from an upgradient source area, either the wash rack or the waste oil tanks. Free-phase petroleum product (i.e., floating oil) has been identified in the area of the three petroleum USTs.

### POINT OF EXPOSURE

According to NYSDEC guidance, the point of exposure refers to the location where actual or potential human contact with a contaminated medium may occur.

Contaminants identified at the site have generally been present at some depth. Therefore, the actual points of exposure are limited. Under normal circumstances there is no opportunity for exposure to impacted soil or groundwater. The exception would be during intrusive activities,

specifically, excavation activities related to remediation or site redevelopment. This would involve the areas of the wash rack, waste oil tanks and petroleum tanks, discussed above, as well as impacted downgradient areas. Typically this would require excavation to the water table or below, generally 6 to 12 feet below grade.

The presence of VOCs in shallow groundwater presents the potential for off-gassing to overlying occupied areas. In addition to the three source areas discussed above, there is potential for off-gassing from VOC-impacted groundwater in the southeast corner of the site, as well as off-site areas not yet fully delineated. Based on a soil gas survey conducted, VOCs detected in soil gas include BTEX, TCE, cis-1, 2 DCE, 1,1,1-TCA, vinyl chloride, hexane, cyclohexane, heptane and acetone.

### ROUTE OF EXPOSURE

Route of exposure refers to the manner in which a contaminant can come in contact with or actually enter the body. Potential points of exposure for contaminants include ingestion, inhalation, and adsorption through direct contact.

Ingestion or dermal contact with impacted soil or groundwater is extremely unlikely to occur. Based on a well search conducted as part of the site assessment, no potable wells were identified in the vicinity of the site, minimizing the potential for ingestion of impacted groundwater. Soils significantly impacted with contaminants are only present at depth; therefore, ingestion of soils by children is highly unlikely excluding minor impacts observed in background areas. The only plausible identified route of exposure for ingestion or dermal contact with impacted soil or groundwater would be the incidental exposure by construction workers during site remediation and/or redevelopment activities.

Inhalation exposure to contaminants is a possibility for the site and adjacent downgradient areas due to off-gassing from VOC-impacted groundwater. As discussed above, a number of VOCs were detected in soil gas samples collected onsite. In the event that these VOCs were to off-gassed into an overlying structure, the vapor intrusion and collection within an enclosed structure could provide a route for inhalation exposure.

Although the building onsite is not currently occupied, if it or a future building constructed on the same location was occupied, there could be potential exposure to vapor intrusion; provided protective measures are not implemented. Based on the detection of VOCs in nearby soil gas samples, the building immediately south of the site (Ridgewood Plumbing and Heating) was evaluated for potential vapor intrusion during field sampling activities. Ambient air samples were collected within the Ridgewood warehouse, A1 and A3. Samples A1 were taken over a period of approximately four hours using SUMA canisters, while sample A3 was also collected within the warehouse as a grab sample using a tedlar bag and sample pump. The ambient sample A1 detected a total of 108 ppbv (part per billion by volume) of VOCs, including some identified in soil gas sample SG-4A, as well as others such as methyl ethyl ketone (MEK) which has never been detected at the Provan site in soil, water, or soil gas. The ambient sample A3 contained 2,709 ppbv although it was almost entirely hexane, cyclohexane, and heptane. The detections at A3 are suspected to be related to cross contamination from the earlier sampling of SG-16A, as these analytes were not observed at these levels in the more representative four-hour sample, A1. In any case, the values detected at A3 were evaluated at this time as a potential exposure level. Additional compounds detected in sample A1 and/or A3 include benzene, toluene, ethylbenzene, xylenes, cis- 1,2 DCE, styrene, tetrahydrofuran, acetone, and propanol. All detected compounds were each below their respective OSHA permissible exposure limit (PEL) and the NIOSH recommended exposure limit (REL). The PELs and RELs were used for comparison as the Ridgewood Plumbing and Heating Facility is a place of work rather than a residence, therefore, hours of operation would be relevant to the PELs and RELs. It is important to note that no TCE, PCE or 1,1,1-TCA were detected in either sample.

### RECEPTOR POPULATION

The receptor population is defined by the NYSDEC as the people who are or may be exposed to contaminants at a point of exposure.

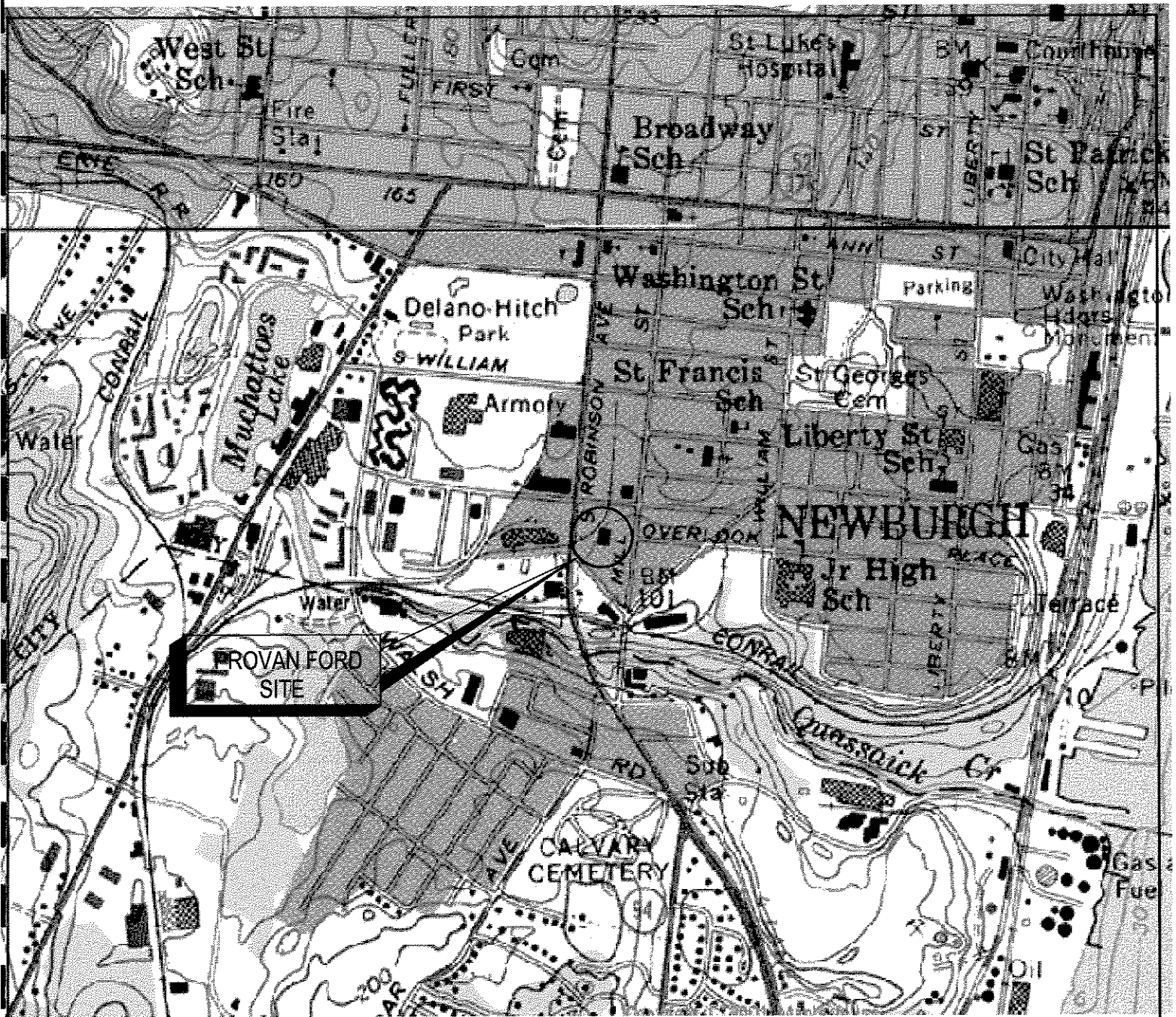
The receptor population onsite would consist of workers conducting remediation or redevelopment activities, or workers at a future business on the site. It is anticipated that future use of the site will not be residential and, in fact, a deed restriction prohibiting future residential use is anticipated as part of the site remedy.

Off-site receptor populations could include workers at adjacent downgradient facilities, most notably Ridgewood Plumbing and Heating immediately south of the site. Based on the ambient air samples collected, there is a potential for exposure although measured concentrations are below accepted occupational exposure levels.

## CONCLUSIONS AND RECOMMENDATIONS

Based on site investigation activities conducted to date, soil and groundwater impacts have been identified on site beyond NYSDEC guidance values. Based on detections of VOCs in groundwater at the downgradient end of the site, VOC-impacted groundwater is likely migrating offsite. Extensive site remediation is anticipated as part of site redevelopment. Based on a review of exposure scenarios, no population is currently being exposed to unacceptable levels of contaminants. However, several areas have been identified that warrant further evaluation along with measures to mitigate exposures as follows:

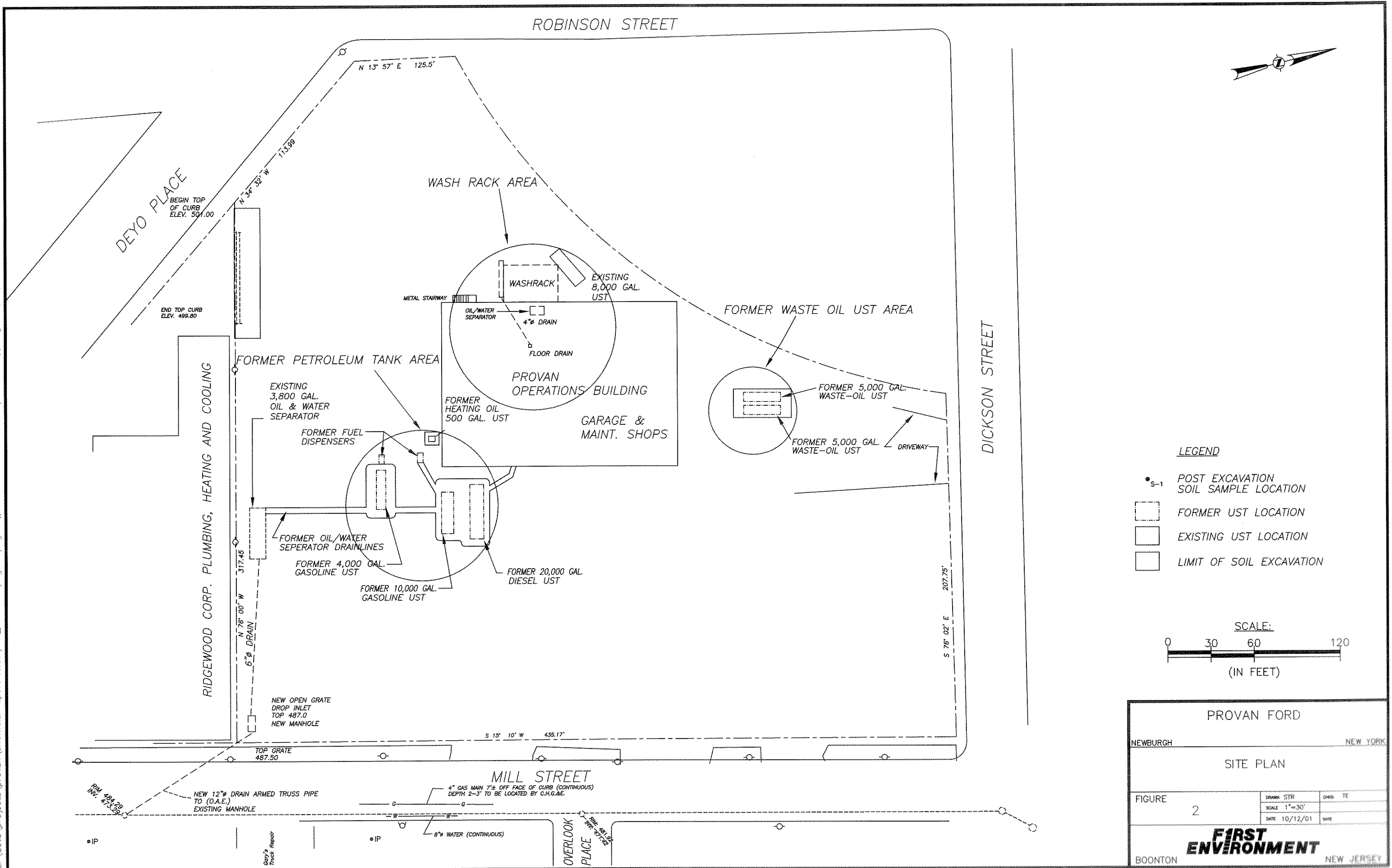
- The presence of VOC-impacted soils and groundwater onsite present the potential for direct exposure to future remediation or redevelopment workers onsite in the event of excavation to or below the water table.
- The presence of VOCs in shallow groundwater and soil gas onsite indicates a potential for off-gassing and vapor intrusion into the existing or future buildings onsite, resulting in potential exposure.
- Based on current ambient air sampling of the adjacent Ridgewood Plumbing and Heating facility, there is potential for inhalation exposure to VOCs through vapor intrusion. Ambient air concentrations measured within the Ridgewood Plumbing and Heating are well below regulatory limits but should be monitored in the future to verify acceptable conditions in the future.



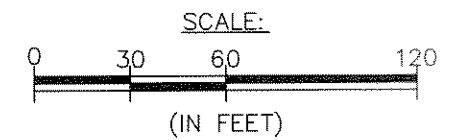
NEWBURGH AND CORNWALL USGS  
 7.5 MIN QUADRANGLES  
 1:24,000, NA DATUM 1927  
 DATED 1957, PHOTO REVISED 1981

FIGURE 1  
 SITE LOCATION MAP  
 FORMER PROVAN  
 FORD FACILITY  
 NEWBURGH, NEW YORK

C:\data\projects\provan\unofficial report folder\06\_04 SIRAR\figures\fig 2 (post excavation soil sample loc map).dwg 06/07/2004 10:45:09 AM EST



- LEGEND**
- S-1 POST EXCAVATION SOIL SAMPLE LOCATION
  - FORMER UST LOCATION
  - EXISTING UST LOCATION
  - LIMIT OF SOIL EXCAVATION



PROVAN FORD			
NEWBURGH		NEW YORK	
SITE PLAN			
FIGURE	2	DESIGN STR	DRAWN BY
		SCALE 1"=30'	DATE 10/12/01
<b>FIRST ENVIRONMENT</b>			
BOONTON		NEW JERSEY	