

**Focused Remedial Investigation Work Plan  
Former Munsey Cleaners Site  
1029 Port Washington Blvd.  
Port Washington, New York**

**March 2000**

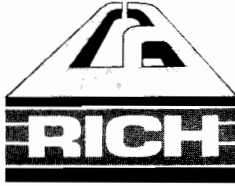
**Prepared for:**

**NYSDEC  
SUNY Building 40  
Stony Brook, New York 11790**

**Attn: Vivek Nattanmai, P.E.**

**Prepared by:**

**CA Rich Consultants, Inc.  
17 Dupont Street  
Plainview, New York**



**CA RICH CONSULTANTS, INC.**

CERTIFIED GROUND-WATER AND  
ENVIRONMENTAL SPECIALISTS

March 10, 2000

**NYSDEC**

Division of Hazardous Waste Remediation  
50 Wolf Road  
Albany, New York 12233-7010

Attention: Vivek Nattanmai, P.E

Re: **Focused Remedial Investigation Work Plan  
Former Munsey Cleaners Site  
1029 Port Washington Blvd.  
Port Washington, New York  
NYSDEC Site No.: 130081**

Dear Mr. Nattanmai:

Attached is our Focused Remedial Investigation (R.I.) Work Plan for the above referenced site. If there are any questions regarding this Work Plan, please do not hesitate to call the undersigned.

Sincerely,

**CA RICH CONSULTANTS, INC.**

A handwritten signature in black ink, appearing to read 'Eric Weinstock', written in a cursive style.

Eric A. Weinstock  
Associate

cc: P. Monfort  
T. Firetog, Esq.  
R. Masters, Esq.  
R. Johnston  
J. Hogan  
G. Carlson  
A. Tamuno, Esq.  
R. Cowen

**Focused Remedial Investigation Work Plan  
Former Munsey Cleaners Site  
1029 Port Washington Blvd.  
Port Washington, New York**

**Executive Summary**

**1.0 Introduction**

The following Focused Remedial Investigation (F.R.I.) Work Plan has been prepared on behalf of the Monfort Trusts to gather hydrogeologic data underlying and surrounding the Former Munsey Cleaners Site (*the "Site"*) in Port Washington, New York (Figure 1). The Site, shown on Figure 2, is currently classified by the New York State Department of Environmental Conservation as a Class 2 Inactive Hazardous Waste Disposal Site (Site #130081) due to the presence of chlorinated volatile organic compounds (VOCs) in the underlying groundwater, such as tetrachloroethene (*a.k.a. perchloroethylene or PCE, a common dry cleaning solvent*) and PCE degradation products (e.g. trichloroethylene).

The goal of this Focused Remedial Investigation Work Plan is to determine the depth and flow direction of the shallow groundwater below and around the Site. Determination of the detailed areal extent of groundwater contamination is beyond the scope of this phase of work. The Remedial Investigation (R.I.) will consist of the installation and development of two (2) off-site groundwater monitoring wells and one (1) on-site multi-depth well cluster, followed by the collection and chemical analyses of groundwater samples. The information obtained will then be used to determine the need for additional monitoring well locations, if any, that will be used to assess the potential presence of additional PCE source areas in Port Washington, other than the Munsey Site.

The term "Focused" is used herein to indicate that the investigation will be limited areally to the well locations shown on Figure 3 and limited in depth from the shallow water table aquifer (i.e. Upper Glacial) down to the top of the underlying clay layer known as the Port Washington Confining Unit. The top of the Port Washington Confining Unit is shown in USGS publications to be located at a depth of approximately 25 feet below mean sea level (est. 150 feet below grade near the Site).

For the purposes of this Focused R.I., the contaminants of concern are perchloroethylene and PCE degradation products such as trichloroethene, dichloroethene, and vinyl chloride (TCE, DCE, and VC).

## **2.0 Site Background and Physical Setting**

### **2.1 Site History**

The Former Munsey Cleaners Site is a former dry cleaning facility located at 1029 Port Washington Boulevard in Port Washington, New York (see Figure 1). According to records at the Town of North Hempstead Buildings Department, the Site was constructed in 1949 and has always been used as a dry cleaning establishment except during periods of unoccupancy. Darien Cleaners occupied the Site from about 1950 until 1978. Munsey Cleaners then occupied the Site from about 1978 until 1995 when they relocated to another space in the shopping plaza at 1005 Port Washington Blvd. The Site has been vacant since 1995 and all dry cleaning equipment has been removed.

### **2.2 Physical Layout of Buildings**

The former Munsey Cleaners Site is situated at the southeast corner of the intersection of Port Washington Boulevard and Main Street in a one-story retail-shopping plaza (see Figure 2). The shopping center itself encompasses about 3 acres with an approximate 40,000 square foot U-shaped masonry building constructed on poured concrete foundation walls with a full basement. The shopping center fronts along Port Washington Boulevard, the north end of the building terminates along Main Street, and paved parking and driveway areas are located in the rear. The former dry cleaning facility previously encompassed approximately 4,200 square feet at the north end of the building.

Plans on file at the Town of North Hempstead Building Department did not indicate the presence of any on-site cesspools. According to Department records, the Site was connected to municipal sewers in 1949 at the time of original construction. Storm drains (e.g. dry wells) are located behind the building in the paved parking area.

### **2.3 Physiographic Setting**

The Site is situated at an elevation of approximately 125 feet above mean sea level (MSL) in the Town of North Hempstead in northern Nassau County, Long Island on Manhasset Neck. Manhasset Neck is a 13.4-mi<sup>2</sup> (square mile) peninsula that is bounded on the west, north, and east by Manhasset Harbor, Long Island Sound, and Hempstead Harbor, respectively. The regional topography irregularly slopes towards these bodies of water from the higher inland areas, but gently slopes away from the Site to the west and more steeply upward from the Site to the east onto public school property. The Site itself is relatively flat with surface runoff controlled by gently sloping pavement toward on-site storm drains. There are no surface water bodies present on the Property.

Manhasset Neck is composed of unconsolidated Pleistocene and Cretaceous age sediments overlying Precambrian/early Paleozoic bedrock. The Pleistocene age Upper Glacial aquifer overlies the Pleistocene and Cretaceous deposits across the entire peninsula and Upper Glacial deposits form the land surface except in shore and urban fill areas.

The upper Cretaceous sediments consist of the Raritan Formation and Magothy Formation and Matawan Group, undifferentiated. The Raritan is composed of a lower Lloyd Sand Member, which is a fresh water aquifer, and an upper unnamed clay member (the Raritan confining unit). The Magothy Formation and Matawan Group, undifferentiated, forms the Magothy aquifer, a sandy gravel overlying the Raritan confining unit. These upper Cretaceous deposits overlie bedrock in the southern half of the peninsula but are generally absent in the northern half. The Site is situated near this geologic divide in the northern half of the Manhasset Neck peninsula, where the Pleistocene age Port Washington aquifer and overlying Port Washington confining unit overlie bedrock and abut the Cretaceous materials to the south (Ref. 1) (See Figures 4a - 4d).

All local fresh water supplies rely on the underlying groundwater, which is supplied by the Port Washington Water District. Most active public supply wells extract water from deep aquifers below the clay units, but, two seasonally active wells located approximately one-half mile northwest of the Site are screened in the Upper Glacial. There are no existing wells on the Property except for a shallow monitoring well located on the south side of the shopping center behind the Genovese store. This well, designated MW-99, was installed following a fuel oil spill in 1995. Based upon existing data, the groundwater beneath the Site is estimated to be approximately 35 feet below land surface and flowing in a north-westerly direction.

## **2.4 Previous Sampling and Removals at this Site**

### **2.4.1 Preliminary Site Assessment**

Previously contaminated site soils were investigated and remediated pursuant to an Order On Consent which was negotiated and agreed upon on March 28, 1996 between the current site owner (The Monfort Trusts) and NYSDEC. CA RICH was retained by the Monfort Trusts in December 1995 to prepare and implement a Preliminary Site Assessment (PSA) Work Plan to identify and locate potential sources of contamination and to determine appropriate remedial measures that may be necessary.

The PSA Work Plan was prepared and submitted to NYSDEC on January 31, 1996 and implemented during June and July 1996 (Ref. 2). The work consisted of the manual collection of subsurface soil samples from the basement of the former dry cleaners and the collection of four (4) in-situ, non-reproducible groundwater samples using a Geoprobe. PCE and other chlorinated volatile organic compounds (e.g. TCE) were detected in both the soil and the underlying groundwater at elevated levels exceeding their respective NYSDEC Soil Cleanup Objectives and groundwater quality standards.

In addition to the chlorinated volatile organic compounds (VOCs), several pesticide compounds were detected in the soil samples at concentrations exceeding their compound-specific NYSDEC Soil Cleanup Objectives. Pesticide compounds were not detected in the groundwater.

Based upon the PSA findings (Ref. 3), the main source areas of soil VOC and pesticide contamination were determined to be the bare earth-floor rooms and floor drains in the basement of the former dry cleaners. The PSA findings are summarized in greater detail in the following sections.

#### **2.4.1.1 Soil**

PCE was detected in the soils ranging from 2.1 parts per billion (ppb) to 12,000,000 ppb. The NYSDEC soil cleanup objective for PCE is 1,400 ppb.

On June 3, 4, and 5, 1996, a total of 44 soil samples were collected from 36 test points in the basement (See Figure 5), from depths ranging between one and five feet below the basement floor. In addition, two exterior storm drains were sampled on July 1, 1996. All of the soil samples were placed into clean glass jars and covered with aluminum foil for subsequent head space screening using the HNU™. The headspace measurements are summarized in Table 1.

A total of twelve (12) soil samples - 1B5, 1E5, 3A4, 3C1, 1D1, 3D1, 2F1, 2A1, FD2, CF5, WF2, WF2DUP, and SD2, were selected and chemically analyzed in the laboratory for halogenated VOC according to EPA Method 8010. These samples were further analyzed for pesticide organic compounds according to EPA Method 8080 except for SD-2 and WF2DUP. In addition, FD2, CF5, WF2 were also analyzed for semi-volatile organic compounds according to EPA Method 8270. These analytical results are summarized on Tables 2, 3, and 4.

#### 2.4.1.2. Groundwater

PCE was detected in groundwater samples at concentrations of 43 ppb to 1,900 ppb. The NYSDEC water quality standard for PCE in Class GA groundwater is 5 ppb. The samples were collected near the top of the water table using a Geoprobe at the points designated on Figure 5 as MUN-1, -2, -3 and -4.

PCE was detected in all four groundwater samples at concentrations of 250 ppb, 43 ppb, 1,500 ppb, and 1,900 ppb in MUN-1, MUN-2, MUN-3, and MUN-4, respectively. Other chlorinated organic compounds, including trichloroethene (TCE) and dichloroethene (DCE) were also identified. Pesticide organic compounds were analyzed for but were not detected. The VOC analytical results are summarized on Table 5.

Groundwater samples collected from off-site monitoring wells were also found to contain PCE at levels as high as 6,100 ppb, indicating that the contamination may have migrated beyond the property boundary. These wells were installed at a Mobil gasoline service station at 1 Main Street following a gasoline spill. This gasoline service station is located on the northwest corner of Port Washington Boulevard and Main Street diagonally across from the Former Munsey Cleaners.

#### 2.4.2 Interim Remedial Measures

The PSA findings formed the basis for an Interim Remedial Measures (IRM) Work Plan that was also prepared by CA Rich and implemented beginning in February 1997 (Ref. 4). The objective of the IRM was to remove the PCE-solvent saturated soil from the basement and the reduction of the remaining soil-sorbed VOCs in the underlying soil to below current state cleanup levels. This was accomplished using a combination of soil excavation and off-site disposal of the product-saturated soils followed by the installation and operation of a Soil Vapor Extraction (SVE) system. A reinforced plastic cover and concrete cap was also installed over the basement soils to eliminate the infiltration of liquids that can leach soil-sorbed pesticide contaminants downward to the water table.

Approximately 31 tons of contaminated soil were removed from the basement using a truck-mounted vacuum system (Ref. 5). The excavated soil exhibited dark discoloration, particularly in the NW room where the soil was partially composed of a dark clayey layer mixed with rags, wire hangers and debris, which in some places was one foot thick. The excavated soil was later transported to the City Environmental, Inc. disposal facility in Detroit, Michigan (EPA ID No. MID054683479) as an F-listed hazardous waste.

The SVE system was installed in the basement and consisted of a network of four, 2-inch diameter 0.030/0.060 slotted PVC pipes placed horizontally into shallow trenches, and one vertically emplaced 1 1/4-inch diameter PVC pipe equipped with a five (5) foot screened section of 0.020-inch slotted pipe. The vertical well was set at a depth of 13 feet below the basement floor with the screened interval extending from 8 to 13 feet below the floor.

All of the SVE extraction wells were manifolded together and connected to a skid mounted 2.5 horsepower EG&G Rotron regenerative blower. The blower system discharged PCE-laden air to the outside of the building through a four-inch diameter PVC pipe and into granulated activated carbon (GAC) canisters where the VOCs were removed from the air stream before discharging into the atmosphere through a permitted emission point located above the building roof line.

The SVE system operated from April 16, 1997 through March 3, 1998. The system was shut-down on March 3 upon achieving the remedial objectives stated in the NYSDEC-approved IRM Work Plan. Post-remedial soil sampling has confirmed the successful completion of the IRM as stated in the NYSDEC letter of July 24, 1998 (Ref. 6).



**3.0 Survey of Former and Present Users or Suspected Users of PCE in the Study Area**

In an effort to identify potential sources of PCE groundwater contamination, other than the Former Munsey Cleaners, a survey was performed in the area of former and existing business that are either known or suspected users of PCE. This survey identified 30 former and present PCE-utilizing businesses that located in proximity to the Former Munsey Cleaners Site. These include former and present dry cleaners -- two of which have EPA Underground Injection Control (UIC) files at the offices of the Nassau County Health Department (NCDH) -- and numerous gasoline stations that may have used PCE for parts cleaning.

The survey was performed by driving through the area and listing the present businesses, interviewing local residents, review of active UIC files at the NCDH office and review of NYSDEC Spill records. The business locations were plotted on an aerial photograph (1"=200 feet) dated April 18, 1996 and then plotted on a CADD-developed base map which is included in this Plan as Plate 1. A list of the 30 suspect locations is also included on Table 6.

PCE releases have been confirmed at the following sites:

- Plaza Drive-in Cleaners, 966 Port Washington Blvd. - Plaza Drive-in Cleaners is located on the west side of Port Washington Blvd. directly across from the Monfort Shopping Plaza where the Former Munsey Cleaners Site is located. According to records on file at the Nassau County Department of Health, Plaza Drive-in Cleaners utilizes PCE in their dry cleaning operations. Reportedly, 855 pounds of PCE were used in 1996. The PCE is stored in aboveground storage tanks, the dry cleaning machine reservoir, and in drums. Waste materials are stored inside the building in plastic containers.

Upon inspection by NCDH personnel, a floor drain located in the boiler room was found to be contaminated with PCE. Sand in a pipe trench connecting the dry cleaning machine to a compressor in the boiler room was also found to be "heavily contaminated". NCDH required that the owner of Plaza Cleaners excavate and dispose of the contaminated soil pursuant to the U.S. EPA Underground Injection Control (UIC) Program. An excavation measuring 8 feet by 19.5 feet across by 18 feet deep was performed and four roll-off containers were filled with contaminated soil.

- Mobil Gasoline Station, 1 Main Street - This gasoline service station is located at the northwest corner of the Port Washington Blvd. and Main Street, diagonally across from the Former Munsey Cleaners Site. Degreaser solvents, including PCE, were used in Mobil's repair shop. These solvents were periodically spilled and entered floor drains in the repair shop. These floor drains were connected to a drywell which was found to be contaminated with 170,000 ppb PCE and other VOCs. In May 1991, the contaminated drywell sludges were removed and the drywell permanently closed. In addition, PCE and other chlorinated compounds were detected in groundwater being pumped from below Mobil into a pump and treat system which was operating at the time. Discharge Monitoring Reports (DMR's) reviewed at the Stony Brook office of the NYSDEC indicated that between May 21, 1991 and September 28, 1991, PCE was detected in the pumped groundwater between 1,490 ppb and 3,900 ppb. In November 1996, CA RICH sampled four monitoring wells on the Mobil Property and found PCE at concentrations of 1,900 ppb to 6,100 ppb.

#### **4.0 Remedial Investigation Work Tasks**

The following Remedial Investigation scope of work has been developed to gather hydrogeologic data underlying and surrounding the Site, including the depth and flow direction of the shallow groundwater as well as groundwater quality information. The information obtained will then be used to determine additional monitoring well locations that will be used to assess the potential presence of additional PCE source areas in Port Washington, other than the Munsey Site.

The R.I. will include of the installation of one (1) water level piezometer in the parking lot, two (2) off-site groundwater monitoring wells and one (1) on-site multi-depth well cluster, followed by the collection and chemical analysis of groundwater samples. All sampling and laboratory analysis will comply with the Quality Assurance/Quality Control (QA/QC) procedures described in the NYSDEC-approved Quality Assurance Project Plan (QAPP) included in the PSA/IRM Work Plan. All field work will be performed in conformance with the previously approved Health & Safety PLAN (HASP), also included in the PSA/IRM Work Plan.

#### 4.1 Soil Borings and Collection of Soil Samples

A total of 6 soil borings will be performed at the locations illustrated on Figure 3A using a Direct Push-type sampling device such as a Geoprobe™. Soil samples will be collected from each of these borings at a depth of 10 and 15 feet below grade using a core sampler. The soil will be placed into laboratory-issued jars and analyzed for halogenated VOCs using either EPA method 8010 or 8021.

#### 4.2 Installation of Groundwater Monitoring Wells

The monitoring wells will be installed at the approximate locations shown on Figure 3B. The multi-depth well cluster will be installed through the sidewalk along Main Street on the north side of the former dry cleaning facility. The three water table wells will be located in the parking lot and off-site on Ohio Street and Maple Street. Road opening permits will be obtained for the Ohio and Maple Street locations. If additional site access is required to drill at these locations, the NYSDEC will be contacted for assistance.

Once installed, the well casing elevations and the water table level in each well will be surveyed by a licensed surveyor to the nearest 0.01 foot. These surveyed points and water levels will then be plotted to determine the hydraulic gradient and the horizontal direction of groundwater movement using the standard procedures for a triangular arrangement of three (3) well points.

##### 4.2.1 Multi-depth Well Cluster

The multi-depth well cluster will be constructed as shown on Figure 6. The purpose of this well cluster is to determine the depth to the top of the Port Washington Confining Unit and to delineate the vertical extent of chlorinated VOCs in the groundwater underlying the Site.

A test boring will be drilled using a 4-inch diameter hollow stem auger. Split barrel core samples will be collected at 10 foot intervals from 0 to 100 feet and then continuing at 5 foot intervals until the Port Washington Confining Unit is encountered. The contact with the Port Washington Confining Unit will be determined by the Geologist supervising the drilling operation. The Port Washington Confining Unit is characterized as a gray and greenish brown clay and silt, and locally contains fossil oyster and clam shells and foraminifera (e.g. *Elphidium*).

To prevent the occurrence of sand heaving up into the lower section of the augers during sampling, a column of bentonite drilling mud will be placed in the augers once the water table is encountered. The mud will be flushed out of the augers with tap water after the boring is completed and will be containerized prior to proper disposal.

Once the Port Washington Confining Unit is encountered, the 4-inch diameter augers will be removed from the ground and a 6¼-inch diameter hollow stem auger equipped with a bottom plug will be advanced to the desired depth. A cluster of three, 2-inch diameter wells will then be installed in the 6¼-inch augers.

The lowest screen will be set with its base resting immediately above the top of the Port Washington Confining Unit and the shallowest well screen will intersect the water table (approximately 35 feet below grade). The intermediate screen will be installed at the midpoint between the shallow and deep screens, most likely at about 85-90 feet below grade.

The wells will be constructed of two-inch diameter PVC casing and 0.020-inch slotted (20 slot) screens. The deep and intermediate wells will utilize 10 foot long screens and the shallow well will have a 15 foot long screen set 10 feet into the water table. The annular space between the well screens and the augers will be filter-packed with No. 1 Morie™ sand. The drill cuttings will not be reused as backfill and will be placed in drums prior to proper disposal. A filter of Morie No. 00 sand will be placed above the Morie No. 1 sand pack. Seals between the screens will then be installed by pumping a thick bentonite slurry into the bottom of the augers using a side-discharging tremie line. The slurry will be mixed at an approximate ratio of 50 pounds of dry bentonite to 40 gallons of tap water. The wells will be completed with an approximate 95%-cement to 5%-bentonite seal above the upper bentonite seal using a tremie line and will be furnished with locking caps and a bolting, flush-mounted vault.

Once installed, all of the wells will be developed to minimize turbidity. The wells will be developed using a submersible pump capable of discharging at a rate of about 1 gallon per minute. The wells will be pumped clear of fine sands or when 50 Nephelometric Turbidity Units (NTU's) are achieved. All development water will be containerized until permission is granted by the Port Washington Water Pollution Control District to discharge it to the municipal sewer system.

#### 4.2.2 Water Table Wells

The three water table wells will be constructed as shown on Figure 7 at the locations indicated on Figure 3A. For the wells to be located on Ohio and Maple Streets, a hollow stem auger drill rig will be used to drill test borings in the same manner as described for the installation of the multi-depth cluster wells. These shallow wells will also be constructed of 2-inch diameter PVC casing with a fifteen (15) foot section of 0.020-inch slotted pipe-screen. The slotted pipe will be installed with ten feet of screen extending into the water table and five feet situated above the water table. A sand pack filter and cement/bentonite seal will be installed in the same manner as described for the installation of the multi-depth cluster wells. The wells will be completed with locking caps and flush-mounted, bolted covers. Once installed, the wells will be developed to minimize turbidity in the manner previously described.

The well in the parking lot, which is intended for use only as a water level piezometer, will be installed using ¾-inch pipe and well screens installed using a Direct Push-type boring device. Depending on the site conditions, this well may be installed using a conventional hollow stem auger rig as described for the installation of the Ohio and Maple Street wells.

#### 4.2.3 Groundwater Sampling

At least one week after the wells are developed, CA RICH will return to collect groundwater samples from the two new water table wells on Ohio Street and Maple Street, the multi-depth well cluster and the existing well designated as MW-99. The three existing wells at the nearby Mobil station, MW-1, 2 & 4 will also be sampled. It is understood that the NYSDEC will assist CA RICH in obtaining access to this property. Prior to sampling, each well will be purged using a submersible pump in order to clear the well of stagnant water which has been standing in the well casing and may not be representative of aquifer conditions. Each well will be purged of at least 3 casing volumes of water which will be containerized at the site for eventual disposal to the sewer. The volume of water in the well will be determined by first measuring the distance from the bottom of the well to the static water level and the inside diameter of the well casing. The volume of the well will then be obtained by the formula:

$$V = 0.041 d^2h$$

where: h = depth of water in feet  
d = diameter of well in inches  
V = volume of water in gallons

Prior to sample collection, field parameter measurements of pH, specific conductivity, and temperature will be measured and recorded using instruments suited for this purpose. The samples will then be collected using pre-cleaned dedicated polyethylene disposal bailers in conformance with standard protocols in the groundwater monitoring profession. This procedure is designed to reduce or eliminate the loss of volatiles during sampling due to agitation of the water caused by the pumping action of the purge pump. All groundwater samples will be placed into laboratory-issued 40 mil glass vials and delivered to an ELAP-certified laboratory and analyzed for halogenated volatile organic compounds using either EPA Method 8010 or 8021.

All field equipment and instrumentation will be cleaned in a tap water and Alconox<sup>(TM)</sup> wash followed by an isopropyl alcohol rinse and a final deionized water rinse.

#### 4.3 Focused R.I. Report Format

Upon receipt of the laboratory groundwater analyses, a Focused R.I. Report will be prepared. This report will include the following information:

- A description of the work performed;
- The results of all groundwater analyses;
- All QA/QC reporting as outlined in these Plans;
- Determination of the local direction of groundwater flow; and
- Recommendations for locations of additional groundwater wells to be installed.

**5.0 Remedial Investigation Schedule**

The following schedule has been developed for this project.

**Plans and Permits**

Submission of R. I. Work Plan to NYSDEC	Feb. 2000
NYSDEC approval of Work Plan	Mar. 2000
Road Opening Permits	Mar. 2000

**Field and Laboratory Activities**

Well drilling, installations, and development	Apr. 2000
Well surveying and groundwater sampling	May 2000
Laboratory analysis	June 2000

**Remedial Investigation Report**

Submission of R.I. Report to NYSDEC	Oct. 2000
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**Feasibility Study** – A Feasibility Study Report will be prepared in accordance with the Order on Consent for this project.

**6.0 REFERENCES**

1. Casson, R.N., 1992, Geohydrology and 1985 Ground-water Levels on Manhasset Neck, Long Island, New York: U.S. Geological Survey, Water Resources Investigations Report 88-4127.
2. CA Rich Consultants, Inc., 1996, Preliminary Site Assessment Work Plan, former Munsey Cleaners Site, Port Washington, New York.
3. CA Rich Consultants, Inc., 1996, Preliminary Site Assessment Report, former Munsey Cleaners Site, Port Washington, New York.
4. CA Rich Consultants, Inc., 1997, Interim Remedial Measures (IRM) Work Plan, former Munsey Cleaners Site, Port Washington, New York.
5. CA Rich Consultants, Inc., 1997, Interim Remedial Measures (IRM) Report, former Munsey Cleaners Site, Port Washington, New York.
6. NYSDEC, July 24, 1998 Correspondence from Christopher LaFemina to George A. Tyers.

## Tables



Table 1

## Soil Field Screening

Location	Headspace Measurement (ppm)	Depth (feet)
1A	400	1
1A	350	5
1B	600	1
1B	500	5
1C	275	1
1D	400	1
1E	300	1
1E	400	5
1F	250	1
2A	600	1
2A	17	4.5
2B	350	1
2C	350	1
2D	1.5	1
2D	9	4.5
2E	1	1
2F	1	1
2F	14	4
3A	500	1
3A	8	4
3B	100	1
3B	20	3
3C	200	1
3C	12	4
3D	8	1
3E	3	1
3E	1	4.5
3F	1	1
4A	3.5	1
4B	12	1
4C	6	1
WF-1	17	1
WF-2	70	1
WF-3	400	1
WF-4	400	1
WF-5	100	1
FD-1	400	1
FD-2	400	4
CF-1	1	1
CF-2	<1	1
CF-3	5	1
CF-4	10	1
CF-5	50	1
CF-6	20	1
SD-1	5	1
SD-2	30	1

Table 2  
Summary of Volatile Organic  
Compounds Detection in Soil

Sample ID Date Sampled Parameters	1B5 6/3/96	1-E-5 6/3/96	3-A-4 6/3/96	3-C-1 6/3/96	1-D1 6/3/96	3D1 6/3/96	2F1 6/3/96	2A1 6/3/96	FD-2 6/4/96	CF5 6/4/96	WF2 6/4/96	WF-2-Dup 6/4/96	SD-2 7/1/96	4E * 7/1/96	5E * 7/1/96	NYSDEC TAGM** Cleanup Objectives
VOLATILE ORGANIC COMPOUNDS (EPA Method 8010)																
Units	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg	µg/Kg
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,900
Methylene Chloride	3,400 B	2.6 B	4.5 B	19 B	26 B	24 B	23 B	3400 B	3000 B	17 B	34 B	29 B	6.9 B	3000 JB	2 JB	100
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	400
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
Trichloroethene	25,000	ND	ND	ND	ND	ND	0.6 J	8800	3700	ND	ND	ND	ND	ND	ND	700
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
Tetrachloroethene	4,200,000	68	9.2	10,000	150	46	140	2,600,000	12,000,000	3,300	66	62	2.1	660,000 E	160	1,400
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,700
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,900
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,600
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,500
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NV

NOTES:

µg/Kg- micrograms per Kilogram - parts per billion.  
J - Indicates an estimated value.  
ND - Not detected above reportable detection limit.  
NV - No Value Listed

\* NYSDEC Technical and Administrative Guidance  
Memorandum: Determination of Cleanup  
Objectives and Cleanup Levels; 1/24/94

\* Sample collected and analyzed by NYSDEC

Table 3  
Summary of Pesticide Organic Detections in Soil  
Former Munsey Cleaners

Sample ID Date Sampled Parameters	1B5 6/3/96	1-E-5 6/3/96	3-A-4 6/3/96	3-C-1 6/3/96	1-D1 6/3/96	3D1 6/3/96	2F1 6/3/96	2A1 6/3/96	FD-2 6/4/96	CF5 6/4/96	WF2 6/4/96	NYSDEC TAGM** Cleanup Objectives
<b>TCL PESTICIDE</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>	<b>ug/kg</b>
alpha-BHC	ND	ND	ND	ND	ND	ND	ND	34 D	ND	ND	ND	110
beta-BHC	ND	ND	ND	ND	ND	ND	ND	34 D	ND	ND	ND	200
delta-BHC	ND	ND	ND	ND	ND	ND	ND	65 D	9	ND	ND	300
gamma-BHC (Lindane)	ND	ND	ND	ND	ND	ND	ND	12 D	ND	ND	ND	60
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	41
Heptachlor Epoxide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	900
Dieldrin	940 D	6.9 J	11 J	23	36 J	9	ND	ND	ND	ND	ND	44
4,4' - DDE	2,100 D	110	21	120	910	8.2 J	14 J	ND	94	ND	ND	2,100
Endrin	ND	ND	ND	ND	110 D	ND	ND	ND	28	ND	ND	100
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	900
4,4' - DDD	320,000	740	2,200 D	940 D	9,600 D	110	59	490,000 D	4,000 J	7.8 J	ND	2,900
Endosulfan Sulfate	ND	ND	ND	ND	ND	ND	ND	NV	ND	ND	ND	1,000
4,4' - DDT	12,000	1,300	96	340 D	27,000 D	930 D	97	62,000 D	1,800 E	12 J	ND	2,100
Methoxychlor	ND	1,300	ND	ND	ND	31 J	ND	ND	13,000 D	ND	ND	***
Endrin Ketone	ND	ND	ND	ND	ND	ND	ND	ND	7,600 J	ND	ND	NV
Endrin Aldehyde	ND	ND	ND	6.6 J	ND	ND	ND	ND	11 J	ND	ND	NV
alpha-Chlordane	ND	6.9 J	24	150	13 J	17	8.1 J	ND	5 J	ND	ND	NV
gamma-Chlordane	ND	9.7	11	89	37 J	11 J	5.5 J	ND	49	ND	ND	540
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND	86,022	ND	ND	NV

NOTES:

µg/Kg- micrograms per Kilogram - (parts per billion).

J - Indicates an estimated value.

E - Compounds whose concentrations exceeded the calibration range of the instrument

D - Compound identified in an analysis at a secondary dilution factor

ND - Not detected above reportable detection limit.

NV - No Value Listed in TAGM

\* Sample collected and analyzed by NYSDEC

\*\* NYSDEC Technical and Administrative Guidance  
Memorandum: Determination of Cleanup  
Objectives and Cleanup Levels; HWR-94-4046, 1/24/94

\*\*\* As per TAGM #4046, total pesticides < 10,000ppb

Shaded area indicates detection above cleanup objective.

Table 4  
Summary of Semi-Volatile Organic  
Compound Detections in Soil  
Former Munsey Cleaners

Sample ID Date Sampled Parameters	FD-2 6/4/96	CF5 6/4/96	WF2 6/4/96	NYSDEC TAGM** Cleanup Objectives
<b>SEMI-VOLATILE ORGANIC COMPOUNDS (EPA Method 8270)</b>				
Units	µg/Kg	µg/Kg	µg/Kg	µg/Kg
bis (2-Chloroethyl) Ether	ND	ND	ND	NV
1,3-Dichlorobenzene	ND	ND	ND	1,600
1,4-Dichlorobenzene	ND	ND	ND	8,500
1,2-Dichlorobenzene	ND	ND	ND	7,900
2,2'-oxybis (1-Chloropropane)	ND	ND	ND	NV
N-Nitroso-di-n-propylamine	ND	ND	ND	NV
Hexachloroethane	140 J	ND	ND	NV
Nitrobenzene	ND	ND	ND	200 or MDL
Isophorone	ND	ND	ND	4,400
1,2,4-Trichlorobenzene	ND	ND	ND	3,400
Naphthalene	ND	ND	ND	13,000
4-Chloroaniline	ND	ND	ND	220 or MDL
Hexachlorobutadiene	ND	ND	ND	NV
bis (2-Chloroethoxy) methane	ND	ND	ND	NV
2-Methylnaphthalene	ND	ND	ND	36,400
Hexachlorocyclopentadiene	ND	ND	ND	NV
2-Chloronaphthalene	ND	ND	ND	NV
2-Nitroaniline	ND	ND	ND	430
Dimethylphthalate	ND	ND	ND	2,000
Acenaphthylene	ND	ND	ND	41,000
2,6-Dinitrotoluene	ND	ND	ND	1,000
3-Nitroaniline	ND	ND	ND	500 or MDL
Acenaphthene	ND	ND	ND	50,000 ***
Dibenzofuran	ND	ND	ND	6,200
2,4-Dinitrotoluene	ND	ND	ND	NV
Diethylphthalate	ND	ND	ND	7,100
4-Chlorophenyl-phenylether	ND	ND	ND	NV
Fluorene	ND	ND	ND	50,000 ***
4-Nitroaniline	ND	ND	ND	NV
N-Nitrosodiphenylamine (1)	ND	ND	ND	NV
4-Bromophenyl-phenylether	ND	ND	ND	NV
Hexachlorobenzene	ND	ND	ND	410
Phenanthrene	ND	ND	ND	50,000 ***
Anthracene	ND	ND	ND	50,000 ***
Carbazole	ND	ND	ND	NV
Di-n-butylphthalate	200 J	ND	ND	8,100
Fluoranthene	ND	ND	ND	50,000 ***
Pyrene	53 J	ND	ND	50,000 ***
Butylbenzylphthalate	840	ND	ND	50,000 ***
3,3'-Dichlorobenzidine	ND	ND	ND	NV
Benzo (a) anthracene	ND	ND	ND	224 or MDL
Chrysene	ND	ND	ND	400
bis (2-Ethylhexyl)phthalate	3300 D	ND	ND	50,000 ***
Di-n-octylphthalate	220 J	ND	ND	50,000 ***
Benzo (b) fluoranthene	ND	ND	ND	1,100
Benzo (k) fluoranthene	ND	ND	ND	1,100
Benzo (a) pyrene	ND	ND	ND	61 or MDL
Indeno (1,2,3-cd) pyrene	ND	ND	ND	3,200
Dibenz (a,h) anthracene	ND	ND	ND	14 or MDL
Benzo (g,h,i) perylene	ND	ND	ND	50,000 ***

NOTES:

µg/Kg- micrograms per Kilogram - parts per billion.

J - Indicates an estimated value.

D - Compound identified in an analysis at secondary dilution factor

ND - Not detected above reportable detection limit.

NV - No Value Listed in TAGM

\*\* NYSDEC Technical and Administrative Guidance

Memorandum: Determination of Cleanup  
Objectives and Cleanup Levels; 1/24/94

\*\*\* As per TAGM #4046, total Semi-VOCs < 500,000ppb  
and individual Semi-VOCs <50,000ppb

**Table 5**  
**Summary of Volatile Organic**  
**Compounds Detection in Water**  
**Former Munsey Cleaners**

Sample ID Date Sampled Parameters	MUN-1 6/3/96	MUN-2 6/3/96	MUN-3 6/3/96	MUN-4 6/3/96	NYSDEC TOGS** Guidance Values
<b>VOLATILE ORGANIC COMPOUNDS (EPA Method 8010)</b>					
Units	$\mu\text{g/L}$	$\mu\text{g/L}$	$\mu\text{g/L}$	$\mu\text{g/L}$	$\mu\text{g/L}$
Tetrachloroethene	250	43	1,500	1,900	5
Trichloroethene	ND	5.9	60	11	5
trans-1,2-Dichloroethene	ND	ND	ND	2.1	5
Vinyl Chloride	ND	ND	ND	ND	2

**NOTES:**

$\mu\text{g/L}$ - micrograms per Liter - parts per billion.

ND - Not detected above reportable detection limit.

Shaded area indicates detection above guidance value.

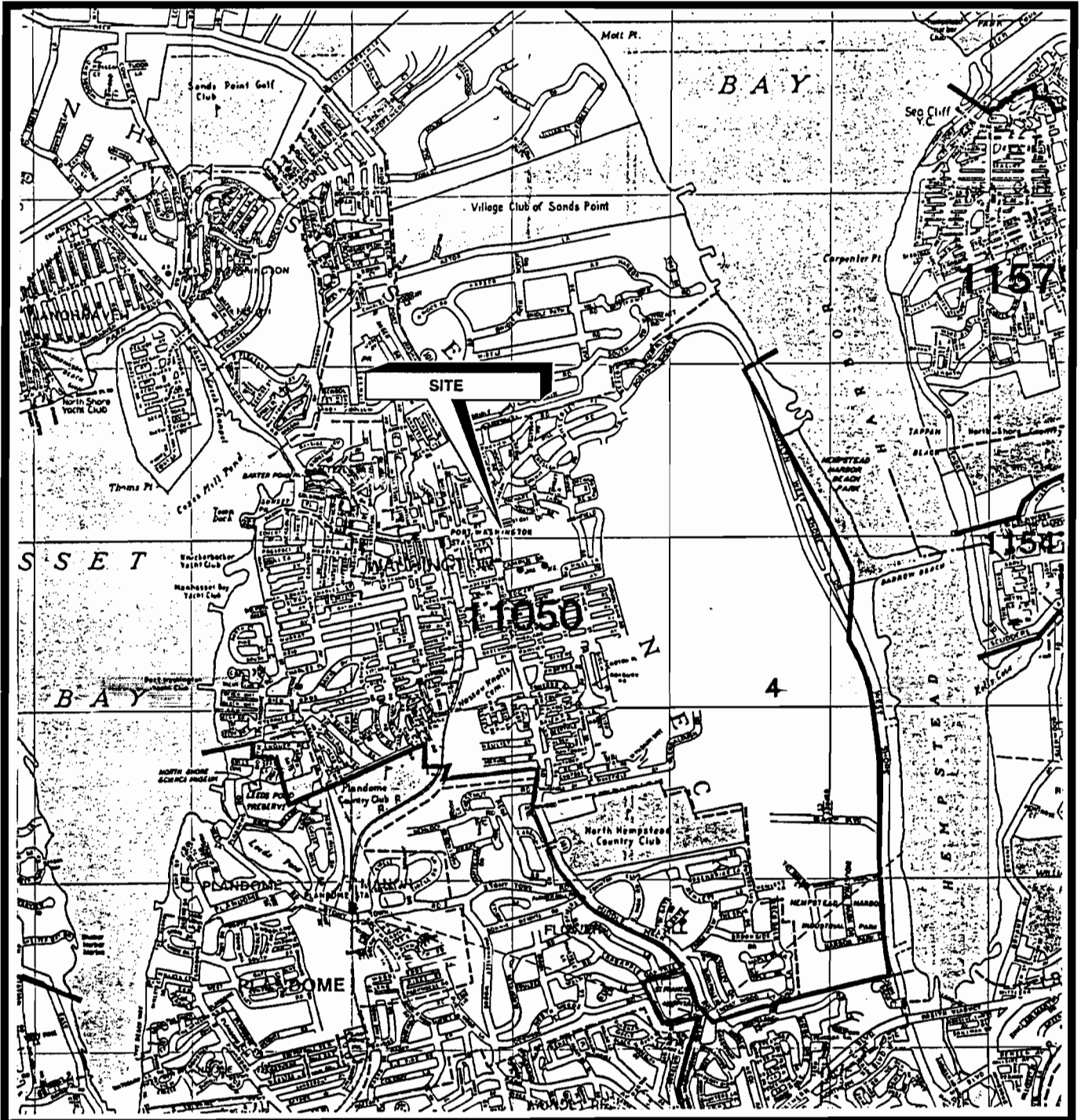
\* NYSDEC Technical and Operational Guidance Series  
 Memorandum: Ambient Water Quality  
 Standards and Guidance Values; October 1993

Table 6

Known or Suspected of Users of PCE  
in the Former Munsey Cleaners Study Area

<u>Site Name</u>	<u>Address</u>
1. Former Munsey Cleaners	1029 Port Washington Blvd.
2. Former Laundry Basket	Port Washington Blvd.
3. New Munsey Cleaners	1005 Port Washington Blvd.
4. Plaza Drive-in Cleaners	966 Port Washington Blvd.
5. Mobil	1 Main Street
6. Exxon	749 Port Washington Blvd.
7. Best Auto Repair (former Texaco)	679 Port Washington Blvd.
8. Former Commuter Cleaners	36 Main Street
9. Williams Chinese Laundry	45 Main Street
10. Former Mr. Jack's Cleaners	61 Main Street
11. Deluxe Laundromat	60 Main Street
12. Port Washington Cleaners	62 Main Street
13. Trink's Automotive Specialists (former Amoco)	112 Main Street
14. 7-11 Fine Cleaners	711 Port Washington Blvd.
15. Laundromat	628 Port Washington Blvd.
16. Wooko Dry Cleaners	660 Port Washington Blvd.
17. Getty	655 Port Washington Blvd.
18. Getty (G.C. Auto Club, Inc.)	601 Port Washington Blvd.
19. Ragusa's Auto Repair	555 Port Washington Blvd.
20. Mobil (Revere Super Service, Inc.)	505 Port Washington Blvd.
21. Former Bullits Cleaners	611 Port Washington Blvd.
22. Sung Cleaners	51 Main Street
23. SM French Cleaners	938 Port Washington Blvd.
24. Boulevard Laundromat	672 Port Washington Blvd.
25. Boulevard French Cleaners	475 Port Washington Blvd.
26. Amoco	570 Port Washington Blvd.
27. Former Gasoline Station	900 Port Washington Blvd.
28. Willowdale Body & Fender	92 S. Bayles Avenue
29. Sands Point Auto Body	31 Willowdale Avenue
30. Auto Repair	31 Beechwood Avenue
31. Dewey's French Cleaners	615 Port Washington Blvd.

## Figures



**SITE LOCATION MAP**

**CA RICH CONSULTANTS, INC.**  
 Certified Ground-Water and Environmental Specialists  
 404 Glen Cove Avenue, Sea Cliff, N.Y. 11579

former Munsey Cleaners  
 Port Washington, NY

Scale: 1:36,900  
 13/4" = 1 Mile

Prepared By: GAT

Date:  
 August 1996

Reviewed By: EAW

Figure:  
 1



P O R T   W A S H I N G T O N   B O U L E V A R D

O N E   S T O R Y   M A S O N R Y   B U I L D I N G

MUNSEY  
CLEANERS

M A I N   S T R E E T

C O N C R E T E   W A L K

A S P H A L T   P A V E D   P A R K I N G   A R E A

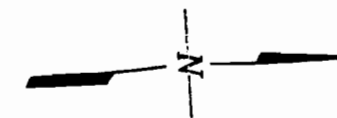
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F O R M E R   E A R T H E N   F L O O R   ( N W )

F O R M E R   B O I L E R   R O O M   ( S E )

F O R M E R   E A R T H E N   F L O O R   ( N E )

C O N C R E T E   W A L L



LEGEND- BASEMENT FEATURES

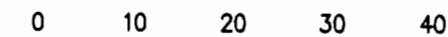
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⊗ S T O R M   D R A I N

▨ C O N C R E T E   P I L L A R

▤ F O R M E R   E A R T H   F L O O R

- - - P R O P E R T Y   B O U N D A R Y



Scale in Feet

SOURCE:

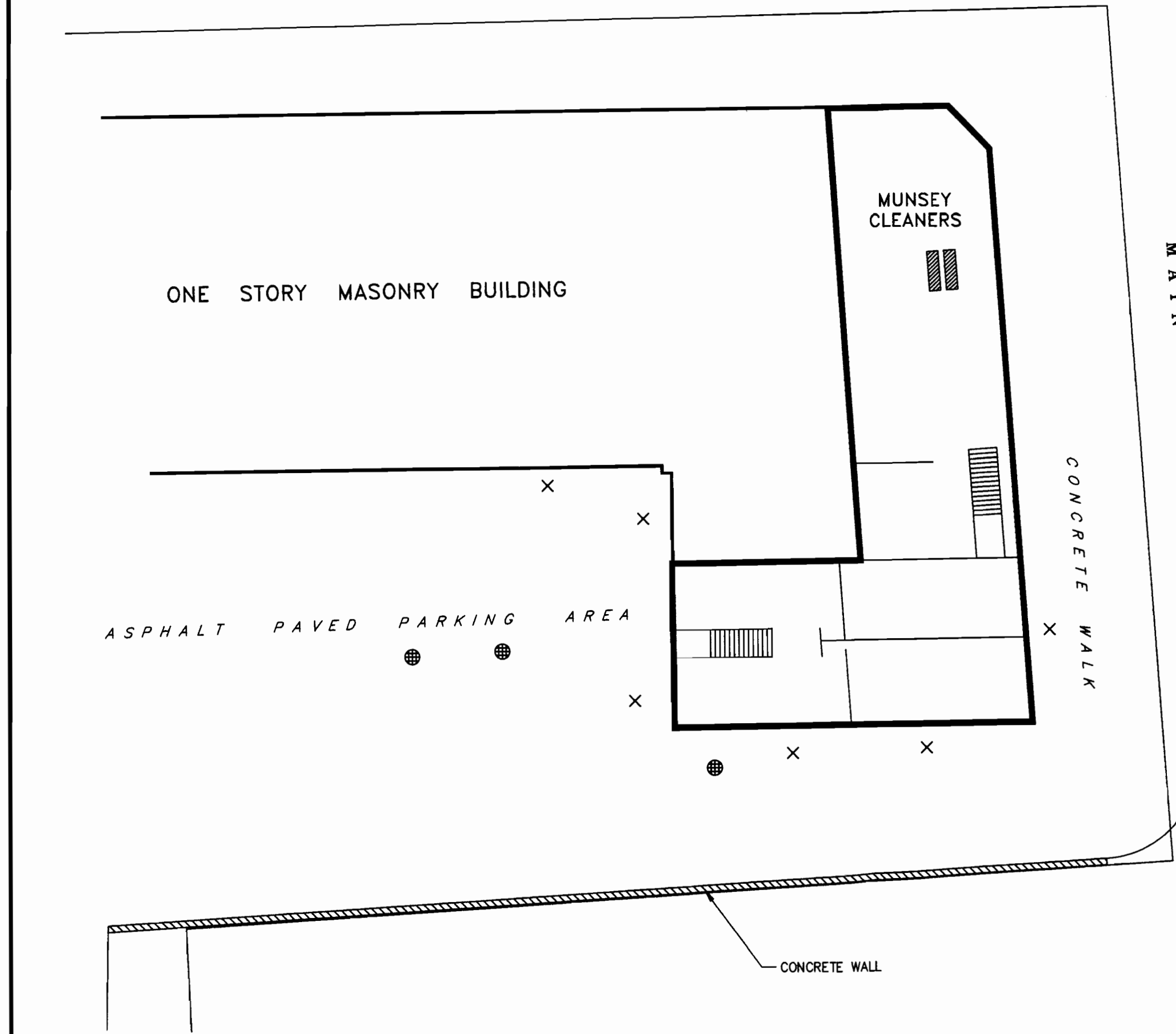
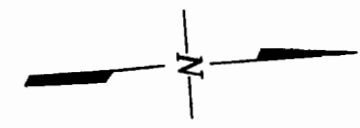
SITE PLAN BASED ON THE SEAR-BROWN GROUP DRAWING ENTITLED "SURVEY OF PROPERTY" FOR API MANAGEMENT SERVICE 1029 THRU 961 PORT WASHINGTON BLVD., PORT WASHINGTON, NASSAU CO., NY DATED 12/14/93 AT A SCALE OF 1"=20'.

CA RICH CONSULTANTS, INC.

Certified Ground-Water and Environmental Specialists  
404 Glen Cove Avenue, Sea Cliff, NY 11579

TITLE SITE PLAN		DATE 8/27/98
FIGURE 2		SCALE AS SHOWN
DRAWING NO. MF2.1	FORMER MUNSEY CLEANERS 1029 PORT WASHINGTON BLVD. PORT WASHINGTON, NEW YORK	DRAWN BY: C.G. APPR BY: G.T.

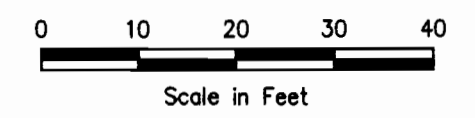
P O R T   W A S H I N G T O N   B O U L E V A R D



M A I N   S T R E E T

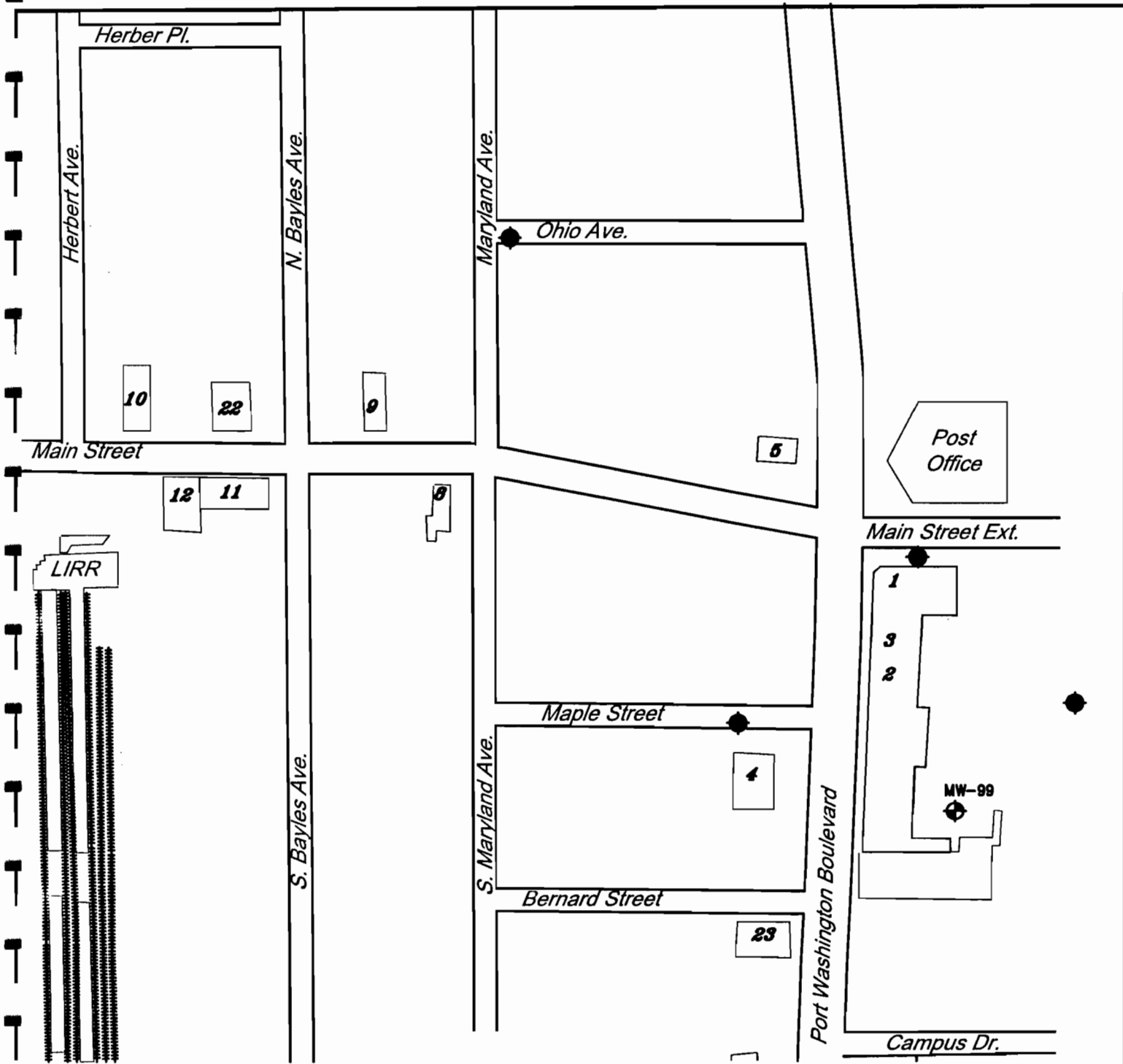
**LEGEND**

- X LOCATION OF PROPOSED SOIL BORING
- ⊗ STORM DRAIN
- PROPERTY BOUNDARY



**SOURCE:**  
 SITE PLAN BASED ON THE SEAR-BROWN GROUP DRAWING ENTITLED  
 "SURVEY OF PROPERTY" FOR API MANAGEMENT SERVICE 1029 TH  
 961 PORT WASHINGTON BLVD., PORT WASHINGTON, NASSAU CO.,  
 DATED 12/14/93 AT A SCALE OF 1"=20'.

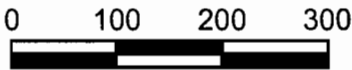
<b>CA RICH CONSULTANTS, INC.</b>	
Certified Ground-Water and Environmental Specialists 17 Dupont Street, Plainview, New York 11803	
<b>TITLE</b>	<b>DATE</b>
SOIL BORING LOCATION MAP	1/1
<b>FIGURE</b>	<b>SCALE</b>
3A	AS SH
<b>DRAWING NO:</b>	<b>DRAWN BY:</b>
1106-1A	S
	<b>APPR BY:</b>
	E



**CA RICH CONSULTANTS, INC.**

Certified Ground-Water and Environmental Specialists  
 17 Dupont Street, Plainview, New York 11803

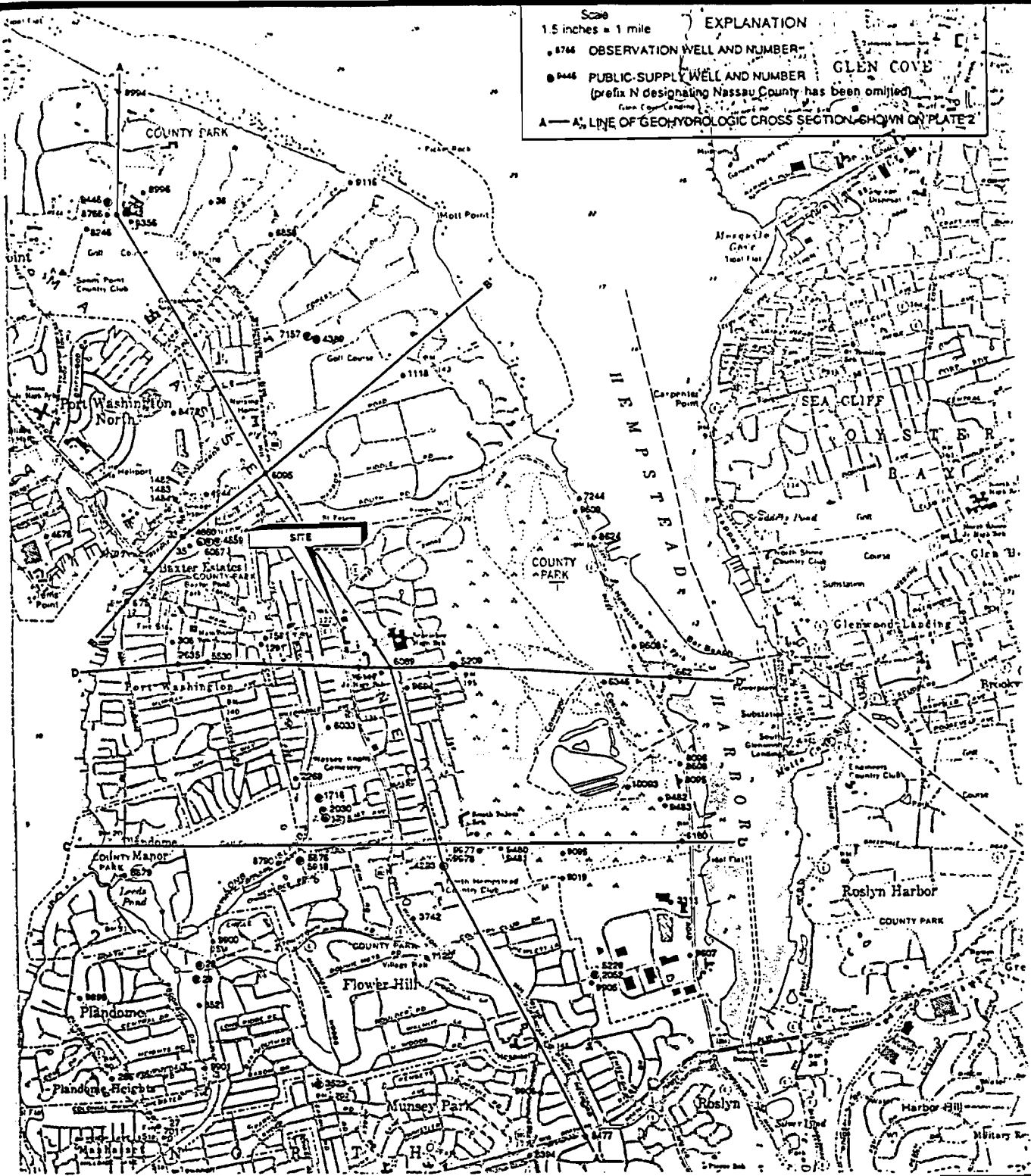
<b>TITLE</b> Proposed and Existing Monitoring Well Locations		<b>DATE</b> 2/17/00
<b>FIGURE</b> 3B		<b>SCALE</b> As Shown
<b>DRAWING NO.</b> 1105-1A	Former Munsey Cleaners Site Port Washington, New York	<b>DRAWN BY</b> S.T.M.
		<b>APPR. BY</b> E.A.W.



Scale in Feet



- EXISTING MONITORING WELL
- PROPOSED MONITORING WELL



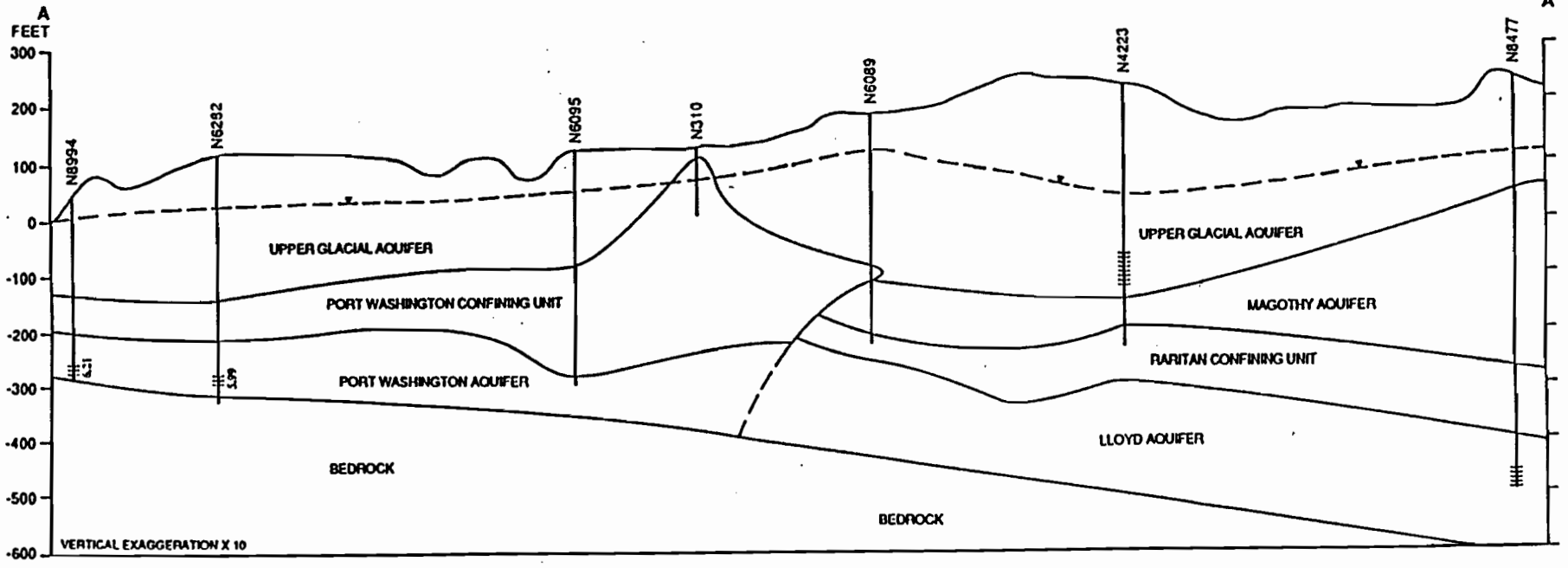
Location of Site, Supply Wells, and Lines of Geohydrologic Sections

**CA RICH CONSULTANTS, INC.**  
 Certified Ground-Water and Environmental Specialists  
 404 Glen Cove Avenue, Sea Cliff, N.Y. 11579

Drawing ID:  
 USERS: Steve/McDraw/Munsey@SWells Loc.

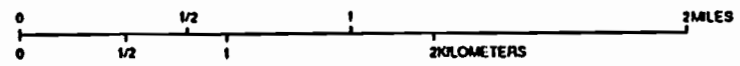
Former Munsey Cleaners  
 Port Washington, NY

Prepared By: STS	Date: November, 1996
Reviewed By: EAW	Figure: 4a



EXPLANATION

- N8994 WELL NUMBER
- SCREENED INTERVAL
- 4.06 WATER LEVEL, IN FEET (± SEA LEVEL)
- WATER TABLE



Hydrologic Section A

Source: USGS Water-Resources Investigations Report 88-4127

**CA RICH CONSULTANTS, INC.**  
 Certified Ground-Water and Environmental Specialists  
 404 Glen Cove Avenue, Sea Cliff, N.Y. 11579

Former Munsey Cleaners  
 Port Washington, NY

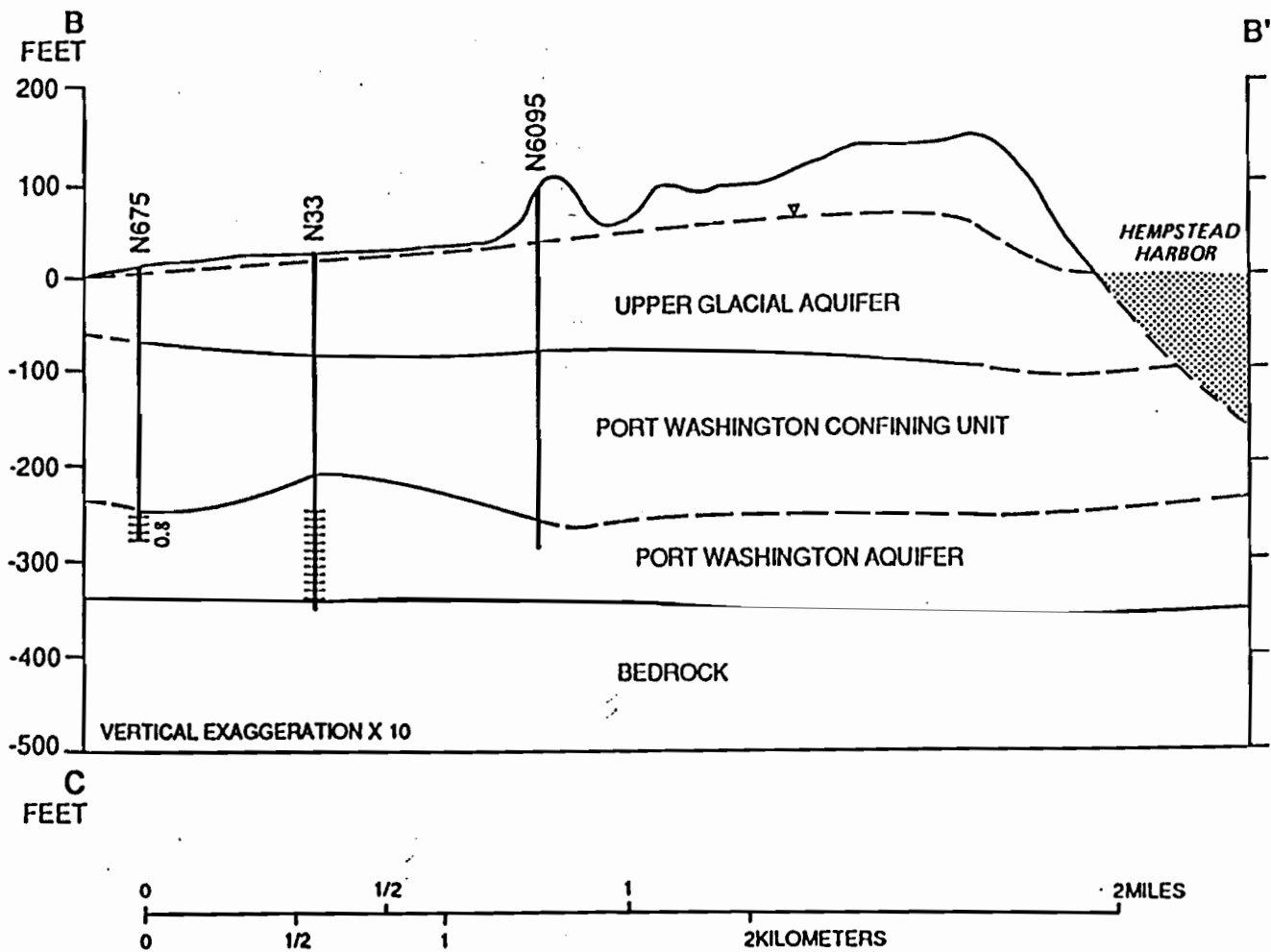
Prepared By: STS

Date: November 1996

Reviewed By: EAW

Figure: 4b

Drawing ID:  
 USERS:Steve/McDraw/Munsey@X-Sec A.



Hydrologic Section B

Source: USGS Water-Resources Investigations Report 88-4127

**CA RICH CONSULTANTS, INC.**  
 Certified Ground-Water and Environmental Specialists  
 404 Glen Cove Avenue, Sea Cliff, N.Y. 11579

Former Munsey Cleaners  
 Port Washington, NY

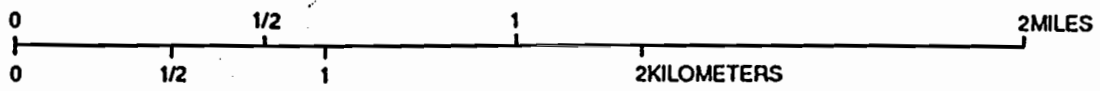
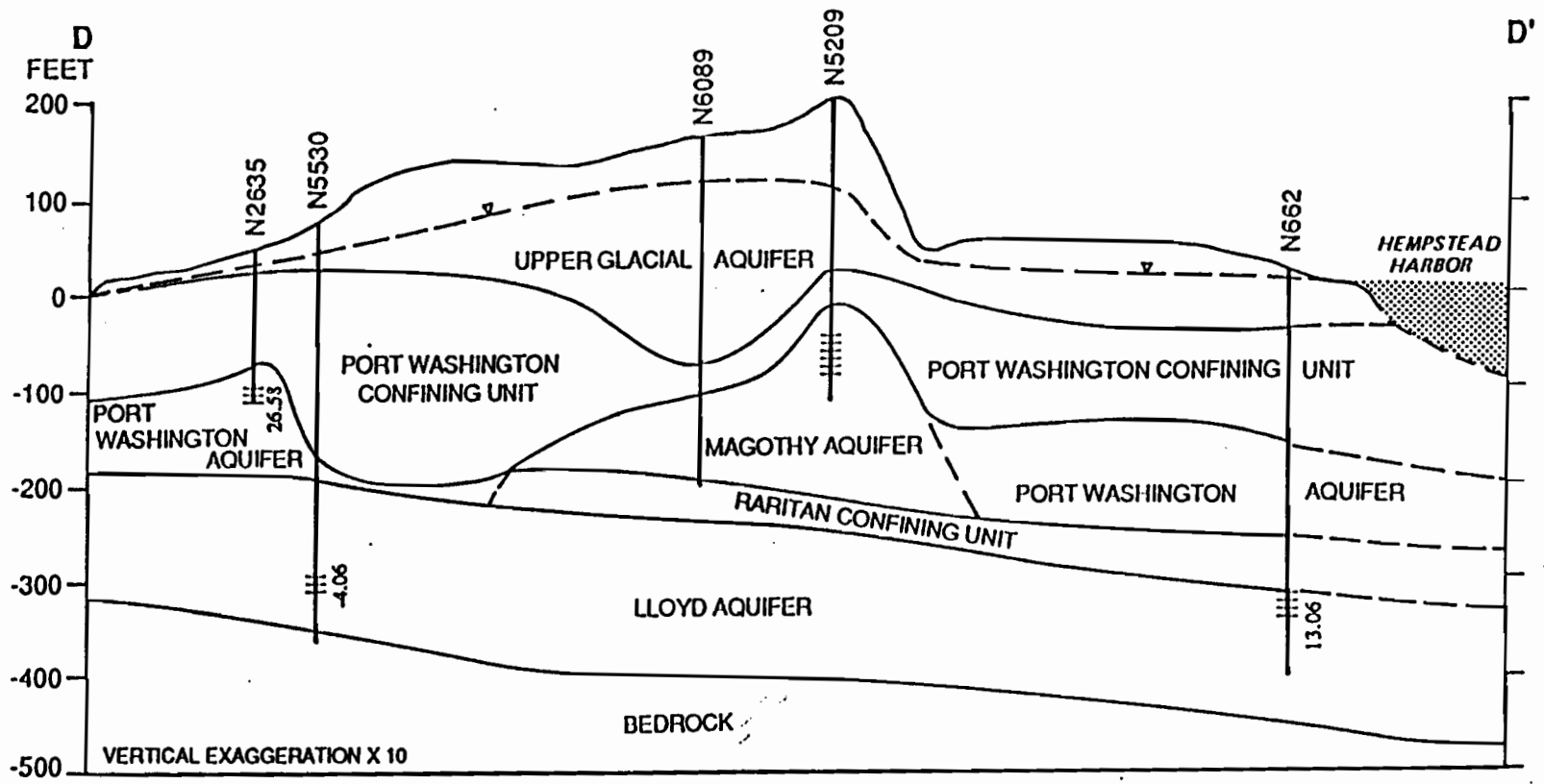
Prepared By: STS

Date: November 1996

Reviewed By: EAW

Figure: 4c

Drawing ID:  
 USERS:Steve/McDraw/Munsey@X-Sec B.



Hydrologic Section D

Source: USGS Water-Resources Investigations Report 88-4127

**CA RICH CONSULTANTS, INC.**  
 Certified Ground-Water and Environmental Specialists  
 404 Glen Cove Avenue, Sea Cliff, N.Y. 11579

Former Munsey Cleaners  
 Port Washington, NY

Prepared By: STS

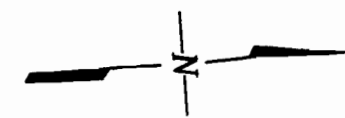
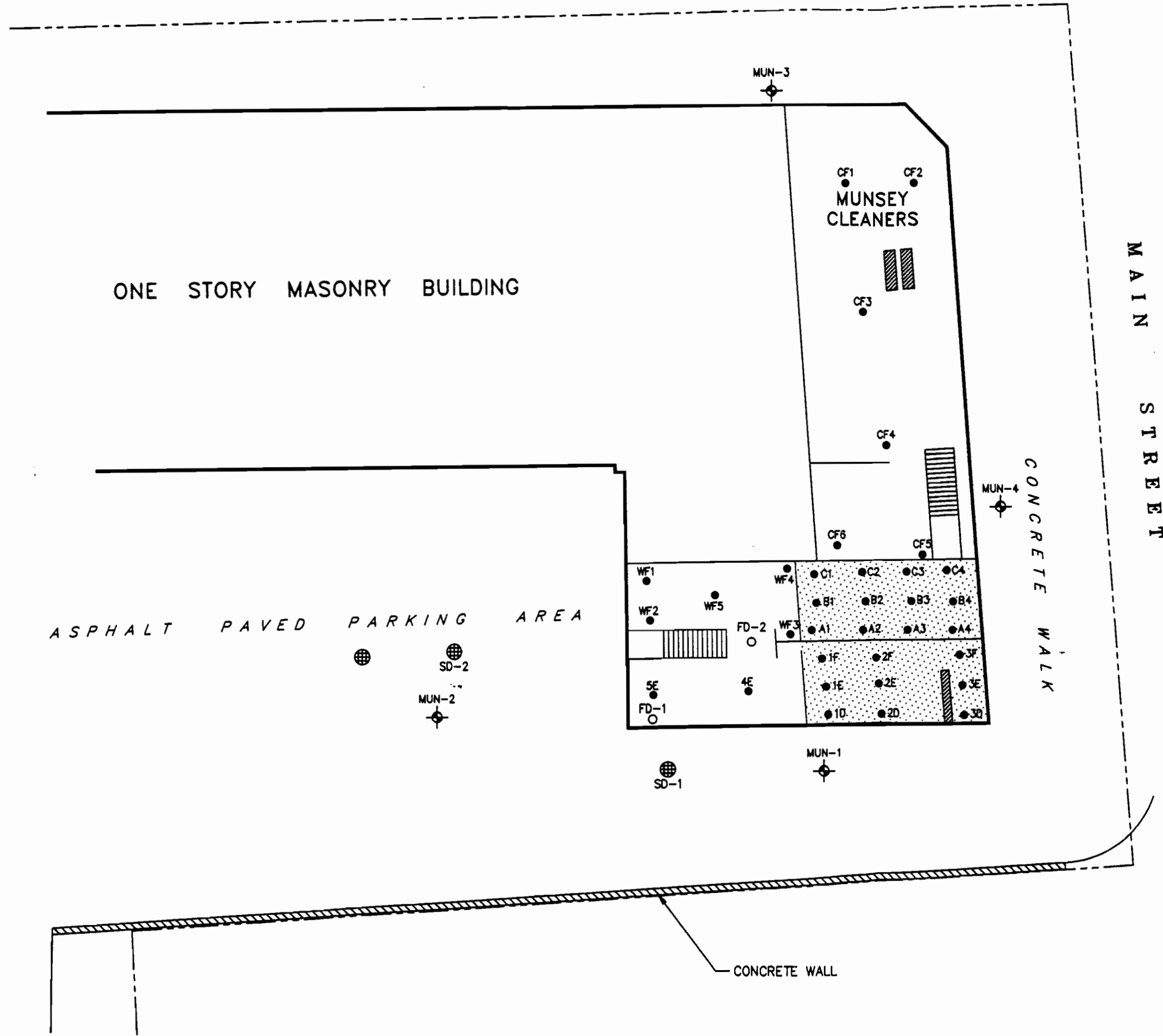
Date: November 1996

Reviewed By: EAW

Figure: 4d

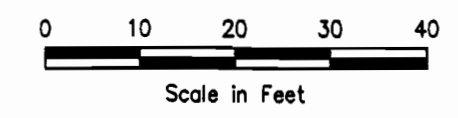
Drawing ID:  
 USERS:Steve/McDraw/Munsey@X-Sec D.

PORT WASHINGTON BOULEVARD



**LEGEND**

- ⊕ GROUNDWATER SAMPLE POINT
- SOIL PROBE SAMPLE POINT
- FLOOR DRAIN
- ⊗ STORM DRAIN
- ▨ EARTH FLOOR
- - - PROPERTY BOUNDARY

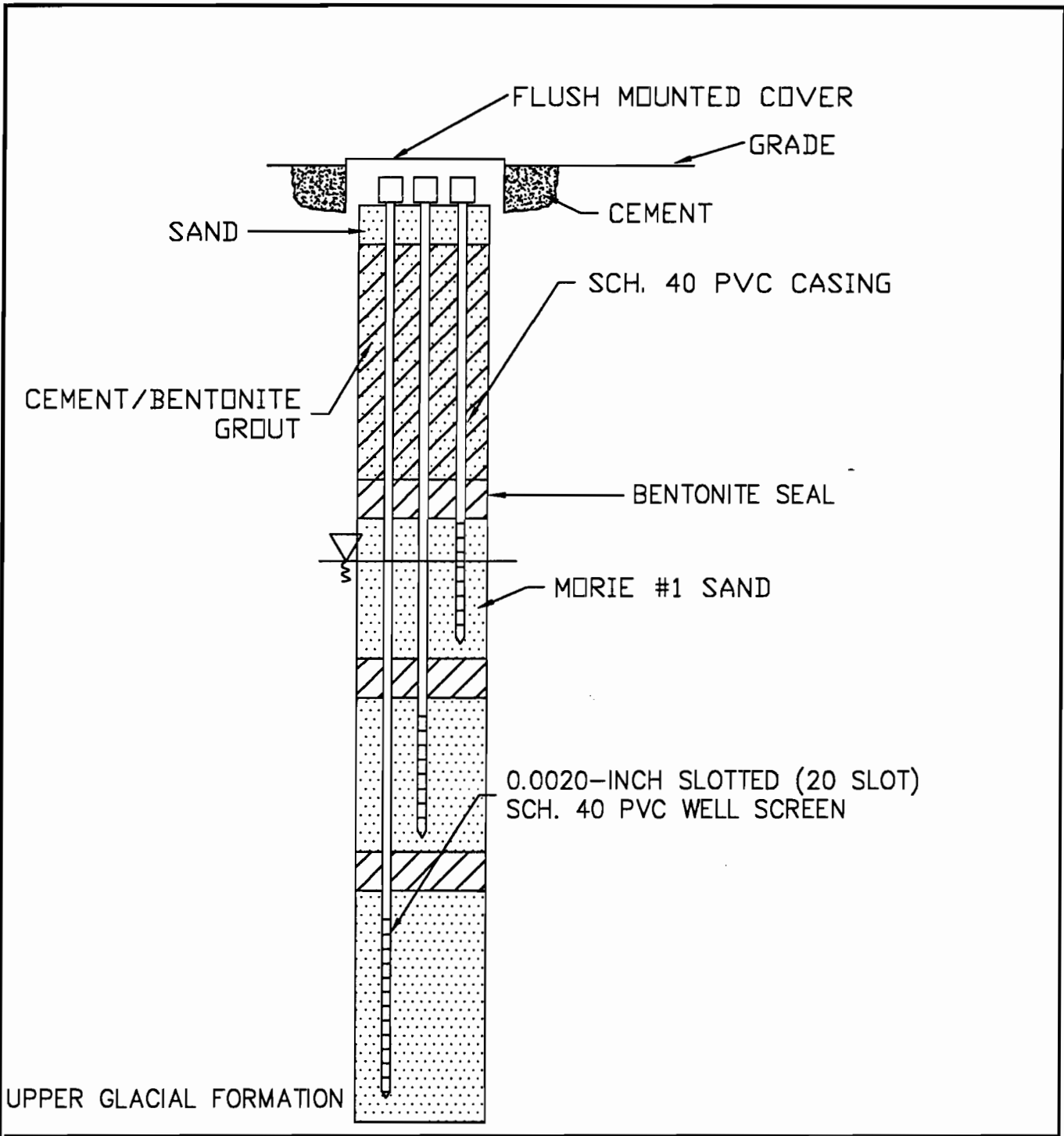


**SOURCE:**

SITE PLAN BASED ON THE SEAR-BROWN GROUP DRAWING ENTITLED "SURVEY OF PROPERTY" FOR API MANAGEMENT SERVICE 1029 THRU 961 PORT WASHINGTON BLVD., PORT WASHINGTON, NASSAU CO., NY DATED 12/14/93 AT A SCALE OF 1"=20'.

<b>CA RICH CONSULTANTS, INC.</b>	
Certified Ground-Water and Environmental Specialists 404 Glen Cove Avenue, Sea Cliff, NY 11579	
<b>TITLE:</b>	DETAILED SITE PLAN AND LOCATION OF SOIL AND GROUNDWATER PROBE POINTS
<b>DATE:</b>	8/27/98
<b>SCALE:</b>	AS SHOWN
<b>FIGURE:</b>	5
<b>DRAWING NO.:</b>	3240-01B.2
<b>DRAWN BY:</b>	C.G.
<b>APPR. BY:</b>	G.T.
<b>FORMER MUNSEY CLEANERS 1029 PORT WASHINGTON BLVD. PORT WASHINGTON, NEW YORK</b>	

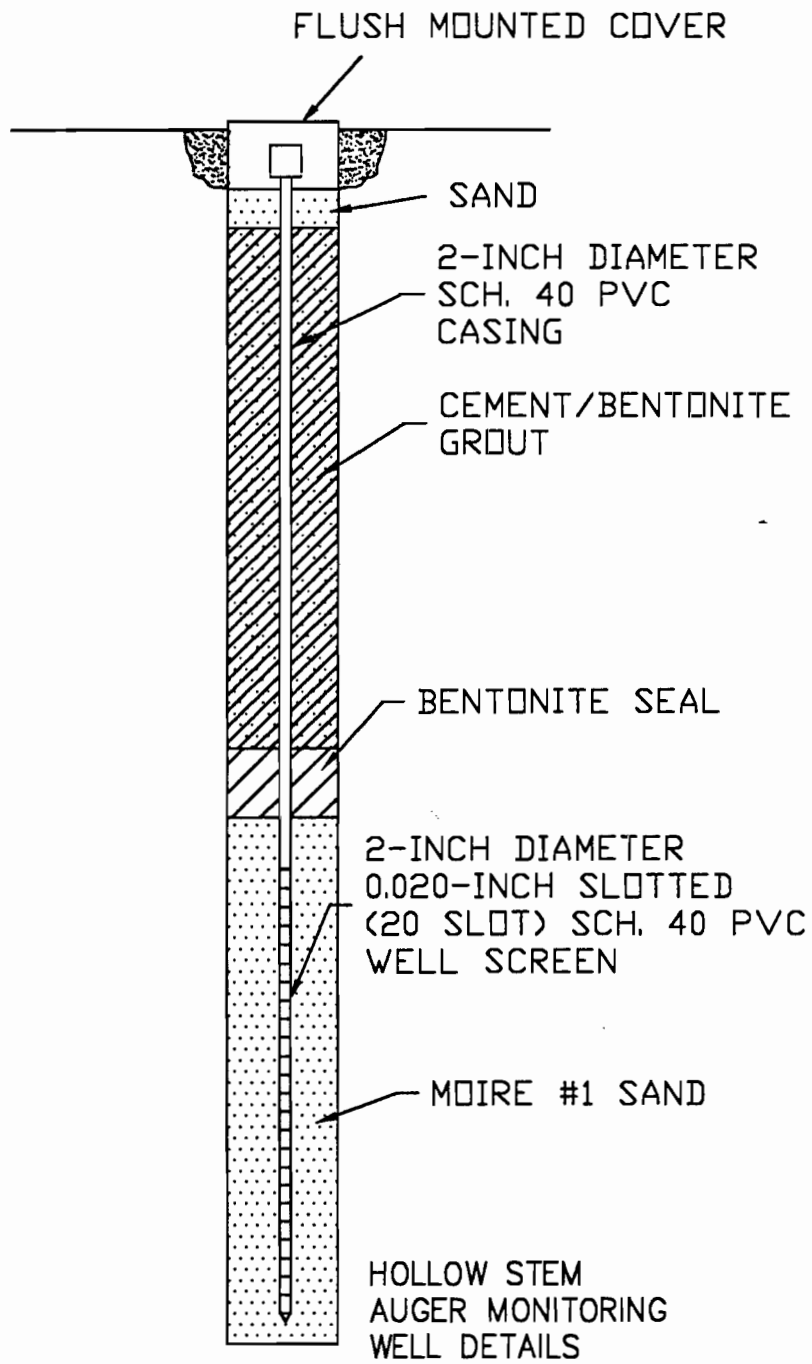




PORT WASHINGTON CONFINING UNIT

MULTIDEPH WELL CLUSTER  
NOT TO SCALE

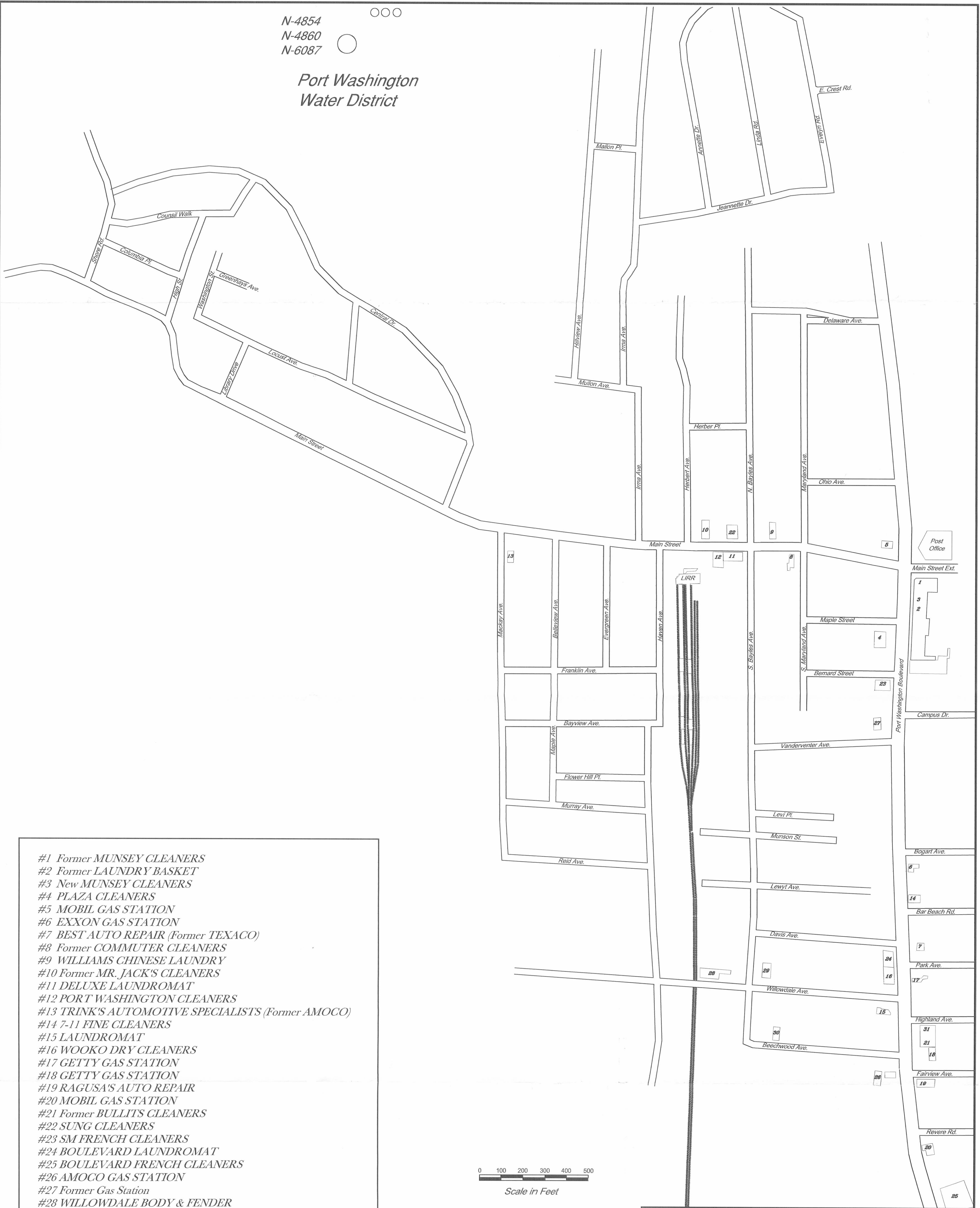
<b>CA RICH CONSULTANTS, INC.</b>	
Certified Ground-Water and Environmental Specialists 404 Glen Cove Avenue, Sea Cliff, NY 11579	
<b>TITLE</b>	PROPOSED MULTI-DEPTH GROUNDWATER MONITORING WELL CONSTRUCTION DETAILS
<b>DATE</b>	8/27/98
<b>SCALE</b>	AS SHOWN
<b>PROJECT</b>	6
<b>DRAWING NO.</b>	1064-1A
<b>DRAWN BY</b>	C.G.
<b>APPR. BY</b>	E.A.W.
FORMER MUNSEY CLEANERS 1029 PORT WASHINGTON BLVD. PORT WASHINGTON, NY	



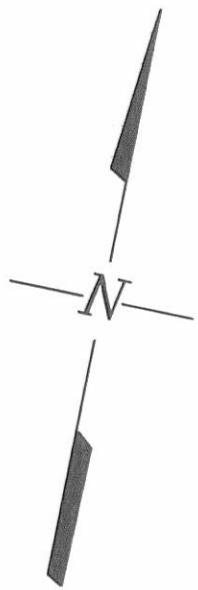
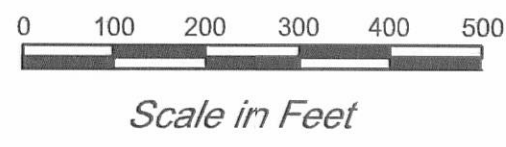
<b>CA RICH CONSULTANTS, INC.</b>			
Certified Ground-Water and Environmental Specialists 404 Glen Cove Avenue, Sea Cliff, NY 11579			
TITLE:		DATE:	
PROPOSED WATER TABLE MONITORING WELL DETAILS		8/27/98	
		SCALE:	
		AS SHOWN	
PICTURE:	7	DRAWN BY:	C.G.
DRAWING NO.:	1063-1A	APPR. BY:	G.A.T.
		FORMER MUNSEY CLEANERS 1029 PORT WASHINGTON BLVD. PORT WASHINGTON, NY	

N-4854  
 N-4860  
 N-6087

Port Washington  
 Water District



- #1 Former MUNSEY CLEANERS
- #2 Former LAUNDRY BASKET
- #3 New MUNSEY CLEANERS
- #4 PLAZA CLEANERS
- #5 MOBIL GAS STATION
- #6 EXXON GAS STATION
- #7 BEST AUTO REPAIR (Former TEXACO)
- #8 Former COMMUTER CLEANERS
- #9 WILLIAMS CHINESE LAUNDRY
- #10 Former MR. JACK'S CLEANERS
- #11 DELUXE LAUNDROMAT
- #12 PORT WASHINGTON CLEANERS
- #13 TRINK'S AUTOMOTIVE SPECIALISTS (Former AMOCO)
- #14 7-11 FINE CLEANERS
- #15 LAUNDROMAT
- #16 WOOKO DRY CLEANERS
- #17 GETTY GAS STATION
- #18 GETTY GAS STATION
- #19 RAGUSA'S AUTO REPAIR
- #20 MOBIL GAS STATION
- #21 Former BULLITS CLEANERS
- #22 SUNG CLEANERS
- #23 SM FRENCH CLEANERS
- #24 BOULEVARD LAUNDROMAT
- #25 BOULEVARD FRENCH CLEANERS
- #26 AMOCO GAS STATION
- #27 Former Gas Station
- #28 WILLOWDALE BODY & FENDER
- #29 SANDSPPOINT AUTOBODY
- #30 Auto Repair
- #31 DEWEY'S FRENCH CLEANERS



CA RICH CONSULTANTS, INC.

Certified Groundwater and Environmental Specialists  
 17 Dupont Street, Plainview, New York 11803

<b>TITLE:</b> MUNSEY GROUNDWATER STUDY AREA & KNOWN OR SUSPECTED USERS OF PERCHLORETHYLENE		<b>DATE:</b> 11/4/99
<b>PLATE:</b> 1		<b>SCALE:</b> AS SHOWN
<b>DRAWING NO.:</b> 1062-1A		<b>DRAWN BY:</b> C.G./S.T.M.
Former Munsey Cleaners Site Study Area Port Washington, New York		<b>APPR. BY:</b> E.A.W.