DECLARATION STATEMENT - RECORD OF DECISION

Manfred Schulte Inactive Hazardous Waste Disposal Site
Town of North Hempstead, Nassau County, New York
Site No. 130047

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the Manfred Schulte class 2 inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law. The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Manfred Schulte inactive hazardous waste disposal site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site have been addressed by implementing the interim remedial measure identified in this ROD. The removal of contaminated soil from the site has significantly reduced the threat to public health and the environment. Therefore, a groundwater monitoring program will be implemented to monitor the effectiveness of previous remedial actions in preventing further contamination of the groundwater.

Description of Selected Remedy

Based on the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Manfred Schulte site and the criteria identified for evaluation of alternatives, the NYSDEC has selected no further remedial action, with continued groundwater monitoring. An additional investigation, separate from this remedy, will also be conducted by NYSDEC in cooperation with the New York State Department of Health (NYSDOH) to determine the source of contamination impacting two nearby municipal supply wells.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

3/28/2000
Date

Michael J. O'Toole, Jr., Director
Division of Environmental Remediation

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RECORD OF DECISION

MANFRED SCHULTE SITE
Town of North Hempstead, Nassau County, New York
Site No. 130047
February 2000

SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) has selected this remedy for the Manfred Schulte class 2, inactive hazardous waste disposal site. As more fully described in Sections 3 and 4 of this document, a spill or spills into an on-site drywell resulted in the disposal of a hazardous waste, tetrachloroethene, a dry cleaning solvent also known as perchloroethene or PCE. Some of this contamination migrated from the site via the groundwater to surrounding off-site areas. These disposal activities resulted in the following significant threats to the public health and/or the environment:

- *a significant threat to human health and the environment associated with this site's contravention of groundwater standards and public drinking water standards in a sole source aquifer.*

During the course of the investigation, a removal action known as an Interim Remedial Measure (IRM), was undertaken at the Manfred Schulte site in response to the threats identified above. IRMs are conducted at sites when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS. The IRM undertaken at this site included removal of contaminated soil from within and beneath the on-site drywell. This contaminated soil was the source of the groundwater contamination.

Based upon the success of the above IRM, the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. Therefore, No Further Action was selected as the remedy for this site. The Manfred Schulte site appears to contribute very little, if any, to the continued contamination of nearby public drinking water supply wells by PCE and trichloroethene (TCE). In addition, the Department will also reclassify the site to a class 4 site on the New York State Registry of Inactive Hazardous Waste Disposal Sites.

SECTION 2: SITE LOCATION AND DESCRIPTION

The Manfred Schulte Inactive Hazardous Waste Disposal Site, site number 130047, is an active dry cleaning facility located at 405 Jericho Turnpike in the Village of New Hyde Park, Town of North

Hempstead, Nassau County (see Figure 1). The 0.3 acre site is on the north side of Jericho Turnpike, approximately 100 feet east of Hillside Boulevard.

Located on the property is a two story building occupied by the dry cleaners, doing business as T&S Cleaners. Two other businesses, Schneider's Technical Instruments, Corp. and Home Respiratory Equipment, Inc., share the ground floor. The building's second floor consists of five residential apartment units.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

During the 1980's, tetrachloroethene, a dry cleaning solvent also known as perchloroethene or PCE, was reportedly stored in two 1000 gallons tanks located in the basement of the building. The PCE was transferred via pipes which began above grade outside the building and ended at the basement tanks. The primary source of contamination was a drywell located in a paved alleyway next to the building in the vicinity of both the pipes and a stairway to the basement. It is thought that PCE entered the drywell as a result of a spill during a transfer of PCE to or from the basement.

3.2: Remedial History

In March of 1985 the New Hyde Park Building Department, responding to a complaint of odors emanating from the site, found that a PCE spill had entered the drywell in the alleyway on site. The site was then referred to the Nassau County Department of Health (NCDOH). An April 1985 water sample taken from the drywell contained significant contamination with PCE and it's breakdown products.

At NCDOH's direction, two 1000 gallon storage tanks were removed from the basement of the dry cleaners in July 1985. Contaminated soil and sediment were removed from the drywell in two stages, in November 1985 and February 1986. During the latter removal soil was excavated 10 to 15 feet below the bottom of the drywell. The bottom of the drywell is 12 feet below ground surface.

In May 1986, two shallow on-site monitoring wells, MW-1 and MW-2, were installed by a consultant hired by the property owner. Well MW-1 was installed through the center of the drywell and MW-2 about ten feet south of the drywell. Groundwater taken from these wells was found to be contaminated with PCE in concentrations of 30,000 parts per billion (ppb) and 45,000 ppb respectively. The standard for PCE is 5 ppb in groundwater. Neither these sample results, nor any other results from the soil and groundwater samples at this site taken prior to 1997, under went data validation to confirm that proper laboratory procedures were used. Recent groundwater sampling has been unable to confirm these high results.

Soil samples obtained from various depths during the installation of the monitoring wells contained PCE at concentrations up to 0.24 parts per million (ppm). This is less than NYSDEC's recommended soil cleanup objective for PCE of 1.4 ppm. However, shallow soil samples taken during the installation of MW-1 were not analyzed but were noted to have a "strong solvent odor".

Five additional shallow monitoring wells, MW-3 through MW-7, were installed between 1986 and 1988, one on-site and four off-site (see Figure 2). MW-3, MW-4 and MW-6 were constructed by drilling to approximately 120 feet, taking a groundwater sample, raising the screen approximately 20 feet and sampling again. The well screen was then raised again and sampled in its permanent position at or slightly below the water table, which is 55 to 60 feet below the ground surface in the vicinity of the site. MW-7 was installed by a similar method, but with samples taken only at two depths.

The results of this sampling showed the highest contamination of 1100 ppb of PCE in MW-6 at its shallowest sampling depth (see Table 1). MW-6 is approximately 150 feet from the drywell. At all locations, contamination was greatest at the water table and decreased with depth. The greatest contamination found in the 120 foot samples was 7 ppb at MW-3, just slightly above the groundwater standard.

In 1989, the site was listed as a Class 2 site in NYSDEC's Registry of Inactive Hazardous Waste Disposal Sites. A Class 2 site is one which is considered to be a significant threat to the public health or the environment.

The monitoring wells were not sampled again until 1995/96. By that time the maximum concentrations of PCE in groundwater had dropped dramatically. The highest remaining concentration was 115 ppb in MW-7, a slight increase from the 100 ppb detected in that well in 1988. All other wells saw PCE concentrations decrease. The two on-site wells that previously had over 30,000 ppb now were under 28 ppb.

The Manfred Schulte site is located approximately 1000 feet north of a municipal water supply well field owned and operated by the Water Authority of Western Nassau County. This well field consists of two supply wells, N-7649 and N-7650.

Well N-7649 has been impacted by VOC contamination since the 1970's. Prior to 1986 the well was screened between 165 and 205 feet. Between 1977 and 1985 PCE concentrations were as high as 47 ppb, but most sample results were under 10 ppb. Trichloroethene (TCE), which like PCE has a groundwater standard of 5 ppb, was also present. Concentrations of TCE during the 1977 to 1985 time period ranged from 4 ppb to 56 ppb. The well was screened to its current depth of 289 to 340 feet in 1986. Since that time concentrations of TCE in the well have consistently ranged from 100 to 250 ppb (see Table 2). PCE concentrations have ranged from 18 to 31 through the 1990's.

Well N-7650 is screened deeper than N-7649 at 400 to 440 feet below grade. Concentrations of PCE in this well have remained below the groundwater standard of 5 ppb except for a sample of 8.4 ppb taken in 1990. Since 1991, TCE concentrations have generally been in the 20 to 40 ppb range in this well.

It is important to note that TCE is the predominant contaminant in the water supply wells. The ratio of TCE to PCE is generally at least 5 to 1 in those wells.

SECTION 4: SITE CONTAMINATION

To evaluate the contamination present at the site and to evaluate alternatives to address the significant threat to human health or the environment posed by the presence of hazardous waste, the NYSDEC has recently conducted a Remedial Investigation/Feasibility Study (RI/FS).

4.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site.

The RI was conducted between July 1997 and February 1999. A report entitled Remedial Investigation Report - Manfred Schulte Site (October 1999) has been prepared which describes the field activities and findings of the RI in detail.

The RI included the following activities:

- *Groundwater flow modeling to determine locations for monitoring wells*
- *Subsurface soil sampling in the vicinity of the drywell*
- *Installation of eight monitoring wells*
- *Sampling of new and previously existing monitoring wells*
- *Geoprobe groundwater sampling*
- *Hydropunch groundwater sampling*
- *Ambient air sampling; and*
- *Surveying and mapping*

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the RI analytical data were compared to environmental Standards, Criteria, and Guidance values (SCGs). Groundwater, drinking water and surface water SCGs identified for the Manfred Schulte site are based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. For soils, NYSDEC TAGM 4046 provides soil cleanup objectives for the protection of groundwater, background conditions, and health-based exposure scenarios. Guidance values for evaluating contamination in sediments are provided by the NYSDEC "Technical Guidance for Screening Contaminated Sediments". Guidance values for evaluating ambient air concentrations are provided by the "NYSDOH Tetrachloroethene Ambient Air Criteria Document".

Chemical concentrations are reported in parts per billion (ppb), parts per million (ppm), and micrograms per cubic meter (ug/m^3) for air samples. For comparison purposes, where applicable, SCGs are provided for each medium.

4.1.1 Nature of Contamination:

As described in the RI Report, many soil, groundwater and air samples were collected at the Site to characterize the nature and extent of contamination. PCE, one of a category of contaminants known as volatile organic compounds (VOCs), is the only contaminant found to exceed SCGs in groundwater either on-site or in monitoring wells downgradient of the site. During recent testing three other VOCs, toluene, 1,2-dichloroethene (DCE), and TCE, were found to slightly exceed SCGs in groundwater samples taken at various depths at a side gradient location that would not have been impacted by the Schulte site.

Neither of the soil samples taken near the drywell exceeded SCGs for any VOC.

4.1.2 Extent of Contamination

Table 3 and Figure 3 summarize the extent of contamination for the contaminants of concern in groundwater and compares the data with the SCGs for the Site. The following are the media which were investigated and a summary of the findings of the investigation.

Soil

Subsurface soil samples were taken in the vicinity of the drywell in order to determine whether the soils were acting as a continuing source of groundwater contamination. A soil boring was completed immediately downgradient of and as close to the drywell as possible. Soil samples were taken from 15 to 17 feet, the approximate depth of the drywell bottom, and from 53-57 feet, just above the water table. The samples were analyzed for VOC contamination. Neither of the samples exceeded the SCGs for volatiles in soils.

Groundwater

Groundwater samples were taken via monitoring wells, Geoprobe, and Hydropunch sampling between July 1997 and February 1999. Geoprobe and Hydropunch are direct push methods of obtaining groundwater samples from varying depths at a given location, which may or may not result in the installation of a permanent monitoring well there. PCE was the only compound detected above SCGs in any of the on-site or downgradient groundwater samples. The SCGs for PCE in groundwater is 5 ppb.

Seven Geoprobe groundwater samples were taken at the water table from locations 200 to 800 feet downgradient (southwest) of the site in July 1997 (Figure 4). Six of these seven samples exceeded the SCG for PCE, the highest concentration being 46 ppb at GP-1, almost directly across the Jericho Turnpike from the Schulte site.

On-site shallow wells MW-1 and MW-2S, each approximately 60 feet deep, contained 13 ppb and 32 ppb of PCE respectively, a large decrease from the 30,000 ppb and 45,000 ppb concentration levels detected in 1986. The other two on-site wells, shallow well MW-3 and deep well MW-2D, 114' deep, were below SCGs.

Of the off-site wells, only shallow well MW-7S exceeded SCGs due to impacts from the Schulte site. MW-7S contained 44 ppb in July 1997 and 11 ppb in February 1999.

The MW-10 well pair, a side gradient location which would not have been contaminated by the Schulte site, was also found to have contamination by VOCs above SCGs. MW-10D, 116 feet deep, contained 31 ppb of TCE and an estimated 5 ppb of DCE. The SCG for both TCE and DCE is 5 ppb. MW-10MS is 193 feet deep and had 99 ppb of TCE. This side gradient well is the only monitoring well in this investigation which contained TCE, the primary public water supply contaminant, above groundwater standards.

None of the groundwater samples from the remaining five off-site monitoring wells, shallow well MW-9S, deep wells MW-7D and MW-9D, and the upgradient background shallow/deep pair of MW-8S and MW-8D, exceeded SCGs. Figure 6 is a cross section from the site to the public supply wells showing the groundwater contamination found at the various locations and depths along that line.

During the drilling of MW-2D, MW-7D, MW-9D and MW-10MS groundwater samples were taken at various elevations via Hydropunch before the well reached it's completed depth. Of these samples the only sample containing contamination above SCGs attributable to the Schulte site was MW-2D with 44 ppb of PCE at a depth of 60 feet. This Hydropunch sample was taken at approximately the same depth as the permanent screened interval of adjacent well MW-2S. The Hydropunch sample and MW-2S contained similar levels of contamination.

Hydropunch samples taken during drilling of MW-10MS contained 11 ppb of toluene (SCG of 5 ppb) at depths of both 64 feet and 84 feet. At 104 feet the sample contained 44 ppb of TCE, an estimated 8 ppb of benzene (SCG of 1 ppb), and an estimated 7 ppb of DCE. At 144 feet, groundwater contained an estimated 5 ppb of TCE and at 164 feet it contained 6 ppb of DCE.

The groundwater investigation was unable to confirm the unvalidated on-site groundwater sampling results from1986 indicating PCE concentrations in groundwater of up to 45,000 ppb.

Air

At the request of the NYSDOH, air monitoring was conducted in the facility's basement, first floor, second floor apartments, and adjacent to the Schulte site. Outdoor concentrations of PCE vapors were low (max 13 ug/m^3). The average concentration of PCE in the basement of the dry cleaners, where PCE was previously stored, was 476 ug/m^3.

Concentrations of PCE vapors in air on the first and second floor are likely due to the ongoing operation of the dry cleaners and, possibly, activities in the technical instrument shop. Active

facilities cannot be addressed under the inactive hazardous waste disposal site program but will be addressed by the appropriate County and/or State regulatory agencies. Therefore, the evaluation of any potential impacts from these vapors is beyond the scope of this document. The air sampling results showed the first floor averaged 1850 ug/m^3, with the highest concentrations in the technical instruments shop and the dry cleaners itself. Lower concentrations of PCE were found in the respiratory supply business.

The PCE concentrations in the second floor apartments averaged 356 ug/m^3, and exceeded the New York State Department of Health guideline for tetrachloroethene in indoor air at 100 ug/m^3. The owner of the dry cleaning establishment has since replaced the old dry cleaning equipment with a new system, which does not use PCE, thereby eliminating the source of PCE in indoor air.

4.2 Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the health risks can be found in Section 6 of the RI Report.

An exposure pathway is how an individual may come into contact with a contaminant. The five elements of an exposure pathway are 1) the source of contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events.

At the Schulte site no exposure pathways are currently known to exist and it is considered unlikely any would be completed in the future. Potential pathways which were evaluated include:

- **Ingestion:** Groundwater, containing contaminants in excess of public drinking water standards, is present both on and off-site. However, no contamination that can be attributed to the site was found in excess of public drinking water standards in the deeper, 110-120 foot monitoring wells. No private drinking water supply wells are known to exist in the area and the public drinking water supply wells are screened at a minimum of 289 feet. It is considered highly unlikely the low concentrations of PCE in the shallow groundwater would reach the depth of the public supply wells. Even if the contamination were to reach that depth, water from the public drinking water supply well is treated to remove VOCs such as PCE. Therefore, human exposure to PCE by ingestion of groundwater is unlikely.

- **Inhalation:** For the reasons explained above, no one is likely to come into contact with contaminated groundwater. If they were to come in contact, the risk of exposure via inhalation would be minimal due to the low concentration of PCE.

- **Dermal Contact:** Again, for the reasons explained under ingestion, the risk of direct contact to contaminated groundwater is very low.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The Potential Responsible Parties (PRP) for the site, documented to date, include Mr. Manfred Schulte, the owner/operator of the dry cleaners on site.

The PRPs declined to implement the RI/FS at the site when requested by the NYSDEC. After the remedy is selected, the PRPs will again be contacted to assume responsibility for the remedial program. If an agreement cannot be reached with the PRPs, the NYSDEC will evaluate the site for further action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State has incurred.

SECTION 6: SUMMARY OF THE SELECTED REMEDY

The selected remedy for any site should, at a minimum, eliminate or mitigate all significant threats to the public health or the environment presented by the hazardous waste present at the site. The State believes that the remediation completed under the IRM, which is described in Section 3.2 Remedial History, will accomplish this objective.

Based upon the results of the investigations and the removal action that have been performed at the site, the NYSDEC is selecting no further action, other than continued monitoring, as the remedial alternative for the site. The Department will also reclassify the site from a Class 2 to a Class 4 on the New York State Registry of Inactive Hazardous Waste Disposal Sites. A Class 4 classification means the site is properly closed but requires continued management.

It appears that the Manfred Schulte site does not contribute significantly to the contamination in the nearby public supply wells. In recent years, the water from the drinking water supply wells has consistently contained 150 to 250 ppb of total volatiles. The groundwater plume acting as the source of that contamination would need to be many times more concentrated due to the dilution that would occur in the public supply wells that pump up to 1,200 gallons per minute. The maximum concentration of PCE found in the groundwater directly related to and downgradient of the site was only 44 ppb in monitoring well MW-7S. This monitoring well is not located hydraulically upgradient of the nearby public drinking water supply wells, nor could this low concentration of PCE cause the much more significant contamination found in the public drinking water supply wells. Monitoring wells MW-9S and MW-9D, located halfway between the site and the nearby public supply wells, contained a maximum of 0.4 ppb of PCE, well below groundwater standards.

The maximum groundwater concentration of TCE, the predominant contaminant in the public drinking water supply wells, in groundwater contaminated by the site was only 2 ppb in a sample taken from on-site monitoring well MW-2S. The deeper monitoring wells at and downgradient of the site, approximately 110 feet deep (about 200 feet above the screened interval of the shallower water supply well), contained maximums of 0.8 ppb of TCE and 0.7 ppb of PCE. All of these

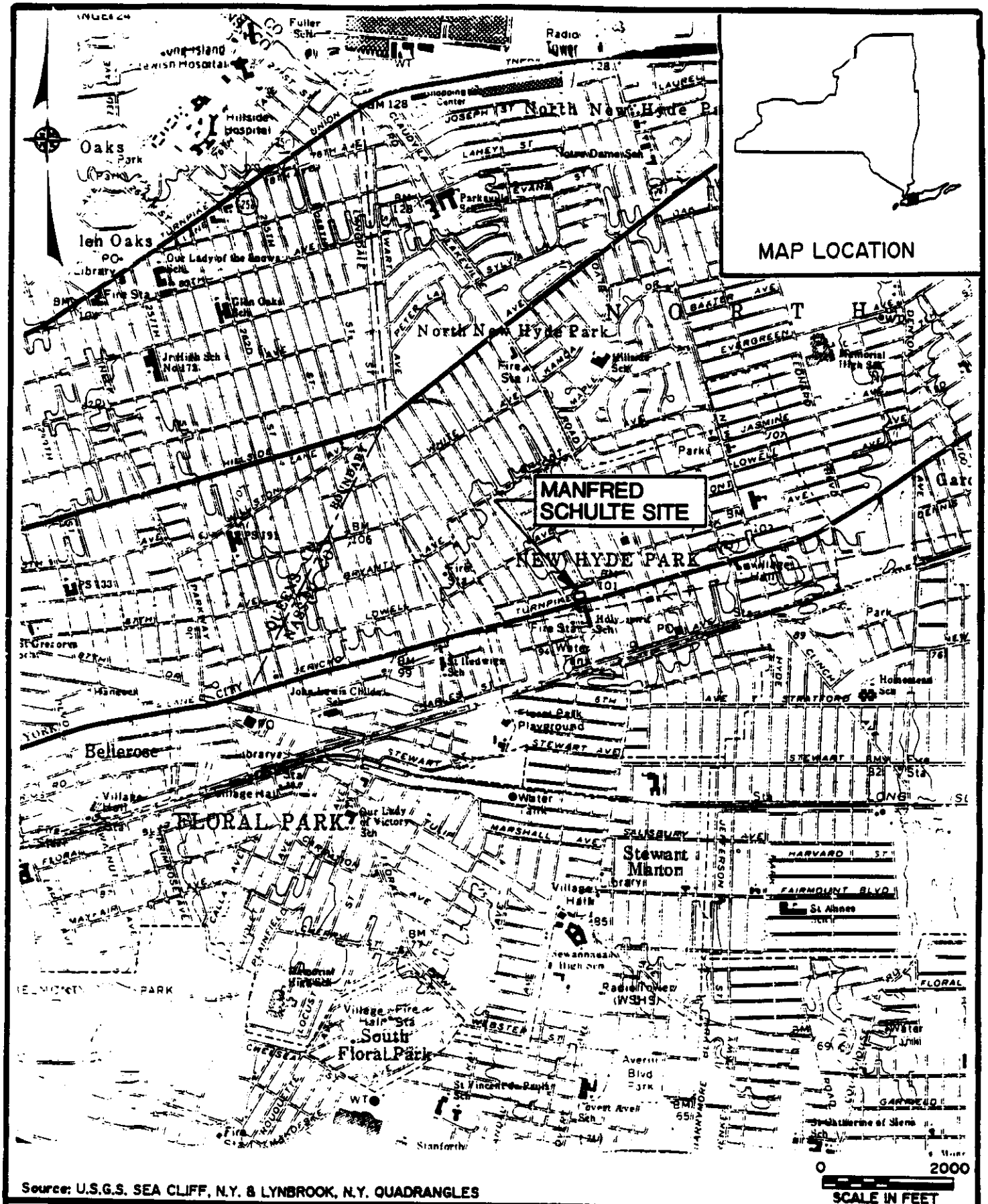
concentrations are also below groundwater standards again indicating that there is no evidence of significant contamination from the Schulte site reaching the public drinking water supply wells.

Since the remedy results in untreated hazardous waste remaining at the site, a long term semi-annual groundwater monitoring program is proposed. Semi-annual groundwater sampling will continue until contaminant concentrations in groundwater decrease sufficiently to allow the program to be terminated. It is anticipated this will take 5 to 10 years. The present worth cost of such a program is estimated to be $126,425, assuming a sampling duration of 10 years. This proposed remedy will also require an additional investigation, separate from this remedy, to be conducted by NYSDEC in cooperation with the NYSDOH to determine the source of the contamination impacting municipal supply wells N-7649 and N-7650. This investigation will include the installation and sampling of monitoring wells into the water bearing unit in which the municipal supply wells are screened, known as the Magothy aquifer, at locations upgradient of the municipal supply wells. The investigation will also include groundwater sampling downgradient of the municipal supply wells and the Manfred Schulte site to determine the ultimate fate of the groundwater plume. If this investigation finds significant downgradient groundwater contamination, the need for remedial actions in that area will be evaluated.

SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation activities were undertaken in an effort to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- A repository for documents pertaining to the site was established.
- A site mailing list was established which included nearby property owners, local political officials, local media and other interested parties.
- A fact sheet describing the proposed remedy and announcing a public meeting was mailed to those on the mailing list.
- A public meeting was held to give interested parties the opportunity to learn more about and comment on the proposed remedy.
- In February, 2000 a Responsiveness Summary was prepared and made available to the public, to address the comments received during the public comment period for the PRAP. The Responsiveness Summary is included at the end of this document as Appendix A.



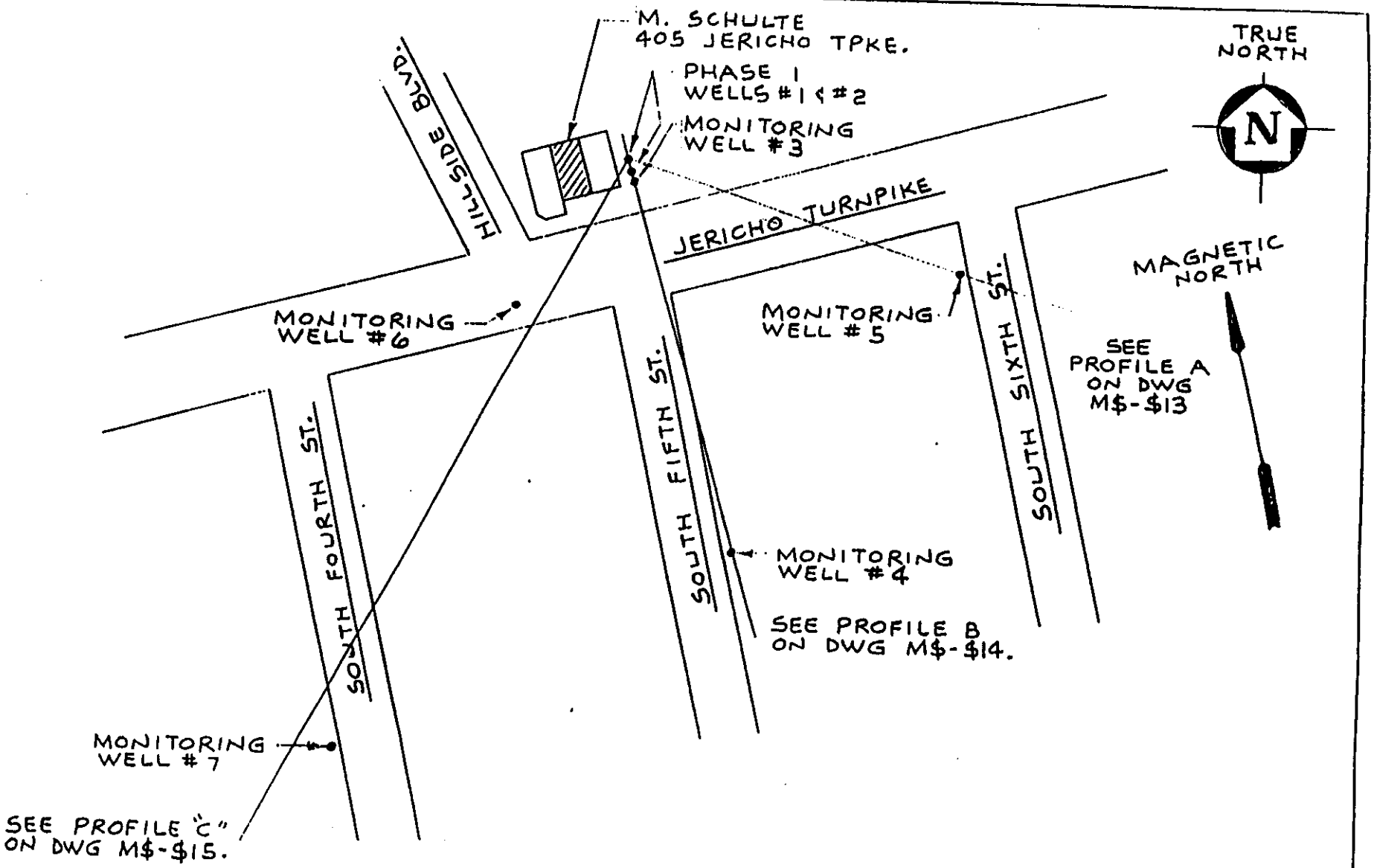
Source: U.S.G.S. SEA CLIFF, N.Y. & LYNBROOK, N.Y. QUADRANGLES

MANFRED SCHULTE SITE
NEW HYDE PARK, NEW YORK

Dvirka and Bartlucci CONSULTING ENGINEERS

SITE LOCATION MAP

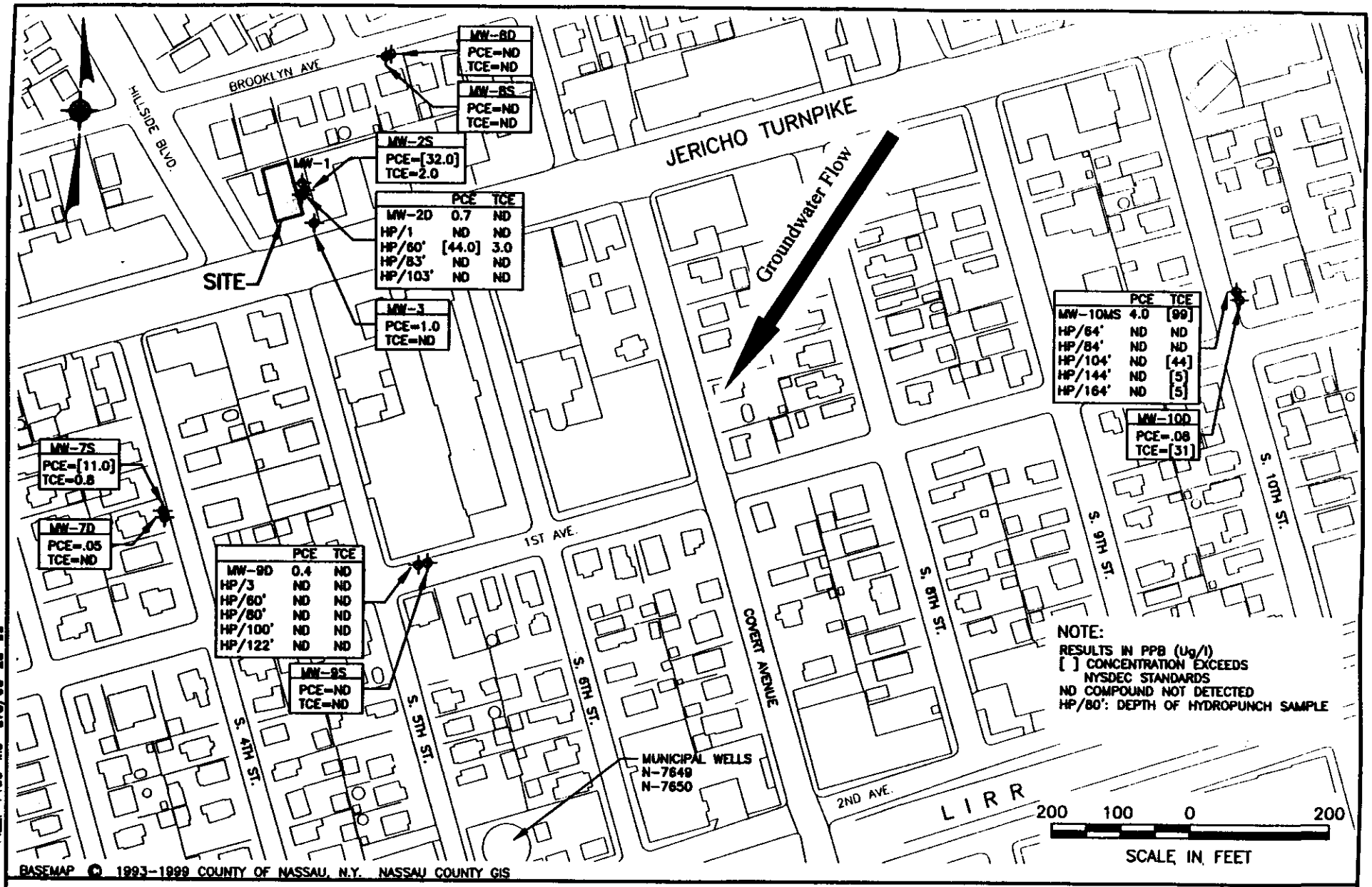
Figure 1



WELL LOCATION MAP
SCALE: 1"=100'

FOR: M. SCHULTE
405 JERICHO TPKE. NEW HYDE PARK
BY: DONNELLY ENGINEERING
DATE: APRIL 5, 1988 DWG M$-$12

Figure 2



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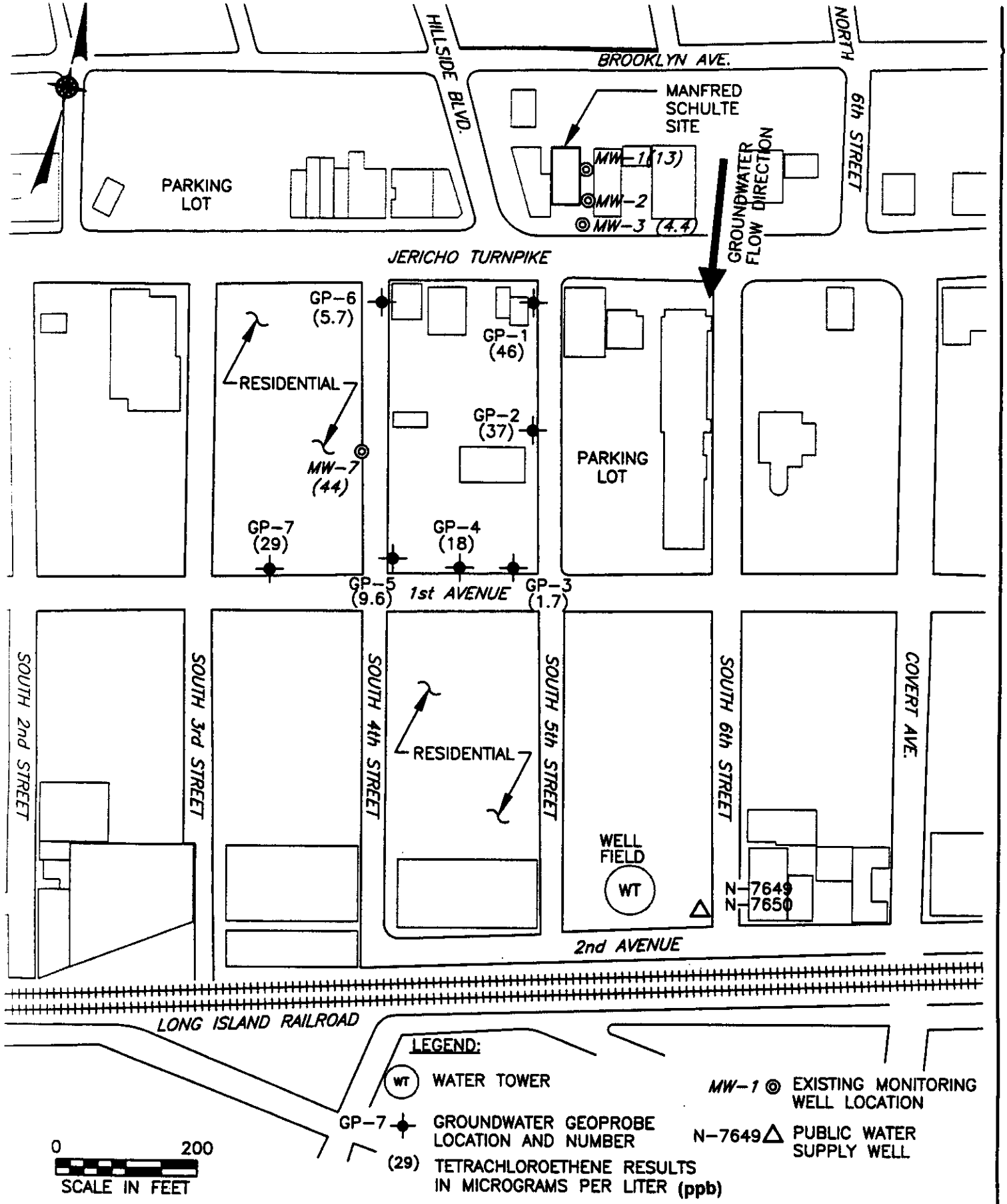
MANFRED SCHULTE SITE
NEW HYDE PARK, NEW YORK

TETRACHLOROETHENE (PCE) AND TRICHLOROETHENE (TCE) RESULTS IN GROUNDWATER
DECEMBER 1998–FEBRUARY 1999

Dvirka and Bartilucci
Consulting Engineers
A Division of William F. Cosulich Associates, P.C.

Figure 3

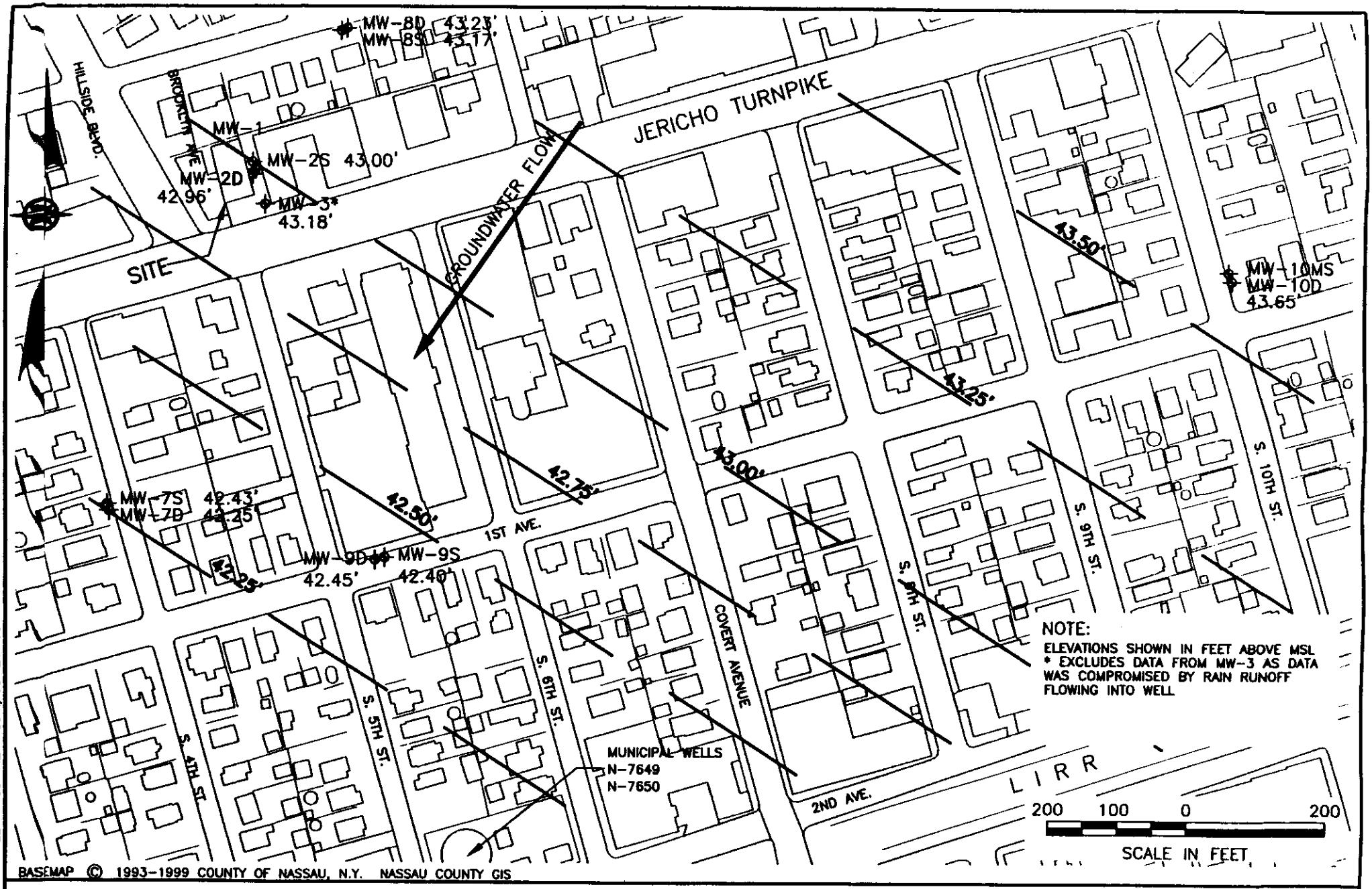


MANFRED SCHULTE SITE
NEW HYDE PARK, NEW YORK

TETRACHLOROETHENE IN GROUNDWATER RESULTS JULY 1997

Dvirka and Bartilucci Consulting Engineers
A Division of William F. Cosulich Associates, P.C.

Figure 4



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MANFRED SCHULTE SITE
NEW HYDE PARK, NEW YORK

GROUNDWATER CONTOURS AND FLOW DIRECTION, UPPER GLACIAL AQUIFER
FEBRUARY 2, 1999

Dvirka and Bartilucci
Consulting Engineers
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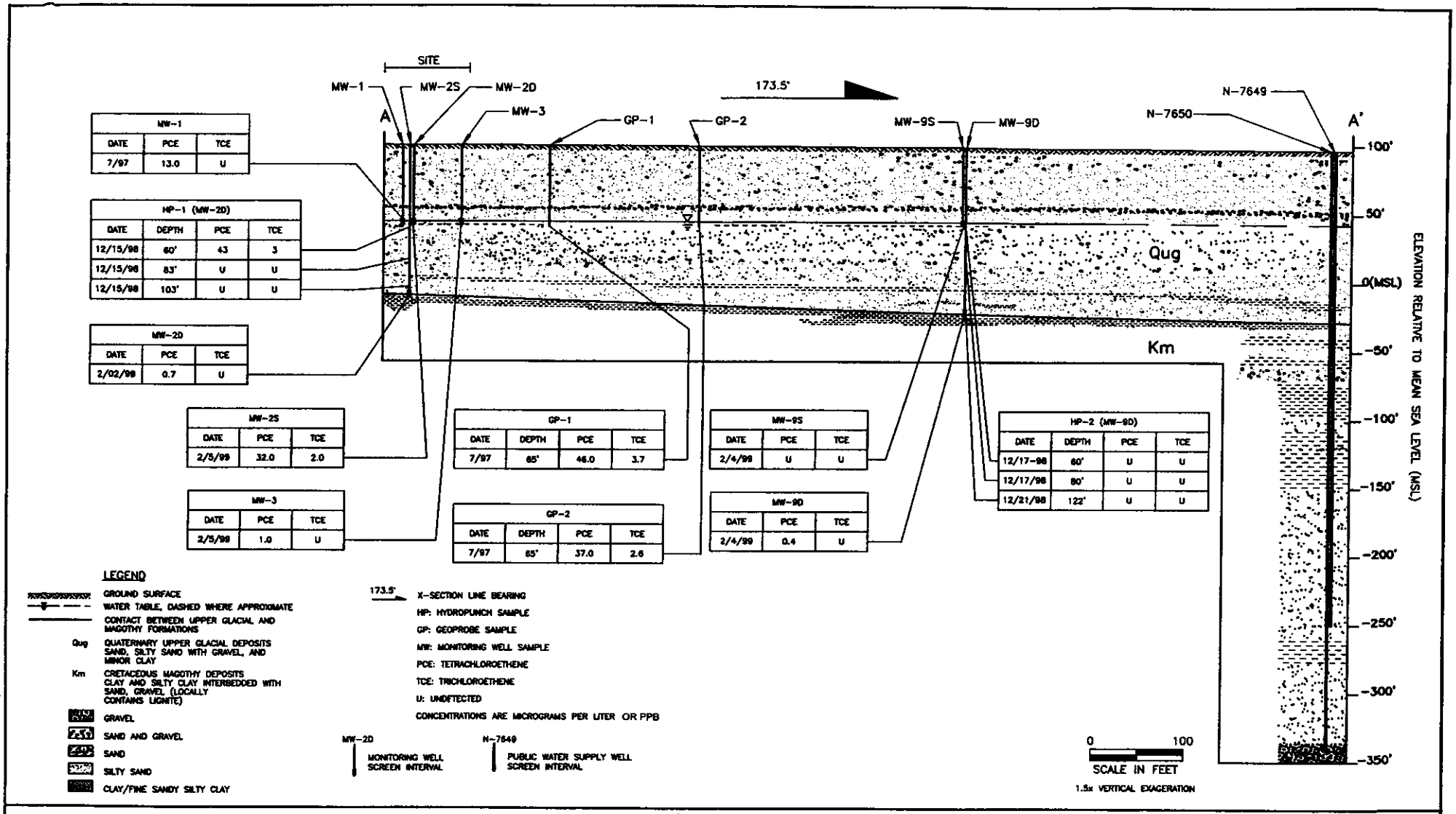
Figure 5



MANFRED SCHULTE SITE
NEW HYDE PARK, NEW YORK

GEOLOGIC CROSS SECTION AND
GROUNDWATER SAMPLE RESULTS SUMMARY

Figure 6

Dvirka and Bartilucci
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Table 1

HISTORICAL GROUNDWATER QUALITY DATA

MANFRED SCHULTE SITE

LOCATION AND DEPTH	DATE	PCE (ppb)	TCE (ppb)	DCE (ppb)	VINYL CHLORIDE (ppb)	METHYLENE CHLORIDE (ppb)
MW-1 (70')	5/8/86	30,000	180	320	ND	9
MW-2 (70')	5/8/86	45,000	270	400	ND	12
MW-3 (80')	8/1/86	300	6	10	ND	ND
(100')	8/1/86	240	5	7	ND	5
(120')	8/1/86	7	ND	ND	ND	ND
MW-4 (73')	8/11/86	7	ND	ND	ND	ND
(100')	8/11/86	ND	ND	ND	ND	ND
(120')	8/11/86	ND	ND	ND	ND	ND
MW-5 (70')	8/1/86	7	ND	ND	ND	ND
MW-6 (69')	1987	1,100	UNK	UNK	UNK	UNK
(94')	1987	81	UNK	ND	ND	ND
(114')	1987	6	UNK	ND	ND	ND
MW-7 (60')	1988	100	UNK	ND	ND	ND
(95')	1988	23	UNK	ND	ND	ND

ppb: parts per million
ND: Not Detected
UNK: Unknown

Table 2

HISTORICAL GROUNDWATER QUALITY DATA
MUNICIPAL SUPPLY WELLS N-7649 AND N-7650

WELL NO. N-7649 Depth: 340 feet			WELL NO. N-7650 Depth: 440 feet		
DATE	**PCE (ppb)**	**TCE (ppb)**	**DATE**	**PCE (ppb)**	**TCE (ppb)**
11/18/77	6	4	11/18/77	ND	10
12/18/78	2	11	12/11/78	ND	14
10/26/79	2	11	11/20/79	ND	15
2/11/81	6	20	2/10/81	ND	15
2/14/82	6	37	1/7/82	ND	12
4/14/83	47	11	3/15/83	1.00	25
5/19/83	12	56	1/23/84	NT	31
9/5/84	2	41	3/14/84	1	34
3/13/85	9	14	5/30/85	3	70
4/23/86	NT	118	4/21/86	NT	58
7/29/86	3	250	7/29/86	3	7
4/13/87	2	110	4/13/87	3	66
1/20/88	8	150	1/15/88	4	68
4/3/89	6	130	3/31/89	4.9	41
2/2/90	18	160	1/3/90	8.4	67
2/6/91	19	140	2/14/91	1.4	26
2/4/92	18	130	2/5/92	1.2	27
2/8/93	20	160	2/8/93	ND	6.1
2/1/94	21	160	6/15/94	1	18
2/6/95	31	210	2/22/95	1.6	39
2/13/96	21	160	4/18/96	0.8	15
8/13/97	24	220	8/29/97	0.6	27
2/6/98	21	140	5/27/98	1.6	20
8/6/98	26	160	9/16/98	ND	2.8
2/10/99	22	120	1/13/99	ND	4.0
6/9/99	25	110	7/7/99	0.7	38

NT: Not Tested
ND: Not Detected
Source: Nassau County Department of Health
*Both wells provide raw water, which is treated with air stripping and chemical treatment.

Table 3
Nature and Extent of Volatile Organic Compound Contamination
July 1997 - February 1999

MEDIUM	LOCATION	CONTAMINANT OF CONCERN	CONCENTRATION (ppb)	SCG (ppb)
Groundwater	MW-1	Tetrachloroethene	13	5
	MW-2S	Tetrachloroethene	32	5
	MW-7S	Tetrachloroethene (7/97 sample) Tetrachloroethene (2/99 sample)	44 11	5
	MW-10S (side gradient)	Trichloroethene 1,2-Dichloroethene	31 5	5 5
	MW-10MS (side gradient)	Trichloroethene	99	5
Geoprobe Groundwater	GP-1	Tetrachloroethene	46	5
	GP-2	Tetrachloroethene	37	5
	GP-4	Tetrachloroethene	18	5
	GP-5	Tetrachloroethene	9.6	5
	GP-6	Tetrachloroethene	5.7	5
	GP-7	Tetrachloroethene	29	5
Soils from boring MS-SB-1	15'-17' depth	Tetrachloroethene	1 (estimated)	1400
	53'-57' depth	Tetrachloroethene	Not detected	1400

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Manfred Schulte Site
Proposed Remedial Action Plan
North Hempstead, Nassau County
Site No. 130047

The Proposed Remedial Action Plan (PRAP) for the Manfred Schulte site was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repository on December 21, 1999. This Plan outlined the preferred remedial measure proposed for the remediation of the contaminated soil and sediment at the Manfred Schulte site. The preferred remedy is no further action, other than groundwater monitoring.

The release of the PRAP was announced via a notice to the mailing list, informing the public of the PRAP's availability.

A public meeting was held on January 13, 2000 which included a presentation of the Remedial Investigation (RI) as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. Written comments were received from Mr. Manfred Schulte and the New York State Legislative Commission on Water Resource Needs of New York State and Long Island.

The public comment period for the PRAP ended on January 26, 2000.

This Responsiveness Summary responds to all questions and comments raised at the January 13, 2000 public meeting and to the written comments received.

The following are the comments received at the public meeting, with the NYSDEC's responses:

COMMENT 1: Is there any other source of TCE that we know of?

RESPONSE 1: There are fairly distant, known sources of TCE and other solvents upgradient of the public water supply wells, but at this time there is insufficient evidence to determine whether these sites may be a source of contamination to these wells. The potential for the known upgradient sources to impact the public water supply wells will be evaluated during NYSDEC's investigation of the supply wells' contamination.

COMMENT 2: There are two other public water supply wells to the southwest of this area. Could they also be impacted by this unknown source?

RESPONSE 2: Water Authority of Western Nassau public water supply wells N-4298, located approximately 3000 feet southwest of the impacted wells N-7649 and N-7650, is also contaminated by TCE, though at lower levels than the other two wells. It is possible that this well could be impacted from the same source as is affecting N-7649 and N-7650. The water from each of these wells is treated to meet public drinking water standards.

COMMENT 3: Was monitoring well MW-10 located near another dry cleaner?

RESPONSE 3: The MW-10 well pair was located northeast of public water supply wells N-7649 and N-7650 in an attempt to determine if contamination was reaching the supply wells from that direction. Past water quality data from other sources suggests a distant contamination source in that general direction. NYSDEC knows of no potential sources of contamination in the vicinity of MW-10.

COMMENT 4: At this point, does Mr. Schulte have any responsibility for this cleanup?

RESPONSE 4: There is no further cleanup selected in this ROD. Mr. Schulte funded the IRM and original investigation in the 1980's. He will be asked to fund the design and implementation of the long term groundwater monitoring described in this remedy. He could also be potentially liable for the State's past costs incurred during the recently completed Remedial Investigation. Mr. Schulte will not be asked to fund the investigation to determine the source of contamination to the nearby drinking water supply wells.

COMMENT 5: Do you know when NYSDEC would start this additional investigation?

RESPONSE 5: An additional investigation, separate from the Manfred Schulte site investigation, to determine the source of the contamination to N-7649 and N-7650 would likely begin in approximately 6 to 9 months.

COMMENT 6: How far away would this investigation go?

RESPONSE 6: The investigation would go as far as is necessary to find the source of contamination. This could potentially be one mile or more upgradient of the site.

COMMENT 7: We were told there are three aquifers with bedrock between them and the Water Authority does not draw from the shallow aquifer.

RESPONSE 7: There are three aquifers in this part of Long Island with bedrock below the deepest aquifer. The Water Authority of Western Nassau public water supply wells in the vicinity of the site are screened in the middle aquifer, known as the Magothy Aquifer, as are most public water supply wells on Long Island. According to the Nassau County Department of Health publication "Ground Water and Public Water Supply Facts for Nassau County, New York (1998)", the Water Authority does have wells screened in each of the other two aquifers, the shallow Upper Glacial Aquifer and the deep Lloyd Aquifer. None of these wells are near the site.

COMMENT 8: What are the public notification requirements for a site such as this. I think everyone in the water district should be notified.

RESPONSE 8: NYSDEC's develops a mailing list of nearby residents, public officials, civic groups, news media, and other interested parties. The news media is included as a means to reach those individuals or groups that are interested in the site but are not directly notified via the mailing list. To include all of the people in the water district in the mailing list would be impractical. In the event a public water supply well is impacted by contaminants above groundwater standards, the water district is required to notify it's customers.

COMMENT 9: Who will conduct the ongoing air monitoring of the dry cleaner? When will this happen?

RESPONSE 9: The owner of the dry cleaners has recently replaced the old dry cleaning system with a new system that does not use PCE. This has resolved the issue of PCE contamination in indoor air in the apartments. Therefore, no further air monitoring is planned .

COMMENT 10: What will Nassau County DOH do to eliminate vapors for the tenants of the apartments?

RESPONSE 10: As stated in the response to Comment 9, the owner of the dry cleaners has recently replaced the old dry cleaning system with a new system that does not use PCE. This has resolved the issue of PCE contamination in indoor air in the apartments.

COMMENT 11: The Town of North Hempstead requests that NYSDEC's Division of Air resources be notified of the vapor problems in the apartments above the site.

RESPONSE 11: NYSDEC's Region 1 (Stony Brook) office of the Division of Air was notified of this vapor problem. However, the replacement of the old dry cleaning system resolved this issue.

A letter dated January 7, 2000 was received from Mr. Manfred Schulte, who operates the dry cleaning business at the site, which included the following comments:

COMMENT 12: On page three of your Fact Sheet, it says "Based on the finding of the RI, NYSDEC believes the Manfred Schulte site has caused very little, if any, of the TCE and PCE contamination in the nearby municipal water supply wells."

Because of this, I think you should rename this site. You have admitted that I did not cause the contamination. You should not attach my name to someone else's pollution.

RESPONSE 12: The past and present contamination at and immediately down gradient of 405 Jericho Turnpike appear to be directly attributable to activities which occurred at that address

during the storing and transfer of PCE. While contamination concentrations have decreased, PCE is still present in on-site and off-site groundwater at concentrations exceeding groundwater standards due to these actions. You are the operator of the business that stored and used this contaminant. Therefore, the name of the site will not be changed.

It is accurate that NYSDEC does not believe these actions have significantly contributed to the contamination of the nearby municipal supply wells. Accordingly, the upcoming investigation will not be associated with the name of this site.

COMMENT 13: I also object to your proposal for ongoing monitoring of the area. There does not seem to be enough evidence of contamination to justify this additional expense.

RESPONSE 13: NYSDEC believes the presence of groundwater in violation of groundwater standards due to the Manfred Schulte site merits continued monitoring to ensure this contamination does not present a threat to the public health.

COMMENT 14: Finally, I want you to know that if you send me a bill for your investigation and other work on site, I do not plan to pay it, because you yourselves say I am not the cause of the contamination.

RESPONSE 14: The State will pursue recovery of remedial costs from the responsible party in accordance with the law.

A letter dated January 10, 2000 was received from Rosemary Konatich of the New York State Legislative Commission on Water Resource Needs of New York and Long Island, which included the following comments:

COMMENT 15: Without an evaluation of the fate of known groundwater contamination the RI cannot be considered complete. Specifically, the following basic information must be provided: the rate and direction of flow in the study area; an explanation of PCE transport in groundwater (any retardation factor, tendency to sink/float in groundwater); an estimation of timeframe and distance that PCE from the site would travel with groundwater flow before reaching groundwater standards/background levels through natural attenuation; the potential for DNAPL based on the historic levels of contaminants found.

RESPONSE 15: During the RI a three-dimensional groundwater flow and mass transport model was compiled taking into account the factors you mention. Information about this groundwater model is available in the RI report. Deep monitoring wells were installed on and off site during the RI to determine whether DNAPL may be present at this site. None of the groundwater from the deep wells on and downgradient of the Schulte site exceeded the groundwater standards for site related contaminants.

COMMENT 16: The proposed action includes additional investigation of the source of contamination impacting nearby public supply wells. This must be expanded to include an evaluation of the fate of the significant levels of PCE associated with the Schulte site, found on and off site in 1986 and 1988. If, as a result of that evaluation, it is determined that off-site groundwater contamination exists, remedial action to reduce the volume concentration and further migration should be reviewed.

RESPONSE 16: The additional investigation, which was included as part of the proposed remedy, will be expanded to include a downgradient investigation to determine the ultimate fate of the groundwater plume. If this investigation finds significant downgradient groundwater contamination, the need for remedial actions in that area will be evaluated.

APPENDIX B

Administrative Record

Appendix B
Administrative Record

Manfred Schulte Site
Site Number 1-30-047

2) Status Report: M. Schulte Dry Cleaners, 405 Jericho Turnpike, New Hyde Park, NY, February, 1996. Prepared for Manfred Schulte by Tyree Brothers Environmental Services, Inc.

3) Remedial Investigation and Feasibility Study Work Plan, Manfred Schulte Site, New Hyde Park, NY, October 1998. Prepared for the New York State Department of Environmental Conservation by Dvirka and Bartilucci, Consulting Engineers

4) Remedial Investigation Report, Manfred Schulte Site, New Hyde Park, NY, October 1999. Prepared for the New York State Department of Environmental Conservation by Dvirka and Bartilucci, Consulting Engineers

5) Proposed Remedial Action Plan, Manfred Schulte Site, Town of North Hempstead, New York, December 1999. Prepared by the New York State Department of Environment Conservation.