

Department of Environmental Conservation



Division of Environmental Remediation

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**Record of Decision**  
**Cantor Brothers Site**  
**Town of Babylon, Suffolk County**  
**Site Number 1-52-021**

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**MARCH 2000**

New York State Department of Environmental Conservation  
GEORGE E. PATAKI, *Governor*

JOHN P. CAHILL, *Commissioner*

## **DECLARATION STATEMENT - RECORD OF DECISION**

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### **Cantor Brothers Site Inactive Hazardous Waste Site East Farmingdale, Town of Babylon, Suffolk County, New York Site No. 1-52-021**

#### **Statement of Purpose and Basis**

The Record of Decision (ROD) presents the selected remedy for the Cantor Brothers 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 Cantor Brothers 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 measures identified in this ROD. The removal of the contaminated storm drain sediments and the ongoing soil vapor extraction system has significantly reduced the threat to public health and the environment. Therefore, the site will no longer represent a current or potential significant threat to public health and the environment upon satisfactory completion of the operation of the soil vapor extraction system.

#### **Description of Selected Remedy**

Based on the results of the Remedial Investigation (RI) for the Cantor Brothers Site, the NYSDEC has selected No Further Action with the continued operation of the soil vapor extraction (SVE) system to address the volatile organic compounds (VOCs) from the soils beneath and adjacent to the building on site. The components of the remedy are as follows:

- Continued operation of the SVE system. Confirmatory samples will be taken to demonstrate that NYSDEC Technical and Administrative Guidance Memorandum 4046, Soil Cleanup Objectives have been achieved.

**New York State Department of Health Acceptance**

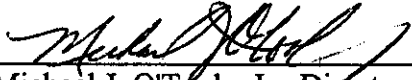
The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

**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.

Date

3/30/2000

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

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# RECORD OF DECISION

**CANTOR BROTHERS SITE**  
**Town of Babylon, Suffolk County, New York**  
**Site No. 1-52-021**  
**March 2000**

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## **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 a remedy for the Cantor Brothers Class 2 Inactive Hazardous Waste Disposal Site. As more fully described in Sections 3 and 4 of this document, improper storage of chemical drums and spills that occurred during chemical repackaging resulted in releases of hazardous wastes, specifically volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PAHs), at the site. These disposal activities resulted in the following significant threat to the public health and the environment:

- a significant threat to human health and the environment due to the potential for contamination in the soils to leach to the groundwater which is utilized as a sole source aquifer.

During the course of the investigation certain actions, known as Interim Remedial Measures (IRMs), were undertaken at the Cantor Brothers Site in response to the threat identified above. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS. Two IRMs have been implemented at the Cantor Brothers Site. The first IRM is the completed sediment removal from the storm drains and the second IRM is the continuation of the ongoing soil vapor extraction (SVE) system beneath and adjacent to the building on the site. During the storm drain IRM sediments contaminated with PAHs were removed. The SVE IRM is addressing the presence of VOCs in the soils identified beneath and adjacent to the slab of the manufacturing portion of the building on site. The findings of the site investigation indicate that once the SVE system has remediated soils to below the NYSDEC Technical and Administrative Guidance Memorandum 4046 Soil Cleanup Objectives, site remediation will be complete, and the Site will no longer pose a threat to public health or the environment.

Based on the success of the above IRMs, the findings of the investigation for this site indicate that the site will no longer pose a threat to human health or the environment, therefore No Further Action was selected as the remedy for this site. In addition, the Department will also reclassify the site to a Class 4 site in the New York State Registry of Inactive Hazardous Waste Disposal Sites. A Class 4 site is defined as a site which is "properly closed - requires continued management". Once the SVE system has achieved the soil cleanup objectives, the Department will delist the Cantor Brothers Site from the New York State Registry of Inactive Hazardous Waste Disposal Sites.

## **SECTION 2: SITE LOCATION AND DESCRIPTION**

The Cantor Brothers Site (#1-52-021) is located in the northeast corner of East Farmingdale, the Town of Babylon in Suffolk County, New York. The Site occupies 2.1 acres and is located at 55 Engineers Lane, in East Farmingdale. This site is located about 1,000 feet north of Central Avenue and about 1,000 feet west of Wellwood Avenue, with Smith Street to the north (see Figure 1). The building is approximately 55,000 square feet and is located in an industrial and commercial section of East Farmingdale. This site is adjacent to the Minmilt Realty (formerly Hygrade Metals) and Astro Electroplating Inactive Hazardous Waste Disposal Sites (see Figure 3).

## **SECTION 3: SITE HISTORY**

### **3.1: Operational/Disposal History**

Cantor Brothers was a chemical repackaging facility which handled petroleum distillate solvents, paint thinners, creosote, and other chemicals from approximately 1965 to 1992. Improper storage of chemical drums and spills that occurred during chemical repackaging resulted in a release of hazardous waste. It has been alleged that various releases of hazardous wastes occurred during the entire period of operation of the Cantor Brothers facility from 1965 to 1993.

Cantor Brothers signed a NYSDEC Order on Consent to perform a Remedial Investigation and Feasibility Study (RI/FS) on March 9, 1992. Subsequently, Cantor Brothers filed for Chapter 11 in United States Bankruptcy Court in Westbury, Long Island. The State of New York then filed an Adversarial Proceeding, seeking to compel performance of the RI/FS consent order.

As a result, New York State and the attorneys for the Debtor (Cantor Brothers) negotiated an Interim Agreement and Stipulated Order to complete the Interim Remedial Measure (IRM) investigation. The IRM investigation work plan is detailed in the Interim Agreement and Stipulated Order approved by the United States Bankruptcy Judge in June 1996.

### **3.2: Remedial History**

1988: NYSDEC completed a Phase II Report on the Cantor Brothers Site.

1990: Suffolk County Department of Health Services (SCDHS) Spills program requires Cantor Brothers to remove all the chemical and petroleum underground storage tanks (USTs). The UST removal was implemented under the SCDHS enforcement requirements.

1992: Site listed as a Class 2 site in the New York State Registry of Inactive Hazardous Waste Disposal Sites based on the Phase II Investigation results. A Class 2 is assigned to sites where hazardous waste poses a significant threat to human health or the environment and action is required.

1992: Cantor Brothers enters into an RI/FS order on consent with the NYSDEC.

1993: Cantor Brothers declares bankruptcy.

1994: New York State files an Adversarial Proceeding in Federal Bankruptcy Court in order to require Cantor Brothers (Debtor) to investigate the extent of contamination at the Cantor Brothers Site.

1995: Apple Bank, the primary lien holder, retains a consulting firm to assess the contamination at the Cantor Brothers Site.

1995: The Cantor Brothers building is cleaned of residual chemicals and equipment and is leased to a furniture distributor.

1995: Through the Adversarial Proceeding, the New York State Attorney General's Office converted the draft RI work plan for the Cantor Brothers Site into an Interim Agreement and Stipulated Order that directs an IRM sampling program to perform the essentials of a remedial investigation.

1996: The U.S. Federal Bankruptcy Court signs the Interim Order and Stipulated Agreement to conduct the RI.

1997: The IRM Report is accepted as the final RI Report by the NYSDEC and the NYSDOH.

1997: Federal Bankruptcy Court signs a Final Agreement and Stipulated Order detailing the final remediation for the site as specified by the NYSDEC.

January 1998: Remedial work on the site storm drains is completed.

April 1998: The SVE design is approved by the NYSDEC.

November 1998: The SVE system construction is complete and the system is operational.

#### **SECTION 4: SITE CONTAMINATION**

To evaluate the contamination present at the Site and to evaluate alternatives to address the significant threat to human health and the environment posed by the presence of hazardous waste, the Potentially Responsible Party (PRP) conducted a Remedial Investigation (RI). A preliminary Feasibility Study was prepared by the NYSDEC by applying presumptive remedies applicable to the Cantor Brothers Site and putting them in the form of a Final Agreement and Stipulated Order through the U.S. Bankruptcy Court.

#### **4.1: Summary of the Remedial Investigation**

The purpose of the RI as directed by the Federal Bankruptcy Court Order was to define the nature and extent of any contamination resulting from previous activities at the Site.

The RI was conducted in one phase between July and December 1996. A report entitled "Interim Remedial Investigation Report," January 1997 describes the field activities and findings of the RI in detail.

The RI included the following activities:

- Sediment sampling of the storm drains, overflow pools and septic tanks for volatile and semi-volatile organic compounds;
- Installation of groundwater monitoring wells, collection of groundwater samples;
- Collection of soil samples from soil borings taken from the former underground storage tank area, the storm drains, cesspools and beneath the slab of the manufacturing area of the Cantor Brothers building for chemical analysis. Soils were also evaluated for physical properties and hydrogeologic conditions; and
- Installation of two temporary monitoring wells, one beneath the slab of the building and the other downgradient of the former underground storage tank area.

To determine which media (soil, sediment, and groundwater) contain contamination at levels of concern, the RI analytical data was compared to environmental Standards, Criteria, and Guidance values (SCGs). Groundwater and drinking water SCGs identified for the Cantor Brothers Site are based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of the NYS Sanitary Code. For soils and storm drain sediments, NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 provides soil cleanup objectives for the protection of groundwater, background conditions, and health-based exposure scenarios.

Based on the Remedial Investigation results, in comparison to the SCGs and potential public health and environmental exposure routes, the site soils required remediation. These results are summarized below. More complete information can be found in the RI Report.

Chemical concentrations are reported in parts per million (ppm) for soil samples and parts per billion (ppb) for groundwater. For comparison purposes, where applicable, SCGs are provided for each medium. (See Table 1.)



#### **4.1.1: Site Geology and Hydrogeology**

The Cantor Brothers Site is underlain by a medium brown to fine course sand, with fine to medium gravel. The depth to groundwater is 42 feet. The first water bearing unit is the Upper Glacial Aquifer which begins approximately 40 feet below grade to a depth of 100 feet. Below the Upper Glacial Aquifer is the Magothy Aquifer, which is about 600 feet thick and consists of several clay confining units. The third and last water bearing unit is the Lloyd Aquifer, which lies below the Magothy and is separated by 175 feet of Raritan clay. The regional groundwater flow direction is to the south-southeast.

#### **4.1.2: Nature of Contamination**

As described in the RI Report, many soil, groundwater, and storm drain and cesspool sediment samples were collected at the Site. These samples were used to characterize the nature and extent of contamination (see Figure 2). The main categories of contaminants which exceed their standards, criteria and guidance values are volatile organic compounds (VOCs) in subsurface soils and semi-volatile organic compounds (SVOCs), known as polynuclear aromatic hydrocarbons (PAHs), in the site storm drains. The VOCs detected in the groundwater are not attributable to the Cantor Brothers Site, but to the upgradient Minmilt Realty Class 2 Site.

#### **4.1.3: Extent of Contamination**

Table 1 summarizes the extent of contamination for the contaminants of concern in the site soils, groundwater, and storm drain sediment 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 and Sediments**

An extensive soil boring program was implemented at the Cantor Brothers Site. This included collecting soil samples beneath the slab of the building, the drum storage area on the east side of the building, the site storm drains, the former underground storage tank area, the former gasoline storage tank area, and the current and former septic tank areas. The subsurface soils beneath the slab of the building and the former trash dumpster area in the east parking area were contaminated with volatile organic compounds (VOCs). These VOCs include xylene at 11 ppm in TW-16 at 12 feet below the building slab and perchloroethylene at 1.5 ppm and xylene at 4.9 ppm in TD-1 at 10 feet below the former trash dumpster area on the east side of the building. Figure 4 identifies the area of soil contamination. The NYSDEC TAGM 4046 soil cleanup objective for total xylene is 1.2 ppm, and for perchloroethylene is 1.4 ppm.

Storm drain sediments were contaminated with polynuclear aromatic hydrocarbons (PAHs), such as anthracene, chrysene, and fluoranthrene above the soil cleanup objectives in NYSDEC TAGM 4046.

## Groundwater

Groundwater contamination upgradient of the Site in monitoring well CMW-1 and downgradient in SMW-6 was slightly elevated with respect to toluene at 49 ppb and 10 ppb and at 22 ppb and 5 ppb for xylene, respectively. It appears that the Cantor Brothers Site is not contributing to toluene or xylene contamination in the groundwater since the upgradient concentrations are higher than the downgradient. The NYSDEC Class GA groundwater standards for toluene and xylene are 5 ppb for each.

Elevated concentrations of perchloroethylene at 1,200 ppb and dichloroethylene (DCE) at 410 ppb were found in on-site groundwater monitoring well CMW-3. The respective groundwater standard is 5 ppb for each contaminant. These contaminants were determined to be the responsibility of the adjacent and upgradient Minmilt Realty Site, where PCE has been detected in groundwater as high as 140,000 ppb. A groundwater extraction and treatment system, installed by Minmilt Realty on the Cantor Brothers property has been in operation for more than two years to address the contaminants from the Minmilt Realty Site. The groundwater extraction and treatment system capture zone encompasses the entire Cantor Brothers Site (see Figure 3). The long term monitoring of the Minmilt Realty groundwater remedy indicates the system is effective in capturing the Minmilt Realty plume.

The natural groundwater gradient is from the north-northwest to the south-southeast. The Minmilt Realty plume runs across the eastern portion of the Cantor property where the two recovery wells intercept the entire Minmilt plume. The Cantor Brothers contaminants, were not found in elevated levels in the downgradient groundwater monitoring wells.

### **4.2: Interim Remedial Measures**

Interim Remedial Measures (IRMs) are conducted at sites when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS.

Due to the unique aspects of conducting this RI/FS through the Bankruptcy Court, the Cantor Brothers RI was initially called an IRM. Subsequently, the information collected and the report written as part of this IRM was comprehensive enough to be labeled an RI Report.

Excavation of contaminated storm drain sediments from storm drains 1 through 10 (see Figure 2) was completed in January 1998 as the first IRM. Sediment excavation was achieved through the use of standard construction equipment to the soil cleanup objectives in NYSDEC TAGM 4046. All sediments were sampled, characterized and disposed in a secure landfill.

Through the information gathered in the RI Report, a second IRM for a soil vapor extraction system (SVE) was designed and installed. The site soils contaminated with VOCs will be addressed by the SVE system (see Figure 4). The second IRM was labeled the Final Agreement and Stipulated Order

so that the U.S. Bankruptcy Court could totally liquidate the Cantor Brothers assets and remove this case from their dockets.

The SVE system design and construction is now complete and it is in the operation and maintenance (O&M) phase. An SVE system consists of a blower motor that produces a vacuum on slotted screen extraction wells installed in the soil. The vacuum produced in the site soils readily removes volatile organic compounds with a vapor pressure greater than water.

There are three extraction wells associated with the Cantor SVE system. Two are inside the building and one is just north of the loading dock on the east side of the site. Effluent SVE system sampling has detected DCE, TCE, PCE, toluene, xylenes and substituted benzene, and to a lesser extent some other substituted aromatic and aliphatic hydrocarbons. These VOCs in the soils are all associated with the chemical repackaging that took place at the Cantor Brothers facility. To date, over 200 pounds of VOCs have been removed through the operation of the SVE system.

The Final Agreement and Stipulated Order established an escrow account of \$200,000 to cover the costs associated with the storm drain remediation and the SVE design, construction, operation, maintenance and decommissioning. Currently, about \$100,000 remains to continue the operation of the SVE system through the decommissioning phase. The current site owner has also entered into a Voluntary Cleanup Agreement with the NYSDEC in which he agrees to complete the remediation in the unlikely event that escrow funds expire.

#### **4.3: 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. An exposure pathway is the manner by which 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.

Pathways which are known to or may exist at the site include:

- Direct contact and inhalation of volatile organic compounds from site soils during any intrusive activity.
- Contaminated groundwater exists below the Cantor Brothers Site. However, this contamination is from the upgradient Minmilt Realty Site, and is under active remediation. Exposure is unlikely because area residents and businesses are connected to the municipal water system. Public water supplies are monitored on a regular basis to assure they meet New York State public drinking water standards.

#### **4.4 Summary of Environmental Exposure Pathways:**

This section summarizes the types of environmental exposures which may be presented by the site. Based on the results of the RI report, there are no potential impacts to fish and wildlife. The Cantor Brothers Site is set in a highly urbanized area.

#### **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 PRP for the site has been identified as Cantor Brothers, Inc.

The following is the chronological enforcement history of this site.

##### **Orders on Consent**

<b><u>Date</u></b>	<b><u>Index</u></b>	<b><u>Subject</u></b>
03/1992	W105709112	RI/FS order
04/1996	89380853478	Interim Agreement
10/1997	89380853478	Final Agreement
01/1999	W108309810	Voluntary Agreement

The NYSDEC and Cantor Brothers, Inc. entered into a Consent Order on March 25, 1992. The Order obligated the potentially responsible party to implement a full remedial program. After signing the Consent Order, Cantor Brothers, Inc. declared bankruptcy. Ultimately, the investigation was completed through the U.S. Bankruptcy Court in response to an Adversarial Proceeding brought by the State of New York. First, an Interim Agreement and Stipulated Order for the RI, and subsequently a Final Agreement and Stipulated Order for the storm drain remediation and SVE design and construction was approved by the U.S. Bankruptcy Court.

The current owner of the site, LJM, Inc., Joseph Montgomery, entered into a Voluntary Agreement with the NYSDEC in January 1999 in which he agrees to complete the operation and decommissioning of the SVE system if the funds provided by the Bankruptcy Court are insufficient.

#### **SECTION 6: SUMMARY OF THE REMEDIATION GOALS**

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. The overall remedial goal is to meet all Standards, Criteria, and Guidance values (SCGs) and be protective of human health and the environment.

At a minimum, the remedy selected should eliminate or mitigate all significant threats to the public health and to the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The following are goals, or remedial action objectives (RAOs) selected for this site:

- Reduce, control, or eliminate to the extent practicable the contamination present within the soils on site.
- Reduce, control, or eliminate to the extent practicable the contamination present within the storm drains on site.

#### **SECTION 7: SUMMARY OF THE SELECTED REMEDY**

The selected remedy for any site will, 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 now in place, which is described in Section 4.2, will accomplish this provided that the SVE system now in place continues to be operated and maintained in a manner consistent with the design.

All ten storm drains at the site were remediated under this program. A total of 250 tons of sediment were removed, characterized for disposal and removed offsite to a secure landfill. Presently, the SVE system is removing several pounds of solvents each month from the soils beneath and adjacent to the Site building. The SVE wells and the SVE effluent are sampled monthly for VOCs. Based on the removals to date, the system is expected to be operated for another three months. Recent SVE effluent samples indicate low levels of chlorinated and non-chlorinated VOCs are left.

Based upon the results of the RI, previous investigations and the IRMs that have been performed at the Site, the NYSDEC is selecting No Further Action as the final 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, which means a site has been properly closed but requires continued monitoring.

Prior to closure, the SVE system will be pulsed by turning the individual wells on and off. Once the contaminant concentrations of each SVE well approaches non-detect levels, the SVE system will be shut down. Representative soil samples will then be taken to demonstrate that NYSDEC TAGM 4046 soil cleanup objectives have been achieved.

Ultimately, the Department will delist the Cantor Brothers Site from the Registry once the SVE system has effectively remediated the site soils and can be shut down. It is anticipated the SVE system will be shut down permanently within the next three months.

## **SECTION 8: 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 Citizen Participation Plan was developed and repositories were established for site related documents. They are located at the Half Hollow Hills Middle Library located at 55 Vanderbilt Parkway, Dix Hills, New York and the NYSDEC Region 1 SUNY Stony Brook Office and the NYSDEC Central Office at 50 Wolf Road in Albany.
- A public contact list was established which included nearby property owners, local elected officials, local media and other interested parties.
- Fact sheets were mailed to the contact list on several occasions to update interested parties on the site status.
- Public informational meetings were held in December 1994 and March 2000 to discuss this project and answer questions posed by the public.
- In February 2000 a public information sheet was mailed to the public contact list and a public meeting was held on March 14, 2000 to present the Cantor Brothers Site Proposed Remedial Action Plan (PRAP). A 30 day public comment period was established for the receipt of written comments which closed on March 16, 2000.
- In March 2000 a Responsiveness Summary was prepared to address the comments and questions received during the public comment period for the PRAP. This was sent to the meeting attendees, placed in the document repositories and appended to the Record of Decision.

**TABLE 1**  
**Nature and Extent of Contamination**

<b>MEDIA</b>	<b>CLASS</b>	<b>CONTAMINANT OF CONCERN</b>	<b>CONCENTRATION RANGE (ppb)</b>	<b>FREQUENCY of EXCEEDING SCGs</b>	<b>SCG (ppb)</b>
Groundwater	Volatile Organic Compounds (VOCs)	Ethylbenzene	ND to 11	11 of 28	5
		Tetrachloroethylene	8 to 1,200	28 of 28	5
		Toluene	ND to 22	16 of 28	5
		Trichloroethylene	ND to 100	22 of 28	5
		1,1,1 Trichloroethane	ND to 24	8 of 28	5
		Dichloroethene	ND to 410	9 of 28	5
		Xylene (Total)	ND to 22	9 of 28	5
Groundwater	Semi-volatile Organic Compounds	Acenaphthene	ND to 21	1 of 7	10
		Benzo(a)anthracene	ND to 1	1 of 7	0.002
		Dibenzofuran	ND to 8	1 of 7	5
Soils and Storm Drain Sediments	Volatile Organic Compounds	Tetrachloroethylene	ND to 2.2	1 of 149	1.4
		Toluene	ND to 2.2	1 of 149	1.5
		Xylenes (Total)	ND to 13.0	7 of 149	1.2
Soils and Storm Drain Sediments	Semi-Volatile Organic Compounds	Acenaphthene	ND to 1000	3 of 44	50.0
		Anthracene	ND to 200	6 of 44	50.0
		Benzo(a)anthracene	ND to 190	21 of 44	0.224
		Benzo(a)pyrene	ND to 58.0	23 of 44	0.61
		Chrysene	ND to 220.0	19 of 44	0.4
		Dibenzofuran	ND to 440.0	8 of 44	0.061
		Flouranthrene	ND to 1,300.0	10 of 44	50.0
		Fluorene	ND to 580.0	4 of 44	50.0
		Indeno(1,2,3-) pyrene	ND to 25.0	10 of 44	3.2
		2-Methyl-naphthalene	ND to 240.0	5 of 44	36.4
		Naphthalene	ND to 190.0	10 of 44	13.0

## TABLE 2: GLOSSARY OF TERMS

**Capital Cost:** Refers to the up front cost of constructing a remedial alternative

**DCA:** Dichloroethane, a VOC

**DCE:** Dichloroethylene, a VOC

**ECL:** Environmental Conservation Law

**FS:** Feasibility study

### **Groundwater**

**Contours:** Contour lines of equal groundwater elevation above mean sea level

**Glacial:** Refers the Glacial or shallow aquifer associated with Long Island

**IRM:** Interim Remedial Measure

**Magothy:** Refers to the section of the Long Island aquifer system below the Glacial Aquifer and above the Lloyd Aquifer

**MGD:** Million gallons per day, refers to a daily rate of pumping groundwater

**ND:** Non-detect or below the detection limit of the analytical equipment

**NYCRR:** New York State Codes, Rules and Regulations

**NYSDEC:** New York State Department of Environmental Conservation

**NYSDOH:** New York State Department of Health

**O&M:** Operation and maintenance, refers to operation of remedial systems

**PAHs:** Polynuclear aromatic hydrocarbons

**PCE:** Perchloroethylene or tetrachloroethylene, a VOC

**Plume:** Contaminant dispersion in the groundwater

**ppb:** Part per billion

**ppm:** Part per million

**PRAP:** Proposed Remedial Action Plan. This is a document listing the remedy(s) proposed to mitigate the threat of hazardous waste disposal to human health and the environment



**PRP:** Potentially Responsible Party

**RI/FS:** Remedial Investigation and Feasibility Study

**RAOs:** Remedial Action Objectives, or the goals established to remedy a site based on findings of the RI

**SCGs:** Standards, Criteria and Guidance

**SVE:** Soil Vapor Extraction

**SVOCs:** Semi-volatile organic compounds

**TAGM:** Technical and Administrative Guidance Memorandum used by the NYSDEC

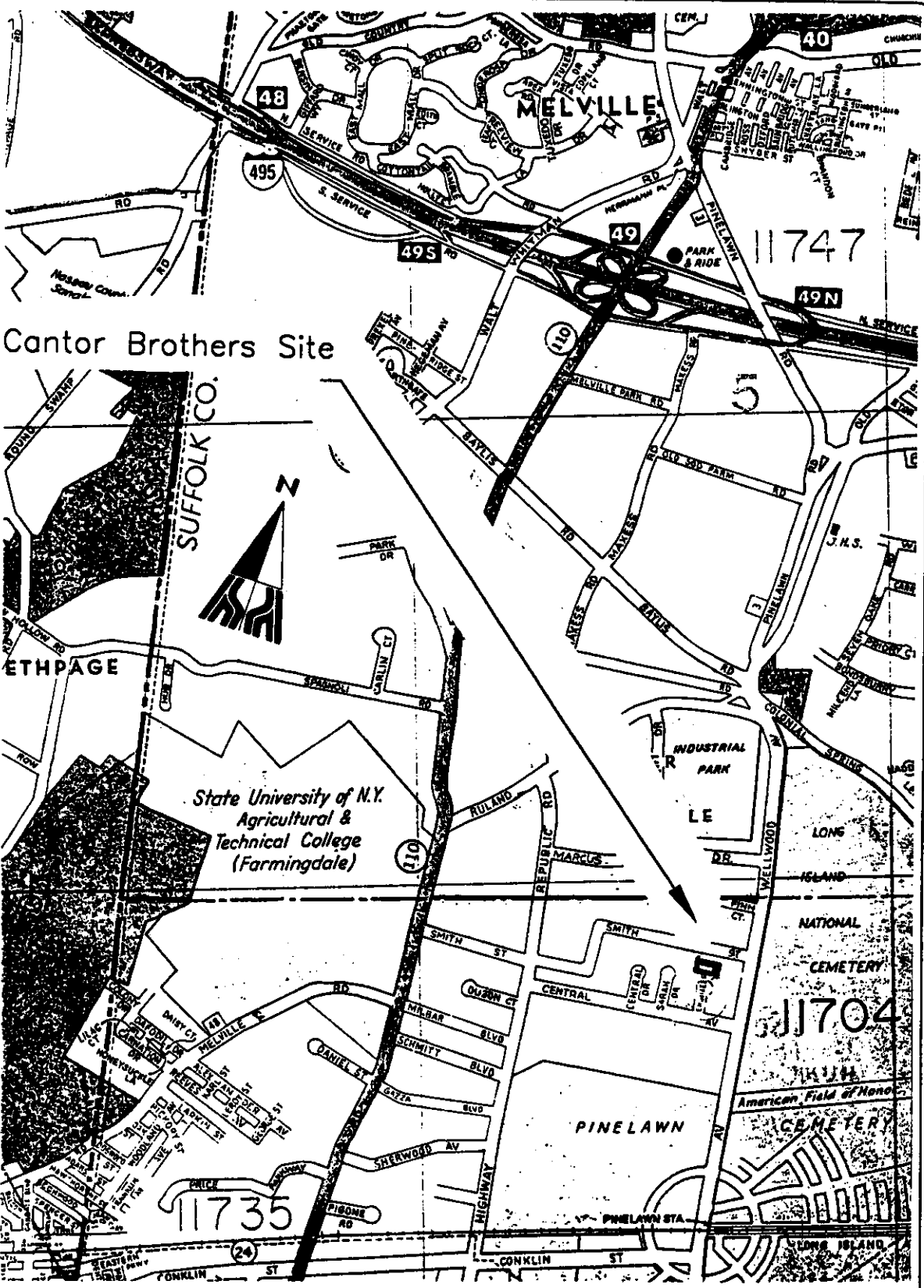
**TCA:** Trichloroethane, a VOC

**TCE:** Trichloroethylene, a VOC

**TD:** Trash Dumpster

**TW:** Temporary groundwater well

**VOC:** Volatile organic compound



Cantor Brothers Site

11747

11704

11735

**Cantor Brothers Site**

Figure 1- Area Location Map

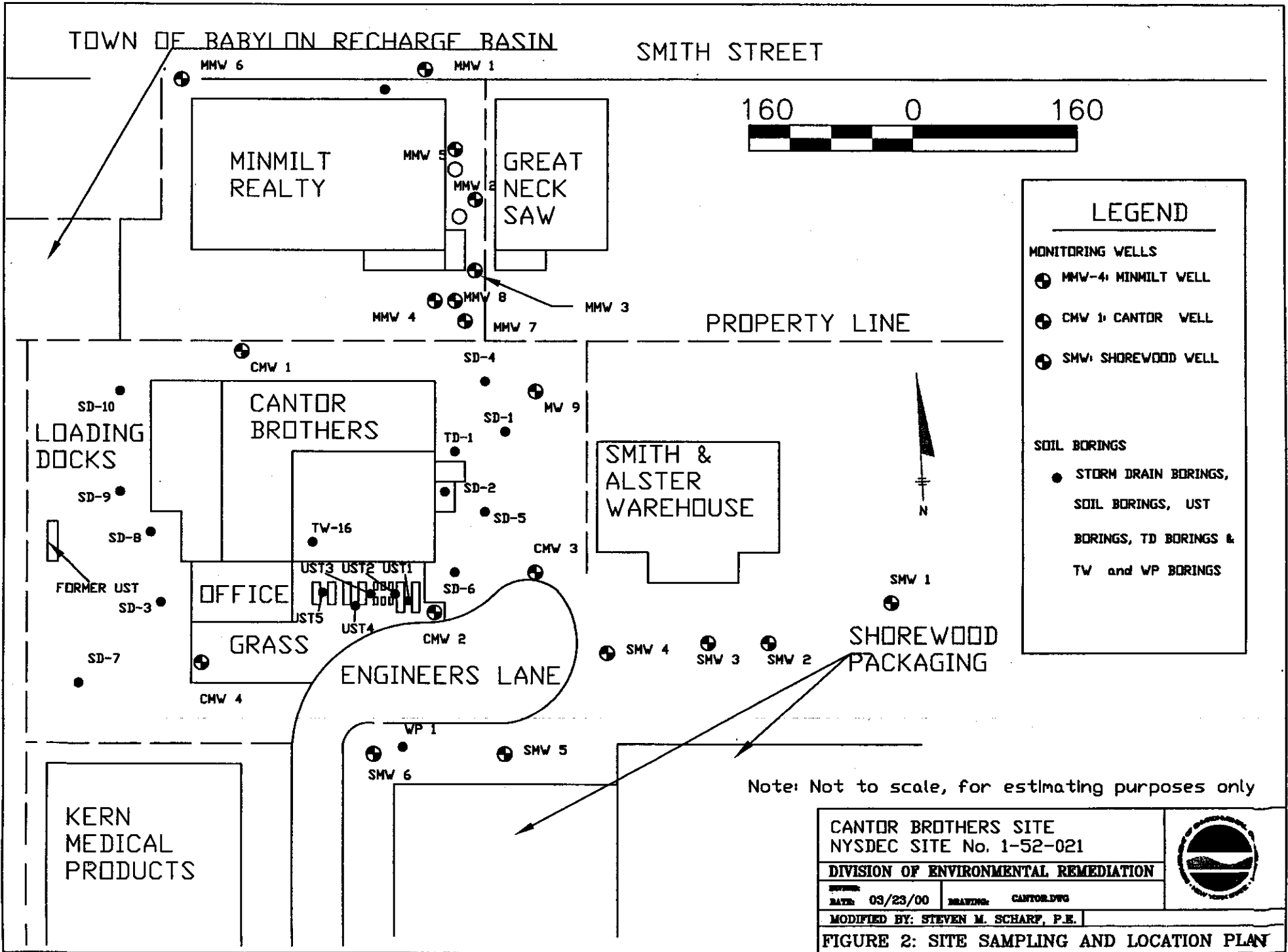
**DIVISION OF ENVIRONMENTAL REMEDIATION**

REVISED:  
DATE: 11/02/99

DRAWING:

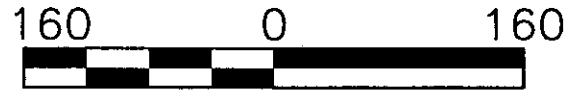


Town of Babylon, Suffolk County Site No. 1-52-021



TOWN OF BABYLON RECHARGE BASIN

SMITH STREET



MINMILT REALTY

GREAT NECK SAW

**LEGEND**

**MONITORING WELLS**

- ⊕ MMW-4: MINMILT WELL
- ⊕ CMW 1: CANTOR WELL
- ⊕ SMW: SHOREWOOD WELL

**SOIL BORINGS**

- STORM DRAIN BORINGS, SOIL BORINGS, UST BORINGS, TD BORINGS & TW and WP BORINGS

PROPERTY LINE

LOADING DOCKS

CANTOR BROTHERS

SMITH & ALSTER WAREHOUSE



FORMER UST

OFFICE

GRASS

ENGINEERS LANE

SHOREWOOD PACKAGING

KERN MEDICAL PRODUCTS

Note: Not to scale, for estimating purposes only

CANTOR BROTHERS SITE  
NYSDEC SITE No. 1-52-021

DIVISION OF ENVIRONMENTAL REMEDIATION

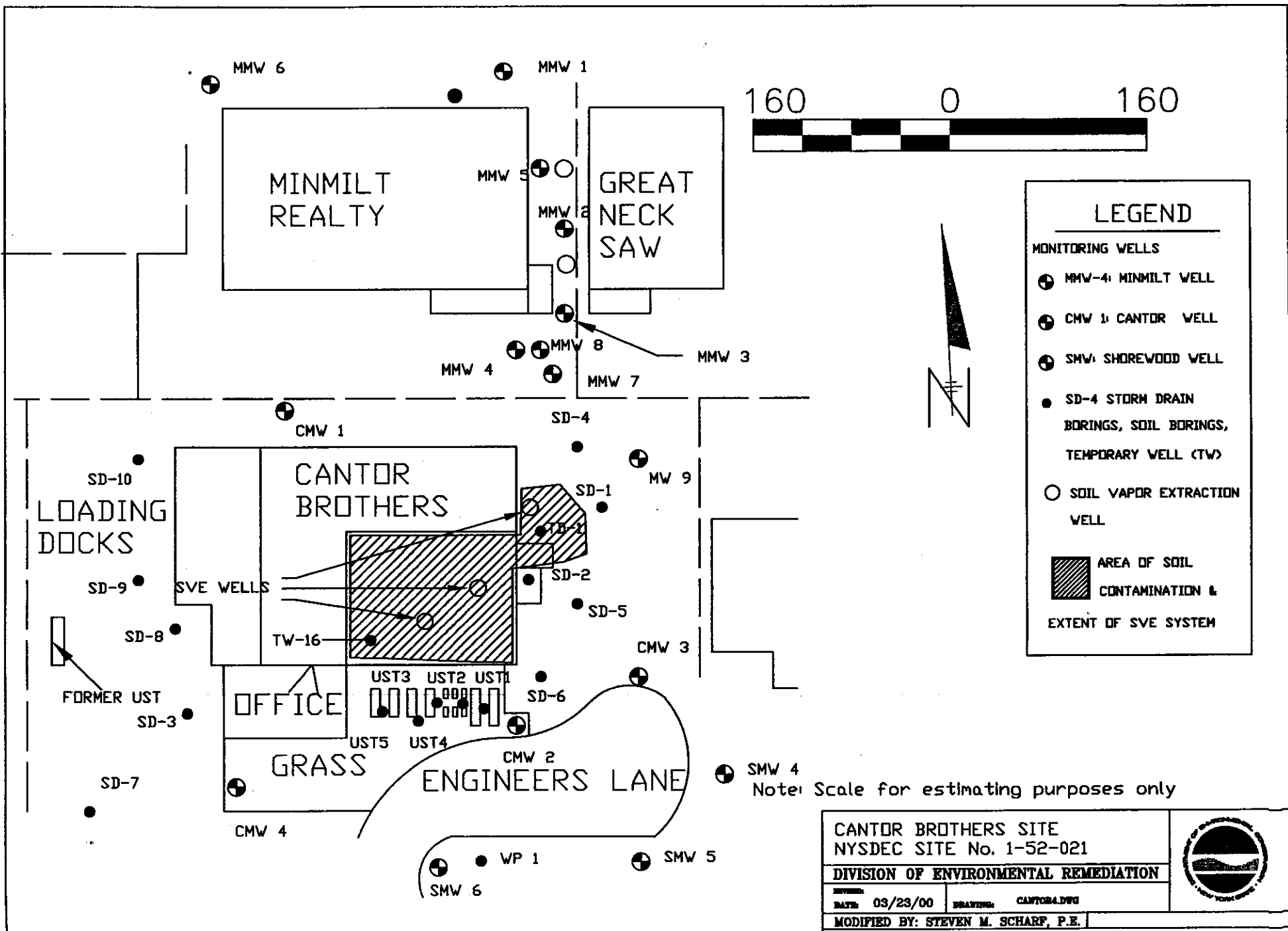
DATE: 03/23/00 DRAWING: CANTOR.DWG

MODIFIED BY: STEVEN M. SCHARP, P.E.



FIGURE 2: SITE SAMPLING AND LOCATION PLAN





### LEGEND

**MONITORING WELLS**

- ⊕ MMW-4: MINMILT WELL
- ⊕ CMW 1: CANTOR WELL
- ⊕ SMW: SHOREWOOD WELL
- SD-4 STORM DRAIN BORINGS, SOIL BORINGS, TEMPORARY WELL (TW)
- SOIL VAPOR EXTRACTION WELL

AREA OF SOIL CONTAMINATION & EXTENT OF SVE SYSTEM



Note: Scale for estimating purposes only

<b>CANTOR BROTHERS SITE</b> NYSDEC SITE No. 1-52-021		
<b>DIVISION OF ENVIRONMENTAL REMEDIATION</b>		
DATE: 03/23/00	DRAWING: CANTORA.DWG	
MODIFIED BY: STEVEN M. SCHARP, P.E.		

## APPENDIX A

### CANTOR BROTHERS INACTIVE HAZARDOUS WASTE DISPOSAL SITE RESPONSIVENESS SUMMARY Proposed Remedial Action Plan Town of Oyster Bay, Suffolk County Site No. No. 1-52-021

The Proposed Remedial Action Plan (PRAP) for the Cantor Brothers Site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repository on February 10, 2000. This Plan outlined the preferred remedial measure proposed for the remediation of the contaminated soil and sediment at the Cantor Brothers Site. The preferred remedy is No Further Action with the successful implementation of the soil vapor extraction system and the completed removal of contaminated sediments from the onsite storm drains.

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 March 14, 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 P.W. Grosser, Consulting Engineers and Hydrogeologists, P.C.

The public comment period for the PRAP ended on March 16, 2000.

This Responsiveness Summary responds to all questions and comments raised at the March 14, 2000 public meeting and to the written comments received.

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

**Comment 1:** There is a slight discrepancy in the information contained in the Fact Sheet and PRAP. The Fact Sheet states that Cantor Brothers handled chemicals between 1975 and 1992, while the PRAP states 1965 to 1992.

**Response 1:** The 1975 date is a typographic error. Cantor Brothers began operations in 1965.

**Comment 2:** The PRAP contains a discussion of groundwater impact by toluene and xylene from the Cantor Brothers Site. On Page 7, the PRAP indicates that the Cantor Brothers Site is not contributing to the groundwater contamination by these compounds due to upgradient versus downgradient concentrations. However, data obtained through our routine monitoring program (Minmilt Realty) depicts concentrations of these compounds in Shorewood Packaging Well SP#6, (downgradient position) while Cantor Brothers Well No. 1 (upgradient position) does not.

**Response 2:** As part of the July 1996 remedial investigation for the Cantor Brothers Site, Cantor Brothers Wells 1 through 4, Shorewood Packaging Wells 4, 5 and 6 and two temporary wells, TW-16 and WP-1 (see Figure 2) were sampled and analyzed for volatile organic compounds. The analytical results for toluene and xylenes at these wells are summarized below.

**1996 RI Data**

ppb	Cantor Well 1	Cantor Well 2	Cantor Well 3	Cantor Well 4	Shorewood Well 4	Shorewood Well 5	Shorewood Well 6
Toluene	22	5	ND	9	12	13	11
Xylenes	49	10	ND	19	19	20	22

ppb	WP-1 (52 Feet)
Toluene	9
Xylenes	7

**October 1999 Quarterly Monitoring Data**

ppb	Cantor Well 1	Cantor Well 2	Cantor Well 3	Cantor Well 4	Shorewood Well 4	Shorewood Well 5	Shorewood Well 6
Toluene	ND	ND	ND	ND	2	1	ND
Xylenes	ND	ND	ND	ND	ND	ND	70

The temporary well WP-1, installed on the Shorewood Packaging property was located directly downgradient of UST boring 4 that was identified as an area of soil with toluene and xylene contamination associated with the Cantor Brothers Site. Levels of toluene and xylene are just above their respective groundwater standards of 5 ppb each and are lower than the levels found in the upgradient Cantor Well 1. In addition, the October 1999 sampling of the Shorewood Packaging Wells 4, 5 and 6 were all ND for toluene and were ND, ND and 70 ppb for xylenes respectively. This very small increase in total xylenes is a normal variance within the expected accuracy of different analytical methods and normal, low-level fluctuations in concentrations within the aquifer. Therefore, based on the groundwater results, the Cantor Brothers Site is not considered a source of toluene or xylene contamination to groundwater.

**Comment 3:** How much longer will the Cantor Brothers SVE system have to operate before it is permanently shut down?

**Response 3:** It is expected that the Cantor Brothers SVE system will operate for several more months while a soil sampling program, submitted by the consultant for the Cantor Brothers Site, is reviewed and approved. Once the soil sampling program demonstrates that the soil concentrations have met the NYSDEC TAGM 4046 soil cleanup objective, the SVE system will be permanently shut down.

**Comment 4:** How much longer will the Minmilt Realty SVE and groundwater extraction and treatment systems have to operate before they are permanently shut down?

**Response 4:** Currently, the Minmilt SVE system effluent results have dropped dramatically and the consultant for Minmilt is pulsing the two SVE wells. Pulsing is a procedure whereby the two wells are intermittently turned on and off in order to improve the removal efficiency. Once this is complete and the soils meet the NYSDEC TAGM 4046 soil cleanup objectives, the SVE system will be permanently be shut down. This is expected to last approximately another 6 to 13 months.

It is not as clear as to how long the Minmilt Realty groundwater extraction and treatment system will have to be operated. The influent conditions are still relatively high and the consultant for Minmilt is currently evaluating some alternative treatment options that may reduce the term of operation for the groundwater extraction system.



Appendix B: Administrative Record File Index  
Cantor Brothers Site  
Site # 1-52-021

1. Cantor Brothers Site, Record of Decision, March 2000.
2. Voluntary Agreement New York State Department of Environmental Conservation (NYSDEC) and LJM Associates, January 1999.
3. Design Report for Soil Venting Services at the Cantor Brothers Site, EEA Inc., March 1998.
4. Health And Safety Plan for Construction and Remediation Services At The Cantor Brothers Site, EEA Inc., February 1998.
5. Work Plan For The Construction and Remediation Services at the Cantor Brothers Site, EEA Inc., February 1998.
6. Final Agreement and Stipulated Order, December, 1997.
7. Interim Remedial Investigation (Site Summary) Report, Handex, Inc., May 1997.
8. Interim Agreement and Stipulated Order, June 1996.
9. Environmental Cleanup Assessment, Former Cantor Brothers Facility, Advanced Cleanup Technologies, Inc., December 1993.
10. Interim Remedial Measure Sampling Work Plan, Cantor Brothers Inc., Handex, Inc., February, 1993.
11. Remedial Investigation and Feasibility Study Work Plan, Cantor Brothers Inc., Handex Inc., May 1992.
12. Citizen Participation Plan, Cantor Brothers Inc., Handex, Inc., May, 1992.
13. Quality Assurance Project Plan, Cantor Brothers Inc., Handex, Inc., May 1992.
14.
  - a. Phase II Investigation, Volume I, Gibbs and Hill, Inc., 1989.
  - b. Phase II Investigation Volume II, Gibbs and Hill, Inc., 1989.
  - c. Phase II Investigation Volume III, Gibbs and Hill, Inc., 1989.
15. NYSDEC Phase I Preliminary Investigation Report, Woodward-Clyde Consultants, Inc., September 1984.
16. Correspondence File, 1984-2000.