Department of Environmental Conservation

Division of Hazardous Waste Remediation

Record of Decision

RED DEVIL
MOUNT VERNON
WESTCHESTER COUNTY
Site Number 3-60-031

MARCH 1996

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* MICHAEL D. ZAGATA, *Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

OPERABLE UNIT 1

"Red Devil" Inactive Hazardous Waste Site
Mount Vernon, Westchester County, New York
Site No. 360031

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for the Red Devil inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law (ECL). 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 upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Red Devil Inactive Hazardous Waste Site, and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix A of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential threat to public health and the environment.

Description of Selected Remedy

Based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Red Devil Site and the criteria identified for evaluation of alternatives, the NYSDEC anticipates two operable units (OU) for this site. This ROD is for Operable Unit 1 which addresses the presence of non-aqueous phase liquid (NAPL) and paint material both on and off-site. OU-2, to follow the completion of OU-1, will consider residual groundwater and soil contamination after the NAPL has been recovered. The components of the the remedy are as follows:

1. The continued recovery of NAPL (first IRM) from on-site groundwater.

2. The continued recovery of off-site paint material (second IRM) from the Bronx River.

3. The maintenance of facility pavement and foundations to eliminate any risks to human health.

4. Restrictions on site construction, utility work, cover disturbance and drinking water well installations on site or between the Bronx River.

5. A Design Investigation (as part of IRMs) to investigate and implement possible off-site NAPL recovery.

6. An annual review of the effectiveness of the remedial operation, and determination of the need for additional remedial measures.

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.

3/29/96
Date

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

TABLE OF CONTENTS

SECTION			PAGE
1:	Site Description		1
2:	Site History		2
	2.1	Operational/Disposal History	2
	2.2	Remedial History	2
3:	Current Status		3
	3.1	Summary of Remedial Investigation	3
	3.2	Interim Remedial Measures	5
	3.3	Summary of Human Exposure Pathways	6
	3.4	Summary of Environmental Exposure Pathways	6
4:	Enforcement Status		6
5:	Summary of Remediation Goals		7
6:	Summary of the Evaluation of Alternatives		7
	6.1	Description of Remedial Alternatives	7
	6.2	Evaluation of Remedial Alternatives	9
7:	Summary of the Selected Alternative		11
8:	Highlights of Community Participation		12
Appendix	-	Appendix A: Administrative Record	14
	-	Appendix B: Responsiveness Summary	16
Figures	-		
	-	Site Location Map	Figure 1-1
	-	Site Map	Figure 1-2
	-	Approximate Distribution of NAPL.	Figure 1-3
	-	On-Site IRM NAPL Recovery System	Figure 1-4
	-	Off-Site IRM Paint Material Recovery System	Figure 1-5

1: SITE LOCATION AND DESCRIPTION

The Red Devil Site (No. 360032) is located at 30 North West Street, the City of Mt. Vernon, in southern Westchester County on approximately one acre of land (figure 1-1). The site, a former paint manufacturing facility (Red Devil), includes a building and loading area now housing rental storage units and small businesses. The site runs parallel to the Metro North rail line, the Bronx River, and the Bronx River Parkway. The site is located in an industrial/small business area. The area is supplied by municipal water.

For ease of identification the site (figure 1-2) has been divided into four areas A, B, C, and D. These areas are described as follows:

Area A - office and loading area (court yard) at ground level, with one story and no basement. Eleven underground solvent storage tanks, which were used during the former paint facilities operations, were located in this area. All eleven tanks were removed.

Area B - basement area that was once used to store raw materials (solvents) for Red Devil's production of paints. A total of thirteen storage tanks were located in this area ranging from 3,000 to 10,000 gallons. Of the thirteen tanks nine were vaulted above ground and four were below ground tanks. The four underground (E, F, G, and H) were closed in place. Of the above ground tanks, tank 9 stores fuel oil for heating; tanks 1 through 8 have been removed.

Area C - basement area and former paint production area of the facility. Two underground and four above ground vaulted storage tanks with paint oils, filtered alkyds and polyurethane varnish were located here. Tanks 13, 15, 16 and 19 were removed and tanks D and X were closed in place. Tank X is not shown in reports, but was located approximately towards the southwest corner of the production area, next to the packaging section.

Area D - basement area was part of the paint facility where packing operations took place. This area also acted as a garage/storage area during the paint facility's active years. A total of seven underground storage tanks were located in this area containing solvents, polyurethane varnish, waste oil and storm water. Tanks 34, 35, 36 and C were removed and tank 10 was closed in place. Tanks A and B, the underground storm water tanks, were left in place and still operate.

Areas B, C and D are in the basement (concrete slab with some wood flooring in Area C), of the facility's three story building. Currently, rental storage units are located in the facility's basement, the ground level and upper stories of the building, but not in Area A. Other small businesses are located on the ground floor of the building.

2: SITE HISTORY

2.1: Operational/Disposal History

From 1959 to 1971, Red Devil Paints & Chemicals, Inc., operated a paint facility, which blended and manufactured paints and varnishes. From 1971 to 1989 Red Devil Paint operated as a division of the Insilco Corporation. In 1990 the paint facility ended its operations. It is believed that during facility operations (1959 to 1990) virgin materials were released by leaking underground storage tanks. From 1991 to present, Metro Self Storage Bronx, Inc. has been leasing the property and the building from Insilco. Metro Self Storage continues to rent self-storage units and space to small businesses.

2.2: Remedial History

Note: Reports and workplans for this site use the term PSI (Preliminary Site Investigation) which is the same as a PSA (Preliminary Site Assessment) used by the State. This ROD will use the term PSA.

1990 - Tank closures and a preliminary assessment was performed by Insilco's consultant to mitigate against any potential property damage. This involved closures of both above and below ground storage tanks throughout the facility. A PSA followed to assess the site more thoroughly.

1991 to 1992 - The PSA indicated that soils and groundwater may have been impacted by leaking tanks. Soil sample results indicated that solvents such as toluene, xylene, methanol and methylene chloride had contaminated site area soils (A, C and D). In Area A, approximately 150 cubic yards of solvent contaminated soils were excavated and removed to a depth of six feet below grade. In Area D, approximately 30 cubic yards of contaminated soils were also removed to a depth of six feet. During the PSA, seventeen monitoring wells were installed on site, which showed NAPL to be present on top of groundwater. These wells, called product delineation wells, screened the NAPL that was floating on top of groundwater. The NAPL appears to be a paint product similar to varnish. Besides the seventeen product wells, three other monitoring wells were installed on site to analyze the water below the NAPL. The analysis detected dissolved solvent compounds in the groundwater.

In Area C, a soil gas survey showed elevated levels of volatile organic compounds (VOCs) in the soil vapor. This suggested that soils may have been impacted by production operations.

1992 (June) - The NYSDEC placed the Red Devil site on the New York State Inactive Hazardous Waste Registry as a Class 2 site due to the contravention of standards for groundwater and guidance values for soil. Sites with this classification pose a significant threat to the public health or environment and action is required.

1993 (April) - An Order on Consent requiring a Remedial Investigation/Feasibility Study and IRM program was executed by Insilco Corporation and NYSDEC.

3: CURRENT STATUS

Insilco, under the Consent Order, initiated a Remedial Investigation/Feasibility Study (RI/FS) in December 12, 1992 to address the contamination at the site.

3.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from past activities at the site. The RI was conducted between November 1992 and December 1994. A report entitled Remedial Investigation Report, May 26, 1994 describes the field activities and findings of the RI in detail.

Over 30 underground and above ground storage tanks were investigated during the PSA. The PSA was then followed up by the RI. The RI included soil and groundwater sampling due to poor tank conditions and leakage of solvents to the surrounding soils.

Note: The term volatile organic compounds (VOCs) used in this document include aromatics such as toluene, ethylbenzene, benzene and xylene.

The RI activities consisted of the following:

- Soil Sampling Program.
- NAPL Delineation and Characterization.
- Groundwater Monitoring Well Installation and Sampling.
- Bronx River Sampling Program.
- Implementation of IRMs.
- Air Sampling Program.

The analytical data obtained from the RI was compared to Applicable Standards, Criteria, and Guidance (SCGs) in determining remedial alternatives. NYSDEC's Ambient Water Quality Standards and Guidance Values and Part 5 of NYS Sanitary Code form the groundwater and surface water SCG's. NYSDEC TAGM 4046 (Determination of Soil Cleanup Objectives and Cleanup Levels), and risk-based remediation criteria were used to develop remediation goals for soil.

While the purpose of this OU is mainly the removal of NAPL, key findings of the remedial investigation are summarized below.

Soil Investigation

Area A - In the court yard, soils from 21-22 ft and 16-18 ft below grade have levels of toluene from 15 ppm (parts per million) to above 2,000 ppm. The recommended soil cleanup objectives for toluene are 1.5 ppm.

Area B - Due to the good conditions of the tanks, soil boring data from the RI, indicates this area was not impacted by operations performed in the basement / storage area.

Area C - The RI soil boring data showed soils contaminated above cleanup levels. Toluene was detected at concentrations of 110 ppm (12-14 ft) and xylene at 120 ppm at 12-14 feet. Tentatively Identifiable Compounds (TIC's) exceeded 800 ppm. The water table is at 15-16 feet in this area.

Area D -PSA and RI soil boring data identified VOC's (toluene, ethylbenzene and xylene) ranging from 1.6 ppm to 1,400 ppm. Soils in this area are contaminated down to 14 feet. Additional VOC's found in low concentrations (from 0.007 ppm to 0.11 ppm) included chlorinated compounds such as tetrachloroethylene (PCE), 1,1,1-trichloroethane (TCA), 1,1-dichloroethane (DCA) and 1,1-dichloroethene (DCE).

Semi-volatile data showed several compounds in low levels, with naphthalene being found at most sample locations. Inorganics (metals) were also detected during the RI. The metals chromium, cobalt, lead, manganese, nickel and vanadium ranged from 4.8 ppm to 6980 ppm in soils 11-13 feet below the basement floor.

Groundwater Investigation

During the RI nine additional product delineation wells (screened to accept NAPL only) were installed to better define the extent of NAPL in all areas (A, B, C & D). The thickness of the NAPL ranges from 0.02 feet in Area A, to more than 3.0 feet in Area D. Before the operation of the on site NAPL recovery system, it was estimated that 11,760 gallons were present under the site, with an unknown amount possibly below the railroad embankment. By September 1995 over 5,400 gallons of NAPL were recovered. The NAPL appears to be free product polyurethane varnish that sets up when exposed to air. The distribution of NAPL (figure 1-3) extends from the smallest amount in Area A to the largest found in Area D.

When the NAPL was sampled the results showed the presence of aromatics, chlorinated compounds and semi-volatiles. The NAPL failed the Toxic Characteristics Leaching Procedures (TCLP) analyses for benzene and tetrachloroethylene.

A total of seven groundwater monitoring wells was installed during the PSA and the RI. These wells were constructed to prevent NAPL from entering the well (screened off below product) to provide additional data on groundwater conditions below the NAPL. Two rounds of groundwater samples were collected from all seven wells during the months of June and September 1993. Results show aromatic, chlorinated and semi-volatile compounds in the groundwater. Aromatic compounds appear most frequently, with a dramatic increase of toluene in the second round of sampling (from 150 ppb to 96,000 ppb). The data shows contamination from past site operations and suggests that a possible upgradient off-site source of toluene may have also contaminated the groundwater.

Bronx River Investigation

The river runs parallel to the facility approximately 115 feet away, between the Metro North railroad and the Bronx River Parkway. The portion of the river that runs along the site is classified as a Class C stream, which is fresh surface water suitable for fish propagation and survival. The water quality shall be suitable for primary and secondary contact recreation (e.g., swimming and boating), although other factors may limit the use for these purposes.

In early 1993, seeps were discovered entering the river from the southern banks for approximately 250 feet adjacent to the site. The seep material was tested and compounds similar to those found in mineral spirits used by the Red Devil facility were detected. The seep material failed the Hazardous Waste Characteristics Test for ignitability. Since 1993 an absorbent inner boom and skirted outer boom have been employed to contain the seep material for collection as one of the ongoing IRMs for the site.

Five surface water samples were collected from areas upstream, mid-stream, and downstream of the river's location to the site. No semi-volatiles were detected and only low levels of VOCs were found in the upstream boom area. Inorganics were detected at concentrations near or within background levels.
Nine sediment samples were collected and analyzed for VOCs, semi-volatiles and five of the nine were sampled for inorganics. VOCs ranging from 0.004 ppm to 0.015 ppm were detected in a few samples and the others showed no detections. Semi-volatiles were present (from 0.053 ppm to 1.814 ppm) in samples taken immediately downstream from the seep (SED-6) and further downstream (SED-8 and 9).
The potential impacts to the river may come from a variety of sources including the site, an active downstream discharge pipe, runoff from the Mt. Vernon Avenue bridge, unidentified upstream sources or naturally occurring compounds.

Air Quality Investigation

Two rounds of air quality samples (1993 and 1995) were taken during the RI. The samples were collected when field tasks were being undertaken, and while the IRM product recovery system was in operation. Air quality results were below Occupational Safety and Health Administration (OSHA) time weighted average Permissible Exposure Limits (PELs). PELs represent the allowable levels of these contaminants that an adult worker may be exposed to averaged over an eight-hour day, forty-hour week.

3.2 Interim Remedial Measures:

Interim Remedial Measures (IRMs) were conducted at the site based on findings as the RI progressed. An IRM is implemented when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS.

Two ongoing IRMs began in 1993 during the RI/FS. The first (figure 1-4) includes NAPL recovery from Areas C and D. Wells are used to pump the NAPL through a series of lines that empty into two large storage tanks located on site. When the tanks are full, the product is pumped out by a vac truck and transported to a facility (Cycle Chem, Inc. of Elizabeth, New Jersey) for recycling as a fuel. Until June1995 approximately 5,330 gallons from Area C and 160 gallons from Area D have been recovered. Area D's lower recovery

is due to the NAPL's change in viscosity, which caused pumping problems. Changes to the recovery system are being studied.

The second (figure 1-5) IRM addresses the material seeping into the Bronx River. A two-system boom is employed in order to contain the paint material for collection and prevent it from impacting downstream locations. The inner absorbent boom intercepts the material for biweekly collection and disposal, while the outer skirted nonabsorbent boom prevents the material from leaving the seep location. The boom system extends from an upstream location to 300 feet downstream at its collection point. The solidified (due to contact with the air) seep material (non-hazardous) is transported to CycleChem by Freehold Cartage and landfilled. An estimated average of 0.50 cubic yards of solidified seep material is removed biweekly.

3.3 Summary of Human Exposure Pathways:

The City of Mt. Vernon is served by a municipal water supply system and does not allow the installation of domestic wells. The exposure to contaminated groundwater is therefore minimal.

There are no direct human exposure pathways from site soils. However, there was a concern for exposure to maintenance workers from possible contaminated sediments in the storm water drains. Sediments in these drains were sampled and removed in February 1996.

3.4 Summary of Environmental Exposure Pathways:

The surface water of the Bronx River presents a pathway for seep material and exposure to aquatic organisms. Fish in the Bronx River have been identified as receptors for seep material. This may cause physical harm to the receptor and is an unacceptable risk.

NAPL exists on top of groundwater at the site and is a violation of state groundwater standards.

4: ENFORCEMENT STATUS

The following is the chronological enforcement history of this site.

The NYSDEC and the Insilco Corporation entered into a Consent Order on June 29th, 1993. The Order obligates the responsible parties to implement a RI/FS program. Upon issuance of the Record of Decision the NYSDEC will approach Insilco to implement the selected remedy under an Order on Consent.

5: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6NYCRR 375-1.10. These goals are established under the guideline of meeting all standards, criteria, and guidance (SCGs) and protecting human health and the environment.

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

The goals selected for OU-1 are:

- Remove, to the extent possible, or mitigate the NAPL present on top of the groundwater on site (off site if possible) and paint material on surface waters of the Bronx River. The removal of NAPL is an important prerequisite to a cost-effective cleanup of the site.

- Eliminate the potential for direct human or animal contact with contaminated surface water.

6: SUMMARY OF THE EVALUATION OF ALTERNATIVES

Potential remedial alternatives for the Red Devil site were identified, screened and evaluated in a Feasibility Study. This evaluation is presented in the report entitled Final OU-1 Feasibility Study Report/June 1995. A summary of the detailed analysis follows.

6.1: Description of Alternatives for OU-I

The potential remedies are intended to address the contaminated groundwater (NAPL recovery), off site surface water of the Bronx River and possible off-site recovery of NAPL.

Alternative I: No Action

The no action alternative is evaluated as a procedural requirement and as a basis for comparison. Under this alternative, access and use restrictions, recovery of on-site NAPL and off-site surface water seep material recovery would not be imposed.

This is an unacceptable alternative as the site will remain in its present condition, and human health and the environment would not be adequately protected.

Alternative II: Access and Use Restrictions

Present Worth:	$ 21,600
Annual O&M:	$ 2,000
Capital Cost:	$ 11,250
Time to Implement	none

This alternative would use two deed restrictions as follows:

1-Access Restrictions: Maintenance of pavement and building foundation to restrict access to site soils. Continued maintenance of these structures would be provided.

2-Use Restrictions: Restrictions on site subsurface intrusive activities, cover (foundation floors, pavement etc.) disturbance, and utility work would be established. The local water district (Mt. Vernon) prohibits the installation of private domestic wells.

Alternative III: Active On-Site Product Recovery and Passive Off-Site Surface Water Product Recovery

Present Worth:	$ 963,852
Annual O&M:	$ 207,900
Capital Cost:	$ 290,700
Time To Implement	in operation

This alternative includes: Access Restrictions, Use Restrictions, Active On-Site Product Recovery, Passive Off-Site Surface Water Product Recovery, and a Design Investigation (DI), for possible off-site recovery of NAPL.

Tasks 1-Access Restrictions: Maintenance of pavement and building foundation to restrict access to site soils. Continued maintenance of these structures would be provided.

Task 2-Use Restrictions: Restrictions on site subsurface intrusive activities, cover (basement floors, pavement etc.) disturbance, and utility work would be established. The local water district (Mt. Vernon) prohibits the installation of private domestic wells.

Task 3 - On-Site Product Recovery: The on going IRM Product Recovery System would be employed in Areas C and D. Recovery of NAPL would continue to use best available technology and is projected (for cost estimation) to operate in Areas C and D for no less than three years.

Task 4 - Off-Site Passive Surface Water Product Recovery: The on-going IRM employed on the Bronx River will continue. This task would continue until the material no longer seeps into the Bronx River. The three year operating periods for tasks 3 and 4 are based on how long it is projected for recovery of materials on and off site.

Task 5 - Design Investigation for off site NAPL Recovery: Possible recovery of NAPL from the off site location may be included in the design investigation as part of the ongoing IRMs (tasks 3&4). The area between the Metro North rail line and the Bronx River is owned by Westchester County. This property is located approximately seventy five feet, in a westerly direction, from the Red Devil Site and runs parallel with it. The Design Investigation would investigate the property running from the Oak Street bridge (to the northeast) to the Mt. Vernon Avenue bridge (to the southwest) and bounded by Metro North (to the northeast) and the Bronx River (to the northwest) to determine the feasibility of NAPL recovery at this location. The design investigation would include such tasks as soil borings, drilling, monitoring. If the data shows that a NAPL recovery system could be employed at this location, it would be implemented. This could enhance the efforts for cleanup and reduce the impact to the Bronx River. Insilco is in the process of obtaining the necessary permits from city and county agencies for property access.

6.2: Evaluation of Remedial Alternatives

The criteria used to compare the potential remedial alternatives are defined in the regulation that directs the remediation of inactive hazardous waste sites in New York State (6NYCRR Part 375). For each criterion,

a brief description is provided followed by an evaluation of the alternatives against that criterion. A detailed discussion of the evaluation criteria and comparative analysis is contained in the Feasibility Study.

1. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet applicable environmental laws, regulations, standards, and guidance.

Alternative I would comply with action (guidelines and requirements for workers at hazardous waste sites, standards for air contaminants, safety and health regulations for construction) and location specific SCGs (zoning, code of the City of Mount Vernon), but not with chemical specific SCGs (will not address contamination in groundwater, Bronx River surface water or site soils).

Alternative II would meet the same criteria as does Alternative I for action, location and chemical specific SCG's.

Alternative III would comply with action and location specific SCGs, but only in part for chemical specific SCGs. The recovery of NAPL from groundwater and seep material from the Bronx River would be addressed. Contaminated soils in Areas A, C and D will not meet soil cleanup levels. Alternative III meets the objectives for the PRAP (NAPL and seep material recovery from groundwater and surface water).

2. Protection of Human Health and the Environment. This criterion is a complete evaluation of the health and environmental impacts to assess whether each alternative is protective.

Alternative I would not be protective of human health and the environment, nor does it address the objectives of OU-I.

Alternative II would not adequately protect the environment. Human protection from direct contact with site soils and groundwater would be addressed properly, but surface water contamination of the Bronx River would not be protective to the environment (aquatic life).

Alternative III's proposed tasks (1-5) would be protective of human health and the environment. The removal of NAPL and paint materal would decrease groundwater and surface water contamination. These tasks would satisfy the goals for this OU at this site.

3. Short-term Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared with the other alternatives.

Alternative I poses no short-term effects.

Alternative II and III may pose some possible short-term effects to workers performing on-site maintenance to pavement and building foundations. Protective level clothing and respirators would reduce any risks while performing these tasks.

Alternative III has the potential for risks involving the community and site workers during product recovery with the potential release of volatile organic emissions to the air. Air sampling data for the active on-site NAPL recovery IRM shows no risks to an adult worker. If such risks occur then protective clothing and equipment would be provided. Alternative III will also pose a potential risk to the community from product transportation on route from the site to a disposal facility (includes possible material spills, personal injuries and property damage).

4. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of alternatives after implementation of the response actions. If wastes or treated residuals remain on site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the controls intended to limit the risk, and 3) the reliability of these controls.

Alternative I would not be effective and would not address any of the OU-I objectives for surface water and groundwater, which will present future risks to the community, workers, and the environment.

Over the long-term, Alternatives II and III would be effective in implementing actions that would limit contact with site soil and groundwater, providing little risk to human health.

Alternative III would provide a greater degree of effectiveness (protection of human health and the environment) than I or II, and would address removal of seep material from surface water and NAPL from groundwater.

5. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternatives I and II would not provide any reduction of toxicity, mobility or volume of wastes at this site.

Alternative III, Task 3 (active on-site product recovery) and 4 (passive off-site surface water product recovery) would reduce the toxicity, mobility and volume of product. Task 5 (DI) could reduce the toxicity and volume of NAPL for off-site product recovery if implemented.

6. Implementability. The technical and administrative feasibility of implementing each alternative is evaluated. Technically, this includes the difficulties associated with the construction, the reliability of the technology, and the ability to monitor the effectiveness of the remedy. Administratively, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.

Both proposed Alternatives II and III are readily implementable. The necessary materials and personnel needed for either alterative can be easily and promptly obtained. Alternative III has two of the five tasks (3

& 4) in place, which have proven to be satisfactory. Both of the alternatives are technically implementable and administratively feasible.

7. Cost. Capital and operation and maintenance costs are estimated for each alternative and compared on a present worth basis. Cost is the last balancing criterion evaluated. Where two or more alternatives can meet the goals of the remedial action, cost effectiveness may be used as the basis for the final decision. The cost for Alternative III is $963,852.

8. Community Acceptance - Concerns of the community regarding the RI/FS reports and the Proposed Remedial Action Plan are evaluated. A "Responsiveness Summary" will be prepared that describes public comments received and how the Department will address the concerns raised. If the final remedy selected differs significantly from the proposed remedy, notices to the public would be issued describing the differences and reasons for the changes.

7: SUMMARY OF THE SELECTED ALTERNATIVE

Based upon the results of the RI/FS, and the evaluation presented in Section 6, the NYSDEC is selecting Alternative III as the remedy for this site.

This selection is based upon the increased benefits of Alternative III over Alternative II.

Only Alternative III will protect aquatic organisms (recovery of seep material in the Bronx River) in the long-term. Only Alternative III will reduce the mobility, toxicity or volume of NAPL in groundwater and seep material in the surface water of the Bronx River.

Therefore, Alternative III, which consists of the active on-site NAPL recovery, passive off-site surface water seep material recovery and the Design Investigation is preferable to Alternative II, which only includes access and use restrictions.

The estimated present worth cost to implement the remedy will be $963,852. Total remedial action capital cost (construction and non-construction) was $290,710. The estimated average annual operation and maintenance cost will be $680,742 for 3 years.

The elements of the selected remedy are as follows:

1. The continued recovery of NAPL (first IRM) from on-site groundwater.

2. The continued recovery of off-site paint material (second IRM) from the Bronx River.

3. The maintenance of facility pavement and foundations to eliminate any risks to human health.

4. Restrictions on site construction, utility work, cover disturbance and drinking water well installations on site or between the Bronx River will be enforced.

5. A Design Investigation (as part of IRMs) to investigate and implement possible off-site NAPL recovery.

6. An annual review of the effectiveness of the remedial operation, and determination of the need for additional remedial measures.

8: HIGHLIGHTS OF COMMUNITY PARTICIPATION

To keep the public informed about the progress of the remedial program, to promote understanding of the roles and responsibilities of the involved parties and agencies and to enable DEC, DOH and Insilco gather information from the public to help develop a remedial program that is protective of human health and the environment, a citizen participation program has been implemented as part of the remedial program.

A Citizen Participation Plan was developed for this project and the following activities were conducted in accordance with that plan:

- A contact list was developed and used to inform interested individuals of developments at key milestones in the project. The contact list included local government officials, legislators, local property owners, interested parties, media, and interest groups.

- Document repositories were established at the Mount Vernon Public Library and at the DEC Region 3 office in New Paltz.

- As documents and reports associated with the project became available, they have been placed in the repositories.

- Fact sheets were developed and distributed to the contact list at key points in the process. Fact sheet #1 in July 1993 described the planned Remedial Investigation, Fact Sheet #2 in August, 1994 reported the results of the Remedial Investigation and a third fact sheet in December 1995 described the proposed remedial action for the site.

- Fact sheets included contact information for the DEC project manager and citizen participation specialist, the DOH project manager and community liaison, and an Insilco representative.

- A public meeting was held on September 20, 1994 to present the results of the Remedial Investigation.

- A public meeting to present the Proposed Remedial Action Plan (PRAP) and receive comments from the public was held on January 16, 1996.

- A 30 day public comment period, from January 3, 1996 to February 9, 1996 was provided to enable the public to review the PRAP and send comments to the project manager before the final Record of Decision (ROD) was prepared.

- For both public meetings, announcements of the time date and purpose of the meeting were posted around the facility itself to notify individuals who currently rent space in the building of the meetings.

- A news advisory describing the January 16, 1996 public meeting was faxed to key newspapers and radio stations in the Mount Vernon area.

A summary of the comments and questions received during the January 16, 1996 public meeting and th comment period, as well as the responses to those comments are included in the responsiveness summa (Appendix B) in this ROD. A public notice of the availability of this ROD, including a brief summary of th selected remedy, will be mailed to the contact list.

APPENDIX A

ADMINISTRATIVE RECORD

LIST OF DOCUMENTS IN THE ADMINISTRATIVE RECORD

ADMINISTRATIVE RECORD

Preliminary Site Investigation Report, ERM-Northeast, May, 1992.

Final Workplan, Ambient Air Sampling Program, ERM-Northeast, December 2, 1992.

Remedial Investigation/Feasibility Study (RI/FS) Workplan, ERM-Northeast, December 12, 1992.

Citizen Participation Plan, ERM-Northeast, February 25, 1993.

Ambient Air Sampling Program Report (incorporated into the 5/15/93 Remedial Investigation Report), ERM-Northeast, May 15, 1993.

Bronx River Sampling Program, Addendum 1 RI/FS Workplan, ERM-Northeast, May 20, 1993.

Interim Remedial Measures Workplan, ERM-Northeast, September 24, 1993.

Remedial Investigation Report, ERM-Northeast, May 26, 1994.

Ambient Air Sampling Report, ERM-Northeast, March 31, 1995.

Final Feasibility Study, ERM-Northeast, June 1995.

Letter on Workplan for Groundwater Sampling and Floor Drain Cleanout (will be incorporated into Design Investigation Report), ERM-Northeast, April 1995.

Tree Plan, ERM-Northeast, March 24,1995.

Groundwater Sampling Report (data will be incorporated into Design Investigation Report) ERM-Northeast, September 1995.

Proposed Remedial Action Plan (PRAP), New York State Department of Environmental Conservation, December 1995.

APPENDIX B

RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY

The New York State Department of Environmental Conservation (NYSDEC) held a public meeting on January 16th, 1996 at the Mt. Vernon Town Hall to discuss the findings of the Red Devil Site Remedial Investigation/Feasibility Study (RI/FS) and NYSDEC's Proposed Remedial Action Plan (PRAP). The RI/FS was performed by ERM-Northeast consultants under contract with the property owner Insilco Corporation of Dublin, Ohio. Present at the meeting were representatives from NYSDEC, Westchester County Health Department, The City of Mt. Vernon, ERM-Northeast, concerned citizens and the news media.

These and other reports are made available for public view at the following locations:

Mt. Vernon Public Library
28 South First Avenue
Mt. Vernon, New York 10050
Phone: 914/668-1840
Hours: Mondays - 10:00am to 10:00pm
Tuesdays - Thursdays, 9:00am to 9:00pm
Fridays - Saturdays, 9:00am to 5:00pm
Sundays - 1:00pm to 5:00pm

The documents have been stored at the library's Reference Desk, and may be obtained by requesting the files for the Red Devil facilty.

NYSDEC Region 3
21 South Putt Corners Road
New Paltz, New York 12561
Phone: 914/256-3154
Hours: Monday - Friday 8:30am-4:45pm

SUMMARY OF PUBLIC CONCERNS AND NYSDEC RESPONSES

The following is a summary of the questions, comments and responses received during the public meeting or in writing. For clarity, some of the questions and responses are not quoted verbatim and have been rephrased.

QUESTIONS AND RESPONSES

Question 1: How far does the boom go (this question refers to the Bronx River IRM).

Response : The boom extends for three hundred feet between the Oak Street bridge to the Mt. Vernon Avenue bridge.

Question 2: How does the weather affect the operation of the boom. Do you have some trouble when the flow is greater in the river.

Response : The outer boom has a skirt extending 24 inches below the surface of the water. The outer boom is able to retain any of the product that spills over or passes under the inner boom during swifter river currents or windy conditions.

Question 3: On the east side of North West Street I'm concerned about the effects of contaminated groundwater and soil.

Response : Groundwater flows away to the southwest and soils on the east-side of North West Street are not contaminated.

Question 4: A printing company was once located at 30 North West Street. Could this facility be another source of toluene.

Response : The Department will investigate this possibility.

Question 5: Is this PRAP the bulk of the remediation.

Response : The projection for complete recovery of the NAPL is three years. After that, we will be able to determine what more needs to be done. The Design Study may also show some promising alternatives.

Question 6: When is the next meeting.

Response : The Department will hold another meeting after the Design Investigation.

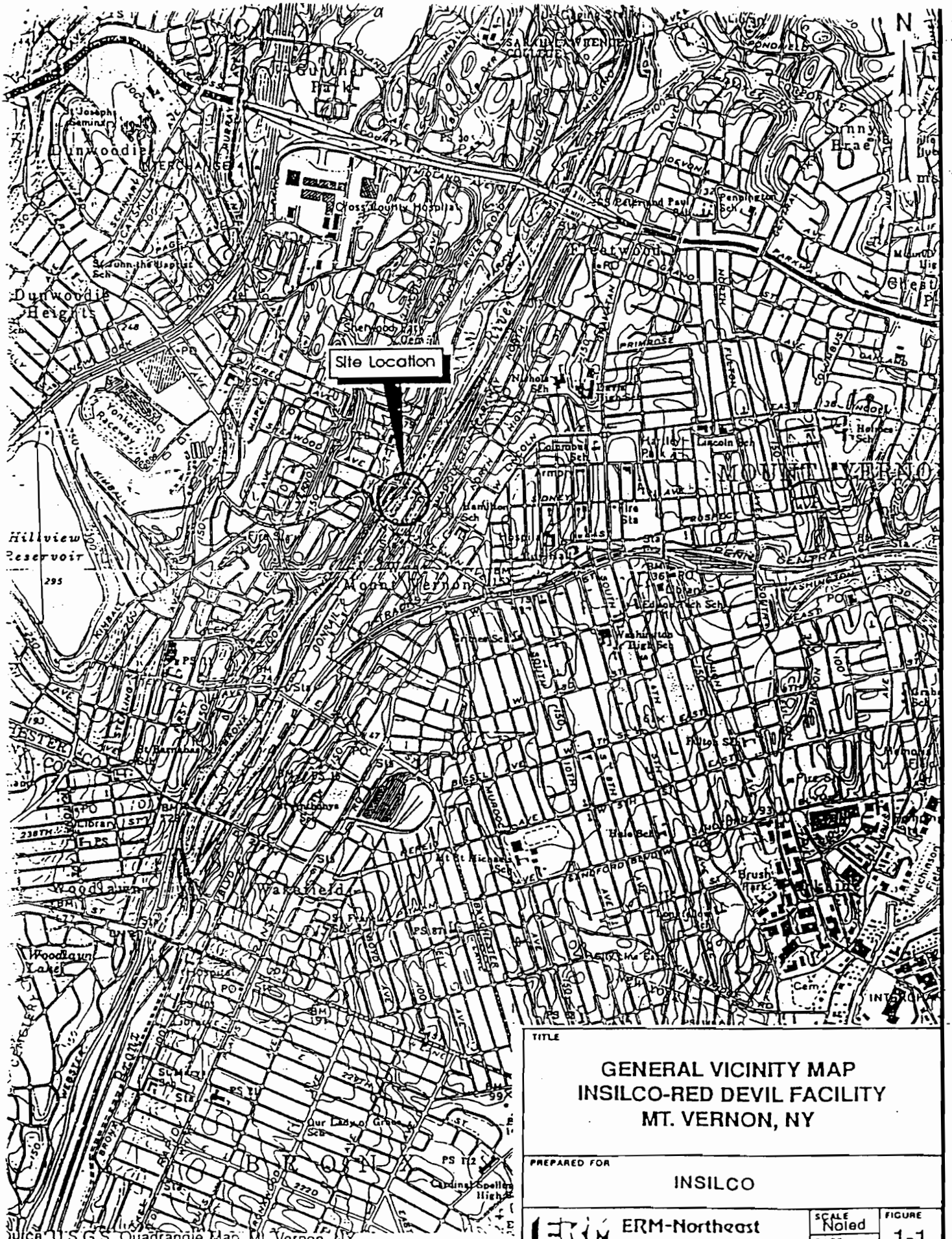
Question 7: Are there restrictions on the use of the building (referring to the facility).

Response : Because of the presence of NAPL, subsurface digging would be restricted. There may be other activities subject to local regulations.

Question 8: Were there odors.

Response : There were some solvent odors detected during the subsurface soil investigations.

FIGURES



Source: U.S.G.S. Quadrangle Map, Mt. Vernon, NY
Scale: 1" = 2000'

TITLE

GENERAL VICINITY MAP
INSILCO-RED DEVIL FACILITY
MT. VERNON, NY

PREPARED FOR

INSILCO

ERM-Northeast
Environmental Resources Management

SCALE	FIGURE
Noted	1-1
DATE	
7/1991	

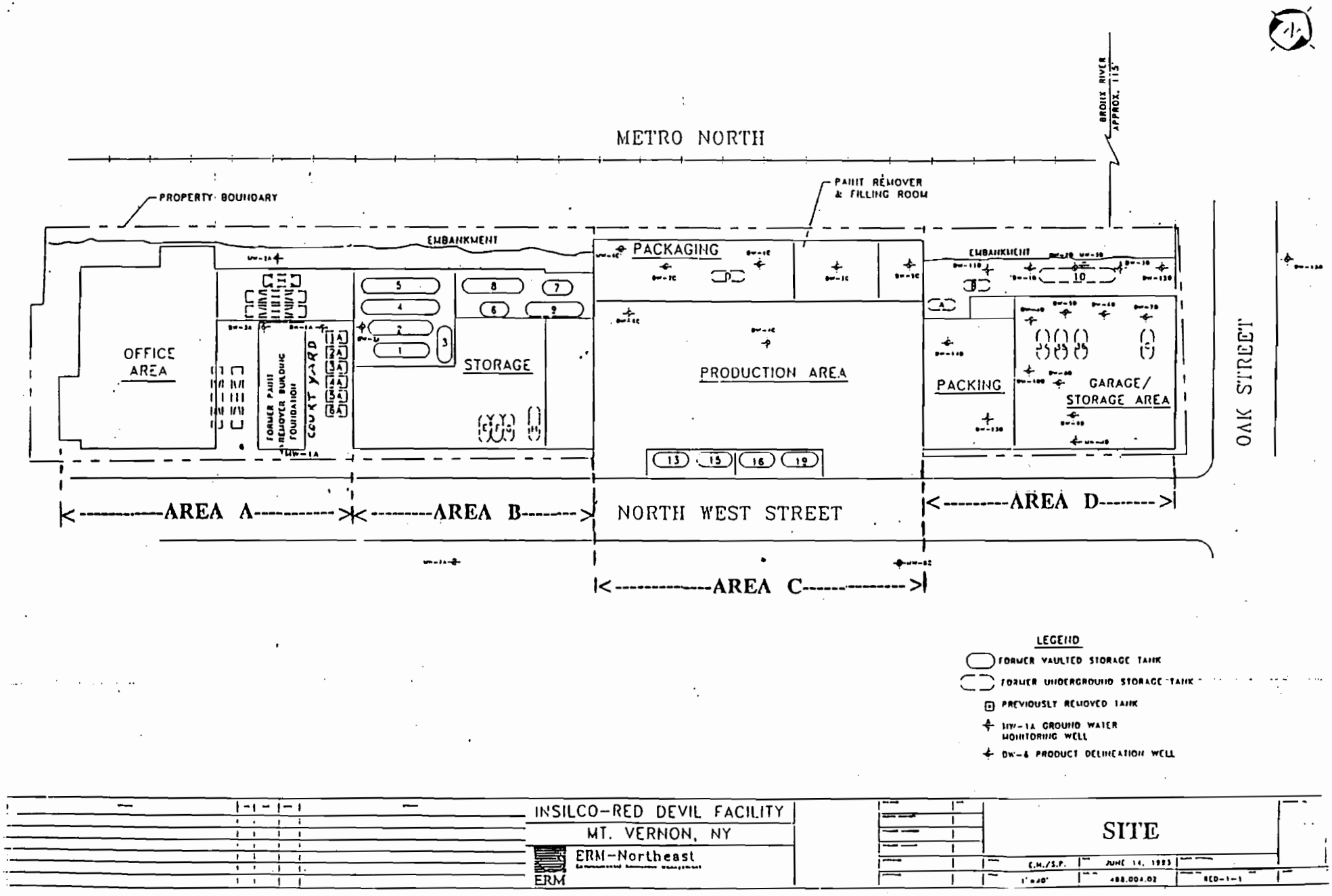

METRO NORTH
BRONX RIVER
APPROX. 115'
PROPERTY BOUNDARY
PAINT REMOVER & FILLING ROOM
EMBANKMENT
PACKAGING
OFFICE AREA
FORMER PAINT REMOVER BUILDING FOUNDATION
COURT YARD
STORAGE
PRODUCTION AREA
PACKING
GARAGE/ STORAGE AREA
OAK STREET
AREA A
AREA B
NORTH WEST STREET
AREA C
AREA D
LEGEND
FORMER VAULTED STORAGE TANK
FORMER UNDERGROUND STORAGE TANK
PREVIOUSLY REMOVED TANK
MW-1A GROUND WATER MONITORING WELL
DW-6 PRODUCT DELINEATION WELL
INSILCO-RED DEVIL FACILITY
MT. VERNON, NY
ERM-Northeast
ERM
SITE
C.M./S.P.
JUNE 14, 1993
1"=40'
488.004.02
RED-1-1

FIGURE 1-2

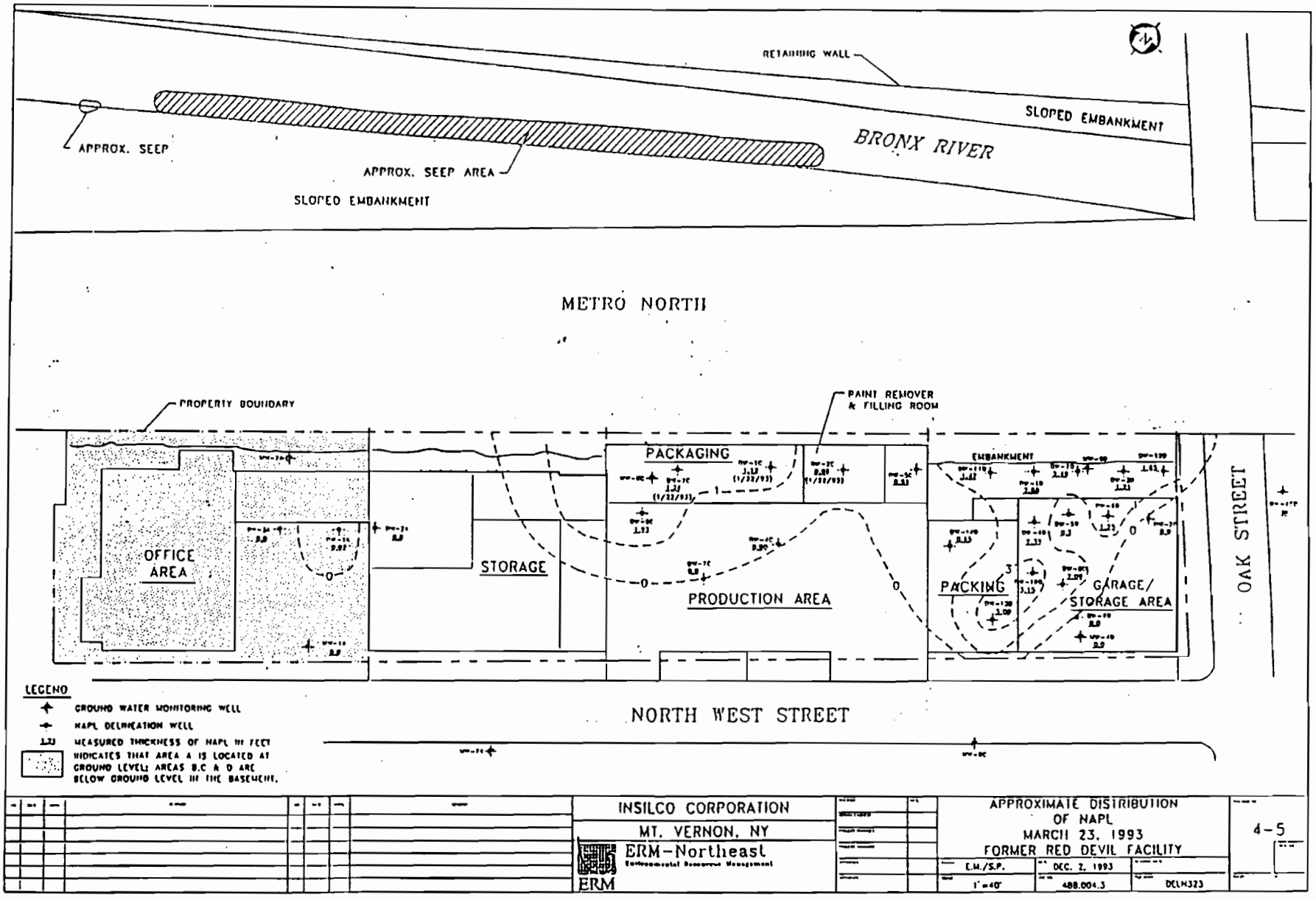

RETAINING WALL
SLOPED EMBANKMENT
BRONX RIVER
APPROX. SEEP
APPROX. SEEP AREA
SLOPED EMBANKMENT
METRO NORTH
PROPERTY BOUNDARY
PAINT REMOVER & FILLING ROOM
PACKAGING
EMBANKMENT
OFFICE AREA
STORAGE
PRODUCTION AREA
PACKING
GARAGE/ STORAGE AREA
OAK STREET
NORTH WEST STREET
LEGEND
GROUND WATER MONITORING WELL
NAPL DELINEATION WELL
MEASURED THICKNESS OF NAPL IN FEET
INDICATES THAT AREA A IS LOCATED AT GROUND LEVEL; AREAS B,C & D ARE BELOW GROUND LEVEL IN THE BASEMENT.
INSILCO CORPORATION
MT. VERNON, NY
ERM-Northeast
ERM
APPROXIMATE DISTRIBUTION OF NAPL
MARCH 23, 1993
FORMER RED DEVIL FACILITY
E.M./S.P.
DEC. 2, 1993
1"=40'
488.004.3
DELN323
4-5

FIGURE 1-3

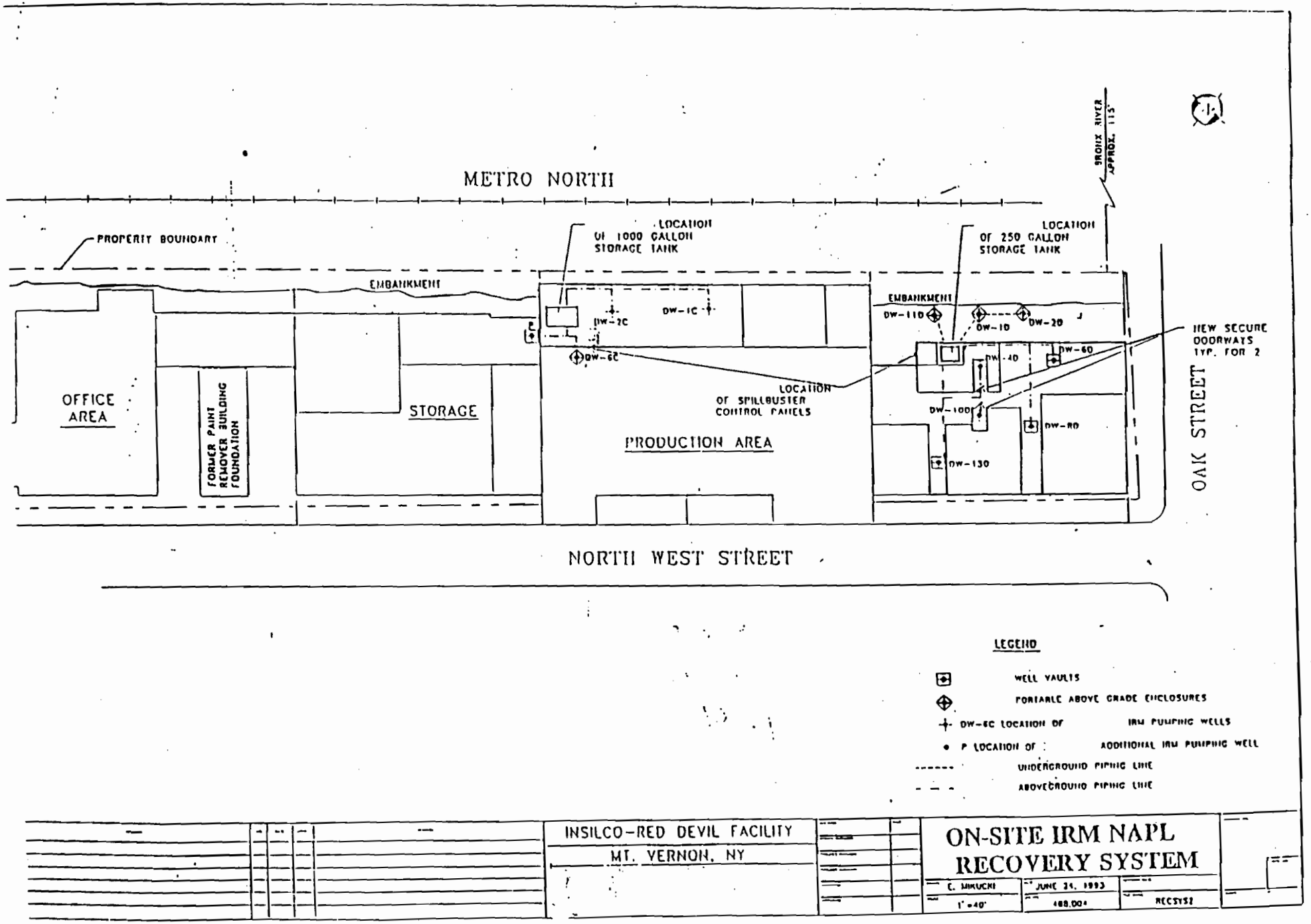

METRO NORTH
PROPERTY BOUNDARY
EMBANKMENT
LOCATION OF 1000 GALLON STORAGE TANK
LOCATION OF 250 GALLON STORAGE TANK
EMBANKMENT
SPRUCE RIVER APPROX. 115'
NEW SECURE DOORWAYS TYP. FOR 2
OFFICE AREA
FORMER PAINT REMOVER BUILDING FOUNDATION
STORAGE
PRODUCTION AREA
LOCATION OF SPILLBUSTER CONTROL PANELS
OAK STREET
NORTH WEST STREET
DW-1C
DW-2C
DW-6C
DW-11D
DW-1D
DW-2D
DW-4D
DW-6D
DW-10D
DW-8D
DW-13D
LEGEND
WELL VAULTS
PORTABLE ABOVE GRADE ENCLOSURES
DW-6C LOCATION OF IRM PUMPING WELLS
P LOCATION OF ADDITIONAL IRM PUMPING WELL
UNDERGROUND PIPING LINE
ABOVEGROUND PIPING LINE
INSILCO-RED DEVIL FACILITY
MT. VERNON, NY
ON-SITE IRM NAPL RECOVERY SYSTEM
C. MIKUCKI
1"=40'
JUNE 21, 1993
RECSYS2

FIGURE 1-4

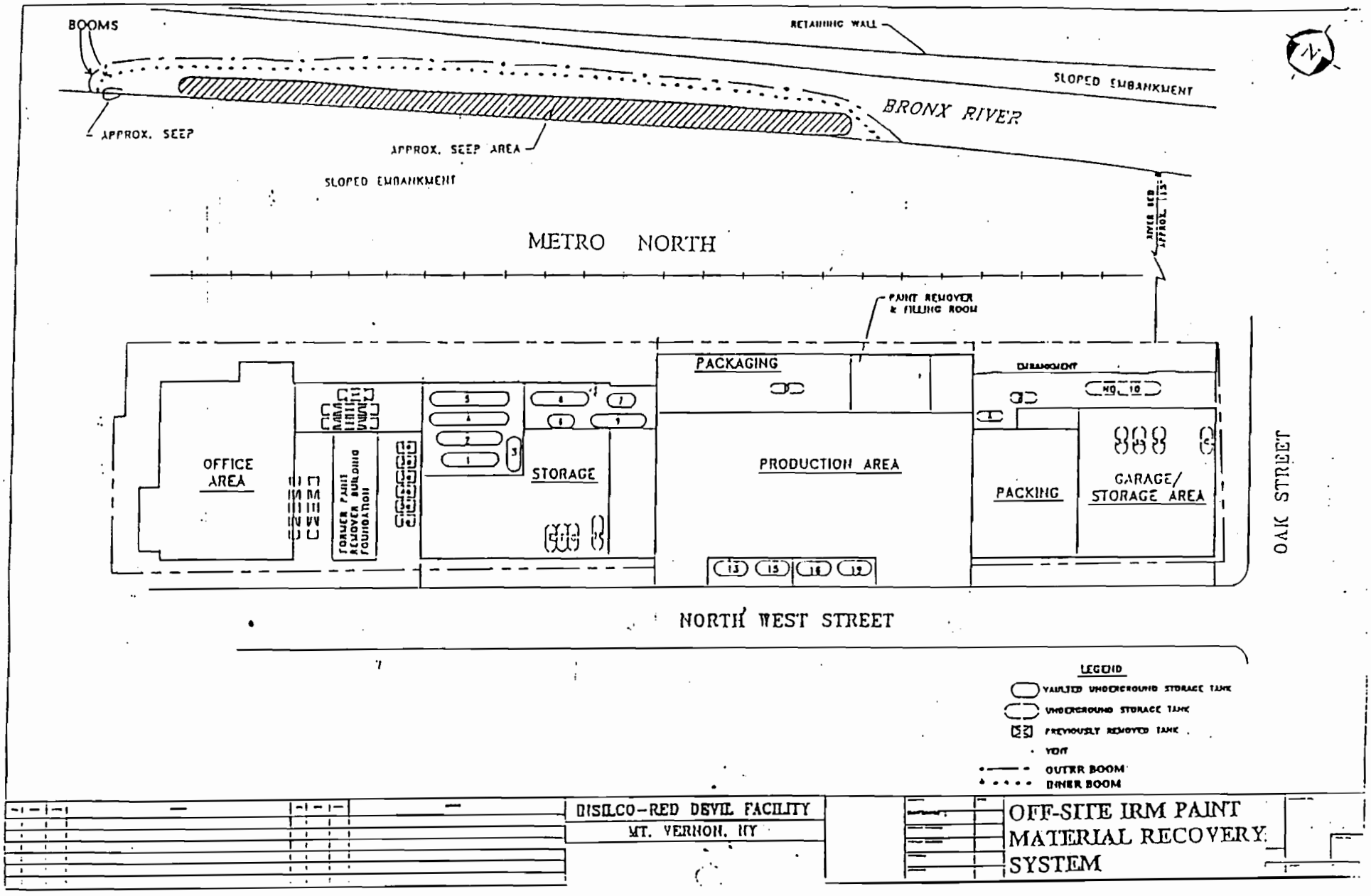

BOOMS
RETAINING WALL
SLOPED EMBANKMENT
BRONX RIVER
APPROX. SEEP
APPROX. SEEP AREA
SLOPED EMBANKMENT
METRO NORTH
PAINT REMOVER & FILLING ROOM
PACKAGING
OFFICE AREA
STORAGE
PRODUCTION AREA
PACKING
GARAGE/ STORAGE AREA
OAK STREET
NORTH WEST STREET
LEGEND
OUTER BOOM
INNER BOOM
DISILCO-RED DEVIL FACILITY
MT. VERNON, NY
OFF-SITE IRM PAINT MATERIAL RECOVERY SYSTEM

FIGURE 1-5