Department of Environmental Conservation

Division of Hazardous Waste Remediation

North Franklin Street Inactive Hazardous Waste Site

Site Number 8-49-002
Watkins Glen
Schuyler County, New York

Record of Decision

January 1994

New York State Department of Environmental Conservation
MARIO M. CUOMO, *Governor* THOMAS C. JORLING, *Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

North Franklin Street Inactive Hazardous Waste Site
Watkins Glen, Schuyler County, New York
Site No. 8-49-002

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for the North Franklin Street 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 North Franklin Street 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 B 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 North Franklin Street Site and the criteria identified for evaluation of alternatives the NYSDEC has selected soil vapor extraction and groundwater extraction/air stripping. The components of the remedy are as follows:

- Approximately 1000 cubic yards of subsurface soils will be treated in place with the use of a vacuum extraction system designed to remove volatile organic contamination. Soil vapors collected by this process will be monitored/sampled and treated, as necessary, to reduce contaminant concentrations to levels which are protective of human health and the environment and in compliance with New York State standards, criteria, and guidelines before being released into the atmosphere. This remedial action is expected to take four (4) to eight (8) months.

- Contaminated groundwater will be extracted through a groundwater recovery well system with on-site treatment through an air stripper. The selected remedy for groundwater will meet surface water discharge standards. However, as an added measure of protection the treated groundwater may be discharged to the local sanitary sewer system (POTW). The effectiveness of this alternative will be evaluated after five (5) years, or sooner if warranted, using data generated from the monitoring program.

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 statutory preference for remedies that reduce toxicity, mobility, or volume as a principal element.

Although the five (5) year groundwater pump and treat program may not restore the groundwater to pre-contaminant release conditions, the proposed remedy will be protective of human health and the environment. Groundwater modelling has shown that the selected groundwater treatment system will remove and treat a significant quantity of contaminated groundwater beneath the site. Specifically, for the major contaminants of concern, Trichloroethene and Tetrachloroethene, it is projected that concentrations in the source area can be reduced by ninety percent (90%) and sixty percent (60%) respectively during the five years of groundwater treatment assuming uniform average concentrations across the site.

January 18, 1994
Date

Ann Hill DeBarbieri
Deputy Commissioner

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

MEMORANDUM

TO: Ann Hill DeBarbieri, Deputy Commissioner
Office of Environmental Remediation

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

RE: Record of Decision: North Franklin Street Site, #8-49-002

DATE: January 14, 1994

Attached for your review is the Record of Decision (ROD), including the Responsiveness Summary, for the North Franklin Street site. Also attached is a ROD Summary Sheet and the NYSDOH concurrence letter. Charles Goddard and I have reviewed the ROD, and approved subsequent revisions to the first draft.

If you should have any questions please do not hesitate to contact David J. Chiusano, Project Manager, at 7-3373.

Attachments

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Center for Environmental Health 2 University Place Albany, New York 12203-3399

Mark R. Chassin, M.D., M.P.P., M.P.H.
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January 4, 1994

Mr. Michael O'Toole, P.E., Director
Division of Hazardous Waste Remediation
NYS Dept. of Environmental Conservation
50 Wolf Road, Room 212
Albany, New York 12233

RE: **Record of Decision (ROD)**
North Franklin Street
Site ID# 849002
Watkin Glen, Schuyler County

Dear Mr. O'Toole:

My staff have reviewed the Record of Decision (ROD) for the Remedial Action Plan for the referenced site. Based on our review of the ROD and the available data for the site, we believe the selected remedy, which includes a vapor extraction system (VES) to remediate source area soils, groundwater recovery system to remediate source area groundwater contamination and a groundwater monitoring to evaluate the effectiveness of the remedial actions will be protective of public health.

After the ROD has been signed please forward a copy to me. In addition, when the design and construction work plans become available , please forward a copy for my staff to review. My staff will continue to work with you and your staff to insure that the public is protected and to keep this project on schedule. If you have any questions, please call Mr. David Napier at (716) 423-8071.

Sincerely,

G. Anders Carlson, Ph.D.
Director
Bureau of Environmental Exposure
Investigation

sms/33640477

North Franklin Street Site
ROD - SUMMARY SHEET

Site Number: 8-49-002
Name of Site: North Franklin Street
Village and County: Watkins Glen, Schuyler County

Prepared By: New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, Bureau of Western Remedial Section C; Project Manager: David J. Chiusano

Description of Problem: Spent dry cleaning chemicals from a former dry cleaning operation have contaminated subsurface soil and groundwater with tetrachloroethene and it's breakdown products. The soil contamination (≈ 1,000 cubic yards) is limited to the former disposal/source area. The contaminated groundwater is migrating to the north toward Seneca Lake. Contamination in the soil ranges from 129 ppb to 41,000 ppb, and in groundwater it reaches 5,000 ppb maximum total VOC's in the source area. The area is serviced by public water with no drinking water wells in the vicinity of the site.

Description of Remedy: Soil vapor extraction/thermal treatment of organic vapors for contaminated soils combined with limited (5 years) groundwater extraction/treatment. Selected remedy for groundwater will meet established surface water discharge standards, and the necessity for discharge to the nearby POTW (≈ ½ mile away) will be further evaluated during the RD.

Costs: The estimated present worth cost to implement the remedy is $1,360,000. The cost to construct the remedy is estimated to be $945,000; the estimated annual operation and maintenance cost is $95,100.

Issues: Construction activities on the proposed lakeside development project are scheduled to begin in the Spring of 1994. Thus, quick remediation of contaminated soils near building planned for demolition, is preferred and requested by developers.

Adjacent parcels subject to lakeside development were found to be contaminated with BTEX compounds not related to site contamination. Data generated during the RI has been forwarded to the NYSDEC, Region 8 Horseheads sub-office, Division of Spills Management, for further action. Implementation of remedial actions are being coordinated with the spills program, and any actions taken will be compatible with actions taken to remediate the fuel related contamination.

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RECORD OF DECISION

North Franklin Street Site
Watkins Glen, Schuyler County, New York
Site No. 8-49-002
January 12, 1994

SECTION 1: SITE LOCATION AND DESCRIPTION

The North Franklin Street Site is an approximately 0.6 acre parcel of land situated on North Franklin Street (**Figure 1**), in an urban area approximately 300 feet south of Seneca Lake, in the Village of Watkins Glen, Schuyler County, New York. The area is serviced with public water, sanitary sewers and storm sewers operated by the Village of Watkins Glen. Homes and industries in the immediate area do not utilize private well water as their primary source of water.

SECTION 2: SITE HISTORY

2.1: Operational/Disposal History

During the period 1976 to 1988, dry cleaning establishments were located on site. Disposal practices by the former dry cleaners have contributed to volatile organic contamination of soils and groundwater at the site. As reported by a former employee, these practices included the discharge of wastewater to the ground surface outside the doorway and into a nearby stormwater catch basin. This wastewater contained high levels of tetrachloroethene, a common dry cleaning chemical known as PCE.

During the years 1987-1988 it was estimated that approximately 25 gallons/day of PCE contaminated water was dumped 5 days per week during the busy season (summer), and approximately 10 gallons were dumped 2 or 3 days per week in the winter (estimated total of 3700 gallons disposed of during the two(2) year period).

2.2: Remedial History

The site was once mortgaged to Norstar Bank, and the debtor failed to pay off the loan on schedule. Prior to foreclosure, Norstar Bank conducted a site assessment which resulted in the installation of four(4) monitoring wells. This assessment concluded, in January 1992, that contaminants attributable to the dry cleaning operation were present in the groundwater at concentrations exceeding NYS Groundwater Quality Standards. As a result, in July 1992 the NYSDEC placed this site on the "Registry of Inactive Hazardous Waste Disposal Sites in New York State" (site number 849002). This site is listed as a class '2' site, which means the site poses a significant threat to the public health or the environment. In October 1992, the identified potentially responsible parties were given an opportunity to voluntarily finance the RI/FS. No agreement could be reached with any of them.

Therefore, the NYSDEC contracted the services of URS Consultants, Inc. from Buffalo, NY to perform the RI/FS using State Superfund monies. Field work for the RI was initiated in November 1992 and completed in April 1993. The FS that followed was completed in November 1993.

Concurrent with the listing of the site, there were plans developed by the local community for a lakeside and residential complex on the adjacent parcels owned by the Schuyler County Industrial Development Agency (SCIDA). As a result, the NYSDEC agreed to extend its investigation to include the adjacent SCIDA properties in order to determine if there was hazardous waste on their property.

SECTION 3: CURRENT STATUS

The NYSDEC, under the State Superfund Program, initiated a RI/FS in November 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 previous activities at the site.

The RI was conducted in two (2) phases. The first phase was conducted between November 1992 and March 1993 the second phase between March 1993 and April 1993. A report entitled ***"Final North Franklin Street Remedial Investigation Report", dated August 1993*** has been prepared describing the field activities and findings of the RI in detail. A summary of the RI follows.

The RI activities consisted of:

- Historic Records Search to collect and review additional information to further evaluate site conditions.
- "Geoprobe" survey to screen the shallow groundwater and soil gas for volatile organic compounds prior to installation of monitoring wells.
- Ground penetrating radar survey to locate underground storage tanks and utilities.
- Installation of soil borings and monitoring wells for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions.
- Dye test to trace potential contamination migration in a storm sewer.
- A video inspection of the storm sewer line was conducted in order to help resolve questions regarding the source and extent of contamination in the northern portion of the site.
- Residential survey of homes and industries downgradient of the site to determine if any are presently utilizing private wells as their primary or secondary water supply.
- Collection of surface water, groundwater, surface soil, and Seneca Lake sediment samples to further delineate the environmental and chemical character of the site, and to determine how far the contaminants have migrated.

- Human health and ecological risk assessment to analyze potential adverse effects caused by the release of contamination from the site.

The analytical data obtained from the RI was compared to Applicable Standards, Criteria, and Guidance (SCGs) in determining remedial alternatives. Groundwater, drinking water and surface water SCGs identified for the North Franklin Street site were based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. For the evaluation and interpretation of soil and sediment analytical results, NYSDEC soil cleanup guidelines for the protection of groundwater, background conditions, and risk-based remediation criteria were used to develop remediation goals for soil. Based upon the results of the remedial investigation in comparison to the SCGs, certain areas and media of the site require remediation.

For the purposes of this RI, four distinct geographic areas were defined at the site (refer to Figure 2): The Dry Cleaner (DC) area, The Seneca Market (SM) northeast area, The SCIDA area, and The Background (BG) area. The actual registry listed site boundaries include the DC area and the south-west portion of the SM area.

SOILS

Only the DC area contained high concentrations of dry cleaning solvents and fuel-related compounds (also known as BTEX compounds) in subsurface soils. **No dry cleaning solvents or fuel-related compounds were found in soils above SCGs in the SCIDA area, SM area, or BG area. (Refer to Figure 3 and Figure 4)**

DC AREA:

PCE exceeded the 1,400 ppb SCG at 4 locations with a maximum concentration of 31,000 ppb; Trichloroethene (TCE) exceeded the 700 ppb SCG at 2 locations with a maximum concentration of 7,700 ppb; and 1,2 Dichloroethene (DCE) exceeded the 300 ppb SCG at one location at a concentration of 460 ppb. Xylene was the only fuel related volatile organic compound detected above SCGs, exceeding the 1,200 ppb guidance value with a concentration of 1,800 ppb.

Surface soils were collected only from the DC and SCIDA areas. Laboratory analysis determined that TCE exceeded the 1,400 ppb SCG in one sample from the DC area at a concentration of 41,000 ppb.

GROUNDWATER

In summary, the DC area contained the greatest number and highest concentrations of dry cleaning solvents. The SCIDA area exhibited the greatest number and highest concentrations of fuel related compounds. (Refer to **Figure 5 and Figure 6**):

Specifically, contravention of NYS groundwater standards by dry cleaning solvents and fuel related compounds include the following:

DC AREA:

PCE exceeded the 5 ppb standard in 10 wells at a maximum concentration of 3500 ppb; TCE exceeded the 5 ppb standard in 8 wells at a maximum concentration of 1,100 ppb; 1,2 DCE exceeded the 5 ppb standard in 8 wells at a maximum concentration of 2,900 ppb; and Vinyl Chloride(VC) exceeded the 2 ppb standard in 3 wells at a maximum concentration of 300 ppb. Contravention of NYS groundwater standards by fuel related compounds include the following: Xylene exceeded the 5 ppb standard in 1 well at a maximum concentration of 250 ppb; Benzene exceeded the 0.7 ppb standard in 2 wells at a maximum concentration of 17 ppb; and Ethylbenzene exceeded the 5 ppb standard in 2 wells at a maximum concentration of 17 ppb.

SM AREA:

PCE exceeded the 5 ppb standard in 6 wells at a maximum concentration of 410 ppb; TCE exceeded the 5 ppb standard in 4 wells at a maximum concentration of 26 ppb; and 1,2 DCE exceeded the 5 ppb standard in 5 wells at a maximum concentration of 43 ppb. There were no detections of fuel related compounds in this area.

SCIDA AREA:

PCE exceeded the 5 ppb standard in 2 wells at a maximum concentration of 190 ppb; TCE exceeded the 5 ppb standard in 1 well at a concentration of 12 ppb; 1,2 DCE exceeded the 5 ppb standard in 1 well at a concentration of 18 ppb; Benzene exceeded the 0.7 ppb standard in 4 wells at a maximum concentration of 42 ppb; Xylene exceeded the 5 ppb standard in 4 wells at a maximum concentration of 810 ppb; Ethylbenzene exceeded the 5 ppb standard in 1 well at a concentration of 86 ppb; and toluene exceeded the 5 ppb standard in 1 well at a concentration of 7 ppb.

BG AREA:

The offsite wells measured for background data were largely uncontaminated by parameters of concern with the exception of small amounts of PCE, including one contravention of the 5 ppb standard at 18 ppb. The RI concluded that this contamination was unrelated to contamination found on site.

3.2 Summary of Human Exposure Pathways:

In the exposure assessment, intake or exposure doses were calculated, based on the no remedial action alternative, for four basic exposure pathways for the current land use scenario: 1) inhalation of air from soil-gas; 2) dermal contact with surface soils; 3) ingestion of surface soil; and 4) inhalation of fugitive dust from surface soil. A child playing and an adult employee were identified as potentially being most at risk from exposure to site contamination.

For the future use scenario, there were six basic exposure pathways evaluated: 1) inhalation of soil-gas; 2) inhalation of groundwater vapors; 3) dermal contact with groundwater; 4) ingestion of surface/subsurface soil; 5) dermal contact with surface/subsurface soil, and; 6) inhalation of fugitive dust. A child, an adult, and a construction worker were identified as potentially being exposed under the future land use scenario.

The cancer risks calculated for the site under the current land use scenarios were determined to be within acceptable limits established by the United States Environmental Protection Agency (USEPA). Exposure scenarios under future use conditions during construction are also below or within acceptable limits established by USEPA. However, the presence of VC (known carcinogen) detected by actual field measurements during the RI may present an elevated risk to human health through exposure during intrusive construction activities. This type of exposure scenerio may have been evident prior to the NYSDEC's and NYSDOH's involvement with the site when there was a reported release of organics at high levels during excavation for a sewer line installation in the DC area. As a result, until remediation of soil and groundwater is satisfactorily completed any future development and/or reconstruction plans proposed for the site and adjacent parcels will be subject to review and prior approval by both the NYSDEC and NYSDOH. Moreover, if no remedial action took place at the site, the future land use scenario for exposure through inhalation of vapors from groundwater and/or soil-gas in a residential basement was calculated to have an unacceptable risk.

3.3 Summary of Environmental Exposure Pathways:

Soil and groundwater has been contaminated with a consequential amount of hazardous waste. As a result, remediation is required to restore these resources.

Regarding wildlife the contaminants of concern: PCE, TCE, DCE, VC, and BTEX compounds generally pose a potential risk due to acute rather than chronic exposures. These compounds do not pose a significant bio-accumulation hazard because of their volatility, and their low affinity (attraction) for organic materials. Given, the relatively low rate of contaminant loading (less than 1 gallon/day), volatilization, and the diluting/mixing effect of Seneca Lake, aquatic habitats are not at risk from contaminants related to the dry cleaning operation. This was confirmed by collecting four samples of surface water and sediment from the lake in the vicinity of the storm water/catch basin outfall which also drains the site. Subsequent laboratory analysis of these samples did not detect any contamination attributable to the site.

SECTION 4: ENFORCEMENT STATUS

The identified Potential Responsible Parties (PRP) for the site include:

- Current and former site property owners.
- Former dry cleaning operators.

The identified PRPs failed to implement the RI/FS at the site when requested by the NYSDEC. The identified 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.

The RI identified contamination of soils and groundwater by fuel-related compounds on properties adjacent to the site resulting from past oil spills and previously used underground storage tanks. Contamination associated with the spill or leakage of petroleum products is not under the jurisdiction of the NYSDEC-Division of Hazardous Waste Remediation. However, all information and data collected during the RI on this issue has been forwarded to the NYSDEC, Region 8 sub-office, Division of Spills Management, located in Horseheads (Chemung County), for further action.

The NYSDEC now awaits decision by the present adjacent property owners regarding acceptance of responsibility for the fuel related contamination cleanup. If responsibility is not assumed, the NYSDEC is committed to using its' oil spill funds to initiate cleanup. A summary fact sheet on the status of clean-up efforts has been provided by the Spills Management Program as an attachment to the Remedial Action Plan (refer to Appendix C).

SECTION 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 Applicable Standards, Criteria, and Guidance (SCGs) and protecting human health and the environment. At a minimum, the remedy selected will 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.

- Eliminate the potential for direct human or animal contact with the contaminated soils on site.
- Reduce, control, or eliminate the contamination present within the soils on site.
- Mitigate the impacts of contaminated groundwater to the environment.
- Provide for attainment of SCGs for groundwater quality at the limits of the area of concern.

SECTION 6: SUMMARY OF THE EVALUATION OF ALTERNATIVES

Potential remedial alternatives for the North Franklin Street site were identified, screened and evaluated in a two phase Feasibility Study. These alternatives address contamination of soils and groundwater within the Dry Cleaner and Seneca Market Areas by chlorinated organic and fuel-related compounds. Remediation of the adjacent parcels for fuel-related contamination has been referred to the NYSDEC's Division of Spills Management.

This evaluation is presented in the report entitled ***"North Franklin Street Final Feasibility Report", dated November 1993.*** A summary of the detailed analysis follows.

6.1: Description of Alternatives

The potential remedies are intended to address the contaminated subsurface soils and groundwater at the site.

Alternatives G1 and S1: No Action

The no action alternatives are evaluated as a procedural requirement and as a basis for comparison. They require continued monitoring only, allowing the site to remain in an unremediated state.

These are unacceptable alternatives as the site would remain in its present condition, and human health and the environment would not be adequately protected.

SUBSURFACE SOILS

Alternative S2: Institutional Action

Present Worth:	**$ 78,000**
Capital Cost:	**$ 0**
Annual O&M:	**$ 18,000**
Time to Implement:	**0 years**
	Monitoring 5 years

Deed restrictions would be implemented to prevent human exposure to contaminated subsurface soil. Long term monitoring would be used to continually assess the need for further action.

Alternative S3: Soil Vapor Extraction

Present Worth:	**$ 570,000**
Capital Cost:	**$ 489,000**
Annual O&M:	**$ 18,000**
Time to Implement:	**1 year**
	Monitoring 5 years

A soil vapor extraction (SVE) system would be required to treat soil which exceeds the cleanup criteria. A series of vapor extraction wells, a vacuum system, and a vapor phase thermal oxidation unit are included for soil-gas collection and treatment. Some groundwater would also be expected to be collected along with the vapor. The water would be treated with carbon drums prior to discharge to the sanitary sewer. The decision to use carbon drums or combine flow with a groundwater treatment alternative would be evaluated during the remedial design stage. Finally, the existing perforated stormwater

drainage pipe would be replaced with solid PVC (plastic) pipe.

Alternative S4: "Hot-Spot" Soil Removal

Present Worth:	**$ 530,000**
Capital Cost:	**$ 455,000**
Annual O&M:	**$ 18,000**
Time to Implement:	**6 months**
	Monitoring 5 years

Only soils with contamination exceeding the clean-up levels in open, accessible areas not covered by buildings would be excavated and disposed off site in an industrial landfill. Contaminated soils underneath the surrounding buildings would be left in place. It is estimated that 420 cubic yards of the approximately 1000 yards of contaminated soil would be removed. Any groundwater that might be generated from dewatering during excavation would require treatment. The excavation would be backfilled with clean soil. Shoring and/or underpinning of the building foundations would also be required during excavation. Replacement of the perforated section of the storm sewer and groundwater monitoring would also be elements of this alternative.

Alternative S5: Soil Vapor Extraction with "Hot-Spot" Soil Removal

Present Worth:	**$ 930,000**
Capital Cost:	**$ 856,000**
Annual O&M:	**$ 18,000**
Time to Implement:	**1 year**
	Monitoring 5 years

Alternative S5 is a combination of Alternatives S3 and S4, providing for the excavation and off-site disposal of highly contaminated soil in accessible areas not covered by buildings, and removal of volatile organic contaminants from soils underneath the buildings using soil vapor extraction. The excavated area would be backfilled with clean soil. The building foundations along the limits of excavation would be shored and/or pinned for structural safety. Extraction well(s) and a stone filled vapor extraction trench would be installed during the backfill operation. Replacement of perforated storm sewer and long term groundwater monitoring would also be included.

GROUNDWATER

Alternative G2: Institutional Action for Groundwater

Present Worth:	**$ 338,000**
Capital Cost:	**$ 0**
Annual O&M:	**$ 22,000**
Time to Implement:	**0 years**
	Monitoring 80 years

Permanent restrictions prohibiting groundwater use would be imposed to prevent human exposure. Long term monitoring would be required to determine when such restrictions might no longer be required or to assess the need for further action. Groundwater modelling has predicted that groundwater standards would be achieved for all contaminants through natural attenuation in approximately 80 years.

Alternative G3: One Well Groundwater Extraction/No Pre-Treatment/Discharge to Public Owned Treatment Works (POTW):

Present Worth:	**$ 1,122,000**
Capital Cost:	**$ 107,000**
Annual O&M:	**$ 55,600**
Time to Implement:	**Pumping 50 years**
	Monitoring 50 years

This alternative would consist of groundwater collection from one (1) centrally located well, followed by direct discharge, through a dedicated line, to the Village of Watkins Glen POTW. Volatile organic contaminants in groundwater pumped from a well located between the source and downgradient plume

areas are expected to be within acceptable loadings for direct discharge to the POTW.

Groundwater flow modelling has predicted that one well pumped at a rate of 5 gpm can have a zone of influence extending through the DC area to the BG area on the east and to Seneca Lake on the north. Chlorinated organic as well as fuel-related compounds would be removed with the groundwater within the zone of influence.

Groundwater pumping would be carried out until groundwater standards are attained, which was estimated to take 50 years using a batch contaminant flushing model. Groundwater quality within the site would also be monitored during this period to ensure the protection of human health and the environment. The long term monitoring program would include sampling and analysis at the POTW for volatile organic compounds to ensure that the discharge of contaminated groundwater from the site would not adversely affect the performance of the POTW.

Alternative G3A: Two Well Groundwater Extraction/No Pre-Treatment/Discharge to POTW:

Present Worth:	**$ 1,008,000**
Capital Cost:	**$ 124,000**
Annual O&M:	**$ 57,500**
Time to Implement:	**Pump 30 years**
	Monitoring 30 years

Contaminated groundwater at the site would be extracted using two wells at a rate of five (5) gallons per minute each. One well would be located in the source area and the other well would be located in the downgradient plume area. The untreated groundwater would be directly discharged, through a dedicated line, to the POTW.

The pumping rates for the two wells would be limited by loadings to the POTW. The pumping rates could be increased, and consequently the clean-up duration would be reduced, as the contaminant levels in the groundwater would decrease over time. The long term monitoring program would include sampling and analysis at the POTW for volatile organic compounds to ensure that the discharge of contaminated groundwater would not adversely affect the performance of the POTW. The pumping system would be operated and groundwater quality monitored for a period of 30 years when it is predicted standards would be attained, to ensure the protection of human health and the environment.

Alternative G4: One Well Groundwater Extraction/On-Site Treatment/Discharge to POTW:

Present Worth:	**$ 1,661,000**
Capital Cost:	**$ 428,000**
Annual O&M:	**$ 71,000**
Time to Implement:	**Pump/Treat 30 years**
	Monitoring 50 years

This alternative would include the extraction of groundwater from only one well in the source area. Groundwater would then be treated on site and discharged to the Village of Watkins Glen POTW via the sanitary sewer. The components of the on-site treatment system would include an air stripper and a vapor phase thermal treatment system.

The treatment system would be operated for a period of 30 years based on groundwater flow and batch contaminant flushing model simulations, or until the contaminants in the groundwater fall below acceptable loadings for direct discharge to the local POTW. As this alternative targets only the source area with the highest levels of volatile organic contaminants, long term monitoring may be required for an additional 20 years or until standards are

obtained through natural attenuation in the downgradient plume area.

Alternative G4A: Two Well Groundwater Extraction/On-Site Treatment/Discharge to POTW:

Present Worth:	**$ 1,641,000**
Capital Cost:	**$ 456,000**
Annual O&M:	**$ 77,100**
Time to Implement:	**Pump/Treat 30 years**
	Monitoring 30 years

This alternative would consist of the extraction of contaminated groundwater using two wells, followed by on-site treatment of the groundwater. The components of the on-site treatment system would include an air stripper and a vapor phase thermal treatment system. As in Alternative G3A, one well would be located in the source area and the other well in the downgradient plume area. The anticipated duration of treatment is also 30 years, during which time treated groundwater would be discharged to the local POTW. The groundwater would also be regularly monitored during the same 30 year period to ensure the protection of human health and the environment.

Alternative G5: Five (5) Year, Two Well Groundwater Extraction/On-Site Treatment/Discharge to POTW:

Present Worth:	**$ 790,000**
Capital Cost:	**$ 456,000**
Annual O&M:	**$ 77,100**
Time to Implement:	**Pump/Treat 5 years**
	Monitoring 5 years

This alternative would consist of groundwater collection from the source and downgradient plume areas using two extraction wells, followed by on-site treatment and likely discharge to the Village of Watkins Glen POTW. The components of the on-site treatment system would include an air stripper and a vapor phase thermal treatment system. Deed restrictions or administrative controls to restrict groundwater use would be applied, and the pump and treat system would be operated and it's performance monitored for a period of five (5) years to evaluate actual progress in reducing contaminant levels. Although groundwater modelling has indicated that groundwater standards may not be attained within five (5) years, it has indicated that there would be a significant reduction of contamination levels, and consequently a substantially reduced threat of health related exposures. Specifically, it is projected that TCE and PCE concentrations in the DC source area could be reduced by ninety percent (90%) and sixty percent (60%) respectively during the five years of treatment assuming uniform average concentrations across the site. (Refer to **Figure 10**). The need for further remedial action would be evaluated after five (5) years of operation, or sooner, if warranted by a substantial reduction in groundwater contravention levels.

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 of the 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.

The first two evaluation criteria are termed threshold criteria and must be satisfied in order for an alternative to be considered for selection.

1. Compliance with Applicable Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether or not a remedy will

meet applicable environmental laws, regulations, standards, and guidance.

The no action alternatives, institutional action alternatives, and the "Hot-spot" soil removal alternative do not meet the SCGs. The groundwater extraction/no-treatment alternatives (G3 and G3A) would require obtaining a permit from the local POTW for the discharge of untreated water.The remainder of the alternatives would all comply with SCGs for this site.

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

   The no-action and institutional action alternatives would not be protective of human health. The remainder of the remedial alternatives would reduce potential human health risks below the lowest acceptable levels.

The next five "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. **Short-term Impacts and 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.

   None of the alternatives considered are expected to produce significant short term community or environmental impacts that cannot be easily mitigated.

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.

   The no-action and institutional action alternatives would not meet this criterion. The remainder of the alternatives would meet this criterion since they focus on eliminating the source of contamination on and across the site.

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.

   The no-action and institutional action alternatives would not meet this criterion. "Hot-spot" soil removal only targets a portion of the contaminated soil, and thus would only provide a partial reduction in toxicity and volume. The groundwater extraction/no-treatment alternatives would not meet this criterion because they would not provide for treatment and reduction of toxicity. The remainder of the alternatives meet this criterion since they would provide for permanent removal and treatment.

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 personal and material is evaluated along with potential difficulties in obtaining special permits, access for construction, etc..

The most easily implemented alternatives are the no-action options. The problems with excavation along the side walls below the depth of the foundations of the three buildings make it more difficult to implement the soil remedial alternatives that include removal (S4 and S5). Moreover, the groundwater extraction/no-treatment alternatives would be subject to acceptance of untreated groundwater by the Village of Watkin's Glen Treatment plant.

7. Cost. Capital and operation and maintenance costs are estimated for each alternative and compared on a present worth basis. Although cost is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the remaining criteria, cost effectiveness can be used as the basis for the final decision.

The no-action and institutional action alternatives would be the least expensive alternatives. Capital, operating, and maintenance costs for the soil vapor extraction alternative, S3, would not be the lowest. On the other hand, the capital costs for the soil removal alternative, S4, would be the lowest of the three alternatives that provide for treatment of the contaminated soils while soil removal combined with vapor extraction, S5, would be the highest.

The five (5) year groundwater extraction and treatment alternative, G5, would be the relatively lowest cost groundwater remediation alternative. The remainder of the groundwater alternatives considered would be relatively higher in cost because of the extensive time that would be required for monitoring.

This final criterion is considered a modifying criterion and is taken into account after evaluating those above. It is focused upon after public comments on the Proposed Remedial Action Plan have been received.

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

SECTION 7: SUMMARY OF THE PREFERRED REMEDY

Based upon the results of the RI/FS, and the evaluation presented in Section 6, the NYSDEC has selected both Alternatives S3 and G5 as the remedy for this site.

This selection is based upon the fact that these two alternatives will provide permanent and irreversible detoxification of contaminated soil and groundwater, respectively. They will be protective of human health and the environment. With the exception of the NYS Groundwater Standards they will comply with all known ARARs. They will address both the soil and groundwater contaminants found on site, and

will provide a level of treatment which will reduce the present health risks associated with the contaminants in both environmental media well below acceptable levels.

Specifically, Alternative S3 will involve extraction of volatile organic contaminants from the soil by drawing soil gas through the soil pore spaces. This technology has been demonstrated at sites similar to this. The compounds will be transferred to the air as it moves through the soil, and the contaminated air will be collected and appropriately treated before being released into the atmosphere. Since soils will be treated in place, health risks and inconveniences to the surrounding business and residential communities will be minimal, and can be easily controlled. The anticipated project duration for soil cleanup is estimated to be six (6) months.

Alternative G5 will also use proven technologies (i.e. air stripper and vapor phase thermal treatment) which have been successfully utilized at other Superfund sites. The groundwater remediation will begin with the installation of extraction wells at the source area and downgradient plume area. The pumping will continue for five (5) years, and data will be collected to evaluate the effectiveness of the system. Groundwater modelling has shown that this system will remove and treat a significant quantity of contaminated groundwater beneath the site. The selected groundwater remedy will meet surface water discharge standards. However, as an added measure of protection, the treated groundwater may be discharged to the local sanitary sewer (POTW).Furthermore, a well survey conducted by the NYSDEC and NYSDOH during the RI indicated that the area is serviced by public water, and that homes and industries in the immediate vicinity do not utilize private well water as their primary source of water. Therefore, although the initial five (5) year pumping program may not restore the groundwater to pre-contaminant release conditions, the proposed remedy will be protective of human health and the environment. It is important to note that the predicted clean-up duration is very sensitive to the organic content of the soil. The actual organic content of the soil at the site in the saturated groundwater bearing zone, consisting of sand and gravel, is expected to be lower than the conservative 1% value which was used in calculations. The modelling conducted also was based on averaging of contamination levels over large areas. The high levels of contamination are actually concentrated in the DC source area. Thus, clean-up times may be shorter than have been predicted.

The effectiveness of this alternative will be evaluated after five (5) years, or sooner if warranted, using data generated from the monitoring program. If the data indicates that progress towards clean up goals has been unsatisfactory, continued operation of the system or additional remedial measures may be implemented.

The estimated present worth cost to implement the remedy is $ 1,360,000. The cost to construct the remedy is estimated to be $ 945,000 and the estimated average operation and maintenance cost is $ 95,100.

The elements of the selected remedy are as follows:

1. REMEDIAL DESIGN PROGRAM

- A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program. Uncertainties identified during the RI/FS will be resolved.

- Remediation of the adjacent parcels for fuel-related contamination has been referred to the NYSDEC's Division of Spills Management. Implementation of remedial actions are being coordinated with the Spills Program, and any actions taken will be compatible with actions taken to remediate the fuel-related contamination.

2. REMEDIATION OF SOIL

- Treat contaminated soils exceeding clean-up goals using ten (10) soil vapor extraction wells, configurated as to capture soil gas from open areas and underneath buildings (approximately 1000 cubic yards would need to be treated). Refer to **Figure 7**.

- The vapors will be treated, as necessary, through a thermal destruction unit or carbon adsorption.

- Separate groundwater entrained with soil gas and discharge to sewer by constructing a 100 foot force main.

- Replace existing perforated stormwater drainage pipe with a solid PVC pipe.

- Monitor for five (5) years.

- Either asphalt or plastic (HDPE) liners will be used to seal exposed areas at the surface so as to minimize short circuiting of the induced air stream. The asphaltic cover can be left in place after treatment.

3. REMEDIATION OF GROUNDWATER

- Operate and monitor the treatment system and groundwater quality for a period of five (5) years. At the end of the five year period, or sooner if data warrants, an evaluation will be conducted for the need of continued system operation with respect to meeting groundwater standards and reducing potential health risks to an acceptable level.

- Install two six inch diameter extraction wells, one in source area and one in downgradient plume area. Refer to **Figure 8** and **Figure 9**.

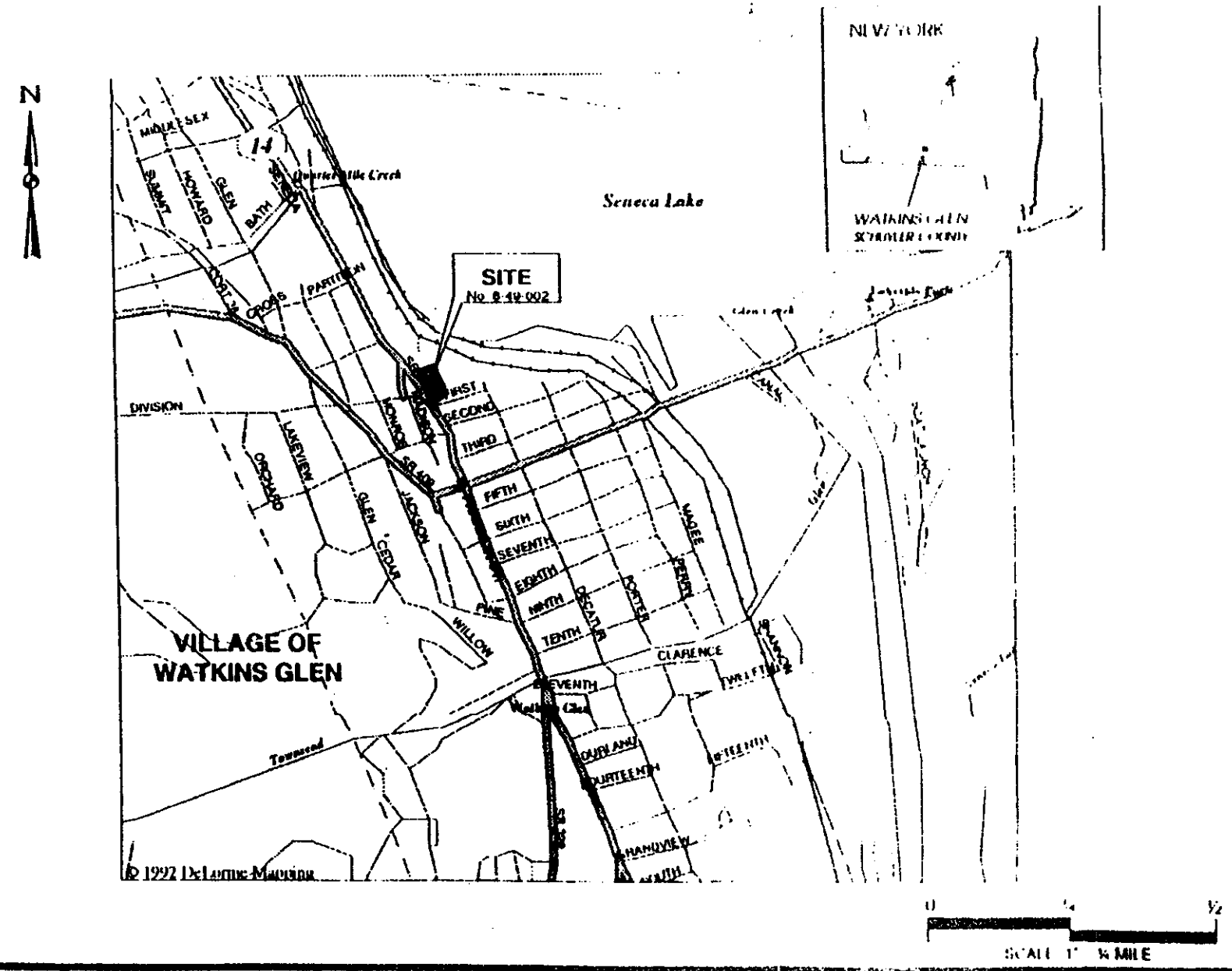
- Extract water at a design rate of five (5) gallons per minute (gpm) from each well. The extraction rate may be varied if site conditions warrant.

- Treat groundwater by using air-stripping for volatile organic compounds, and treat off gases (vapors), as necessary, by thermal treatment or carbon adsorption.

- Discharge treated groundwater to sanitary sewer by constructing a 100 ft. discharge conduit, tying into the sewer along North Franklin Street. The necessity for discharge to POTW will be further assessed during the Remedial Design stage of the project.

- Apply administrative restrictions as appropriate during the course of remediation.

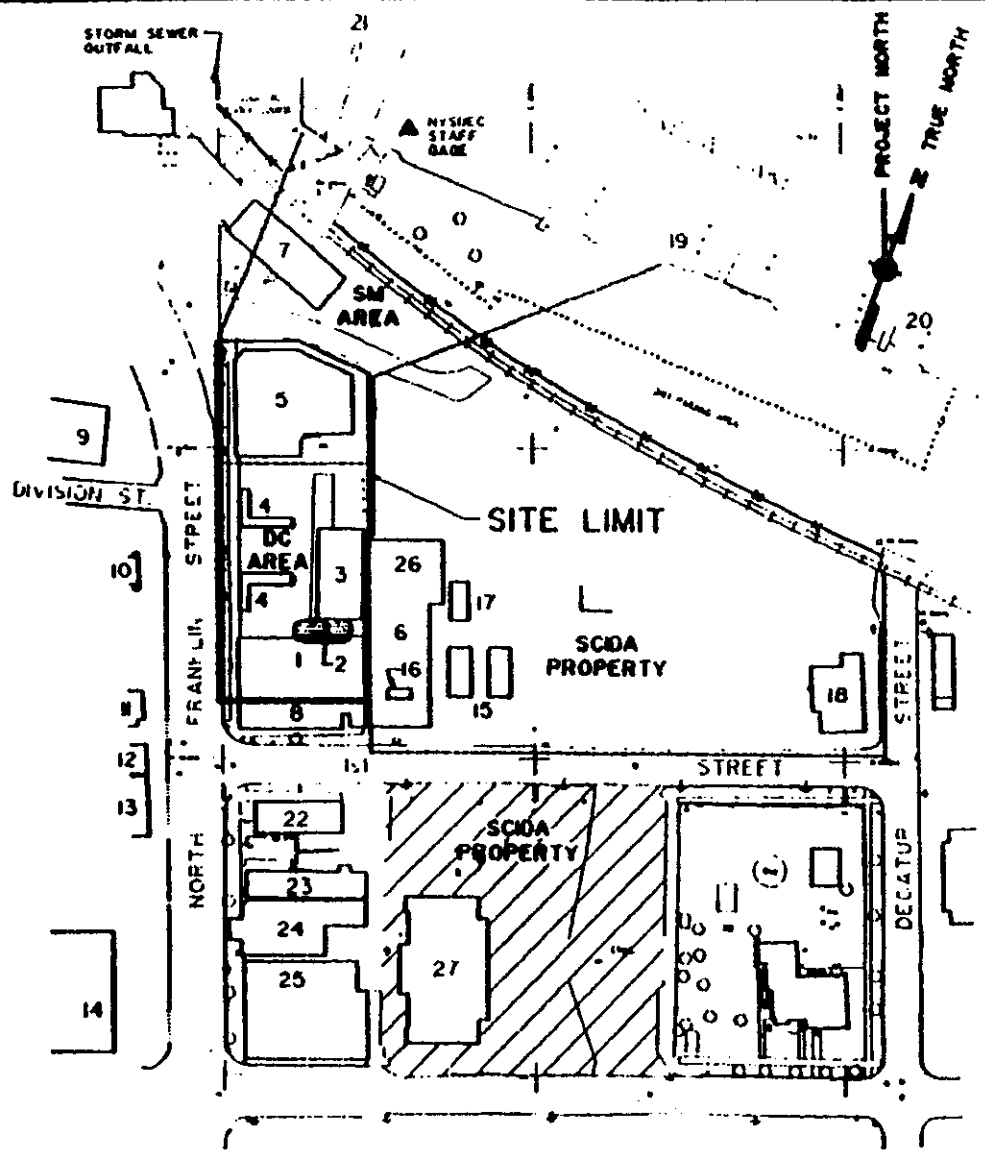
AG4642



URS

SITE LOCATION MAP

FIGURE 1



FEATURE IDENTIFICATION

1. ANTIQUE SHOP (FORMER DRY CLEANER)
2. CATCH BASIN
3. AUTO MUSEUM
4. BENCHES
5. SENECA MARKET (OLD FOUNDRY)
6. BUS GARAGE
7. FORMER TRAIN DEPOT (VACANT)
8. V.F.W. SHOP
9. VACANT GAS STATION
10. TEXACO GAS STATION
11. TEXACO SERVICE
12. ABANDONED SALT WELL
13. REAL ESTATE OFFICE
14. GEO CLIFFORD CAR DEALER
15. UST's (4,000 GALLONS EACH, REMOVED)
16. WASTE OIL UST (250 GALLON, REMOVED)
17. DIESEL OIL UST (1,000 GALLON, REMOVED)
18. FORMER ASPHALT COMPANY, ABANDONED
19. BOATING DOCK
20. 4" STORMWATER OUTFALL
21. STORMWATER OUTFALLS (2 LARGE, 1 SMALL)
22. ATTORNEYS AT LAW AND 5 LAKE DEVELOPMENT CORP.
23. MEMORIAL HOUSE
24. RESTAURANT
25. ANTIQUE SHOP
26. MEMORIAL STONE GARAGE
27. GUTHRIE MEDICAL CLINIC

LEGEND

DRY CLEANING SOLUTION DISPOSAL AREA

AREA BOUNDARIES (FROM TEXT)
DC - DRY CLEANER AREA
SM - SENECA MARKET - NORTHEAST AREA
SCIDA - SCHUYLER COUNTY INDUSTRIAL DEVELOPMENT ASSOCIATION

SITE LIMITS (NYSDEC # 8-49-002)

CHAIN LINK FENCE

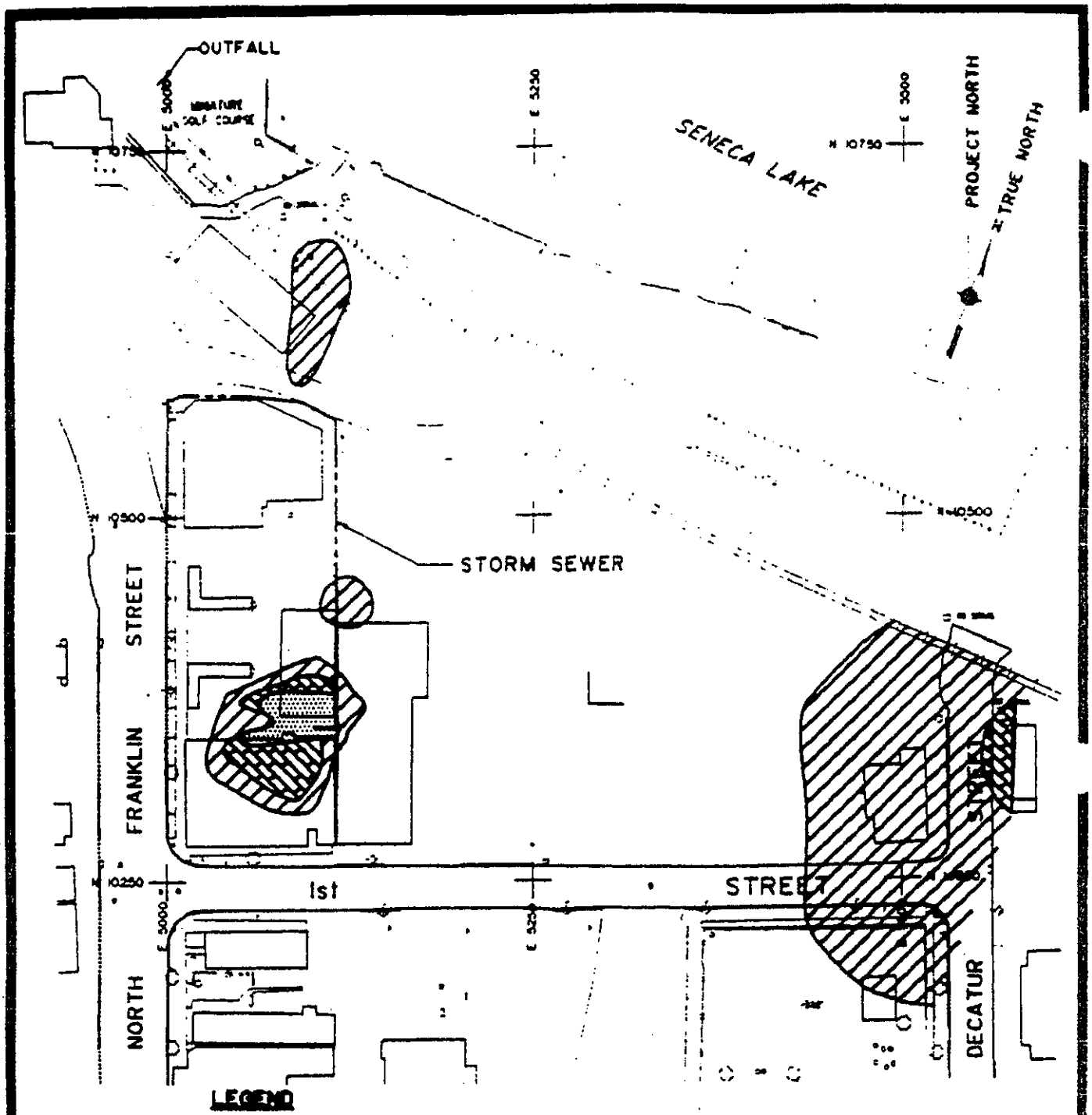
150 0 150

SCALE IN FEET

RS

SITE PLAN AND . STING SITE FEATURES

FIC E 2

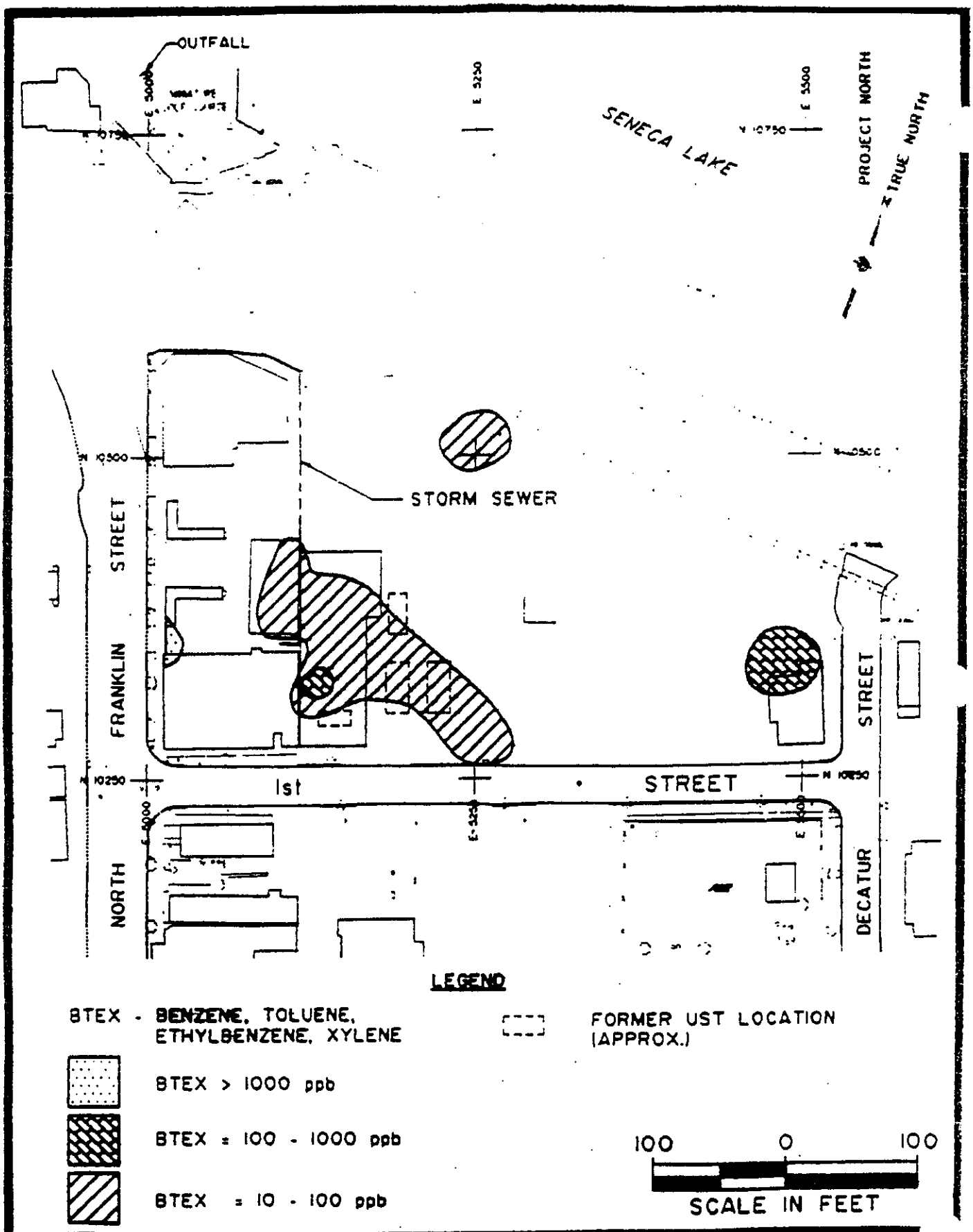


AC-4989

URS CONSULTANTS, INC.

AREAL EXTENT OF CHLORINATED HYDROCARBONS IN SOILS

FIGURE 3

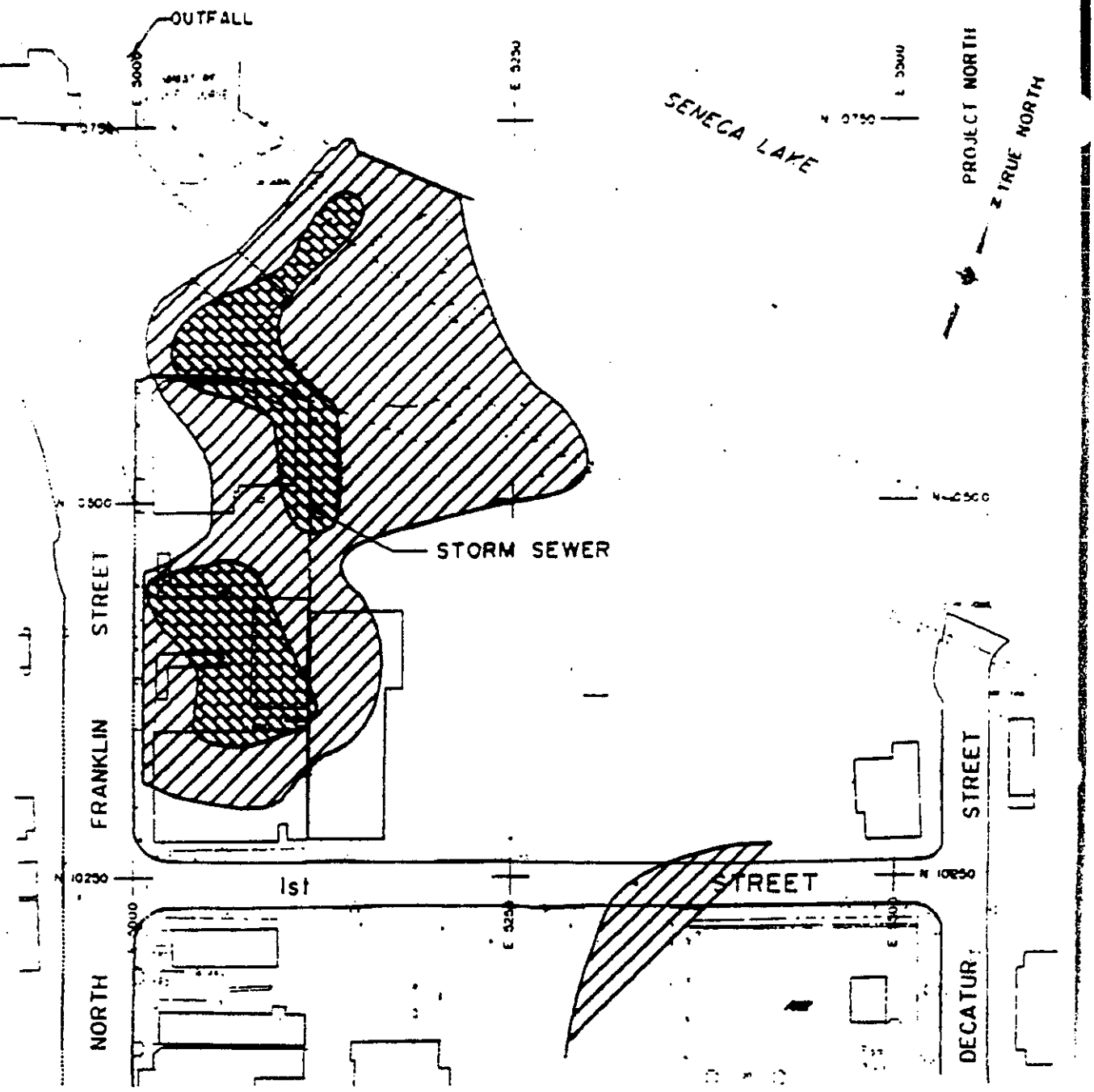


URS CONSULTANTS, INC.

AREAL EXTENT OF FUEL RELATED COMPOUNDS IN SOILS

FIGURE 4

AC-4990



LEGEND

PCE - TETRACHLOROETHENE (SCG = 5ppb)
TCE - TRICHLOROETHENE (SCG = 5ppb)
DCE - 1,2 - DICHLOROETHENE (SCG = 5ppb)
VC - VINYL CHLORIDE (SCG = 2ppb)

PCE + TCE + DCE + VC > 100 ppb

PCE, TCE, DCE, VC - ONE OR MORE COMPOUND EXCEEDS SCG VALUE

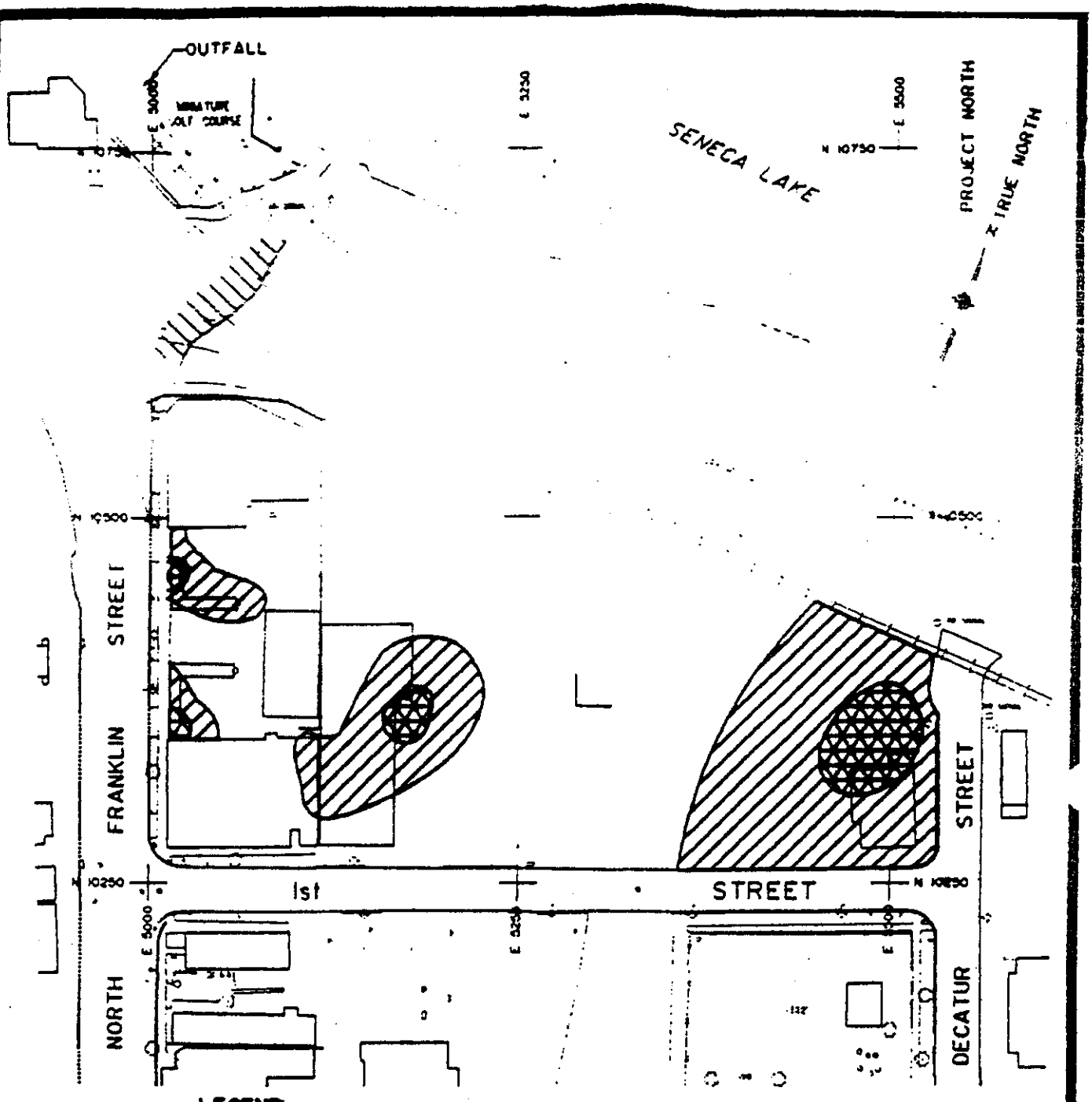
100 0 100
SCALE IN FEET

URS CONSULTANTS, INC.

AREAL EXTENT OF CHLORINATED HYDROCARBONS IN SHALLOW GROUNDWATER

FIGURE 5

AC-4988

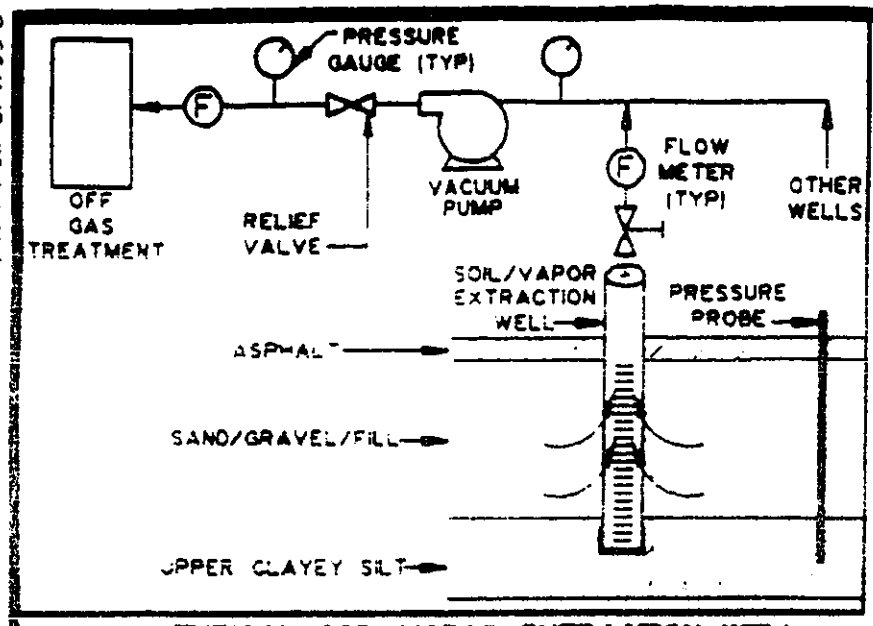


URS CONSULTANTS, INC.

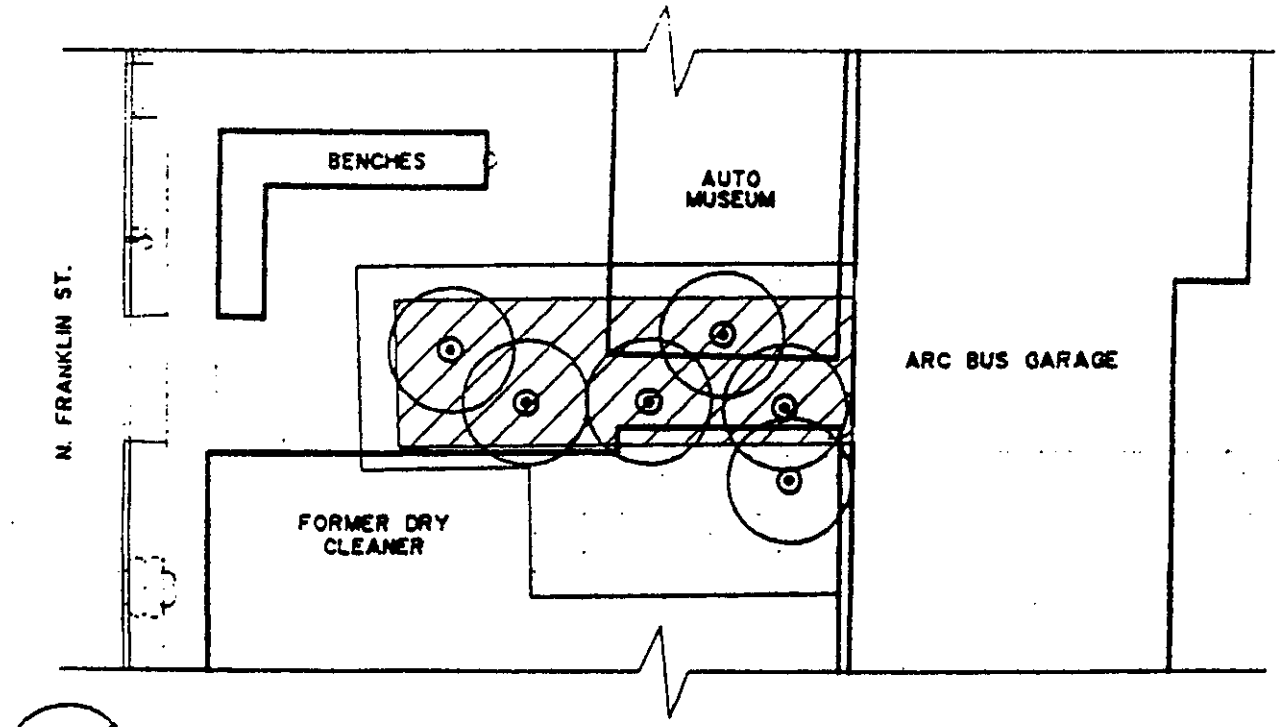
AREAL EXTENT OF FUEL RELATED COMPOUNDS IN SHALLOW GROUNDWATER

FIGURE 6

AC-4984



TYPICAL SOIL VAPOR EXTRACTION WELL
NOT TO SCALE



SOIL VAPOR EXTRACTION WELL WITH MINIMUM RADIUS OF INFLUENCE, R

APPROX. LIMITS OF HOT SPOT AREA (>1,000ppb TOTAL VOC's)

APPROX. LIMITS OF SURROUNDING AREA (100 TO 1,000ppb TOTAL VOC's)

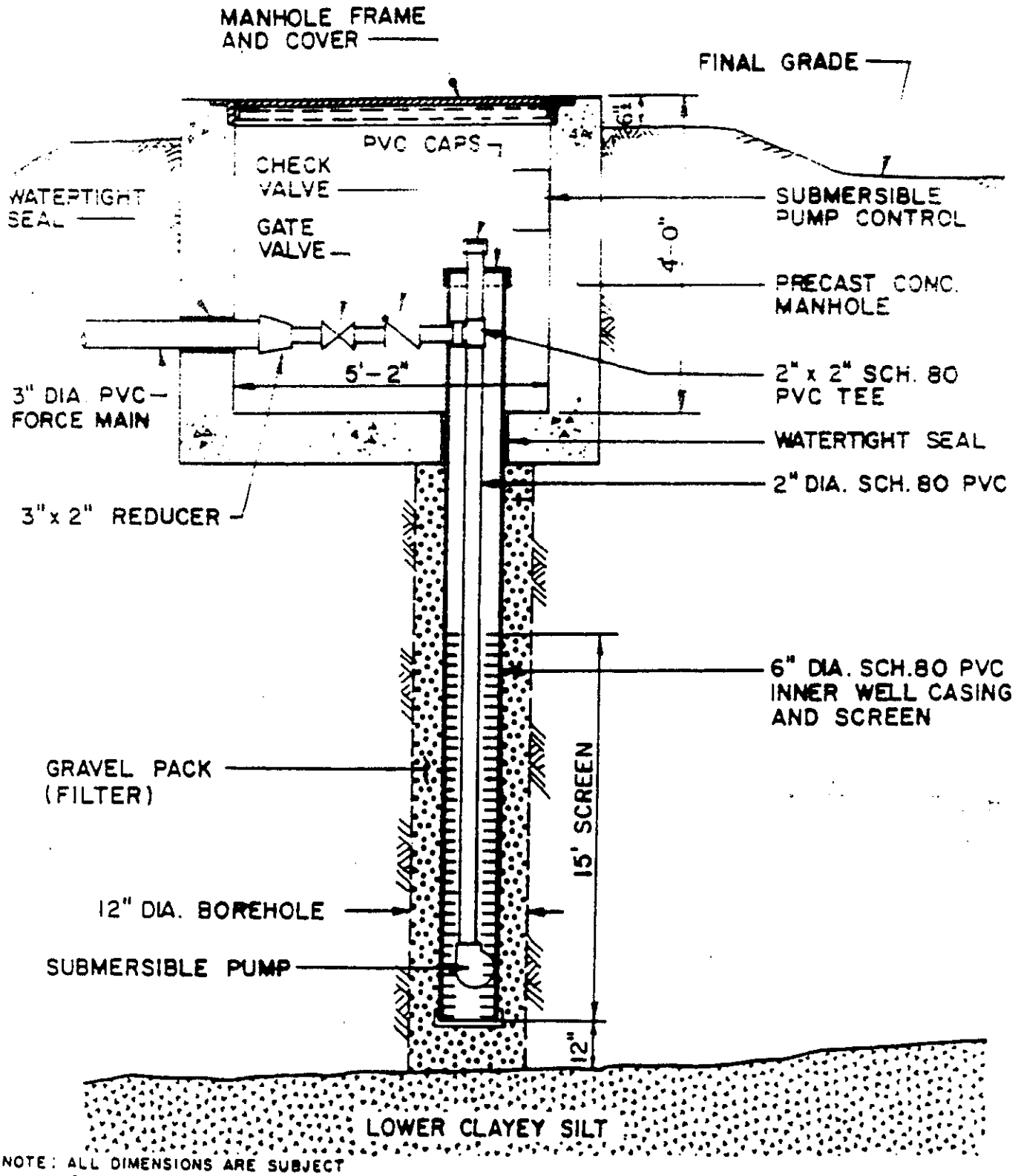
30 0 30
SCALE IN FEET

URS CONSULTANTS, INC.

CONCEPTUAL LAYOUT OF SOIL VAPOR EXTRACTION SYSTEM

FIGURE 7

AC-5065

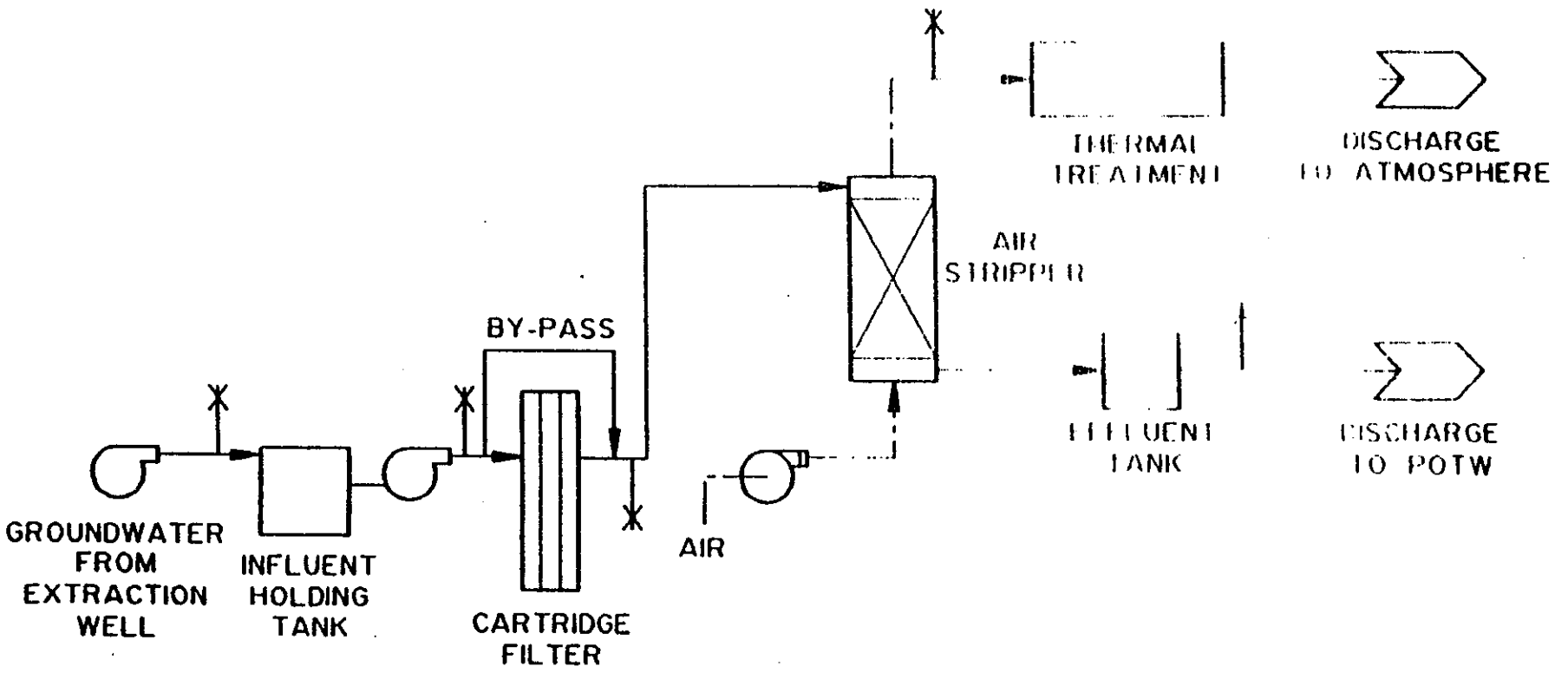


NOTE: ALL DIMENSIONS ARE SUBJECT TO FINAL DESIGN.

NOT TO SCALE

A-4098

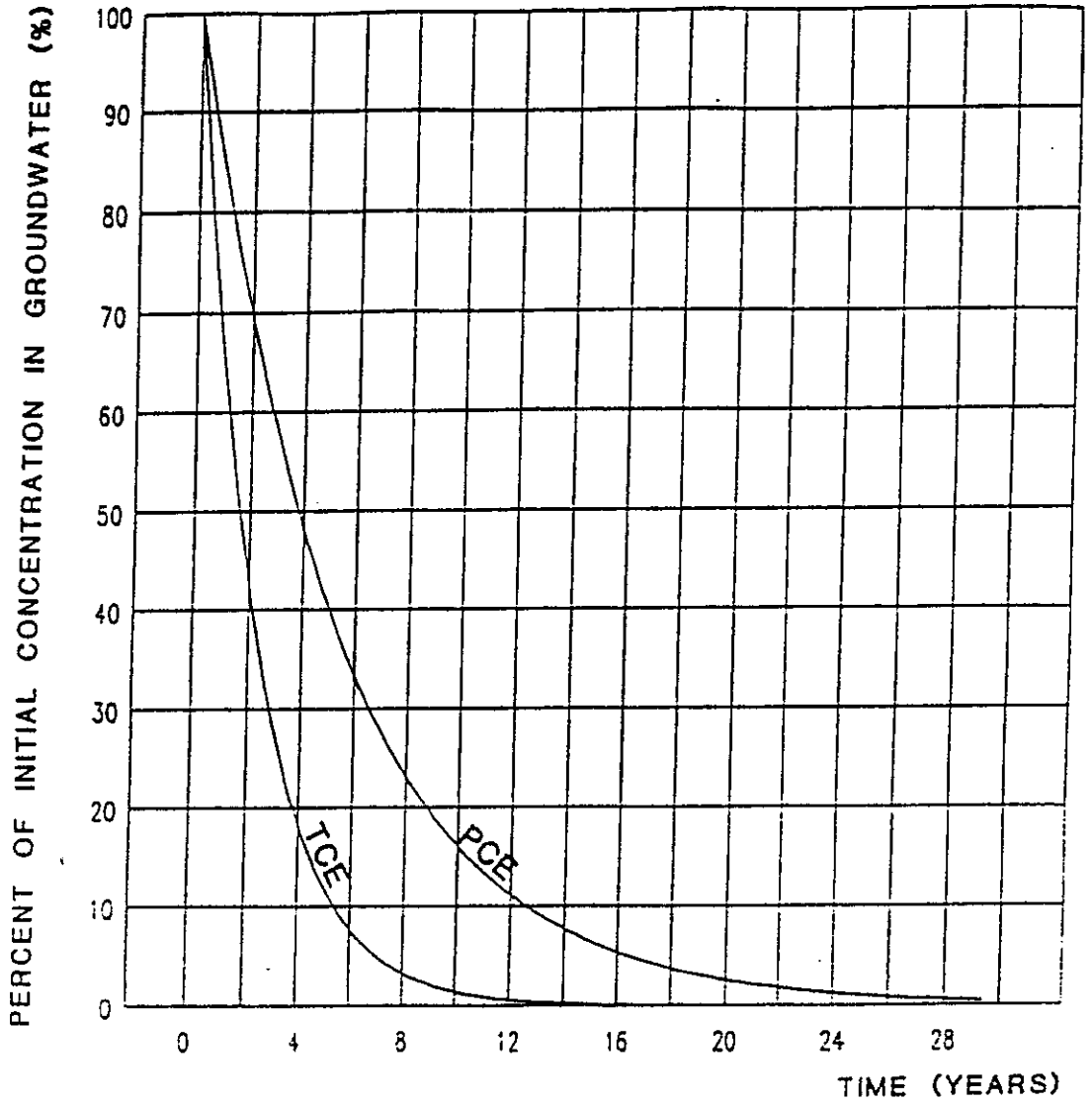
URS CONSULTANTS, INC.	GROUNDWATER COLLECTION WELL DETAIL	FIGURE 8



URS CONSULTANTS, INC

GROUNDWATER TREATMENT SYSTEM

FIGURE 9



NOTE: CASE WITH TWO EXTRACTION WELLS: IN THE SOURCE AREA (5GPM) AND IN THE PLUME AREA (5GPM). GRAPHS SHOW TIME-HISTORY OF CONCENTRATION OF TCE AND PCE IN GROUNDWATER IN THE SOURCE AREA.

URS CONSULTANTS, INC.

NORTH FRANKLIN STREET

BATCH FLUSHING MODEL: TCE AND PCE CONCENTRATION VS. TIME

FIGURE 10

A-5203

APPENDIX A

Responsiveness Summary

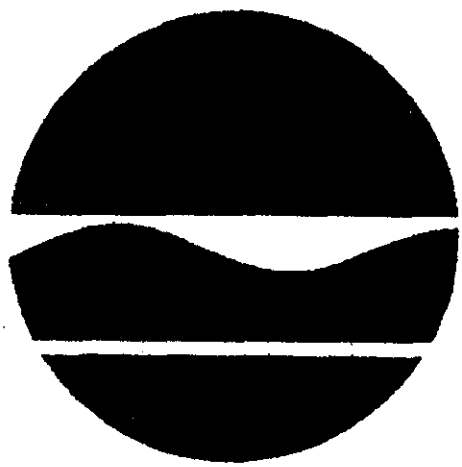
North Franklin Street

Watkins Glen (V), Schuyler County, New York
Site No. 8-49-002

RESPONSIVENESS SUMMARY
for
PROPOSED REMEDIAL ACTION PLAN

Public Meeting
December 6, 1993

Issue Date
January 1994



Prepared by:
New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation

North Franklin Street
Watkins Glen (V), Schuyler County
Site No. 8-49-002

RESPONSIVENESS SUMMARY
for
PROPOSED REMEDIAL ACTION PLAN

Public Meeting
December 6, 1993
Watkins Glen High School

A public meeting was held on December 6, 1993 at the Watkins Glen High School to gather public comment on the Proposed Remedial Action Plan (PRAP) for the North Franklin Street Site, an inactive hazardous disposal site being addressed by the State Superfund Program. At this meeting the New York State Department of Environmental Conservation (NYSDEC) made a brief presentation of the results of the Remedial Investigation (RI/FS) and the PRAP. The PRAP summarizes the nature and extent of contamination at the site, the alternatives evaluated to address the problems identified and proposes a remedy based on the alternative evaluated. The proposed remedy for the site consists of the following:

- Approximately 1,000 cubic yards of subsurface soils will be treated in place using a vacuum extraction system. Soil vapors will be collected and treated to reduce contaminant concentrations to levels which are protective of human health and the environment.

- Contaminated groundwater will be extracted and treated through an air stripper. The treated water will be discharged to the Watkins Glen wastewater treatment plant. The system will be operated and monitored for a period of five years.

This Responsiveness Summary responds to all questions submitted during the PRAP comment period.

I. NORTH FRANKLIN STREET PRAP PUBLIC MEETING COMMENTS

COMMENT #1: Will groundwater discharge be sampled on-site prior to discharge to the Watkins Glen Publicly Owned Treatment Works (POTW)?

RESPONSE #1: *Yes, groundwater will be sampled prior to and after treatment prior to discharge.*

COMMENT #2: Will the Village of Watkins Glen be notified in writing of the discharge levels for groundwater?

RESPONSE #2: *Yes, the Village will be notified regularly of discharge loadings. The necessary approvals will be secured through the NYSDEC- Division of Water and the Village of Watkins Glen.*

COMMENT #3: Will waivers be granted to exceed groundwater discharge standards?

RESPONSE #3: *No waivers are anticipated, only a modification to the existing permit as it currently does not have discharge limits for volatile organics.*

COMMENT #4: How was the NYSDEC first made aware of the hazardous waste problem at the site?

RESPONSE #4: *The site was once mortgaged to Norstar Bank, and the debtor failed to pay off the loan on schedule. Prior to foreclosure, Norstar conducted a site assessment in the Fall of 1991 that concluded that contaminants attributable to dry cleaning operations were present in the groundwater. The NYSDEC was notified of the problem by the consultants hired by Norstar, Enasco Inc. Environmental Services. Furthermore, a former employee of a dry cleaning operation provided the NYSDEC with a voluntary statement identifying the source and general location of contamination. As a result in July 1992 the NYSDEC placed this site on the "Registry of Inactive Hazardous Waste disposal Sites in New York State" as a class '2' site, which means the site poses a significant threat to the public health or the environment.*

COMMENT #5: Can the NYSDEC state the name of the former employee who came forward to provide information?

RESPONSE #5: *The NYSDEC prefers not to release that information. It is the NYSDEC project manager's opinion that releasing the name would discourage others from coming forward on this project or other NYSDEC projects. The person who came forward was invaluable to the remedial investigation, and should be highly commended for their cooperation.*

COMMENT #6: Are the responsible parties being pursued by the NYSDEC to pay for the investigation and remediation of the site?

RESPONSE #6: *If a financially viable responsible party is identified the NYSDEC will decide whether or not to pursue cost recovery.*

COMMENT #7: Will the NYSDEC initiate remedial work before financial responsibility is determined?

RESPONSE #7: *First we attempt to get all identified potential responsible parties to implement the remedial action. If that fails the site will be remediated using State Superfund monies. The remediation has been estimated to cost 1.3 million dollars. At the same time the state will take the necessary measures to identify all potentially responsible parties.*

COMMENT #8: How does soil vapor extraction work?

RESPONSE #8: *Soil vapor extraction (SVE) is a process in which air flow is induced through the soil by using a series of extraction wells and vacuum pumps. Volatile organic contaminants are stripped from the soil upon which they are adsorbed and carried out in the air stream for treatment. At this site it is anticipated that the vapors will need to be subjected to thermal treatment that will oxidize the volatile organic contaminants. SVE technology is not very complicated, and has been commonly used at similar hazardous waste sites and on underground petroleum tank clean ups.*

COMMENT #9: The Schuyler County Industrial Development Agency (SCIDA) wants to develop adjacent parcels. If remediation takes five years how will it affect their development plans?

RESPONSE #9: *The NYSDEC's remediation schedule should not interfere with the developer's proposed development plans. Although the adjacent parcels are not within the established boundaries of the hazardous waste site, the NYSDEC agreed to extend it's investigation to include the SCIDA property.The investigation concluded that the source of the hazardous waste contamination is contained within the boundaries of the site. In addition, the RI identified contamination by fuel related compounds in soils and groundwater on the SCIDA property. As a result of these findings the owners of*

the adjacent parcels have been formally notified of their potential responsibility to clean up the fuel related contamination. However, this issue can proceed concurrently with any construction planned for the property. In addition, the NYSDEC has stated to the developers that they are free to proceed as long as the NYSDEC can review any construction plans that includes the demolition of the Schuyler County Association of Retarded Children maintenance garage, which is currently containing the source of hazardous waste contamination.

COMMENT #10: Will basements be allowed?

RESPONSE #10: *Building of basements are probably not practical due to the high groundwater table in the area. Also, the proposed development is designed for a concrete slab on grade construction.*

COMMENT #11: What would happen if no remediation took place and the site remained in its existing condition to let nature take its own course of action?

RESPONSE #11: *It would be unacceptable to let the site exist in an unremediated state because there are contravention of NYS groundwater standards and soil cleanup criteria by volatile organic chemicals. For example, the chemicals may migrate at greater concentrations into Seneca Lake or into the atmosphere through the soil, thereby potentially exposing humans and/or the environment unnecessarily.*

COMMENT #12: How did the NYSDEC decide on the five year remediation time for groundwater? Will there be provisions to shut the system down early if the data warrants?

RESPONSE #12: *The NYSDEC with the assistance of it's engineering consultants, URS Consultants, estimated cleanup times using computer modeling of groundwater flow. The model indicates that a significant reduction in contaminant levels within the first five years. If contaminant levels, as determined through continual monitoring, are determined to be within the established cleanup criteria, then treatment will cease at that time.*

COMMENT #13: Will the two monitoring wells (11S and 11D) that are located near the Pennsylvania Railroad Station be removed, and will new extraction wells be installed during construction of groundwater treatment unit?

RESPONSE #13: *The future status of all existing monitoring wells and potential locations of extraction wells will be evaluated during the remedial design stage. However, the NYSDEC is willing to consider replacing, removing, or altering the wells depending on the needs of the business/property owners. Continued communication between the NYSDEC and the developers is necessary prior to and during the remedial design stage of the project.*

COMMENT #14: When I decide to renovate the former Pennsylvania Railroad Station will New York State require me to test any soil that may be excavated during construction?

RESPONSE #14: *The presence of Vinyl chloride (known carcinogen) detected by actual field measurements during the RI may present a higher risk to human health through exposure during intrusive construction activities. As a result the State will review any renovation plans for the station. Based on that review, consultation with the NYSDOH, and review of data obtained during the RI from that area, a decision will be made on whether or not soil sampling will be necessary. Until the site is satisfactorily remediated all similar requests by others interested in developing or renovating adjacent parcels will be subject to the same administrative requirements by the State .*

COMMENT #15: Has the adjacent Veterans of Foreign Wars (VFW) Post been given a clean bill of health?

RESPONSE #15: *During the RI at the North Franklin Street Site the groundwater, soils, and air were sampled around the VFW Post and it was determined that no threat to human health exists.*

COMMENT #16: What is the extent of soil contamination existing in the alley way that needs to be remediated? How much of the soil contamination exists on Seneca Market Property and former dry cleaner property?

RESPONSE #16: *The FS has indicated that approximately 840 cubic yards of contaminated soil will need to be remediated in the alley way. The RI has determined that the contaminated soil lies beneath the open but paved areas where the alleged disposal of dry cleaner solvent occurred in the past, and extends into the areas of low contamination under the antique car museum and current antique shop.*

COMMENT #17: Will there be a meeting and subsequent agreement with the Village of Watkins Glen regarding costs and allowable discharges associated with using the local POTW?

RESPONSE #17: *Yes, a meeting will be arranged prior to finalizing the remedial design work plan. The Village of Watkins Glen would most likely be reimbursed for discharge to the system as would any other dischargers who pretreat their waste. It is currently projected that there would be little, if any, impact to the current POTW operations. An estimate of these costs will be determined during remedial design. Currently, the POTW's SPDES permit does not include any limits for volatile organics, but can be modified by NYSDEC if necessary. URS Consultants performed a preliminary headwork analysis for discharge to the POTW. A more detailed analysis will be performed during remedial design in accordance with United States Environmental Protection Agency and NYSDEC guidance documents. It is important to note that the proposed remedy for groundwater will meet established surface water discharge standards, and the provision for discharge to the POTW is only an added measure of safety against any potential release into the environment.*

COMMENT #18: Can the Village of Watkins Glen get a copy of the proposed project schedule?

RESPONSE #18: *Once a preliminary remedial design and construction schedule is established, the Village will be provided with a copy.*

APPENDIX B

Administrative Record

Appendix B
Administrative Record
North Franklin Street
Site #849002, Schuyler County

The following documents constitute the Administrative Record for the North Franklin Street site, Remedial Investigation / Feasibility Study (RI/FS):

- Level I Environmental Assessment Report for 2 Franklin Street; Prepared by Enasco Inc. for Norstar Bank, N.A.; October 30, 1991.

- Phase I Environmental Site Assessment for First Street, East of Route 14, Watkins Glen, NY; Prepared by Ecco Inc. for Norstar Bank, N.A.; November 15, 1991

- Level II Environmental Investigation Report for 2 Franklin Street; Prepared by Enasco, Inc. for Norstar Bank, N.A.; November 22, 1991.

- Continuing Environmental Investigation Report for 2 Franklin Street; Prepared by Enasco Inc. for Norstar Bank, N.A.; February 5, 1992.

- Letter from Enasco Inc. to NYSDEC confirming groundwater contamination at 2 Franklin Street, Watkins Glen, NY; Jack Curtis, Enasco Inc., to Mike Khalil, NYSDEC; March 11, 1992.

- Letter to Enasco Inc., Environmental Services, requesting all available information pertaining to environmental audit at the North Franklin Street Site be furnished to the NYSDEC; Michael I. Khalil, NYSDEC, to Jack Curtis, Enasco Inc; March 13, 1992.

- Potential Hazardous Waste Site Preliminary Assessment, Part 1, Part 2, and Part 3; Prepared by NYSDEC-BHSC; April 9, 1992.

- NYSDEC, DHWR Discovery Identification Form for Potential Hazardous Waste Site and NYSDOH Notification Record - May 11, 1992.

- Review of classification Package for North Franklin Street Site; Robert Marino, NYSDEC - Site Control Section to Walter Demick - NYSDEC, Michael Khalil - NYSDEC, Dick Dana - NYSDEC, and G.Anders Carlson - NYSDOH; May 14, 1992.

- NYSDEC memo from Charles Goddard to David Markell stating that the North Franklin Street site will be quickly referred for enforcement actions, May 21, 1992.

- NYSDOH letter from G. Anders Carlson to Earl Barcomb, NYSDEC, agreeing with the proposed Class 2 classification; May 28, 1992.

- Letter regarding chemical contamination in the area of the Lakefront Development Project (North Franklin Street Site); US Congressman Amo Houghton to Peter Bush, NYSDEC; June 23, 1992.

- Letter of legal notification informing potential responsibility party of potential liability for RI/FS; Glen Bailey, NYSDEC to Zaepfel-Krog Corporation; July 3, 1992.

- Letter responding to Congressman Houghton's June 23, 1992 inquiry; Peter Bush, NYSDEC to US Congressman Amo Houghton; July 29, 1992.

- NYSDOH letters summarizing residential well sample results; David Napier, NYSDOH to residents living adjacent to North Franklin Street site; July 30, 1992.

- Letters of notification of site listing on the NYS Registry of Inactive Hazardous Waste Site; Robert L. Marino, NYSDEC to Marion & Salvatore Scata (site owner), Joseph Barrick (site owner), Veterans of Foreign Wars (adjacent site owner), and Pembrook Pines Mass Media (adjacent site owner); August 4, 1992.

- NYSDOH letters summarizing residential well sample results; David Napier, NYSDOH to residents living adjacent to North Franklin Street Site; August 17, 1992.

- Letter identifying owners and tax map numbers in the North Franklin Street Site area; Ellen S. Stephansky, Schuyler County Real Property Tax Service Agency to David Chiusano, NYSDEC; August 26, 1992.

- NYSDEC letters sent certified mail to North Franklin Street site owners notifying them that NYSDEC personnel will be entering their property to collect groundwater samples; David J. Chiusano, NYSDEC to Mr. Donald A. Narde and Mr. and Mrs. Scata August 27, 1992.

- NYSDEC letter requesting identified Potentially Responsible Parties to attend a conference to express their decision whether or not to implement the RI/FS at the North Franklin Street Site; Glen Bailey, NYSDEC to Cynthia S. Hutchinson (Sayles, Evans, Brayton, Palmer & Tifft), Allan E. Floro (Nixon, Hargrave, Devans & Doyle), Peter S. Gilfillan (Gross, Shuman, Bridle & Gilfillan, P.C.), and Mark A. Weiermiller (Ziff, Weiermiller & Hayden); September 22, 1992.

- NYSDEC memo summarizing NYSDEC groundwater sampling event at North Franklin Street Site; David J. Chiusano, NYSDEC to distribution; September 30, 1992.

- NYSDEC September 16, 1992 groundwater sample results for the North Franklin Street Site; Samples analyzed by Recra Environmental; October 1992.

- NYSDEC letter summarizing preliminary volatile organic compound and semivolatile organic compound data resulting from the NYSDEC's 9/16/92 groundwater sampling event; Prepared by David J. Chiusano, NYSDEC; October 13, 1992.

- NYSDEC, Division of Environmental Enforcement letter referring the North Franklin Street Site to NYSDEC-DHWR for performance of RI/FS; Jeffrey Lacy, NYSDEC-DEE to Michael J. O'Toole, NYSDEC-DHWR; October 20, 1992.

- NYSDEC-DHWR letter referring the North Franklin Street Site to the NYSDEC-DEE for enforcement action; Michael J. O'Toole, NYSDEC-DHWR to Jeffrey Lacy, NYSDEC-DEE; October 22, 1992.

- Letter to URS Consultants, Inc. (URS) requesting they begin work on the North Franklin Street project immediately; Michael J. O'Toole, NYSDEC to John C. Gorton, URS; October 23, 1992.

- NYSDEC standby contract work assignment for the North Franklin Street Site; Prepared by David J. Chiusano, NYSDEC to URS; October 29, 1992.

- NYSDEC standby work assignment conceptual approval memo; George Harris, through: Edward R. Belmore to Michael J. O'Toole; October 29, 1992.

- Project Management Work Plan for the North Franklin Street Site; Prepared by URS; November 1992.

- Remedial Investigation Health and Safety Plan for the North Franklin Street Site; Prepared by URS; November 1992.

- Fact sheet #1 for the North Franklin Street Inactive Hazardous Waste site; Prepared by David J. Chiusano, NYSDEC; November 17, 1992.

- Site Access Notice Letters; Michael J. O'Toole, NYSDEC to Mr. and Mrs. Cogsdill, Mr. David Kelly, V.F.W., Mr. Robert Pfuntner, Ms. Doris T. Craig, Mr. David Merriweather, Mr. and Mrs. Clifford, Mr. Joseph Suptura, Mr. Dominick Franzese, Jr., and Ms. Mary Helen Doland; November 10, 1992.

- Remedial Investigation Work Plan (QAPP/FSP) for the North Franklin Street Site; Prepared by URS; December 1992

- Initiation of RI/FS public meeting agenda and attendance list; Prepared by David J. Chiusano, NYSDEC; December 7, 1992.

- NYSDEC QA/QC review of data obtaining during September 16, 1992 groundwater sampling event at the North Franklin Street Site; John Munn, NYSDEC to David Chiusano, NYSDEC; December 14, 1992.

- Certified North Franklin Street Site access notification letters; Michael J. O'Toole, NYSDEC to Mr. Robert H. Lee, Village of Watkins Glen and Mr. David Bertauski, Guthrie Medical Clinic; December 15, 1992.

- NYSDEC letter giving URS Consultants notice-to-proceed on RI/FS for North Franklin Street Site; Michael J. O'Toole, NYSDEC to John C. Gorton, URS Consultants, Inc.; December 24, 1992.

- Draft Interim Remedial Measure Need Assessment for the North Franklin Street Site; Prepared by URS; February 1993

- Project Management Work Plan Amendment #1 for the North Franklin Street Site; Prepared by URS; March 1993.

- URS Consultants, Inc. letter regarding the validation of samples and the need for resampling of some samples due to rejection of analytical data for the North Franklin Street Site; Dharmarajan Iyer, URS to Nicholas Corso, Energy and Environmental Engineer, Inc. (E3I); March 1, 1993.

- NYSDEC memo summarizing problem of petroleum contamination at North Franklin Street Site and referring data and all available information to NYSDEC-Division of Spills Management for review and possible action; Ed Belmore to Frank Ricotta; March 8, 1993.

- Citizen Participation Plan for the North Franklin Street Site; Prepared by David J. Chiusano, NYSDEC; March 22, 1993.

- Letter amending contact between E3I and URS Consultants, Inc. to include the analytical services for the Second Phase RI at the North Franklin Street Site; Tamie Bauer, URS to Nicholas P. Corso, E3I.; March 30, 1993.

- Acknowledgement of Notification of Hazardous Waste Activity at the North Franklin Street Site; United States Environmental Protection Agency - Region II to David Chiusano, NYSDEC; April 5, 1993.

- Preliminary Analytical Data Assessment for the First Phase RI; Prepared by URS for NYSDEC; May 3, 1993.

- Letter summarizing method of disposal for drummed wastewater from North Franklin Street Site; Dharmarajan Iyer, URS to David J. Chiusano, NYSDEC; May 13, 1993.

- NYSDEC memo accepting URS's Preliminary Analytical Data Assessment; Charles Vernoy, QA/QC to David J. Chiusano, DHWR; May 24, 1993.

- Letter to Zaepfel-Krog Corporation outlining extent of hazardous waste and fuel related contamination at the North Franklin Street site; George W. Harris, NYSDEC to Zaepfel-Krog Corporation; July 1993.

- North Franklin Street Fact Sheet #2; Prepared by David J. Chiusano, NYSDEC; July 26, 1993.

- Letter outlining NYSDEC's and NYSDOH's comments on draft RI report; David J. Chiusano, NYSDEC to Dharma Iyer, URS; July 29, 1993.

- Letter expressing appreciation to the NYSDEC for efforts in expediting the RI/FS at the North Franklin Street Site; Richard Weakland, 5 Lakes Development Corporation to David Chiusano, NYSDEC; August 10, 1993.

- Letter to Governor Cuomo concerning the issue of liability on the part of the developers owning land adjacent to the North Franklin Street Site; Senator John R. Kuhl, Jr. to Governor Mario Cuomo; August 16, 1993.

- Letter responding to NYSDEC's and NYSDOH's comments on draft RI Report; Dharma Iyer, URS to David Chiusano, NYSDEC; August 20, 1993.

- Final Remedial Investigation Report for the North Franklin Street Site; Prepared by URS; August 1993.

- NYSDEC letter approving final RI report for North Franklin Street Site; David J. Chiusano, NYSDEC to Dharmarajan Iyer, URS; September 2, 1993.

- Letter outlining NYSDEC's and NYSDOH's comments on draft FS report; David J. Chiusano, NYSDEC to Dharmarajan Iyer, URS Inc.; September 2, 1993.

- Letter responding to Senator Kuhl's August 14, 1993 letter to Governor Mario Cuomo; Prepared by Ann Hill Debarbieri NYSDEC through Mary Ann Crotty, Governor's office to NYS Senator John R. Kuhl, Jr.; September 23, 1993.

- NYSDEC letter to adjacent property owner of North Franklin Street Site requesting acceptance of responsibility for the fuel related contamination cleanup; Scott Foti, NYSDEC to Peter Gilfillan, (Gross, Shuman, Brizdle & Gilfillan, P.C.); October 7, 1993.

- Letter responding to NYSDEC's and NYSDOH's comments on draft FS report; Dharma Iyer, URS to David J. Chiusano, NYSDEC; October 8, 1993.

- NYSDEC memo requesting implementation of early design strategy for North Franklin Street Site; David Chiusano to Glen Bailey; October 25, 1993.

- Letter outlining NYSDEC's and NYSDOH's comments on draft final FS report; David J. Chiusano, NYSDEC to Dharma Iyer, URS; October 28, 1993.

- Fact sheet #3 for the North Franklin Street Site; Prepared by David J. Chiusano, NYSDEC; November 29, 1993.

- North Franklin Street Site, NYSDEC - Division of Spills Management status update; Prepared by Scott Foti, NYSDEC; November 29, 1993.

- Final Feasibility Study Report for the North Franklin Street Site; Prepared by URS Consultants; November 30, 1993.

- Proposed Remedial Action Plan (PRAP) for the North Franklin Street Site; Prepared by David J. Chiusano, NYSDEC; December 1993.

- Press release announcing PRAP public meeting for the North Franklin Street Site; Prepared by Benjamin Marvin and David Chiusano, NYSDEC; December 1, 1993.

- North Franklin Street PRAP Public Meeting attendance list and handout; Prepared by David J. Chiusano, NYSDEC; December 6, 1993.

- Question and responses resulting from December 6, 1992 public meeting regarding the North Franklin Street Site PRAP; Prepared by Dharma Iyer, URS to David J. Chiusano, NYSDEC; December 6, 1993.

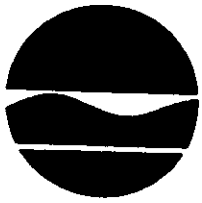
- Letter approving Final Feasibility Report for the North Franklin Street Site; David J. Chiusano, NYSDEC to Dharma Iyer, URS; December 9, 1993.

APPENDIX C

NYSDEC - Division of Spills Management

Status Update

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233



Thomas C. Jorling
Commissioner

North Franklin Street Site - Spill No. 9212760

Division of Spills Management
Horseheads Sub-office - NYSDEC Region 8
Status Update: 1/5/94

Within the New York State Department of Environmental Conservation (NYSDEC), environmental contamination related to petroleum products falls within the jurisdiction of the Division of Spills Management. When petroleum compounds were detected on adjacent properties during the Remedial Investigation (RI) by the Division of Hazardous Waste Remediation at the North Franklin Street Site, these concerns were referred to the Division of Spills Management (DSM). Since that time, DSM has worked closely with those interested in the development of the adjacent properties in an effort to initiate the necessary cleanup in a timely fashion. These activities are being coordinated by the DSM staff in the Horseheads sub-office of NYSDEC - Region 8.

The cleanup required on these adjacent parcels results from the presence of chemicals associated with petroleum in groundwater and shallow soils in a number of isolated areas. Most of the data which will be needed to design the cleanup has already been collected as part of the RI for the North Franklin Street Site. A small amount of further sampling may be requested, but a straight forward remedial approach is envisioned. It may include some removal of contaminated soil, and the use of soil vapor extraction to volatilize petroleum components on soil and in groundwater, and remove them through pore spaces in the soil. The cleanup tasks could be inexpensively carried out if done in conjunction with future construction activities related to development of the properties.

Parties who have in the past owned, or done business on the parcels in question have been notified by DSM of their potential responsibility for cleanup. At this time, these parties have chosen not to voluntarily accept responsibility. DSM is now awaiting decision from the present property owners regarding responsibility. At a public meeting on December 6, 1993 the present property owners were reminded that their decision is still awaited, and must precede any further action by the NYSDEC. The present owners may use legal means to compel one or more of the former property owners to fund the cleanup, they may accept responsibility themselves and carry out the required work, or they may also choose to deny responsibility. Should they choose the latter, NYSDEC would immediately initiate the cleanup work using its' oil spill funds and standby contractors. Therefore, no delay in cleanup would occur. An investigation would be conducted later to determine who would be responsible for reimbursement to NYSDEC for expenditures.