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Department of Environmental Conservation

**Division of Environmental Remediation**

# Record of Decision

## Prestolite Plant Site
## Village of Arcade, Wyoming County
## Site Number 9-61-009

**March 2000**

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* JOHN P. CAHILL, *Commissioner*

# DECLARATION STATEMENT - RECORD OF DECISION

## Prestolite Plant Site, Inactive Hazardous Waste Site
## Village of Arcade, Wyoming County, New York
## Site No. 9-61-009

### Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the Prestolite Plant Site class 3 inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law. The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

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

### Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site have been addressed by implementing the interim remedial measures identified in this ROD, therefore the site no longer represents a current or potential significant threat to public health and the environment.

### Description of Selected Remedy

Based on the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Prestolite Plant Site and the criteria identified for evaluation of alternatives, the NYSDEC has selected the position of no further remedial action with continued long term groundwater monitoring. An additional overburden groundwater monitoring well will be placed at the northeast portion of the property to assure that the community well to the northeast is protected. Land use restrictions will need to be implemented for the site.

### 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 utilized 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.

3/30/2000
Date

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

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# RECORD OF DECISION

**Prestolite Plant Site**
**Village of Arcade, Wyoming County**
**Site No. 9-61-009**
**March 2000**

## SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health has selected this remedy for the Prestolite Plant Site, class 3, inactive hazardous waste disposal site. As more fully described in Sections 3 and 4 of this document, the improper handling and disposal of sludge material from an on-site water treatment system and leakage of solvents from a storage facility and two degreasers, resulted in the disposal of a number of hazardous wastes, including metals (e.g. cadmium, chromium, copper, and lead) and volatile organic compounds (VOCs) such as trichloroethylene (TCE), 1,1,1-trichloroethane (TCA), and methylene chloride at the site. These disposal activities resulted in the following threats to the public health and/or the environment:

- a threat to human health associated with the potential migration of solvents through site soils to a sole source aquifer, the principal source of drinking water for a community.
- an environmental threat associated with the potential impact of solvents on a nearby Class B stream.
- a threat to human health from solvents in soils under the main building which could cause solvent vapors to migrate into the building.
- an environmental and public health threat associated with the impact of metals within site soils which represented a potential health concern through direct contact.
- an environmental threat on sediments within a stream which flows across the site, which may cause erosion of metals into the nearby Class B steam.

During the course of the investigation certain actions, known as Interim Remedial Measures (IRMs), were undertaken at the Prestolite Plant Site in response to the threats identified above. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS. Due to the size of the site and the contamination present, the site was divided into three Areas of Concern. An Area of Concern (AOC) is defined as a discrete part of the entire site that produces a release, the threat of a release or a pathway of exposure. The IRMs undertaken within the areas of concern at this site include those listed below which can also be located on Figure 2.

**Area of Concern No. 1 - Wastewater Treatment Plant Area/Cemetery Creek**

Areas of metals contamination in soils and sediments.

- Excavation of metals impacted soils from the **Former Runoff Receiving Area,**
- **Drum excavation** and removal,
- **Stabilization/Solidification of soils** around the wastewater treatment plant,
- **Cemetery Creek** sediment excavation.

**Area of Concern No. 2 - Former Chemical Storage Building**

Areas of metals and VOC contamination within soils and groundwater.

- In-situ treatment of metals and volatile organic impacted soils at the **Former Chemical Storage Building** site,
- Installation and sampling of overburden **groundwater monitoring wells.**

**Area of Concern No. 3 - Sewer Weir Structure/Degreaser Units**

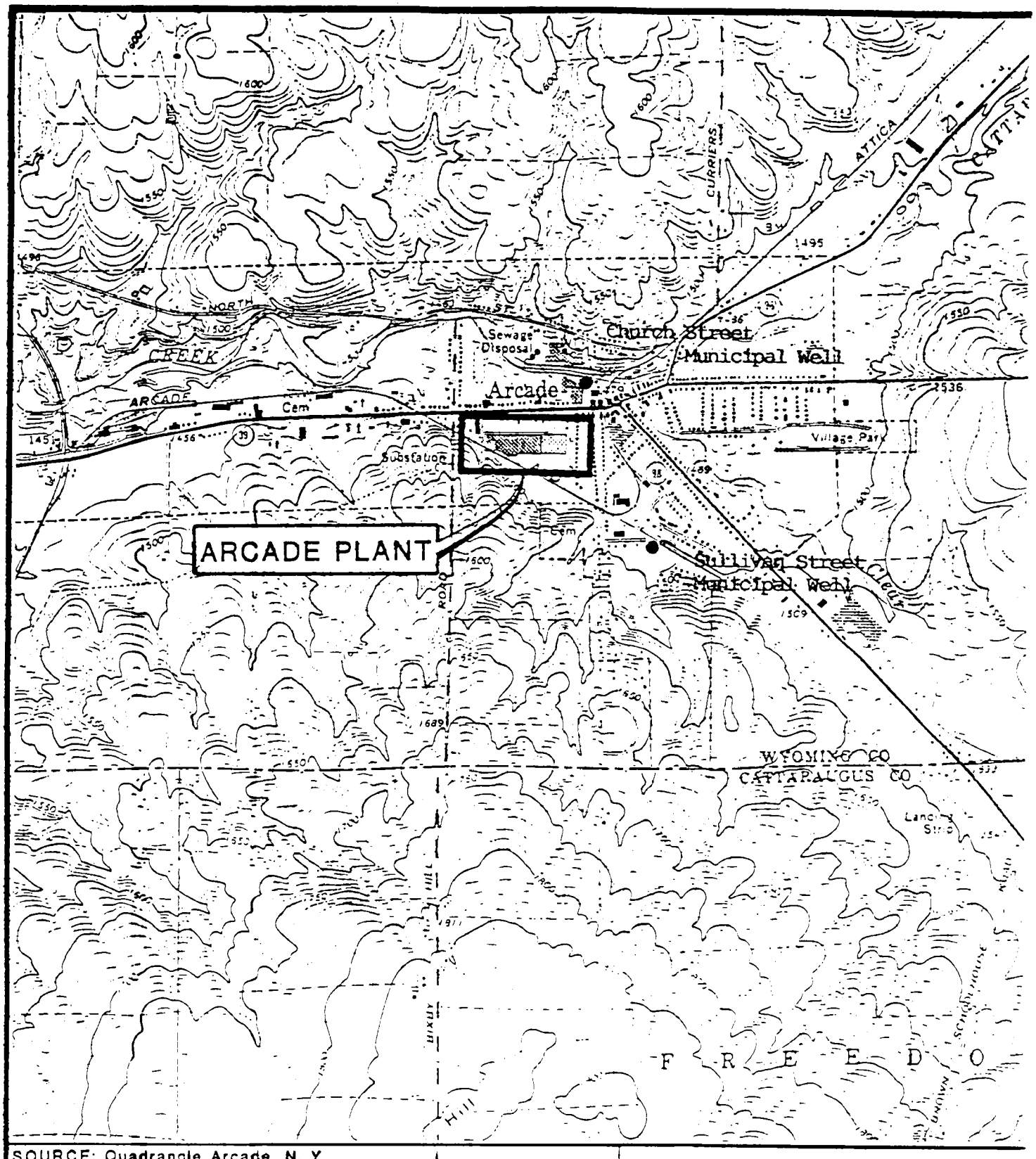
Areas of VOC contamination in soils and groundwater.

- Process water **weir structure and plant sump** sampling, cleaning and decommissioning,
- **Soil Vapor Extraction** under two degreasers, within the plant,
- Installation and sampling of overburden **groundwater monitoring wells.**

Based on the success of the above IRMs, the findings of the investigations at this site indicate that the site no longer poses a threat to human health or the environment, therefore No Further Remedial Action with continued long term overburden groundwater monitoring and land use restrictions was selected as the remedy for this site. In addition, the Department will also reclassify the site to a Class 4 site on the New York State Registry of Inactive Hazardous Waste Disposal Sites.

## SECTION 2: SITE LOCATION AND DESCRIPTION

The site is located on the west side of the Village of Arcade, at 400 Main Street (Route 39), within a mixed neighborhood of residences, commercial establishments, industrial businesses and agricultural operations within one mile of the site. It occupies approximately 22 acres on the south side of Route 39 (Figures 1 & 2). The site is approximately one-third of a mile southeast of Cattaraugus Creek, a Class B stream. The Arcade and Attica Railroad line is an active line, located immediately south of the manufacturing facility and divides the site into two pieces. Running parallel to and south of the rail line is Cemetery Creek, a Class D, low flow, intermittent drainage course, which flows east to west across the site. Site drainage is to either Cemetery Creek or local storm sewers.




SOURCE: Quadrangle Arcade, N. Y.

N

0' 1000' 2000' 4000'

SCALE 1" = 2000'

# SITE LOCATION MAP

PROJECT 426116332

DATE 11/12/91

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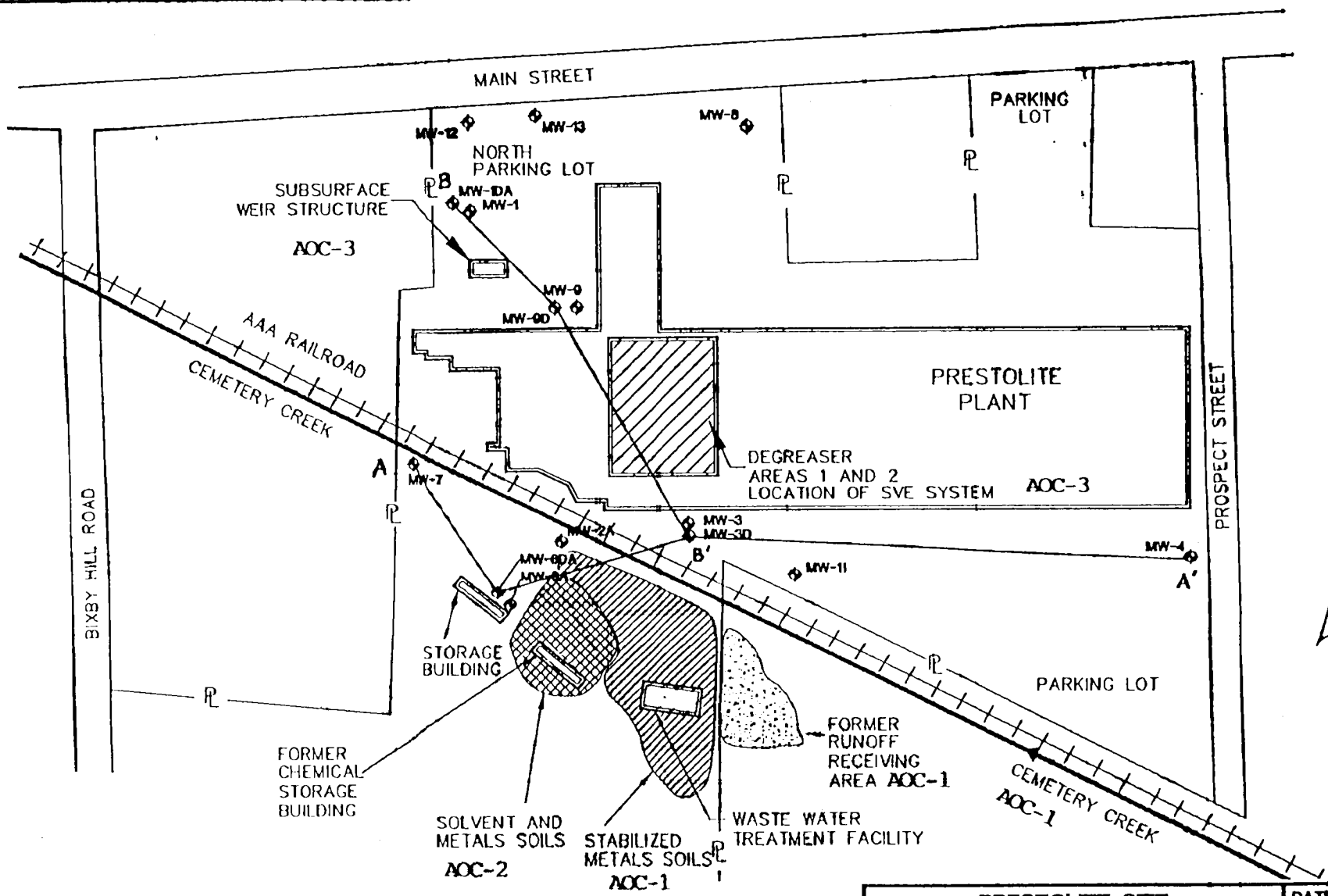



## EXPLANATION

MW-2 ◆ MONITORING WELL LOCATION

AOC - Area of Concern (See Sect. 1, )

## SCALE

0 500

Feet

PRESTOLITE SITE
ARCADE, NY

# MONITOR WELL LOCATION MAP

HSI GEOTRANS
A WETRA TECH COMPANY

| | |
|---|---|
| DATE: | 10/22/98 |
| DESIGNED: | BOB |
| CHECKED: | PRC |
| APPROVED: | RRG |
| DRAWN: | BOB |
| PROJ.: | |

Figure 2

**Site Geology and Hydrogeology**

Site stratigraphy consists of unconsolidated, stratified glacial deposits consisting of sand and gravel horizons, separated by silt and clay sequences, which may be several hundred feet thick within the Cattaraugus Creek basin. Bedrock beneath the site is the Gowanda Shale.

Two overburden aquifers are evident at this site . The upper aquifer is a sand and gravel unit which exists from 16 feet to 21 feet below ground surface and is directly over a thick clay and silt confining unit which separates the upper aquifer from a silty sand lower aquifer which exists from 34 feet to 61 feet below ground surface (Figure 3). Overburden groundwater movement in the upper aquifer is to the north at the rear of the site due to the elevated topography in this area, then it flows to the northwest as it crosses the flat topography at the plant site proper (Figure 4). Flow within the lower aquifer is north-northwest (Figure 5). At this site, the lower aquifer has an upward gradient indicating that groundwater moves from the lower aquifer up into the upper aquifer which creates an artesian condition at the site.

The Village uses groundwater from wells and springs as their water supply. One of these municipal wells is located approximately 1800 feet north-northeast of the site on Church Street. Another well is located farther up gradient of the Prestolite Plant, on Sullivan Street (Figure 1). Both of these wells draw water from the lower aquifer. The Wyoming County Health Department requires the Church Street well to be sampled annually for site-related compounds. The Sullivan Street well is sampled less frequently because it is not considered threatened by site contaminants. To date, neither well has shown any effects from the Prestolite Site.

## SECTION 3: SITE HISTORY

### 3.1: Operational/Disposal History

This site was originally used as a lumber breakout yard in the 1920's. A number of minor businesses occupied the site from the 1920's to the 1940's. A machine shop was located at the site in the mid 1940's. From 1952 to 1955 Sylvania Inc. managed the site and produced car radio parts and push button timers. Motorola Inc. purchased the site in 1955. In 1958, motor vehicle alternator production began. In 1988, Prestolite Inc. purchased the property and continued the same operations as previously carried out by Motorola.

The Prestolite facility now manufactures automobile and industrial products such as electro-mechanical charging systems (alternators, regulators, and voltmeters) and electric odometers and speedometers.

Processes involved in the manufacturing of the various electronic products include die casting, zinc phosphating, electroplating, solvent washing, detergent washing and finishing with paints or varnishes. As a result of the manufacturing processes at this plant, various volatile organic compounds such as solvents (trichloroethylene, methylene chloride), aromatic compounds (benzene) and inorganic compounds ( cadmium, lead and zinc) were generated as waste.

Process waters are discharged to the Village of Arcade Waste Water Treatment Plant. Non contact cooling water is discharged through NYSDEC SPDES outfall 002 to Cemetery Creek which is the

intermittent stream to the south of the plant. Metal sludges, derived from the on-site wastewater plant, were disposed of in the former runoff receiving area at the rear of the plant just south of the railroad line until 1976, but are now sent off site for proper disposal.

A storage building was located at the rear of the plant, south of the railroad tracks and was used for the storage of solvents and other materials used in manufacturing processes at the plant. Historically, leakage and spills of these materials in this building impacted soils at this location. This building was demolished in the early 1990's and the soils in this area have since been remediated.

Two degreasers within the plant were also noted as being a source of contamination from solvents seeping down through the floor and impacting the soils and shallow groundwater beneath the building (Figure 2). Beginning in 1991 a series of environmental investigations as well as remedial actions were conducted to address impacted areas.

## SECTION 4: SITE CONTAMINATION

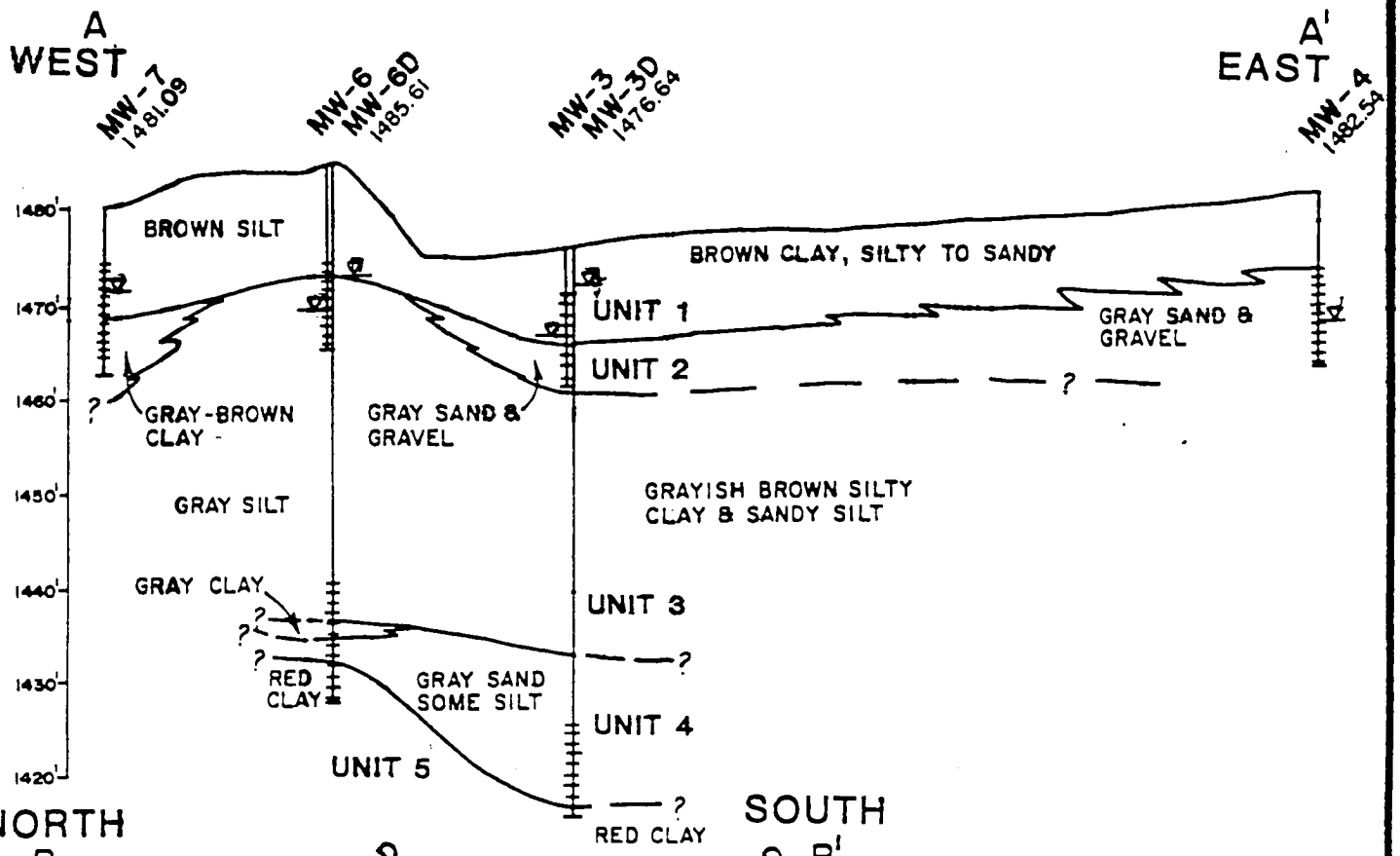
To evaluate and address the contamination present at the site, Motorola Inc. conducted an Environmental Investigation and Feasibility Study (FS) at the Prestolite Site.

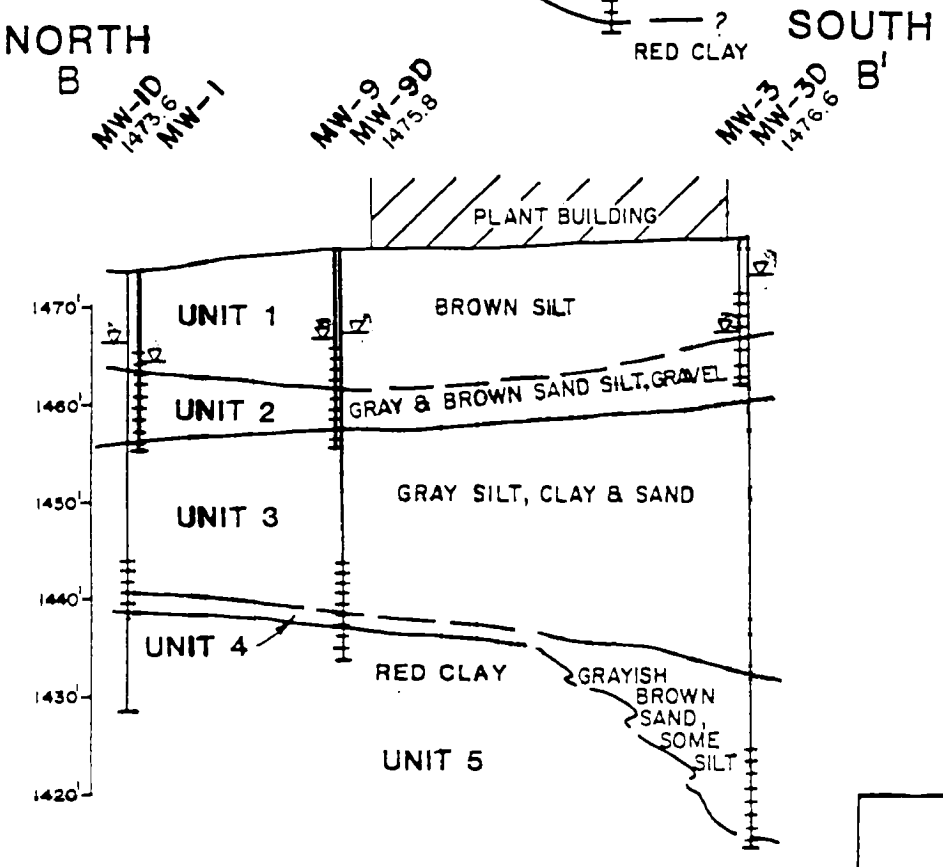
### 4.1: Summary of the Remedial Investigations

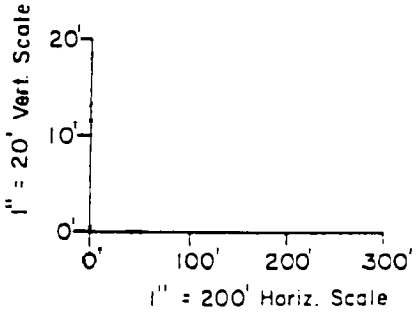
The purpose of the environmental investigation was to define the nature and extent of contamination resulting from previous activities at the site. In 1988 Prestolite Inc. purchased the manufacturing facility from Motorola Inc. In 1991, Prestolite performed a Phase I Site Investigation. Initially, four monitoring wells were installed and sampled along with nine test pits and nine soil vapor test points. Results indicated areas of impacted soils and groundwater. The contaminants of concern were identified as volatile organic compounds (VOC's) and metals. In 1992, a Phase II Investigation was conducted by Motorola Inc. At that time a considerable amount of field work was done which included:

- Installation of soil borings and monitoring wells for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions.
- sixty soil gas samples.
- Excavation of test pits to observe subsurface soil conditions and collect soil samples and also to investigate the potential for buried drums.
- three surface soil samples.
- permeability testing at various wells.
- surface water samples from on site and off site.
- sediment samples from on site and off site.
- Groundwater sampling from site wells and an evaluation of the Village of Arcade water supply wells. Village water was determined not to be impacted.

The Phase I and Phase II investigations identified the areas which needed additional investigations to clearly define limits of contamination at each area. Cleanup alternatives were evaluated for each affected area. In November 1996, this site was listed on the New York State Registry of Inactive Hazardous Waste Disposal Sites list, as a Class 3 site. A Class 3 designation indicates that waste




# CROSS SECTIONS A–A' and B–B'

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DATE 4/92

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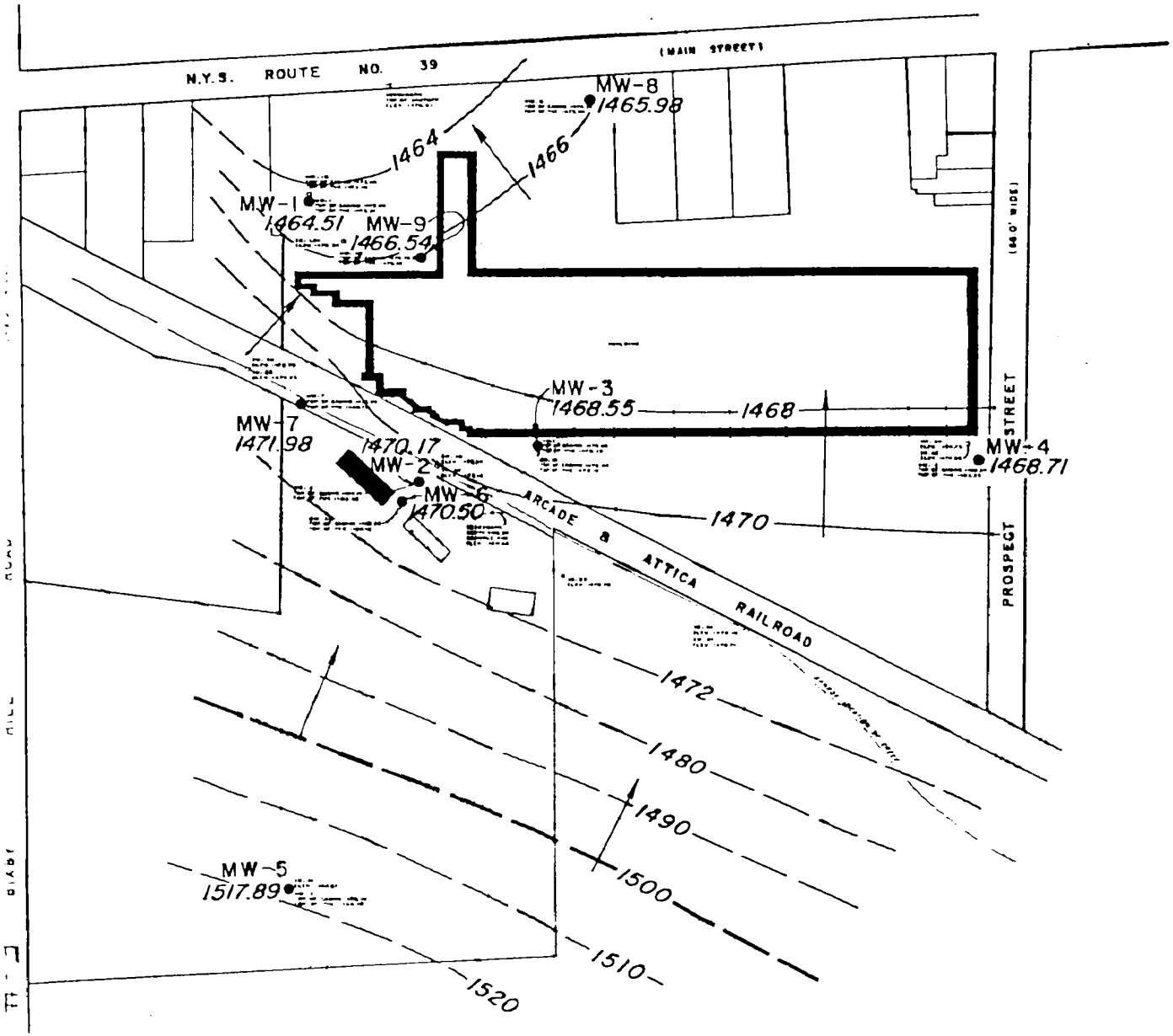


## LEGEND

1470 — EQUIPOTENTIAL CONTOUR SHOWING FLOW DIRECTION

MW-7 • 1471.90 — MONITORING WELL COMPLETED IN THE SHALLOW AQUIFER SHOWING WATER LEVEL (measured 2/12/92)

N

NOTE: [illegible]

# WATER TABLE SURFACE (SHALLOW AQUIFER)

| | |
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| DATE 4/92 | |

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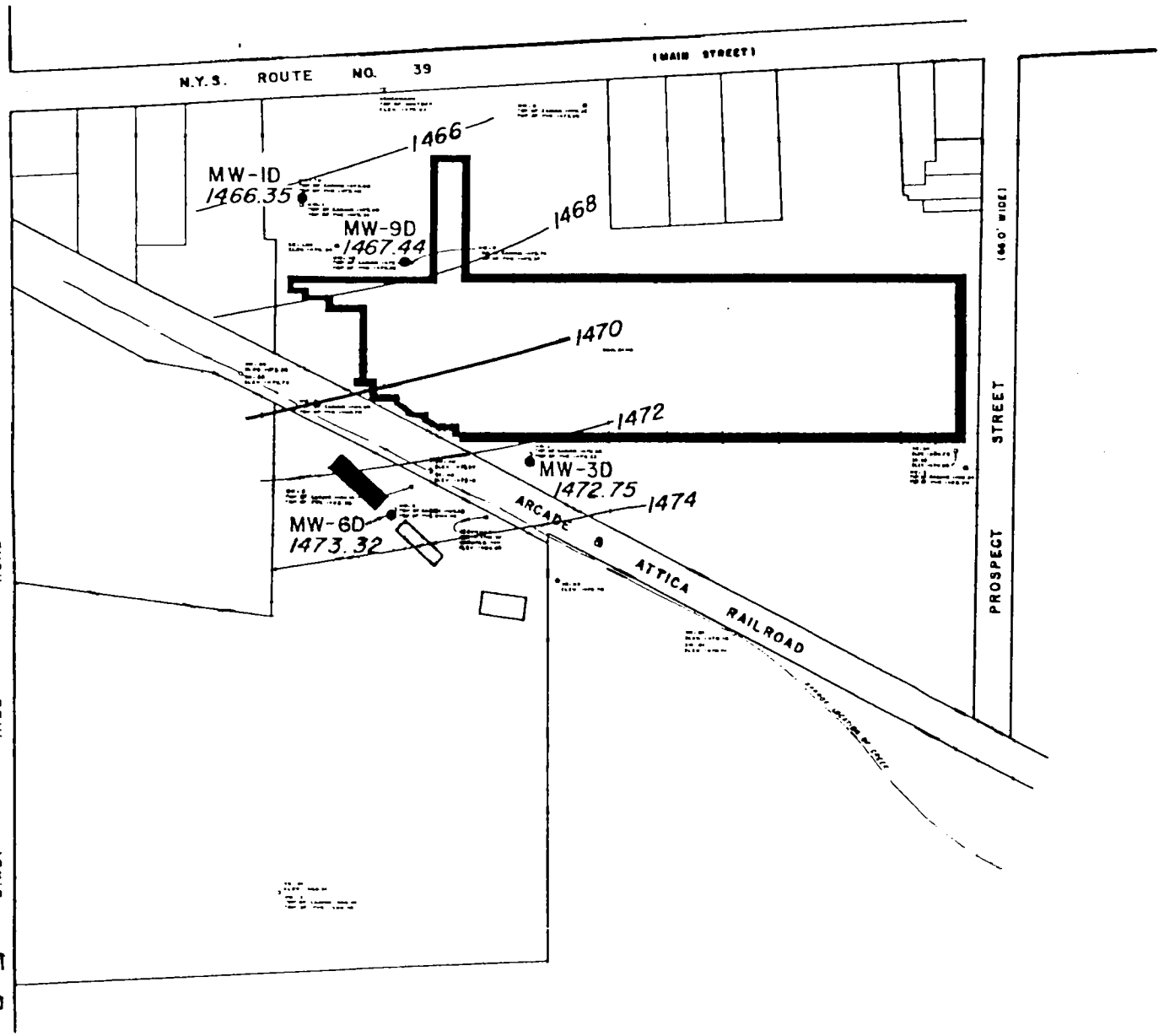


**LEGEND**

1470 — EQUIPOTENTIAL CONTOUR SHOWING FLOW DIRECTION

MW-9D
1467.44
MONITORING WELL COMPLETED IN THE DEEP AQUIFER SHOWING WATER LEVEL (measured 2/12/92)

N

NOTE: BASE CONFIGURATION OF BUILDINGS OF THE AREA COMPILED FROM THE VILLAGE OF ARCADE TAX MAP NO. 133.16.

SHAPE AND LOCATION OF BUILDINGS TAKEN FROM A DRAWING PREPARED BY TREVOR P. HOGATE & ASSOCIATES, ARCHITECTS, JOB NO. 1220.

ELEVATIONS RAISED ON NOVEMBER 1990

Figure 5
POTENTIOMETRIC SURFACE (DEEP AQUIFER)

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| DATE 4/92 | |

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5-3

disposal has been confirmed but this hazardous waste does not presently constitute a significant threat to the environment.

To determine which media (groundwater, soil, etc.) contained contamination at levels of concern, all available analytical data were compared to environmental Standards, Criteria, and Guidance (SCGs). Groundwater, drinking water and surface water SCGs identified for the Prestolite Plant site are based on NYSDEC Ambient Water Quality Standards & Guidance Values and Part 5 of the NYS Sanitary Code. For soils, NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 provides soil cleanup guidelines for the protection of groundwater; comparison to background conditions; and health-based exposure scenarios. Guidance values for evaluating contamination in sediments are provided by the NYSDEC "Technical Guidance for Screening Contaminated Sediments".

Based upon a comparison of the results of the investigations to the SCGs and potential public health and environmental exposure routes, it was determined that certain areas and media at the site required remediation. Information relative to these areas is summarized below. More complete information can be found in the reports listed in Table 2.

Chemical concentrations are reported in parts per billion (ppb) and/or parts per million (ppm). For comparison purposes, where applicable, SCGs are provided for each medium.

### 4.1.1 Nature of Contamination:

As described in the remedial investigations at the site, many soil, groundwater, sediment and soil gas samples were collected to characterize the nature and extent of contamination. The main categories of contaminants which exceeded their SCGs were volatile organic compounds (VOCs) in soils and groundwater, and inorganics (metals) in soils and sediments.

The volatile organic compounds of concern were trichloroethylene, 1,1,1-trichloroethane, 1,2-dichloroethene, ethylbenzene and xylene. The inorganics of concern were cadmium, chromium, copper, and lead.

### 4.1.2 Extent of Contamination

Table 1 summarizes the extent of contamination for the contaminants of concern in soils, sediments and groundwater and compares the data with the SCGs for the Site. Following are the areas and media which were investigated. The highest values found at these areas are presented below. Post remedial levels, or the final levels remaining after remedial work was completed, are noted in section 4.2 which follows.

Soil

The Former Chemical Storage Building area had VOCs at maximum concentrations of: acetone - 14 ppm, methylene chloride - 2.2 ppm, 1,2-dichloroethene - 2.6 ppm, toluene - 130 ppm, trichloroethylene -27 ppm, ethylbenzene -600 ppm, total xylenes - 3,500 ppm, and the metals cadmium - 9210 ppm, chromium - 2420 ppm, and lead - 796 ppm.

The area around the Water Treatment Plant had metals at maximum levels of : cadmium - 1110 ppm, chromium - 56 ppm, and lead - 233 ppm.

The Former Runoff Receiving Area was impacted by metals: cadmium - 8420 ppm, chromium - 38 ppm, and lead - 241ppm.

Under the concrete floor at degreaser areas 1 & 2, soils were impacted by: trichloroethylene - 23 ppm, and 1,2-dichloroethene - 33 ppm.

**Sediments**

The outside weir structure contained : chloroform - 70 ppm, and trichloroethylene - 7.1 ppm.

Sediments in Cemetery Creek were impacted by: cadmium - 79 ppm, and copper - 197 ppm.

**Groundwater**

Groundwater in the upper aquifer had been impacted by acetone at 440 ppb, toluene at 180 ppb , 1,2-dichloroethene at 62 ppb , trichloroethylene (TCE) at 300 ppb, 1,1,1 - trichloroethane (TCA) at 19 ppb, ethylbenzene at 160 ppb , total xylenes at 850 ppb , cadmium at 7,900 ppb, chromium at 191,000 ppb and lead at 680 ppb .

Groundwater sampling over the site since 1991 has not found any non aqueous phase liquids (NAPL). Excavations and soil borings over the entire site also did not find any NAPL. The lower overburden aquifer has not been impacted from site operations. It is a deeper, separate aquifer which is confined and there is an upward hydraulic gradient at the site, which means that groundwater moves from the lower aquifer up toward the shallow aquifer. As of the last reported sampling of July 1999, the following compounds were found: trichloroethylene at 130 ppb, total xylene at 320 ppb within the shallow aquifer , while the metals cadmium, chromium and lead were reported at 35 ppb, 83 ppb, and 195 ppb, respectively.

## 4.2 Interim Remedial Measures:

As noted in Section 1 above, remedial measures have already been performed at this site. These measures are noted as Area of Concern No.1, No.2 and No.3.

A brief description of each of these remedial measures is provided. Complete information can be found in the respective reports noted in Table 2.

**Area of Concern No. 1 - Wastewater Treatment Plant/Cemetery Creek**

Former Runoff Receiving Area

From July to November, 1992, a soil removal action was conducted in an off-site low area just northeast of the treatment plant (Figure 2). This area received runoff from the former filter cake storage areas and from the active filter press blowdown area within the treatment plant. These soils were contaminated

with metals, specifically cadmium, chromium and lead at levels as high as 8420, 38 and 241 ppm, respectively. An area of contamination, approximately one half acre in size, was initially delineated, excavated and then confirmation soil samples were taken. Cleanup objectives for this area were set as: cadmium - 10 ppm, chromium - 18 ppm, and lead - 50 ppm, which are actually below NYSDEC SCGs, which increases the measure of safety. Approximately 2984 tons of soils were removed from the site and shipped to Heritage Environmental Services, in Indianapolis, Indiana for treatment and disposal. Final confirmation sampling indicated that twenty-two of the twenty-eight points sampled were below the cleanup objectives. Six of the sampled locations were above the cleanup objective only for cadmium, with those values ranging between 22 ppm and 67 ppm, and one value at 226 ppm. The fill material had been totally removed and what remained was natural soil. The final sample locations were at or just above the groundwater table and it was decided not to continue excavation below that point because of the difficulty of excavating within a saturated zone. Upon completion of the work the area was re-graded and re-seeded. Quarterly groundwater monitoring immediately downgradient of this area has confirmed the effectiveness of the removal action. Those analytical results indicate non-detect values for all of the metals of concern.

Drum Excavation and Removal

In July 1992 a magnetic survey was conducted in a one-half acre area around the wastewater treatment plant to identify the potential presence of buried drums. Test trenches were dug into areas which contained magnetic anomalies. The trenches revealed the presence of buried metal debris as well as the remnants of six 55-gallon drums and 5 to 10 one-gallon pails. The metal debris and drums were located north and to the east of the water treatment plant at an approximate depth of 5 feet below ground surface. Most of the excavated drums were empty and heavily corroded. As a result of the drum excavation two cubic yards of waste were generated. These drums were sampled for the characteristics of hazardous waste. Two samples showed cadmium levels essentially at or above the characteristic standard for hazardous waste. Trace amounts of PCB 1254 were also found, but below regulatory levels.

Empty drums were steam cleaned, crushed and sent off site for recycling. The two cubic yards of waste were sent to Heritage Environmental Services for disposal as hazardous wastes (D006). The site was temporarily reclaimed by backfilling with clean soils. This area was later dug up entirely, as part of the soil stabilization/solidification remediation performed in May 1995.

Soil Stabilization/Solidification

In May 1995, metals impacted soils in the vicinity of the wastewater treatment plant were identified as a potential source of elevated metals to Cemetery Creek due to direct runoff. The metal of concern was cadmium with some elevated chromium and lead concentrations. Based on Phase II findings, an IRM plan was developed to better delineate the affected area; to stabilize the soils using Portland cement; and then to either place the soils back into the excavation or transport them for off-site disposal at an approved facility. The objective of this remedial activity was to mix excavated soils with Portland cement and water to form a stabilized matrix of soil which would prevent the leaching of metals into the groundwater.

An area approximately one acre in size was surveyed into 20-foot by 20-foot grids to accurately control the sampling and remedial activity ( Figure 6). Surface water runoff and run-on controls were established and process areas were set up prior to the excavation effort.

All impacted soils were within the unsaturated zone. Limits of excavation were initially determined by visual observation, then followed by confirmation sampling for total metals using the action levels established in the work plan. The action levels for total metals were set at: cadmium - 10 ppm, chromium - 18 ppm, and lead - 50 ppm.

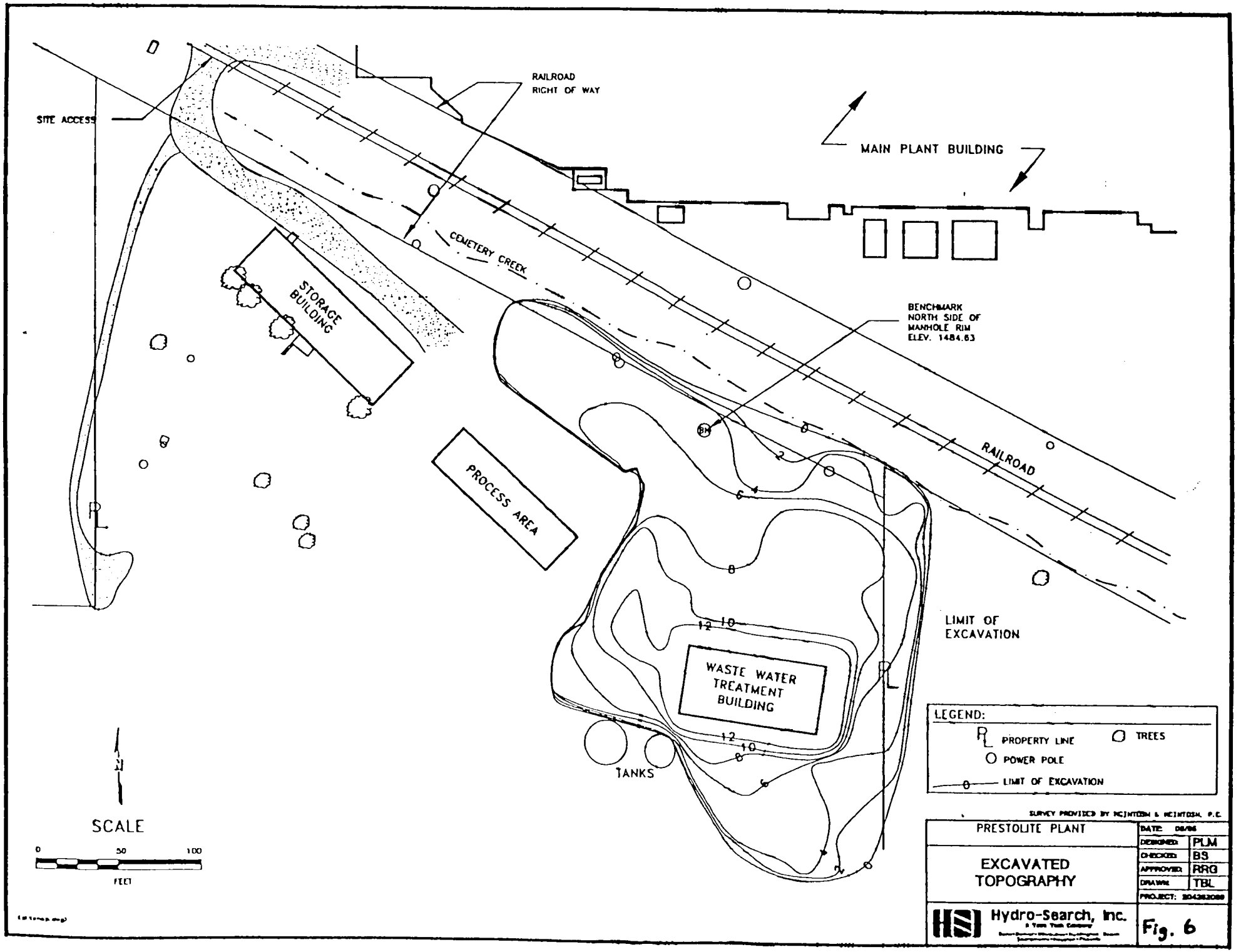
Four 20 cubic yard roll-off bins were used for the processing of the soils. Approximately 10 cubic yards of excavated soil was placed in a roll-off along with a mixture of between 15 and 20 percent (by volume) Portland cement and approximately 500 gallons of water. These soils were mixed thoroughly using the bucket of the trackhoe. After mixing, processed soil was transferred from the roll-off bin to a 100 cubic yard temporary stockpile, allowed to cure overnight, then process confirmation samples were collected. Process confirmation samples were analyzed using TCLP extraction followed by analysis for cadmium, chromium and lead. Process target levels were to meet groundwater standards for metals, (cadmium - 10 ppb, chromium - 18 ppb, and lead - 50 ppb). Confirmation samples were taken from at least 219 different locations from within the treated soils. Average values for the treated soils were: cadmium - 24 ppb, chromium - 16 ppb, and lead - 20 ppb. Although the cadmium value is elevated, only 19 of 219 samples were above the 10 ppb target level. Continued groundwater monitoring will confirm the effectiveness of the remedy despite the elevated metals noted above.

Upon the completion of excavation and stabilization activities, site restoration included grading of the stabilized soils, then covering these stabilized soils with approximately 4,243 tons of clean, approved fill, to a depth of 12 inches. Following that, approximately 2,270 tons of clean, approved topsoil was placed over the clean fill to a depth of 6 inches. Finally, the area was fertilized and seeded. Three replacement groundwater monitoring wells were installed downgradient of the work area and a perimeter fence was erected around the site.

In addition, soils in the vicinity of the Former Chemical Storage Building immediately on the west edge of the treated area were analyzed for VOCs. It was found that this area contained elevated levels of VOCs and metals. Since the metals stabilization process does not adequately reduce VOC concentrations, soils in this portion of the site were not excavated at that time. Remediation of these soils was addressed in a later remedial action, as will be noted in AOC-2, (Former Chemical Storage Building) described later in this section. The VOC impacted area was segregated for future remedial activity by placement of a plastic protective cover and 3 inch gravel layer. Drainage was modified to prevent water from entering this area.

Cemetery Creek Soil Excavation

Under Order on Consent, B9-0468-94-11, dated January, 1995, Motorola agreed to sample Cemetery Creek for contamination and if necessary, remove those sediments for proper disposal. As a result of that sampling, impacts to Cemetery Creek sediments were identified along approximately 1,800 feet of the creek bed. Additional impacted sediments were also identified immediately upstream of the confluence of Cattaraugus and Cemetery Creeks (Figure 7). The source of the metals impacted


RAILROAD
RIGHT OF WAY
SITE ACCESS
MAIN PLANT BUILDING
CEMETERY CREEK
STORAGE BUILDING
BENCHMARK
NORTH SIDE OF
MANHOLE RIM
ELEV. 1484.63
RAILROAD
PROCESS AREA
LIMIT OF
EXCAVATION
WASTE WATER
TREATMENT
BUILDING
TANKS
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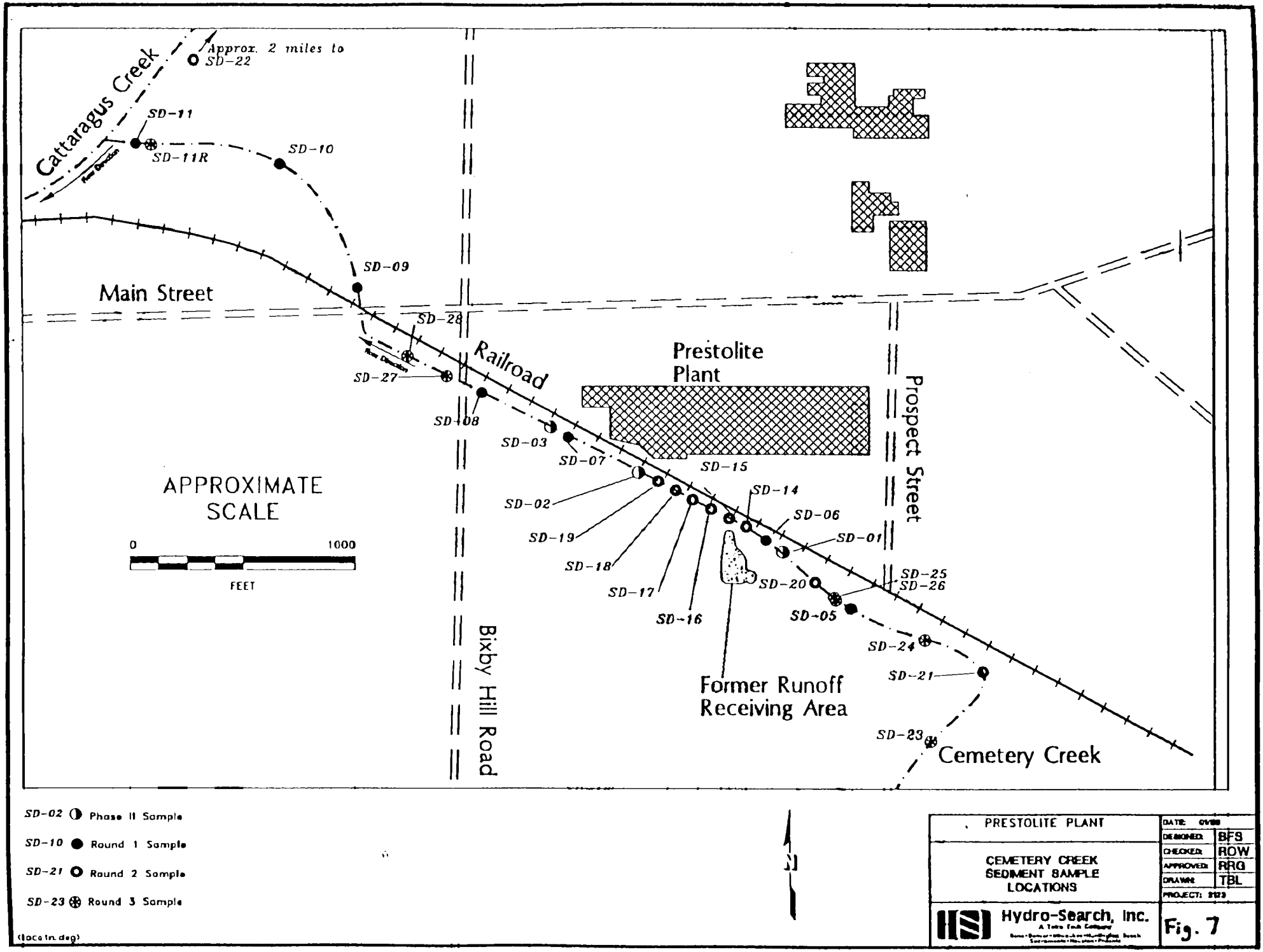
SCALE
0
50
100
FEET
LEGEND:
PROPERTY LINE
TREES
POWER POLE
LIMIT OF EXCAVATION
SURVEY PROVIDED BY MCINTOSH & MCINTOSH, P.E.
PRESTOLITE PLANT
DATE: 08/86
DESIGNED: PLM
CHECKED: BS
APPROVED: RRG
DRAWN: TBL
EXCAVATED
TOPOGRAPHY
Hydro-Search, Inc.
Fig. 6

F-7


Approx. 2 miles to SD-22
Cattaragus Creek
Flow Direction
SD-11
SD-11R
SD-10
SD-09
Main Street
SD-28
SD-27
Railroad
SD-08
SD-03
SD-07
SD-15
Prestolite Plant
Prospect Street
SD-14
SD-06
SD-01
SD-02
SD-19
SD-18
SD-17
SD-16
SD-20
SD-25
SD-26
SD-05
SD-24
SD-21
SD-23
Former Runoff Receiving Area
Cemetery Creek
Bixby Hill Road
APPROXIMATE SCALE
0
1000
FEET
SD-02 Phase II Sample
SD-10 Round 1 Sample
SD-21 Round 2 Sample
SD-23 Round 3 Sample
(locatn.dgn)
PRESTOLITE PLANT
CEMETERY CREEK SEDIMENT SAMPLE LOCATIONS
DATE: 01/88
DESIGNED: BFS
CHECKED: ROW
APPROVED: RRG
DRAWN: TBL
PROJECT: 8123
Hydro-Search, Inc.
A Tetra Tech Company
Fig. 7

F-7

sediments was the runoff receiving area and the area around the water treatment plant. Sampling results indicated maximum levels of metals as: cadmium - 79 ppm, and copper - 197 ppm.

During October and November 1995, excavation of metals contaminated sediments were performed within Cemetery Creek. Horizontal control points were established along the creek bed from Prospect Street, just east of the plant site, to Bixby Hill Road, just west of the plant site. Cross sections and sediment sample locations were tied to the horizontal control points. Sediment samples were collected for grain size evaluation so that compatible approved, clean fill could later be placed in excavated areas. The affected areas were cleared of all brush to provide access for excavation and to improve drainage. Cemetery Creek was diverted around the excavation area in three separate stages through the use of diversion dams upstream of the sediments to be removed and pumping of water.

Sediments were excavated by using a bulldozer and a tracked excavator. As indicated earlier, two areas of excavation were involved. The larger area was 1800 feet of Cemetery Creek, along the southern portion of the plant site and the other was the area of Cemetery Creek immediately above the confluence of Cattaraugus Creek. The depths of excavation ranged from 0.5 feet to 3.5 feet. Approximately 2,550 cubic yards of sediment were removed from the 1800 foot section of the creek, while approximately 14 cubic yards of sediments were removed from near Cattaraugus Creek. This relates to approximately 4,620 tons of sediments which were sent for off-site disposal at the BFI, Niagara Falls Landfill facility.

Material was removed until metals concentrations in excavation confirmation samples collected from both banks and the base of the excavation were below action levels. In setting action levels, the nature of the habitat in Cemetery Creek was considered through discussion and inspection by the local NYSDEC, Division of Fish and Wildlife office. Also considered was a review of local background levels and a comparison to established sediment criteria from the NYSDEC "Technical Guidance for Screening Contaminated Sediments," dated 7/94. Excavation action levels for sediments were set as: total cadmium - 5 ppm, and total copper - 87 ppm. Excavated material was transferred by dump truck to a dedicated staging area prior to shipment to off-site disposal at the BFI, Niagara Falls Landfill facility.

Upon completion of excavation, all excavation confirmation sample concentrations were below the NYSDEC approved action levels as noted above for cadmium and copper. With confirmation that an excavated area was clean, it was backfilled to approximate original grade with approved, clean imported soils of similar grain size as that material removed.

**Area of Concern No. 2 - Former Chemical Storage Building**

In April 1996, Motorola performed soil sampling of VOC and metals impacted soils in the area of the Former Chemical Storage Building. The area sampled covered approximately one-third of an acre (Figure 2). Geoprobe borings were advanced into the impacted soils to a depth of approximately twelve feet. Soil analyses were performed for VOCs, benzene, and total metals.

Results indicated the following VOCs with maximum concentrations as noted: acetone - 14 ppm, methylene chloride - 2.2 ppm,

1,2-dichloroethene - 2.6 ppm, toluene - 130 ppm, trichloroethylene - 27 ppm, ethylbenzene - 600 ppm, and total xylenes - 3,500 ppm. Total metals were found at high values as: cadmium - 9210 ppm, chromium - 2420 ppm, and lead - 796 ppm.

Sampling results showed that the areas of soils impacted by metals were generally separate from the soils impacted by organics. However, there was some overlap relative to metals and BTEX (benzene, toluene, ethylbenzene, xylene) impacted soils. Total volume of impacted soils was estimated at approximately 4,500 cubic yards.

As a result of the findings in this area, various remedial alternatives were evaluated. Initially, stabilization of the soils as performed in AOC-1 was considered. A number of test samples were analyzed from treated soils from this area, however, stabilization was eliminated because of the persistence of VOCs after treatment.

A pilot test was then run in the field for potentially using soil vapor extraction (SVE) technology to address the VOCs followed by stabilization of the metals. The conclusion was that SVE would not be a preferred remedial technology for this portion of the site because of the tight soils. Phytoremediation was then evaluated. Phytoremediation is the use of plants to extract metals from the soils through natural uptake of the metals into the plants. The plants also enhance natural biodegradation of the VOCs through the release of various chemicals from the plants which feed organisms in the soil which in turn break down organic compounds making them available for root uptake. Field scale studies indicated that the site soil conditions were not amenable for effective application of the technology. Based on the field results, the conclusion was that phytoremediation was not viable at this site.

Other technologies considered for addressing the VOCs in-situ included thermal stripping or destruction, chemical oxidation and column mixing with enhanced vapor extraction. In-situ metals treatment included soil mixing and chemical fixation of metals in soil.

The technology finally chosen for treatment of the VOC and metals impacted soils was the proprietary Mobile Injection Treatment Unit (MITU). The basis for this technology is in-situ soil mixing with a soil trenching machine equipped to add chemical reagents and hot air to achieve target cleanup concentrations for metals and organic compounds. The mixing along with the addition of hot air removed the organic compounds from the soil whereby the MITU's trenching head, which was fitted with an integral off-gas collection hood, collected any remaining organic vapors and directed them through a carbon adsorption treatment system.

The stabilization of the metals in soils was achieved by the addition of a dry proprietary chemical which was a variable blend of magnesium oxide and calcium phosphate. This chemical was spread on the ground then mixed in with the trencher to thoroughly mix with the impacted soils. The treatment approach for metals reduces metal leaching using a two part approach. The metals first combine with an anion to create a relatively insoluble metallic salt and then a buffering agent maintains the pH at or near the minimum solubility range for the metal of concern.

The following site specific cleanup goals were established for soils in this area:
trichloroethylene - 0.7 ppm, ethylbenzene - 5.5 ppm, toluene -1.5 ppm, total xylene - 1.2 ppm,

cadmium - 10 ppm, chromium - 18 ppm, lead - 50 ppm. The actual area treated was defined by these values.

During the period of November 1998 to August 1999, the entire area was treated in this fashion. Confirmation samples were periodically taken to show that treatment goals were reached. Process confirmation samples for metals were analyzed using TCLP extraction followed by analysis for cadmium, chromium, and lead. Process target levels were to meet groundwater standards for metals, (cadmium - .010 ppm, chromium -.050 ppm, and lead -.025 ppm). Confirmation samples were taken from up to 31 designated grids within the work area.

Confirmation sampling for cadmium, chromium and lead indicated that a majority of the samples taken met or exceeded process target levels. . Although some elevated cadmium and lead remain within this one-third acre area, this area is isolated. These soils are within the unsaturated zone and the leaching potential has been considerably reduced through treatment. The soils surrounding this area are tight which effectually reduces the amount of groundwater which can move to the treated area. It is noted that monitoring well #2, directly adjacent to the area, historically has shown groundwater values approaching standards for drinking water quality, while monitoring well #3, directly downgradient, has historically been below groundwater standards. In addition, deed restrictions will keep this area segregated and long term groundwater sampling will continue to monitor this area.

VOC confirmation analytical results for soils indicated TCE at non-detect to 0.56 ppm, with an average value of 0.08 ppm, which is well below the cleanup goal of 0.7 ppm. Ethylbenzene confirmation sampling indicated levels of non-detect to 2.8 ppm, with an average value of 0.97 ppm which is below the cleanup goal of 5.5 ppm. Toluene sampling indicated non-detect to 2.1 ppm, with an average value of 0.32 ppm which is below the cleanup goal of 1.5 ppm. Xylene was the most difficult compound to remove. Confirmation sampling indicated values from non-detect to 48 ppm. The average value for xylene was 6.7 ppm which is above the cleanup goal of 1.2 ppm. A review of the xylene data relative to the established site cleanup goal of 1.2 ppm shows that 19 of 31 sampled grids have remaining concentrations above the goal. However, percent reductions in xylene for those 19 grids ranged up to 99.5%, with and average reduction of 87%.

Xylene is present in only one groundwater monitoring well, (well # 02A), directly adjacent to the remediated area. From a review of each of the site groundwater monitoring wells, it is apparent that xylene is not a site wide concern since all other wells show non-detect for this compound. Xylene is biodegradable and moves through groundwater at a much slower rate than other solvents noted at this site. An additional monitoring well between this site and the closest municipal well to the northeast will be included in the long-term monitoring plan.

Groundwater sampling downgradient of this area will continue to monitor for the contaminants of concern. Results indicate the following:

| | Well # 02A (ppb) | | Well # 06A (ppb) | |
|---|---|---|---|---|
| | January 1995 | August 1998 | January 1995 | July 1999 |
| ethylbenzene | 41 | 51 | ND | ND |

| | | | | |
|---|---|---|---|---|
| trichloroethylene | 17 | 3 | 59 | 42 |
| toluene | 7 | 20 | ND | ND |
| xylene | 93 | 320 | ND | ND |
| total cadmium | 7,900 | 35 | 5 | ND |
| total chromium | 191,000 | 16 | 103 | ND |
| total lead | 295 | 95 | 240 | 9 |

ND - not detected
Wells 02A and 06A are replacement wells

## Area of Concern No. 3 - Sewer Weir Structure/Degreaser Units

Weir Structure and Plant Sump

In August 1992, Motorola removed water and sludge from a water treatment discharge weir structure in the north parking lot (Figure 2). This had been an old discharge point for effluent from the plant. Approximately 3,400 gallons of water and 500 gallons of sludge were removed for disposal at LWD, Inc. in Calvert City, Kentucky. The interior of the structure was pressure washed twice and then wipe sampled for volatile organic compounds (VOCs), metals and cyanide. No VOCs or cyanide were noted. Low concentrations of cadmium, chromium and lead were noted, however, these concentrations were considered inconsequential.

All of the pipelines leading to the structure were flushed with high pressure water and grouted closed. The steel plumbing and supports from within the structure, which had been cleaned, were removed for recycling. Reinforced concrete covers were removed and the walls of the structure were cut to a depth of approximately 8 inches below grade. Demolition rubble was allowed to fall into the structure. The remainder of the structure was backfilled to grade with clean gravel. An unused sump within the northern portion of the plant was also cleaned out and decommissioned in the same fashion as above. Groundwater sampling downgradient of these structures will continue to monitor any indications of continued source contamination. Analytical results thus far show decreasing contaminant levels in the groundwater in this area.

| | Phase II Investigation - 1992 (ppb) | December 1999 (ppb) |
|---|---|---|
| trichloroethylene | 120 | 67 |
| 1,1,1-trichloroethene | 17 | 4.6 |
| total chromium | 353 | ND |
| total lead | 442 | 3.7 |

Soil Vapor Extraction System

As part of the Phase II investigations in January 1992, Motorola performed a soil gas survey to evaluate potential contaminant source areas within the unsaturated zone soils at the site. From a total of 60 soil gas samples, it was determined that the two degreasers within the plant were source areas of volatile organic contamination which were impacting groundwater at the site. Soils under degreaser #1 contained methylene chloride as high as 95 ppm and TCE as high as 16 ppm. Soils under degreaser # 2 contained methylene chloride and TCE at high levels of 6.7 and 3.5 ppm, respectively. Based on the above results, Motorola installed soil vapor extraction systems at each degreaser location (Figure 2). A total of 31 injection/withdrawal wells were installed through the concrete floor within the interior of the facility. Each well was advanced to an approximate depth of 8 feet below ground surface. The system was designed to direct extracted vapors through a carbon canister prior to exhaust to the atmosphere. Soil cleanup goals for organic compounds in soils were, as per TAGM 4046:
1,2-dichloroethene - 0.3 ppm, methylene chloride - 0.1 ppm, trichloroethylene - 0.7 ppm, and ethylbenzene - 5.5 ppm.

Operation of the SVE system commenced on October 19, 1993. Initial sampling data from around the two degreasers indicated the following organic compounds within soils under the concrete floor: 1,1-dichloroethane at 5.8 ppm, 1.2-dichloroethane at 32.9 ppm, 1,1,1-trichloroethane at 15 ppm, and trichloroethylene at 23.2 ppm. The soil vapor extraction system remained in constant operation during which time quarterly sampling events were performed to monitor the system. Degreaser # 2 was taken out of service in May 1996. In April 1997, soil sampling from around the two degreasers showed that soil cleanup goals had been reached in the area of degreaser # 2. In September 1997, the SVE system from around degreaser # 2 was shut down and efforts were then concentrated on the area around degreaser # 1. Confirmation sampling of soils beneath degreaser #2 showed that all of the VOCs were well below the cleanup goals. The only compounds present were: 1,2-dichloroethene at 0.002 ppm and trichloroethylene at 0.022 ppm.

In November 1997, the SVE system around degreaser # 1 was reconfigured for optimal operation. Five additional vapor extraction wells were installed in the immediate area. In August 1997, degreaser # 1 was decommissioned and the SVE system continued to operate. In December 1998, soil verification sampling was conducted which indicated that cleanup goals had been achieved at degreaser # 1. A final round of soil sampling from around degreaser # 1 was performed in December 1999 to confirm again, that soil cleanup goals had been achieved in this area. The only compounds found were methylene chloride at a high of 0.020 ppm and trichloroethylene at a high of 0.180 ppm, both well below the cleanup goals.

### 4.2.1 Groundwater Monitoring

Four monitoring wells were initially installed as part of the July 1991, Phase I investigation. Sampling of these wells indicated the presence of VOCs in the overburden groundwater at the site. To further define the extent of contamination at the site, nine additional monitoring wells were installed at various depths and locations around the site as part of a Phase II investigation (Figure 2). The thirteen monitoring wells, along with the Arcade Municipal well northeast of the site, were sampled for VOCs, total and dissolved inorganics, cyanide, and hardness. Subsequent Phase II sampling identified the source areas at the site.

In June, 1995 additional Geoprobe borings were placed around the site to fully characterize soils and groundwater over the entire site and to determine if there were any concerns within the northeast portion of the site. The results of that study found no other sources of contamination other than those already known to exist and also indicated that there were no groundwater issues within the northeast portion of the site.

Since July 1992 a number of remedial actions have been performed at this site as previously discussed in section 4.2. These actions addressed the source areas on site and have successfully removed or contained contamination associated with these areas. The following list presents the highest concentrations for compounds initially found during the Phase II investigation and the highest concentrations of these compounds as of July 1999, after all remedial activities had been completed at the site.

| | Phase II Investigation (1992) (ppb) | July 1999 (ppb) |
|---|---|---|
| Trichloroethylene | 300 | 130 |
| 1,1,1-trichloroethane | 17 | 4 |
| 1,2-dichloroethene | 35 | 6 |
| total cadmium | 7,900 | 45 |
| total chromium | 644 | 58 |
| total lead | 544 | 53 |

Long term monitoring of groundwater will continue at this site as part of the proposed remedy.

### 4.3 Summary of Human Exposure Pathways:

This section describes the types of human exposures that originally presented health risks to persons at or around the site. An exposure pathway is how an individual may come into contact with a contaminant. The five elements of an exposure pathway are: 1) the source of contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of exposure have been mitigated through the remedial measures already performed at this site.

An evaluation of the RIs performed at the site indicated that the significant potential exposure points associated with the site were: 1) direct contact with surface soils by site workers and/or trespassers; 2) direct contact with subsurface soils by site workers or future construction workers;
3) direct contact with sediments within Cemetery Creek and within the old weir structure; 4) direct contact with water within the old weir structure; 5) inhalation of organic vapors from beneath the concrete floor within the plant. As noted above, the remedial work completed at the site has mitigated human exposure pathways at this site.

### 4.4 Summary of Environmental Exposure Pathways:

This section summarizes the types of environmental exposures which may be presented by the site. Investigative analysis indicated that Cemetery Creek and Cattaraugus Creek are two environmental areas

of concern. Cemetery Creek is a small intermittent, Class D stream, which is a tributary to Cattaraugus Creek, a Class B stream.

Evaluation of analytical results from Cemetery Creek and Cattaraugus Creek relative to applicable criteria revealed that only Cemetery Creek had been impacted by the Prestolite site. Sediment sampled indicated elevated levels of metals such as, cadmium, chromium, copper, nickel and lead. No organic compounds or PCBs were noted. After remedial efforts were completed, no environmental exposure pathway remained.

## SECTION 5: ENFORCEMENT STATUS

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

The PRP for the site, documented to date, is Motorola, Inc. Motorola had volunteered to perform all necessary investigations and remedial efforts necessary to mitigate contamination at the site.

The following is the chronological enforcement history of this site.

### Order on Consent

| | |
|---|---|
| **Date** | January 1995 |
| **Index No.** | B9-0468-94-11 |
| **Subject of Order** | Interim Remedial Measure Program |

Motorola Inc. and Prestolite Electric Inc. entered into an Order on Consent, on January 30, 1995, for the implementation of Interim Remedial Measures (IRMs) to address contamination of soils and groundwater on the site.

## SECTION 6: SUMMARY OF THE SELECTED REMEDY

The selected remedy for any site should, at a minimum, eliminate or mitigate all significant threats to the public health or the environment presented by the hazardous waste present at the site. The State believes that the remediation now in place, which is described in Section 4.2, has accomplished this objective provided that it continues to be operated and maintained in a manner consistent with the design.

Based upon the results of the investigations and the IRMs that have been performed at the site, the NYSDEC has selected, as the remedy for the site, no further remedial action and continued long-term overburden groundwater monitoring. An additional monitoring well will be placed at the northeast portion of the property to assure that the community well to the northeast is protected. Land use restrictions will need to be implemented.

The Department will also reclassify the site to a Class 4 on the New York State Registry of Inactive Hazardous Waste Disposal Sites. This means that the site is properly closed but needs continued management.

## SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

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

- A repository for documents pertaining to the site was established at the Arcade Free Library.
- A site mailing list was established which included nearby property owners, local political officials, local media and other interested parties.
- A Fact Sheet was sent to the public in May 1995, describing work to date.
- In August 1995, a Fact Sheet was mailed to the public and a Public Availability session was held to describe work completed and proposed work.
- A Fact Sheet was mailed to the public in October, 1998, describing work to date.
- In February, 2000 a Fact Sheet and a Public Meeting Announcement were sent to the public regarding the Proposed Remedial Action Plan prepared by the Department.
- On March 15, 2000 a Public Meeting was held to present the Proposed Remedial Action Plan for the site.
- In March 2000 a Responsiveness Summary was prepared and made available to the public, to address the comments received during the public comment period for the PRAP.

## Table 1
## Nature and Extent of Contamination
**(indicated values are pre-remediation)**

| MEDIA | CLASS | CONTAMINANT OF CONCERN | CONCENTRATION RANGE | FREQUENCY OF EXCEEDANCES | SCG |
|---|---|---|---|---|---|
| Groundwater (ppb) | VOCs | acetone | ND to 440 | 3 of 16 | 50 |
| | | toluene | ND to 180 | 2 of 16 | 5 |
| | | trichloroethylene | ND to 300 | 6 of 16 | 5 |
| | | 1,1,1-trichloroethane | ND to 19 | 4 of 16 | 5 |
| | | 1,2-dichloroethene | ND to 62 | 2 of 16 | 5 |
| | | ethylbenzene | ND to 160 | 1 of 16 | 5 |
| | | total xylenes | ND to 850 | 2 of 16 | 5 |
| | Total Metals | cadmium | ND to 7,900 | 10 of 16 | 5 |
| | | chromium | ND to 191,000 | 14 of 16 | 50 |
| | | lead | ND to 0.680 | 14 of 16 | 25 |
| Soils (ppm) | VOCs | toluene | ND to 130 | ^ | 1.5 |
| | | methylene chloride | ND to 2.2 | ^ | 0.1 |
| | | acetone | ND to 14 | ^ | 0.2 |
| | | trichloroethylene | ND to 27 | ^ | 0.7 |
| | | chloroform | ND to 70 | ^ | 0.3 |
| | | 1,2-dichloroethene | ND to 33 | ^ | 0.3 |
| | | ethylbenzene | ND to 600 | ^ | 5.5 |
| | | total xylenes | ND to 3500 | ^ | 1.2 |
| | Metals | cadmium | ND to 9210 | ^ | 10 |
| | | chromium | ND to 2420 | ^ | 50 |
| | | lead | ND to 796 | ^ | 25 |
| Sediments (ppm) | Metals (creek) | cadmium | ND to 79 | 12 of 29 | 0.5 - 9 |
| | | copper | 6.1 to 197 | 4 of 29 | 16 - 110 |

VOCs - volatile organic compounds
VOCs (weir) - sample taken from weir structure
Metals (creek) - samples taken from Cemetery Creek
Frequency Of exceedance - number of locations with exceedance relative to the total number of locations sampled.
( ^ ) - due to the numerous sampling programs on site, it was very difficult to determine the exact amount of exceedance.

# APPENDIX A

## RESPONSIVENESS SUMMARY

**Prestolite Plant Site**
**Proposed Remedial Action Plan**
**Village of Arcade, Wyoming County, New York**
**Site No. 9-61-009**

The Proposed Remedial Action Plan (PRAP) for the Prestolite Plant Site was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repository on February 24, 2000. This Plan outlined the preferred remedial measure proposed for the remediation of the contaminated soils, sediment and groundwater at the Prestolite Plant Site. The preferred remedy is No Further Action and continued overburden groundwater monitoring. An additional monitoring well will be placed at the northeast portion of the property to assure that the community well to the northeast is protected. Land use restrictions will need to be implemented for the site.

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

A public meeting was held on March 15, 2000 which included a presentation of the Remedial Investigation (RI) and the Feasibility Study (FS) as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. No written comments were received from the public, however, the one resident present at the public meeting did have some questions which are addressed below.

The public comment period for the PRAP ended on March 25, 2000.

This Responsiveness Summary responds to all questions and comments raised at the March 15, 2000 public meeting.

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

**COMMENT 1:** My property used to flood from water coming off the site. Could that impact my property?

**COMMENT 2:** Our basement used to flood. Could that impact our basement?

**RESPONSE TO 1 AND 2:**

The contamination addressed at this site was below the ground surface in the form of solvents in soils under the main plant and at the rear of the site, and metals in soils at the rear of the site. Flooding would not pick up

these contaminants because they were below ground. Flooding in this area is not a regular event. Because of the general topography of the area, flood waters typically would not flow over the plant site prior to flowing over the area in question. Also, with the large amount of water involved in a flooding situation, the dilution factor would reduce any contaminant concentration to very low levels. Therefore, flood waters moving over a property or getting into basements would not deposit much, if any, contamination to be concerned with.

**COMMENT 3:** Could my basement be checked?

**RESPONSE 3:** The New York State Department of Health was informed of this request. Attempts to contact the homeowner have been made. Once contact occurs, it will be determined whether checking the basement is necessary.

**COMMENT 4:** How often will the monitoring wells be tested?

**RESPONSE 4:** Site monitoring wells will be checked and sampled on a semi-annual basis (two times per year). Up to this point in time the wells were checked quarterly (four times per year). With the remedial work completed and a good record of each monitoring well, it is not necessary to monitor these wells more than two times per year.

**COMMENT 5:** Could these contaminants effect the people who worked there?

**RESPONSE 5:** The contamination was below the ground. Since no pathway or route of exposure existed, it is unlikely these contaminants could have affected the people who worked there.

**COMMENT 6:** How long did the Soil Vapor Extraction (SVE) take to remove the contaminants?

**RESPONSE 6:** The soil vapor extraction systems were put into operation around degreaser # 1 and # 2, in October, 1993. In September, 1997 the SVE system was shut down at degreaser # 2 (nearly four years). In December 1999, the SVE system was shut down at degreaser# 1 (over six years).

**COMMENT 7:** Could the contamination have migrated off-site from the degreasers?

**RESPONSE 7:** The contamination from the degreasers could have moved from under the plant building to under the parking lot at the northwest portion of the site. However, the completion of the soil vapor extraction remedial activity at each degreaser has effectively removed the source of contaminants which could move to under the parking lot. Any residual contamination will diminish naturally over time.

**COMMENT 8:** How about gardens in the immediate area?

**RESPONSE 8:** Surface and subsurface soil testing was conducted around the entire site. There was no indication of contaminants to the north, northeast and east part of the site. Also, there were no disposal activities in these areas. Lawn and garden areas would not be impacted by disposal activities from other portions of the site.

**COMMENT 9:** What is a weir?

**RESPONSE 9:** A weir is a structure which is used to regulate and measure the flow of water. In this case the weir structure was used along the sewer outflow line to slow the water to allow solids to drop into the concrete box for proper removal instead of allowing the solids to leave the site.

**COMMENT 10:** What is a source area?

**RESPONSE 10:** A source area is a specific area which would continue to release contamination to the environment if left alone or unremediated.

**COMMENT 11:** What are the wells monitoring?

**RESPONSE 11:** The monitoring wells on site are used to measure overburden groundwater levels and for groundwater sampling and analysis.

**COMMENT 12:** Are the chemicals carcinogenic?

**RESPONSE 12:** Some of the chemicals found on-site are carcinogenic. These include methylene chloride, ethylbenzene and trichloroethylene. Since there were no exposure routes, the former presence of the chemicals would not be a concern.

# APPENDIX B

## Administrative Record


NUS Corporation, Superfund Division, August 1988, Site Inspection Report

IT Corporation, 1991 Phase I Site Investigation, Prestolite Arcade Plant, New York

Hydro-Search, Inc., April 28, 1992, Phase II Site Investigation, Prestolite Plant, Arcade, New York, Hydro-Search, Inc., Project No. 426116372

Simon Hydro-Search, June 23, 1992, Addendum No. 1 to the Phase II Site Investigation Prestolite Plant, Arcade, New York, Project No. 426216372

Simon Hydro-Search, 1994, Waste Analysis Plan, Prestolite Plant, Arcade, New York, Project No. 204262049

Hydro-Search, Inc., January 6, 1994(a), Interim Removal Action Report at the Prestolite Plant, Arcade, New York, Hydro-Search, Inc., Project No. 204262005

Hydro-Search, Inc., July 29, 1994(b), Site Health and Safety Plan for Prestolite Plant Site Soil Remediation Project, Arcade, New York, Hydro-Search, Inc., Project No. 204262049

Hydro-Search, Inc., 1995, Groundwater Characterization Status Report, Prestolite Plant Site, Arcade, New York, Project No. 204262089

Hydro-Search, Inc., August 15, 1995, Cemetery Creek Sediment Sampling & Analysis and Removal Action Plan, Prestolite Plant, Arcade, New York, Project No. 204262089

Hydro-Search, Inc., August 23, 1995, Additional Site Characterization, Prestolite Site, Arcade, New York, Hydro-Search, Inc., Project No. 204262112

Hydro-Search, Inc., December 1995, Feasibility Study for VOC and Metals Impacted Soils, Prestolite Plant, Arcade, New York, Hydro-Search, Inc., Project No. 204262089

Hydro-Search, Inc., December 20, 1995, Cleanup Report for Metals Impacted Soils Stabilization Project at the Prestolite Plant Site, Arcade, New York, Project No. 204262049

Hydro-Search, Inc., June 1996, Memorandum: 3-Dimensional Soil Sampling of VOC and Metals Impacted Soils, Prestolite Plant Site, Arcade, New York

Hydro-Search, Inc., March 22, 1996, Sediment Remediation Along Cemetery Creek at the Prestolite Plant Site, Arcade, New York, Project No. 204262123

HSI GeoTrans, 1995 - 1997, Quarterly Groundwater Monitoring and Progress Reports

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