414478 ORIGINAL (Red)

A Site Inspection

of

Ametek Inc. Site

PA/SI Cooperative Agreement Grant No. V-003350-01-0

DE - 176

Presented to: Ben Mykijewicz, Chief
Site Investigation and Support Section
U.S. EPA Region III

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March 1990
BLS7530S

Table of Contents

I. INTRODUCTION

- A. Scope of Work
- B. Summary

II. THE SITE

- A. Location and Layout
- B. Site History
- C. Permit and Regulatory Action History
- D. Remedial Action to Date

III. ENVIRONMENTAL SETTING

- A. Geohydrologic Setting
- B. Soils
- C. Surface Water
- D. Land Use
- E. Population Distribution
- F. Climate and Meteorology
- G. Water Supply
- H. Critical Environments

IV. WASTE TYPES AND QUANTITIES

V. FIELD TRIP REPORT

- A. Summary of Field Trip
- B. Site Observations
- C. Sample Logs
- D. Photographs
- E. EPA Site Inspection Form

VI. REFERENCES

VII. LABORATORY DATA

- A. Sample Data Summary
- B. Data Validation
  - 1. Organic
  - 2. Inorganic
  - 3. Asbestos

VIII. TOXICOLOGICAL EVALUATION

IX. APPENDICES

- A. Delaware DNREC Preliminary Assessment
- B. Correspondence and Telephone Log

LIST OF FIGURES

FIGURE	TITLE
1	State of Delaware Map
2	Site Location Map
3	Ametek Site Map
4	Site Drawing
4A	Geologic Map of New Castle County (Pleistocene Removed)
5	Thickness of the Pleistocene Aquifer (New Castle County)
6	Soil Map
7	Wetland Map
8	Rare Species Location Map
9	Sample Location Map

TABLES	TITLE
1	Soil Legend

ORIGINAL (Red)

I. INTRODUCTION

ORIGINAL (Red)

I. INTRODUCTION

Scope of Work

The Delaware Department of Natural Resources and Environmental Control (DE DNREC) Preliminary Assessment/Site Inspection (PA/SI) Group conducted a SI at the Ametek Inc. Site on October 24, 1989. The objective of the SI was to:

- Determine if a release or potential release of hazardous substance has occurred.
- Provide information for the United States Environmental Protection Agency (US EPA) and DNREC to use in determining possible further actions.

The SI consisted of sampling on-site soils and the Red Clay Creek in an effort to meet the objectives mentioned above.

General Summary

Ametek Inc. is a manufacturer of plastic products and is located at 900 Greenbank Road approximately one-quarter mile south of Kirkwood Highway in New Castle County, Delaware.[1] The following processes occur at the Ametek Site which result in the generation of hazardous or potentially hazardous wastes:

- Production of chemical process equipment such as tanks, piping and ducts, etc. Materials used in this process include phenolic resin, furan resin and pharmaceutical grade talc. Wastes generated through this process include isopropyl alcohol and furfuryl alcohol (cleaning solvents) and acetone, butyl alcohol and benzyl sulfonic acid (finishing solution used to smooth surfaces of finished tanks.)
- Manufacturing of phenolic and furan resins to be used at the facility. Wastes generated through this process include kettle wash sludge which consists of a caustic sludge. The sludge is drummed and handled as a corrosive hazardous waste.
- Woven silica insulation is produced by bleaching glass cloth with acid. Wastes generated in this process includes hydrochloric acid which is neutralized by limestone and the caustic liquids generated from the cleaning of metals in the resin process. The treated waste is discharged into the sewer system.
- Pipe, pipe parts and fittings are manufactured by impregnating fiberglass with resin which is wound and cured. No hazardous wastes are generated through this process.

All of these wastes are disposed of off-site[2,3]

The Ametek Inc. Site currently has small quantity generator status.[4]

Hydrochloric acid, formaldehyde and phenol are stored on-site as product.[5,6,7]

Prior to 1980, the facility was involved with the application of asbestos and fiberglass on pipes, parts, etc. for insulation needs. The control of fugitive asbestos and fiberglass dust was handled through a dust collection system involving hoods and baghouses.[8,9] According to several memos by the Delaware DNREC Air Resources section, problems existed with this collection system including a documented baghouse failure on January 24, 1977 as a result of a fire.[10] In November 1980, Ametek eliminated asbestos from their processes.[8]

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II. THE SITE

ORIGINAL (Red)

II. THE SITE

Location and Layout

The Ametek Inc. Site is located at 900 Greenbank Road approximately one-quarter mile south of Kirkwood Highway (Route 2) in New Castle County, Delaware.[11] (See Figures 1,2,3 and 4). The plant is located on the east side of Greenbank Road and has operations on either side of Red Clay Creek.

The site is six acres in size and consists of various operations and office buildings. Railroad tracks are along the eastern border of the site. A raceway from the Red Clay Creek runs along the westside of the site and re-enters the Red Clay Creek.[12]

The plant has two National Pollution Discharge Elimination System (NPDES) outfalls which discharge into the Red Clay Creek (discharge 001 is near the northern end of the plant and discharge 003 is near the southern end of the plant).

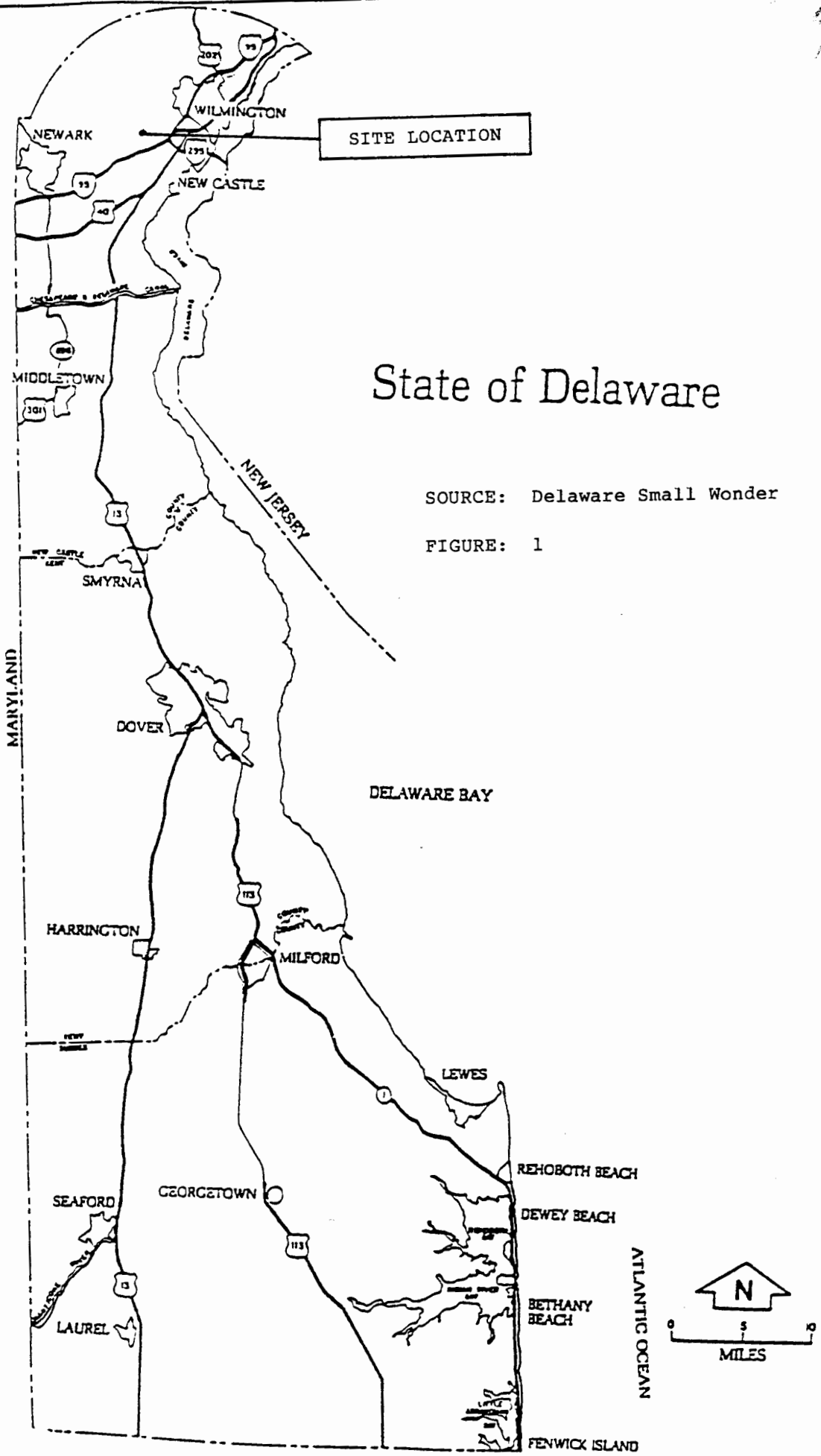
Effluent from discharge 001 consists of naturally occurring spring water. Discharge 001 is monitored for total suspended solids and phenol. Effluent from discharge 003 consists of storm water and flood water from driveways and under buildings. This effluent is passed through an oil separator. Discharge 003 is monitored for total suspended solids, phenol, and oil and grease.[13]

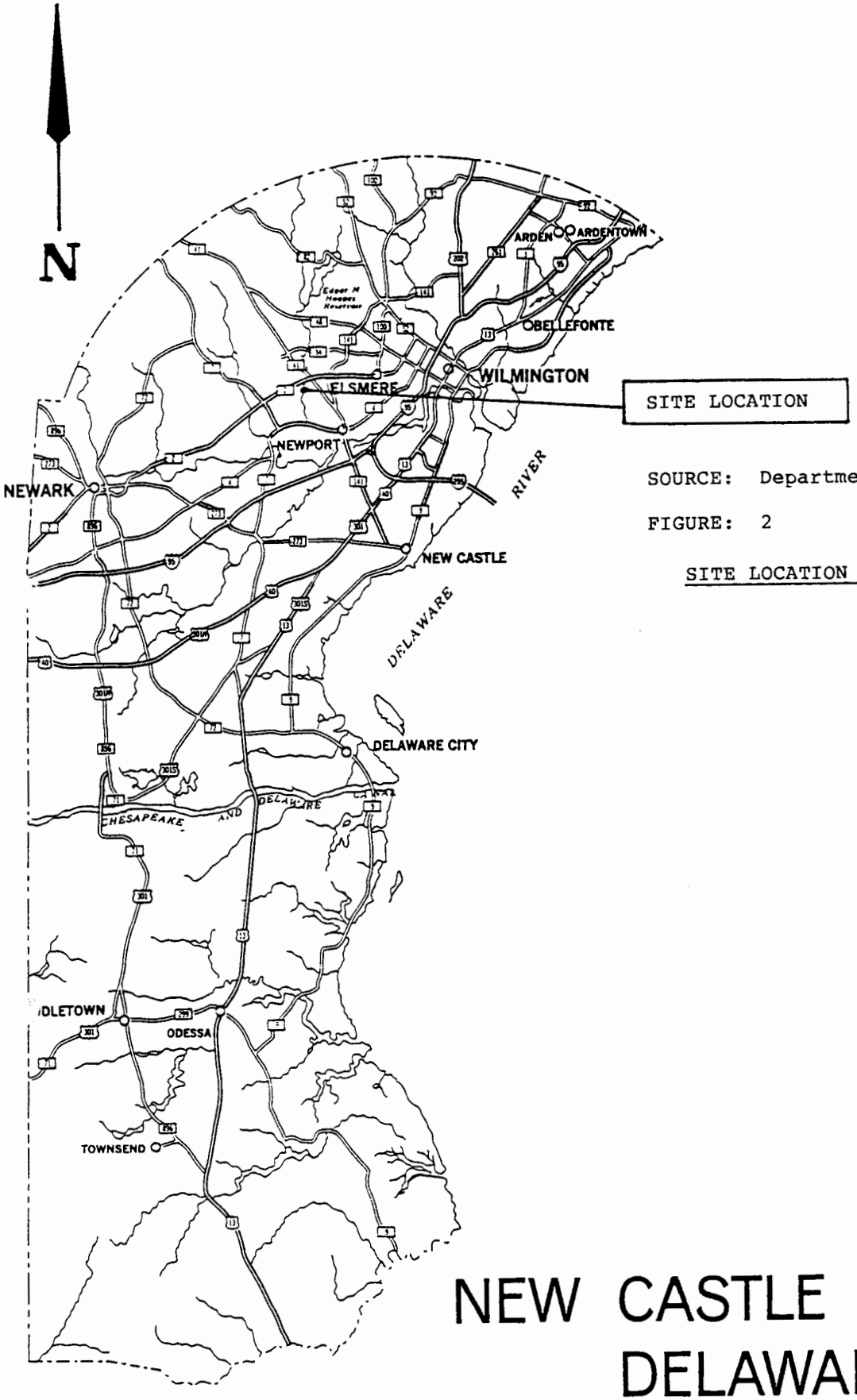
Various storage tanks are located throughout the site. Contents of tanks include hydrochloric acid, xylenol, phenol, furfural alcohol and fuel oil. Two areas used for drum storage were observed on site at the time of the site inspection. Drums were stored in a shed with a cement floor which is located on the western bank of the Red Clay Creek. The shed is open to the west and enclosed on the three remaining sides. Drainage from the shed appeared to enter a pipe which discharges into the Red Clay Creek (see Photo 11). Approximately 13-55 gallon drums are generated per year and disposed of off site. Approximately ten drums were observed on a cement pad located between the railroad tracks and a railroad spur on the northeastern portion of the property. Between the railroad tracks and the drums, a ditch containing stained soil and water were noted.[12,14]

Site History

Following is a chronology of ownership and the uses of the Ametek Inc. Site.

Late 1800's	-	The site was used as an iron works facility.
1906-1933	-	The site was used to manufacture vulcanized fiber.
1933-1955	-	The site was operated by the Haveg Corporation for manufacture of insulated piping, etc. The Haveg Corporation was owned by Continental Diamond Fiber which later became the Budd Company.
1955-1964	-	The site was owned by Haveg Industries.
1964-1980	-	Hercules Inc. owned Haveg Industries as a subdivision.


SITE LOCATION
WILMINGTON
NEWARK
NEW CASTLE
MIDDLETOWN
State of Delaware
SOURCE: Delaware Small Wonder
FIGURE: 1
NEW JERSEY
SMYRNA
MARYLAND
DOVER
DELAWARE BAY
HARRINGTON
MILFORD
LEWES
REHOBOTH BEACH
DEWEY BEACH
GEORGETOWN
SEAFORD
BETHANY BEACH
LAUREL
ATLANTIC OCEAN
N
0
5
10
MILES
FENWICK ISLAND



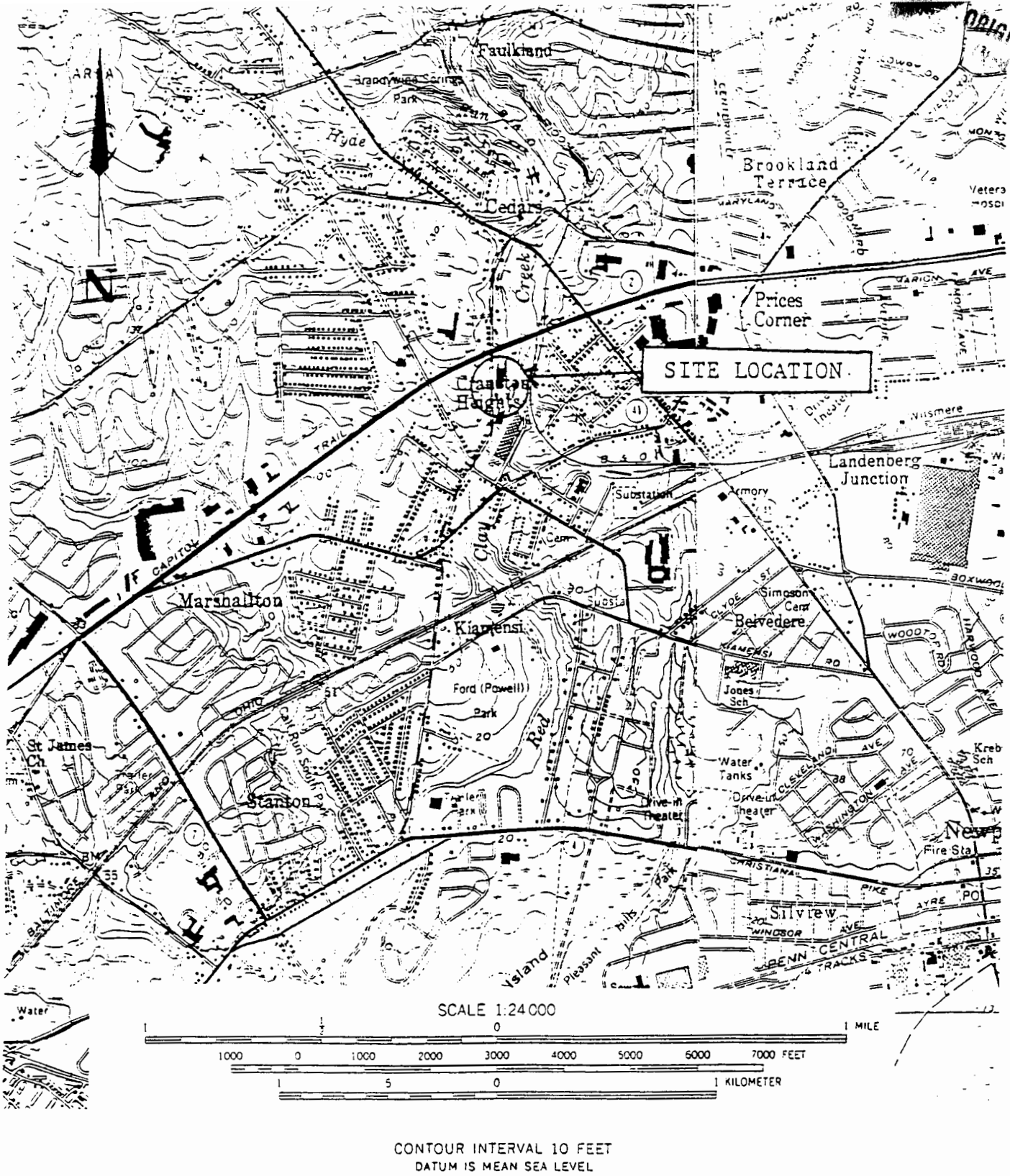
SOURCE: Department of Transportation

FIGURE: 2

SITE LOCATION MAP

NEW CASTLE COUNTY DELAWARE

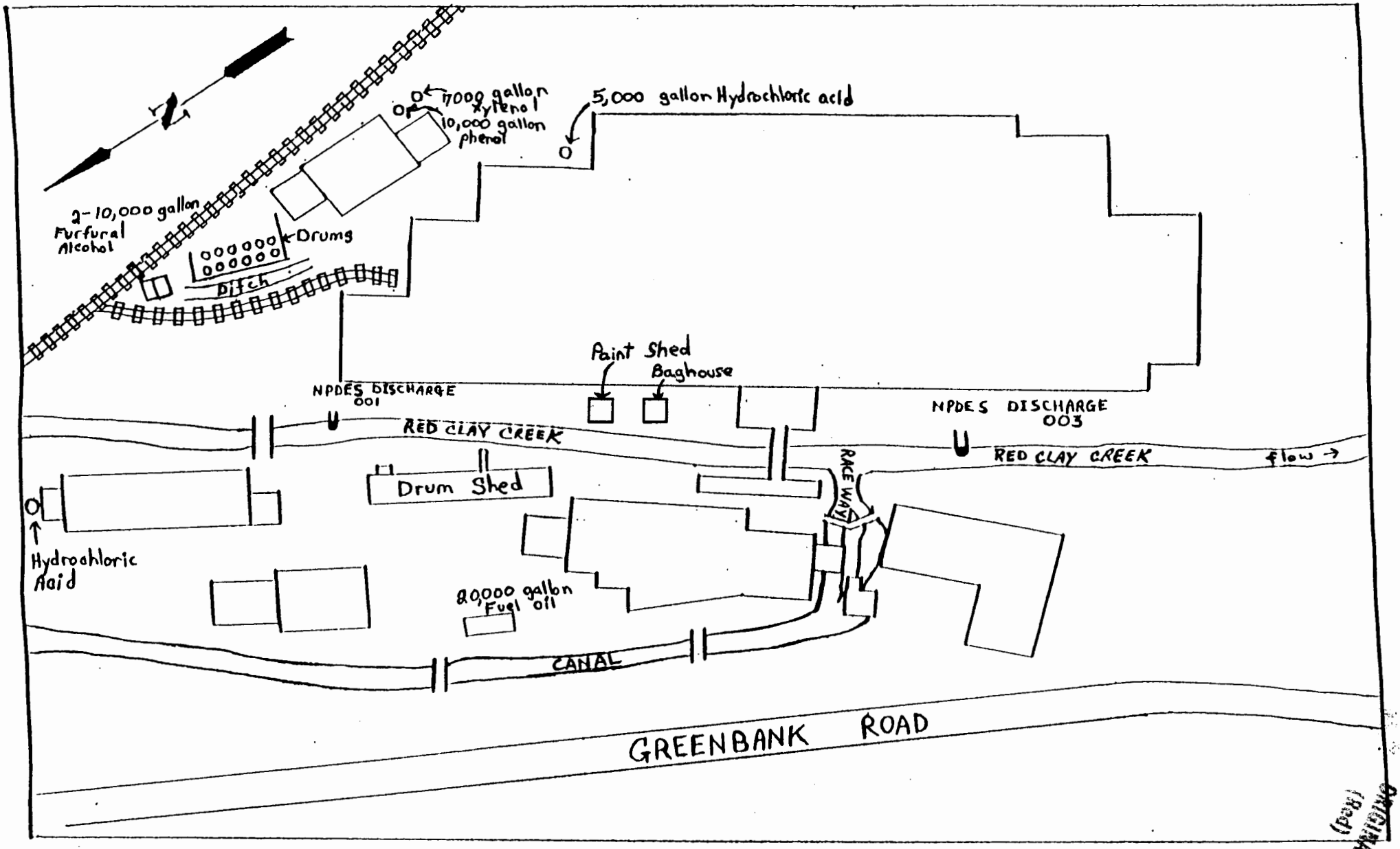
NO SCALE



SOURCE: U.S.G.S. Topographic Map - Newark, Delaware East Quadrangle and Wilmington, Delaware South Quadrangle.

FIGURE: 3

AMETEK SITE MAP



SOURCE: Ametek Inc. " Haveg Division" Survey Map. Revised 2/27/84.

FIGURE: 4

SITE DRAWING

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October 8, 1980 - Ametek Inc. purchased the site and is the current owner. Hercules Inc. retained some liability for materials used on-site prior to Ametek's ownership.[15]

The Investigation of the Ametek Inc. Site resulted from findings of asbestos at the Tisdel Property - Haveg Drum Site in 1985.

The Tisdel Property - Haveg Drum Site is located approximately one-half mile south of Ametek Inc. and was used for waste disposal prior to 1960. An inspection of the Tisdel Property indicated that an upstream sample of the Red Clay Creek contained questionable levels of asbestos.[16] Since the asbestos was detected in an upstream sample, Ametek Inc. was considered as a possible source.

A PA was performed on the Ametek Site in February of 1988 by the DE DNREC resulting in this Site Inspection Report.

Permits and Regulatory Action History

Ametek Inc. is permitted by DE DNREC for two (2) NPDES discharges. One for a spring water discharge and another for storm water discharge.[13] Ametek currently maintains 19 air permits for ventilation, baghouses, digestors, reactors, solvents storage, etc.[17] Ametek had applied for a permit for storage of 125 drums of hazardous waste which they withdrew in June of 1986.[18] Ametek currently has small quantity generator status.[4]

A PA was conducted on the Ametek Inc. Site by the DE DNREC in February of 1988.[19]

Remedial Action to Date

No known remedial action has occurred to date.[19]

ORIGINAL
(Red)

III. ENVIRONMENTAL SETTING

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Geohydrologic Setting

Two distinct geological provinces are found in New Castle County, Delaware. The northern quarter of the county lies in the Appalachian Piedmont Province, and the remainder of the county is part of the Atlantic Coastal Plain Province.

The Piedmont is characterized by gently rolling hills and is composed of crystalline metamorphic and igneous rocks. The surface of this complex slopes seaward and forms the basement upon which the sedimentary rocks of the Coastal Plain are deposited.

Physiographically, the border between these two provinces is marked by the Fall Zone (See Figure 4A). In the Fall Zone, the stream gradients increase as the streams flow from the Piedmont into the easily eroded Coastal Plain sediments. Rapids are formed on the crystalline basement where the sediment is removed.[20]

According to Woodruff and Thompson, 1972, the Ametek Inc. Site is situated on the Fall Zone. Specifically, it is underlain by felsic and mafic gneiss and minor schist of the Wilmington Complex.[21]

If Pleistocene-age sediments are present under the site, they are very thin. If present, the thickness of the Pleistocene water-table aquifer is between zero and ten feet (see Figure 5).

The hydrology of the Piedmont aquifers is difficult and complex. Generally, Piedmont rocks are relatively impermeable except for areas where weathering or fracturing has occurred.[22]

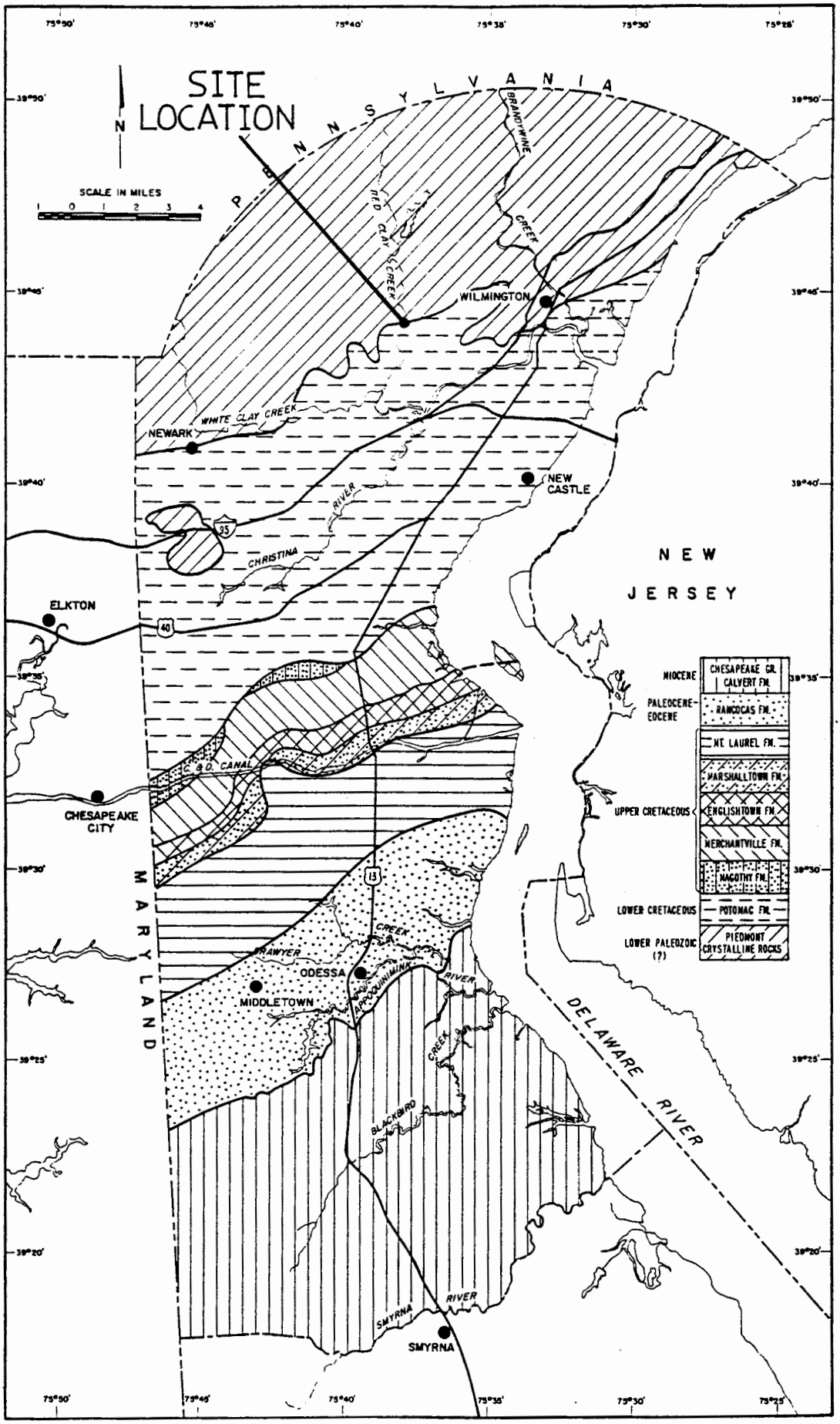
Depth to the groundwater in the area of the site is approximately five feet and is expected to flow towards the Red Clay Creek.[23]

Soils

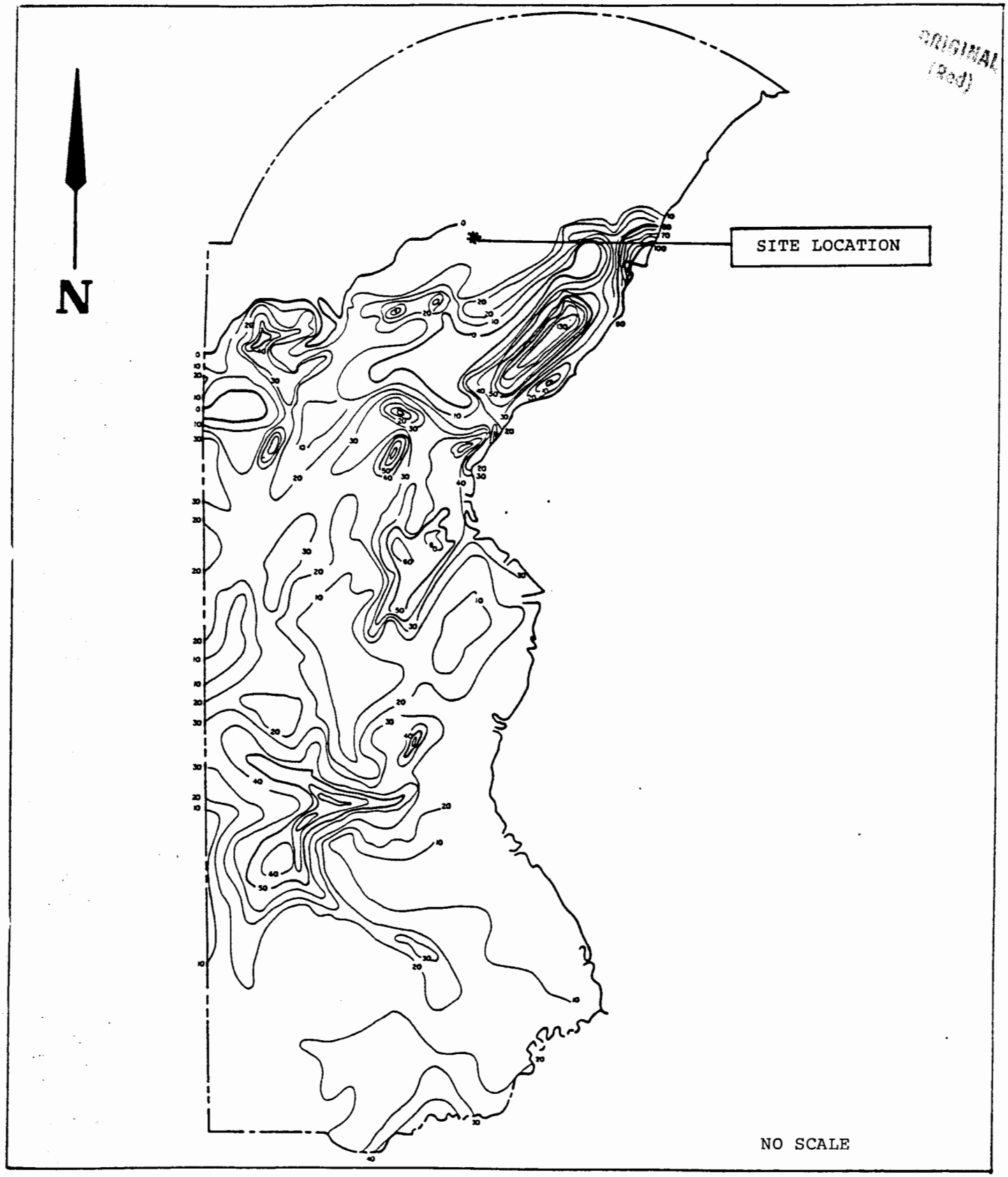
Soils at the site consists of the Othello-Fallsington Urban land complex (see Figure 6). The Othello-Fallsington-Urban land complex consists of poorly drained, nearly level Othello and Fallsington soils that have been used for residential, commercial and industrial development. Approximately two-thirds of this complex was originally Othello soils and one-third Fallsington soils. Approximately 25% of this has been relatively undisturbed. The remainder has been covered with up to 18 inches of fill. Soils of this complex are typically seasonally wet.

Since soils of this complex have been disturbed, a representative profile and specific permeability information is not available. The pH of these soils ranges from 4.5 to 5.5.[24]

ORIGINAL (Red)



GEOLOGIC MAP OF NEW CASTLE COUNTY (PLEISTOCENE REMOVED). FIGURE: 4A

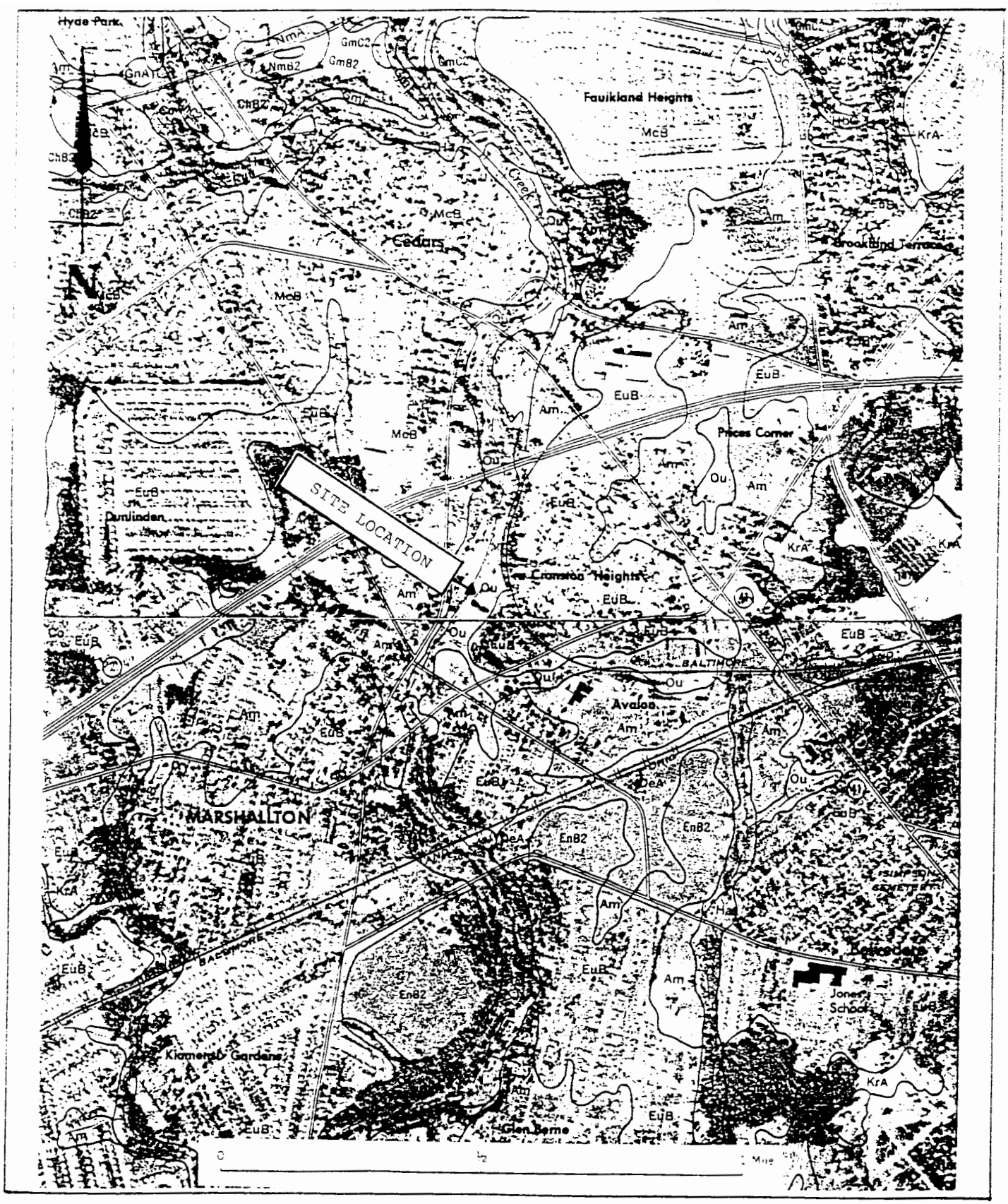


SOURCE: Sundstrom, Pickett and Varrin, 1976.

FIGURE: 5

THICKNESS OF THE PLEISTOCENE AQUIFER

(NEW CASTLE COUNTY)



SOURCE: Soil Survey of New Castle County, Delaware.

FIGURE: 6

SOIL MAP

SOIL LEGEND

The first capital letter is the initial one of the soil name. A second capital letter, A, B, C, or D shows the slope. Most symbols without a slope letter are those of nearly level soils, but some are for land types that have a considerable range of slope. The number, 2, in the symbol indicates that the soil is moderately eroded.

SYMBOL	NAME
Bd	Berryland loamy sand
Bo	Borrow pits
Co	Coastal beach and Dune land
El	Elkton sandy loam
Em	Elkton loam
EoB	Evesboro sand, 0 to 5 percent slopes
EoD	Evesboro sand, 5 to 15 percent slopes
EsD	Evesboro loamy sand, 5 to 15 percent slopes
EvA	Evesboro loamy sand, loamy substratum, 0 to 2 percent slopes
EvB	Evesboro loamy sand, loamy substratum, 2 to 5 percent slopes
Fa	Fallsington sandy loam
Fs	Fallsington loam
Ft	Fill land
Jo	Johnston silt loam
Ka	Kalmia sandy loam
KbA	Kenansville loamy sand, 0 to 2 percent slopes
KbB	Kenansville loamy sand, 2 to 5 percent slopes
KfA	Keyport fine sandy loam, 0 to 2 percent slopes
KfB2	Keyport fine sandy loam, 2 to 5 percent slopes, eroded
Kl	Klej loamy sand
Mm	Matawan loamy sand
Mn	Matawan sandy loam
Mu	Muck, shallow
Os	Osier loamy sand
Pm	Pocomoke sandy loam
Pt	Portsmouth loam
RuA	Rumford loamy sand, 0 to 2 percent slopes
RuB	Rumford loamy sand, 0 to 5 percent slopes
RuC	Rumford loamy sand, 5 to 10 percent slopes
Ry	Rutlege loamy sand
SaA	Sassafras sandy loam, 0 to 2 percent slopes
SaB	Sassafras sandy loam, 2 to 5 percent slopes
SaC2	Sassafras sandy loam, 5 to 10 percent slopes, eroded
SaD	Sassafras sandy loam, 10 to 15 percent slopes
SfA	Sassafras loam, 0 to 2 percent slopes
SfB	Sassafras loam, 2 to 5 percent slopes
Sw	Swamp
Tf	Tidal marsh, fresh
Tm	Tidal marsh, salty
Wo	Woodstown sandy loam
Ws	Woodstown loam

TABLE 1

ORIGINAL (Red)

Surface Water

The Ametek Inc. Site is located adjacent to the Red Clay Creek. Ametek has offices and buildings on the west side of the Creek and the operational facility is located on the east side of the Creek.[12] The Red Clay Creek originates in Pennsylvania and discharges into the White Clay Creek 2.3 stream miles downstream of the site. The White Clay Creek discharges into the Christina River 4.6 stream miles downstream of the site. The Christina River empties into the Delaware River 12.7 stream miles downstream of the site.[11]

Red Clay Creek's designated uses include:

- Public Supply
- Industrial Supply
- Primary Contact Recreation
- Secondary Contact Recreation
- Fish, Aquatic life and Wildlife
- Cold water Fishery
- Agricultural Supply

The Federal Clean Water Act "fishable-swimmable" use was "unattained" for fishable and "generally attained" for swimmable. Zinc, total phosphorus, total nitrogen and fecal coliform levels are all indicative of gross pollution. The sources include (in descending order of importance): industrial, non-point source runoff in Pennsylvania and municipal discharges in Pennsylvania.

The (NPDES) permitted discharges on the Red Clay Creek include:[25]

NAME	TYPE	FLOW (MGD)
Haveg-Ametek Inc.	Glass and Plastics Processing	0.01
Greenville CC	Sewage Treatment Plant	0.015
Hercules Inc.	Chemical Laboratories	0.35
NVF Yorklyn	Pulp and Papers	2.99
Center for Creative Arts	Sewage Treatment Plant	0.0015
Q-C Inc.	Sewage Treatment Plant	0.0002*

Approximately 1,500 feet south and downstream of the site is a freshwater wetland ecosystem of approximately six acres. (See Figure 7). This wetland is classified as PFO1A. This classification is broken down as follows:[26]

P - Palustrine
FO - Forested
F1 - Broad Leaved deciduous
FA - Temporary

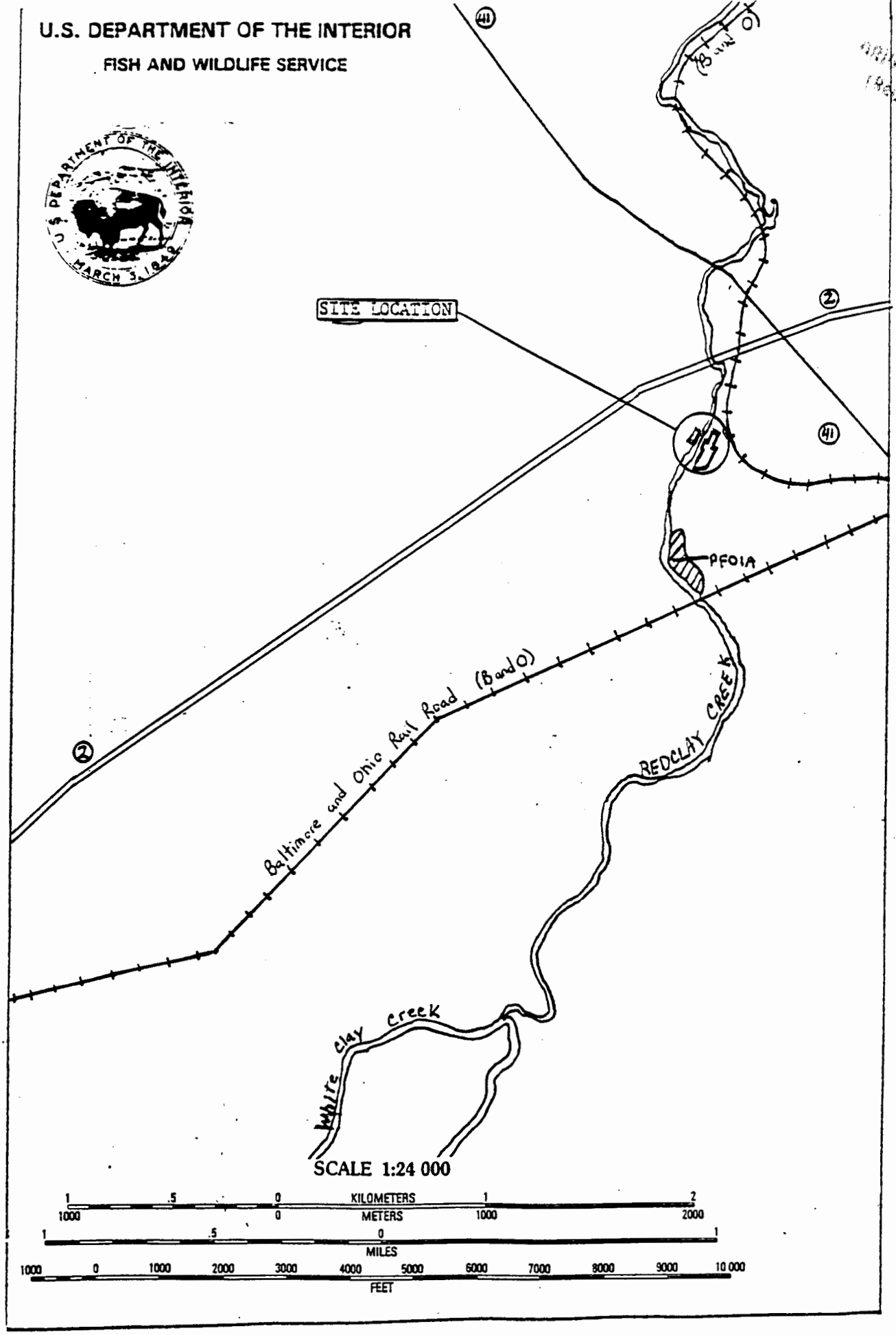


FIGURE: 7

WETLAND MAP

Critical Environments

A Delaware Natural Heritage Inventory search revealed the following rare species in two areas within a one mile radius of the Ametek Inc. Site:[34] (See Figure 8).

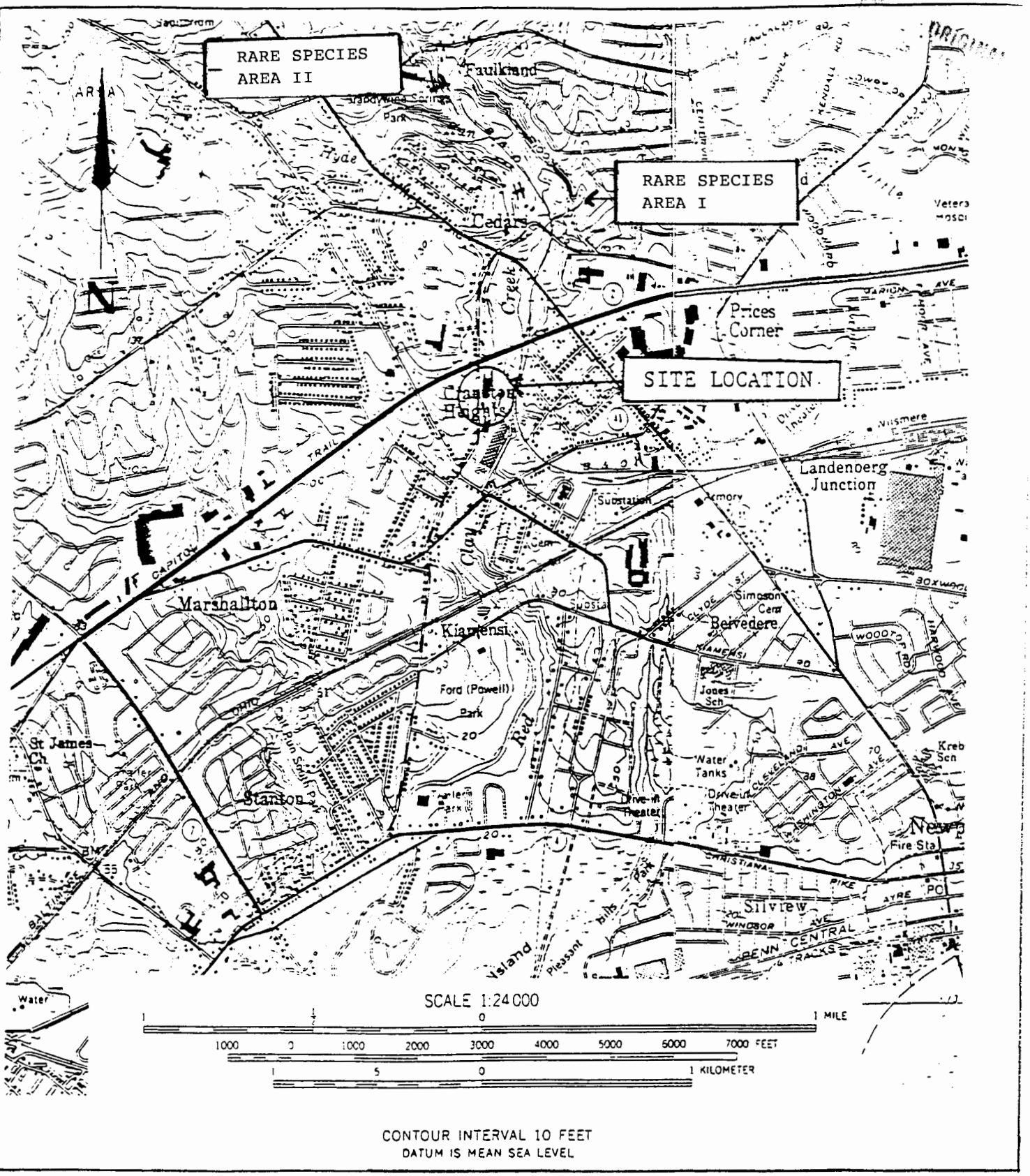
AREA I

Scientific Name	Common Name	Rank
o Desmodium glutinosum	Large Tick-Trefoil	S1

AREA II

Scientific Name	Common Name	Rank
o Aster schreberi	Shreber Aster	S1
o Carex umbellata	A Sedge	S1
o Asclepias exaltata	Poke Milkweed	S1

S1 = Typically five or fewer occurrences, very few remaining individuals, acres, or miles of stream or some factor of its biology making it especially vulnerable in Delaware.



SOURCE: U.S.G.S. Topographic Map - Newark, Delaware East Quadrangle and Wilmington, Delaware South Quadrangle.

FIGURE: 8

RARE SPECIES - LOCATION MAP

ORIGINAL
(Red)

IV. WASTE TYPES AND QUANTITIES

ORIGINAL (Red)

IV. WASTE TYPES AND QUANTITIES

No known waste disposal has occurred on site. Ametek is a small quantity generator of hazardous wastes and generates approximately 13-55 gallon drums per year. Wastes generated include: isopropyl alcohol, furfuryl alcohol, acetone, butyl alcohol, benzyl sulfonic acid and caustic sludge. These wastes are disposed of off-site.[2,4] Historically, asbestos was captured in bag houses and then disposed of off site.

ORIGINAL
(Red)

V. FIELD TRIP REPORT

V. FIELD TRIP REPORT

Summary

On October 24, 1989 a Site Inspection that included sampling was conducted at the Ametek Inc. Site. Weather conditions were sunny with temperatures in the low 60's . The DE DNREC personnel in attendance were Bruce Cole, Jamie Hackney and Brad Smith. Also present were Joe Craig and Bob Becker of Ametek Inc., Kevin Kirpatrick of Hercules Inc. (Hercules is a past site owner) and Chris Goss of ERM Inc. representing Ametek.

Prior to the Site Inspection, the EPA approved sampling plan and site safety plan was reviewed and a decontamination area established.

A total of eight aqueous and ten soil/sediment samples (including duplicates and blanks) were collected for priority pollutant analysis (including cyanide) and eleven aqueous and eight soil/sediment samples (including duplicates and blanks) were collected for asbestos analysis (see Figure 9 and sample log) in accordance with the DE DNREC Quality Assurance Project Plan.[12]

Site Observations

- No Hnu readings above background were detected.
- Soil sample AM-14 was obtained near the discharge area of the PVC pipe which appeared to drain the drum shed.
- Soil sample AM-15 was obtained from a ditch which appeared to receive runoff from the drum pad area and the area supporting the furfural alcohol tanks.
- Soil sample AM-16 was obtained from the soil adjacent to a drainage pipe which ran underneath the production building.
- Soil sample AM-17 and AM-18 was obtained along the bank of the Red Clay Creek in an area that received drainage from a storage shed containing paint and was also near the baghouse which caught fire in 1977.
- Surface water sample AM-7 was collected from NPDES outfall 001 (spring water). A sediment sample AM-8 was taken near the outfall.
- Surface water AM-9 and sediment AM-10 samples were collected near outfall 003 (storm water). There was no discharge from outfall 003 at the time of the sampling.
- Upstream and downstream surface water and sediment samples were also collected. (See Figure 9).
- Splite samples were provided to Ametek Inc.

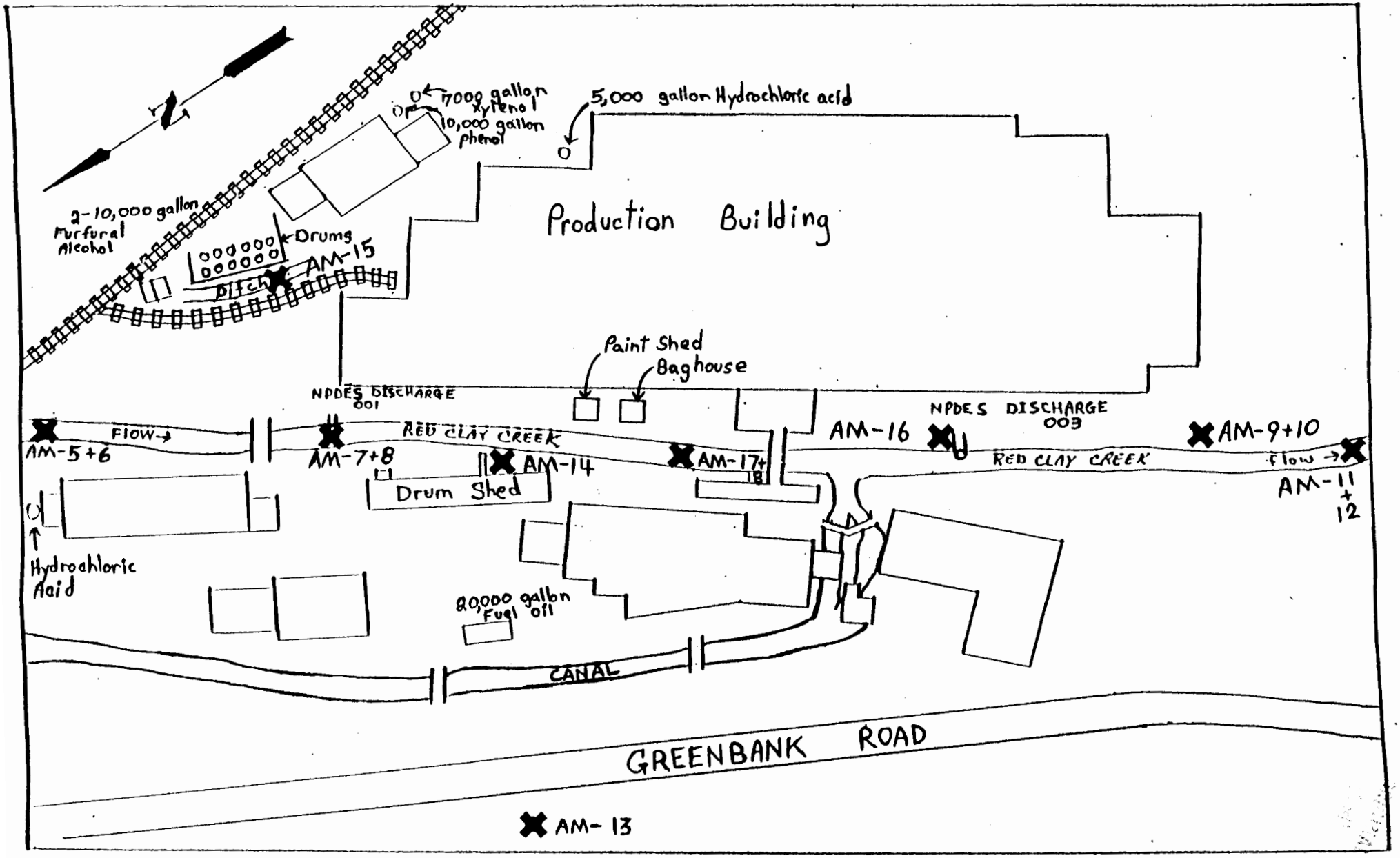


FIGURE: 9

SAMPLE LOCATION MAP

Case ~~TDD~~ Number 13022

EPA Number

SAMPLE LOG

Site Name Ametek, Inc

TRAFFIC REPORTS Organic	Inorganic	SAS 4970C ~~High Hazard~~	SAMPLING LOCATION	PHASE	SAMPLE DESCRIPTION	DATE	TIME	pH	COMMENTS/OBSERVATIONS	LABORATORY
CBZ-77	—		AM-1	Aqueous	Trip Blank	10/24/89	0950			
CBZ-70	037190	TASK 2-01	AM-2	Aqueous	Field Blank		0955			
CBZ-71	037200	TASK 2-02	AM-3	Aqueous	Equipment Blank		1615			
CBZ-72	037210	TASK 2-03	AM-4	Aqueous	Field Duplicate of AM-11		1345			
CBZ-74	03720	TASK 2-04 & 05	AM-5	Aqueous	Upstream Surface H_2O (Lab Duplicate)		1526	6.90	temp = 14.0°C	
CBZ-78	037260	TASK 1-01	AM-6	Solid	Upstream Sediment		1530			
CBZ-73	037230	TASK 2-06	AM-7	Aqueous	NPDES Outfall 001		1450	7.11	temp = 18.1°C	
CBZ-80	037270	TASK 1-02	AM-8	Solid	NPDES Outfall 001 Sediment		1458			
CBZ-75	037240	TASK 2-07	AM-9	Aqueous	Midstream Surface H_2O		1400	7.50	temp = 11.3°C	
CBZ-79	037280	TASK 1-03	AM-10	Solid	Midstream Sediment at NPDES Outfall 003		1405			
CBZ-76	037250	TASK 2-08	AM-11	Aqueous	Downstream Surface H_2O		1338	7.43	temp = 12.5°C	
CBZ-81	037290	TASK 1-04	AM-12	Solid	Downstream Sediment		1350			
CBZ-82	037300	TASK 1-05	AM-13	Solid	Background Soil		1019			
CBZ-83	037310	TASK 1-06	AM-14	Solid	Soil		1046			
CBZ-84	037320	TASK 1-07 + 08	AM-15	Solid	Soil - Lab Duplicate		1115			
CBZ-85	037330	TASK 1-09	AM-16	Solid	Soil		1150			
CBZ-86	037340	TASK 1-10	AM-17	Solid	Soil		1209			
CBZ-87	037350	TASK 1-11	AM-18	Solid	Soil - Field Duplicate of AM-17		1215			

SAS request for asbestoes

EPA REGION III
SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID # 414478
PAGE # _____

IMAGERY COVER SHEET
UNSCANNABLE ITEM

Contact the CERCLA Records Center to view this document.

SITE NAME AMETEK, INC

OPERABLE UNIT 00

SECTION/BOX/FOLDER 1C Box 1 1.002

REPORT OR DOCUMENT TITLE Site Inspection (SI)

DATE OF DOCUMENT July 17, 1990

DESCRIPTION OF IMAGERY Site Photos

NUMBER AND TYPE OF IMAGERY ITEM(S) 15 site photos

ORIGINAL

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
DE	176

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Ametek, Inc.	900 Greenbank Road

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Wilmington	DE	19899	New Castle		

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
39°44' 12".0	075° 38' 07".0	☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION (MONTH DAY YEAR)	02 SITE STATUS	03 YEARS OF OPERATION
10-24-89	☒ ACTIVE ☐ INACTIVE	Unknown (BEGINNING YEAR) Present (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR _____ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☒ E. STATE ☐ F. STATE CONTRACTOR _____ (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Jamie Hackney	Environmental Scientist	DE DNREC	(302) 323-4540

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Bruce Cole	Environmental Scientist	DE DNREC	(302) 323-4540
Brad L. Smith	Environ. Proj. Manager	DE DNREC	(302) 323-4540
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Joe Craig	Plant Mgr.	Ametek, Inc. 900 Greenbank Rd., Wilm.	(302) 995-0445
Bob Beker	Environ.Coord	Ametek, Inc. 900 Greenbank Rd. Wilmington, DE	(302) 995-0445
Dudley Barton	General Manager	Ametek, Inc. 900 Greenbank Rd. Wilmington, DE	(302) 995-0445
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	0915 - 1640	Sunny - low 60's

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Brad L. Smith	DE DNREC	(302) 323-4540

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE (MONTH DAY YEAR)
Brad L. Smith	DE DNREC	DAWM	302-323-4540	03 20 90

EPA FORM 2070-13 (7-81)

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
DE	176

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☒ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____
CUBIC YARDS Unknown
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC
- ☒ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☒ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS		10 drums/yr.	Disposed of off-site
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES		3 drums/yr.	Disposed of off-site
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
IOC	Arsenic	N/A	Soil	34.1L	PPM
IOC	Cadmium	N/A	Soil	11.8	PPM
IOC	Calcium	N/A	Soil	6120J	PPM
IOC	Copper	N/A	Soil	198	PPM
IOC	Iron	N/A	Soil	83,000	PPM
IOC	Lead	N/A	Soil	204	PPM
IOC	Magnesium	N/A	Soil	5420	PPM
IOC	Manganese	N/A	NPDES effluent 001	206	PPB
IOC	Nickel	7440-02-0	Soil	50.3	PPM
IOC	Zinc	N/A	Soil	1710	PPM
OCC	Trichloroethene	N/A	Sediment	4 J	PPB
OCC	Total-1,2-Dichloroethene	N/A	Sediment	5 J	PPB
OCC	Phenol	108-95-2	Soil	2800 J	PPB
OCC	Benzyl Alcohol	N/A	Soil	830 J	PPB
OCC	4-Methylphenol	N/A	Sediment	290 J	PPB
OCC	2,4-Dimethylphenol	N/A	Soil	870	PPB

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
DE	176

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	Benzoic Acid	65-85-0	Sediment	350 J	PPB
OCC	Naphthalene	91-20-3	Sediment	330 J	PPB
OCC	2-Methylnaphthalene	N/A	Soil	180 J	PPB
OCC	Acenaphthylene	N/A	Soil	250 J	PPB
OCC	Acenaphthene	N/A	Sediment	290 J	PPB
OCC	Dibenzofuran	N/A	Soil	250 J	PPB
OCC	Fluorene	N/A	Soil	350 J	PPB
OCC	Pentachlorophenol	87-86-5	Sediment	69 J	PPB
OCC	Phenanthrene	85-01-8	Soil	4400 J	PPB
OCC	Anthracene	N/A	Soil	560 J	PPB
OCC	Di-n-butylphthalate	N/A	Soil	2100 J	PPB
OCC	Fluoranthene	206-44-0	Soil	7600 J	PPB
OCC	Pyrene	N/A	Soil	5500 J	PPB
OCC	Butylbenzylphthalate	N/A	Soil	5200 J	PPB
OCC	Benzo(a)anthracene	N/A	Soil	3600 J	PPB
OCC	Chrysene	N/A	Soil	3500 J	PPB

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
DE	176

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____

CUBIC YARDS _____

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	bis(2-Ethylhexyl) phthalate	N/A	Soil	7100 J	PPB
OCC	Benzo(b) fluoranthene	N/A	Soil	3600 J	PPB
OCC	Benzo(k) fluoranthene	N/A	Soil	3100 J	PPB
OCC	Benzo(a)pyrene	N/A	Soil	2900 J	PPB
OCC	Indeno(1,2,3-cd)pyrene	N/A	Soil	840 J	PPB
OCC	Dibenz(a,h)anthracene	N/A	Soil	410 J	PPB
OCC	Benzo(g,h,i)perylene	N/A	Soil	680 J	PPB
IOC	Chrysotile	N/A	Soil	2	%
IOC	Actinolite	N/A	Surface Water	0.044	MFL
IOC	Tremolite	N/A	Surface Water	0.044	MFL
			MFL=Million Fibers per Liter		

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

DE DNREC Site Inspection, October 24, 1989.

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
DE	176

II. HAZARDOUS CONDITIONS AND INCIDENTS *(Continued)*

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

UNKNOWN

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION *(Include name(s) of species)*

UNKNOWN

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

UNKNOWN

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES *(Spills/Runoff/Standing liquids, Leaking drums)* — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

UNKNOWN

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

UNKNOWN

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

UNKNOWN

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

UNKNOWN

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

UNKNOWN

III. TOTAL POPULATION POTENTIALLY AFFECTED: 90,000

IV. COMMENTS

V. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

DE DNREC Site Inspection Report March 1990.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION ORIGINAL (Red)

01 STATE	02 SITE NUMBER
DE	176

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☒ A. NPDES	DE 221			
☐ B. UIC				
☒ C. AIR	Various			Generally in compliance
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☒ C. DRUMS, ABOVE GROUND	13	drums/yr.
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)
- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☒ H. OTHER (Specify) disposed of off-site

05 OTHER
- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE: 6 (Acres)

07 COMMENTS

On January 24, 1977, one of Ametek's three Hoffman baghouses and two exhaust blowers on the asbestos collection system had burned. APC 75/30-0 requires that no visible emissions leave the baghouse.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☒ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

Drums located on cement; no diking.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

Plant is fenced.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

DE DNREC Site Inspection Report, March 1990.

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
DE	176

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☒ A. NPDES	DE 221			
☐ B. UIC				
☒ C. AIR	Various			Generally in compliance
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☒ C. DRUMS, ABOVE GROUND	13	drums/yr.
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☒ H. OTHER (Specify) disposed of off-site

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

6 (Acres)

07 COMMENTS

On January 24, 1977, one of Ametek's three Hoffman baghouses and two exhaust blowers on the asbestos collection system had burned. APC 75/30-0 requires that no visible emissions leave the baghouse.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☒ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

Drums located on cement; no diking.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

Plant is fenced.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

DE DNREC Site Inspection Report, March 1990.

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
DE	176

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☒ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☒ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
5 (ft)	Unknown (ft)	4.5-5.5

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
5.8 (in)	3.8 (in)	5 %	Toward Red Clay Creek	5 %

09 FLOOD POTENTIAL

SITE IS IN Unknown YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. N/A (mi)

OTHER: B. Freshwater Wetland 1/4 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

1/4 (mi)

ENDANGERED SPECIES: Wetland

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. < 1/4 (mi)	B. < 1/4 (mi)	C. N/A (mi)	D. N/A (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is located on both sides of the Red Clay Creek. Both sides of the site slope towards the Red Clay Creek at approximately 5%.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

DE DNRED Site Inspection Report, March 1990.

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
DE	176

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER	8	Organic: Atec	N/A
WASTE			
AIR		Inorganic: DE DNREC technical services	
RUNOFF			
SPILL		Asbestos: Kemron	
SOIL	11		
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Hnu	No readings above background.

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF DE DNREC (Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS In report - DE DNREC

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

N/A

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

DE DNREC Site Inspection Report, March 1990.

EPA FORM 2070-13 (7-81)

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
DE	176

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Ametek, Inc.		900 Greenbank Road		Wilmington	DE	19899
N/A						
N/A						

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE
Unknown						
N/A						
N/A						

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Hercules Inc.		Hercules Plaza		Wilmington	DE	19894
Haveg Corporation		Unknown				
Budd Company/ Continental Diamond Fiber		Unknown				

IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Unknown						
N/A						
N/A						

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

DE DNREC Site Inspection Report, March 1990.

ORIGINAL

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
DE	176

II. CURRENT OPERATOR *(Provide if different from owner)*

01 NAME	02 D+B NUMBER
Ametek, Inc.	

03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE
900 Greenbank Road	

05 CITY	06 STATE	07 ZIP CODE
Wilmington,	DE	19899

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY *(If applicable)*

10 NAME	11 D+B NUMBER
Unknown	

12 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) *(List most recent first; provide only if different from owner)*

01 NAME	02 D+B NUMBER
Haveg Industries	

03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE
Unknown	

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES *(If applicable)*

10 NAME	11 D+B NUMBER
Unknown	

12 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER
Haveg Corporation	

03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE
Unknown	

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER
N/A	

12 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER
Continental Diamond Fiber	

03 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	04 SIC CODE
Unknown	

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER
N/A	

12 STREET ADDRESS *(P.O. Box, RFD #, etc.)*	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

DE DNREC Site Inspection Report, March 1990.

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
DE	176

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Ametek	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Unknown		N/A	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Unknown		N/A	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Unknown		N/A	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		N/A	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

DE DNREC Site Inspection Report, March 1990.

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
DE	176

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
DE	176

II PAST RESPONSE ACTIVITIES *(Continued)*

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

DE DNREC Site Inspection Report, March 1990.

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
DE	176

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

---NPDES and Air Permits

---Preliminary Assessment, February 1983

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

DE DNREC Site Inspection Report, March 1990.

EPA FORM 2070-13 (7-81)

ORIGINAL
(Red)

VI. REFERENCES

ORIGINAL (Red)

VI. REFERENCES

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ORIGINAL (Red)

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ORIGINAL (Red)

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ORIGINAL
(Red)

VII. LABORATORY DATA

DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: AMETEK, INC

WATER SAMPLES (ug/L)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit: (CRQL * Dilution Factor)

	Sample No.	CB270		CB271		CB272		CB273		CB274		CB275		CB276		CB277			
	Dilution Factor	1		1		1		1		1		1		1		1			
	Location	AM-2		AM-3		AM-4		AM-7		AM-5		AM-9		AM-11		AM-1			
RQL	COMPOUND																		
10	Chloromethane		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		
10	Bromomethane		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		
10	*Vinyl Chloride																		
10	Chloroethane		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		
5	*Methylene Chloride							2	B			2	B						
10	Acetone		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		
5	Carbon Disulfide																		
5	*1,1-Dichloroethene																		
5	1,1-Dichloroethane																		
5	*Total-1,2-Dichloroethene																		
5	Chloroform																		
5	*1,2-Dichloroethane																		
10	*2-Butanone																		
5	*1,1,1-Trichloroethane																		
5	*Carbon Tetrachloride																		
10	Vinyl Acetate		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		
5	Bromodichloromethane																		

CRQL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

ORIGINAL (Red)

DATA SUMMARY FORM: V O L A T I L E S 2

WATER SAMPLES (ug/L)

Site Name: AMETEK, INC.

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit: (CRQL * Dilution Factor)

	Sample No.	CBZ70		CBZ71		CBZ72		CBZ73		CBZ74		CBZ75		CBZ76		CBZ77			
	Dilution Factor	1		1		1		1		1		1		1		1			
	Location	AM-2		AM-3		AM-4		AM-7		AM-5		AM-9		AM-11		AM-1			
L	COMPOUND																		
	*1,2-Dichloropropane																		
	Cis-1,3-Dichloropropene		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		
	Trichloroethene																		
	Dibromochloromethane																		
	1,1,2-Trichloroethane		UJ																
	*Benzene		UL		UL		UL		UL		UL		UL		UL		UL		
	Trans-1,3-Dichloropropene																		
	Bromoform																		
	4-Methyl 2-pentanone																		
	2-Hexanone		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		
	*Tetrachloroethene																		
	1,1,2,2-Tetrachloroethane																		
	*Toluene		UL		UL		UL		UL		UL		UL		UL		UL		
	*Chlorobenzene		↓		↓		↓		↓		↓		↓		↓		↓		
	*Ethylbenzene																		
	*Styrene																		
	*Total Xylenes		↓		↓		↓		↓		↓		↓		↓		↓		

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

ORIGINAL (Red)

DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: AMETEK, INC.

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit: (CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CBZ78		CBZ79		CBZ80		CBZ81		CBZ82		CBZ83		CBZ84		CBZ85		CBZ86	
	Dilution Factor	1		1		1		1		1		1		1		1		1	
	% Moisture	33		34		28		45		23		32		73		31		31	
	Location	AM-6		AM-10		AM-8		AM-12		AM-13		AM-11		AM-15		AM-16		AM-17	
CRQL	COMPOUND																		
10	Chloromethane																		
10	Bromomethane																		
10	Vinyl Chloride																		
10	Chloroethane																		
5	Methylene Chloride	46	B	52	B	54	B	61	B	24	B	36	B	56	B	20	B	22	B
10	Acetone	12	B	12	B	31	B	26	B	10	B	12	B	26	B	10	B	10	B
5	Carbon Disulfide		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
5	1,1-Dichloroethene																		
5	1,1-Dichloroethane		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
5	Total-1,2-Dichloroethene							5	J										
5	Chloroform																		
5	1,2-Dichloroethane		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
10	2-Butanone		↓		↓		↓		↓		↓		↓		↓		↓		↓
5	1,1,1-Trichloroethane																		
5	Carbon Tetrachloride		↓		↓		↓		↓		↓		↓		↓		↓		↓
10	Vinyl Acetate																		
5	Bromodichloromethane																		

CRDL = Contract Required Detection Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

ORIGINAL (Red)

DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: AMETEK, INC.

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CBZ78		CBZ79		CBZ80		CBZ81		CBZ82		CBZ83		CBZ84		CBZ85		CBZ86	
	Dilution Factor	1		1		1		1		1		1		1		1		1	
	% Moisture	33		34		28		45		23		32		43		31		31	
	Location	AM-6		AM-10		AM-8		AM-12		AM-13		AM-14		AM-15		AM-16		AM-17	
DL	COMPOUND																		
	1,2-Dichloropropane																		
	Cis-1,3-Dichloropropene																		
	Trichloroethene							4	J										
	Dibromochloromethane																		
	1,1,2-Trichloroethane																		
	Benzene		UL		UL		UL		UL		UL		UL		UL		UL		UL
	Trans-1,3-Dichloropropene																		
	Bromoform		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
D	4-Methyl-2-pentanone																		
D	2-Hexanone																		
	Tetrachloroethene																		
	1,1,2,2-Tetrachloroethane																		
	Toluene		UL		UL		UL		UL		UL		UL		UL		UL		UL
	Chlorobenzene		↓		↓		↓		↓		↓		↓		↓		↓		↓
	Ethylbenzene																		
	Styrene																		
	Total Xylenes		↓		↓		↓		↓		↓		↓		↓		↓		↓

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: AMETEK, INC.

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/21/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CBZ87																			
	Dilution Factor	1																			
	% Moisture	29																			
	Location	AM1-18																			
QL	COMPOUND																				
0	Chloromethane																				
0	Bromomethane																				
0	Vinyl Chloride																				
0	Chloroethane																				
5	Methylene Chloride	16	B																		
10	Acetone	7	B																		
5	Carbon Disulfide																				
5	1,1-Dichloroethene																				
5	1,1-Dichloroethane																				
5	Total-1,2-Dichloroethene																				
5	Chloroform																				
5	1,2-Dichloroethane																				
10	2-Butanone																				
5	1,1,1-Trichloroethane																				
5	Carbon Tetrachloride																				
10	Vinyl Acetate																				
5	Bromodichloromethane																				

CRDL = Contract Required Detection Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: AMETEK INC,

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CBZ87																			
	Dilution Factor	1																			
	% Moisture	29																			
	Location	AM-18																			
CRQL	COMPOUND																				
5	1,2-Dichloropropane																				
5	Cis-1,3-Dichloropropene																				
5	Trichloroethene																				
5	Dibromochloromethane																				
5	1,1,2-Trichloroethane																				
5	Benzene		UL																		
5	Trans-1,3-Dichloropropene																				
5	Bromoform		UJ																		
10	4 Methyl 2 pentanone																				
10	2-Hexanone																				
5	Tetrachloroethene																				
5	1,1,2,2-Tetrachloroethane																				
5	Toluene		UL																		
5	Chlorobenzene																				
5	Ethylbenzene																				
5	Styrene																				
5	Total Xylenes																				

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/00

ORIGINAL (Red)

DATA SUMMARY FORM: B N A S 1

WATER SAMPLES
(ug/L)

Site Name: AMETEK, INC

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor)

	Sample No.	CBZ 70		CBZ 71		CBZ 72		CBZ 73		CBZ 74		CBZ 75		CBZ 76					
	Dilution Factor	1		1		1		1		1		1		1					
	Location	AM-2		AM-3		AM-4		AM-7		AM-5		AM-9		AM-11					
	COMPOUND																		
	Phenol																		
	bis(2-Chloroethyl)ether																		
	2-Chlorophenol																		
	*1,3-Dichlorobenzene																		
	*1,4-Dichlorobenzene																		
	Benzyl Alcohol								UJ										
	1,2-Dichlorobenzene																		
	2-Methylphenol																		
	bis(2-Chloroisopropyl)ether		UJ		UJ		UJ				UJ		UJ		UJ				
	4-Methylphenol								UJ										
	N-Nitroso-di-n-propylamine																		
	Hexachloroethane																		
	Nitrobenzene																		
	Isophorone																		
	2-Nitrophenol																		
	2,4-Dimethylphenol																		
	Benzoic Acid		UJ		UJ		UJ				UJ		UJ		UJ				
	bis(2-Chloroethoxy)methane																		
	2,4-Dichlorophenol																		
	1,2,4-Trichlorobenzene																		
	Naphthalene		UJ		UJ		UJ				UJ		UJ		UJ				
	4-Chloroaniline																		

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

ORIGINAL (Red)

DATA SUMMARY FORM: B N A S 2

Site Name: AMETEK, INC

Case #: 13022 Sampling Date(s): 10/24/89

WATER SAMPLES
(ug/L)

To calculate sample quantitation limit:
(CRQL * Dilution Factor)

	Sample No.	CBZ 70		CBZ 71		CBZ 72		CBZ 73		CBZ 74		CBZ 75		CBZ 76					
	Dilution Factor	1		1		1		1		1		1		1					
	Location	AM-2		AM-3		AM-4		AM-7		AM-5		AM-9		AM-11					
nOL	COMPOUND																		
10	Hexachlorobutadiene																		
10	4-Chloro-3 methylphenol																		
10	2-Methylnaphthalene																		
10	Hexachlorocyclopentadiene																		
10	2,4,6-Trichlorophenol																		
50	2,4,5-Trichlorophenol																		
10	2-Chloronaphthalene																		
50	2-Nitroaniline																		
10	Dimethylphthalate																		
10	Acenaphthylene																		
10	2,6 Dinitrotoluene																		
50	3 Nitroaniline																		
10	Acenaphthene																		
50	2,4 Dinitrophenol																		
50	4-Nitrophenol																		
10	Dibenzofuran																		
10	2,4 Dinitrotoluene																		
10	Diethylphthalate																		
10	4-Chlorophenyl phenylether																		
10	Fluorene		4J		4J		4J				4J		4J		4J				
50	4-Nitroaniline																		
50	4,6 Dinitro 2-methylphenol																		

CRQL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: B N A S 3

Site Name: AMETEK, INC

WATER SAMPLES
(ug/L)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor)

CRDL	COMPOUND	CBZ 70		CBZ 71		CBZ 72		CBZ 73		CBZ 74		CBZ 75		CBZ 76					
	Dilution Factor	1		1		1		1		1		1		1					
	Location	Am-2		Am-3		Am-4		Am-7		Am-5		Am-9		Am-11					
10	N-Nitrosodiphenylamine																		
10	4-Bromophenyl phenylether																		
10	*Hexachlorobenzene		UJ		UJ		UJ				UJ								
50	*Pentachlorophenol																		
10	Phenanthrene																		
10	Anthracene																		
10	Di-n-butylphthalate																		
10	Fluoranthene																		
10	Pyrene																		
10	Butylbenzylphthalate																		
20	3,3-Dichlorobenzidine		UJ		UJ		UJ				UJ								
10	Benzo(a)anthracene																		
10	Chrysene																		
10	bis(2-Ethylhexyl)phthalate			3	B									2	B				
10	Di-n-octylphthalate																		
10	Benzo(b)fluoranthene																		
10	Benzo(k)fluoranthene												UJ		UJ				
10	Benzo(a)pyrene																		
10	Indeno(1,2,3-cd)pyrene																		
10	Dibenz(a,h)anthracene																		
10	Benzo(g,h,i)perylene																		

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: B N A S 1

Site Name: AMETEK, INC

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit: (CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CBZ 78		CBZ 79		CBZ 80		CBZ 81		CBZ 82		CBZ 83		CBZ 84		CBZ 85		CBZ 86	
	Dilution Factor	1		1		1		1		1		1		1		1		1	
	% Moisture	33		34		28		45		23		32		73		31		31	
	Location	AM-6		AM-10		AM-8		AM-12		AM-13		AM-14		AM-15		AM-16		AM-17	
CRQL	COMPOUND																		
330	Phenol		UJ	51	J		UJ		UJ		UJ		UJ		UJ	160	J	2800	J
330	bis(2-Chloroethyl)ether				UJ						UJ						UJ		UJ
330	2-Chlorophenol																		
330	1,3-Dichlorobenzene																		
330	1,4-Dichlorobenzene																		
330	Benzyl Alcohol										UJ					100	J	830	J
330	1,2-Dichlorobenzene																UJ		UJ
330	2-Methylphenol										UJ								
330	bis(2-Chloroisopropyl)ether		UJ		UJ		UJ		UJ				UJ		UJ		UJ		UJ
330	4-Methylphenol			290	J	200	J				UJ					240	J	70	J
330	N-Nitroso-di-n-propylamine		UJ		UJ		UJ		UJ				UJ		UJ		UJ		UJ
330	Hexachloroethane																		
330	Nitrobenzene		UJ		UJ		UJ		UJ				UJ		UJ		UJ		UJ
330	Isophorone		UJ		UJ		UJ		UJ				UJ		UJ		UJ		UJ
330	2-Nitrophenol																		
330	2,4-Dimethylphenol															870		130	J
1600	Benzoic Acid		UJ		UJ	350	J	84	J		UJ		UJ		UJ		UJ	280	J
330	bis(2-Chloroethoxy)methane						UJ		UJ		UJ								UJ
330	2,4-Dichlorophenol																		
330	1,2,4-Trichlorobenzene																		
330	Naphthalene					330	J									230	J	84	J
330	4-Chloroaniline						UJ				UJ						UJ		UJ

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/00

DATA SUMMARY FORM: B N A S 2

Site Name: AMETEK, INC.

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit: (CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CBZ 78		CBZ 79		CBZ 80		CBZ 81		CBZ 82		CBZ 83		CBZ 84		CBZ 85		CBZ 86	
	Dilution Factor	1		1		1		1		1		1		1		1		1	
	% Moisture	33		34		28		45		23		32		73		31		31	
	Location	AM-6		AM-10		AM-8		AM-12		AM-13		AM-14		AM-15		AM-16		AM-17	
CRQL	COMPOUND																		
330	Hexachlorobutadiene		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
330	4-Chloro-3-methylphenol																		
330	2-Methylnaphthalene					77	J					71	J			180	J	110	J
330	Hexachlorocyclopentadiene						UJ						UJ				UJ		UJ
330	2,4,6-Trichlorophenol																		
1600	2,4,5-Trichlorophenol																		
330	2-Chloronaphthalene																		
1600	2-Nitroaniline		UJ		UJ		UJ		UJ				UJ		UJ		UJ		UJ
330	Dimethylphthalate																		UJ
330	Acenaphthylene															250	J		
330	2,6-Dinitrotoluene										UJ						UJ		UJ
1600	3-Nitroaniline										UJ								
330	Acenaphthene					290	J									260	J	99	J
1600	2,4-Dinitrophenol		UJ		UJ		UJ		UJ				UJ		UJ		UJ		UJ
1600	4-Nitrophenol		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
330	Dibenzofuran					190	J									250	J		
330	2,4-Dinitrotoluene						UJ										UJ		
330	Diethylphthalate																		
330	4-Chlorophenyl phenylether																		
330	Fluorene					260	J				UJ					350	J	72	J
1600	4-Nitroaniline						UJ				UJ						UJ		UJ
1600	4,6-Dinitro-2-methylphenol																		UJ

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: B N A S 3

Site Name: AMETEK, INC

SOIL SAMPLES (ug/Kg)

Case #: 13032 Sampling Date(s): 10/24/89

To calculate sample quantitation limit: (CRQL * Dilution Factor) / ((100 - % moisture)/100)

CRQL	COMPOUND	CBZ 78		CBZ 79		CBZ 80		CBZ 81		CBZ 82		CBZ 83		CBZ 84		CBZ 85		CBZ 86	
	Dilution Factor	1		1		1		1		1		1		1		1		1	
	% Moisture	33		34		24		45		23		32		73		31		31	
	Location	AM-6		AM-10		AM-8		AM-12		AM-13		AM-14		AM-15		AM-16		AM-17	
330	N-Nitrosodiphenylamine		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ		UJ
330	4-Bromophenyl phenylether		↓		↓		↓		↓		↓		↓		↓		↓		↓
330	Hexachlorobenzene		↓		↓		↓		↓		↓		↓		↓		↓		↓
1600	Pentachlorophenol		↓		↓	69	J		↓		↓		↓		↓	53	J		↓
330	Phenanthrene	100	J	170	J	3800	UJ	82	J		↓	370	J	150	J	4100	J	910	J
330	Anthracene		UJ		UJ	270	J		UJ		↓	61	J		UJ	560	J	150	J
330	Di-n-butylphthalate		↓	52	J	62	J		↓		↓		UJ		↓	260	J	2100	J
330	Fluoranthene	180	J	280	J	6600	UJ	210	J	110	J	600	J	280	J	7600	J	1800	J
330	Pyrene	160	J	210	J	3600	J	150	J	81	J	420	J	360	J	5500	J	1200	J
330	Butylbenzylphthalate		UJ	270	J	53	J		UJ		UJ		UJ		UJ	210	J	5200	J
1600	3,3-Dichlorobenzidine		↓		UJ		UJ		↓		↓		UJ		↓		UJ		UJ
330	Benzo(a)anthracene	79	J	140	J	1700	J	71	J	49	J	240	J	150	J	3600	J	710	J
330	Chrysene	98	J	180	J	2100	J	110	J	56	J	280	J	220	J	3500	J	790	J
330	bis(2-Ethylhexyl)phthalate	230	B	270	B	360	B	240	B	260	B	520	B	460	B	4700	J	7100	J
330	Di-n-octylphthalate		UJ		UJ		UJ		UJ		UJ		UJ		UJ	150	J		UJ
330	Benzo(b)fluoranthene	140	J	230	J	2800	J	87	J	89	J	220	J	310	J	3600	J	1600	J
330	Benzo(k)fluoranthene	140	J	120	J	2800	J	79	J	89	J	260	J	130	J	3100	J	1600	J
330	Benzo(a)pyrene	56	J	120	J	1300	J	62	J		UJ	230	J	140	J	2900	J	760	J
330	Indeno(1,2,3-cd)pyrene		UJ		UJ	570	J		UJ		↓	66	J		UJ	840	J	190	J
330	Dibenz(a,h)anthracene		↓		↓	270	J		↓		↓		UJ		↓	410	J	55	J
330	Benzo(g,h,i)perylene		↓		↓	560	J		↓		↓		UJ		↓	630	J	150	J

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

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DATA SUMMARY FORM: B N A S 1

Site Name: AMETEK, INC

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CBZ87	
	Dilution Factor	1	
	% Moisture	29	
	Location	AM-18	
CRQL	COMPOUND		
330	Phenol	1100	J
330	bis(2-Chloroethyl)ether		UJ
330	2-Chlorophenol		
330	1,3-Dichlorobenzene		
330	1,4-Dichlorobenzene		
330	Benzyl Alcohol	440	J
330	1,2-Dichlorobenzene		UJ
330	2-Methylphenol	50	J
330	bis(2-Chloroisopropyl)ether		UJ
330	4-Methylphenol		UJ
330	N-Nitroso-di-n-propylamine		UJ
330	Hexachloroethane		UJ
330	Nitrobenzene		UJ
330	Isophorone		UJ
330	2-Nitrophenol		UJ
330	2,4-Dimethylphenol	56	J
1600	Benzoic Acid	210	J
330	bis(2-Chloroethoxy)methane		UJ
330	2,4-Dichlorophenol		
330	1,2,4-Trichlorobenzene		
330	Naphthalene	56	J
330	4-Chloroaniline		UJ

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: B N A S 2

Site Name: AMETEK, INC

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CBZ87	
	Dilution Factor	1	
	% Moisture	29	
	Location	AM-18	
CRQL	COMPOUND		
330	Hexachlorobutadiene		UJ
330	4-Chloro-3 methylphenol		
330	2-Methylnaphthalene	69	J
330	Hexachlorocyclopentadiene		UJ
330	2,4,6-Trichlorophenol		
1600	2,4,5-Trichlorophenol		
330	2-Chloronaphthalene		
1600	2-Nitroaniline		UJ
330	Dimethylphthalate		
330	Acenaphthylene		
330	2,6-Dinitrotoluene		
1600	3-Nitroaniline		
330	Acenaphthene		
1600	2,4-Dinitrophenol		UJ
1600	4-Nitrophenol		UJ
330	Dibenzofuran		
330	2,4-Dinitrotoluene		
330	Diethylphthalate		
330	4-Chlorophenyl phenylether		
330	Fluorene		
1600	4-Nitroaniline		
1600	4,6-Dinitro-2-methylphenol		

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

ORIGINAL (Red)

DATA SUMMARY FORM: B N A S 3

Site Name: AMETEK, Inc

SOIL SAMPLES (ug/Kg)

Case #: 13021 Sampling Date(s): 10/24/89

To calculate sample quantitation limit: (CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CB7 87																			
	Dilution Factor	1																			
	% Moisture	29																			
	Location	AM-18																			
CRQL	COMPOUND																				
330	N-Nitrosodiphenylamine		UJ																		
330	4-Bromophenyl phenylether		↓																		
330	Hexachlorobenzene																				
1600	Pentachlorophenol		↓																		
330	Phenanthrene	260	J																		
330	Anthracene	50	J																		
330	Di-n-butylphthalate	730	J																		
330	Fluoranthene	470	J																		
330	Pyrene	360	J																		
330	Butylbenzylphthalate	3500	J																		
1600	3,3-Dichlorobenzidine		UJ																		
330	Benzo(a)anthracene	230	J																		
330	Chrysene	270	J																		
330	bis(2-Ethylhexyl)phthalate	2900	J																		
330	Di-n-octylphthalate	3200	J																		
330	Benzo(b)fluoranthene	330	J																		
330	Benzo(k)fluoranthene	230	J																		
330	Benzo(a)pyrene	220	J																		
330	Indeno(1,2,3-cd)pyrene		UJ																		
330	Dibenz(a,h)anthracene		↓																		
330	Benzo(g,h,i)perylene		↓																		

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: AMETEK, INC

WATER SAMPLES (ug/L)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit: (CRQL * Dilution Factor)

	Sample No.	CBZ70		CBZ71		CBZ72		CBZ73		CBZ74		CBZ75		CBZ76					
	Dilution Factor	1		1		1		1		1		1		1					
	Location	AM-2		AM-3		AM-4		AM-7		AM-5		AM-9		AM-11					
CRQL	COMPOUND																		
0.05	alpha-BHC																		
0.05	beta-BHC																		
0.05	delta-BHC																		
0.05	*Gamma-BHC (Lindane)																		
0.05	*Heptachlor																		
0.05	Aldrin																		
0.05	Heptachlor Epoxide																		
0.05	Endosulfan I																		
0.10	Dieldrin																		
0.10	4,4'-DDE																		
0.10	*Endrin																		
0.10	Endosulfan II																		
0.10	4,4'-DDD																		
0.10	Endosulfan Sulfate																		
0.10	4,4'-DDT																		
0.5	*Methoxychlor																		
0.10	Endrin ketone																		
0.5	*Alpha-Chlordane																		
0.5	*Gamma-Chlordane																		
1.0	*Toxaphene																		
0.5	*Aroclor-1016																		
0.5	*Aroclor-1221																		
0.5	*Aroclor-1232																		
0.5	*Aroclor-1242																		
0.5	*Aroclor-1248																		
1.0	*Aroclor-1254																		
1.0	*Aroclor-1260																		

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: PESTICIDES AN PCBS

Site Name: AMETEK, INC

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CBZ 78	CBZ 79	CBZ 80	CBZ 81	CBZ 82	CBZ 83	CBZ 84	CBZ 85	CBZ 86
	Dilution Factor	1	1	1	1	1	1	1	1	2
	% Moisture	33	34	28	45	23	32	73	31	31
	Location	AM-6	AM-10	AM-8	AM-12	AM-13	AM-14	AM-15	AM-16	AM-17
CRQL	COMPOUND									
8	alpha-BHC									
8	beta-BHC									
8	delta-BHC									
8	Gamma BHC (Lindane)									
8	Heptachlor									
8	Aldrin									
8	Heptachlor Epoxide									
8	Endosulfan I									
16	Dieldrin									
16	4,4'-DDE									
16	Endrin									
16	Endosulfan II									
16	4,4'-DDD									
16	Endosulfan Sulfate									
16	4,4'-DDT								24	
80	Methoxychlor									
16	Endrin ketone									
80	Alpha-Chlordane									
80	Gamma-Chlordane									
160	Toxaphene									
80	Aroclor-1016									
80	Aroclor-1221									
80	Aroclor-1232									
80	Aroclor-1242									
80	Aroclor-1248									
160	Aroclor-1254	300		560						
160	Aroclor-1260									

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: AMETEK, INC.

SOIL SAMPLES (ug/Kg)

Case #: 13022 Sampling Date(s): 10/24/89

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CB287																			
	Dilution Factor	2																			
	% Moisture	29																			
	Location	AM-18																			
CRQL	COMPOUND																				
8	alpha-BHC		R																		
8	beta-BHC																				
8	delta BHC																				
8	Gamma BHC (Lindane)																				
8	Heptachlor																				
8	Aldrin																				
8	Heptachlor Epoxide																				
8	Endosulfan I																				
16	Dieldrin																				
16	4,4'-DDE																				
16	Endrin																				
16	Endosulfan II																				
16	4,4'-DDD																				
16	Endosulfan Sulfate																				
16	4,4'-DDT																				
80	Methoxychlor																				
16	Endrin ketone																				
80	Alpha-Chlordane																				
80	Gamma-Chlordane																				
160	Toxaphene																				
80	Aroclor-1016																				
80	Aroclor-1221																				
80	Aroclor-1232																				
80	Aroclor-1242																				
80	Aroclor-1248																				
160	Aroclor-1254																				
160	Aroclor-1260																				

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

Table 3

DATA SUMMARY FORM: I N O R G A N I C S

WATER SAMPLES (ug/L)

Site Name: Anatek SI Inspection

Case #: DE13 Sampling Date(s): 10/23/89

+Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	Sample No.	DT3719		DT3720		DT3721		DT3722		DT3723		DT3724		DT3725	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	Location	AM-2		AM-3		AM-4		AM-5		AM-7		AM-9		AM-11	
	ANALYTE														
0	Aluminum	[102]	B	[86]	B	[148]	B	[172]	B	[178]	B	[179]	B	[163]	B
	Antimony										UL				
	*Arsenic														
0	Barium					[33.6]		[33.5]		[49.8]		[35.1]		[34.7]	
	Beryllium														
	*Cadmium							[4.4]	K						
00	Calcium	[18400]		[2850]		23300		23000		24000		23000		24100	
	*Chromium														
	Cobalt														
	Copper	30.4		[9.3]		[3.3]		[3.2]		[4.4]					
0	Iron					112	B	119	B	1510		130	B	109	B
	*Lead			[1.2]	K					[1.3]	K				
00	Magnesium	[391]		[600]		8640		8500		7210		8590		8510	
	Manganese	[1.6]	B	[7.1]	B	44.5		45.9		206		45.9		45.1	
	Mercury	0.26													
	*Nickel														
00	Potassium		Q		Q		Q		Q		Q		Q		Q
	Selenium														
	Silver														
00	Sodium	10200		13200		9630		8810		8940		9470		9840	
	Thallium										UL				
	Vanadium														
	Zinc	43.5		[17.3]	B	181		172		201		165		191	
	*Cyanide														

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

Table 3

DATA SUMMARY FORM: I N O R G A N I C S

Site Name: Ametek SI Inspection

SOIL SAMPLES (mg/Kg)

Case #: DE13 Sampling Date(s): 10/23/89

•Due to dilution, sample quantitation limit is affected. See dilution table for specifics.

CRDL	ANALYTE																					
	Sample No.	DT3726		DT3727		DT3728		DT3729		DT3730		DT3731		DT3732		DT3733		DT3734		DT3735	
	Dilution Factor	1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0	
	% Solids	67.5		68.1		68.9		54.3		77.5		67.7		36.8		64.1		68.8		69.3	
	Location	AM-6		AM-8		AM-10		AM-12		AM-13		AM-14		AM-15		AM-16		AM-17		AM-18	
	Aluminum	7610		7330		4520		12200		18300		17200		11400		13500		11600		9410	
	Antimony		R		R	[6.4]	L		R		R		R		R		R		R		R
	Arsenic	[0.91]	L	[2.4]	L	[1.0]	L	[1.4]	L	4.5	L	[2.7]	L	34.1	L	3.9	L	[2.1]	L	[2.4]	L
	Barium	90.2		73.4		62.8		111		153		171		201		171		145		136	
	Beryllium		R		R		R		R		R		R	[1.8]	B		R		R		R
	Cadmium	2.5		2.5		1.6		4.0		3.0		4.7		11.8		5.3		5.9		5.5	
000	Calcium	[1080]	J	[1140]	J	3540	J	[1350]	J	1690	J	2930	J	2840	J	2340	J	5110	J	6120	J
	Chromium	23.4		20.8		16.3		31.8		37.3		47.6		33.5		51.3		43.8		43.9	
	Cobalt	[7.8]		[5.6]		[3.4]		[8.5]		[11.0]		[12.6]		[9.9]		[11.9]		[13.9]		149	
	Copper	19.1		18.6		18.3		33.3		34.2		34.4		34.4		198		101		120	
	Iron	14000		13600		9080		17800		19900		26300		83000		214800		23400		29200	
	*Lead	15.8		29.4		23.3		57.0		52.0		54.3		161		333		181		204	
000	Magnesium	2950		2630		3080		3650		2260		5050		[2080]		4440		4460		4520	
	Manganese	149	J	157	J	83.5	J	316	J	623	J	576	J	1140	J	330	J	398	J	374	J
2	Mercury															0.16					
	Nickel			[6.0]				[10.6]		13.4		18.4				25.5		44.2		50.3	
000	Potassium		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q
	Selenium		UL		UL		UL		UL		UL	[0.43]	L		UL		UL		UL		UL
	Silver																				
000	Sodium	[287]	B	[284]	B	[265]	B	[360]	J	[334]	J	[418]	J	[810]	J	[337]	J	[365]	J	[331]	J
	Thallium		R		R		R		R		R		R		R		R		R		R
0	Vanadium	29.2		26.2		19.1		39.7		42.7		50.3		43.6		56.1		45.2		45.3	
	Zinc	275		287		366		579		174		868		363		3600		1460		1710	
	Cyanide							1.4													

CRDL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

revised 12/88

2/12

ORIGINAL (Red)

WESTON

TABLE 1

DATA SUMMARY FORM: ASBESTOS

Site Name: Ametek, Inc.
SAS #: 4970C Task I

Sample Identification	Location	Asbestos Content %	Type
4970C Task 1-01	AM-6	No Asbestos Detected	
4970C Task 1-02	AM-8	No Asbestos Detected	
4970C Task 1-03	AM-10	No Asbestos Detected	
4970C Task 1-04	AM-12	No Asbestos Detected	
4970C Task 1-05	AM-13	No Asbestos Detected	
4970C Task 1-06	AM-14	No Asbestos Detected	
4970C Task 1-07	AM-15	< 1%	Chrysotile
4970C Task 1-08 (duplicate of 4970C Task 1-07	AM-15	No Asbestos Detected	
4970C Task 1-09	AM-16	1%	Chrysotile
4970C Task 1-10	AM-17	1%	Chrysotile
4970C Task 1-11	AM-18	2%	Chrysotile

WESTON

TABLE 1

DATA SUMMARY FORM: ASBESTOS

Site Name: Ametek, Inc.
SAS #: 4970C Task2

Sample Identification	Location	Detection Limit (MFL)*	Concentration (MFL)*	Asbestos Type(s) Identified
4970C Task 2-01	AM-2	0.040	0.040	Chrysotile
4970C Task 2-02	AM-3	0.016	0.064	Chrysotile, Actinolite
4970C Task 2-03	AM-4	0.040	0.040	Chrysotile
4970C Task 2-04	AM-5	0.040	0.040	Chrysotile
4970C Task 2-05 (Duplicate of 4970C Task 2-04)	AM-5	0.044	0.044	Actinolite
4970C Task 2-06	AM-7	0.050	<0.050	
4970C Task 2-07	AM-9	0.044	0.044	Tremolite
4970C Task 2-08	AM-10	0.044	0.044	Chrysotile

* MFL = Millions Fibers per Liter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9180

DATE : January 22, 1990

SUBJECT: Organic Data Validation for the Ametek, Inc. Site
Case 13022

FROM : Theresa A. Simpson
Region III ESAT DPO (3ES23)

TO : Paul Racette
Regional Project Manager (3HW13)

THRU : Patricia J. Krantz, Chief
Quality Assurance Branch (3ES23)

Attached is the organic data review for the Ametek, Inc. Site (Case 13022) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

If you have any questions regarding this review, please call me.

Attachment

cc: Brad Smith DE DNRC

TID File: 03891113 Task 1168

WESTON
MANAGERS ENGINEERS CONSULTANTS
2568A RIVA ROAD
SUITE 300
ANNAPOLIS, MD 21401
PHONE: 301-266-9887

DATE: 18 JANUARY 1990

SUBJECT: ORGANIC DATA VALIDATION FOR CASE 13022
Site: AMETEK, INC.

FROM: DOUG McINNES DJM
ORGANIC DATA REVIEWER

TO: TERRY SIMPSON
ESAT DEPUTY PROJECT OFFICER

THRU: DAN DRESSER
ESAT TEAM MANAGER

OVERVIEW

Case 13022 consisted of eight (8) water samples, and ten (10) soil samples, submitted to CompuChem for volatile, semi-volatile, and pesticide/PCB analyses. One (1) of these samples, CBZ77 (a trip blank?), was analyzed for volatiles only. The samples were analyzed as a Contract Laboratory Program (CLP) Routine Analytical Service (RAS).

SUMMARY

All samples were successfully analyzed for all target compounds, with the exception of the pesticide and PCB compounds for sample CBZ87, due to lack of surrogate recovery. All other instrument and method sensitivities were according to the Contract Laboratory Program (CLP) Routine Analytical Service (RAS) protocol.

MAJOR PROBLEM

- The quantitation column pesticide/PCB surrogate recovery for sample CBZ87 was zero percent (0%). The laboratory notes in the narrative that this is due to matrix interference. Since recovery of the surrogate is less than ten percent (10%), the quantitation limits for this sample were qualified "R". (See Appendix F).

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WESTON

MINOR PROBLEMS

- Several compounds failed precision criteria for initial and/or continuing calibrations. Quantitation limits for these compounds were qualified "UJ", and positive results were qualified "J" for the affected samples; except when superseded by the "B" qualifier, denoting blank contamination. (See Table I in Appendix F).

- The volatiles analyses of all water samples were performed eight (8) days from the date of sample collection. The technical holding time for volatile aromatics in water samples of seven (7) days has been exceeded by one (1) day. The quantitation limits for aromatic volatiles were qualified "UL" for all water samples. (See Appendix F).

- The volatiles analyses of all soil samples were performed eleven (11) days from the date of sample collection. Although no technical holding time for volatiles analysis has been established for soil samples, the technical holding time for volatile aromatics in water samples of seven (7) days has been exceeded by four (4) days. The quantitation limits for aromatic volatiles were qualified "UL" for all soil samples. (See Appendix F).

- The semivolatiles extractions of all soil samples were performed nine (9) days from the date of sample collection. Although no technical extraction holding time has been established for soil samples, the extraction holding time for water samples extracted by the continuous liquid/liquid extraction technique of seven (7) days has been exceeded by two (2) days. The quantitation limits were qualified "UJ", and positive results were qualified "J" for all soil samples. (See Appendix F).

NOTES

- Sample CBZ77 is not identified as a trip blank, but the reviewer believes that this may be the case. Since there were no positive results for this sample, no data will be affected if the sample is a trip blank.

- The reported Tentatively Identified Compounds (TIC's) in Appendix D have been reviewed and corrected during data validation. TIC's noted as blank contaminants were crossed off the Form I's.

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- The maximum concentrations of compounds found in the trip blank, equipment blanks, or method blanks are listed below. All samples with concentrations of common laboratory contaminants less than ten times (<10X) the blank concentration, or uncommon laboratory contaminants less than five times (<5X), have been qualified "B" in the data summary. (See Appendix F).

Compound	Concentration
methylene chloride *	12 µg/L or µg/Kg
acetone *	5 µg/L or µg/Kg
bis(2-ethylhexyl)phthalate *	1.5 µg/L or 49 µg/Kg

* - Common Laboratory Contaminant

- The semivolatile soil MS/MSD analysis had compounds other than the spiking compounds present. Following is a table of results and precision estimates for these non-spiked compounds:

MS/MSD Non-Spiked Compounds

	Concentration (µg/Kg)			
Compound	CBZ84	CBZ84MS	CBZ84MSD	%RSD
naphthalene	ND	250 J	450 J	57% +
phenanthrene	150 J	160 J	170 J	6%
fluoranthene	280 J	360 J	350 J	13%
pyrene	360 J	NE	NE	NE
benzo(a)anthracene	150 J	180 J	160 J	9%
chrysene	220 J	270 J	270 J	11%
benzo(b)fluoranthene	310 J	400 J	380 J	13%
benzo(k)fluoranthene	130 J	400 J	380 J	50%
benzo(a)pyrene	140 J	150 J	160 J	7%

RSD - Relative Standard Deviation
\+ - Relative Percent Difference (RPD)
IN - Indeterminate
NE - Not Evaluated, a spiking compound found during original sample analysis

- Due to lack of recovery of the dibutylchlorendate (DBC) surrogate for sample CBZ87 during pesticide/PCB anaysis, the percent difference (%D) for the DBC retention time shift cannot be calculated. Since the quantitation limits for this sample have already been qualified "R" due to the lack of surrogate recovery, no further qualification of data is required.

ORIGINAL (Red)

WESTON SM

All data for Case 13022 were reviewed in accordance with the Functional Guidelines for Evaluating Organic Analyses with Modifications for use within Region III. The text of this report addresses only those problems affecting usability.

ATTACHMENTS

1) Appendix A - Glossary of Data Qualifiers
2) Appendix B - Data Summary. These include:
   (a) All positive results for target compounds with qualifier codes where applicable.
   (b) All unusable detection limits (qualified "R").
3) Appendix C - Results as Reported by the Laboratory for All Target Compounds
4) Appendix D - Reviewed and Corrected Tentatively Identified Compounds
5) Appendix E - Organic Regional Data Assessment Summary
6) Appendix F - Support Documentation

DCN - DM001A05

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Appendix A

Glossary of Data Qualifiers

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATING TO IDENTIFICATION
(confidence concerning presence or absence of compounds):

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

(NO CODE) = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unreliable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

Q = No analytical result.