FINAL
SITE INSPECTION PRIORITIZATION REPORT
SYNKOTE PAINT
ELMWOOD PARK, BERGEN COUNTY, NEW JERSEY

CERCLIS ID No.: NJD001394089

VOLUME I OF I

EPA Contract No.: 68-W5-0019
TDD No.: 02-00-02-0006
Document Control No.: START-02-F-04181

AUGUST 2000

Prepared for:
United States Environmental Protection Agency
Region II
New York, New York 10007

Prepared by:
Region II Superfund Technical Assessment and Response Team
Roy F. Weston, Inc.
Federal Programs Division
Edison, New Jersey 08837

254860

FINAL
SITE INSPECTION PRIORITIZATION REPORT
SYNKOTE PAINT
ELMWOOD PARK, BERGEN COUNTY, NEW JERSEY

CERCLIS ID No.: NJD001394089

Prepared by:
Region II Superfund Technical Assessment and Response Team
Roy F. Weston, Inc.
Federal Programs Division
Edison, New Jersey 08837

Prepared for:
United States Environmental Protection Agency

EPA CONTRACT NO. 68-W5-0019
TDD NO.: 02-00-02-0006
DOCUMENT CONTROL NO.: START-02-F-04181

AUGUST 2000

WESTON/START

Prepared by: _____ Date: 8/1/00
Harry L. Allen
START Project Manager

Approved by: _____ Date: 8/1/00
Dennis J. Foerter, CHMM
START Group Leader

Approved by: _____ Date: 8/1/00
W. Scott Butterfield, CHMM
START Assistant Team Leader

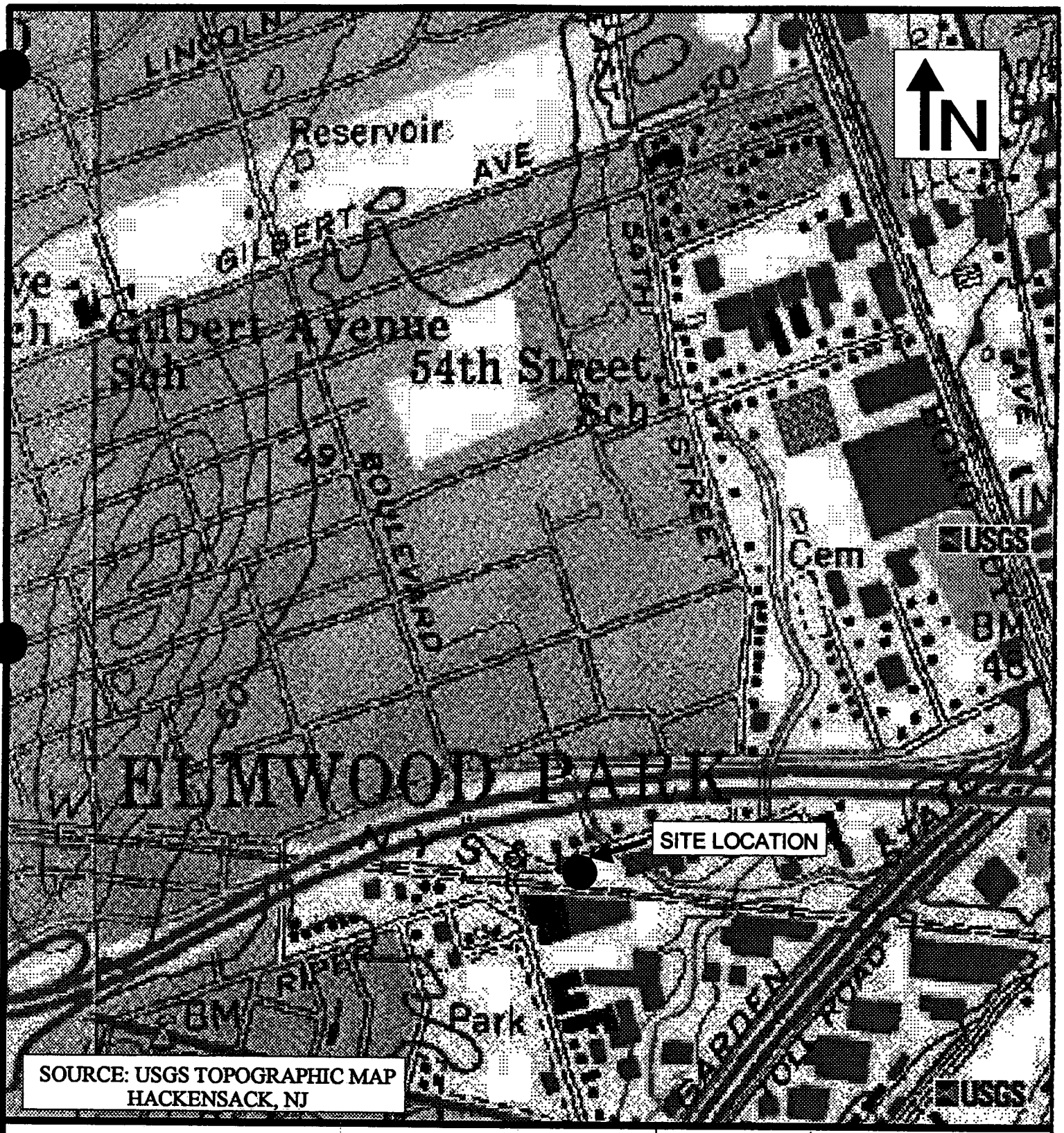
SITE SUMMARY

The Synkote Paint site (CERCLIS No. NJD001394089) is a former industrial paint manufacturing facility, located in Elmwood Park, Bergen County, New Jersey (Ref. Nos. 1, pp. 1, 79; 2; 3). The property size is 0.4 acre and although it is located in an industrial park, the vicinity of the site is residential, with interspersed industrial properties (Ref. No. 4, pp. 2, 4, 6). The site address is 150 Van Riper Avenue, Elmwood Park, New Jersey according to the Elmwood Park Tax Office (Ref. No. 4, pp. 2, 4, 6). A Site Location Map and Site Map are presented in Figures 1 and 2, respectively.

Synkote Paint operated as an industrial solvent-based paints manufacturer from 1956 until 1985. The company was owned and operated by Richard Max (Ref. No. 1, pp. 1, 73, 93). In November 1984, local health officials filed complaints to the New Jersey Department of Environmental Protection (NJDEP). The complaints suggested that runoff from the site was observed entering storm drains or sewer catch basins which discharge to a nearby surface water body. The site runoff was reportedly white in color. An NJDEP Resource Conservation and Recovery Act (RCRA) inspection was conducted in November 1984. Numerous infractions of hazardous materials handling practices were observed during the inspection. Large areas of stained soil and haphazardly stored drums were reportedly observed at the site. Many of these drums were reportedly leaking and no secondary containment system was present. As a result of this inspection, the NJDEP issued a directive letter in September 1985. The letter required Synkote Paint to cease all hazardous waste discharges and develop a cleanup plan which would include the sampling, excavation, and containment/disposal of contaminated site soil (Ref. No. 1, pp. 1, 75, 76, 94, 99 through 101).

Synkote Paint ceased operations on 7 February 1985 and filed for Assignment for the Benefit of Creditors on 27 February 1985. In June 1985, NJDEP issued an Administrative Order (herein after referred to as the "Order") citing Synkote Paint for violations of the Solid Waste Management Act. Synkote Paint was given 15 days to comply with the Order which mandated that Synkote Paint: cease the storage of hazardous wastes on site for periods exceeding 90 days, properly store waste which has been present on site for less than 90 days, conduct internal compliance inspections of waste storage areas, prepare a site contingency plan, produce manifest documentation for wastes disposed, and submit an affidavit identifying corrective actions taken by Synkote Paint in response to the Order (Ref. No. 1, pp. 1, 105 through 109, 118).

Four soil samples were collected by NJDEP as part of a site investigation at Synkote Paint on 3 July 1985. Spillage of material was evident, and 200 to 400 55-gallon drums were present during the inspection. Analytical data from the soil sampling event indicated the presence of volatile organic compounds (VOCs) at elevated concentrations. The NJDEP issued a directive that Synkote Paint install monitoring wells and conduct a hydrogeological investigation of the site (Ref. No. 1, pp. 1, 118, 121 through 124, 126 through 129). The owner abandoned the site, leaving many drums, other non-drum containers, and reactor vessels from inside the building on site. Unpaid mortgage debts forced the National Community Bank of New Jersey to foreclose on the property in 1986. At that time, the site became eligible for action under the NJDEP Environmental Cleanup and Responsibility Act (ECRA) program; however, the site owner, Mr. Max, did not file the paperwork necessary for action under ECRA. In 1988, the site was sold in a sheriff's sale to Property Concepts, Inc., Elmwood Park, NJ. The sale of the property was conducted without the approval of the NJDEP or



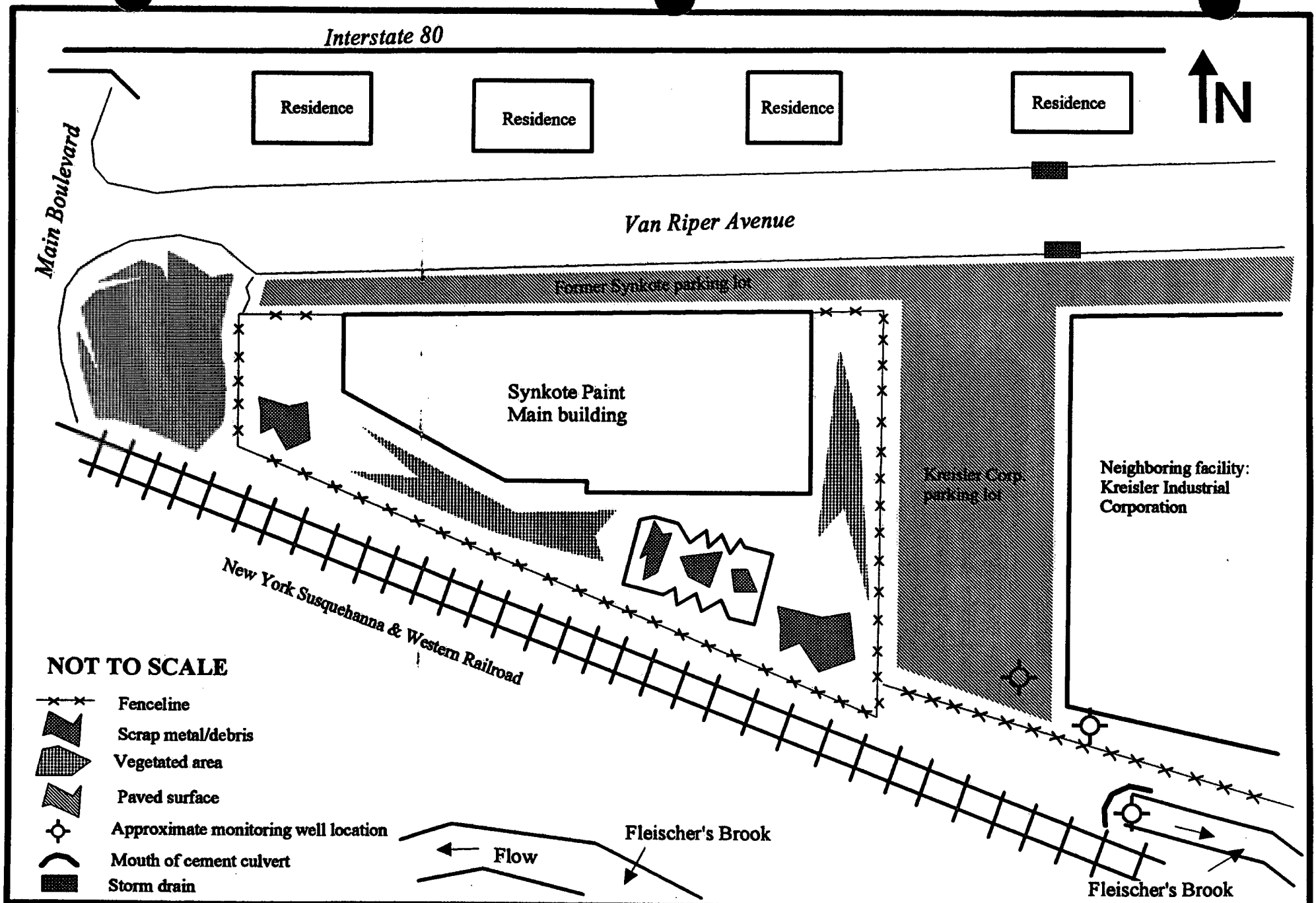
SOURCE: USGS TOPOGRAPHIC MAP
HACKENSACK, NJ

WESTON
MANAGERS DESIGNERS/CONSULTANTS

Roy F. Weston, Inc.
FEDERAL PROGRAMS DIVISION

IN ASSOCIATION WITH RESOURCE APPLICATION, INC., C. C. JOHNSON & MALHOTRA, P.C. R.E. SARRIERA ASSOCIATES, TETRATECH INC., AND GRB ENVIRONMENTAL SERVICES, INC.

EPA TM C. MOYIK	SYNKOTE PAINT CO. ELMWOOD PARK, NJ
START PM H. ALLEN	FIGURE 1 SITE LOCATION MAP



WESTON MANAGERS DESIGNERS/CONSULTANTS

Roy F. Weston, Inc.
FEDERAL PROGRAMS DIVISION
IN ASSOCIATION WITH RESOURCE APPLICATION, INC., C.C. JOHNSON & MALHOTRA, P.C., R.E. SARRIERA ASSOCIATES, TETRATECH INC., AND GRB ENVIRONMENTAL SERVICES, INC.

START PM HARRY ALLEN	SITE MAP
EPA TM CATHY MOYIK	FIGURE 2

Synkote Paint
Elmwood Park, Bergen Co., New Jersey

the Attorney General's Office (Ref. No. 1, pp. 1, 79, 93, 94, 111, 112, 123).

The NJDEP conducted a Site Inspection sampling event on 24 January 1989. Five soil samples were collected from locations chosen during a pre-sampling assessment. The samples were analyzed for substances on the U. S. Environmental Protection Agency (EPA) Target Compound List (TCL) and Target Analyte List (TAL). Numerous VOCs were detected in the samples. Two inorganic analytes and one polychlorinated biphenyl (PCB) were also detected (Ref. No. 1, pp. 5, 42 through 65).

In 1988 and 1989, representatives of Bergen County Health Services (BCHS) and the NJDEP conducted several inspections of the site. These inspections recommended the involvement of the EPA to mitigate waste sources at the site. On 10 March 1989, an On-Scene Coordinator from the EPA Emergency and Remedial Response Division accompanied BCHS and NJDEP representatives to the site (Ref. No. 1, pp. 89 through 93, 111 through 117). EPA conducted a removal assessment to determine if the site was eligible for a Removal Action to mitigate the threat posed by abandoned drums, containers, and vessels containing hazardous substances. The assessment confirmed that drums on site and inside the main building had spilled or released their contents. Also, acutely toxic, flammable, and corrosive materials were observed in the building laboratory. EPA sent official notification of potential liability to Synkote Paint in April 1989. In September 1989, EPA authorized a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Removal Action at Synkote Paint (Ref. No. 1, pp. 78 through 80, 82, 89 through 93).

In October 1989, waste at the site was containerized and overpacked by S & D Engineering Services, Inc. (S & D), of Edison, NJ, under an EPA Emergency Response Cleanup Services (ERCS) contract. S & D sampled all the drums at the site and stabilized the laboratory chemicals present inside the building. In June 1990, S & D overpacked all the drums and paint cans on the site. During this Removal Action, EPA disposed 248 containers off site. The drums were shipped to ThermalKem, Inc. in South Carolina for incineration (Ref. No. 22, pp. 1 through 5, 56 through 63). Following the Removal Action, an assessment of remaining potential hazards was performed. It was reported that outside of the building, three aboveground storage tanks remain, as well as three drums (containing approximately 2 inches of paint residue), a large mixing vat (containing ½-inch of residue), a metal hopper, a 125-cubic foot dumpster, several machine parts, empty drums, and some paint residue on the ground surface. The assessment further noted that six reactor vessels were left inside of the building (Ref. No. 22, pp. 64, 65).

On 1 March 2000, the Region II Superfund Technical Assessment and Response Team (START) conducted an off-site reconnaissance at Synkote Paint. The site is bordered to the east by Kreisler Industrial Corporation; to the west by a vacant lot; to the north by a residential area; and to the south by the New York Susquehanna & Western Railroad. Four residences are located within 200 feet of the site boundary across Van Riper Avenue from the Synkote property. The site is inactive and the process building has been abandoned. A fenced yard, behind the building, is unpaved and heavily vegetated. Some scrap metal, including large metal baffles, remains in the yard but no other waste sources were observed. Site soil did not appear to be stained. The site has little topographic relief; no defined runoff pathway was determined. Fleischer's Brook, a minimal stream, flows through an underground cement culvert beneath the ground surface. Runoff from the Synkote facility, the Kreisler facility, and from Van Riper Avenue, enters the culvert via storm drains located on Van Riper

Ave. The brook surfaces behind the Kreisler facility (Ref. No. 4, pp. 2 through 7; 16, pp. 1 through 4).

SITE ASSESSMENT REPORT: SITE INSPECTION PRIORITIZATION

PART I: SITE INFORMATION

1. Site Name/Alias Synkote Paint

   Street 144-160 or 150 Van Riper Avenue

   City Elmwood Park State NJ Zip 07407

   Ref. No. 2, p. 1.

2. County Bergen County Code 003 Cong. Dist. 09

   Ref. Nos. 2, p. 1; 8.

3. CERCLIS ID No.: NJD001394089

   Ref. No. 2.

4. Block No. 1401 Lot No. 1

   Ref. No. 1, p. 1.

5. Latitude 40° 54' 10" N Longitude 74° 06' 59" W

   USGS Quad(s) Hackensack, NJ

   Ref. Nos. 3; 27.

6. Approximate size of site 0.4 acre

   Ref. No. 1, p. 1.

7. Owner: Property Concepts, Inc. Telephone No. 201-797-1050

   Street 519 River Drive

   City Elmwood Park State NJ Zip 08028

   Ref. Nos. 1, pp. 7, 15-17; 4, p. 2

8. Operator Richard E. Max Telephone No. N/A

   Street 578 Dorchester Avenue

City Rivervale State NJ Zip 07675

Ref. No. 1, pp. 11, 99.

9. Type of Ownership

X Private __ Federal __ State
__ County __ Municipal __ Unknown __ Other_____

Ref. No. 1, pp. 11, 99.

10. Owner/Operator Notification on File

__ RCRA 3001 Date _____ __ CERCLA 103c Date _____
__ None X Unknown

Ref. No. 1, p. 11.

11. Permit Information

Permit	Permit No.	Date Issued	Expiration Date	Comments
RCRA	NJD001394089	Unknown	Unknown	Permits the storage of hazardous waste on site in containers for up to 90 days.

Ref. No. 1, p. 102.

12. Site Status

__ Active X Inactive __ Unknown

Ref. Nos. 1 p. 94; 4, p. 2.

13. Years of Operation: 1956 to 1985

Ref. No. 1, pp. 1, 94.

14. Identify the types of waste sources (e.g., landfill, surface impoundment, piles, stained soil, above- or below-ground storage tanks or containers, land treatment, etc.) on site. Initiate as many waste unit numbers as needed to identify all waste sources on site.

(a) Waste Sources

Waste Unit No.	Waste Source Type	Facility Name for Unit
1	Contaminated Soil	Drum Storage Yard

Ref. Nos. 1, pp. 1, 102 through 105, 118, 122 through 129.

(b) Other Areas of Concern

In March 1989, the City of Garfield, Department of Public Works was forced to close all public supply wells in the Garfield and Elmwood Park well fields, so that air strippers could be installed. This closure was the result of unacceptable levels of VOC contamination in the groundwater. Numerous gas stations, industrial facilities and underground storage tanks have been identified in the vicinity of Synkote Paint. The source of the VOC contamination has not been identified.

Ref. No. 1, pp. 3, 131, 132; 26.

15. Describe the regulatory history of the site, including the scope and objectives of any previous response actions and litigation by state, local and federal agencies (indicate type, affiliation and date of investigations).

- On 6 June 1985, the NJDEP issued an Administrative Order and Penalty Settlement Offer to Synkote Paint for hazardous waste permit violations.
- Four soil samples were collected by the NJDEP on 3 July 1985. Numerous volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) were detected in these samples.
- On 9 September 1985, the NJDEP issued a Directive Letter to Synkote for a spill of mineral spirits.
- On 1 January 1986, based on the analytical data from 3 July 1985, the NJDEP issued a Directive Letter to Synkote requiring the installation of monitoring wells at the site.
- On 7 July 1987, NJDEP issued a Notice of Civil Administrative Penalty Assessment for a manifest violation.
- On 11 November 1988, NJDEP issued a Notice of Violation for numerous hazardous waste violations at the Synkote site.
- Five soil samples were collected by the NJDEP as part of a Site Inspection at Synkote Paint on 24 January 1989. Several VOCs, SVOCs, one polychlorinated biphenyl (PCB), and two inorganic analytes were detected in these samples.
- In 1989, EPA conducted a Removal Action at the site. Activities included overpacking and disposing more than 200 drums abandoned on the site.
- On 1 March 2000, START conducted an off-site reconnaissance of Synkote Paint in association with this Site Inspection Prioritization (SIP) report.

Ref. Nos. 1, pp. 1 through 5, 38, 39, 66 through 68, 73 through 76, 78, 93, 94, 96, 99, 102; 4, 2 through 5; 22, pp. 1, 2.

a) Is the site or any waste source subject to the Petroleum Exclusion? Identify petroleum products and by products that justify this decision.

A review of available background information indicates that neither the site nor any waste sources on site are subject to the Petroleum Exclusion provisions. Background information suggests that Synkote Paint stored solvent materials in drums; there is no evidence indicating the presence of petroleum wastes.

Ref. No. 1, pp. 102 through 105.

b) Has normal farming application of pesticides registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) occurred at the site? Have pesticides been produced or stored on the site? Has there been any leaks or spills of pesticides on the site?

According to background information, no pesticides have been identified at the Synkote Paint site. Pesticides were not produced at the site; no spills or leaks of pesticides have been reported.

Ref. Nos. 1, pp. 102 through 105.

c) Is the site or any waste source subject to RCRA subtitle C (briefly explain)?

Synkote Paint is permitted as a "generator" of hazardous wastes under RCRA; however, hazardous waste containers have been stored on the site for periods greater than 90 days. Drums from the site were disposed at a RCRA permitted facility during the Removal Action conducted by EPA in 1990.

Ref. No. 1, pp. 102, 103; 22, pp. 1, 2.

d) Is the site or any waste source maintained under the authority of the Nuclear Regulatory Commission (NRC)?

There are no reports of radioactive wastes on the site. Therefore, neither the site nor any waste sources on site are maintained under the authority of the NRC.

Ref. Nos. 1, pp. 102 through 105.

16. Do any conditions exist on site which would warrant immediate action?

During the on-site reconnaissance conducted by Region II START on 1 March 2000, no conditions were noted which would warrant immediate or emergency action.

Ref. No. 4, pp. 2 through 5.

17. Information available from:

Contact: Cathy Moyik Agency U.S. EPA Telephone No.: (212) 637-4339
Preparer: Harry L. Allen Agency Region II START Date: 1 August 2000

PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following items.

Waste Unit 1 - Drum Storage Yard

Source Type

_____	Landfill	X	Contaminated Soil
_____	Surface Impoundment	_____	Pile
_____	Drums	_____	Land Treatment
_____	Tanks/Containers	_____	Other

Description:

Between 200 to 400 55-gallon drums were observed on the site during several inspections. These drums were reported to have leaked their contents onto the soil in the drum storage yard. This small yard is surrounded by a maintained fence and is unpaved. Four surface soil samples were collected by the NJDEP, as part of a site investigation at Synkote Paint on 3 July 1985. Analytical data from the soil sampling event indicated the presence of VOCs at elevated concentrations. NJDEP collected nine surface soil samples during sampling events conducted in July 1985 and January 1989. Subsequently, EPA conducted a Removal Action at the site; however, none of the soil at the site was removed.

Ref. No. 1, pp. 1, 102 through 105, 118, 122 through 129; 22, pp. 1 through 5, 56 through 63.

Hazardous Waste Quantity:

A default value of 0.4 acre has been assigned as the hazardous waste quantity associated with the contaminated soil.

Ref. Nos. 1, pp. 1, 102 through 105, 118, 122 through 129; 22, pp. 64, 65.

Hazardous Substance/Physical State:

Benzene, di-n-butyl phthalate, di-n-octyl phthalate, ethylbenzene, n-butylbenzene, n-propylbenzene, sec-butylbenzene, 1,2,4- and 1,3,5- trimethylbenzene, cumene, styrene, p-cymene, toluene, o-xylene, m-xylene, p-xylene, bis (2-ethylhexyl) phthalate, and Aroclor-1254 were detected in surface soil samples. These substances were leaked or spilled onto site soil; therefore, they were deposited in the liquid state. Arsenic and lead were also detected in soil samples. These inorganic analytes were deposited in the solid state.

Ref. No. 1, pp. 42 through 45, 48 through 51, 53, 54, 57, 58, 62 through 65, 123, 125 through 129.

PART III: SAMPLING RESULTS

EXISTING ANALYTICAL DATA

The NJDEP conducted two soil sampling events at Synkote Paint. These two events are described below.

- On 3 July 1985, NJDEP collected four surface soil samples from the Synkote Paint site. The samples were analyzed for VOCs by the Department of Health Laboratory in Trenton, NJ. Soil Sample No. 1 was collected from the east side of the building adjacent to the fence line. Soil Sample No. 2 was collected from a location inside a walled area where solvent storage tanks had been staged. Soil Sample No. 3 was collected at the rear of the building approximately 10 feet south of the rear door. Soil Sample No. 4 was collected from a drum storage area at the rear of the building on the western portion of the site (Ref. No. 1, pp. 118, 123 through 125). Table 1 presents a summary of analytical results.

- On 24 January 1989, NJDEP collected five surface soil samples. The locations were chosen during a pre-sampling assessment conducted on 18 January 1989; all of the locations had produced soil gas readings in excess of 1,000 units above background on the Flame Ionization Detector (FID) during the assessment. The samples were analyzed for the presence of TCL and TAL compounds, by Versar, Inc., Springfield, VA (Ref. No. 1, pp. 5, 39). During this sampling event, no samples were collected from background locations. All of the samples were collected at a depth of less than 2 feet below ground surface (bgs). Soil Sample No. 1 was collected near the southeastern corner of the building, east of the concrete drum storage pad. Soil in this area was stained from runoff and leaking material from the drums. Soil Sample No. 2 was collected east, or down slope, of the abandoned drums in the southeastern section of the site. This location was also identified as the location of a drum spill or leak. Soil Sample No. 3 was collected from an area at the rear portion of a cinder block berm. Soil Sample No. 4 was collected from the central part of the property in the vicinity of some abandoned drums. Soil Sample No. 5 was collected from a location adjacent to the northeast corner of a dumpster on the western end of the site (Ref. No. 1, pp. 6, 40). Table 2 presents a summary of the analytical results.

Soil Sampling Results

Several VOCs and SVOCs were detected in the soil samples (Ref. No. 1, pp. 48 through 51, 53, 54, 57, 58, 126 through 129). One PCB, Aroclor-1254, was also detected (Ref. No. 1, pp. 62 through 65). Two inorganic analytes, arsenic and lead, were detected at concentrations which exceeded their respective EPA soil screening levels (SSLs) (Ref. Nos. 1, pp. 42 through 45; 23).

TABLE 1 - Summary of Soil Sampling Analytical Results
Synkote Paint
3 July 1985

Contaminant	Soil Sample No. 1	Soil Sample No. 2	Soil Sample No. 3	Soil Sample No. 4
Benzene	ND	48,000	2,245	ND
Ethylbenzene	17	6,890	1,250	ND
n-Butylbenzene	ND	6,330	ND	ND
n-Propylbenzene	2,280	25	4,900	ND
sec-Butylbenzene	ND	13	113	ND
1,2,4-Trimethylbenzene	3,540	718	ND	100
1,3,5-Trimethylbenzene	2,530	23	900	ND
Cumene	3,500	27	10	100
Styrene	1,740	16	103	ND
p-Cymene	ND	27	380	ND
Toluene	965	14	2,500	ND
o-Xylene	205	59	204	100
m-Xylene	480	44	316	260
p-Xylene	160	14	126	ND

LEGEND -
Concentrations are reported in parts per billion (ppb), unless otherwise specified.
ND - not detected

Ref. No. 1, pp. 122, 126 through 129.

TABLE 2 - Summary of Soil Sampling Analytical Results
Synkote Paint Site - 24 January 1989

Contaminant (ppb)	Sample No. 1 BSA01249711	Sample No. 2 BSA01249711	Sample No. 3 BSA01249712	Sample No. 4 BSA01249713	Sample No. 5 BSA01249714
Acetone	6,600 B	ND	ND	ND	ND
Naphthalene	ND	ND	ND	19,000 J	ND
Bis (2-ethylhexyl) phthalate	ND	ND	ND	1,800,000 D	5,700
Di-n-butylphthalate	ND	ND	ND	58,000	ND
Di-n-octylphthalate	ND	ND	ND	18,000 J	ND
Ethylbenzene	ND	6	276,000	728,000	4 J
Total xylenes	36,000 B	25 B	5,716,000 B	ND	31 B
Aroclor-1254	ND	85	91	290,000	530

Inorganic Analyte (ppm)@	Sample No. 1 NJD056	Sample No. 2 NJD057	Sample No. 3 NJD058	Sample No. 4 NJD059	Sample No. 5 NJD060
Arsenic	0.91	2.0 B	1.4 B	5.5	7.4
Lead	ND	ND	ND	1590 S	623

@Inorganic analytes shown exceeded their respective EPA Soil Screening Level.

LEGEND -
J - result is qualified as estimated; D - concentration reported in the dilution analysis.
B - substance was also detected in the laboratory blank.
ND - not detected

Ref. No. 1, pp. 6, 7, 42 through 45, 48 through 51, 53, 54, 57, 58, 62 through 65.

PART IV: HAZARD ASSESSMENT

GROUNDWATER ROUTE

1. **Describe the likelihood of release of contaminant(s) to the groundwater as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For observed release, define the supporting analytical evidence and relationship to background.**

   An observed release of site-attributable contaminants to groundwater is not observed for the Synkote Paint site. Monitoring wells do not exist on site; therefore, no groundwater samples have been collected from the site. Analytical data from surface soil samples collected by the NJDEP in 1985 and 1989 indicated the presence of VOCs in on-site soil; therefore, there is a suspected release to groundwater. The nearest well used for drinking water is located 0.6 mile from the site in the Garfield Water Department well field; however, wells in this well field are located up gradient or side gradient of the site and are not expected to be impacted by any contamination associated with the site.

   Ref. Nos. 1, pp. 2, 3, 41 through 65, 122, 126 through 129; 3; 17; 22, p. 2; 24, pp. 1, 2; 25, pp. 2, 3.

2. **Describe the aquifer of concern; include information such as depth, thickness, geologic composition, areas of karst terrain, permeability, overlying strata, confining layers, interconnections, discontinuities, depth to water table, groundwater flow direction.**

   Synkote Paint is situated in a highly developed area. The site overlies surficial soil which is predominantly fill or reworked soil material. It has been defined as "urban land." The hydraulic conductivity of this material is estimated to range between 10^{-6} and 10^{-4} centimeters per second (cm/s). Immediately underlying the surface soil is the Passaic Formation. The depth to groundwater in the vicinity of the site is approximately 6 feet bgs. The Passaic Formation is comprised of several subunits and extends to 11,810 feet bgs. The three subunits below the Synkote Paint site are sandy mudstone, conglomeratic sandstone, and sandstone. The sandstone is the predominant unit in the vicinity of the site and is characterized as medium- to fine-grained, medium- to thick-bedded sandstone, and coarse-grained siltstone. The sandstone unit extends to a depth of approximately 3,275 feet bgs in the vicinity of the site. The conglomeratic sandstone may intervene in the vicinity of the site. It is described as medium- to coarse-grained sandstone and micaceous sandstone. The sandy mudstone subunit is characterized as silty to sandy mudstone and siltstone. These subunits are all interconnected, comprising the Passaic Formation Aquifer System (PFAS). The PFAS has a hydraulic conductivity ranging from 10^{-4} to 10^{-6} cm/s. The direction of groundwater flow in the vicinity of the site is southwestward.

   Ref. Nos. 3; 6; 14, p. 4; 24, pp. 2 through 7; 25, pp. 2, 3.

3. **What is the depth from the lowest point of waste disposal/storage to the highest seasonal level of the saturated zone of the aquifer of concern?**

The lowest known point of waste disposal storage is 0 feet bgs. Drum contents reportedly have been spilled on the site; however, an observed release of site-attributable contaminants to groundwater has not been established. Groundwater occurs at water table conditions approximately 6 feet bgs; therefore, the depth from the lowest point of waste disposal storage to the highest seasonal level of the aquifer of concern is approximately 6 feet.

Ref. Nos. 1, pp. 2 through 5; 25, pp. 2, 3.

4. **What is the permeability value of the least permeable continuous intervening stratum between the ground surface and the top of the aquifer of concern?**

The least permeable stratum between the ground surface and the top Passaic Formation is fill and reworked soil material. The hydraulic conductivity of this material is estimated to range from 10^{-6} to 10^{-4} cm/s.

Ref. Nos. 14, p. 4; 24, pp. 2 through 7.

5. **What is the net precipitation at the site (inches)?**

The net precipitation at the site ranges from 15 to 30 inches.

Ref. No. 14, pp. 2, 3.

6. **What is the distance to and the depth of the nearest well that is currently used for drinking purposes?**

The nearest well used for drinking water is located 0.6 mile north of the site in the Garfield Water Department well field. It is situated up gradient and side gradient of on-site waste sources and is screened in the PFAS.

Ref. Nos. 1, pp. 130 through 132; 3; 17, pp. 1, 2, 30.

7. **If a release to groundwater is observed or suspected, determine the number of people that obtain drinking water from wells that are documented or suspected to be actually contaminated by hazardous substance(s) attributed to an observed release from the site.**

No one obtains drinking water from wells that are suspected or actually contaminated by hazardous substances attributable to the site.

Ref. Nos. 1, pp. 130 through 132; 3; 17, pp. 1, 2, 30.

8. **Identify the population served by wells located within 4 miles of the site that draw from the aquifer of concern.**

Distance	Population
0 - ¼ mile	0
>¼ - ½ mile	0
>½ - 1 mile	16,200
>1 - 2 miles	1,770
>2 - 3 miles	12,390
>3 - 4 miles	14,475

Ref. Nos. 3; 11; 17, pp. 1 through 15, 30 through 32.

State whether groundwater is blended with surface water, groundwater, or both before distribution.

Water from the wells within each of the public water supply systems is blended with water from other wells in that system before distribution.

Ref. Nos. 11; 17, pp. 30 through 32.

Is a designated wellhead protection area within 4 miles of the site?

Wellhead Protection Areas (WHPAs) have not been established in New Jersey; therefore, it is unknown if WHPAs are located within 4 miles of the site.

Ref. Nos. 3; 17, p. 1, 2; 19.

Does a waste source overlie a designated or proposed wellhead protection area? If a release to groundwater is observed or suspected, does a designated or wellhead protection area lie within the contaminant boundary of the release?

WHPAs have not been established in New Jersey; therefore, it is unknown if the site waste source overlies a WHPA.

Ref. Nos. 3; 17, pp. 1, 2; 19.

9. **Identify one of the following resource uses of groundwater within 4 miles of the site (i.e., commercial livestock watering, ingredient in commercial food preparation, supply for commercial aquaculture, supply for major, or designated water recreation area, excluding water use, irrigation (5-acre minimum) of commercial food or commercial forage crops, unusable).**

Irrigation wells, providing groundwater for agricultural purposes, have been identified in the vicinity of the site; therefore, groundwater is used as a resource within 4 miles of the site.

Ref. Nos. 3; 17, pp. 17 through 28.

SURFACE WATER ROUTE

10. **Describe the likelihood of release of contaminant(s) to surface water as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For observed release. Define the supporting analytical evidence and relationship to background.**

There is no observed release of site-attributable contaminants to surface water at the Synkote Paint site. No surface water or sediment samples have been collected in association with this site. Two storm drains on Van Riper Avenue feed Fleischer's Brook, the nearest down slope surface water body, within 50 feet of the site boundary; however, the site is level and numerous obstacles make it unlikely for runoff to enter the brook. Fleischer's Brook is not a fishery or a sensitive environment. Due to the fact that portions of the Fleischer's Brook are culverted beneath the ground surface in the vicinity of the site, it is not possible to collect upstream (i.e. background) samples; therefore, establishing an observed release to surface water is unlikely. The nearest downstream surface water receptor is the Passaic River, which is located approximately 2.0 miles downstream of the site's probable point of entry (PPE) to surface water.

Ref. Nos. 1, pp. 3, 4, 75, 76; 4, pp. 2 through 5; 13; 16, pp. 1 through 4.

11. Identify the nearest down slope surface water. If possible, include a description of possible surface drainage patterns from the site.

The site is predominantly level; therefore, the direction of surface water runoff cannot be determined. The former Synkote building would deter any runoff from the drum storage yard from reaching Van Riper Avenue. The storm drains on Van Riper Avenue lead to Fleischer's Brook beyond the eastern boundary of the site. Upstream of Synkote Paint, the brook is contained in an underground cement culvert. It surfaces beneath the facility neighboring Synkote, the Kreisler Corporation. Fleischer's Brook flows for approximately 2 miles, occasionally through underground culverts, until it enters the Passaic River. The surface water migration pathway continues downstream along the Passaic River before reaching the 15-mile target distance limit (TDL). The TDL is reached near Lister Avenue in Newark, New Jersey.

Ref. Nos. 4, pp. 2 through 5; 13; 16, pp. 1 through 4.

12. What is the distance in feet to the nearest down slope surface water? Measure the distance along a course that runoff can be expected to follow.

The distance to the nearest down slope surface water body, accessed by a nearby storm drain, is approximately 50 feet from site waste sources; however, the site is level and many obstacles are present which would deter runoff from reaching the storm drain.

Ref. Nos. 4, pp. 2 through 5; 13; 16, pp. 1 through 4.

13. Identify all surface water body types within 15 downstream miles.

Name	Water Body Type	Flow (cfs)	Saline/Fresh/Brackish
Fleischer's Brook	Minimal Stream	5	Fresh
Passaic River	River	72	Fresh/Brackish

Ref. Nos. 10, pp. 2, 4; 5; 13; 14, p. 6; 18; 20, p. 12; 21.

14. Determine the 2-yr, 24-hr rainfall (inches) for the site.

The 2-yr, 24-hour rainfall in the area of the site is approximately 3.5 inches.

Ref. No. 12.

15. Determine the size of the drainage area (acres) for sources at the site.

The drainage area for sources at the Synkote Paint site is approximately 0.5 acre.

Ref. No. 18.

16. Describe the predominant soil group in the drainage area.

The site overlies soil characterized as "urban land." The soil in this area is level or gently sloping. In some areas the soil is characterized as fill or reworked soil material. The soil is medium-textured to moderately-fine textured with moderate to low infiltration rates.

Ref. Nos. 14, p. 5; 24, pp. 2 through 7.

17. Determine the type of floodplain that the site is located within.

The site is located within a 100-year to 500-year flood plain boundary.

Ref. No. 15.

18. Identify drinking water intakes in surface water within 15 downstream miles of the point of surface water entry. For each intake identify: the name of the surface water body in which the intake is located, the distance in miles from the point of surface water entry, population served, and stream flow at the intake location.

There are no drinking water intakes in surface water within 15 downstream miles of the probable point of surface water entry.

Ref. Nos. 1, pp. 19, 21; 5; 10, p. 2, 4; 13.

19. Identify fisheries that exist within 15 downstream miles of the point of surface water entry. For each fishery specify the following information:

Fishery Name	Water Body Type	Flow (cfs)	Saline/Fresh/Brackish
Passaic River	River	72	Fresh/Brackish

Ref. Nos. 5; 10, pp. 2, 4; 13; 14, p. 6; 20, p. 1, 11, 12.

20. Identify surface water sensitive environments that exist within 15 downstream miles of the point of surface water entry.

Environment	Water Body Type	Flow (cfs)	Wetland Frontage
Passaic River Peregrine Falcon (state-listed endangered species)	River	72	1.5 miles

Ref. Nos. 5; 13; 14, p. 6; 20, p. 1, 11, 12.

21. If a release to surface water is observed or suspected, identify any intakes, fisheries, and sensitive environments from question Nos. 18-20 that are or may be actually contaminated by hazardous substance(s) attributed to an observed release of contaminants from the site.

Intake: N/A
Fishery: N/A
Sensitive Environment: N/A

A release to surface water is not observed or suspected; refer to question 10 for a complete description of the likelihood of release.

Ref. Nos. 1, pp. 3, 4, 19, 21, 75, 76; 4, pp. 2 through 5; 13; 5, p. 7; 16, pp. 1 through 4; 20, pp. 1, 11.

22. Identify whether the surface water is used for any of the following purposes, such as: irrigation (5 acre minimum) of commercial food or commercial forage crops, watering of commercial livestock, commercial food preparation, recreation, potential drinking water supply.

Surface water is known to be used as a resource within 15 miles downstream of the site. The Passaic River and its tributaries have some recreational use.

Ref. Nos. 5; 13.

SOIL EXPOSURE PATHWAY

23. Determine the number of people that occupy residences or attend school or day care on or within 200 feet of observed contamination.

Observed contamination of site soil has been established at the Synkote Paint site. Surface soil samples were collected during the 3 July 1985 and 24 January 1989 NJDEP site sampling events. The following organic compounds were detected in soil samples collected from the site on these two occasions: benzene, bis (2-ethylhexyl) phthalate, cumene, di-n-butylphthalate, di-n-octyl phthalate, ethylbenzene, n-butylbenzene, n-propylbenzene, naphthalene, p-cymene, sec-butylbenzene, styrene, 1,2,4- and 1,3,5-trimethylbenzene, toluene, and xylenes. In January 1989 only, Aroclor-1254 was detected in Sample Nos. 2, 3, and 4. In addition, arsenic (Sample Nos. 2, 3, 4 and 5) and lead (Sample Nos. 4 and 5), were detected at concentrations which exceeded their respective SSLs during the January 1989 sampling event. There are four residences within 200 feet of the site boundary; therefore, approximately 12 persons live within 200 feet of observed soil contamination.

Ref. Nos. 1, pp. 6, 7, 41 through 65, 122 through 129; 3; 4, p. 2, 5 through 7; 9; 22, pp. 1, 2; 23, p. 2.

24. Determine the number of people that regularly work on or within 200 feet of observed contamination.

The site is currently inactive; therefore, no one regularly works on or within 200 feet of observed contamination.

Ref. Nos. 4, p. 2, 5 through 7.

25. Identify terrestrial sensitive environments on or within 200 feet of observed contamination.

No terrestrial sensitive environments have been identified on or within 200 feet of observed contamination.

Ref. Nos. 3; 20, pp. 1, 6.

26. Identify whether there are any of the following resource uses, such as commercial agriculture, silvaculturelture, livestock production or grazing within an area of observed or suspected soil contamination.

The site is located in an industrial park. There are no resource uses within areas of observed contamination.

Ref. Nos. 3; 4, p. 2, 3.

AIR PATHWAY

27. Describe the likelihood of release of hazardous substances to the air as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For an observed release, define the supporting analytical evidence and relationship to background.

The NJDEP collected soil gas readings on site, using an FID and a photoionization detector (PID). FID readings at several locations were observed to exceed 1,000 units above background. The EPA Technical Assistance Team (TAT) also conducted air monitoring using during the Removal Action using Gillian area air monitoring instruments. Elevated readings were present at this time. Drums at the site were overpacked and disposed off-site during the Removal Action. Current conditions at the site do not pose the threat of a release of contaminants to the air.

Ref. Nos. 1, pp. 4, 93, 94; 4, pp. 2 though 5; 22, pp. 1, 2, 64, 65.

28. Determine the populations that reside within four miles of the site.

Distance	Population
On site	0
>0 - ¼ mile	860
>¼ - ½ mile	3,210
>½ - 1 mile	14,660
>1 - 2 miles	84,350
>2 - 3 miles	179,860
>3 - 4 miles	170,240

Ref. Nos. 3; 7, pp. 3, 4.

29. Identify sensitive environments, including wetlands and associated wetlands acreage, within 4 miles of the site.

Distance	Wetlands Acreage	Sensitive Environments
On-site	0	N/A
0 - ¼ mile	0	N/A
¼ - ½ mile	5	N/A
½ - 1 mile	20	N/A
1 - 2 miles	80	N/A
2 - 3 miles	230	N/A
3 - 4 miles	235	2 federally listed endangered species; 2 state-listed endangered species, 1 state-listed threatened species

Ref. Nos. 3; 20, pp. 1, 6 through 12.

30. If a release to air is observed or suspected, determine the number of people that reside or are suspected to reside within the area of air contamination from the release.

A release to air is not observed or suspected; refer to question No. 27 for a complete description of the likelihood of release to air from the site.

Ref. Nos. 1, pp. 4, 93, 94; 4, pp. 2 though 5; 7, pp. 3, 4; 22, pp. 1, 2, 64, 65.

31. If a release to air is observed or suspected, identify any sensitive environments, listed in question No. 29, that are or may be located within the area of air contamination from the release.

A release to air is not observed or suspected; refer to question No. 27 for a complete description of the likelihood of release to air from the site.

Ref. Nos. 1, pp. 4, 93, 94; 4, pp. 2 through 5; 20, p. 1; 22, pp. 1, 2, 64, 65.

ATTACHMENT 1

PHOTOGRAPH LOG

SYNKOTE PAINT
VAN RIPER AVENUE, ELMWOOD PARK,
BERGEN COUNTY, NEW JERSEY

SYNKOTE PAINT
PHOTOGRAPH LOG
OFF-SITE RECONNAISSANCE
1 MARCH 2000

Photo ID Number	Description	Time
SYNP - 1	E - View of the Synkote Paint building (facing Van Riper Ave.) and parking lot. Kreisler Corp. in the background.	1420 hours
SYNP - 2	N - Fleischer's Brook surfacing point, behind the Kreisler Corporation building. A monitoring well casing is located in the brook.	1435 hours
SYNP - 3	W - Fleischer's Brook; flowing west-southwest after passing beneath the railroad right-of-way.	1440 hours

Note: N - represents the view to the north; S - the view to the south; E - the view to the east; W - the view to the west

SYNP - 1 E - View of the Synkote Paint building (facing Van Riper Ave.) and parking lot. Kreisler Corp. in the background. 1420 hours

SYNP - 2 N - Fleischer's Brook surfacing point, behind the Kreisler Corporation building. A monitoring well casing is located in the brook. 1435 hours

SYNP - 3 W - Fleischer's Brook; flowing west-southwest after passing beneath the railroad right-of-way. 1440 hours

ATTACHMENT 2

REFERENCES

SYNKOTE PAINT
VAN RIPER AVENUE, ELMWOOD PARK,
BERGEN COUNTY, NEW JERSEY

REFERENCES

1. Site Inspection Report, Synkote Paint Company, Elmwood Park, Bergen County, New Jersey, prepared by New Jersey Department of Environmental Protection (NJDEP), Bureau of Planning and Assessment, 22 December 1989.

2. United States Environmental Protection Agency, Superfund Program, Comprehensive Environmental Response, Compensation, and Liabilities Information System (CERCLIS) List, List-8I: Site/Action Listing, 4 November 1999, p. 350, List-4: Site Alias Location Listing, 15 November 1999, p. 73.

3. Four Mile Radius Map for Synkote Paint Site, based on United States Department of the Interior, Geological Survey Topographic Maps, 7.5-minute series, quadrangles for "Hackensack, NJ," 1955, photorevised 1981; "Paterson, NJ," 1955, photorevised 1981; "Orange, NJ," 1955, photorevised 1981; and "Weehawken, NJ-NY," 1967, photorevised 1981.

4. Field Logbook No. START-02-449, Synkote Paint, TDD No. 02-00-02-0006, Off-site reconnaissance conducted by Region II Superfund Technical Assessment and Response Team (START), 1 March 2000.

5. Surface Water Quality Standards, N.J.A.C. 7:9B, NJDEP, Office of Environmental Planning, April 1998.

6. Drake, Jr., Avery Ala, et al., Bedrock Geologic Map of Northern New Jersey, United States Department of the Interior, U. S. Geological Survey, Map I-2540-A, 1996.

7. Letter from Frost Associates, to Harry Allen, Region II START, Subject: Synkote Paint, Elmwood Park, NJ, 7 March 2000.

8. Congressional District Atlas, 103rd Congress of the United States, United States Department of Commerce, Economics and Statistics Administration, Bureau of the Census, February 1993.

9. Housing Units and Household Population, New Jersey, Counties and Municipalities, 1990, New Jersey State Data Center, April 1991.

10. Water Resources Data, New Jersey, Water Year 1996, Volume 1. Surface Water Data, United States Geological Survey Water-Data Report NJ-96-1.

11. Project Note from H. Allen, Region II START, to Synkote Paint site file. Subject: Synkote Paint Site: Groundwater Population Information, 20 March 2000.

REFERENCES (CONT'D)

12. Hershfeld, David M. Rainfall Frequency Atlas of the United States for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 years, United States Department of Commerce, Weather Bureau, Technical Paper No. 40.

13. Fifteen Mile Surface Pathway Map for Synkote Paint Site, based on United States Department of the Interior, Geological Survey, Topographic Map Quadrangles and National Wetland Inventory (NWI) maps for "Hackensack, NJ," 1955, photorevised 1981; "Orange, NJ," 1955, photorevised 1981; "Weehawken, NJ," 1967, photorevised 1981; and "Elizabeth, NJ," 1967, photorevised 1981.

14. Hazard Ranking System Final Rule, 40 Code of Federal Regulations, Part 300, Federal Register, Volume 55, No. 241, 14 December 1990.

15. Federal Emergency Management Agency, Flood Insurance Rate Map. Borough of Elmwood Park, New Jersey, Bergen County, Community-Panel Number 340500 0001B, 26 February 1982.

16. Project Note from H. Allen, Region II START, to Synkote Paint site file. Subject: Synkote Paint Site: Location of Fleischer's Brook, 20 March 2000; with attachments.

17. Project Note from H. Allen, Region II START, to Synkote Paint site file. Subject: Site Public and Domestic Groundwater Populations, 16 March 2000; with attachments.

18. Project Note from H. Allen, Region II START, to Synkote Paint site file. Subject: Synkote Paint Site Drainage Area and Approximate Flow Rate of the Fleischer's Brook, 29 February 2000.

19. Telecon Note: Conversation between Diane Minsavage, Region II START, and Steve Spayd, New Jersey Geological Survey. Subject: New Jersey Wellhead Protection Areas, 3 June 1999.

20. Project Note from H. Allen, Region II START, to Synkote Paint site file. Subjects: Synkote Paint Site Sensitive Environments and Synkote Paint Wetland Frontage and Acreage, 8 March 2000 and 29 February 2000; with attachments.

21. Letter from Everett Miller, Chief, Hydrologic Studies Section, United States Department of the Interior, Geological Survey, Water Resources Division, to James Rooney, EPA, Region II, Subject: 7-day 10-year minimum flows for New Jersey gauging stations, 29 November 1973.

22. Project Note from H. Allen, Region II START, to Synkote Paint site file. Subject: CERCLA Removal Action Documentation: Synkote Paint Site, 21 March 2000; with attachments.

REFERENCES (CONT'D)

23. Soil Screening Guidance: Technical Background Document, U. S. EPA, Office of Solid Waste and Emergency Response, EPA/540/R95/128, May 1996.

24. Interim Soil Survey of Bergen County, New Jersey, United States Department of Agriculture, Soil Conservation Service, January 1989.

25. Water Resources Data, New Jersey, Water Year 1996, Volume 2. Ground-Water Data, U. S. Geological Survey Water-Data Report NJ-96-2.

26. The EDR Radius Map with GeoCheck, Environmental Data Resources, Inc., 21 April 2000.

27. Project Note from H. Allen, Region II START, to Synkote Paint site file. Subject: Site Location Coordinates for the Synkote Paint Site, 14 March 2000; with attachments.

REFERENCE NO. 1

SYNKOTE PAINT COMPANY
144-160 VAN RIPER AVENUE
ELMWOOD PARK, BERGEN COUNTY, NEW JERSEY
EPA ID # NJD001394089

GENERAL INFORMATION AND SITE HISTORY

The Synkote Paint Company manufactured paint at the 0.416 acre site (Block 1401, Lot 1) located in Elmwood Park, Bergen County, New Jersey from 1956 until 1985. Richard Max owned and operated the company since 1967. Information was not available regarding the previous owner of the Synkote Paint Company. In November of 1984, complaints were received by the NJDEP, Division of Water Resources (DWR) from local health officials regarding off-site runoff and poor housekeeping. During a NJDEP RCRA inspection conducted in November 1984 by the Division of Waste Management (DWM), very poor hazardous waste storage practices and extensive soil contamination were observed.

On February 7, 1985, Synkote ceased production and filed for Assessment to Benefit for Creditors. At that time, the facility was abandoned with approximately 300 drums and containers remaining on site. Additionally, the reactor vessels inside the one building on the site were also abandoned. The property was foreclosed on by the National Community Bank of New Jersey in 1986 for unpaid mortgage debts and purchased via sheriff's sale in 1988 by Property Concepts, Inc. Elmwood Park, New Jersey.

Prior to the sale of the facility, the Synkote Paint Company became a lead case for the NJDEP Division of Hazardous Waste Management (DHWM), Bureau of Environmental Evaluation Cleanup and Responsibility Assessment (BEECRA) under the Environmental Cleanup and Responsibility Act (ECRA) due to the plant's closure. The owner, Richard Max, did not acknowledge his responsibility under ECRA and did not file the required paperwork for the case to be assigned. In 1988, the case was referred to the Attorney General's Office. The sheriff's sale of the property was completed without the knowledge or approval of the NJDEP or the Attorney General's Office.

The United States Environmental Protection Agency (USEPA), New Jersey Site Compliance Branch and Office of Regional Counsel issued Notice Letters, dated April 25, 1989, to the four potentially responsible parties (PRPs) that have been identified regarding their potential liability. They are Synkote Paints, Mr. Richard E. Max, the National Community Bank of New Jersey (NCB) and Property Concepts, Inc.

Mr. Richard Max, through his attorney, has expressed no interest in performing a removal action. NCB has denied any liability. A Consent Order for the removal of all hazardous materials from the site was sent to Property Concepts, Inc. Property Concepts, Inc. was not able to comply with the Consent Order and in October 1989, the EPA undertook a Removal Action under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) as amended by the Superfund Admendments and Reauthorization Act (SARA), to mitigate the threat posed by the drums, containers and vessels of hazardous substances at the Synkote Paint site. At the time of this report, all the drums at the site have been overpacked and are due to be removed in the near future.

The site is in a highly urbanized area in which residential, commercial and industrial properties are all located within close proximity of the site. The properties directly east and south of the site are occupied by light industrial facilities. A residential area is located 50 feet to the north of the site, directly across the street. The approximate populations residing within 1 and 4 miles of the site are 30,000 and 172,000 people, respecively.

SITE OPERATIONS OF CONCERN

The Synkote Paint Company was a small manufacturer of solvent-based industrial coatings. The manufacturing process generally involved the compounding of pigments and resins in reactors with solvents such as xylene, toluene, isopropyl alcohol, methy lisobutyl ketone (MIBK), methyl ethyl ketone (MEK) and butylacetone. No hazardous wastes were generated by the process. However, hazardous wastes were generated when manufacturing vessels were washed out with solvents. The resulting waste material was stored in 55-gallon drums which were to be disposed of off site.

During an inspection conducted by the NJDEP, DHWM, Bureau of Metro Enforcement (BME) on November 8, 1984, approximately 200 drums were observed to be stored haphazardly east of the manufacturing building. Full and empty drums were mixed and stored directly on the ground. Several drums were noted to be in poor condition or to be missing lids. Soil contamination resulting from overflowing drums and generally poor housekeeping was noted in both the eastern portion of the site and in the hazardous waste storage area.

Another inspection conducted by BME on November 10, 1988, revealed similar conditions in the site yard as those observed previously. Upon entering the unoccupied Synkote building, 16 drums of unknown material were noted along with a number of hazardous waste salvage drums marked "S&W Waste" and dated November 11, 1985. The drums contained resins (marked "toxic") and primers (marked "flammable liquid"). A lab table in the building was noted to hold numerous known and unknown chemicals in 1 quart to 1 gallon size containers. The contents of these containers included butanol, epichlorhydrin, neoprene latex, glacial acetic acid, diethanolamine, 2-ethylhexanoic acid, triethanolamine, isophorone, unknown acids and other unlabled liquids and solids.

An investigation by USEPA conducted in 1989 confirmed the presence of approximately 300 improperly stored drums, containers and vessels of hazardous substances at the site. Labels on some of the containers indicated the contents to be predominantly solvents, corrosives and paint waste solutions. Many of the materials were considered by USEPA to be flammable and/or poisonous and presented a threat of fire or vapor release. The materials were noted to be highly toxic, incompatable and potentially unstable under their present storage conditions. The drums and vessels were noted to be in deteriorated condition and to present a potential for human exposure through direct contact or discharge into the environment.

GROUNDWATER ROUTE

The topography surrounding the site generally consists of gently sloping hills. The elevation of the site is approximately 50 feet above mean sea level (MSL). The area surrounding the site has only a slight slope,

however, the site itself has an average slope of nearly 5° toward the northeast.

Site specific hydrogeologic information is not available. However, the L.,J., and M. La Place Chemical Company site, which is located approximately 0.5 mile northeast of the site, has been extensively studied. The overburden in the vicinity of site consists of unconsolidated, low permeability silts and clays overlying the sandstones and shales of the Triassic Age Brunswick Formation. Test borings advanced at the La Place site indicate that bedrock occurs at a depth of approximately 38 feet and that groundwater occurs between 1 and 4 feet below the surface in the unconsolidated layers. The Synkote site is located in an area of higher elevation than the La Place site, therefore, the depths to groundwater and bedrock may be greater. Monitoring well data collected at La Place also indicates that the shale bedrock is fully saturated and that groundwater within the bedrock is under confined conditions. The materials comprising the Brunswick Formation are relatively impermeable, but it has a excellent water bearing property due to the high secondary porosity resulting from fracturing in the rock.

The Garfield Municipal Wells, which supplied water to approximately 30,000 people, are located approximately 0.5 mile north of the site and were shown to be contaminated in 1982. Compounds found in the groundwater included trichloroethylene, tetrachloroethylene and other chlorinated solvents. A private well located 0.5 mile from the site is also contaminated by similar chemicals. The City of Garfield Water Department shut down its well fields in Garfield and Elmwood Park on March 20, 1989. The wells were shut down due to unacceptable levels of volatile organic compounds, until air strippers are installed some time in 1990. Garfield and Elmwood Park are temporarily purchasing water from the Passaic Valley Water Commission. Although the La Place Chemical site is believed by the NJDEP-DWR to be responsible for the groundwater contamination in the area, volatile organic compounds discovered in soil samples collected at Synkote Paint also have the potential to contribute to groundwater contamination.

In addition to the Garfield Wells, approximately 30 public water supply wells exist within 4 miles of the site including those that serve Saddle Brook, Elmwood Park, Fair Lawn Borough, Lodi Borough, Wallington Borough, Ridgewood Village, Hawthorne and Hackensack. All wells are screened in the Brunswick Formation and are 300 to 600 feet in depth. The total population served by groundwater from wells within a 4 mile radius of the site is approximately 172,000. In addition to the municipal wells, 65 industrial and commercial wells are also located within the site area.

SURFACE WATER ROUTE

There is a potential for surface water contamination. Chemicals spilled on the ground of the site may be carried via rain runoff to a storm sewer catch basin which discharges into Fleischer Brook. Fleischer Brook flows into the Passaic River approximately 2 miles downstream from the site. Elmwood Park's health officer stated that he and local residents living near Synkote have seen whitish colored runoff from the site entering into the storm drains.

There are no surface water intakes for potable purposes on the Passaic River. The river is classified as "FW2" non-trout water that is used for industrial and agricultural supply purposes and may be used for primary and secondary contact recreation. There are no wetlands or endangered species within 1 mile of the site.

AIR ROUTE

There was a potential for volatile organic chemicals stored in leaking drums to contaminate the air. Since all drums have been overpacked and are to be removed by EPA, this potential has been eliminated. During the Pre-Sampling Assessment conducted by NJDEP, DHWM, Bureau of Planning and Assessment (BPA), soil gas readings in several locations exceeded 1000 ppm on both the HNu and the Organic Vapor Analyzer (OVA), however, ambient air readings remained at background levels.

SOIL

As stated previously, both visual observations and analytical data have confirmed soil contamination at the site as a result of poor hazardous waste storage practices and housekeeping. Four soil samples collected by the NJDEP-DWR on July 3, 1985 revealed the presence of toluene (965 ppm), o-xylene (205 ppm), ethyl benzene (17 ppm), benzene (48 ppm), cumene (27 ppm), styrene (103 ppm), p-xylene (160 ppm) and 1,2,4 trimethylbenzene (718 ppm). Additional sampling was conducted by the NJDEP, Bureau of Planning and Assessment on January 24, 1989. Contaminants detected in the soil samples included cadmium (13.9 ppm), chromium (268 ppm), zinc (1970), ethyl benzene (up to 728,000 ppb), toluene (up to 1,415,000 ppb), xylene (up to 5,716,000 ppb), bis (2-ethylhexyl)phthalate (1,800,000 ppb), naphthalene (19,000 ppb) and Aroclor 1254 (up to 290,000 ppb). (see Summary of Site Investigation and Sampling Data for break down of results)

DIRECT CONTACT

There is a potential for direct contact with waste via observed site runoff. Additionally, during a presampling assessment conducted by NJDEP, BPA on January 18, 1989, it was noted that site access could be gained through a poorly secured door to the abandoned Synkote building. The present owner of the site has improved site security since the inspection.

FIRE AND EXPLOSION

A potential exists for fire or explosion due to the nature of materials present. The site is accessable to trespassers and thus posing a risk for vandalism or arson. Drum cleanup activities conducted by the USEPA have reduced this risk.

ADDITIONAL CONSIDERATIONS

Chemicals that have been spilled on the ground may impact upon plants and animals. The presence of heavy metals in the soil may potentially allow contamination of the food chain.

Damage to off-site property has been alleged. A worker who parked his car on a lot adjacent to the site claimed that chemicals in the runoff from the site damaged his car's tires.

ENFORCEMENT ACTIONS

A history of regulatory/enforcement actions is summarized below:

1982-1983	Notice of Violation Failure to submit Annual Report to NJDEP, Bureau of Hazardous Waste Engineering
June 6, 1985	Administrative Order and Penalty Settlement Offer for hazardous waste violations
September 9, 1985	Directive Letter for a spill of mineral spirits
January 1, 1986	Directive Letter requiring installation of monitoring wells
March 3, 1986	Late Directive due to Synkote Paint Company's inaction
July 7, 1987	Notice of Civil Administrative Penalty Assessment for a manifest violation
November 11, 1988	Notice of Violation for numerous hazardous waste violations

Additional enforcement actions have already been discussed under the site's background and history.

SUMMARY OF SAMPLING DATA

Sampling date:	January 24, 1989
Sampled by:	NJDEP, Division of Hazardous Waste Management Bureau of Planning and Assessment 65 Prospect Street Trenton, New Jersey
Samples:	A total of five soil samples were collected from locations chosen during a pre-sampling assessment conducted on January 18, 1989. The locations were chosen based on soil gas readings in excess of 1000 ppm (read as methane) using an Organic Vapor Analyzer (OVA)
Laboratory:	Versar, Inc. 6850 Vesar Center Springfield, VA 22151 NJDEP Lab Certification # 84419
Parameters:	The soil samples were analyzed for the Target Toxic Compound List plus 30 peaks.

Sample description:

Soil # 1 was collected at a depth of 0 to 8 inches. The sample location was on site, near the southeastern corner of the building, east of the concrete drum storage pad. Runoff and leaking material from stored drums was noted at this area.

Soil # 2 was collected at a depth of 0 to 7 inches. The sample location was east/downslope of the abandoned drums in the southeastern section of the site property. The sampling site was identified as the location of drum spill/leak.

Soil # 3 was collected at a depth of 6 to 12 inches. The sample location was identified as the rear portion of a cinder block berm, approximately 10 feet west of the eastern wall.

Soil # 4 was collected at a depth of 8 to 12 inches. The sample location was identified as an open spot in the central portion of the property, among abandoned drums. (It was noted that approximately one hour after the sample was collected, the sample hole continued to emit volatiles into the air, providing readings on the OVA as high as 800 ppm).

Soil # 5 was collected at a depth of 0 to 8 inches. The sample location was described as beneath the lower corner of a dumpster in the western portion of the site.

Contaminants Detected:

SAMPLE #	CONTAMINANTS DETECTED	CONCENTRATION	NJDEP ACTION LEVEL
SOIL # 1	METALS	BELOW ACTION LEVELS	
	ACETONE	6000 PPB	1000 PPB
	TOTAL XYLENES	30,000 PPB	1000 PPB
SOIL # 2	METALS	BELOW ACTION LEVELS	
	ETHYL BENZENE	6.0 PPB	1000 PPB
	TOTAL XYLENES	25.0 PPB	1000 PPB
	AROCLOR 1254	89 PPB	1000 PPB
SOIL # 3	METALS	BELOW ACTION LEVELS	
	ETHYL BENZENE	276,000 PPB	1000 PPB

	TOTAL XYLENES	5,716,000 PPB	1000 PPB
	UNKNOWN VOCs	13,000-350,000 PPB	
	UNKNOWN HYDROCARBONS	17,000 PPB	
	AROCLOR 1254	91 PPB	1000 PPB
SOIL # 4	CADMIUM	13.9 PPM	3 PPB
	CHROMIUM	268 PPM	100 PPM
	LEAD	1590 PPM	1000 PPM
	ZINC	1970 PPM	350 PPM
	TOLUENE	1,415,000 PPB	1000 PPB
	ETHYL BENZENE	728,000 PPB	1000 PPB
	TOTAL XYLENES	530,000 PPB	1000 PPB
	BIS(2-ETHYLHEXYL)PHTHALATE	1,800,000 PPB	10,000 PPB
	NAPHTHALENE	19,000 PPB	10,000 PPB
	DI-N-BUTYLPHTHALATE	58,000 PPB	10,000 PPB
	DI-N-OCTYLPHTHALATE	18,000 PPB	10,000 PPB
	TENTATIVELY IDENTIFIED VOCs	66,000-400,000 PPB	
	UNKNOWN HYDROCARBONS	33,000-380,000 PPB	
	AROCLOR 1254	290,000 PPB	1000 PPB
SOIL #5	METALS	BELOW ACTION LEVELS	
	ETHYLBENZENE	4 PPB	1000 PPB
	TOTAL XYLENES	31 PPB	1000 PPB
	BIS(2-ETHYLHEXYL)PHTHALATE	57,000 PPB	10,000 PPB

QA/QC: One trip blank and one field blank were provided by the lab for QA/QC purposes. NJDEP sampling procedures and protocol were followed during the sampling episode. The data was submitted to the NJDEP, Division of Hazardous Site Mitigation, Bureau of Environmental Measurements and Quality

Assurance for review. The results of the QA/QC review are pending.

PRIORITY DESIGNATION

Based on the conditions at the site at the time of the Site Inspection, the Synkote Paint Site is assigned a high priority for further action. Soil contamination has been confirmed and there is also a potential for air, surface water and groundwater contamination. An investigation by the USEPA (Attachment D) confirmed the presence flammable and poisonous materials stored under potentially unstable conditions. There is a potential for fire or vapor release and direct contact. There have been reports of break-ins and vandalism at the facility.

RECOMMENDATIONS

In the fall of 1989, following the site inspection, short term remedial measures including securing all leaking drums, identification and segregation of material and the storage of materials for removal has been completed as part of an USEPA Removal Action under CERCLA.

Further delination of soil contamination and evaluations of potential ground and surface water contamination are still required to fully identify environmental and health risk at the site prior to the performance of long term remedial measures.

Submitted by

Robert Raisch, HSMS II
Bureau of Planning and Assessment
December 22, 1989

SYNKOTE PAINT COMPANY
144-160 VAN RIPER AVENUE
ELMWOOD PARK, BERGEN COUNTY, NEW JERSEY
EPA ID # NJD001394089

ATTACHMENTS

MAPS

1. USGS HACKENSACK QUADRANGLE
2. SITE MAP
3. ELMWOOD PARK TAX MAP
4. BERGEN COUNTY STREET AND ROAD MAP
5. ATLAS BASE MAP, SHEET NO. 26
6. GEOLOGIC OVERLAY
7. WATER SUPPLY MAP
8. DRAINAGE MAP
9. WATER WITHDRAWAL MAP

ATTACHMENTS		DATE	SOURCE
A.	SITE SAMPLING ACTIVITIES MEMO AND ANALYTICAL RESULTS	1/27/89	BPA
B.	SITE SAMPLING PLAN MEMO	1/20/89	BPA
C.	PRELIMINARY ASSESSMENT	10/1/86	BPA
D.	USEPA PRELIMINARY ASSESSMENT AND CERCLA REMOVAL ACTION AUTHORIZATION	8/5/89	MBE
E.	EPA-LETTER RE: SYNKOTE PAINT	4/25/89	MBE
F.	MEMO RE: SYNKOTE AS A POSSIBLE REMOVAL ACTION CANDIDATE	2/7/89	MBE
G.	MEMO RE: REFERRAL OF SYNKOTE PAINT	1/6/89	BPA
H.	NOTICE OF CIVIL ADMINISTRATIVE PENALTY ASSESSMENT	7/6/89	MBE
I.	DIRECTIVE LETTER	9/20/85	MBE
J.	ADMINISTRATIVE ORDER	6/6/85	MBE
K.	PENALTY SETTLEMENT OFFER	6/6/85	MBE
L.	MEMO RE: SYNKOTE SITE INVESTIGATION	3/10/89	MBE

M.	INVESTIGATION	1/24/89	MBE
N.	INVESTIGATION	1/24/89	MBE
O.	LETTER RE: DWR SOIL SAMPLING RESULTS	1/3/86	MBE DWR
P.	DIVISION WATER RESOURCES INVESTIGATION MEMORANDUM	7/3/85	MBE DWR
Q.	LETTER RE: GARFIELD WELL CONTAMINATION	6/14/88	MBE DWR
R.	LETTER RE: GARFIELD WELL CONTAMINATION	3/22/89	MBE DWR
S.	REPORT OF PHONE CALL RE: GARFIELD AND ELMWOOD PARK WELL CONTAMINATION	6/1/89	MBE DWR

NJD001294089

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE IDENTIFICATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Synkote Paint	144-160 Van Riper Ave

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Elmwood Park	NJ	07407	Bergen	02	

09 DIRECTIONS TO SITE (Starting from nearest public road)

GSP to Exit 157 Rt 46 East First light - left onto Boulevard Cross Market St. First right after railroad tracks onto Van Riper Ave - Synkote Paint Co is on right.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, residential, mailing)
Richard E Max	578 Dorchester Drive

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
River Vale	NJ	07675	(201) 391-5182

07 OPERATOR (If known and different from owner)	08 STREET (Business, residential, mailing)
Same	

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			( )

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

IV. HOW IDENTIFIED

01 DATE IDENTIFIED: 11 / 13 / 81 (MONTH DAY YEAR)

02 IDENTIFIED BY (Check all that apply)

☒ A. CITIZEN COMPLAINT ☐ B. INDUSTRY ☒ C. STATE/LOCAL GOVERNMENT ☐ D. AERIAL RECONNAISANCE

☒ E. RCRA INSPECTION ☐ F. SURFACE IMPOUNDMENT ASSESSMENT ☐ G. OTHER EPA IDENTIFICATION

☐ H. OTHER _____ (Specify)

V. SITE CHARACTERIZATION

01 TYPE OF SITE (Check all that apply)

☒ A. STORAGE ☐ B. TREATMENT ☐ C. DISPOSAL ☒ D. UNAUTHORIZED DUMPING ☐ E. OTHER _____ (Specify)

02 SUMMARY OF KNOWN PROBLEMS (Provide narrative description)

Lab analysis of soil samples taken from site shows contamination by the following solvents: Toluene, o-xylene, m-xylene, Ethylbenzene, Benzene, Cumene, Styrene

03 SUMMARY OF ALLEGED OR POTENTIAL PROBLEMS (Provide narrative description)

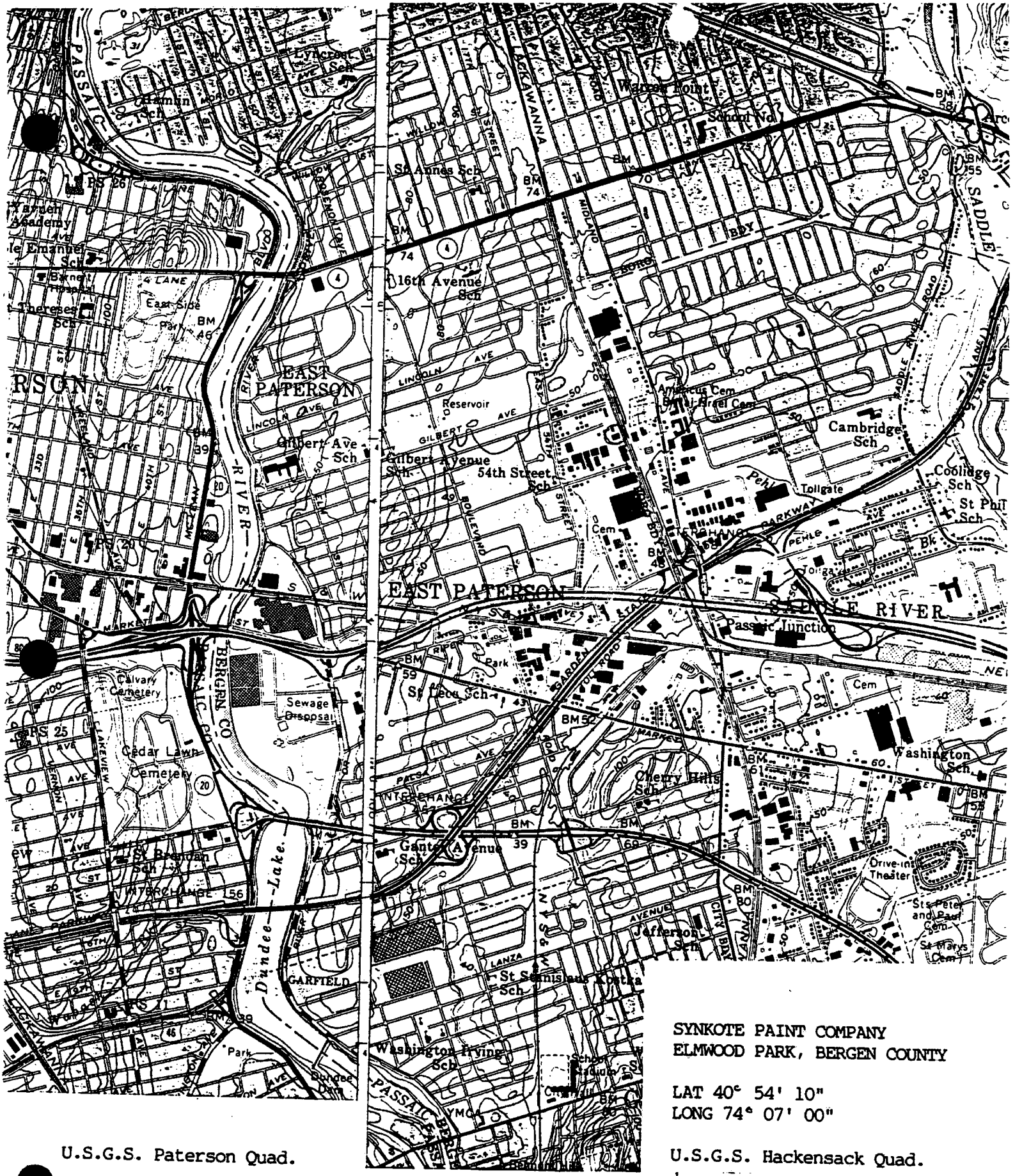
Potential exsist for contamination of surface water through observed run off into catch basin, ground water and drinking water supply. The Garfield Municiple wells which supplies approx 30,000 people with water is approximately 3/4 of mile from site.

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
HELEN DECERCE	NJDEP - BUREAU OF SITE ASSESSMENT	609) 633-2218

04 PREPARED BY	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Robert Raisch	NJDEP	DHWM BSA	(609) 984-3018	09 / 15 / 86 (MONTH DAY YEAR)

EPA FORM 2070-11 (7-81)



SYNKOTE PAINT COMPANY
ELMWOOD PARK, BERGEN COUNTY

LAT 40° 54' 10"
LONG 74° 07' 00"

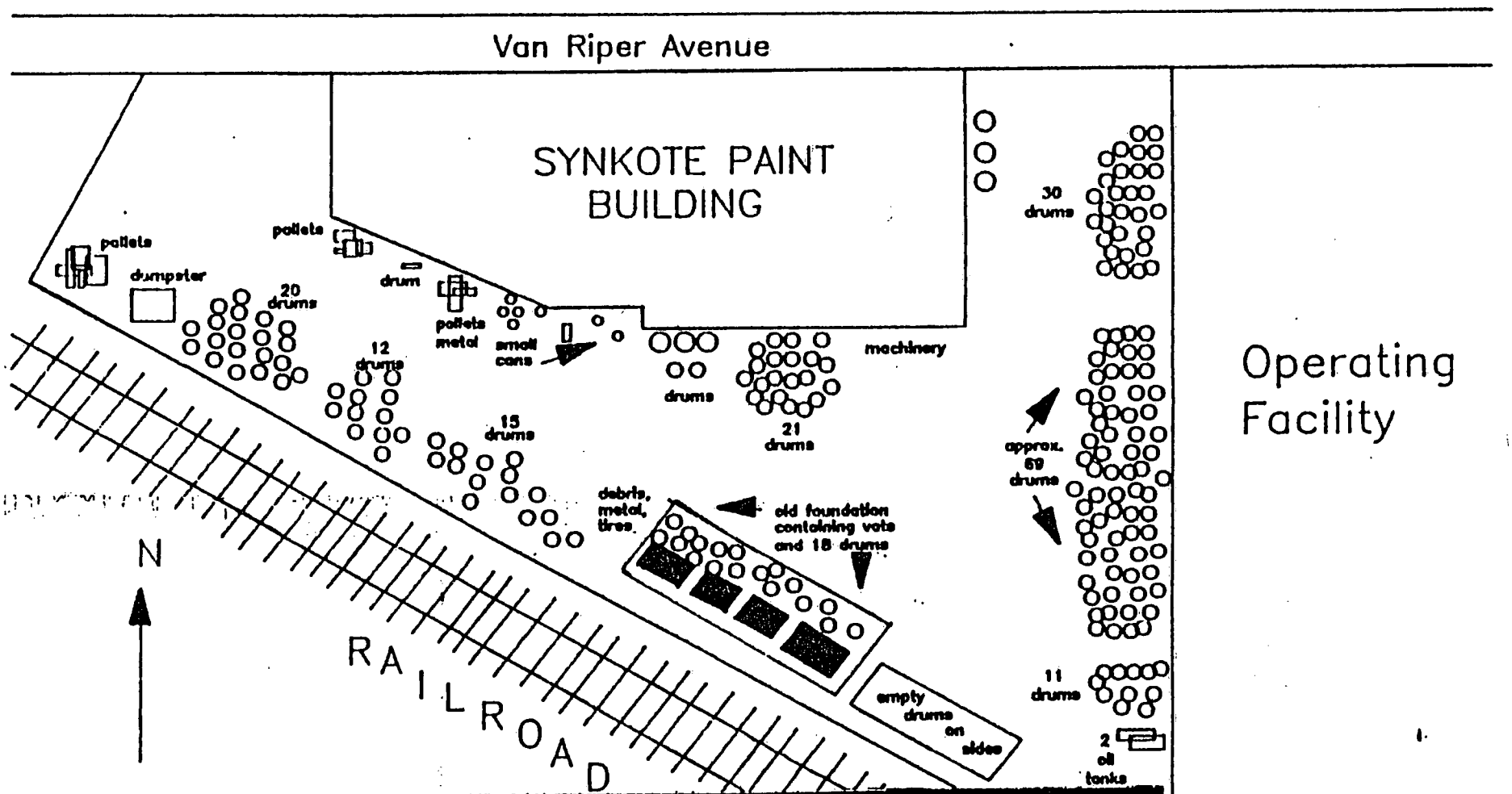
U.S.G.S. Paterson Quad.

U.S.G.S. Hackensack Quad.

SCALE 1 24000

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

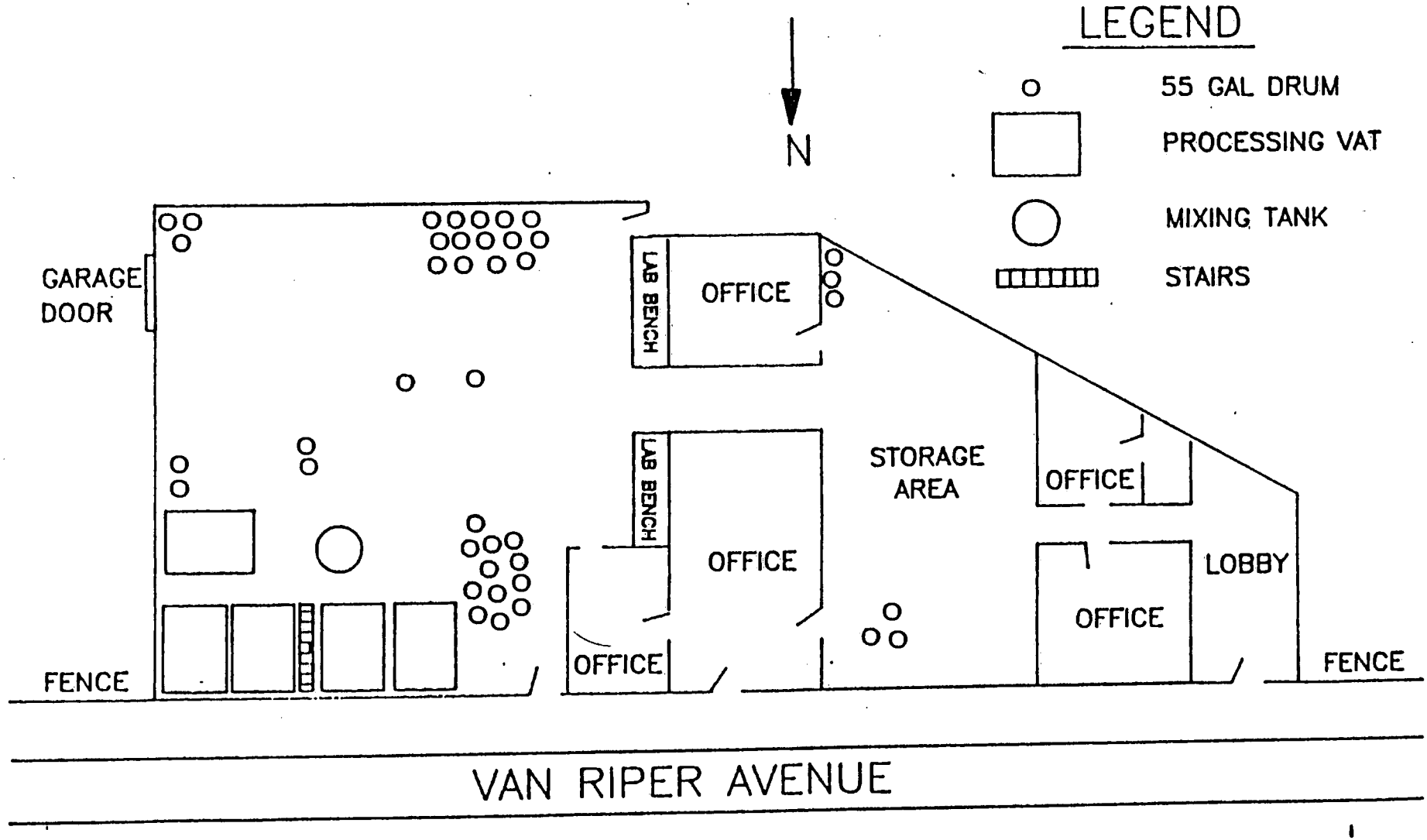
NEW JERSEY



WESTON — SPILL PREVENTION & EMERGENCY RESPONSE DIVISION	EPA PM D. Harrington	Figure 2 Site Yard Map
In Association with ICF Technology Inc., C.C. Johnson & Associates, Inc., Resource Applications, Inc., Geo/Resource Consultants, Inc., and Environmental Toxicology International, Inc.	TAT PM D. Belyung	Drawing not to Scale

p.13

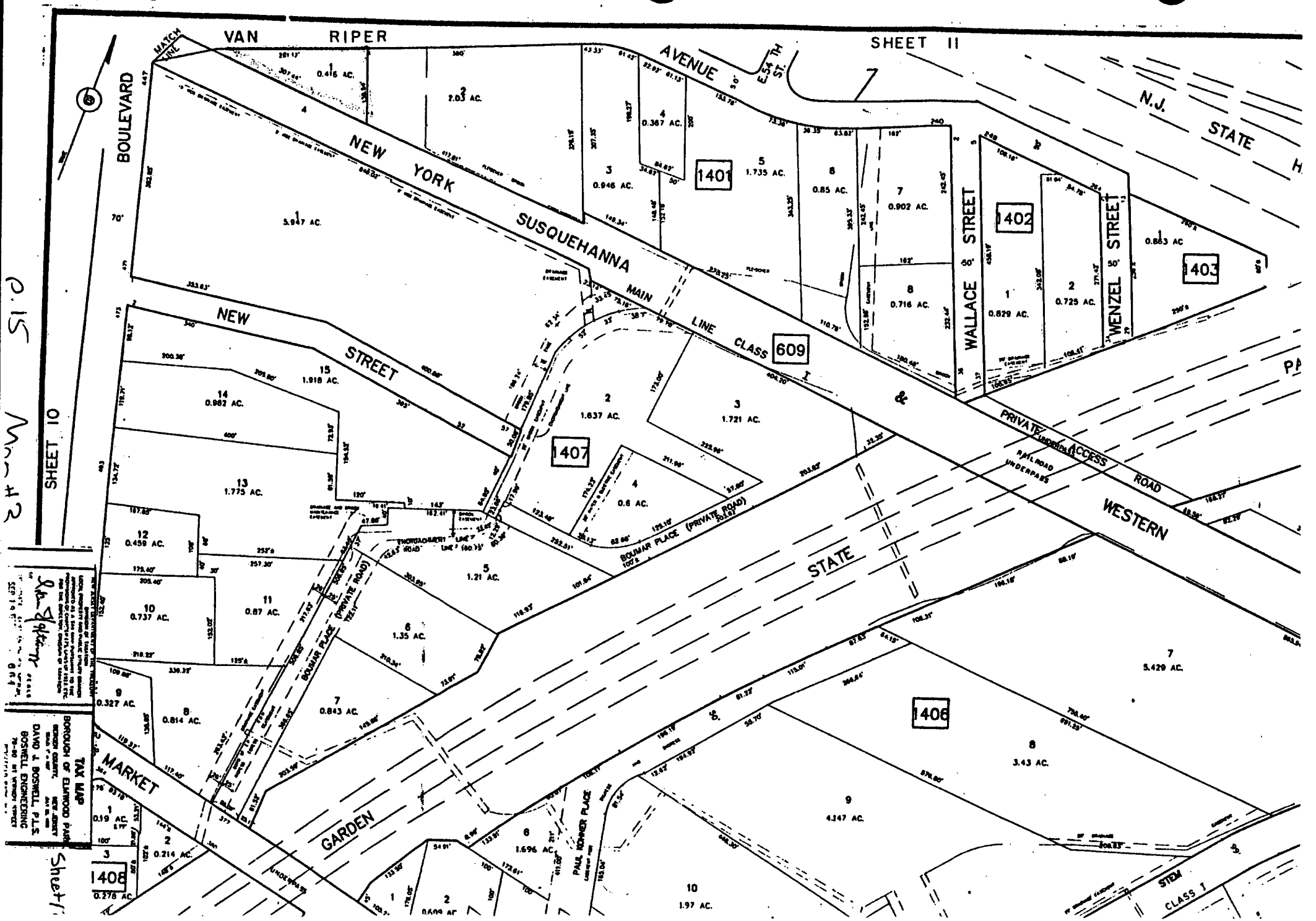
Map 2-A



WESTON — SPILL PREVENTION & EMERGENCY RESPONSE DIVISION	EPA PM D. Harrington	Figure 3 Building Interior
In Association with ICF Technology Inc., C.C. Johnson & Associates, Inc., Resource Applications, Inc., Geo/Resource Consultants, Inc., and Environmental Toxicology International, Inc.	TAT PM D. Belyung	Drawing not to Scale

P. 14

Map 2-B

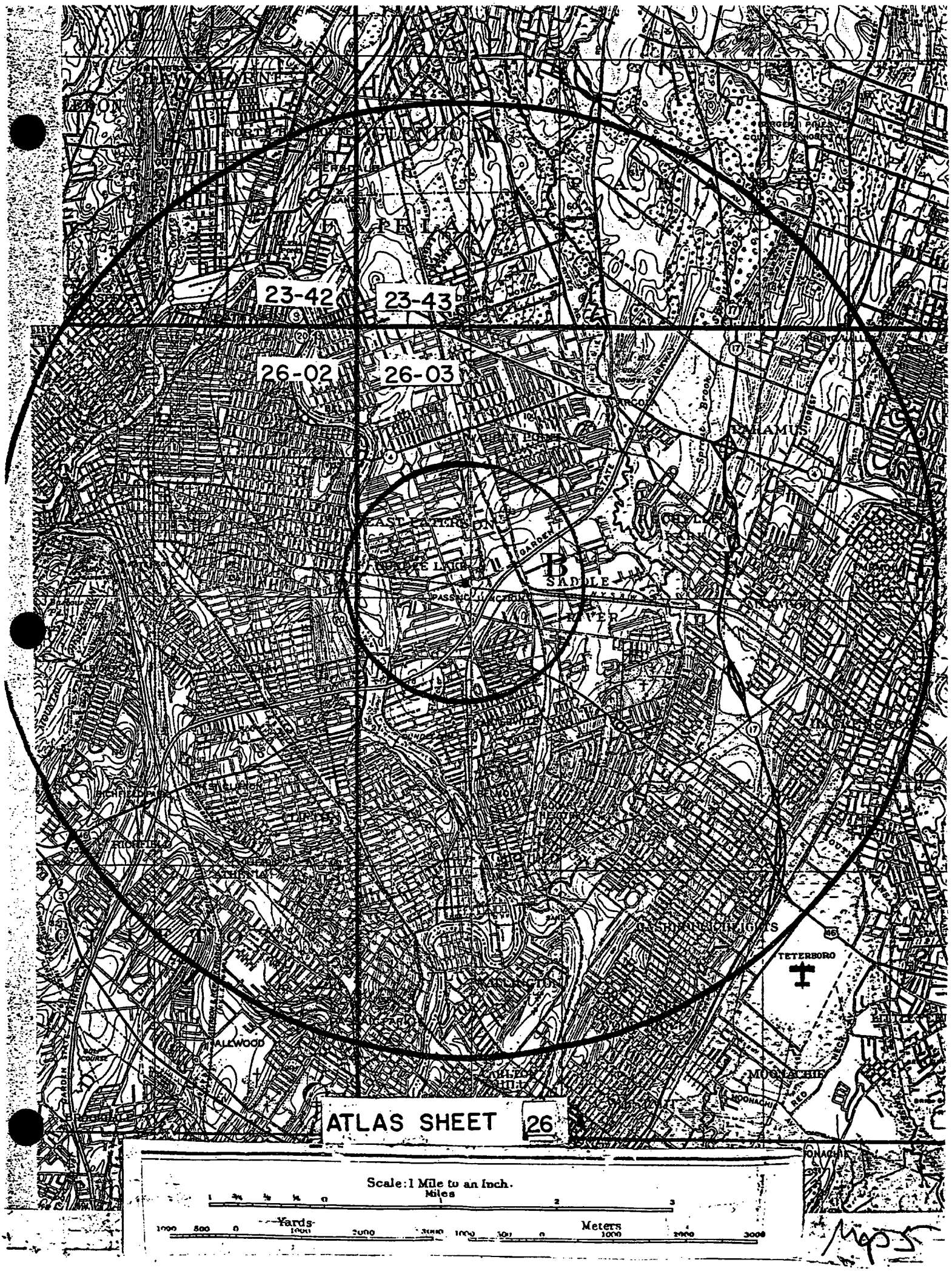


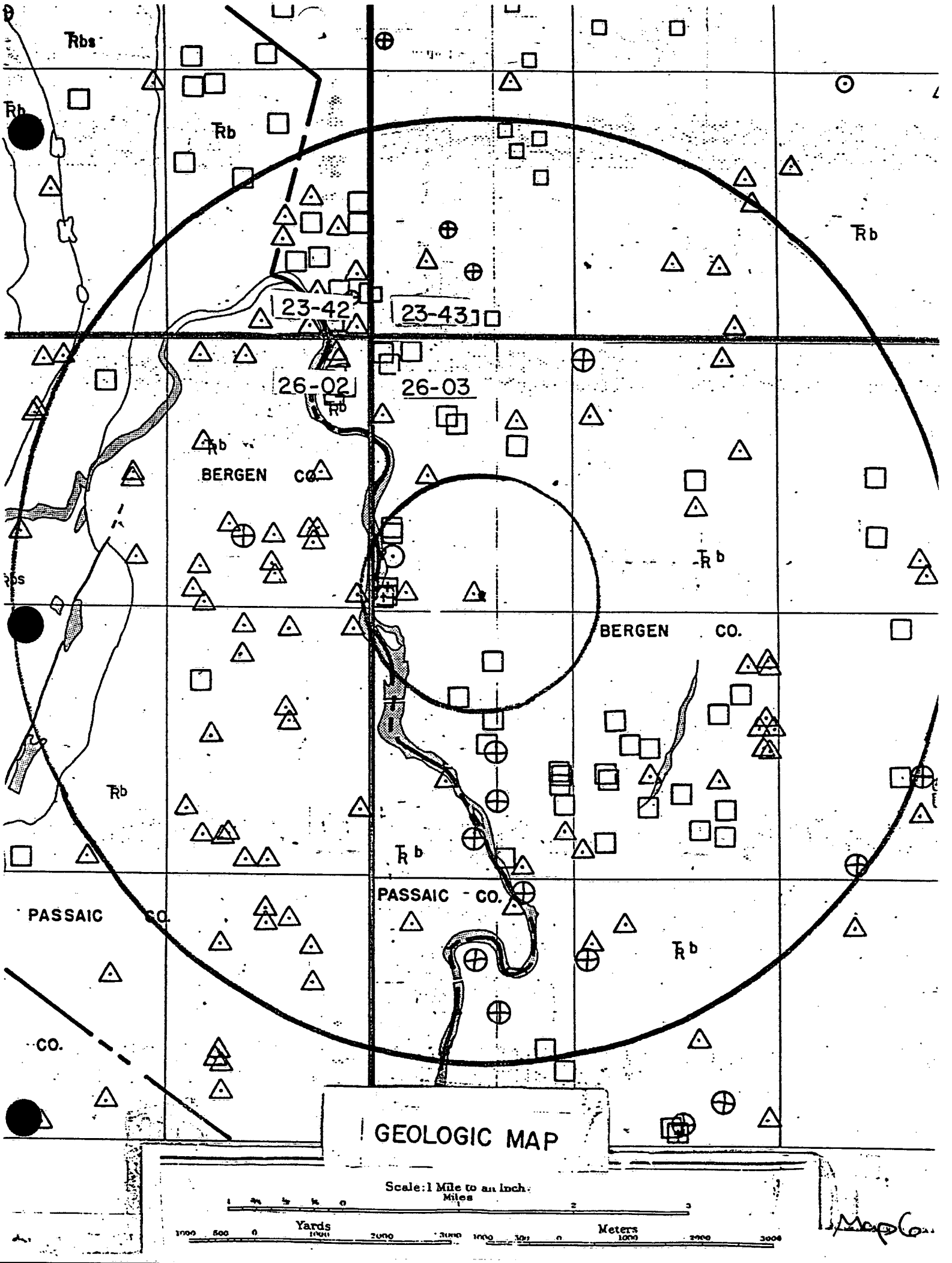
0.15 Map #3

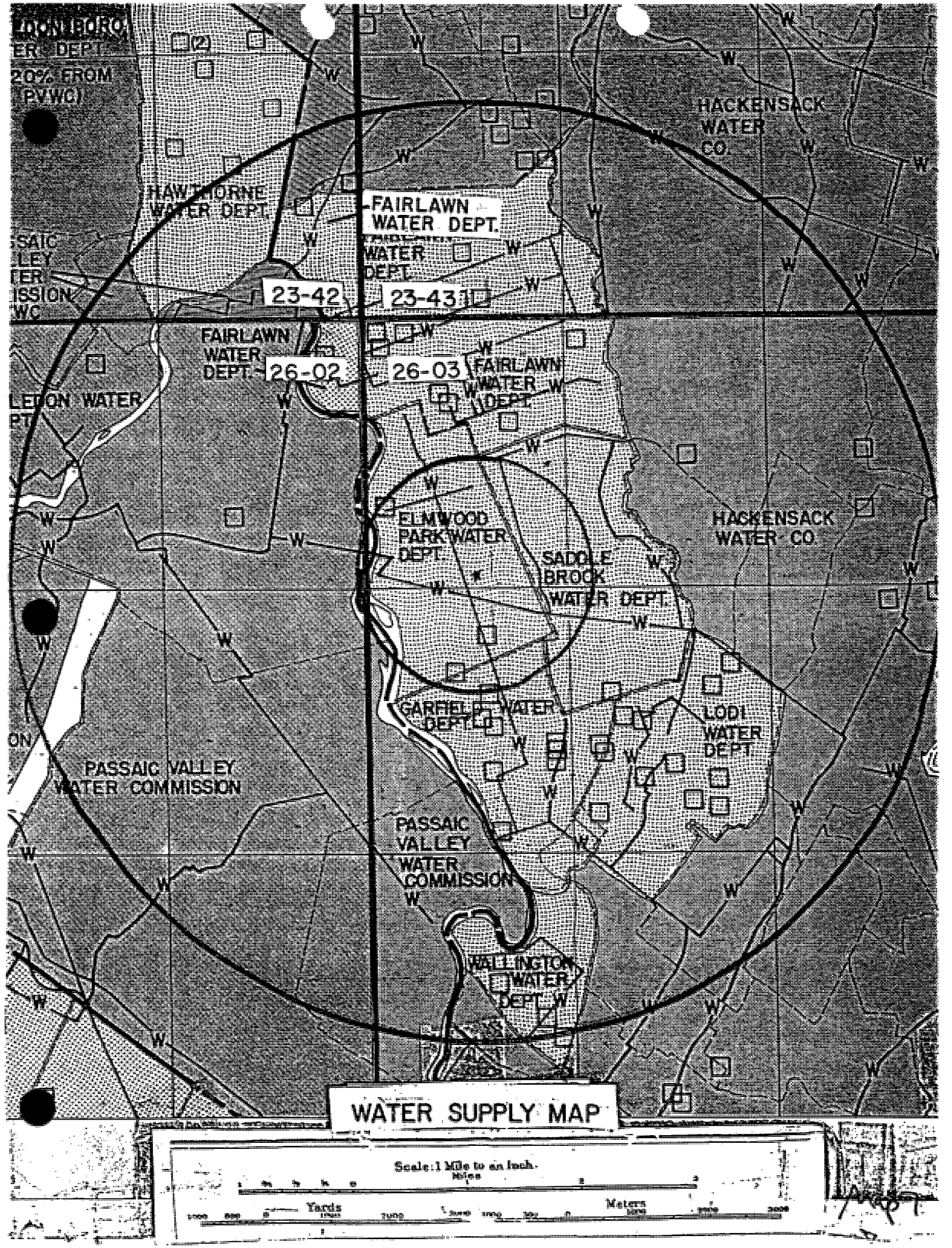
Sheet 1

Syntkote Paint Company
- 160 Van Riper Ave
Elmwood Park, Bergen Co

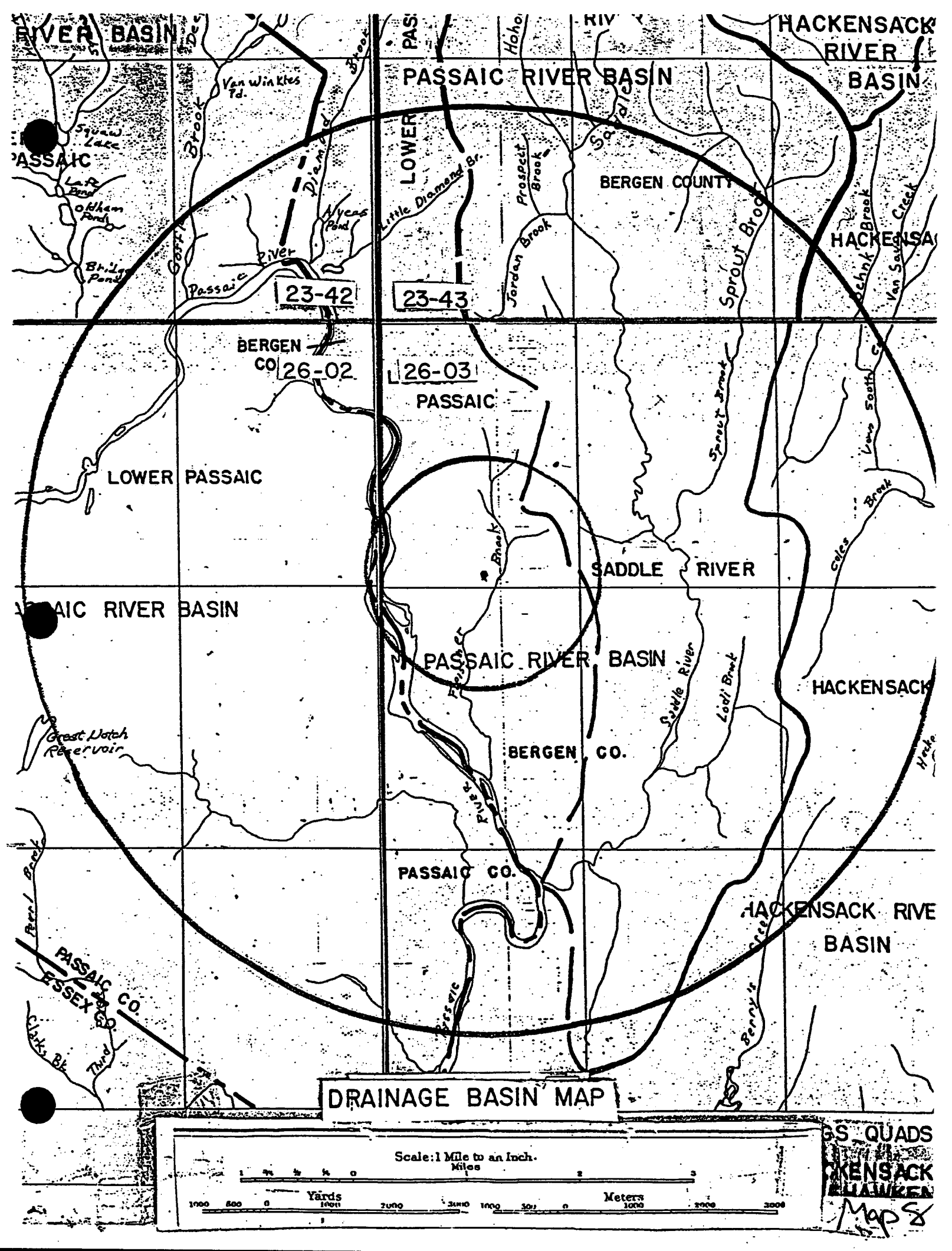
Hegstrom Street + Road Map
Map 4


23-42
23-43
26-02
26-03
PARAMUS
EAST PATERSON
SADDLE
RIVER
TETERBORO
ALLWOOD
MOONACHIE
ATLAS SHEET 26
Scale: 1 Mile to an Inch.
Miles
Yards
Meters


Trbs
Trb
23-42
23-43
26-02
26-03
BERGEN CO.
BERGEN CO.
PASSAIC CO.
PASSAIC CO.
CO.
GEOLOGIC MAP
Scale: 1 Mile to an Inch
Miles
Yards
Meters



WATER SUPPLY MAP


PASSAIC RIVER BASIN
HACKENSACK RIVER BASIN
LOWER
BERGEN COUNTY
23-42
23-43
BERGEN CO
26-02
26-03
PASSAIC
LOWER PASSAIC
SADDLE RIVER
PASSAIC RIVER BASIN
HACKENSACK
BERGEN CO.
PASSAIC CO.
HACKENSACK RIVE
BASIN
PASSAIC CO.
ESSEX CO.
Squaw Lake
Oldham Pond
Alyeas Pond
Little Diamond Br.
Prospect Brook
Jordan Brook
Sprout Brook
Van Saun Creek
Coles Brook
Saddle River
Lodi Brook
Great Notch Reservoir
Berry's Creek
Clarks Br.
Third
DRAINAGE BASIN MAP
Scale: 1 Mile to an Inch.
Miles
Yards
Meters
GS QUADS
Map 8

LEGEND FOR ATLAS SHEET 26 (GEOLOGY)

△ — INDUSTRIAL WELL YIELD OVER 70 GALLONS PER MINUTE (INCLUDING PRIVATE WELLS)

□ — PUBLIC SUPPLY WELL YIELDING OVER 70 GALLONS PER MINUTE

⊕ — UNSUCCESSFUL ROCK WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

⊙ — UNSUCCESSFUL SAND WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

⊡ — NO TEST — NO DATA ON YIELD

FAULT (DASHED WHERE INFERRED)

CONTACT (DASHED WHERE INFERRED)

PHYSIOGRAPHIC PROVINCE BOUNDARY

WATER SUPPLY TRANSMISSION LINE

NOTE: WHERE THE PRECAMBRIAN FORMATION BOUNDARIES TERMINATE ABRUPTLY, IT IS THE GEOLOGIST'S OPINION THAT THE GEOLOGICAL COMPLEXITY OF THE AREA PREVENTS FURTHER INTERPRETATIONS.

Kmr — CRETACEOUS MAGOTHY AND RARITAN FORMATIONS (SAND AND CLAY)

Ꞧb — TRIASSIC BRUNSWICK FORMATION

Ꞧc — TRIASSIC CONGLOMERATE BEDS OF THE STOCKTON FORMATION

Ꞧl — TRIASSIC LOCKATONG FORMATION

Ꞧdb — TRIASSIC DIABASE

Ꞧbs — TRIASSIC BASALT FLOWS

Sd — SILURIAN DECKER LIMESTONE AND LONGWOOD SHALE FORMATIONS

Sgp — SILURIAN GREEN POND CONGLOMERATE

Omb — ORDOVICIAN MARTINSBURG SHALE

€Ok — CAMBRO ORDOVICIAN KITTATINNY LIMESTONE

€h — CAMBRIAN HARDYSTON SANDSTONE

PRECAMBRIAN:

gh - HORNBLENDE GRANITE WITH PYROXENE GRANITE

ga - ALASKITE

am - AMPHIBOLITE

px - PYROXENE GNEISS

gnq - QUARTZ PLAGIOCLASE GNEISS

gnb - BIOTITE GNEISS

sk - SKARN, GRAPHITE SCHIST

fnd — FORMATION NOT DETERMINED

p. 21

LEGEND

WATER SUPPLY

- AREA SERVED BY PRIVATE WATER SERVICE COMPANIES
- AREA SERVED BY REGIONALLY OWNED WATER SERVICE COMPANIES
- AREA SERVED BY MUNICIPALLY OWNED WATER SERVICE COMPANIES
- AREA NOT PRESENTLY SERVED BY WATER SERVICE
- PUBLIC SUPPLY WELLS
- WATER MAIN ACROSS HIGHWAY FOR FUTURE USE
- SURFACE WATER INTAKE
- —W— MAJOR WATER MAINS

SEWAGE, LANDFILL

- AREA SERVED BY PUBLIC SEWAGE SERVICE
- AREA NOT PRESENTLY SERVED BY SEWAGE SERVICE
- SANITARY LANDFILLS
- SEWAGE TREATMENT PLANTS (CAPACITY <0.3mgd)
- SEWAGE TREATMENT PLANTS (CAPACITY ≥0.3mgd)
- —S— MAJOR SEWAGE TRANSMISSION LINES

DRAINAGE BASIN

- DRAINAGE BASIN BOUNDARY
- RIVER BASIN BOUNDARY
- HUDSON DRAINAGE BASIN NAME
- STREAMS AND RIVERS
- FLOOD PRONE AREAS

POPULATION

- COUNTY BOUNDARY
- MUNICIPAL BOUNDARY
- ( ) POPULATION DENSITY IN PERSONS PER SQUARE MILE
- [ ] AREA IN SQUARE MILES
- % PERCENT AREA OF MUNICIPALITY ON BLOCK
- MARKET ROADS
- BUILT UP AREAS
- STATE BOUNDARY

Geologic and Topographic Summary:

The majority of area on the Atlas Sheet is within the Mesozoic Lowlands Physiographic Province, a rolling plain with elevations from 0-665' above sea level. The rocks consist of the upper Triassic-Lower Jurassic Newark Group - volcanic and intrusive igneous rocks, argillite, gray and red sandstones, shales, and conglomerates. The fossils sedimentary structures and red color of sediments indicate terrestrial alluvial fan, braided stream and lacustrine environments of deposition. The sediments were originally deposited in the Newark Basin formed by the northwestward tilting of the Paleozoic and Precambrian rocks along the Ramapo Fault.

As the result of tensional forces during the opening of the Atlantic Ocean, fissures were opened in the Newark Basin through which lava flowed forming the Palisades Sill and the Watchung Basalt Flows. Later, faulting, warping, and tilting during the Palisades Disturbance in early Jurassic time and continued erosion exposed the edges of the basalt flows and sill.

The Cretaceous and Cenozoic Coastal Plain sediments consist of gently eastward dipping beds of unconsolidated sand, clay and marl. The Inner Coastal Plain sediments are characterized by clayey soil, while the Outer plain is characterized by sandy soils.

The area shows prominent evidence of glaciation during the Pleistocene. The Hackensack Meadows are the result of glacial erosion and drainage disruptions, thus causing Lake Hackensack to form as shown by varved silts and clays. Remnants of glacial moraines and outwash block some glacial valleys.

Economic mineral deposits include traprock and crushed stone, clay, and sand and gravel. Historically, copper, brownstone, and brick clay were important.

Climate:

Precipitation:	Northern Section		Southern Section	
Average annual	48"		41"	
Wet year	67"		53"	
Dry year	30"		26"	
Mean Temperature:	F°	C°	F°	C°
Winter (Dec.-Feb.)	32°	(0°)	33°	(0.6°)
Summer (June-Aug.)	73°	(23°)	74°	(23°)
Coldest month: January				
Warmest month: July				
Average length of growing season:	174 days		219 days	
Average last killing frost in spring:	4/23		4/3	
Average first killing frost in fall:	10/14		11/8	

Prevailing winds in winter months - northwesterly; in summer months - southwesterly.

A. Orange, Paterson

B. Passaic-Lower Passaic

C. 1. Little Falls - Recording and non-recording temperature and precipitation gauges
Paterson - Non-recording temperature and precipitation gauges

2.

Map No.	Location	Period of Record
35	Passaic River at Little Falls	1897-
36	Slippery Rock Brook at Barbours Pond, West Paterson	7/23/45
27	Slippery Rock Brook at Highland Lake, West Paterson	7/23/45
39	Peckman Brook at Bradford Ave.,Cedar Grove	7/23/45
43	Mollyann Brook at Squaw Lake Dam, No.Haledon	7/23/45
45	Mollyann Brook below Redwood Ave.,Paterson	7/23/45
46	Passaic River at Paterson	1898-1955

3.

35	Passaic River at Little Falls	1962-
247	Passaic River at Totowa	1964-
254	Peckman River at Cedar Grove	1964
255	Peckman River at West Paterson	1964-

Water Quality Standards: (explained in Atlas Sheet Description)
FW2 except where classified FW3

D. Brunswick Formation (Trb), Basalt Flows (Trbs)

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Red Sandstone Plain, Watchung Ridges
Elevations (ft.above sea level): ridges 600, valleys 50
Relief (ft.): 550

2. a. Normal Year: 47"
Dry Year: 38"
Wet Year: 59"

b. January: 31°F
July: 74°F

c. 241 days. Last killing frost: 4/25; first killing frost: 10/20

F. Passaic County:
Preakness Valley Park
Garrett Mountain Reservation
Passaic Valley:
Municipal Watershed
Cedar Grove:
Municipal Watershed

H. Westside Park/Van Houten House, Paterson
Great Falls of Paterson and Society of Useful Manufactors, Historic District, Paterson

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
26-02-142	Twp. of Wayne			?	No test	Q
26-02-174	Marcal Paper Products			?	"	"
26-02-177	"			?	"	"
26-02-221	Grand Union Co.	1955	30	41	90	"
26-02-222	Bluebird Dyeing Corp.			65	550	"
26-02-227	Columbia Piece Die Works			235	100	Trdb
26-02-227	"			100	140	"
26-02-234	Fair Lawn Dept. of Pub.Wks.			500	85	Trb
26-02-265	35 Church St. Corp.	1953	32	200	75	"
26-02-265	Garden Theater	1955	35/8	229	200	"
26-02-273	Hudson Piece Dye Works			450	75	Trbs-Trb
26-02-295	Passaic Rolling Mill			2100	100	Trb
26-02-312	Barbizon Corp.			300	385	"
26-02-321	Boque Electric Co.			345	215	"
26-02-326	Spotless Cleaners	1965	30	400	135	"
26-02-332	Lyons Piece Dye Works			584	85	"
26-02-332	"			600	250	"
26-02-334	Fair Lawn Dept.of Pub.Wks.	1964	40	500	85	"
26-02-335	Boro of Fair Lawn			402	475	"
26-02-335	"			413	500	"
26-02-335	Fair Lawn Dept.of Pub.Wks.	1955	47	400	450	"
26-02-335	"	1954	53	500	75	"
26-02-342	Our Lady of Victories	1954	25	300	112	"
26-02-364	Temple Emanuel	1954	17	150	150	"
26-02-373	Madison Ave.Baptist Church	1964	38	250	276	"
26-02-375	River Pulp Co.			400	350	"
26-02-378	Wright's Diner			220	70	"
26-02-378	Heller Candy Co., Inc.	1962	25	315	157	"
26-02-381	Paterson Board of Education	1965	63	312	30	"
26-02-382	First Natl.Bank & Trust	1953	12	200	125	"
26-02-385	Grand Union Co.			199	85	"
26-02-385	Artson Realty Co.			200	100	"
26-02-391	Okonite Co.			?	375	"
26-02-391	"			?	375	"
26-02-391	"			?	375	"
26-02-399	Food Fair Stores, Inc.	1955	21.5	231	150	"
26-02-416	Colorite Color Plastics	1965	45/50	405	2	Trbs
26-02-424	Container Corp.of America	1958	32	600	65	"
26-02-426	Instrument Specialty Co.	1956	33	150	75	Trb-Trbs
26-02-447	Little Falls Laundry			1012	450	Trbs
26-02-579	Bongiorne, Dr.			250	105	Trb
26-02-589	Bolero	1954	50	350	200	"
26-02-618	Pub.Svc.Elec.& Gas			400	164	"
26-02-621	Manhattan Casting Co.	1959	20	220	150	"
26-02-623	Boque Electric Co.			447	75	"
26-02-624	Garafano & Son, Inc.	1965	24	140	201	"
26-02-633	Independence Plating Co.	1954	21.5	402	230	"
26-02-645	F.E.R. Realty Co.,Inc.	1955	32	307	300	"
26-02-653	Natl. Silk & Dyeing Co.			500	125	"
26-02-653	"			600	125	"

				D	V	
26-02-671	Shulton, Inc.	1955	15/28	300	435	Trb
26-02-675	"	1964	20	400	198	"
26-02-676	"	1964	21	300	322	"
26-02-676	Athenia Steel Co.			389	330	"
26-02-687	Eureka Printing Co.	1959	36/40'10"	60	282	"
26-02-688	Federal Sweets & Biscuit Co.			400	280	"
26-02-693	Cosley & Co.	1954	45	250	105	"
26-02-763	Bonds Ice Cream, Inc.			157	150	"
26-02-783	Bellvue Theater			250	145	"
26-02-861	Food Fair Stores			207	150	"
26-02-887	Essex Co.Park Commission			224	164	"
26-02-894	Brookdale Beverage	1957	46	430	85	"
26-02-919	Glopro Realty Co.,Inc.	1958	27	333	92	"
26-02-922	Texstyle Corp.			605	250	"
26-02-925	Standard Packaging Corp.	1955	57	400	190	"
26-02-926	Oneida Paper Prods. Co.			200	100	"
26-02-937	Fritzsche Bros.			600	218	"
26-02-961	Speedway Car Wash Co.	1960	20	500	80	"
26-02-973	Grand Union Co.			102	80	Q-Trb
26-02-973	Brookliff Realty Co.	1962	24	301	190	Trb
26-02-973	Dumont Laboratories	1958	22	305	335	"
26-02-976	Stier, Albert A., Inc.			350	400	Q-Trb

J. Geodetic Control Survey monuments described
Index Maps 15,21; adjacent Index Maps 14,20

BLOCK #26-03 8/76

A. Hackensack, Orange, Paterson, Weehawken

B. Hackensack-Hackensack; Passaic-Saddle River, Lower Passaic

C. 2.

Map No.	Location	Period of Record
53	Passaic River at Dundee Dam, Clifton	7/23/45
61	Saddle River at Lodi	1923-
62	Weasel Brook at Clifton	1937-1961
419	Fleischer Brook, East Paterson (Market St.)	1967-
423	Sprout Brook at Rochelle Park	1965-

3.

242	Overpeck Creek at Ridgefield	1964-
248	Passaic River at Garfield	1964
264	Saddle River at Garfield	1967-

Water Quality Standards: (explained in Atlas Sheet description)
FW3, TW1 except where classified TW2 or TW3

D. Brunswick Formation

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Red Sandstone Plain
Elevations (ft.above sea level): ridges 150, valleys 0
Relief (ft.): 150

2. a. Normal Year: 45"
Dry Year: 36"
Wet Year: 50"

b. January: 31°F
July: 74°F

c. 245 days. Last killing frost: 4/20; first killing frost: 10/20

F. Bergen County:
Saddle River County Park

H. Von Steuben House, River Edge

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
26-03-111	Boro of Fair Lawn			408	380	Trb
26-03-111	"			458	280	"
26-03-112	"			500	143	"
26-03-117	Fair Lawn Dairy Co.,Inc.	1955	62	205	125	"
26-03-124	Fair Lawn Water Dept.	1954	47	200	173	"
26-03-127	Fair Lawn Dept.of Pub.Wks.	1955	48/53	400	165	"
26-03-127	Boro of Fair Lawn			338	245	"
26-03-137	Metro Glass			200	120	"
26-03-146	Ellwood Stores Inc.	1952	22	692	100	"
26-03-161	Boro of Wallington			300	304	"
26-03-171	Garfield Boro Water Dept.			330	95	"
26-03-174	Marcal Paper Mills, Inc.	1962	25	35	35	Q
26-03-177	"	1962	23	27	No test	"
26-02-177	"	1962	8	20	"	"
26-03-177	"	1962	22	30	"	"
26-03-178	Sausville, J. & Son			300	100	Trb
26-03-188	Rel Plastic Corp.	1952	79	150	75	"
26-03-211	Boro of Fair Lawn			500	65	"
26-03-217	Farmland Dairies, Inc.	1974	47	635	235	"
26-03-231	All Purpose Roll Leaf	1962	71	350	100	"
26-03-256	Hackensack Water Co.	1965	77'10"	473	250	"
26-03-259	Bijur Lubricating Corp.			175	200	"
26-03-262	Alexander's Dept. Store	1961	25	35	290	Q
26-03-355	Hackensack Water Co.	1959		75	No test	Trb
26-03-382	Lodi Dept.of Public Works			450	175	"
26-03-394	Spartan Typographers Inc.	1956	135	145	75	Q
26-03-394	Hackensack Cable Co.	1958	106	120	171	Trb
26-03-426	East Paterson, Boro of	1954	80	200	180	"
26-03-427	Boro of Wallington			400	350	"
26-03-453	City of Garfield	1966	57/77	475	77	"
26-03-456	"	1967	33/56	400	328	"
26-03-456	"	1966	20/43	710	30	"
26-03-457	Whippany Paper Board	1956	54	250	312	"
26-03-469	City of Garfield			273	95	"
26-03-469	"			320	130	"
26-03-469	"			165	400	"
26-03-483	"	1966	21/40	400	25	"
26-03-485	Botany Worsted Mills			81	7	"
26-03-489	City of Garfield	1967	61.5	276	No test	"
26-03-493	"			326	89	"
26-03-496	Laurel Co.			500	100	"
26-03-497	Heyden Chemical Works			375	90	"
26-03-535	Aquarium, Inc.	1963	22	300	172	"
26-03-536	Maywood Chemical Co.			220	400	"
26-03-536	Citro Chemical Co.			220	400	"
26-03-538	Lodi, Boro of			403	600	"
26-03-542	City of Garfield	1968	15/35	405	405	"
26-03-546	Lodi, Boro of			300	170	"
26-03-548	"			?	135	"
26-03-548	"			200	125	"
26-03-554	Lodi Dept.of Public Works	1965	20/40	510	100	"

	26-03-557	Washine Chemical Co.	1966	29'4"/ 46'10-1/2"	400	100	Trb
☐	26-03-561	Boro of Lodi			?	295	"
	26-03-563	Lodi Shopping Center	1960	22	300	290	"
	26-03-563	"	1956	20'8"	301	350	"
	26-03-563	Muscarelle, J.L., Inc.	1966	32	400	159	"
	26-03-566	Interchemical Corp.			435	187	"
	26-03-566	Spiegal Mfg. Corp.	1969	34/43	300	237	"
	26-03-567	Master Etching Corp.	1965	29	400	105	"
☐	26-03-575	Boro of Lodi	1954	31'5"/ 53'1"	459	157	"
	26-03-577	Yoo-Hoo Beverage Co.	1959	22	303	95	"
	26-03-581	Boro of Lodi			?	145	"
	26-03-582	Lodi Dept.of Public Works	1965	36/56	450	175	"
☐	26-03-586	Boro of Lodi			?	109	"
☐	26-03-591	"	1966	28/48	470	285	"
☐	26-03-594	"			350	85	"
☐	26-03-623	Hackensack Water Co.			189	215	Q
☐	26-03-632	"	1954	130/ 148'8"	168	1700	"
☐	26-03-632	"	1955	168	190	1420	"
	26-03-659	Bowler City	1958	120	400	108	Trb
	26-03-667	Food Fair Stores	1954	270	525	55	"
	26-03-687	Spinnerin Yarn	1965	110	400	55	"
	26-03-691	Seilheimer Beverage Co.	1958	115	415	76	"
	26-03-715	Farmland Dairy Inc.	1968	12/50	400	25	"
	26-03-728	Paterson Parchment Paper Co.			378	53	"
	26-03-731	Prescott, J.L. & Co.	1962	90	500	25	"
	26-03-731	Tendebrands Frozen Foods	1950	76	230	100	"
☐	26-03-756	Boro of Wallington	1964	118.5	300	30	"
☐	26-03-768	"	1965	40	400	217	"
☐	26-03-793	"			300	330	"
	26-03-816	Wright Aeronautical Eqpt.	1957		340	515	"
	26-03-817	Tube Reducing Corp.	1954	20	397	90	"
	26-03-817	"	1954	31	392	20	"
	26-03-859	Terminal Construction Co.	1952	20	145	120	"
	26-03-888	Hackensack Water Co.	1955	86	86	300	Q
	26-03-888	"	1955		263	No test	Q
	26-03-888	Lancaster Chemical Co.	1963	311/287	400	55	Trb
	26-03-894	Hackensack Water Co.	1955		243	60	Q
	26-03-899	World Plastic Extruders,Inc.	1966	53	200	100	Trb
	26-03-924	DeTroy Press, Inc.	1956	67	150	95	"
	26-03-962	Stage Coach Inn			565	110	"

J. Geodetic Control Survey monuments described
Index Maps 15,21; adjacent Index Map 16

BLOCK #23-42 8/76

A. Paterson

B. Passaic-Lower Passaic, Ramapo, Saddle River

C. 1. Midland Park - Non-recording precipitation gauge

2.

Map No.	Location	Period of Record
40	Mollyann Brook at Haledon Upper Res., No.Haledon	7/23/45
41	Mollyann Brook at Haledon Lower Reservoir, No. Haledon	"
42	Mollyann Brook at Sicomac Rd. Dam,No.Haledon	"
43	Mollyann Brook at Squaw Lake Dam, No.Haledon	"
44	Mollyann Brook at Oldham Pond Dam,No.Haledon	"
45	Goffle Brook at Maple Lake, Wortendyke	"
49	Goffle Brook at Wortendyke Pond, Wortendyke	"
50	Goffle Brook at Kenihers Dam, Midland Park	"
51	Goffle Brook at Oriental Rug Dam, Midland Park	"
52	Goffle Brook at Arnold Dam, Hawthorne	"

Water Quality Standards: (explained in Atlas Sheet description) FW2 except where FW3

D. Brunswick Formation (Trb), Basalt Flows (Trbs)

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Red Sandstone Plain, Watchung Ridges
Elevations (ft.above sea level): ridges 900, valleys 50
Relief (ft.): 850

2. a. Normal Year: 48"
Dry Year: 41"
Wet Year: 59"

b. January: 30°F
July: 74°F

c. 242 days. Last killing frost: 4/15; first killing frost: 10/25

3. Land Use Map available

F. Haledon Water Department - Municipal Watershed

BLOCK #23-43 8/76

A. Hackensack, Paterson

B. Hackensack-Pascack Creek, Hackensack; Passaic-Saddle River, Lower Passaic

C. 2.

Map No.	Location	Period of Record
55	Saddle River at Ridgewood	1955-
56	Hohokus Lake at Cooks Lake Dam	7/23/45
59	Hohokus Brook at Hohokus	1954-
60	Hohokus Brook below Spring Ave.,Ridgewood	7/23/45
410	Musquapsink Brook near Westwood	1965-
422	Saddle River at Paramus	1965

3.

265	Saddle River at Grove St., Ridgewood	1967-
277	Hohokus Brook at Ridgewood	1967-
268	Sprout Brook at Midland Ave., River Edge	1967-

Water Quality Standards: (explained in Atlas Sheet description)
FW2, TW1 except where classified FW3

D. Brunswick Formation (Trb)

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Red Sandstone Plain
Elevations (ft.above sea level): ridges 400, valleys 50
Relief (ft.): 350

2. a. Normal Year: 46"
Dry Year: 39"
Wet Year: 53"

b. January: 31°F
July: 74°F

c. 245 days. Last killing frost: 4/15; first killing frost: 10/25

3. Land Use Map available

F. Bergen County:
Saddle River County Park
Municipal Watershed:
Newton

H. Seven Chimneys, Westwood
Terhune/Gardner/Lindenmeyer House, Paramus

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting Depth of of Casing	Total Depth	g/m Yield	Formation
23-43-114	Ridgewood Village			402	350	Trb
23-43-123	Hohokus Boro	1963	52	300	411	"
23-43-127/8	Ridgewood Village (8 wells)			150(av)	95(av)	"
23-43-131	Hohokus Boro			300	200	"
23-43-133	"	1955	39	301	288	"
23-43-158	Grand Union			178	190	"
23-43-159	Food Fair Stores	1955	71	310	250	"
23-43-174	Ridgewood Village	1955	35/56	300	43	"
23-43-177	"			300	198	"
23-43-191	"	1964	52/54	300	1230	"
23-43-198	"			298	200	"
23-43-212	Hohokus Boro			412	105	"
23-43-215	"			314	245	"
23-43-224	Sher, M.	1963	30	205	100	"
23-43-245	Ridgewood Village	1955	42/64	300	200	"
23-43-248	"			201	500	"
23-43-252	"	1964	18/42	320	390	"
23-43-275	"			210	250	"
23-43-285	Peterman, J.	1961	30	165	100	"
23-43-332	Westwood Fuel Co.	1960	56	236	75	"
23-43-371	McKenna			605	210	"
23-43-431	Faber, J.	1964	52	85	75	"
23-43-434	Ridgewood Village			300	162	"
23-43-436	"	1955	44/64	300	165	"
23-43-437	"	1957	36/40	303	340	"
23-43-438	"	1965	51/73	300	254	"
23-43-457	City Housing Corp.			300	30	"
23-43-462	Ridgewood Village			300	151	"
23-43-463	"	1965	65/86	300	151	"
23-43-473	Einson & Freeman Co.			325	168	"
23-43-482	City Housing Corp.			250	30	"
23-43-487	"			378	137	"
23-43-488	Fairlawn Boro			350	385	"
23-43-489	"			250	125	"
23-43-511	Ridgewood, Village of	1973	78	300	159	"
23-43-562	Great Eastern Mills, Inc.	1956	21	200	250	"
23-43-565	"	1956	34	203	250	"
23-43-582	Ridgewood Country Club	1964	29	500	250	"
23-43-591	N.Y. Twist Drill Co.			200	125	"
23-43-598	N.J. 17 Corp.			245	80	"
23-43-632	Hackensack Golf Club	1958	81	532	172	"
23-43-641	Paramus Bd.of Ch.Freeholders	1957	54	300	150	"

J. Geodetic Control Survey monuments described
Index Map 15; adjacent Index Maps 9,10,16

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
23-42-119	Franklin Lakes Bd.of Ed.	1962	84	84	250	Qp
23-42-128	Urban Farms	1962	87	87	200	"
23-42-162	Franklin Lakes Dairy			400	100	Trb
23-42-165	"			307	100	"
23-42-216	Ramapo Regional H.S.	1956	68	303	150	"
23-42-221	Ridgewood Village	1956		300	159	"
23-42-226	"			303	159	"
23-42-233	"	1965		300	503	"
23-42-235	"	1956		300	258	"
23-42-255	"	1959		302	450	"
23-42-272	Haledon Boro			700	25	"
23-42-281	Holland Home Assoc.	1959	20	333	100	"
23-42-318	Pines Lakes			203	125	"
23-42-325	Ridgewood Village	1958	24	303	251	"
23-42-326	"			715	225	"
23-42-329	Montabert, F., Co.	1954	10	300	125	"
23-42-341	Summer, A., Co.			206	70	Qp,Trb
23-42-342	Wayne Twp.			200	175	Trb,Trbs
23-42-352	Ridgewood Village(12 wells)			125av.	Good	Trb
23-42-353	King, H.			185	100	"
23-42-357	Ridgewood Village	1957		350	450	"
23-42-365	Grand Union			178	190	"
23-42-378	Hawthorne Boro			350	215	"
23-42-378	"	1962		350	215	"
23-42-383	Ridgewood Village	1956		300	245	"
23-42-388	Hawthorne Boro	1963		350	268	"
23-42-427	N.J. Country Club	1959	28	45	150	Qp
23-42-443	"	1958	28	45	150	"
23-42-533	Wah-Chang	1960	40	302	510	Trb
23-42-554	Ideal Farms	1960	96	285	160	"
23-42-613	Hawthorne Boro			113-250 (3 wells)	130	"
23-42-626	"			300	225	"
23-42-642	"	1961		300	500	"
23-42-651	"	1960	40	300	225	"
23-42-656	Pacquin, Inc.			350	350	"
23-42-659	"			541	250	"
23-42-664	Textile Dyeing Co.of Am.			400	459	"
23-42-666	Ridgewood Village	1956		300	142	"
23-42-667	Fairlawn Boro			200	200	"
23-42-668	Einson & Freeman	1956	19	325	168	"
23-42-683	Victory Diner			250	80	"
23-42-688	Morris Paperboard Co.	1958	22	400	249	"
23-42-694	Fairlawn Finishing Co.	1951	32	503	450	"
23-42-695	Henderson's Pond			451	275	"
23-42-696	National Biscuit Co.	1962	58	393	138	"
23-42-696	Fairbanks Morse Co.	1955	29	121	92	"
23-42-697	Lomor Corp.			400	225	"
23-42-699	1st Savings & Loan Assoc.			150	110	"

J. Geodetic Control Survey monuments described
Index Map 15; adjacent Index Maps 14,9,10

Dove

SUBJECT TO REVISION

Vynkate Pants

WATER WITHDRAWAL POINTS AND NJGS CASE INDEX SITES WITHIN 5.0 MILES OF:

LATITUDE 405410
LONGITUDE 740700

DRAFT

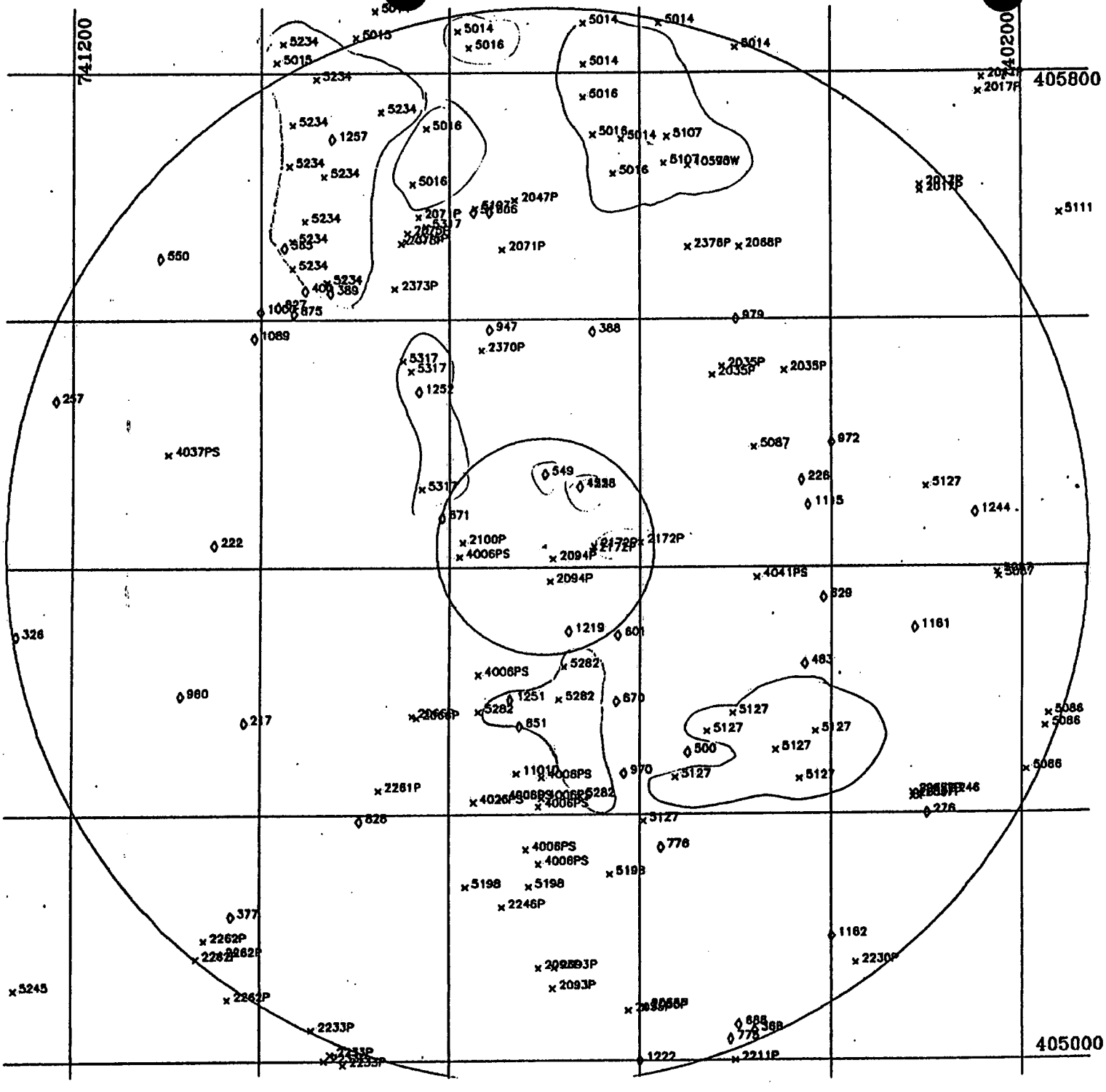
SCALE: 1:63,360
(1 Inch = 1 Mile)

× WATER WITHDRAWAL POINTS
◊ NJGS CASE INDEX SITES
1 MILE AND 5 MILE RADII INDICATED

NJGS CASE INDEX DATA RETRIEVED FROM:
NEW JERSEY GEOLOGICAL SURVEY
ON 12/22/87

PLOT PRODUCED BY:
NJDEP
DIVISION OF WATER RESOURCES
BUREAU OF WATER ALLOCATION
CN-029
TRENTON, NJ 08625

DATE: 03/07/89



p.34

Map 3

SUBJECT TO REVISION

 PRELIMINARY SURVEY OF WATER WITHDRAWAL POINTS WITHIN 5.0 MILES OF 405410 LAT. 740700 LON. (IN ORDER BY PERMIT NUMBER) - 03/07/89

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
10573W	BERGEN CO. COMMUNITY COLLEGE	4300101		405715	740530	F	3.8	03	46	200	GTRB		180
10590W	BERGEN CO. DIV. OF PARKS	4300100		405715	740530	F	3.8	03	46	210	GTRB		275
1101D	FOSTER WHEELER PASSAIC, INC.			405220	740718		2.1	31	07	46	GD		175
2017P	HACKENSACK GOLF CLUB	2302297	1	405757	740225	S	5.9	03	44	532	GTRB		150
	HACKENSACK GOLF CLUB	2305058	2	405702	740304	S	4.8	03	44	320	GTRB		60
	HACKENSACK GOLF CLUB	LOWER LAKE	1	405705	740304	F	4.8	03	44		GTRB		300
	HACKENSACK GOLF CLUB	UPPER LAKE	2	405750	740227	F	5.8	03	44		GTRB		300
2035P	ARCOLA COUNTRY CLUB	4600126	3	405533	740515	S	2.2	03	46	200	GTRB		160
	ARCOLA COUNTRY CLUB	2603872	4	405537	740509	S	2.3	03	46	208	GTRB		125
	ARCOLA COUNTRY CLUB	POND	1	405535	740430	U	2.7	03	46	5	GTRB		200
	ARCOLA COUNTRY CLUB	POND	2	405535	740430	U	2.7	03	46	15	GTRB		200
2047P	NABISCO BRANDS, INC.	2303369	2	405658	740719	S	3.2	03	17	393	GTRB		350
2055P	GANES CHEMICAL, INC.	4600080	2	405026	740557	F	4.4	03	05	490	GTRB		200
	GANES CHEMICAL, INC.	2600005	4	405024	740607	F	4.4	03	05	526	GTRB		80
	GANES CHEMICAL, INC.	2604277	5	405025	740557	F	4.4	03	05	430	GTRB		30
2057P	SPINNERIN YARN CO., INC.	4600177	0	405208	740309	F	4.1	03	59	404	GTRB		65
	SPINNERIN YARN CO., INC.	4600083	2	405210	740305	F	4.1	03	59	435	GTRB		0
	SPINNERIN YARN CO., INC.	2603018	3	405210	740309	F	4.1	03	59	400	GTRB		50
	SPINNERIN YARN CO., INC.	4600176	4	405208	740305	F	4.1	03	59	400	GTRB		140
	SPINNERIN YARN CO., INC.	2611599	5 PROPOSED	405210	740305	F	4.1	03	59		GTRB		
2066P	MILES LABORATORIES	2603833	2	405248	740824	M	2.0	31	02	300	GTRB		200
	MILES LABORATORIES	2604613	3	405247	740821	M	2.0	31	02	408	GTRB		200
2068P	RIDGEWOOD COUNTRY CLUB	4300032	1	405635	740458	U	3.3	03	46	306	GTRB		120
	RIDGEWOOD COUNTRY CLUB	4300033	2	405635	740458	U	3.3	03	46	275	GTRB		275
	RIDGEWOOD COUNTRY CLUB	2303832	3	405635	740458	S	3.3	03	46	500	GTRB		250
	RIDGEWOOD COUNTRY CLUB	POND		405635	740458	U	3.3	03	46	8	GTRB		500
2071P	FOSKANZER TULP COMPANY	2301946	1	405634	740727	S	2.8	03	17	390	GTRB		80
	FOSKANZER TULP COMPANY	2302088	2	405650	740820	F	3.3	03	17	325	GTRB		90
	FOSKANZER TULP COMPANY	2302081	3	405650	740820	F	3.3	03	17	302	GTRB		90
2075P	MAC NAUGHTON EINSON GRAPHICS	4300001	14	405637	740831	S	3.1	03	17	400	GTRB		250
	MAC NAUGHTON EINSON GRAPHICS	4300002	15	405638	740828	S	3.1	03	17	400	GTRB		275
	MAC NAUGHTON EINSON GRAPHICS	4300003	16	405642	740827	S	3.2	03	17	400	GTRB		330
2093P	ORVAL KENT FOOD COMPANY, INC.	2604317	1	405045	740704	F	3.9	03	12	580	GTRB		150
	ORVAL KENT FOOD COMPANY, INC.	2604341	2	405045	740654	S	3.9	03	12	300	GTRB		150
	ORVAL KENT FOOD COMPANY, INC.	2604382	3	405035	740655	T	4.1	03	12	470	GTRB		430
2094P	D.A.K. MANUFACTURING CORP.	2600466	1	405404	740655	F	0.1	03	11		GTRB		
	D.A.K. MANUFACTURING CORP.	4600210	2	405404	740655	U	0.1	03	11		GTRB		
	D.A.K. MANUFACTURING CORP.	4600211	3	405404	740655	U	0.1	03	11		GTRB		
	D.A.K. MANUFACTURING CORP.	2605037	4	405353	740657	F	0.3	03	11	250	GTRB		60
2100P	MARCAL PAPER MILLS, INC.	4600008	1	405412	740752	F	0.8	03	11	308	GTRB		150
	MARCAL PAPER MILLS, INC.	4600009	2	405412	740752	F	0.8	03	11	330	GTRB		280
	MARCAL PAPER MILLS, INC.	4600010	3	405412	740752	F	0.8	03	11	325	GTRB		250
	MARCAL PAPER MILLS, INC.	4600011	4	405412	740752	F	0.8	03	11	282	GTRB		80
	MARCAL PAPER MILLS, INC.	4600012	5	405412	740752	F	0.8	03	11		GTRB		125
	MARCAL PAPER MILLS, INC.	4600013	6	405412	740752	F	0.8	03	11		GTRB		300
2172P	PARK BO-KIDDIE ASSOCIATES	2604234	1	405408	740630	S	0.4	03	57	400	GTRB		300
	PARK BO-KIDDIE ASSOCIATES	2604235	2	405410	740629	S	0.5	03	57	400	GTRB		300
	PARK BO-KIDDIE ASSOCIATES	2605301	3	405410	740629	S	0.5	03	57	300	GTRB		0
	PARK BO-KIDDIE ASSOCIATES	2604104	4	405412	740600	S	0.9	03	57	300	GTRB		
2211P	HENKEL PROCESS CHEMICALS, INC.	4600125	1	405000	740500		5.1	03	05	170	GDSD		600
2230P	HOFFMAN LAROCHE INC.	2406268	1	405047	740345	T	4.8	41	03	140	GD		700
2233P	HOFFMANN-LAROCHE INC.	4600155	20	405000	740919	F	5.2	13	16	402	GTRB		100
	HOFFMANN-LAROCHE INC.	4600156	32	405015	740927	F	5.0	31	02	650	GTRB		260

P.35

 PRELIMINARY SURVEY OF WATER WITHDRAWAL POINTS WITHIN 5.0 MILES OF 405410 LAT. 740700 LON. (IN ORDER BY PERMIT NUMBER) - 03/07/89

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
	LODI BOROUGH	4600072	LAWRENCE	405217	740420	U	3.2	03	31	373	GTRB		500
	LODI BOROUGH	4600073	COLUMBIA	405240	740410	U	3.0	03	31	409	GTRB		375
	LODI BOROUGH	2601037	TERRACE	405157	740558		2.7	03	31	607	GTRB		190
	LODI BOROUGH	2601010	GARFIELD	405218	740538		2.5	03	31	459	GTRB		150
	LODI BOROUGH	2603185	HOME PLACE	405439	740301		3.5	03	31	450	GTRB		175
	LODI BOROUGH	2603183	CORABELLE	405231	740435		2.8	03	31	470	GTRB		200
5198	WALLINGTON BOROUGH	2603933	DUL	405131	740619		3.1	03	65	400	GTRB		140
	WALLINGTON BOROUGH	2603027	LESTER ST	405125	740710		3.2	03	65	400	GTRB		130
	WALLINGTON BOROUGH	4600075	8	405125	740750		3.2	03	65	503	GTRB		80
	WALLINGTON BOROUGH	4600074	5	405125	740750		3.2	03	65	506	GTRB		150
5234	HAWTHORNE BOROUGH	4300056	1	405757	740925	T	4.8	31	04	293	GTRB		175
	HAWTHORNE BOROUGH	4300057	3	405757	740925	T	4.8	31	04	300	GTRB		150
	HAWTHORNE BOROUGH	4300058	4	405757	740925	T	4.8	31	04	315	GTRB		250
	HAWTHORNE BOROUGH	4300059	5	405757	740925	T	4.8	31	04	300	GTRB		180
	HAWTHORNE BOROUGH	4300060	6	405757	740925	T	4.8	31	04	465	GTRB		250
	HAWTHORNE BOROUGH	4300061	3	405625	740940	T	3.5	31	04	300	GTRB		100
	HAWTHORNE BOROUGH	4300062	4	405625	740940	T	3.5	31	04	300	GTRB		75
	HAWTHORNE BOROUGH	4300063	5	405625	740940	T	3.5	31	04	285	GTRB		210
	HAWTHORNE BOROUGH	4300064	6	405625	740940	T	3.5	31	04	388	GTRB		150
	HAWTHORNE BOROUGH	4300065	7	405625	740940	T	3.5	31	04	369	GTRB		140
	HAWTHORNE BOROUGH	4300066	8	405625	740940	T	3.5	31	04	416	GTRB		210
	HAWTHORNE BOROUGH	4300067	10	405618	740918	T	3.2	31	04	300	GTRB		200
	HAWTHORNE BOROUGH	4600068	11	405618	740918	T	3.2	31	04	300	GTRB		400
	HAWTHORNE BOROUGH	4300069	12	405618	740918	T	3.2	31	04	300	GTRB		400
	HAWTHORNE BOROUGH	2303100	UTTER AVE	405741	740844		4.3	31	04	300	GTRB		175
	HAWTHORNE BOROUGH	2303099	GRAND AVE	405710	740920	F	4.0	31	04	300	GTRB		125
	HAWTHORNE BOROUGH	2303101	BAMFORD AV	405715	740942	F	4.3	31	04	300	GTRB		300
	HAWTHORNE BOROUGH	2303289	GUFFLE HIL	405814	740946		5.3	31	04	350	GTRB		150
	HAWTHORNE BOROUGH	2304139	CEDAR AVE	405648	740932	T	3.7	31	04	400	GTRB		300
	HAWTHORNE BOROUGH	2304691	FIRST ST.	405735	740940	F	4.6	31	04	400	GTRB		200
	HAWTHORNE BOROUGH	2305139	MAITLAND	405638	740940	F	3.7	31	04	400	GTRB		200
5245	MONTCLAIR TOWN	2604597	LORRAINE 3	405035	741237	F	6.4	13	13	300	GTRBS		400
5282	GARFIELD WATER DEPARTMENT	2604016	1A	405256	740651		1.4	03	21	400	GTRB		300
	GARFIELD WATER DEPARTMENT	2604063	2	405312	740648	U	1.1	03	21	475	GTRB		150
	GARFIELD WATER DEPARTMENT	2604010	5	405209	740638		2.3	03	21	276	GTRB		150
	GARFIELD WATER DEPARTMENT	2604064	8C	405250	740742		1.6	03	21	405	GTRB		400
5317	FAIR LAWN BOROUGH	2600465	16	405540	740830		2.2	03	17	413	GTRB		140
	FAIR LAWN BOROUGH	2601197	19	405438	740818		1.3	03	17	400	GTRB		260
	FAIR LAWN BOROUGH	4300097	14	405645	740815		3.2	03	17	400	GTRB		150
	FAIR LAWN BOROUGH	2600393	15	405535	740825	F	2.0	03	17	402	GTRB		500

Number of Observations: 151

 PRELIMINARY SURVEY OF WATER WITHDRAWAL POINTS WITHIN 5.0 MILES 05410 LAT. 740700 LON. (IN ORDER BY PERMIT NUMBER) - 03/07/89

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
2246P	FARMLAND DAIRIES INC.	2604169	1	405115	740727	U	3.4	03	65	300	GTRB		200
	FARMLAND DAIRIES INC.	2304250	2	405115	740727	U	3.4	03	65	300	GTRB		185
2261P	FRITZCHE DODGE & OLDOTT	2602812	2	405212	740845	U	2.7	31	02	600	GTRB		218
2262P	UPPER MONTCLAIR COUNTRY CLUB	2601199	1	405052	741025		4.8	31	02	490	GTRB		90
	UPPER MONTCLAIR COUNTRY CLUB	2604390	2	405059	741035		4.8	13	02	335	GTRB		132
	UPPER MONTCLAIR COUNTRY CLUB	2604825	3	405030	741020	T	5.1	31	02	300	GTRB		60
	UPPER MONTCLAIR COUNTRY CLUB	POND	5W	405050	741040	T	5.0	13	02	12	GOSD		1100
2370P	FISHER SCIENTIFIC CO. CHEM DIV	2605038	FW2	405545	740740		1.9	03	17	335	GTRB		60
2373P	CHINAM, INC.	4300098	1	405615	740835	T	2.8	31	08	800	GTRB		70
	CHINAM, INC.	4300099	2	405615	740835	T	2.8	31	08	800	GTRB		203
	CHINAM, INC.	2300369	3	405615	740835	T	2.8	31	08	625	GTRB		119
	CHINAM, INC.	2302336	4	405615	740835	T	2.8	31	08	400	GTRB		188
2376P	PARAMUS GOLF AND COUNTRY CLUB	4300095	2	405635	740530	F	3.1	03	46	200	GTRB		200
	PARAMUS GOLF AND COUNTRY CLUB	STORAGE POND		405635	740530	F	3.1	03	46		GTRB		350
4006FS	DUNDEE WATER POWER & LAND CO.	DUNDEE LAKE	G.S. PAPER	405308	740742	T	1.3	03	21		SFPAS		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	WHIPPANY	405208	740727	T	2.4	31	02		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	CHELTON CO	405208	740702	T	2.3	31	02		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	OKONITE CO	405143	740712	T	2.8	31	07		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE LK.	MARCAL CO.	405405	740754	T	0.8	03	11		SFPAS		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	PASSAIC IN	405218	740702	T	2.1	31	02		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	TUCK IND.	405136	740704	T	2.9	31	07		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	PANTASOTE	405204	740704	T	2.4	31	02		SP		
4025FS	KALAMA CHEMICAL, INC.	PASSAIC RIVER		405206	740745	T	2.5	03	21		SFPAS		
4037FS	GREAT FALLS HYDROELECTRIC CO	PASSAIC RIVER		405455	741058		3.6	31	08		SFPAS		
4041FS	STEFAN CHEMICAL COMPANY	SADDLE RIVER		405355	740447		2.0	03	54		SFSAD		2000
5014	RIDGEWOOD VILLAGE	4300013	GROVE ST.	405804	740636		4.5	03	51	298	GTRB		200
	RIDGEWOOD VILLAGE	4300014	E. RDGEWD.	405824	740548		5.0	03	51	201	GTRB		600
	RIDGEWOOD VILLAGE	2301644	SPRING	405824	740636		4.9	03	51	300	GTRB		300
	RIDGEWOOD VILLAGE	2301836	RAVINE	405830	740848		5.2	03	51	300	GTRB		200
	RIDGEWOOD VILLAGE	2303902	SALEM	405812	740500		4.9	03	51	320	GTRB		225
	RIDGEWOOD VILLAGE	2304170	STEVENS	405728	740612		3.9	03	51	300	GTRB		225
	RIDGEWOOD VILLAGE	2305931	WEST END	405820	740755		4.8	03	51	300	GTRB		
5015	RIDGEWOOD VILLAGE	2305158	WEISH	405805	740950	F	5.1	03	70	300	GTRB		450
	RIDGEWOOD VILLAGE	2513251	FARM WELL	405817	740900		5.0	03	70	287	GTRB		400
5016	RIDGEWOOD VILLAGE	2301443	MAIN	405706	740824		3.6	03	22	300	GTRB		350
	RIDGEWOOD VILLAGE	2301770	PROSPECT	405748	740636		4.2	03	22	300	GTRB		400
	RIDGEWOOD VILLAGE	2302227	AKERMAN	405730	740630		3.9	03	22	303	GTRB		250
	RIDGEWOOD VILLAGE	2301835	GLEN ROCK	405812	740748		4.7	03	22	300	GTRB		150
	RIDGEWOOD VILLAGE	2304171	LEIGH	405711	740617		3.5	03	22	300	GTRB		125
	RIDGEWOOD VILLAGE	2304172	BROOK	405733	740815		4.0	03	22	300	GTRB		125
5086	HACKENSACK WATER COMPANY	4600065	2	405221	740157		4.9	03	04	550	GTRB		180
	HACKENSACK WATER COMPANY	4600066	3	405248	740143		4.9	03	04	350	GTRB		175
	HACKENSACK WATER COMPANY	4600067	4	405242	740145		4.9	03	04	235	GTRB		
5087	HACKENSACK WATER COMPANY	2600914	1	405357	740216		4.1	03	23	168	GOSD		1550
	HACKENSACK WATER COMPANY	2601034	2	405355	740215		4.2	03	23	190	GOSD		1400
	HACKENSACK WATER COMPANY	2603017	ROCHELLE P	405458	740449		2.1	03	54	473	GTRB		200
5107	HACKENSACK WATER COMPANY	2304260	PARAMUS 1	405716	740545		3.7	03	46	28	GOSD		200
	HACKENSACK WATER COMPANY	2305502	PARAMUS 2	405716	740545		3.7	03	46	388	GTRB		150
	HACKENSACK WATER COMPANY	2305450	DUNDERHOOK	405654	740744		3.2	03	46	353	GTRB		
	HACKENSACK WATER COMPANY	SADDLE RIVER		405729	740543		4.0	03	46		SFSAD		
5111	HACKENSACK WATER COMPANY	HACKENSACK RIV		405651	740136	U	5.6	03	38		SKHAC		
	HACKENSACK WATER COMPANY	HIRSCHFIELD BR		405651	740136	U	5.6	03	38		SKHAC		
5127	LODI BOROUGH	4600068	ARNOT ST.	405240	740518		2.3	03	31	300	GTRB		160
	LODI BOROUGH	4600069	4	405249	740502		2.3	03	31	307	GTRB		295
	LODI BOROUGH	4600070	5	405249	740502		2.3	03	31	300	GTRB		355
	LODI BOROUGH	4600071	7	405249	740502		2.3	03	31	332	GTRB		355

p.37

Let's protect our earth

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

Michele M. Putnam
Deputy Director
Hazardous Waste Operations

John J. Trela, Ph.D., Director
401 East State St.
CN 028
Trenton, N.J. 08625-0028
(609)633-1408

Lance R. Miller
Deputy Director
Responsible Party Remedial Action

M E M O R A N D U M

TO: Richard Gervasio, Supervisory Environmental Technician RMV
Bureau of Planning and Assessment

FROM: David Van Eck, HSMS III DVE
Bureau of Planning and Assessment

SUBJECT: SAMPLING EPISODE REPORT FOR
SYNKOTE PAINT COMPANY
ELMWOOD PARK, BERGEN COUNTY

PURPOSE:
To outline sampling activities by Bureau of Planning and Assessment personnel at the subject site.

NJDEP REPRESENTATIVES:
Richard Gervasio, Supervisory Environmental Technician
David Van Eck, HSMS III
David Oster, Environmental Specialist, Metro Region

LOCAL REPRESENTATIVES:
James Taradash, Bergen County Health Services

DATE OF SAMPLING: January 24, 1989

DATE OF REPORT: January 27, 1989

COMMENTS:
Synkote Paint Company is located in a mixed industrial/residential area in Elmwood Park, Bergen County. The site, approximately on quarter acre in size, was used for the manufacture of industrial coatings, using pigments, resins and solvents from 1956 to 1985. Hazardous wastes were generated when the company washed their manufacturing vessels with solvents.

A RCRA inspection by the NJDEP on November 8, 1984 revealed poor drum storage practices and inadequate containment for the solvent tank farm. The inspector described the yard as "heavily covered with deposits of unknown chemicals" and ponding rainwater that "appeared to be heavily contaminated with unknown chemicals." On November 15, 1984, a neighboring worker complained of a whitish runoff from Synkote Paint Company which went to a storm drain. The complainant claimed his car tires were damaged from this runoff.

New Jersey is an Equal Opportunity Employer
Recycled Paper

ATTACHMENT A-1

On July 3, 1985, four soil samples were taken by the Division of Water Resources from Synkote Paint Company property. A volatile organics scan by the New Jersey Department of Health revealed contamination with benzene (48 ppm), ethylbenzene (17 ppm), sec-butylbenzene (113 ppm), 1,2,4 trimethylbenzene (718 ppm), p-cymene (380 ppm), toluene (965 ppm), o-xylene (205 ppm), m-xylene (480 ppm), and p-xylene (160 ppm). Although the Division of Water Resources required Synkote Paint Company to install Monitoring Wells, none were ever installed.

The NJDEP issued an Administrative Order and Penalty Settlement Offer on June 6, 1985 for numerous hazardous waste violations. A Directive Letter was issued on September 20, 1985 as a result of a spill of mineral spirits. Some drum removal at the site was begun by S & W Waste of Kearny, but was not completed. A manifest audit of S & W Waste revealed Synkote Paint Company failed to use the proper shipping description on one of the manifests. This violation resulted in a Notice of Civil Administrative Penalty Assessment, issued July 6, 1987.

In February of 1985, all production of Synkote Paint Company was discontinued and the owner, Richard Max, filed for bankruptcy. Approximately 200 drums were abandoned on the property.

Although the Environmental Cleanup and Responsibility Act (ECRA) was triggered by the bankruptcy proceedings, Synkote Paint Company did not acknowledge the responsibility under ECRA and failed to submit the necessary paperwork.

An inspection on November 10, 1988 by the Division of Hazardous Waste Management/Metro Region Enforcement revealed several violations of New Jersey Hazardous Waste Regulations. The resulting Notices of Violation were sent to Richard Max. Mr. Max's lawyer responded that the property had been sold at a sheriff's auction to a Mr. Raymond Topping. The Bureau of ECRA Applicability and Compliance (BEAC) referred the matter to the Attorney General's Office. At the time of this writing, the NJDEP is proposing a publicly funded emergency removal action.

Soil has been impacted at the site and there is a potential for groundwater contamination. Garfield Municipal Wells are located approximately 3/4 mile from the site. Of additional concern is the threat of hazardous materials to nearby residences. Although the site is surrounded by a six foot cyclone fence and barbed wire, the barbed wire in some areas has been bent down, allowing unauthorized entry. There have been instances of trespassing in the past. Persons entering the property and tampering with chemical or waste containers might also create a reactive situation which could affect neighboring houses and businesses. The possibility of arson must be considered.

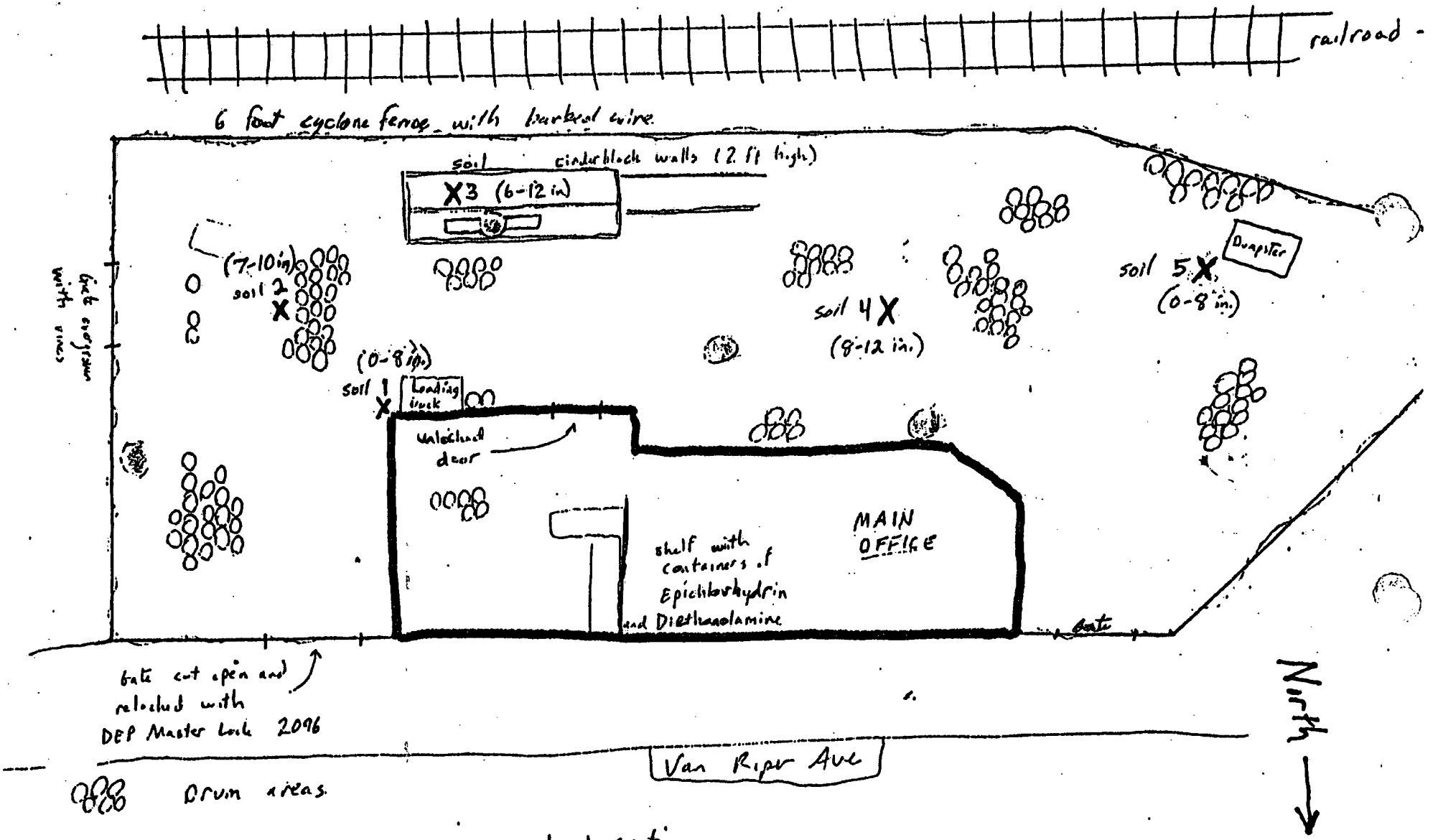
Based on information obtained through file reviews and on-site observations, it was determined further investigation and a site inspection were warranted. Scheduled for sampling during the January 24, 1989 site inspection were five (5) soil samples to be analyzed for the Targeted Compound List. In addition a field blank to be analyzed for the Targeted Compound List and a trip blank to be analyzed for volatile organic chemicals were provided for QA/QC purposes.

Sampling Plan

Synkote Paint Co.

[not to scale]

Elmwood Park, Bergen Co.



* X - Sampling Locations based on visual observation (depth) and OVA readings in excess of 1000 ppm.

Approximate Locations of samples taken by DWR 7/3/85.

David Van Fleet

p. 40

ATTACHMENT A-3

Wayne Harrington Synkote Paint

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

NJD056

Lab Name: Versar, Inc. Contract:

Lab Code: Case No.: SAS No.: SDG No.: NJD-2

Matrix (soil/water): SOIL Lab Sample ID: 66056

Level (low/med): LOW Date Received: 01/25/89

% Solids: 88.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12300			P
7440-36-0	Antimony	3.6	U	N	P
7440-38-2	Arsenic	0.91	U	W	F
7440-39-3	Barium	46.5			P
7440-41-7	Beryllium	0.68	U		P
7440-43-9	Cadmium	0.91	U		P
7440-70-2	Calcium	8040			P
7440-47-3	Chromium	12.6		*	P
7440-48-4	Cobalt	12.0			P
7440-50-8	Copper	82.4			P
7439-89-6	Iron	18600			P
7439-92-1	Lead	33.5			F
7439-95-4	Magnesium	7270			P
7439-96-5	Manganese	133			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	29.3			P
7440-09-7	Potassium	219	U		P
7782-49-2	Selenium	0.68	U		F
7440-22-4	Silver	0.45	U		P
7440-23-5	Sodium	1170			P
7440-28-0	Thallium	0.23	U	NW	F
7440-62-2	Vanadium	33.7			P
7440-66-6	Zinc	156			P
	Cyanide	0.61			AS

Color Before: BROWN Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

FIELD NUMBER BSA01249710

p.41

FORM I - IN

ATTACHMENT A-4

7/87

Rev. IFB Amendment One

V5502

Wayne Harrington Synkota Paint

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

NJD057

Lab Name: Versar, Inc. Contract:

Lab Code: Case No.: SAS No.: SDG No.: NJD-2

Matrix (soil/water): SOIL Lab Sample ID: 66057

Level (low/med): LOW Date Received: 01/25/89

% Solids: 83.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9100			P
7440-36-0	Antimony	3.8	U	N	P
7440-38-2	Arsenic	2.0	B		F
7440-39-3	Barium	44.3	B		P
7440-41-7	Beryllium	0.95	B		P
7440-43-9	Cadmium	0.96	U		P
7440-70-2	Calcium	520	B		P
7440-47-3	Chromium	13.9		*	P
7440-48-4	Cobalt	8.8	B		P
7440-50-8	Copper	11.3			P
7439-89-6	Iron	14800			P
7439-92-1	Lead	15.1			F
7439-95-4	Magnesium	1130	B		P
7439-96-5	Manganese	404			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	12.1			P
7440-09-7	Potassium	231	U		P
7782-49-2	Selenium	0.72	U	W	F
7440-22-4	Silver	0.48	U		P
7440-23-5	Sodium	63.0	B		P
7440-28-0	Thallium	0.24	U	NW	F
7440-62-2	Vanadium	28.9			P
7440-66-6	Zinc	30.8			P
	Cyanide	0.45	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
FIELD NUMBER BSA01249711

00003

p. 42

ATTACHMENT A-5

FORM I - IN

7/87
Rev. IFB Amendment One

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

NJD058

Lab Name: Versar, Inc. Contract:

Lab Code: Case No.: SAS No.: SDG No.: NJD-2

Matrix (soil/water): SOIL Lab Sample ID: 66058

Level (low/med): LOW Date Received: 01/25/89

% Solids: 81.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100			P
7440-36-0	Antimony	3.9	U	N	P
7440-38-2	Arsenic	1.4	B		F
7440-39-3	Barium	41.3	B		P
7440-41-7	Beryllium	0.73	U		P
7440-43-9	Cadmium	0.98	U		P
7440-70-2	Calcium	502	B		P
7440-47-3	Chromium	14.6		*	P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	7.7			P
7439-89-6	Iron	11600			P
7439-92-1	Lead	4.9		S	F
7439-95-4	Magnesium	1190	B		P
7439-96-5	Manganese	71.7			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	9.3	B		P
7440-09-7	Potassium	236	U		P
7782-49-2	Selenium	0.73	U		F
7440-22-4	Silver	0.49	U		P
7440-23-5	Sodium	50.4	B		P
7440-28-0	Thallium	0.24	U	NW	F
7440-62-2	Vanadium	28.0			P
7440-66-6	Zinc	32.8			P
	Cyanide	0.56	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
FIELD NUMBER BSA01249712

ATTACHMENT A-6

00004

p.43

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

NJD059

ab Name: Versar, Inc.

Contract:

ab Code:

Case No.:

SAS No.:

SDG No.: NJD-2

atrix (soil/water): SOIL

Lab Sample ID: 66059

evel (low/med): LOW

Date Received: 01/25/89

Solids: 72.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7180			P
7440-36-0	Antimony	4.4	U	N	P
7440-38-2	Arsenic	5.5			F
7440-39-3	Barium	1750			P
7440-41-7	Beryllium	0.83	U		P
7440-43-9	Cadmium	13.9			P
7440-70-2	Calcium	2840			P
7440-47-3	Chromium	268		*	P
7440-48-4	Cobalt	20.8			P
7440-50-8	Copper	438			P
7439-89-6	Iron	26500			P
7439-92-1	Lead	1590		S	F
7439-95-4	Magnesium	1310	B		P
7439-96-5	Manganese	160			P
7439-97-6	Mercury	0.44			CV
7440-02-0	Nickel	15.1			P
7440-09-7	Potassium	266	U		P
7782-49-2	Selenium	1.3	B		F
7440-22-4	Silver	0.55	U		P
7440-23-5	Sodium	110	B		P
7440-28-0	Thallium	0.28	U	NW	F
7440-62-2	Vanadium	28.6			P
7440-66-6	Zinc	1970			P
	Cyanide	43.7			AS

olor Before: BLACK

Clarity Before:

Texture: FINE

olor After: YELLOW

Clarity After: CLEAR

Artifacts:

omments:
IELD NUMBER BSA01249713

ATTACHMENT A-7

00005

p.44

FORM I - IN

7/87
Rev. IFB Amendment One

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

NJD060

Lab Name: Versar, Inc. Contract:

Lab Code: Case No.: SAS No.: SDG No.: NJD-2

Matrix (soil/water): SOIL Lab Sample ID: 66060

Level (low/med): LOW Date Received: 01/25/89

% Solids: 88.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7400			P
7440-36-0	Antimony	3.6	U	N	P
7440-38-2	Arsenic	7.4			F
7440-39-3	Barium	758			P
7440-41-7	Beryllium	0.68	U		P
7440-43-9	Cadmium	0.90	U		P
7440-70-2	Calcium	20700			P
7440-47-3	Chromium	75.7	*		P
7440-48-4	Cobalt	23.4			P
7440-50-8	Copper	106			P
7439-89-6	Iron	15200			P
7439-92-1	Lead	623			F
7439-95-4	Magnesium	4630			P
7439-96-5	Manganese	532			P
7439-97-6	Mercury	0.36			CV
7440-02-0	Nickel	16.2			P
7440-09-7	Potassium	228	B		P
7782-49-2	Selenium	0.68	U	W	F
7440-22-4	Silver	0.45	U		P
7440-23-5	Sodium	338	B		P
7440-28-0	Thallium	0.23	U	NW	F
7440-62-2	Vanadium	29.6			P
7440-66-6	Zinc	183			P
	Cyanide	105			AS

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
FIELD NUMBER BSA01249714

ATTACHMENT A-8

00006

p.45

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
BSA01249710

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 66066
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 6162 B#2
QC Report No: 6162 B#2
Contract No:
Date Sample Received: 01/25/89

VOLATILE COMPOUNDS

Concentration: MED
Date Extracted/Prepared: 02/06/89
Date Analyzed: 02/06/89
Conc/Dil Factor: 200 pH
Percent Moisture: 11.7

CAS Number		ug/Kg
74-87-3	Chloromethane	2300 u
74-83-9	Bromomethane	2300 u
75-01-4	Vinyl Chloride	2300 u
75-00-3	Chloroethane	2300 u
75-09-2	Methylene Chloride	1100 u
67-64-1	Acetone	6600
75-15-0	Carbon Disulfide	1100 u
75-35-4	1,1-Dichloroethene	1100 u
75-34-3	1,1-Dichloroethane	1100 u
156-60-5	Trans-1,2-Dichloroethene	1100 u
67-66-3	Chloroform	1100 u
107-06-2	1,2-Dichloroethane	1100 u
78-93-3	2-butanone	2300 u
71-55-6	1,1,1-Trichloroethane	1100 u
56-23-5	Carbon Tetrachloride	1100 u
108-05-4	Vinyl Acetate	2300 u
75-27-4	Bromodichloromethane	1100 u

CAS Number		ug/Kg
78-87-5	1,2-Dichloropropane	1100 u
10061-02-6	Trans-1,3-Dichloropropene	1100 u
79-01-6	Trichloroethene	1100 u
124-48-1	Dibromochloromethane	1100 u
79-00-5	1,1,2-Trichloroethane	1100 u
71-43-2	Benzene	1100 u
10061-01-5	cis-1,3-Dichloropropene	1100 u
110-75-8	2-chloroethylvinylether	2300 u
75-25-2	Bromoform	1100 u
108-10-1	4-Methyl-2-Pentanone	2300 u
591-78-6	2-Hexanone	2300 u
127-18-4	Tetrachloroethene	1100 u
79-34-5	1,1,2,2-Tetrachloroethane	1100 u
108-88-3	Toluene	1100 u
108-90-7	Chlorobenzene	1100 u
100-41-4	Ethylbenzene	1100 u
100-42-5	Styrene	1100 u
1330-20-7	Total Xylenes	36000

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR Not Required.

MA Compound present in both matrix spike standard and unspiked sample.

Form I

p.46

100032

ATTACHMENT A-9

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
BSA01249710

Case No: 6162 B42

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: MID

Date Extracted/Prepared: 2/02/89

Date Analyzed: 02/06/89

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

CAS Number		ug/Kg
108-95-2	Phenol	22000 u
111-44-4	bis(2-Chloroethyl)Ether	22000 u
95-57-8	2-Chlorophenol	22000 u
541-73-1	1,3-Dichlorobenzene	22000 u
106-46-7	1,4-Dichlorobenzene	22000 u
100-51-6	Benzyl Alcohol	22000 u
95-50-1	1,2-Dichlorobenzene	22000 u
95-48-7	2-Methylphenol	22000 u
39638-32-9	bis(2-chloroisopropyl)ether	22000 u
106-44-5	4-methylphenol	22000 u
621-64-7	N-Nitroso-Di-n-propylamine	22000 u
67-72-1	Hexachloroethane	22000 u
98-95-3	Nitrobenzene	22000 u
78-59-1	Isophorone	22000 u
88-75-5	2-Nitrophenol	22000 u
105-67-9	2,4-dimethylphenol	22000 u
65-85-0	Benzoic Acid	114000 u
111-91-1	bis(2-chloroethoxy)methane	22000 u
120-83-2	2,4-dichlorophenol	22000 u
120-82-1	1,2,4-trichlorobenzene	22000 u
91-20-3	Naphthalene	22000 u
106-47-8	4-Chloroaniline	22000 u
87-68-3	Hexachlorobutadiene	22000 u
59-50-7	4-chloro-3-methylphenol	22000 u
91-57-6	2-methylnaphthalene	22000 u
77-47-4	Hexachlorocyclopentadiene	22000 u
88-06-2	2,4,6-Trichlorophenol	22000 u
95-95-4	2,4,5-Trichlorophenol	114000 u
91-58-7	2-Chloronaphthalene	22000 u
88-74-4	2-Nitroaniline	114000 u
131-11-3	Dimethyl Phthalate	22000 u
208-96-8	Acenaphthylene	22000 u
99-09-2	3-Nitroaniline	114000 u

CAS Number		ug/Kg
83-32-9	Acenaphthene	22000 u
51-28-5	2,4-Dinitrophenol	114000 u
100-02-7	4-Nitrophenol	114000 u
132-64-9	Dibenzofuran	22000 u
121-14-2	2,4-Dinitrotoluene	22000 u
606-20-2	2,6-Dinitrotoluene	22000 u
84-66-2	Diethylphthalate	22000 u
7005-22-3	4-Chlorophenyl-phenylether	22000 u
86-73-7	Fluorene	22000 u
100-01-6	4-Nitroaniline	114000 u
534-52-1	4,6-dinitro-2-methylphenol	114000 u
86-30-6	N-Nitrosodiphenylamine (1)	22000 u
101-55-3	4-Bromophenyl-phenylether	22000 u
118-74-1	Hexachlorobenzene	22000 u
87-86-5	Pentachlorophenol	114000 u
85-01-8	Phenanthrene	22000 u
120-12-7	Anthracene	22000 u
84-74-2	Di-n-butylphthalate	22000 u
206-44-0	Fluoranthene	22000 u
129-00-0	Pyrene	22000 u
85-68-7	Butylbenzylphthalate	22000 u
91-94-1	3,3'-Dichlorobenzidine	46000 u
56-55-3	Benzo(a)anthracene	22000 u
117-81-7	bis(2-Ethylhexyl)Phthalate	22000 u
218-01-9	Chrysene	22000 u
117-84-0	Di-n-Octylphthalate	22000 u
205-99-2	Benzo(b)Fluoranthene	22000 u
207-08-9	Benzo(k)Fluoranthene	22000 u
50-32-8	Benzo(a)pyrene	22000 u
193-39-5	Indeno(1,2,3-cd)Pyrene	22000 u
53-70-3	Dibenz(a,h)Anthracene	22000 u
191-24-2	Benzo(g,h,i)Perylene	22000 u

(1)-Cannot be separated from diphenylamine

[2q[2q

1A

EPA SAMPLE N

VOLATILE ORGANICS ANALYSIS DATA SHEET

BSA01249711

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 6162 SAS No.: _____ SDG No.: 2

Matrix: (soil/water) SOIL Lab Sample ID: 66067

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y4555

Level: (low/med) LOW Date Received: 01/25/89

% Moisture: not dec. .16 Date Analyzed: 02/06/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3,-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	25	X

FORM I VOA 1/87 Rev.

p.48

ATTACHMENT A-11 100061

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
BSA01249711

Case No: 6162 B#2

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: MID

Date Extracted/Prepared: 2/02/89

Date Analyzed: 02/06/89

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

CAS Number		ug/Kg
108-95-2	Phenol	24000 u
111-44-4	bis(2-Chloroethyl)Ether	24000 u
95-57-8	2-Chlorophenol	24000 u
541-73-1	1,3-Dichlorobenzene	24000 u
106-46-7	1,4-Dichlorobenzene	24000 u
100-51-6	Benzyl Alcohol	24000 u
95-50-1	1,2-Dichlorobenzene	24000 u
95-48-7	2-Methylphenol	24000 u
39638-32-9	bis(2-chloroisopropyl)ether	24000 u
106-44-5	4-methylphenol	24000 u
621-64-7	N-Nitroso-Di-n-propylamine	24000 u
67-72-1	Hexachloroethane	24000 u
98-95-3	Nitrobenzene	24000 u
78-59-1	Isophorone	24000 u
88-75-5	2-Nitrophenol	24000 u
105-67-9	2,4-dimethylphenol	24000 u
65-85-0	Benzoic Acid	118000 u
111-91-1	bis(2-chloroethoxy)methane	24000 u
120-83-2	2,4-dichlorophenol	24000 u
120-82-1	1,2,4-trichlorobenzene	24000 u
91-20-3	Naphthalene	24000 u
106-47-8	4-Chloroaniline	24000 u
87-68-3	Hexachlorobutadiene	24000 u
59-50-7	4-chloro-3-methylphenol	24000 u
91-57-6	2-methylnaphthalene	24000 u
77-47-4	Hexachlorocyclopentadiene	24000 u
88-06-2	2,4,6-Trichlorophenol	24000 u
95-95-4	2,4,5-Trichlorophenol	118000 u
91-58-7	2-Chloronaphthalene	24000 u
88-74-4	2-Nitroaniline	118000 u
131-11-3	Dimethyl Phthalate	24000 u
208-96-8	Acenaphthylene	24000 u
99-09-2	3-Nitroaniline	118000 u

CAS Number		ug/Kg
83-32-9	Acenaphthene	24000 u
51-28-5	2,4-Dinitrophenol	118000 u
100-02-7	4-Nitrophenol	118000 u
132-64-9	Dibenzofuran	24000 u
121-14-2	2,4-Dinitrotoluene	24000 u
606-20-2	2,6-Dinitrotoluene	24000 u
84-66-2	Diethylphthalate	24000 u
7005-22-3	4-Chlorophenyl-phenylether	24000 u
86-73-7	Fluorene	24000 u
100-01-6	4-Nitroaniline	118000 u
534-52-1	4,6-dinitro-2-methylphenol	118000 u
86-30-6	N-Nitrosodiphenylamine (1)	24000 u
101-55-3	4-Bromophenyl-phenylether	24000 u
118-74-1	Hexachlorobenzene	24000 u
87-86-5	Pentachlorophenol	118000 u
85-01-8	Phenanthrene	24000 u
120-12-7	Anthracene	24000 u
84-74-2	Di-n-butylphthalate	24000 u
206-44-0	Fluoranthene	24000 u
129-00-0	Pyrene	24000 u
85-68-7	Butylbenzylphthalate	24000 u
91-94-1	3,3'-Dichlorobenzidine	48000 u
56-55-3	Benzo(a)anthracene	24000 u
117-81-7	bis(2-Ethylhexyl)Phthalate	24000 u
218-01-9	Chrysene	24000 u
117-84-0	Di-n-Octylphthalate	24000 u
205-99-2	Benzo(b)Fluoranthene	24000 u
207-08-9	Benzo(k)Fluoranthene	24000 u
50-32-8	Benzo(a)pyrene	24000 u
193-39-5	Indeno(1,2,3-cd)Pyrene	24000 u
53-70-3	Dibenz(a,h)Anthracene	24000 u
191-24-2	Benzo(g,h,i)Perylene	24000 u

100062

(1)-Cannot be separated from diphenylamine

ATTACHMENT A-12

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
BSA01249712

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 66068
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 6162 B#2
QC Report No: 6162 B#2
Contract No:
Date Sample Received: 01/25/89

VOLATILE COMPOUNDS

Concentration: MED
Date Extracted/Prepared: 02/07/89
Date Analyzed: 02/07/89
Conc/Dil Factor: 50000 pH
Percent Moisture: 18.3

CAS Number		ug/Kg
74-87-3	Chloromethane	612000 u
74-83-9	Bromomethane	612000 u
75-01-4	Vinyl Chloride	612000 u
75-00-3	Chloroethane	612000 u
75-09-2	Methylene Chloride	306000 u
67-64-1	Acetone	612000 u
75-15-0	Carbon Disulfide	306000 u
75-35-4	1,1-Dichloroethene	306000 u
75-34-3	1,1-Dichloroethane	306000 u
156-60-5	Trans-1,2-Dichloroethene	306000 u
67-66-3	Chloroform	306000 u
107-06-2	1,2-Dichloroethane	306000 u
78-93-3	2-butanone	612000 u
71-55-6	1,1,1-Trichloroethane	306000 u
56-23-5	Carbon Tetrachloride	306000 u
108-05-4	Vinyl Acetate	612000 u
75-27-4	Bromodichloromethane	306000 u

CAS Number		ug/Kg
78-87-5	1,2-Dichloropropane	306000 u
10061-02-6	Trans-1,3-Dichloropropene	306000 u
79-01-6	Trichloroethene	306000 u
124-48-1	Dibromochloromethane	306000 u
79-00-5	1,1,2-Trichloroethane	306000 u
71-43-2	Benzene	306000 u
10061-01-5	cis-1,3-Dichloropropene	306000 u
110-75-8	2-chloroethylvinylether	612000 u
75-25-2	Bromoform	306000 u
108-10-1	4-Methyl-2-Pentanone	612000 u
591-78-6	2-Hexanone	612000 u
127-18-4	Tetrachloroethene	306000 u
79-34-5	1,1,2,2-Tetrachloroethane	306000 u
108-88-3	Toluene	306000 u
108-90-7	Chlorobenzene	306000 u
100-41-4	Ethylbenzene	276000
100-42-5	Styrene	306000 u
1330-20-7	Total Xylenes	5716000

Data Reporting Qualifiers

Value If the result is a value greater than or equal to the detection limit, report the value.

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g. 10J)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR Not Required.

NA Compound present in both matrix spike standard and unspiked sample.

Form I

p.50

ATTACHMENT A-13

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
BSA01249712

Case No: 6162 B42

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: MID

Date Extracted/Prepared: 2/02/89

Date Analyzed: 02/06/89

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

CAS Number		ug/Kg
108-95-2	Phenol	24000 u
111-44-4	bis(2-Chloroethyl)Ether	24000 u
95-57-8	2-Chlorophenol	24000 u
541-73-1	1,3-Dichlorobenzene	24000 u
106-46-7	1,4-Dichlorobenzene	24000 u
100-51-6	Benzyl Alcohol	24000 u
95-50-1	1,2-Dichlorobenzene	24000 u
95-48-7	2-Methylphenol	24000 u
39638-32-9	bis(2-chloroisopropyl)ether	24000 u
106-44-5	4-methylphenol	24000 u
621-64-7	N-Nitroso-Di-n-propylamine	24000 u
67-72-1	Hexachloroethane	24000 u
98-95-3	Nitrobenzene	24000 u
78-59-1	Isophorone	24000 u
88-75-5	2-Nitrophenol	24000 u
105-67-9	2,4-dimethylphenol	24000 u
65-85-0	Benzoic Acid	122000 u
111-91-1	bis(2-chloroethoxy)methane	24000 u
120-83-2	2,4-dichlorophenol	24000 u
120-82-1	1,2,4-trichlorobenzene	24000 u
91-20-3	Naphthalene	24000 u
106-47-8	4-Chloroaniline	24000 u
87-68-3	Hexachlorobutadiene	24000 u
59-50-7	4-chloro-3-methylphenol	24000 u
91-57-6	2-methylnaphthalene	24000 u
77-47-4	Hexachlorocyclopentadiene	24000 u
88-06-2	2,4,6-Trichlorophenol	24000 u
95-95-4	2,4,5-Trichlorophenol	122000 u
91-58-7	2-Chloronaphthalene	24000 u
88-74-4	2-Nitroaniline	122000 u
131-11-3	Dimethyl Phthalate	24000 u
208-96-8	Acenaphthylene	24000 u
99-09-2	3-Nitroaniline	122000 u

CAS Number		ug/Kg
83-32-9	Acenaphthene	24000 u
51-28-5	2,4-Dinitrophenol	122000 u
100-02-7	4-Nitrophenol	122000 u
132-64-9	Dibenzofuran	24000 u
121-14-2	2,4-Dinitrotoluene	24000 u
606-20-2	2,6-Dinitrotoluene	24000 u
84-66-2	Diethylphthalate	24000 u
7005-22-3	4-Chlorophenyl-phenylether	24000 u
86-73-7	Fluorene	24000 u
100-01-6	4-Nitroaniline	122000 u
534-52-1	4,6-dinitro-2-methylphenol	122000 u
86-30-6	N-Nitrosodiphenylamine (1)	24000 u
101-55-3	4-Bromophenyl-phenylether	24000 u
118-74-1	Hexachlorobenzene	24000 u
87-86-5	Pentachlorophenol	122000 u
85-01-8	Phenanthrene	24000 u
120-12-7	Anthracene	24000 u
84-74-2	Di-n-butylphthalate	24000 u
206-44-0	Fluoranthene	24000 u
129-00-0	Pyrene	24000 u
85-68-7	Butylbenzylphthalate	24000 u
91-94-1	3,3'-Dichlorobenzidine	48000 u
56-55-3	Benzo(a)anthracene	24000 u
117-81-7	bis(2-Ethylhexyl)Phthalate	24000 u
218-01-9	Chrysene	24000 u
117-84-0	Di-n-Octylphthalate	24000 u
205-99-2	Benzo(b)Fluoranthene	24000 u
207-08-9	Benzo(k)Fluoranthene	24000 u
50-32-8	Benzo(a)pyrene	24000 u
193-39-5	Indeno(1,2,3-cd)Pyrene	24000 u
53-70-3	Dibenz(a,h)Anthracene	24000 u
191-24-2	Benzo(g,h,i)Perylene	24000 u

(1)-Cannot be separated from diphenylamine

100094

BNAF1:R032286

Form I

ATTACHMENT A-14

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
BSA01249712

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan	Estimated Concentration (ug/Kg or ug/l)
1		UNKNOWN DIMETHYL BENZENE	BNA	256	350,000 J
2		UNKNOWN ETHYL METHYL BENZENE	BNA	330	18,000 J
3		UNKNOWN TRIMETHYL BENZENE	BNA	367	13,000 J
4	15869-93-9	OCTANE, 3,5-DIMETHYL-	BNA	371	18,000 J
5		UNKNOWN HYDROCARBON	BNA	486	17,000 J
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

p. 52

ATTACHMENT A-15

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
BSA01249713

Case No: 6162 B42

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: MID

Date Extracted/Prepared: 2/02/89

GPC Cleanup [ ]Yes [X]No

Date Analyzed: 02/06/89

Separatory Funnel Extraction [ ]Yes

Conc/Dil Factor: 1

Continuous Liquid-Liquid Extraction [ ]Yes

CAS Number		ug/Kg
108-95-2	Phenol	28000 u
111-44-4	bis(2-Chloroethyl)Ether	28000 u
95-57-8	2-Chlorophenol	28000 u
541-73-1	1,3-Dichlorobenzene	28000 u
106-46-7	1,4-Dichlorobenzene	28000 u
100-51-6	Benzyl Alcohol	28000 u
95-50-1	1,2-Dichlorobenzene	28000 u
95-48-7	2-Methylphenol	28000 u
39638-32-9	bis(2-chloroisopropyl)ether	28000 u
106-44-5	4-methylphenol	28000 u
621-64-7	N-Nitroso-Di-n-propylamine	28000 u
67-72-1	Hexachloroethane	28000 u
98-95-3	Nitrobenzene	28000 u
78-59-1	Isophorone	28000 u
88-75-5	2-Nitrophenol	28000 u
105-67-9	2,4-dimethylphenol	28000 u
65-85-0	Benzoic Acid	140000 u
111-91-1	bis(2-chloroethoxy)methane	28000 u
120-83-2	2,4-dichlorophenol	28000 u
120-82-1	1,2,4-trichlorobenzene	28000 u
91-20-3	Naphthalene	19000 J
106-47-8	4-Chloroaniline	28000 u
87-68-3	Hexachlorobutadiene	28000 u
59-50-7	4-chloro-3-methylphenol	28000 u
91-57-6	2-methylnaphthalene	28000 u
77-47-4	Hexachlorocyclopentadiene	28000 u
88-06-2	2,4,6-Trichlorophenol	28000 u
95-95-4	2,4,5-Trichlorophenol	140000 u
91-58-7	2-Chloronaphthalene	28000 u
88-74-4	2-Nitroaniline	140000 u
131-11-3	Dimethyl Phthalate	28000 u
208-96-8	Acenaphthylene	28000 u
99-09-2	3-Nitroaniline	140000 u

CAS Number		ug/Kg
83-32-9	Acenaphthene	28000 u
51-28-5	2,4-Dinitrophenol	140000 u
100-02-7	4-Nitrophenol	140000 u
132-64-9	Dibenzofuran	28000 u
121-14-2	2,4-Dinitrotoluene	28000 u
606-20-2	2,6-Dinitrotoluene	28000 u
84-66-2	Diethylphthalate	28000 u
7005-22-3	4-Chlorophenyl-phenylether	28000 u
86-73-7	Fluorene	28000 u
100-01-6	4-Nitroaniline	140000 u
534-52-1	4,6-dinitro-2-methylphenol	140000 u
86-30-6	N-Nitrosodiphenylamine (1)	28000 u
101-55-3	4-Bromophenyl-phenylether	28000 u
118-74-1	Hexachlorobenzene	28000 u
87-86-5	Pentachlorophenol	140000 u
85-01-8	Phenanthrene	28000 u
120-12-7	Anthracene	28000 u
84-74-2	Di-n-butylphthalate	58000
206-44-0	Fluoranthene	28000 u
129-00-0	Pyrene	28000 u
85-68-7	Butylbenzylphthalate	28000 u
91-94-1	3,3'-Dichlorobenzidine	56000 u
56-55-3	Benzo(a)anthracene	28000 u
117-81-7	bis(2-Ethylhexyl)Phthalate	E
218-01-9	Chrysene	28000 u
117-84-0	Di-n-Octylphthalate	18000 J
205-99-2	Benzo(b)Fluoranthene	28000 u
207-08-9	Benzo(k)Fluoranthene	28000 u
50-32-8	Benzo(a)pyrene	28000 u
193-39-5	Indeno(1,2,3-cd)Pyrene	28000 u
53-70-3	Dibenz(a,h)Anthracene	28000 u
191-24-2	Benzo(g,h,i)Perylene	28000 u

100131

(1)-Cannot be separated from diphenylamine

ATTACHMENT A-16

ersar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
BS0012497130L

Case No: 6162 B02

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: MID

Date Extracted/Prepared: 2/02/89

Date Analyzed: 02/06/89

Conc/Dil Factor: 10

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

CAS Number		ug/Kg
108-95-2	Phenol	278000 u
111-44-4	bis(2-Chloroethyl)Ether	278000 u
95-57-8	2-Chlorophenol	278000 u
541-73-1	1,3-Dichlorobenzene	278000 u
106-46-7	1,4-Dichlorobenzene	278000 u
100-51-6	Benzyl Alcohol	278000 u
95-50-1	1,2-Dichlorobenzene	278000 u
95-48-7	2-Methylphenol	278000 u
139638-32-9	bis(2-chloroisopropyl)ether	278000 u
106-44-5	4-methylphenol	278000 u
621-64-7	N-Nitroso-Di-n-propylamine	278000 u
67-72-1	Hexachloroethane	278000 u
98-95-3	Nitrobenzene	278000 u
78-59-1	Isophorone	278000 u
88-75-5	2-Nitrophenol	278000 u
105-67-9	2,4-dimethylphenol	278000 u
65-85-0	Benzoic Acid	1394000 u
111-91-1	bis(2-chloroethoxy)methane	278000 u
120-83-2	2,4-dichlorophenol	278000 u
120-82-1	1,2,4-trichlorobenzene	278000 u
91-20-3	Naphthalene	278000 u
106-47-8	4-Chloroaniline	278000 u
87-68-3	Hexachlorobutadiene	278000 u
59-50-7	4-chloro-3-methylphenol	278000 u
91-57-6	2-methylnaphthalene	278000 u
77-47-4	Hexachlorocyclopentadiene	278000 u
88-06-2	2,4,6-Trichlorophenol	278000 u
95-95-4	2,4,5-Trichlorophenol	1394000 u
91-58-7	2-Chloronaphthalene	278000 u
88-74-4	2-Nitroaniline	1394000 u
131-11-3	Dimethyl Phthalate	278000 u
208-96-8	Acenaphthylene	278000 u
99-09-2	3-Nitroaniline	1394000 u

CAS Number		ug/Kg
83-32-9	Acenaphthene	278000 u
51-28-5	2,4-Dinitrophenol	1394000 u
100-02-7	4-Nitrophenol	1394000 u
132-64-9	Dibenzofuran	278000 u
121-14-2	2,4-Dinitrotoluene	278000 u
606-20-2	2,6-Dinitrotoluene	278000 u
84-66-2	Diethylphthalate	278000 u
7005-22-3	4-Chlorophenyl-phenylether	278000 u
86-73-7	Fluorene	278000 u
100-01-6	4-Nitroaniline	1394000 u
534-52-1	4,6-dinitro-2-methylphenol	1394000 u
86-30-6	N-Nitrosodiphenylamine (1)	278000 u
101-55-3	4-Bromophenyl-phenylether	278000 u
118-74-1	Hexachlorobenzene	278000 u
87-86-5	Pentachlorophenol	1394000 u
85-01-8	Phenanthrene	278000 u
120-12-7	Anthracene	278000 u
84-74-2	Di-n-butylphthalate	278000 u
206-44-0	Fluoranthene	278000 u
129-00-0	Pyrene	278000 u
85-68-7	Butylbenzylphthalate	278000 u
91-94-1	3,3'-Dichlorobenzidine	558000 u
56-55-3	Benzo(a)anthracene	278000 u
117-81-7	bis(2-Ethylhexyl)Phthalate	1800000 D
218-01-9	Chrysene	278000 u
117-84-0	Di-n-Octylphthalate	278000 u
205-99-2	Benzo(b)Fluoranthene	278000 u
207-08-9	Benzo(k)Fluoranthene	278000 u
50-32-8	Benzo(a)pyrene	278000 u
193-39-5	Indeno(1,2,3-cd)Pyrene	278000 u
53-70-3	Dibenz(a,h)Anthracene	278000 u
191-24-2	Benzo(g,h,i)Perylene	278000 u

100132

(1)-Cannot be separated from diphenylamine

ATTACHMENT A-17

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BSA01249713

Lab Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 6162 SAS No.: _____ SDG No.: 2

Matrix: (soil/water) SOIL Lab Sample ID: 66069

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y4575

Level: (low/med) MED Date Received: 01/25/89

% Moisture: not dec. 27 Date Analyzed: 02/07/89

Column (pack/cap) PACK Dilution Factor: 1000

Number TICs found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

p. 55

1/87 Rev.

100133

ATTACHMENT A-18

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
BSA01249713

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan	Estimated Concentration (ug/Kg or ug/l)
1	UNKNOWN DIMETHYL BENZENE	BNA	256	440,000 J
2	UNKNOWN HYDROCARBON	BNA	260	75,000 J
3	UNKNOWN HYDROCARBON	BNA	297	42,000 J
4	UNKNOWN	BNA	321	46,000 J
5	UNKNOWN ETHYL METHYL BENZENE	BNA	330	130,000 J
6	UNKNOWN KETONE	BNA	338	300,000 J
7	UNKNOWN TRIMETHYL BENZENE	BNA	367	160,000 J
8	UNKNOWN HYDROCARBON	BNA	372	350,000 J
9	UNKNOWN HYDROCARBON	BNA	398	130,000 J
10	UNKNOWN CYCLOHEXANE	BNA	410	66,000 J
11	UNKNOWN	BNA	416	47,000 J
12	UNKNOWN METHYL PROPYL BENZENE	BNA	433	41,000 J
13	UNKNOWN	BNA	438	81,000 J
14	UNKNOWN	BNA	441	84,000 J
15	UNKNOWN HYDROCARBON	BNA	445	84,000 J
16	UNKNOWN HYDROCARBON	BNA	452	77,000 J
17	UNKNOWN ETHYL DIMETHYL BENZENE	BNA	463	44,000 J
18	UNKNOWN HYDROCARBON	BNA	487	380,000 J
19	UNKNOWN HYDROCARBON	BNA	506	35,000 J
20	UNKNOWN TETRAMETHYL BENZENE	BNA	513	39,000 J
21	UNKNOWN	BNA	549	48,000 J
22	UNKNOWN HYDROCARBON	BNA	559	33,000 J
23	UNKNOWN HYDROCARBON	BNA	599	120,000 J
24	UNKNOWN HYDROCARBON	BNA	707	45,000 J
25	UNKNOWN	BNA	969	83,000 J
26	UNKNOWN	BNA	1141	57,000 J
27	UNKNOWN	BNA	1302	120,000 J
28	UNKNOWN	BNA	1434	140,000 J
29	UNKNOWN	BNA	1448	39,000 J
30	UNKNOWN	BNA	1660	70,000 J

p.56

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BSA01249714

Name: VERSAR INC. Contract: _____

Lab Code: VERSAR Case No.: 6162 SAS No.: _____ SDG No.: 2

Matrix: (soil/water) SOIL Lab Sample ID: 66070

Sample wt/vol: 5.0 (g/mL) G Lab File ID: Y4558

Level: (low/med) LOW Date Received: 01/25/89

% Moisture: not dec. 11 Date Analyzed: 02/06/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3,-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	4	J
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	31	X

FORM I VOA 1/87 Rev.

p. 57

100239

ATTACHMENT A-20

ersar Inc., Laboratory Operations
850 Versar Center, Springfield VA 22151 703/750-3000

Sample Number
BSA01249714

Case No: 6162 B42

ORGANICS ANALYSIS DATA SHEET (Page 2)
Semivolatile Compounds

Concentration: MID

Date Extracted/Prepared: 2/02/89

Date Analyzed: 02/06/89

Conc/Dil Factor: 1

GPC Cleanup [ ]Yes [X]No

Separatory Funnel Extraction [ ]Yes

Continuous Liquid-Liquid Extraction [ ]Yes

CAS Number		ug/Kg
108-95-2	Phenol	22000 u
111-44-4	bis(2-Chloroethyl)Ether	22000 u
95-57-8	2-Chlorophenol	22000 u
541-73-1	1,3-Dichlorobenzene	22000 u
106-46-7	1,4-Dichlorobenzene	22000 u
100-51-6	Benzyl Alcohol	22000 u
95-50-1	1,2-Dichlorobenzene	22000 u
95-48-7	2-Methylphenol	22000 u
39638-32-9	bis(2-chloroisopropyl)ether	22000 u
106-44-5	4-methylphenol	22000 u
621-64-7	N-Nitroso-Di-n-propylamine	22000 u
67-72-1	Hexachloroethane	22000 u
98-95-3	Nitrobenzene	22000 u
78-59-1	Isophorone	22000 u
88-75-5	2-Nitrophenol	22000 u
105-67-9	2,4-dimethylphenol	22000 u
65-85-0	Benzoic Acid	114000 u
111-91-1	bis(2-chloroethoxy)methane	22000 u
120-83-2	2,4-dichlorophenol	22000 u
120-82-1	1,2,4-trichlorobenzene	22000 u
91-20-3	Naphthalene	22000 u
106-47-8	4-Chloroaniline	22000 u
87-68-3	Hexachlorobutadiene	22000 u
59-50-7	4-chloro-3-methylphenol	22000 u
91-57-6	2-methylnaphthalene	22000 u
77-47-4	Hexachlorocyclopentadiene	22000 u
88-06-2	2,4,6-Trichlorophenol	22000 u
95-95-4	2,4,5-Trichlorophenol	114000 u
91-58-7	2-Chloronaphthalene	22000 u
88-74-4	2-Nitroaniline	114000 u
131-11-3	Dimethyl Phthalate	22000 u
208-96-8	Acenaphthylene	22000 u
99-09-2	3-Nitroaniline	114000 u

CAS Number		ug/Kg
83-32-9	Acenaphthene	22000 u
51-28-5	2,4-Dinitrophenol	114000 u
100-02-7	4-Nitrophenol	114000 u
132-64-9	Dibenzofuran	22000 u
121-14-2	2,4-Dinitrotoluene	22000 u
606-20-2	2,6-Dinitrotoluene	22000 u
84-66-2	Diethylphthalate	22000 u
7005-22-3	4-Chlorophenyl-phenylether	22000 u
86-73-7	Fluorene	22000 u
100-01-6	4-Nitroaniline	114000 u
534-52-1	4,6-dinitro-2-methylphenol	114000 u
86-30-6	N-Nitrosodiphenylamine (1)	22000 u
101-55-3	4-Bromophenyl-phenylether	22000 u
118-74-1	Hexachlorobenzene	22000 u
87-86-5	Pentachlorophenol	114000 u
85-01-8	Phenanthrene	22000 u
120-12-7	Anthracene	22000 u
84-74-2	Di-n-butylphthalate	22000 u
206-44-0	Fluoranthene	22000 u
129-00-0	Pyrene	22000 u
85-68-7	Butylbenzylphthalate	22000 u
91-94-1	3,3'-Dichlorobenzidine	46000 u
56-55-3	Benzo(a)anthracene	22000 u
117-81-7	bis(2-Ethylhexyl)Phthalate	57000
218-01-9	Chrysene	22000 u
117-84-0	Di-n-Octylphthalate	22000 u
205-99-2	Benzo(b)Fluoranthene	22000 u
207-08-9	Benzo(k)Fluoranthene	22000 u
50-32-8	Benzo(a)pyrene	22000 u
193-39-5	Indeno(1,2,3-cd)Pyrene	22000 u
53-70-3	Dibenz(a,h)Anthracene	22000 u
191-24-2	Benzo(g,h,i)Perylene	22000 u

(1)-Cannot be separated from diphenylamine

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BSA01249714

Name: VERSAR Contract: _____

Lab Code: VERSAR Case No.: 6162 SAS No.: _____ SDG No.: B#2

Matrix: (soil/water) SOIL Lab Sample ID: 66070

Sample wt/vol: 5 (g/ml) G Lab File ID: Y4558

Level: (low/med) LOW Date Received: 01/25/89

% Moisture: not dec. 11 Date Analyzed: 02/06/89

Dilution Factor: 1

Number TICs found: 2

CONCENTRATION UNITS:
(UG/L or UG/KG) UG/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN SUBSTITUTED BENZENE	23.1	5	J
2.	UNKNOWN SUBSTITUTED BENZENE	25.07	14	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

FORM I VOA-TIC

Versar Inc., Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

SAMPLE ID
BSA01249714

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan	Estimated Concentration (ug/Kg or ug/l)
1		UNKNOWN	BNA	1776	40,000 J
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

p. 60

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BSA01249710

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 6162 B#2 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 66061

Sample wt/vol: 1.04 (g/ml) G Lab File ID:

Level: (low/med) MED Date Received: 01/25/89

% Moisture: not dec. 12 dec. Date Extracted: 02/03/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/16/89

GPC Cleanup: (Y/N) N pH: 6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	110	U
319-85-7	beta-BHC	110	U
319-86-8	delta-BHC	110	U
58-89-9	gamma-BHC (Lindane)	110	U
76-44-8	Heptachlor	110	U
309-00-2	Aldrin	110	U
1024-57-3	Heptachlor Epoxide	110	U
959-98-8	Endosulfan I	110	U
60-57-1	Dieldrin	220	U
72-55-9	4,4'-DDE	220	U
72-20-8	Endrin	220	U
33213-65-9	Endosulfan II	220	U
72-54-8	4,4'-DDD	220	U
1031-07-8	Endosulfan Sulfate	220	U
50-29-3	4,4'-DDT	220	U
72-43-5	Methoxychlor	220	U
53494-70-5	Endrin Ketone	220	U
5103-71-9	alpha-Chlordane	220	U
5103-74-2	gamma-Chlordane	220	U
8001-35-2	Toxaphene	2200	U
12674-11-2	Aroclor-1016	1100	U
11104-28-2	Aroclor-1221	1100	U
11141-16-5	Aroclor-1232	1100	U
53469-21-9	Aroclor-1242	1100	U
12672-29-6	Aroclor-1248	1100	U
11097-69-1	Aroclor-1254	2200	U
11096-82-5	Aroclor-1260	2200	U

200055

FORM I PEST 1/87 Rev.

ATTACHMENT A-24

Judy Amador 2-22-89

p. 61

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BSA01249711

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: 6162 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 66062

Sample wt/vol: 30.06 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/25/89

% Moisture: not dec. 17 dec. Date Extracted: 02/03/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/89

GPC Cleanup: (Y/N) N pH: 8 Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.0	U
319-85-7	beta-BHC	8.0	U
319-86-8	delta-BHC	8.0	U
58-89-9	gamma-BHC (Lindane)	8.0	U
76-44-8	Heptachlor	8.0	U
309-00-2	Aldrin	8.0	U
1024-57-3	Heptachlor Epoxide	8.0	U
959-98-8	Endosulfan I	8.0	U
60-57-1	Dieldrin	16	U
72-55-9	4,4'-DDE	16	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan Sulfate	16	U
50-29-3	4,4'-DDT	16	U
72-43-5	Methoxychlor	16	U
53494-70-5	Endrin Ketone	16	U
5103-71-9	alpha-Chlordane	16	U
5103-74-2	gamma-Chlordane	16	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	85 ~~170~~	S
11096-82-5	Aroclor-1260	160	U

S = STRAIGHT (UNDILUTED) SAMPLE ANALYSIS MORE REPRESENTATIVE OF CALIBRATION. 3/3/89

200011

FORM I PEST 1/87 Rev.

p. 62

3/2/89

ATTACHMENT A-25

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BSA01249712

Lab Name: VERSAR, INC. Contract:

Code: VERSAR Case No.: 6162 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 66063

Sample wt/vol: 30.03 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/25/89

% Moisture: not dec. 18 dec. Date Extracted: 02/03/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.1	U
319-85-7	beta-BHC	8.1	U
319-86-8	delta-BHC	8.1	U
58-89-9	gamma-BHC (Lindane)	8.1	U
76-44-8	Heptachlor	8.1	U
309-00-2	Aldrin	8.1	U
1024-57-3	Heptachlor Epoxide	8.1	U
959-98-8	Endosulfan I	8.1	U
60-57-1	Dieldrin	16	U
72-55-9	4,4'-DDE	16	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan Sulfate	16	U
50-29-3	4,4'-DDT	16	U
72-43-5	Methoxychlor	16	U
53494-70-5	Endrin Ketone	16	U
5103-71-9	alpha-Chlordane	16	U
5103-74-2	gamma-Chlordane	16	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	81	U
11104-28-2	Aroclor-1221	81	U
11141-16-5	Aroclor-1232	81	U
53469-21-9	Aroclor-1242	81	U
12672-29-6	Aroclor-1248	81	U
11097-69-1	Aroclor-1254	91 ~~200~~	S
11096-82-5	Aroclor-1260	160	U

S= STRAIGHT (UNDILUTED) SAMPLE ANALYSIS MORE REPRESENTATIVE OF CALIBRATION 3/3/89

200025

FORM I PEST 1/87 Rev.

p. 63

ATTACHMENT A-26 3/2/89

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
BSA01249713

Lab Name: VERSAR, INC. Contract:

Code: VERSAR Case No.: 6162 B#2 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 66064

Sample wt/vol: 1.02 (g/ml) G Lab File ID:

Level: (low/med) MED Date Received: 01/25/89

% Moisture: not dec. 28 dec. Date Extracted: 02/03/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/16/89

GPC Cleanup: (Y/N) N pH: 7 Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1400	U
319-85-7	beta-BHC	1400	U
319-86-8	delta-BHC	1400	U
58-89-9	gamma-BHC (Lindane)	1400	U
76-44-8	Heptachlor	1400	U
309-00-2	Aldrin	1400	U
1024-57-3	Heptachlor Epoxide	1400	U
959-98-8	Endosulfan I	1400	U
60-57-1	Dieldrin	2700	U
72-55-9	4,4'-DDE	2700	U
72-20-8	Endrin	2700	U
33213-65-9	Endosulfan II	2700	U
72-54-8	4,4'-DDD	2700	U
1031-07-8	Endosulfan Sulfate	2700	U
50-29-3	4,4'-DDT	2700	U
72-43-5	Methoxychlor	2700	U
53494-70-5	Endrin Ketone	2700	U
5103-71-9	alpha-Chlordane	2700	U
5103-74-2	gamma-Chlordane	2700	U
8001-35-2	Toxaphene	27000	U
12674-11-2	Aroclor-1016	14000	U
11104-28-2	Aroclor-1221	14000	U
11141-16-5	Aroclor-1232	14000	U
53469-21-9	Aroclor-1242	14000	U
12672-29-6	Aroclor-1248	14000	U
11097-69-1	Aroclor-1254	290000	
11096-82-5	Aroclor-1260	27000	U

200068

FORM I PEST 1/87 Rev.

p. 64

ATTACHMENT A-77

Judy Amad 2-22-89

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
BSA01249714

Lab Name: VERSAR, INC. Contract:

Code: VERSAR Case No.:6162 B#2 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 66065

Sample wt/vol: 30.03 (g/ml) G Lab File ID:

Level: (low/med) LOW Date Received: 01/25/89

% Moisture: not dec. 12 dec. Date Extracted: 02/03/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/10/89

GPC Cleanup: (Y/N) N pH: 8 Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	7.5	U
319-85-7	beta-BHC	7.5	U
319-86-8	delta-BHC	7.5	U
58-89-9	gamma-BHC (Lindane)	7.5	U
76-44-8	Heptachlor	7.5	U
309-00-2	Aldrin	7.5	U
1024-57-3	Heptachlor Epoxide	7.5	U
959-98-8	Endosulfan I	7.5	U
60-57-1	Dieldrin	15	U
72-55-9	4,4'-DDE	15	U
72-20-8	Endrin	15	U
33213-65-9	Endosulfan II	15	U
72-54-8	4,4'-DDD	15	U
1031-07-8	Endosulfan Sulfate	15	U
50-29-3	4,4'-DDT	15	U
72-43-5	Methoxychlor	15	U
53494-70-5	Endrin Ketone	15	U
5103-71-9	alpha-Chlordane	15	U
5103-74-2	gamma-Chlordane	15	U
8001-35-2	Toxaphene	150	U
12674-11-2	Aroclor-1016	75	U
11104-28-2	Aroclor-1221	75	U
11141-16-5	Aroclor-1232	75	U
53469-21-9	Aroclor-1242	75	U
12672-29-6	Aroclor-1248	75	U
11097-69-1	Aroclor-1254	530	~~8~~
11096-82-5	Aroclor-1260	150	U

~~S=SAMPLE~~ No qualifier required. [signature] 3/3/89

200038A

FORM I PEST

1/87 Rev.

p.65

[signature] 3/3/89

ATTACHMENT A-28

Let's protect our earth

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF HAZARDOUS WASTE MANAGEMENT

Michele M. Putnam
Deputy Director
Hazardous Waste Operations

John J. Trela, Ph.D., Director
401 East State St.
CN 028
Trenton, N.J. 08625-0028
(609)633-1408

Lance R. Miller
Deputy Director
Responsible Party Remedial Action

M E M O R A N D U M

JAN 20 1989

TO: Richard Gervasio, Supervisory Environmental Technician
Bureau of Planning and Assessment

FROM: David Van Eck, HSMS III
Bureau of Planning and Assessment

SUBJECT: SAMPLING PLAN FOR SYNKOTE PAINT COMPANY
144-160 VAN RIPER AVENUE
ELMWOOD PARK, BERGEN COUNTY

PROPOSED DATE OF SAMPLING: January 24, 1989

PURPOSE:
To characterize contaminants present at the site and to determine the hazards these substances may pose to the environment and public health.

COMMENTS:
Synkote Paint Company is located in a mixed industrial/residential area in Elmwood Park, Bergen County, manufacturing paint from 1956 until bankruptcy in February 1985. The NJDEP issued Synkote Paint Company an Administrative Order on June 6, 1985 for poor hazardous waste storage practices. Four soil samples, taken by the Division of Water Resources on July 3, 1985, were scanned for volatile organic compounds by the New Jersey Department of Health. Results revealed contamination with cumene, benzene, styrene, toluene, xylene and other solvents. The NJDEP issued a Directive Letter on September 20, 1985 as a result of a spill of mineral spirits. Cleanup work was begun at the site by S & W Waste Company of Kearny, but was not completed.

After Synkote Paint Company filed for bankruptcy in February of 1985, approximately 200 drums, many of which have unknown contents, were abandoned at the site.

Although the Environmental Cleanup and Responsibility Act (ECRA) was triggered by the bankruptcy proceedings, Synkote Paint Company did not acknowledge the responsibility under ECRA and the case was referred to the Attorney General's Office.

New Jersey is an Equal Opportunity Employer
Recycled Paper

Soil has been impacted at the site and there is a potential for groundwater contamination. Garfield Municipal wells are located approximately 3/4 mile from the site.

Of additional concern is the danger the site poses to neighbors. Although the site is surrounded by a six foot cyclone fence and barbed wire, the barbed wire in some areas has been bent down, allowing unauthorized entry. Vandalism and arson could have an impact on neighboring houses.

Based on information obtained through file reviews and on site observations, further investigation through a site inspection is warranted.

SECTION A: QA/QC SAMPLES:
One trip blank to be analyzed for volatile organic chemicals and one field blank to be analyzed for chemicals included on the Toxic Compound List will be provided by the lab for QA/QC purposes. The trip blank will be filled with demonstrated analyte free water at Versar laboratory prior to shipment to the Bureau of Planning and Assessment and will not be opened until it arrives back at Versar with the other samples. The trip blank will serve as a quality control to ensure contaminants are not being transferred between containers during shipment, nor occurring as a result of laboratory contamination.

The field blank will be prepared by pouring demonstrated analyte free water over a lab cleaned stainless steel trowel into sample bottles provided by Versar laboratory. This sample serves as quality control of the sample collection procedures and equipment cleaning process ensuring contaminants are not transferred to the sample via the sample collection equipment. The field blank will be analyzed for the Toxic Compound List.

SECTION B: SOIL SAMPLES:
A total of five (5) soil samples will be collected during the site inspection. Locations were chosen during the pre-sampling assessment conducted on January 18, 1989. At several locations on site, the Organic Vapor Analyzer detected soil gas readings in excess of 1000 parts per million (read as methane). Proposed sample locations are presented on the attached map. Soil 1 will be taken from 0 to 6 inches at the base of the loading dock at the southeast corner of the building. Soil 2 will be taken at 0 to 6 inches adjacent to abandoned drums, where the soil was visibly stained. Soil 3 will be taken at a depth of 1 foot, within the cinder block berm of the former storage tank area. Soil 4 will be taken at a depth of 1 foot among the abandoned drums in an area of stressed vegetation. Soil 5 will be taken at 0 to 6 inches below the corner of a leaking dumpster. Lab cleaned and dedicated stainless steel trowels and bucket augers will be used for sample collection. Soil samples will be analyzed for the Toxic Compound List.

SECTION C: PROCEDURES AND EQUIPMENT:
Lab cleaned and dedicated stainless steel trowels and bucket augers will be used to collect all soil samples. NJDEP sampling procedures and protocol will be followed at all times.

SECTION D: COSTS:

	ANALYSIS	VERSAR PRICES	TOTAL COST
5 soil samples	TCL	$1577.00	$7885.00
1 field blank	TCL	$1515.00	1515.00
1 trip blank	VOA	$ 265.00	265.00
		Total	$9665.00

SECTION E: SHIPPING AND HANDLING:
Samples will be sealed with chain of custody in coolers provided by the laboratory and shipped back to the laboratory via Federal Express (overnight). Versar's Federal Express number is 0200-1989-7.

SECTION F: RECOMMENDATIONS:
All actions undertaken by the Bureau of Planning and Assessment will be coordinated with the NJDEP/Division of Hazardous Waste Management: Metro Region Enforcement Office. It is recommended the abandoned drums be removed from the site immediately before they cause further damage to the environment. The Attorney General's Office should assist the Bureau of Environmental Evaluation and Cleanup Responsibility Assessment (BEECRA) in persuing the responsible party for a cleanup of the site.

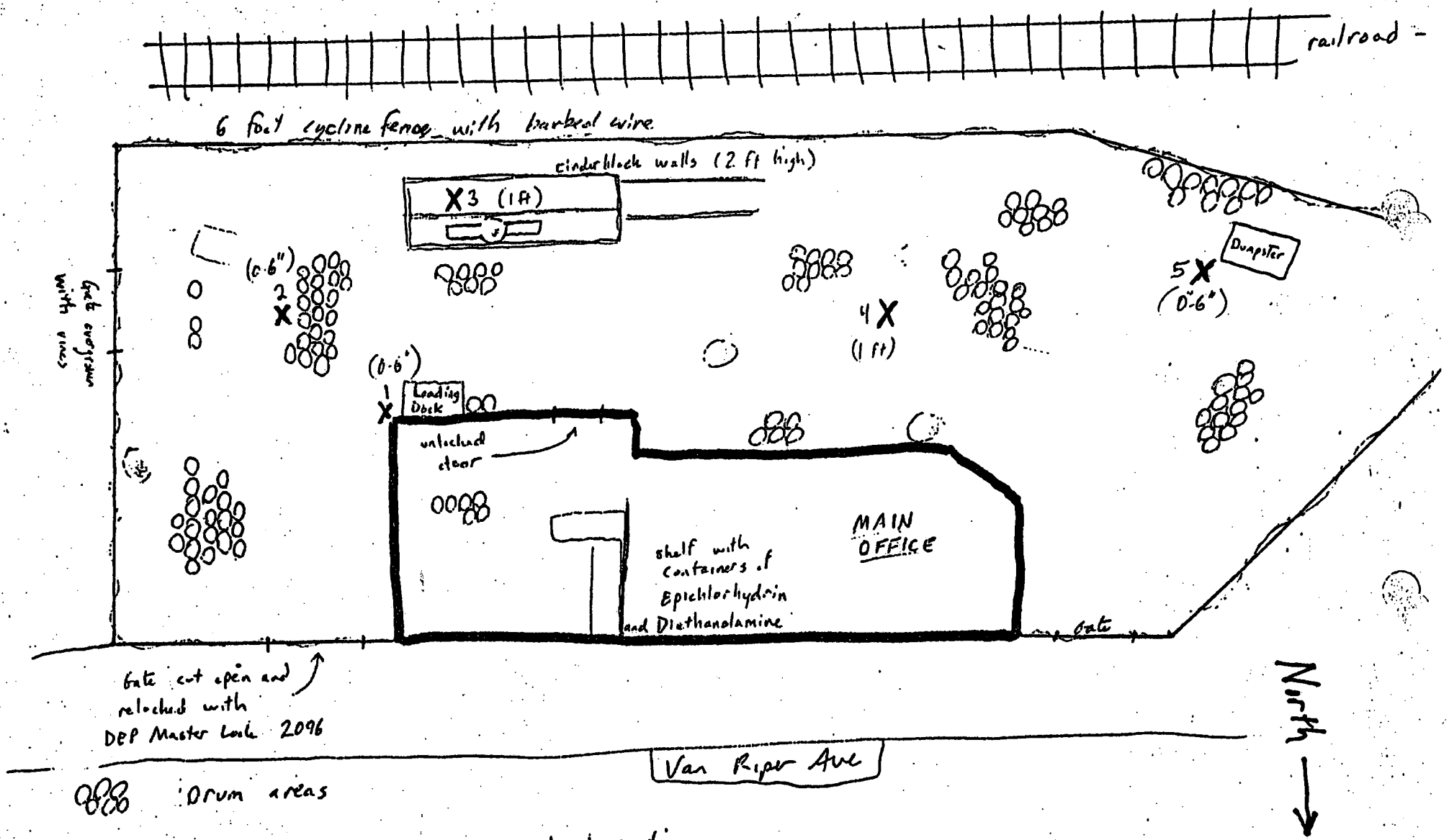
DVE:mz
Attachment

Sampling Plan

Synkote Paint Co

[not to scale]

Elmwood Park, Bergen Co.



Drum areas

*X Sampling Locations based on visual observation (depth) and OVA readings in excess of 1000 ppm.

Approximate Locations of samples taken by DVR 7/3/85.

David VanEck

p. 69

ATTACHMENT B-1

SYNKOTE PAINT COMPANY

144-160 Van Riper Avenue
Elmwood Park, Bergen County, New Jersey

The Synkote Paint company manufactured paint from 1956 until February 1985. Complaints were received by NJDEP from local health officials reguarding off site runoff and poor housekeeping. During a NJDEP inspection conducted in November 1984, very poor hazardous waste storage practices and extensive soil contamination were observed. Lab analysis of soil samples taken during an inspection by NJDEP-DWR on June 3, 1985 show contamination by cumene, benzene, styrene, toluene, xylene and other solvents. On January 3, 1986 NJDEP-DWR sent the owner a directive letter instructing the owner to install monitoring wells and test pits for soil sampling. The owner was also directed to submit a quality assurance/quality control plan. On July 3, 1986 Synkote Paint Company became a lead case for ECRA due to the plants closure.

At the time of this writing, the monitoring wells have not yet been installed and the owner is out of compliance because he has failed to submit the required paperwork to ECRA. Cleanup work was started by S & W Waste Company of Kearny, but has not been completed.

A windshield survey of the site on September 16, 1986 revealed approximately 50-60 drums still remaining on the property. The site is surrounded by a eight foot high fence with a locked gate.

The Garfield Municipal Wells, which supply water to approximately 30,000 people, are approximately 3/4 of a mile from the site and were shown to be contaminated in 1982. A private well 1/2 mile from the site is also contaminated. Although the LaPlace Chemical Company is believed by NJDEP-DWR to be responsible for the ground water contamination in the area, a potential exists that Synkote Paint may also contribute to the problem.

I am assigning the Synkote Paint Company site a medium priority for following reasons:

1. Soil contamination by a number of solvents has been documented. Poor housekeeping conditions probably existed for over 20 years.

2. There is a potential for surface water contamination and human contact through site runoff.

3. There is a potential for ground water contamination involving an aquifer that that supplies the Garfield Municipal wells which provide water for 30,000 people.

4. ECRA has not yet begun to address this site.

Submitted by:
Robert J Raisch
Robert Raisch
HSMS IV

p. 70

ATTACHMENT C-1

Hrs. worked: 32

kdp-b

ATTACHMENT C-2

Preliminary Assessment

Synkote Paint Company

144 - 160 VanRiper Ave.

Elmwood Park, Bergen Co. NJ

p. 72

ATTACHMENT C-1

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME: Synkote Paint	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 144-160 Van Riper Ave.
03 CITY: Elmwood Park	04 STATE: NJ; 05 ZIP CODE: 07407; 06 COUNTY: Bergen; 07 COUNTY CODE: 02; 08 CONG DIST
09 COORDINATES LATITUDE: 40° 54' 10"; LONGITUDE: 74° 07' 00"	Block 1-C Lot 164

10 DIRECTIONS TO SITE (Starting from nearest public road)
GSP to exit 157 - Rt. 46 E. First light left onto Boulevard cross Market St. First right after railroad tracks onto Van Riper Ave. Synkote Paint Co. is on right

III. RESPONSIBLE PARTIES

01 OWNER (if known): Richard E. Max	02 STREET (Business, mailing, residential): 578 Dorchester Drive
03 CITY: River Vale	04 STATE: NJ; 05 ZIP CODE: 07675; 06 TELEPHONE NUMBER: (201) 391-5182
07 OPERATOR (if known and different from owner): Richard E. Max	08 STREET (Business, mailing, residential):
09 CITY: Same	10 STATE; 11 ZIP CODE; 12 TELEPHONE NUMBER: ( )

13 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

OWNER OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (Month Day Year) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (Month Day Year) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES DATE 11 / 8 / 84 (Month Day Year)
☐ NO
7/3/85

BY (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)
☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
1956 (Beginning Year) | 1985 (Ending Year) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Lab analysis of soil samples stowed contamination by the following solvents: Cumene, Benzene, styrene, Toluene, and Tylene and other organic solvents.
(Att. B, and D)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
A potential exists for contamination of surface and groundwater including aquiters used for drinking water supply.
(Att. D and H)

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 3 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection required promptly) ☒ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Anthony DeCandia	Water Resources DEP Metro Office	(201) 669-3900

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Robert Raisch	DEP	DHWM-BSA	(609) 984-3018	10 / 1 / 86 (Month Day Year)

EPA FORM 2070-12 (7-81)

ATTACHMENT C-5

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

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 250-400 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			Unknown quantity of spillage
OLW	OILY WASTE			onto ground over period of
SOL X	SOLVENTS			20 yards. years
PSO	PESTICIDES			
OCC X	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
SOL	Toluene	108-88-3	Spiled onto ground	965	ppm
SOL	O-Xylene	108-38-3	↓	205	"
SOL	M-Xylene	95-47-6		480	"
SOL	Ethylbenzene	100-41-4		17	"
SOL	Benzene	71-43-2		48	"
SOL	Cumene	98-82-8		27	"
SOL	Styrene	100-420-5		103	"
SOL	P-Xylene	106-42-3		160	"
SOL	1,2,4 Trimethulbenzene	NOS		718	"
SOL	1,3,4 Trimethybenzene	108-67-3		23	"
SOL	N - Propylbenzene	103 65-1		25	"

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)

Att. B, D BSA File. 65 Prospect St., Trenton N.J.

EPA FORM 2070-12 (7-81)

p. 74

ATTACHMENT C-6

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [ ] OBSERVED (DATE: ____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION

Soil contamination was observed and shown through lab analysis providing potential for groundwater contamination. Wells in area are contaminated.
(Att. B, C1-3, H)

01 [X] B. SURFACE WATER CONTAMINATION — 02 [ ] OBSERVED (DATE: ____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION

Surface run off into storm sewer catch basin observed by local Health officer catch basin water empties into Passaic River.
(Att. C2, F)

01 [X] C. CONTAMINATION OF AIR — 02 [ ] OBSERVED (DATE: ____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION

There is a potential of air contamination from volatiles in soil, if the soil is disturbed.
(Att. B)

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS — 02 [ ] OBSERVED (DATE: ____) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION

[X] E. DIRECT CONTACT — [illegible] — [X] POTENTIAL — [illegible] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION

There is potential for direct contact of waste material from site runoff.
(Att. C2)

01 [X] F. CONTAMINATION OF SOIL — 02 [X] OBSERVED (DATE: 11/13/84) — [ ] POTENTIAL — [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION

During RCRA inspection ground was observed to be heavily covered with deposits of unknown chemicals. Lab analysis shows contamination of soil by solvents.
(Att. B, C, and D)

01 [X] G. DRINKING WATER CONTAMINATION — 02 [ ] OBSERVED (DATE: ____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 30,000 — 04 NARRATIVE DESCRIPTION

Garfield municipal wells are approximately 3/4 of mile from site. Sampling results indicate contamination at wells by TCE, PCE., 111 Trichlorethane and other organics at this time contamination has been largley attributed to LaPlace Chemicals.
(Att. Eand F)

01 [X] H. WORKER EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE: ____) — [X] POTENTIAL — [ ] ALLEGED
03 WORKERS POTENTIALLY AFFECTED: ____ — 04 NARRATIVE DESCRIPTION

Workers may have been exposed to organic solvents when company was operational.
(Att. C1-3)

01 [X] I. POPULATION EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE: ____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 30,000 — 04 NARRATIVE DESCRIPTION

Population may be exposed through off site runoff and contaminated drinking water.
(Att. F and H)

EPA FORM 2070-12 (7-81)

ATTACHMENT C-7

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

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

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

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 ☒ OBSERVED (DATE: ~~8/4/82~~ 11/8/84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Very poor storage practices of drums containing waste material was observed during DEP inspections. (Att. C1-3)

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

Citizen who complained about runoff from Synkote indicated car tires had been damaged by it.

(Att. C2)

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

Elmwood Park Health officer and citizens have seen whitish-colored runoff into storm drain. No date was given.

(Att. C2, F)

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

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

As of June 3, 1986 Synkote Paint Company became an ECRA lead case.

(Att. G)

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

BSA File, Trenton - Att. B, D and E.
Metro Water Resources File - Att. C1-3, F and G..

EPA FORM 2070-12 (7-81)

ATTACHMENT C-8

Synkote Paint
144-160 Van Riper Ave
Elmwood Pk
Bergen Co.

PRELIMINARY ASSESSMENT FILE SEARCH

NJDEP

DIVISION OF WATER RESOURCES:

A. Enforcement Central 9/15 - No File Metro 9/15 Anthony Dicandia - File (incharge of case) Bernice Grandison spoke to

B. Groundwater

C. Other

DIVISION OF WASTE MANAGEMENT:

A. HSMA Central 9/15 - No File - M. Bolvisc

B. Enforcement Metro BFO 9/15 Joan File

C. Solid Waste

ENVIRONMENTAL QUALITY:

A. Air Pollution

B. Pesticides

C. Other

DIVISION OF FISH AND GAME:

OFFICE OF SCIENCE AND RESEARCH:

A. Industrial Survey

B. Other

N.J. DEPARTMENT OF HEALTH: Flesters brook

LOCAL AUTHORITIES:

A. Health Department - Elmwood Park H.D. 1-796-1072 9/15 - Sylvia Cavella municiple - Tnk 80 River Drive Market St. File

B. Town or ~~County~~ Clerk Garfield Water Works - Charles Moore - Pump station 1-478-9081 - 9/18

UNITED STATES GOVERNMENT:

A. EPA - 9/15 - Edison file No file Suzett Salsons

B. other

p. 77

ATTACHMENT C-9

UNITED S ES ENVIRONMENTAL PROTECTIC GENCY
REGION II

DATE: SEP - 5 1989

SUBJECT: Preliminary Assessment and CERCLA Removal Action Authorization for Synkote Paints, Elmwood Park, Bergen County, New Jersey
ACTION MEMORANDUM

FROM: Dwayne M. Harrington, On-Scene Coordinator
Response and Prevention Branch

TO: William Muszynski, P.E.
Acting Regional Administrator

THRU: Stephen D. Luftig, Director
Emergency and Remedial Response Division

OCT 27 1989

I. ISSUE

On February 16, 1989, Dr. John J. Trela, Director, Division of Hazardous Waste Management, State of New Jersey Department of Environmental Protection (NJDEP), requested that the U.S. Environmental Protection Agency (EPA) undertake a Removal Action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), to mitigate the threat posed by drums, containers, and vessels of hazardous substances at the Synkote Paints site in Elmwood Park, New Jersey.

An investigation by EPA confirmed the presence of approximately 300 improperly stored drums, containers, and vessels of hazardous substances at the site. Labels on some of the containers indicate the contents to be predominantly solvents, corrosives, and paint waste solutions. Many of these materials are flammable and/or poisonous and present a threat of fire or vapor release. Many of the drums and vessels are deteriorated and present the potential for human exposure through direct contact or discharge into the environment. Many of these materials are highly toxic, incompatable, and potentially unstable under their present storage conditions. There are reports of break-ins and vandalism at the facility.

These hazardous substances pose a threat to citizens of the community and firefighters who might respond to a fire at the facility. This Action Memorandum recommends that a Removal Action be conducted pursuant to CERCLA, as amended by SARA, in the form of a removal and disposal of the hazardous substances contained in the facility. The total project ceiling for this Removal Action would be $406,000, of which $228,000 is for mitigation contracting.

II. BACKGROUND

A. Site Setting/Description:

Synkote Paints manufactured solvent-based industrial coatings from 1956 until the company filed for bankruptcy in 1985. At that time, the building was abandoned and approximately 300 drums, containers, and reactor vessels were abandoned on the site. The property was foreclosed upon by the National Community Bank of New Jersey in 1986 for unpaid mortgage debts and purchased via a sheriff's sale in 1988 by Property Concepts, Inc., Elmwood Park, New Jersey. The building is currently unoccupied.

The site is located in a mixed residential/light industrial area at 144-160 Van Riper Avenue, Elmwood Park, New Jersey (Attachment 1). The site consists of one building of approximately 20,000 square feet, located on a one-half acre lot enclosed by an eight-foot perimeter fence. The site is adjacent to an operating facility and is directly across the street from a residential neighborhood (Attachment 2). Approximately 5,000 people live within a one-half mile radius of the site.

The building consists primarily of two large storage/operations rooms (Attachment 3). The building is accessible through three building entrance doors, two large garage doors, and numerous windows. The current owner of the site has recently boarded the doors and windows of the building as a deterent against break-ins and vandalism at the site.

B. Incident/Release Characteristics:

Approximately 300 drums, containers, and vessels are located in the building and throughout the site. Most of the drums are located outside of the building, scattered throughout the site. The drums and containers are haphazardly stored irrespective of their condition or the compatibility of their contents. Many of the drums are deteriorated and have released their contents onto the ground and building floor. The building also contains a small laboratory area containing numerous unsecure containers of acutely toxic, flammable, and corrosive materials.

Evidence of past spills and ongoing releases from deteriorated drums, including liquid stains and residues, exist throughout the building. Air monitoring performed during EPA's investigation detected levels of organic air contaminants above background in some areas of the building. Soil sampling performed by NJDEP in 1988 confirmed surficial soil contamination and the need for further soil investigations throughout the site.

To date no sampling or analysis of the materials on the site has been performed by EPA.

This site is not listed on the National Priorities List (NPL).

C. Quantities and Types of Substances Present:

Approximately 300 drums, containers, and reactor vessels of hazardous substances are stored on the site. Based on information obtained from container labels and drum inventories during EPA's investigation, the following substances have been tentatively identified on site:

Compound	Statutory Source for Designation as Hazardous Substances
Benzene	CWA §311 (b)(4) CWA §307 (a) CAA §112 RCRA §3001
Toluene	CWA §311 (b)(4) CWA §307 (a) RCRA §3001
Xylene	CWA §311 (b)(4)
Epichlorohydrin*	CWA §311 (b)(4)
Diethanolamine	RCRA §3001
Glacial Acetic Acid	CWA §311 (b)(4)
Isophorone	CWA §311 (b)(4)

* Listed in Chemical Emergency Preparedness Program List 402 of Extremely Hazardous Substances

These hazardous substances are acutely toxic, chronically toxic, corrosive, reactive, and/or flammable.

The potential health effects from the compounds are identified below:

POTENTIAL HEALTH AND TOXICOLOGICAL EFFECTS

	Carcinogenicity	Liver Damage	Kidney Damage	Respiratory Damage	Central Nervous System Damage	Dermal Effects	Cardiovascular Effects
Benzene	X			X	X	X	X
Toluene		X	X		X	X	
Xylene		X	X		X	X	X
Epichlorohydrin	X		X	X		X	
Diethanolamine				X		X	
Acetic Acid				X		X	
Isophorone				X		X	

Many of the drums on the site are unlabelled and contain unidentified substances.

D. State and Local Authorities' Roles:

The NJDEP issued a Directive to Synkote Paints in 1985 with which the owner of the facility was unable to comply. Limited action was taken by the PRP via a contractor at that time to stabilize and secure conditions at the site and remove hazardous materials from the site. Some of the materials were consolidated and overpacked, however, work ceased on the site prior to any of the materials being removed or disposed of. On February 16, 1989, Dr. John J. Trela, Director, Division of Hazardous Waste Management, NJDEP, requested that EPA perform a CERCLA/SARA Removal Action at the Synkote Paints site as the site appeared to present a significant threat to public health and welfare and was beyond the scope of their current removal program capabilities. The current owner of the site, Property Concepts Inc., has taken steps to secure the site from unauthorized entry. Based on conditions found on the site EPA has recommended to the Elmwood Park Police Department and Bergen County Hazardous Materials Unit that the site be routinely surveilled.

III. THREAT TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT:

A. Threats to Public Health or Welfare:

The primary threat posed by the abandoned drums, containers, and vessels is that of exposure through direct human contact, fire, explosion, and vapor exposure caused by a reaction of the hazardous materials. A site inspection by EPA found that the drums and containers are haphazardly stored irrespective of their contents or condition. Most of the drums are located outside of the building, scattered throughout the site. Many of the drums are deteriorating and have released their contents onto the building floor or ground. Many of the materials identified are flammable, corrosive, and/or acutely toxic. Some of these materials, such as organic solvents, epichlorohydrin, and metallic powders, can potentially autoignite and/or produce toxic vapors and fumes if mixed.

The building is adjacent to an operating facility and a residential neighborhood. Vapors produced during a fire or runaway chemical reaction could be hazardous to area residents and workers at the neighboring facility. It would also be difficult for firefighters to avoid contamination from smoke and fumes during firefighting efforts. Conventional firefighting techniques might only serve to aggravate the situation by increasing the reactivity and vapor production of many of the substances during a fire or runaway chemical reaction at the site.

There is potential for human exposure from direct contact with the hazardous substances at the site. There are reports of break-ins and vandalism at the site, however, EPA has yet to confirm these reports. Some of the hazardous substances on site, such as epichlorohydrin, are highly toxic on contact. Some of the substances, such as benzene and epichlorohydrin, are known or suspected carcinogens.

B. Threats to the Environment:

There is potential for discharge into the environment. Many of the drums are deteriorated and have released their contents onto the building floor or ground. There are no secondary containment structures surrounding any of the drums or vessels on the site. Analysis by NJDEP indicates soil contamination on the site and a potential for groundwater contamination.

IV. ENFORCEMENT

Four potentially responsible parties (PRPs) have been identified for the Synkote Paints site. They are: Synkote Paints, Mr. Richard E. Max, (former owner and operator of Synkote from the mid-1970s until its filing for bankruptcy and closing in 1985); National Community Bank of New Jersey, (who foreclosed on a mortgage on the property in 1985); and Property Concepts Inc., (who purchased the property from National Community Bank via a sheriff's sale in 1988). The New Jersey Site Compliance Branch and Office of Regional Counsel have issued Notice Letters, dated April 25, 1989, to Synkote Paints, Mr. Richard Max, The National Community Bank of New Jersey (NCB), and Property Concepts Inc., (PCI).

Mr. Richard Max, through his attorney, has expressed no interest in performing a removal action. NCB has denied any liability. A Consent Order for the removal of all hazardous materials from the site has been sent to Property Concepts Inc for its consideration. If that fails, a Unilateral Order directing the removal of all hazardous substances may be issued to Property Concepts Inc. prior to any EPA actions on the site. At this time, however, it appears unlikely that PCI will be able to adequately comply with the terms of either the Consent or Unilateral Order. Appropriate enforcement actions, including full or partial cost recovery and/or an Order requiring further investigation of soil contamination at the site, may be pursued under CERCLA/SARA following the completion of this Removal Action.

V. PROPOSED PROJECT AND COST

A. Objective of the Project:

The objective of this project is: 1) to abate the actual or potential threat to public health and welfare; 2) to immediately mitigate the actual or potential threat of fire, explosion, or release of hazardous substances into the environment in accordance with Section 300.65 of the National Contingency Plan; and 3) to remove and dispose of the hazardous substances at the site in accordance with the Resource Conservation and Recovery Act (RCRA) and EPA's CERCLA Off-Site Treatment, Storage, and Disposal Policy, Section 121 (d)(3) of SARA.

The objective will be achieved by performing the following tasks:

1) Securing Drums and Containers:

Leaking or unsecure drums and containers will be overpacked as necessary. All materials will be stored on site in a secured area.

2) Segregation and Sampling:

Materials will be segregated on site by existing identification labels and container condition to ensure proper separation of incompatible materials. Materials will be sampled as needed for disposal purposes.

Manufacturers and others will be solicited to reclaim drums and containers which appear to contain useable product for recycling and reuse.

3) Bulking, Transportation and Disposal:

Compatible materials will be bulked as necessary for transportation and disposal. Manufacturers which can be identified will be contacted to reclaim those materials that can be reused or recycled. EPA will dispose of unusable or non-recyclable materials at an approved facility and in accordance with EPA's CERCLA off-site disposal policies.

B. Project Estimated Costs:

1) Mitigation Contracting (ERCS):

a. Labor: including mobilization/demobilization, sampling, segregation, staging, and overpacking.	
(1 Response Manager, 1 Chemist, 1 Foreman, 1 Operator, 2 Clean-up Tech's, 1 Field Clerk)	$ 40,000
b. Equipment: 1 decontamination trailer, 1 forklift, Level B personal protective gear, non-spark tools, etc.	$ 25,000
c. Materials and field purchases: (overpack drums, sampling materials, etc.)	$ 25,000
d. Laboratory disposal analysis:	$ 40,000
e. Transportation and disposal	$ 60,000
SUBTOTAL	$190,000
20% Contingency	$ 38,000
SUBTOTAL (Contract Mitigation Costs)	$228,000
2) Intramural EPA Costs	$ 50,000
3) Extramural TAT Costs	$ 75,000
SUBTOTAL	$ 353,000

Other Costs (15% of above costs)	$ 52,950
ESTIMATED TOTAL PROJECT CEILING	$ 405,950
ESTIMATED ROUNDED TOTAL (to the next $1000)	$ 406,000

Overall project costs could be reduced if manufacturers are able to reclaim materials for recycling or reuse.

C. Project Schedule:

The project can be initiated within one week of approval of the request for fund authorization. Segregation, sampling, overpacking, and securing of the drums and containers can be accomplished within three to four weeks. Disposal analyses turn-around time is estimated at four weeks. Final removal and disposal should be complete within nine weeks of receipt of the disposal analysis results. The entire project should therefore take 17 weeks to complete. Notifying and coordinating with manufacturers to reclaim materials could add or delete 2-4 weeks to the project schedule.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD NO ACTION BE TAKEN OR ACTION BE DELAYED

Delayed action in securing and removing the hazardous substances from the site will extend the period of time that nearby residents are exposed to the threats presented by the conditions on the site. There is also the continuing threat of vandalism at the site. During EPA's site investigation, drums were observed which were bulging. This condition may be indicative of contents under abnormally high pressure. Many of the drums are deteriorated and have released or are soon likely to release their contents onto the ground. A delayed response will therefore also likely result in further soil and possibly groundwater contamination.

VII. RECOMMENDATION

Conditions at the Synkote Paints site meet the criteria for a Removal Action under 40 CFR §300.65 (b)(2) of the National Oil and Hazardous Substances Contingency Plan (NCP) in that there exists:

a) Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chain (40 CFR §300.65 (b)(2)(i));

b) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release (40 CFR §300.65 (b)(2) (iii));

c) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released (40 CFR §300.65 (b)(2)(v).

d) Threat of fire or explosion (40 CFR §300.65 (b)(2)(vi)).

This Removal Action is consistent with the Section 104(a)(2) of CERCLA, as amended by SARA, in that it will accomplish the efficient performance of long-term remedial measures in the short term. I recommend your approval of this CERCLA removal funding request. The estimated project ceiling for this site is $406,000, of which $228,000 is for mitigation contracting. The estimated costs of this project are within the Regional Advice of Allowance for FY '89.

Your authority to approve these project funds is pursuant to Assistant Administrator J. Winston Porter's May 25, 1988, redelegation memorandum, Delegation Number R-14-1-A.

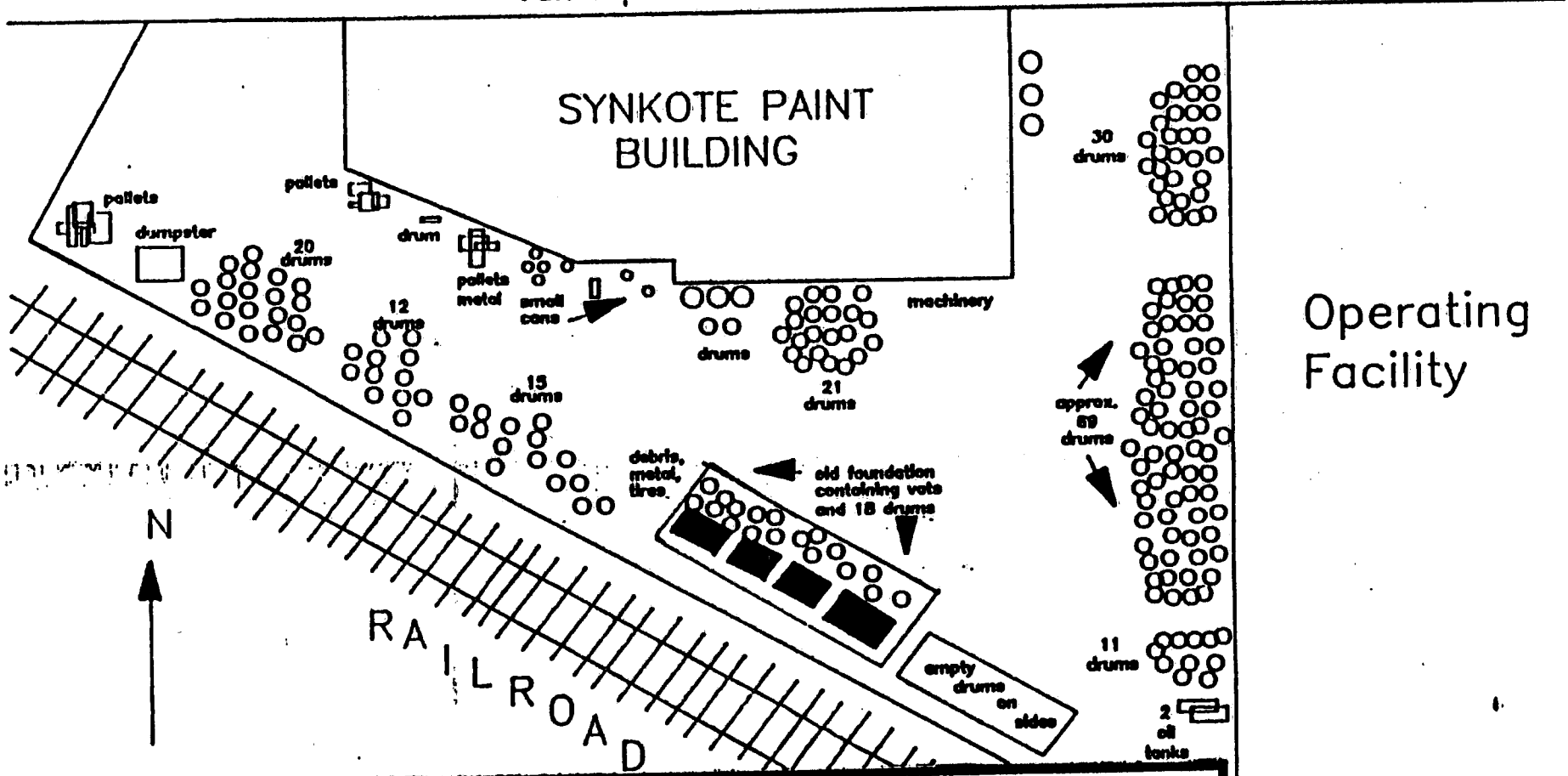
Approval: William J. Muszynski Date 9/6/89

Disapproval: _____ Date _____

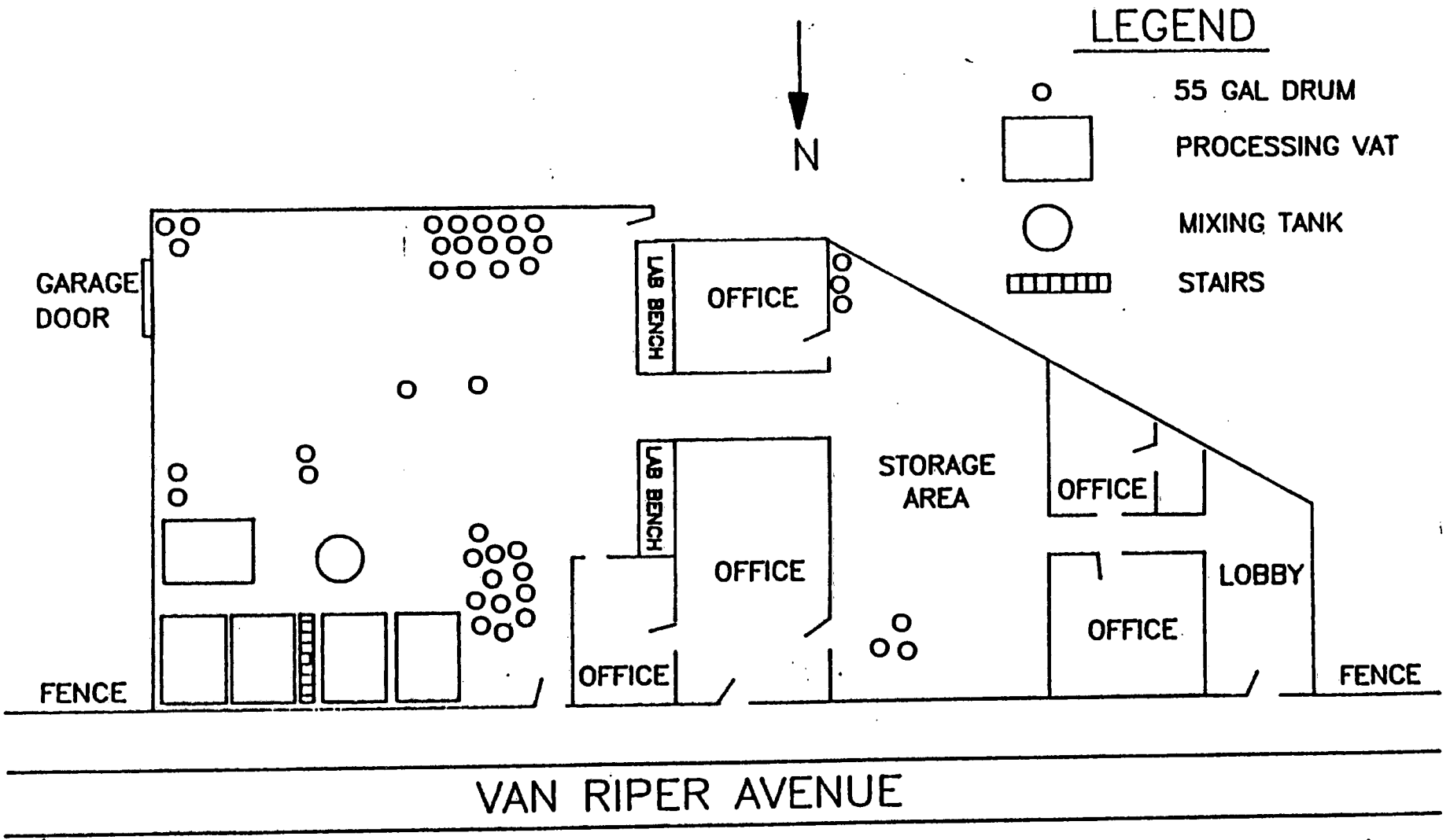
cc: (After approval is obtained)

R. Salkie, 2ERR-ADREPP
S. Luftig, 2ERR
B. Sprague, 2ERR-RPB
G. Pavlou, 2ERRD-ADEP
M. Randol, 2OEP
D. Karlen, 2ORC-NJSUP
R. Gherardi, 2OPM-FIN
S. Anderson, PM-214F (EXPRESS MAIL)
T. Fields, OS-210
G. McCann, NJDEP
C. Moyik, 2ERRD-PS
L. Guarneiri, OS-210
D. Henne, 2TATL

ATTACHMENT D-9



WESTON SPILL PREVENTION & EMERGENCY RESPONSE DIVISION	EPA PM D. Harrington	Figure 2 Site Yard Map
In Association with ICF Technology Inc., C.C. Johnson & Associates, Inc., Resource Applications, Inc., Geo/Resource Consultants, Inc., and Environmental Toxicology International, Inc.	TAT PM D. Belyung	Drawing not to Scale



WESTON	SPILL PREVENTION & EMERGENCY RESPONSE DIVISION	EPA PM D. Harrington	Figure 3 Building Interior
In Association with ICF Technology Inc., C.C. Johnson & Associates, Inc., Resource Applications, Inc., Geo/Resource Consultants, Inc., and Environmental Toxicology International, Inc.		TAT PM D. Belyung	Drawing not to Scale

p. 88

21-C

Linda

Steve

RECEIVED
JUN 14 1989

APR 25 1989

URGENT LEGAL MATTER

EXPRESS MAIL
RETURN RECEIPT REQUESTED

Synkote Paint
c/o Mr. Richard E. Max
578 Dorchester Drive
Rivervale, New Jersey 07675

C: Ken Yacoub + return
file
EPA removals

Re: Synkote Paint, 144-160 Van Riper Avenue
Elmwood Park, New Jersey

Dear Mr. Max:

The United States Environmental Protection Agency ("EPA") is charged with responding to the release or threatened release of hazardous substances into the environment and with enforcement responsibilities under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. §9601 et seq., as amended ("CERCLA"). EPA also regulates the handling of hazardous waste under the Solid Waste Disposal Act, 42 U.S.C. §6901 et seq. as amended by the Resource Conservation and Recovery Act ("RCRA") and other laws.

This letter constitutes official notification to Synkote Paint of potential liability, as defined by Section 107(a) of CERCLA, that Synkote Paint may incur or may have incurred with respect to the above-referenced site. This letter also notifies Synkote Paint of potential response activities at the site, and encourages Synkote Paint to voluntarily perform those response activities that EPA determines are necessary at the site.

EPA has documented the release or threatened release of hazardous susbstances, pollutants or contaminants at the Synkote Paint facility. EPA is considering spending public funds on actions to investigate and control such releases or threatened releases at the site. Unless EPA reaches an agreement under which a potentially responsible party ("PRP") or parties will properly perform or finance such actions, EPA may perform these actions pursuant to Section 104 of CERCLA.

Under Sections 106(a) and 107(a) of CERCLA, 42 U.S.C. $9606(a) and §9607(a), Section 7003 of RCRA, 42 U.S.C. §6973, and other

p. 89

ATTACHMENT E-1

laws, PRPs may be obligated to implement response actions deemed necessary by EPA to protect public health, welfare or the environment and may be liable for all costs incurred by the government in responding to any release or threatened release at the site. Such actions and costs may include, but are not limited to, expenditures for investigations, planning, response, oversight and enforcement activities. In addition, PRPs may be liable for damages to natural resources. EPA may issue an administrative order pursuant to Section 106(a) of CERCLA to require PRPs to commence cleanup activities. Failure to comply with an administrative order issued under Section 106(a) of CERCLA may result in a fine of up to $25,000 per day, under Section 106(b) of CERCLA, or imposition of treble damages under Section 107(c)(3).

EPA has evaluated information in connection with the investigation of the site. Based on this information, EPA believes that Synkote Paint may be a PRP with respect to this site. PRPs under CERCLA include current and former owners or operators of the site, as well as persons who arranged for disposal or treatment of hazardous substances sent to the site, or persons who accepted hazardous substances for transport to the site. By this letter, EPA notifies Synkote Paint of its potential liability with regard to this matter and encourages Synkote Paint to voluntarily perform or finance those response activities that EPA determines are necessary at the site.

For your information, the response action contemplated by EPA will include, but will not be limited to, the sampling and analysis and the removal of all tanked liquids, drummed wastes and other wastes in containers present at the Synkote Paint facility, and it will also include the proper disposal of those wastes which will depend upon analysis of their constituents. Proper disposal of the wastes present at the Synkote Paint facility may include their removal to a secure landfill, incineration or other appropriate disposal methods. The planning lead time to conduct the removal action will be no longer than 60 days from the date of this letter as EPA has determined that the Synkote Paint facility may pose an immediate threat to public health, welfare or the environment.

In addition to the removal actions outlined in this letter, EPA will also determine at a subsequent time whether additional corrective measures are required to mitigate any releases from the site to protect the public health, welfare or the environment.

Under CERCLA Section 122(e), EPA has the discretionary authority to invoke special notice procedures to formally negotiate the terms of an agreement between EPA and PRPs to conduct or finance response activities. Use of these special notice procedures triggers a moratorium on certain EPA activities at the site while

formal negotiations between EPA and the PRP or PRPs are conducted.

In this case, EPA has decided not to invoke the Section 122(e) special notice procedures. In order to expedite cleanup activities, it is EPA's policy not to use the Special Notice procedures for removals unless there is a 6-month planning lead time after the decision to respond and prior to the initiation of the action. Since the planning lead time prior to the initiation of this response action is less than 6 months, special notice procedures will not be used. Nonetheless, EPA is willing to discuss settlement opportunities without invoking the moratorium, but will initiate the response action as planned if such discussions do not lead to settlement expeditiously.

EPA would like to encourage good faith negotiations between the PRPs and EPA and among the PRPs. To assist PRPs in preparing a proposal and in negotiating with EPA concerning this matter, EPA is providing a list of names and addresses of PRPs to whom this notification is being sent. The list is attached to this letter. This list represents EPA's preliminary findings on the identities of PRPs. Inclusion on, or exclusion from, the list does not constitute a final determination by EPA concerning the liability of any party for the release or threat of release of hazardous substances at the site.

EPA requests Synkote Paint's cooperation in this matter and suggests that representatives from Synkote Paint meet with the other named parties to address performing the removal action at the site. If Synkote Paint is interested in participating in negotiations with EPA regarding the proposed removal action at the site, Synkote Paint should notify EPA of its intention to enter into formal negotiations. Notification should be in writing and should be delivered to EPA no later than fourteen (14) days after the date you receive this letter. Synkote Paint's letter should be sent to:

U.S. Environmental Protection Agency
Region II
New Jersey Compliance Branch
26 Federal Plaza, Room 747
New York, New York 10278
Attention: Howard Orlean

If EPA does not receive a written response from Synkote Paint in the time specified above, EPA will assume that Synkote Paint does not wish to negotiate a resolution of its liabilities in connection with the response, and that Synkote Paint has declined any involvement in performing the response activities. Synkote Paint may be held liable under Section 107 of CERCLA for the cost of the response activities EPA performs at the site and for any damages to natural resources.

ATTACHMENT E-3

The factual and legal discussions in this letter are intended solely for notification and information purposes. They are not intended to be and cannot be relied upon as final EPA position on any matter set forth herein.

If you or any other authorized representative from Synkote Paint wish to discuss this matter in further detail, please contact Howard Orlean of my staff at (212) 264-6195 or Rudolph S. Perez of the Office of Regional Counsel at (212) 264-3148. We appreciate your giving this matter your immediate attention.

Sincerely yours,

Stephen D. Luftig, Director
Emergency and Remedial Response Division

cc: Gerald Burke, Deputy Director
Office of Regulatory Services, NJDEP

John J. Trela, Director
Division of Hazardous Waste Management, NJDEP

David W. Oster
Bureau of Field Operations, NJDEP

bcc: Rudolph S. Perez, ORC-NJSUP
Howard Orlean, ERRD
Dwayne Harrington, OSC

ATTACHMENT E-4

Let's protect our earth

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
John J. Trela, Ph.D., Acting Director
2 Babcock Place
West Orange, N.J. 07052
201 - 669 - 3960

FEB 07 1989

TO: Wayne Howitz, Chief, Bureau of Compliance & Technical Services

FROM: David Beeman, Spill Section Chief, Metro Bureau of Enforcement

RE: Synkote Paint as a Possible EPA Removal Action Candidate

Synkote Paint is located at 144-160 Van Riper Ave., Block 164, Lot 1C, Elmwood Park, Bergen County. The facility was operated for the manufacture of solvent based industrial coatings until 1987. The President of Synkote Paint is Richard Max, 578 Dorcester Ave., Rivervale, N.J. The site was recently purchased by Property Concepts at a Sheriff's Sale. This sale took place even though this is an ECRA applicable site.

The site is approximately one acre. The facility is located in a mixed residential / light industry area with residences located directly across Van Riper Ave. Conditions at the site are described in the attached memo from Dave Oster. Although the outside areas of the property are surrounded by an 8 foot fence, access has been obtained by vandals to all parts of the property through the building.

The site should be considered for a removal action by EPA. Actions should include removal of all hazardous material, including ignitibles and poisons and may included the removal of grossly contaminated soil.

Let's protect our earth

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
John J. Trela, Ph.D., Acting Director
2 Babcock Place
West Orange, N.J. 07052
201 - 669 - 3960

MEMORANDUM

TO: Linda Grayson, Chief
Bureau of Planning and Assessment

FROM: Yacoub E. Yacoub, Chief
Metro Bureau of Field Operations

SUBJECT: Referral of Synkote Paint Co.
To Planning and Assessment
DHWM #02-11-04

DATE: January 6, 1989

The Synkote Paint Co. formerly operated at 144-160 Van Riper Ave., Elmwood Park (Bergen County). In 1985 the facility was closed, and approximately 250 containers of hazardous and unknown wastes were left on-site. It was subsequently determined that the facility was subject to ECRA cleanup, however, the owner did not file and later declared bankruptcy. The property was then sold at a Sheriff's sale, without the knowledge of NJDEP.

ECRA has referred the matter of Synkote to the Attorney General's Office. However, the hazardous and unknown containers which remain at the site are in poor condition, and some are leaking. Soils have been impacted and groundwater may be contaminated. Conditions at the site also represent a threat to human health as private residences are located nearby. In light of the above factors it is recommended that Synkote be referred to Planning and Assessment for assignment to the proper Division element.

If additional information is required please contact Dave Oster at (201) 669-3981.

DO:hc

HM-043-87

Let's protect our earth

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
John J. Trela, Ph.D., Acting Director
2 Babcock Place
West Orange, N.J. 07052
201 - 669 - 3960

JUL 6 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Synkote Paine Co.
144-160 Van Riper Avenue
Elmwood Park, New Jersey 07407

RE: NOTICE OF CIVIL ADMINISTRATIVE PENALTY ASSESSMENT

Dear Sir:

There is enclosed for service upon you, a Notice of Civil Administrative Penalty Assessment issued by the New Jersey Department of Environmental Protection pursuant to the provisions of the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq.

If you have any questions concerning this Notice of Civil Administrative Penalty Assessment, please contact Michael Hastry at (201) 669-3988.

Very truly yours,

Ronald T. Corcory
Acting Assistant Director - Enforcement
Division of Hazardous Waste Management

Enclosure
cc. Bureau of Compliance and Technical Services
Division of Water Resources Enforcement
Metro Region Field Office
Bureau of Hazardous Waste Engineering
Bureau of Manifest & Information Systems
Mayor
Health Department
County Solid Waste Coordinator
Central File

HM-
04387

Let's protect our earth

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
John J. Trela, Ph.D., Acting Director
2 Babcock Place
West Orange, N.J. 07052
201 - 669 - 3960

JUL 6 1987

IN THE MATTER OF	:	NOTICE OF CIVIL ADMINISTRATIVE
Synkote Paint Co.	:	PENALTY ASSESSMENT
144-160 Van Riper Avenue	:	
Elmwood Park, New Jersey 07407	:	

This Notice of Civil Administrative Penalty Assessment is issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (hereinafter "NJDEP" or the "Department") by N.J.S.A. 13:1D-1 et seq. and the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and duly delegated to the Assistant Director for Enforcement of the Division of Hazardous Waste Management pursuant to N.J.S.A. 13:1B-4.

FINDINGS

1. The New Jersey Department of Environmental Protection (hereinafter "the Department") has determined that Synkote Paint Company is a generator of hazardous waste (EPA ID# NJD001394089) as defined by N.J.A.C. 7:26-1.4 and is located at Block 164, Lot 1C, 144-160 Van Riper Avenue, Elmwood Park Borough, County of Bergen, State of New Jersey.

2. During the course of a routine manifest audit conducted at S & W Waste facility on June 4, 1986, a Departmental Representative noted that Synkote Paint Company failed to use the proper shipping description on hazardous waste manifest #NJA0191661; in violation of N.J.A.C. 7:26-7.4(e)1.

3. Based on the facts set forth in these FINDINGS, the Department has determined that Synkote Paint Company has violated the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. and the regulations promulgated pursuant thereto, N.J.A.C.7:26-1 et seq., specifically N.J.A.C. 7:26-7.4(e)1.

NOTICE OF CIVIL ADMINISTRATIVE PENALTY ASSESSMENT

4. Pursuant to N.J.S.A. 13:1E-9e and based upon the above FINDINGS, the Department has determined that a civil administrative penalty should be assessed against Synkote Paint Company in the amount of $875.00.

5. Payment of the penalty is due when a final order is issued by the Commissioner subsequent to a hearing, if any, or when this Notice of Civil Administrative Penalty Assessment becomes a final order (see following paragraph). Payment shall be made by certified check payable to "Treasurer, State of New Jersey" and shall be submitted to:

New Jersey Department of Environmental Protection
Bureau of Collections, Licensing and Management
Services - FMPGS
CN 402
Trenton, NJ 08625

6. If no request for a hearing is received within twenty (20) calendar days from receipt of this Notice of Civil Administrative Penalty Assessment, it shall become a final order upon the twenty-first calendar day following its receipt and the penalty shall be due and payable.

NOTICE OF RIGHT TO A HEARING

7. Pursuant to N.J.S.A. 52:14B-1 et seq. and N.J.S.A. 13:1E-9, Synkote Paint Company is entitled to an administrative hearing. Any hearing request shall be delivered to the address below within twenty (20) calendar days from the receipt of this Notice of Civil Administrative Penalty Assessment.

New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
CN 028
Trenton, New Jersey 08625
Attention: Assistant Director for Enforcement

8. Synkote Paint Company shall, in its request for a hearing, furnish NJDEP with the following:

a. A statement of the legal authority and jurisdiction under which the hearing or action to be taken is to be held;

b. A reference to the particular sections of the statutes and rules involved;

c. A short and plain statement of the matters of fact and law asserted;

d. The provisions of this Notice of Civil Administrative Penalty Assessment to which Synkote Paint Company objects, the reasons for such objections, and any alternative provisions proposed.

ATTACHMENT H-3

GENERAL PROVISIONS

9. This Notice of Civil Administrative Penalty Assessment is binding on Synkote Paint Company its principals, directors, officers, agents, successors, assigns, any trustee in bankruptcy or other trustees, and any receiver appointed pursuant to a proceeding in law or equity.

10. Notice is given that violations of any statutes, rules or permits other than those herein cited may be cause for additional enforcement actions, either administrative or judicial. By issuing this Notice of Civil Administrative Penalty Assessment the Department does not waive its rights to initiate additional enforcement actions.

11. No obligations imposed by this Notice of Civil Administrative Penalty Assessment (with the exception of paragraph 4, above) are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of New Jersey, intended to protect the public health, safety, welfare and environment.

12. Notice is given that pursuant to N.J.S.A 13:1E-9e, the Department is authorized to assess a civil administrative penalty of not more than $25,000.00 for each violation and additional penalties of not more than $2,500.00 for each day during which the violation continues after receipt of an administrative order from the Department.

13. Notice is further given that pursuant to N.J.S.A. 13:1E-9f, any person who violates N.J.S.A. 13:1E-1 et seq. or any code, rule or regulation promulgated thereunder shall be liable to a penalty of not more than $25,000.00 per day of such violation, and each day's continuance of the violation shall constitute a separate violation.

14. Notice is further given that pursuant to N.J.S.A. 13:1E-9f, any person who violates an administrative order issued pursuant to N.J.S.A. 13:1E-9c, or a court order issued pursuant to N.J.S.A. 13:1E-9d, or who fails to pay a civil administrative penalty in full after it is due shall be subject upon order of a court to a civil penalty not to exceed $50,000.00 per day of such violation and each day's continuance of the violation shall constitute a separate violation.

15. Except as provided above in the Notice of a Right to a Hearing Section, this Notice of Civil Administrative Penalty Assessment shall be effective upon receipt.

Ronald T. Corcory

Ronald T. Corcory
Assistant Director - Enforcement
Division of Hazardous Waste Management

RTC:MH:co

ATTACHMENT H-4

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
120 Rt. 156, Yardville, N.J. 08620

DR. MARWAN M. SADAT, P.E.
DIRECTOR

LINO F. PEREIRA
DEPUTY DIRECTOR

20 SEP 1985

DIRECTIVE LETTER

Synkote Paint Company
578 Dorchester Avenue
Rivervale, New Jersey 07675

Attention: Richard E. Max

Dear Mr. Max:

Members of the Division of Waste Management have determined that the following conditions on the property identified as Synkote Paint Company, Block 164, Lot 1C, Van Riper Avenue, Township of Elmwood Park, County of Bergen, New Jersey, constitute a danger to the environment and to the public health and are violative of the laws of the State of New Jersey.

During the course of an investigation conducted on November 8, 1984, it was determined that an undetermined amount of a hazardous substance (mineral spirits) was discharged in an area of the site, on the referenced property, onto the grounds of the State.

You are hereby directed, pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11(f), to undertake the following remedial action at the site:

1. Immediately cease and desist all discharges of hazardous substances onto the grounds which may enter the lands or waters of the State.

2. Within eight (8) calendar days upon receipt of this Directive Letter, submit to the Department for review and approval, a cleanup plan for the site, which shall include but is not limited to:

   a) A plan for removal of all contaminated soil in the area east of the building where raw materials are stored in drums.

b) The above mentioned plan shall include but is not limited to:

i) Methods to have soil samples taken and analyzed to determine the horizontal and vertical extent of soil contamination.

ii) Methods to have contaminated soil excavated.

iii) Method to contain all excavated contamined soil on an impermeable liner and provide an impermeable cover prior to disposal.

iv) Method to sample all contaminated soil prior to disposal for hazard classification.

v) Method of disposal.

c) A plan to control spillage of all hazardous substances within the site, which may discharge into the lands or waters of the State.

d) A time schedule for implementation of a cleanup plan.

3. Within three (3) calendar days of receipt of the Department's comments on the cleanup plan, revise said plan in accordance with any Departmental comments and resubmit the plan to the Department.

4. Commence the implementation of the approved cleanup plan, in accordance with the approved time schedule, within three (3) calendar days after Departmental approval of said plan.

5. Upon completion of the cleanup plan, an affidavit of completion shall be submitted to the Department for review and approval.

6. The Department shall be notified of any investigative or remedial actions conducted at the aforementioned property at least 48 hours in advance of the commencement of such actions.

7. All plans, reports, and data that are to be submitted to the Department shall be sent to:

New Jersey Department of Environmental Protection
Division of Waste Management
Northern Field Office
1259 Route 46E, Building 2
Parsippany, New Jersey 07054
Attention: Rich Collister

ATTACHMENT I-2

8. All notifications as required in Paragraph 6 above, shall be made to:

New Jersey Department of Environmental Protection
Division of Waste Management
Northern Field Office
1259 Route 46
Parsippany, New Jersey 07054
Attention: Boleslaw Czachor

Failure by you to respond to this Directive Letter within eight (8) calendar days of its receipt by you may result in the Department of Environmental Protection itself performing the cleanup operations specified herein. Should you fail to respond to this Directive Letter and fail to initiate cleanup operations as required, the Department may commence legal action against you seeking penalties and reimbursement for all costs incurred. Specifically, failure to comply with this Directive Letter may increase your liability to the Department in an amount equal to three times the costs of all expenses incurred in this operation and may cause a first priority claim and lien to be placed upon the aforementioned property and a claim and lien to be placed upon all of your other real and personal property in the amount of the Department's costs, in accordance with the Spill Compensation and Control Act.

Should you have any questions, please contact Richard Collister at (201) 299-7571.

Very truly yours,

Joseph A. Rogalski
Assistant Director
Field Operations, Compliance
and Enforcement

FO30:kaw

ATTACHMENT I-3

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
120 Rt. 156, Yardville, N.J. 08620

DR. MARWAN M. SADAT, P.E.
DIRECTOR

LINO F. PEREIRA
DEPUTY DIRECTOR

06 JUN 1985

(IN THE MATTER OF)
(SYNKOTE PAINT COMPANY)

ADMINISTRATIVE
ORDER

The following FINDINGS are made and ORDER is issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (Department) by N.J.S.A. 13:1D-1 et seq., the Solid Waste Management Act, as amended and supplemented, N.J.S.A. 13:1E-1 et seq., and duly delegated to the Assistant Director for Enforcement and Field Operations, Division of Waste Management, pursuant to N.J.S.A. 13:1B-4.

FINDINGS

1) The New Jersey Department of Environmental Protection (hereinafter "the Department") has determined that Synkote Paint Company (hereinafter "Synkote") is a generator of hazardous waste (EPA ID Number NJD001394089) as defined by N.J.A.C. 7:26-1.4 and is located at Block 164, Lot 1c, Township of Elmwood Park, County of Bergen, State of New Jersey.

2) "Synkote" is a small manufacturer of industrial coatings. No hazardous waste is generated during the company's normal operations, however, the hazardous waste is generated when manufacturing vessels are washed out with solvents.

3) On November 7, 1984, Departmental representatives attempted to conduct an inspection of the above referenced location but were denied access, in violation of N.J.A.C. 7:26-9.4(k)1.

4) On November 8, 1984, Departmental representatives returned to the above referenced location and conducted an inspection. The following was noted:

   a. The earliest date written on hazardous waste containers stored on site was September 3, 1984.

   b. According to manifests, the last shipment of hazardous waste was transported off site on January 9, 1984.

c. Between January 9, 1984 and September 3, 1985 no manifests were produced regarding transporting hazardous waste off site for disposal.

5) Based on the facts in Paragraphs 4a, 4b and 4c it is determined that "Synkote" was accumulating hazardous waste in containers on site in excess of ninety (90) days.

6) Pursuant to N.J.A.C. 7:26-9.3(b), a generator who accumulates hazardous waste in excess of ninety (90) days is an operator of a hazardous waste storage facility and must comply with N.J.A.C. 7:26-9.1 et seq. and with the permit requirements of N.J.A.C. 7:26-12.1 et seq.

7) Based on the facts in Paragraphs 5 and 6 above, the Department has determined that "Synkote" is operating a hazardous waste facility as defined in N.J.A.C. 7:26-1.4.

8) A review of Department records reveals that there is no hazardous waste facility permit application on file for "Synkote".

9) Based on these facts, the Department has determined that "Synkote" is in violation of N.J.A.C. 7:26-9.3(b) and N.J.A.C. 7:26-12.1 et seq. by its failure to submit Part A and Part B of a hazardous waste facility permit application, and without having received a finally effective permit prior to operation of a hazardous waste facility.

10) N.J.S.A. 13:1E-5 prohibits the operation of a hazardous waste facility without first filing and obtaining approval of a permit application from the Department.

11) During the November 8, 1984 inspection of the above referenced facility, the following violations were also noted:

a. "Synkote" failed to retain one copy of manifest (N.J. 0207026) and forward one copy to the state of origin and one copy to the state of destination, in violation of N.J.A.C. 7:26-7.4(a)5iii.

b. "Synkote" did not receive a signed copy of portion "B" of manifest (N.J. 0000416) from the designated facility within 35 days. "Synkote" failed to notify the Department of the above mentioned situation, in violation of N.J.A.C. 7:26-7.4(h)1.

c. "Synkote" failed to store hazardous waste in containers in such a manner as to prevent them from leaking, in violation of N.J.A.C. 7:26-9.4(d)4iii.

ATTACHMENT J-2

d. "Synkote" failed to inspect areas where containers are stored, at least daily, looking for leaks and for deterioration caused by corrosion or other factors, in violation of N.J.A.C. 7:26-9.4(d)5.

12) "Synkote" failed to maintain the following documents and records at the facility:

a. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job, in violation of N.J.A.C. 7:26-9.4(g)6i.

b. A written job description for each position listed under subparagraph 9.4(g)6i. This shall be kept current at all times. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but shall include the requisite skill, education, or other qualifications, and duties of employees assigned to each position, in violation of N.J.A.C. 7:26-9.4(g)6ii.

c. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under subparagraph 9.4(g)6i, in violation of N.J.A.C. 7:26-9.4(g)6iii.

d. Records that document that the training or job experience required under Paragraphs 9.4(a)1 through 5 has been given to, and completed by, facility personnel, in violation of N.J.A.C. 7:26-9.4(g)6iv.

13) In addition, the following violations were also noted:

a. "Synkote" failed to maintain training records on current personnel until closure of the facility; training records on former employees shall be kept for at least three years from the date the employee last worked at the facility, in violation of N.J.A.C. 7:26-9.4(g)7.

b. "Synkote" failed to equip portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment, in violations of N.J.A.C. 7:26-9.6(b)3.

c. "Synkote" failed to maintain aisle space to allow unobstructed movement of personnel fire protection equipment, spill control equipment, and decontamination equipment to any area of

ATTACHMENT J-3

facility operation in an emergency, in violation of N.J.A.C. 7:26-9.6(e).

14) "Synkote" failed to make the following arrangements, in addition to the requirements at 9.4(g)8, as appropriate for the type of waste handled at the facility and the potential need for the services of these organizations:

a. Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes, in violation of N.J.A.C. 7:26-9.6(f)1.

b. Agreements with emergency response contractors, and equipment suppliers, in violation of N.J.A.C. 7:26-9.6(f)3.

c. Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or discharges at the facility, in violation of N.J.A.C. 7:26-9.6(f)4.

15) "Synkote" failed to maintain a copy of the contingency plan at the facility, in violation of N.J.A.C. 7:26-9.7(i)1.

ORDER

NOW, THEREFORE, IT IS HEREBY ORDERED that Synkote Paint Company, its principals, agents, employees, successors, assigns, tenants, and any receiver or trustee in bankruptcy, appointed pursuant to proceeding in law or equity, (should such an entity be appointed to take control of the facility which is the subject of this Order) shall:

16) Cease violation of N.J.A.C. 7:26-12.1 et seq. and comply with N.J.S.A. 13:1E-5, as follows:

a. Within fifteen (15) calendar days of receipt of this Administrative Order, properly dispose off site the hazardous waste in containers that have been stored on site for greater than 90 days in accordance with N.J.A.C. 7:26-7.4, and manage all future site generated hazardous waste in containers so as to comply with N.J.A.C. 7:26-9.3(a) (including but not limited to compliance with the requirements of N.J.A.C. 7:26-7.2, 9.3(a), 9.4(d), 9.4(g), 9.6 and 9.7).

17) Within fifteen (15) calendar days of receipt of this Administrative Order, obtain one copy of manifest (N.J. 0207026) and forward one copy to the state of origin and one copy to the state of destination, as to comply with N.J.A.C. 7:26-7.4(a)5iii.

18) Within fifteen (15) calendar days of receipt of this Administrative Order, obtain a signed copy of portion "B" of manifest (N.J. 0000416) from the designated facility as to comply with N.J.A.C. 7:26-(h)1.

19) Immediately upon receipt of this Administrative Order, store hazardous waste in containers in such a manner as to prevent them from leaking, as to comply with N.J.A.C. 7:26-9.4(d)4iii.

20) Immediately upon receipt of this Administrative Order, now and in the future, inspect areas where containers are stored, at least daily, looking for leaks and for deterioration caused by corrosion or other factors, as to comply with N.J.A.C. 7:26-9.4(d)5.

21) Within fifteen (15) calendar days of receipt of this Administrative Order provide and maintain the following documents and records at the facility:

a. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job, as to comply with N.J.A.C. 7:26-9.4(g)6i.

b. A written job description for each position listed under subparagraph 9.4(g)6i. This shall be current at all times. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but shall include the requisite skill, education, or other qualifications, and duties of employees assigned to each position, as to comply with N.J.A.C. 7:26-9.4(g)6ii.

c. A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under subparagraph 9.4(g)6i, as to comply with N.J.A.C. 7:26-9.4(g)6iii.

d. Records that document that the training or job experience required under Paragraphs 9.4(a)1 through 5 has been given to, and completed by, facility personnel, as comply with N.J.A.C. 7:26-9.4(g)6iv.

e. Training records on current personnel until closure of the facility; training records on

former employees shall be kept for at least three years from the date employee last worked at the facility, as to comply with N.J.A.C. 7:26-9.4(g)7.

22) Within fifteen (15) calendar days of receipt of this Administrative Order, equip portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment, as to comply with N.J.A.C. 7:26-9.6(b)3.

23) Within fifteen (15) calendar days of receipt of this Administrative Order, provide and maintain aisle space to allow unobstructed movement of personnel fire protection equipment, spill control equipment, and decontamination equipment, in an emergency, as to comply with N.J.A.C. 7:26-9.6(e).

24) Within fifteen (15) calendar days of receipt of this Administrative Order, make the following arrangements and agreements, in addition to the requirements at 9.4(g)8, as appropriate for the type of waste handled at the facility and the potential need for the services of these organizations:

a. Make arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes, as to comply with N.J.A.C. 7:26-9.6(f)1.

b. Make agreements with emergency response contractors, and equipment suppliers, as to comply with N.J.A.C. 7:26-9.6(f)3.

c. Make arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or discharges at the facility, as to comply with N.J.A.C. 7:26-9.6(f)4.

25) Within fifteen (15) calendar days of receipt of this Administrative Order, provide and maintain a copy of the contingency plan at the facility, as to comply with N.J.A.C. 7:26-9.7(i)1.

26) Within fifteen (15) calendar days of receipt of this Order, submit an affidavit of compliance identifying the actions taken to correct the violations noted in Paragraphs 3 through 15. This affidavit shall be sent to:

NJ Department of Environmental Protection
Division of Waste Management
Bureau of Compliance and Enforcement
120 Route 156
Yardville, NJ 08620
Attention: Richard Collister

BE ON NOTICE that the maximum civil penalty for violations of the Solid Waste Management Act or an ORDER issued pursuant thereto is $25,000 per day.

Joseph A. Rogalski
Assistant Director

F01:F030:lmc

ATTACHMENT J-7

HW00731

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
120 Rt. 156, Yardville, N.J. 08620

DR. MARWAN M. SADAT, P.E.
DIRECTOR

LINO F. PEREIRA
DEPUTY DIRECTOR

06 JUN 1985

Synkote Paint Company
c/o Richard E. Max
144-160 Van Riper Avenue
Elmwood Park, NJ 07407

Re: Penalty Settlement Offer

Dear Mr. Max:

Attached is an Administrative Order concerning a violation of the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq and regulations promulgated thereunder, specifically N.J.A.C. 7:26-7.4(a)5iii, 7.4(h)1, 9.4(d)4iii, 9.4(d)5, 9.4(g)6i, 9.6(b)3, 9.6(e), 9.4(k)1 and 12.1(a).

Pursuant to the terms of the Administrative Order, the violations must be corrected and the rules and regulations of this Department must be complied with by the specified date.

In addition, a penalty settlement offer of $3,875.00 will be held open until 21 JUN 1985 to allow for an amicable resolution of this statutory claim for the referenced violation. Be advised that N.J.S.A. 13:1E-9c provides for a maximum civil penalty of $25,000 per day for violations of this nature.

In the event of non-compliance with the Administrative Order and/or non-acceptance of this penalty settlement offer, this matter will be referred to the Office of the Attorney General for the initiation of litigation to enforce the Order and seek the full penalties allowed by law.

Should you wish to discuss the specifics for acceptable compliance with these directives, contact Richard Collister at (609) 984-3691.

Be advised that such discussion will not automatically delay or otherwise extend the deadline for compliance with the Administrative Order.

Very truly yours,

Joseph A. Rogalski
Assistant Director
Field Operations, Compliance
and Enforcement

F01:F030:lmc
Attachments

ATTACHMENT K-2

MEMO NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO David Beeman/Jeff Sterling DATE November 17, 1988

FROM David Oster

SUBJECT Synkote Paint, Elmwood Park DHWM #02-11-04

On 11/10/88 Dave Oster of MBE and Jim Taradash of Bergen County Health Services returned to Synkote Paint in order to enter facility grounds, check individual drums and obtain photographs. On a previous visit Oster and Taradash had noted approximately 200 55-gal drums outside the abandoned Synkote building, and additional drums inside. Some were observed to have hazardous waste labels and many were in poor condition.

After climbing the fence at the rear of the property Oster and Taradash entered the Synkote building through an unlocked door. Taradash pointed out 16 black drums of unknown material. One of these had previously leaked and Taradash had responded with Bergen County Hazmat. Speedi-Dry had been used to contain an unknown, dark liquid. Some of the black drums were marked "1/2 pt. cans." Also present inside the building are a hazardous waste salvage drum marked S&W Waste and dated 11/25/85, containers of resin (marked "toxic") and Primer ("flammable liquid"), a bucket of caustic soda, paint waste sludge and 12 additional unknown drums.

Also inside the building is a "lab table" with numerous known and unknown chemicals. These include:

Butanol
Epichlorhydrin (4 32-OZ. cans, poison liquid)
Neoprene latex (strong alkaline)
Glacial acetic acid (1 qt.)
Diethanolamine (1 qt.)
2-Ethylhexoic acid (1 qt.)
Triethanolamine (1 gal.)
Isophorone (1 gal.- hazardous substance)
2 1-gal jugs marked "acid"
unlabeled liquids and solids

Spillage was noted throughout the interior of the building, including resin, paint sludge and unknown material. There is evidence of leakage under reactor vessels and these vessels may contain residual material as well. Photographs of hazardous waste containers and spillage were obtained.

Moving to the outside of the property individual drums were checked for contents and condition. The 200 or more drums can be broken down into the following broad categories:

1) Yellow salvage drums (approximately 1/4 of all drums present). Condition ranges from good to very poor. Some unmarked, some with labels, e.g., "D001 Trichlor," "D001 Flammable," "Waste Corrosive Liquid." Some have hazardous waste labels not filled out.

ATTACHMENT L-1

p.111

November 17, 1988

Synkote Paint, Elmwood Park DHWM #02-11-04

2) About 30 rusty drums, condition fair to poor, staged in the center of the property. Chalk markings "HWS" (Hazardous Waste Solid?) and "HWL" (Hazardous Waste Liquid?) Some of these drums were corroded through and had discharged to the ground.

3) Numerous drums of paint waste sludge or resin, (approximately 1/3 of drums present) some of which had spilled or discharged.

4) Empty drums (approximately 1/4 of all drums).

Representative photographs of the above were obtained. Oster and Taradash then secured the property as best they could and departed.

November 17, 1988

Synkote Paint, Elmwood Park, DHWM #02-11-04

RECOMMENDATIONS/CONCLUSIONS:

Conditions at Synkote Paint represent a potential threat to both the environment and human health. Some of the drums have already discharged onto the ground, and others will do so in the future if they are not overpacked and/or removed. In addition, there are many flammables on-site, and fumes or vapors from fire could threaten nearby residences and active businesses. As the property is accessible to the public (including the interior of the building) the possibly of arson must be considered. Persons entering the property and tampering with chemical or waste containers might also create a reactive situation, aside from exposing themselves to hazardous materials.

Although Synkote is an unassigned ECRA case, the situation demands action by MBE. The owner should be identified, issued NOV's for hazardous waste and Spill Act violations, and ordered to remove drums and other containers for proper disposal. If necessary a Directive should be issued, with the Department ready to perform publicly-funded cleanup.

DO:jap

INVESTIGATION

CASE #: - - -

DWM FILE #: 02-11-04

TIME ARRIVED: 1310

INVESTIGATOR: Dave Oster

DATE: 3/10/89 TIME DEPARTED: 1500

LOCATION: Synkote Paint

PROPERTY OWNER: Property Concepts

ADDRESS: Van Riper Ave. Elmwood Park

MAILING ADDRESS: (Raymond Topping et al)

LOCATION TELEPHONE #: —

BLOCK: LOT:

EPA ID #: —

LOCAL HEALTH DEPT. REP. Jim Taradash - BCHS TELEPHONE #: 599-6268

ORIGIN OF COMPLAINT: TELEPHONE #:

NATURE OF COMPLAINT:

PHOTOGRAPHS TAKEN: SAMPLE #:

FINDINGS: On 3/10/89 I met at the Synkote Paint site with Dwayne Harrington of USEPA Emergency and Remedial Response Division (Edison, N.J. - 201-906-6899). Also present was Ray Topping, one of the property owners, and Jim Taradash of Bergen County Health Services. Mr. Harrington had arranged this meeting as part of EPA's assessment of the site as a candidate for removal action. After a brief preliminary discussion, Mr. Harrington entered the site using Level B protection, a standard EPA procedure ~~when~~ at unknown sites. Oster, Topping and Taradash remained outside the gate until Mr. Harrington and an assistant returned. They obtained photographs, took readings with the h-nu, and took a basic inventory of the drums on-site.

In a previous discussion Mr. Harrington had indicated to me that since a potential Responsible Party was known, he was obligated to seek RP cleanup before recommending EPA action. After returning from his inspection Mr. Harrington spoke to Mr. Topping regarding cleanup requirements. Topping expressed a willingness to secure the site, overpack some 250 drums and conduct soil and groundwater sampling. Harrington indicated that the usual procedure would be for the owners to enter into an ACO with the EPA.

At that point Harrington took me aside to discuss cleanup cost. We agreed that proper remediation would be quite expensive, and that the owners were probably not

Dave Oster

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

ATTACHMENT M-1

Form DWM-051 A
10/85

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INVESTIGATION

CASE # _ _ _

DATE: 3/10/89

FINDINGS AND SUMMARY:

aware of the total cost involved. Harrington stated that he would recommend EPA action without seeking RP ~~help~~ cleanup due to the seriousness of the situation at Synkote. He indicated that EPA action if initiated, would address the drums and at least part of the soil investigation/removal, but definitely not groundwater. Harrington stated that he would keep Metro informed of progress.

After our discussion Harrington stressed to Topping the need for site security. Topping said that he would obtain new locks for the gates, lock the back door to Synkote, and board up broken windows. At 1500 I departed the site.

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

ATTACHMENT M-2

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INVESTIGATION

CASE # - - -

DATE 3/10/89

RECOMMENDATIONS AND CONCLUSIONS:

Recommend that EPA maintain the lead in this case. If EPA cleanup is initiated, Metro should monitor to completion and then address remaining problems of soil and groundwater.

Supervisor Signature

Investigator Signature

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

p. 116

ATTACHMENT M-3

The redacted information consists of personal information associated with the property owner. Disclosure of this information could reasonably be expected to constitute an unwarranted invasion of personal privacy and thus is exempt from mandatory disclosure by virtue of Exemption 7 of the FOIA, 5 U.S.C. § 552(7)(c).

Form DWM-051
10/85

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INVESTIGATION

CASE #: - - -

DWM FILE #: 02-11-04

TIME ARRIVED: 1220

INVESTIGATOR: Dave Oster

DATE: 1/24/89

TIME DEPARTED: 1350

LOCATION: Synkote Paint Co.

PROPERTY OWNER: Raymond Topping

ADDRESS: 144-160 Van Ripel Ave.
Elmwood Park
Bergen County

MAILING ADDRESS: [redacted] Ex. 7c

LOCATION TELEPHONE #: None

BLOCK: 164

LOT: 1C

EPA ID #: NJD001354089

LOCAL HEALTH DEPT. REP.

TELEPHONE #:

ORIGIN OF COMPLAINT:

TELEPHONE #:

NATURE OF COMPLAINT:

PHOTOGRAPHS TAKEN:

SAMPLE #:

FINDINGS: On the above date Dave Oster of NJDE and Jim Taradash of Bergen County Health Services returned to Synkote Paint to observe soil sampling by DCTS personnel. Dave Van Eyck has been coordinating the sampling and was present on 1/24. Sampling points were tentatively identified on a previous visit, and were confirmed today by visual appearance of soils and use of the hand and OVA. Approximately 6 points were sampled, with results to be forwarded to NJDE.

By digging down with the stem bar (6-8") readings of 100 ppm on the OVA were recorded at several spots. One such spot was sampled and the hole was allowed to "vent" for 45 minutes. At that time a reading of 500 ppm could still be obtained. High readings were also recorded within the former tank containment area, and samples obtained.

Drum conditions continue to deteriorate. Recommend that the new owner (Raymond Topping) be issued Spill Act and RCRA violations (Synkote is still a listed Generator) and directed to perform cleanup. If this course of action is not successful recommend issuance of a Directive or request for emergency funding to perform cleanup.

p.117

Dave Oster

COPIES: White - DWM File Yellow - Local Health Dept. Pink - [illegible]

ATTACHMENT N

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
METRO BUREAU OF REGIONAL ENFORCEMENT
2 BABCOCK PLACE
WEST ORANGE, NEW JERSEY 07052

JOHN W. GASTON JR., P.E.
DIRECTOR

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

January 3,1986

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Allan S Gutfleish, Esq.
185 Engle St
P.O. Box 711
Englewood, NJ 07631

Re: Subsurface Contamination at
Synkote Paint Company
Elmwood Park / Bergen County

Dear Mr. Gutfleish,

The Synkote Paint Company (SPC) located at 144-160 Van Riper Avenue underwent Assignment for the Benefit of Creditors on February 27, 1985. As the legal representative for Mr. Richard Max, owner of said property and principal stockholder of SPC, you shall receive all correspondence directed toward SPC or Mr. Max.

On July 3, 1985 representatives of the Division of Water Resources (DWR) conducted an inspection at the (SPC) facility located on Van Riper Ave, Elmwood Park. Mr.Richard Max was present during this inspection.

Listed below are the pertinent observations and findings resulting from the inspection.

1. Analytical data from soil sampling conducted at the facility on July 3, 1985 revealed elevated concentrations of volatile organics (see attached list).

2. The rear yard contained approximately 200 - 400 fifty-five gallon drums some of which were rusted and leaking.

3. Spillage was evident throughout the rear yard of the SPC facility.

In order to properly evaluate the extent of contamination and determine any impact on the area's ground water supply, Mr. Max is hereby Directed to initiate a hydrogeological investigation for the SPC facility in Elmwood Park. A work plan for the investigation is to be submitted to DWR for approval. The work plan is to be prepared by a qualified hydrogeologist and is to include at a minimum the following:

1. Monitor wells are to be installed hydraulically upgradient from the on-site contaminated zone. Their number, location and depth must ensure that samples from the wells are representative of background ground water quality near the facility and that the samples are not affected by the facility.

2. Monitor wells are to be installed hydraulically downgradient from the on-site contaminated zone. Their number, location and depth must ensure that they intercept any contaminants migrating from these areas. In addition, the number and location of monitor wells must be sufficient to establish ground water flow direction.

3. All ground water monitor wells must be installed by a licensed New Jersey Well Driller, pursuant to N.J.S.A. 58:4a-6. A valid New Jersey permit, issued pursuant to N.J.S.A. 58:4a-14. to drill a well must be obtained from the Water Allocation Office (609) 984-6831. All monitor wells are to be constructed according to NJDEP specifications (attached).

4. Test pits and/or borings are to be installed in sufficient number and depth to allow full delineation of the extent of soil contamination in the area of the on-site subsurface disposal systems.

5. Soil and water sampling and analyses procedures shall be designed to ensure representative monitoring results. At a minimum the program shall include procedures and techniques for :

i) Sample collection;

ii) Sample preservation and shipment;

iii) Analytical procedures; and,

iv) Chain of Custody control.

These procedures shall be incorporated into a quality assurance/quality control (QA/QC) plan using the format designated in the USEPA Document OWRS QA-1 entitled Guidance For Preparation of Combined Work/ Quality Assurance Project Plans for Environmental Monitoring.

6. Water and soil samples are to be analyzed for volatile pollutants as listed in N.J.A.C. 7:14A Appendix B, Table II and petroleum hydrocarbons using approved USEPA methods by a laboratory certified pursuant to N.J.A.C. 7:18.1 et seq.

7. The locations of each monitor well, boring and test pit shall be determined by a New Jersey licensed surveyor and an accurate base map showing these locations shall be prepared.

8. A report containing the findings of the investigations shall be prepared and include:

i) Stratigraphic logs for each monitor well, boring and test pit;

ii) As built construction diagrams for each monitor well;

iii) Elevations of the top of each monitor well casing as surveyed by a New Jersey licensed surveyor to the nearest 0.01 foot;

iv) Site plan of appropriate scale showing the locations of all monitor wells, borings and test pits;

v) Ground water contour maps based on three sets of synoptic static water levels taken at weekly intervals measured at each monitor well to the nearest hundredth (0.01) foot;

vi) Analytical data from all sample analyses;

vii) An assessment of the degree and extent of soil and ground water contamination including conclusions concerning the types of contamination, ground water flow mechanisms, flow rates, vertical and horizontal flow direction; and,

viii) Recommendations for remedial measures designed to eliminate, decontaminate, control or otherwise mitigate ground water pollution.

9. A schedule for the implementation of the hydrogeologic investigation and submission of the report shall be included in the work plan.

The Hydrogeological Investigation Work Plan shall be submitted to DWR no later than February 25,1986 . Upon DWR's approval of the work plan, Mr. Max shall implement the hydrogeologic investigation in accordance with the approved time schedule.

All submittals called for in this Directive shall be made to :

Mr. Stefan D. Sedlak, Assistant Chief
Metro Bureau of Regional Enforcement
Division of Water Resources
2 Babcock Place
West Orange, New Jersey 07052

Failure to comply with this Directive will result in appropriate enforcement action pursuant to the New Jersey Water Pollution Control Act N.J.S.A. 58:10A-1 et seq. and the Spill Compensation and Control Act N.J.S.A. 58:10-23.11 et seq.

If there are any questions concerning this matter please contact Mr. Anthony DeCandia of this office at (201)669-3900.

Very truly yours,

Stefan Sedlak

Stefan D. Sedlak
Assistant Chief
Metro Bureau of
Regional Enforcement

E126

cc: Lenny Garnett ECRA
Richard Gervasio HSMA
Edward Burbank H.O.

p.121

ATTACHMENT O-4

SYNKOTE PAINT COMPANY, Van Riper ave, Elmwood Park

SOIL SAMPLES
JULY 3,1985

SAMPLE IDENTIFICATION	SAMPLE 1*	SAMPLE 2*	SAMPLE 3*	SAMPLE 4+
FIELD SAMPLE NUMBER	BO29183	BO29184	BO29185	BO29186
PARAMETERS:				
Benzene	ND	48	2.245	ND
Ethylbenzene	17	6.890	1.250	ND
n-Butylbenzene	ND	6.330	ND	ND
n-Propylbenzene	2.280	25	4.900	ND
sec-Butylbenzene	ND	13	113	ND
1,2,4 Trimethyl-benzene	3.540	718	ND	100
1,3,5 Trimethyl-benzene	2.530	23	0.900	ND
Cumene	3.500	27	10	100
Styrene	1.740	16	103	ND
p-Cymene	ND	27	380	ND
Toluene	965	14	2.500	ND
o-Xylene	205	59	204	100
m-Xylene	480	44	316	260
p-Xylene	160	14	126	ND

* - parts per million
\+ - parts per billion
nd - none detected

A.Decandia,DWR
SEPTEMBER,1985

p.122

ATTACHMENT D-5

NEW J DEPARTMENT OF ENVIRONMENTAL TION
DIVISION OF WATER RESOURCES

INVESTIGATION MEMORANDUM

Persons Conducting Investigation
Richard White
Anthony DeCandia

Complaint No./NJPDES No. 06-1185
Date of Investigation 7/3/85
Routing Harrington/Lynch

Location of Incident Syncoat Paint Company
144-160 Van Riper Avenue, Elmwood Park, NJ 07407

Purpose of Investigation Continuation of an investigation and soil sampling at various locations at the rear of the Syncoat property.

Persons Interviewed Mr. Richard Max, President of Syncoat Paint and property owner.

Summary of Findings

All production and manufacturing operations at this facility were discontinued in February 1985. By prearrangement Mr. Max was met at the site at 0920 to provide access to the locked and fenced areas of the property. Soil samples were obtained at the following locations:

Sample #1 - East side of building adjacent to the chrome fence.

Sample #2 - Inside a walled area of the solvent storage tanks.

Sample #3 - At the rear of the building approximately 10' south of the rear door.

Sample #4 - At a drum storage area in the rear of the building on the west side.

ATTACHMENT P-1

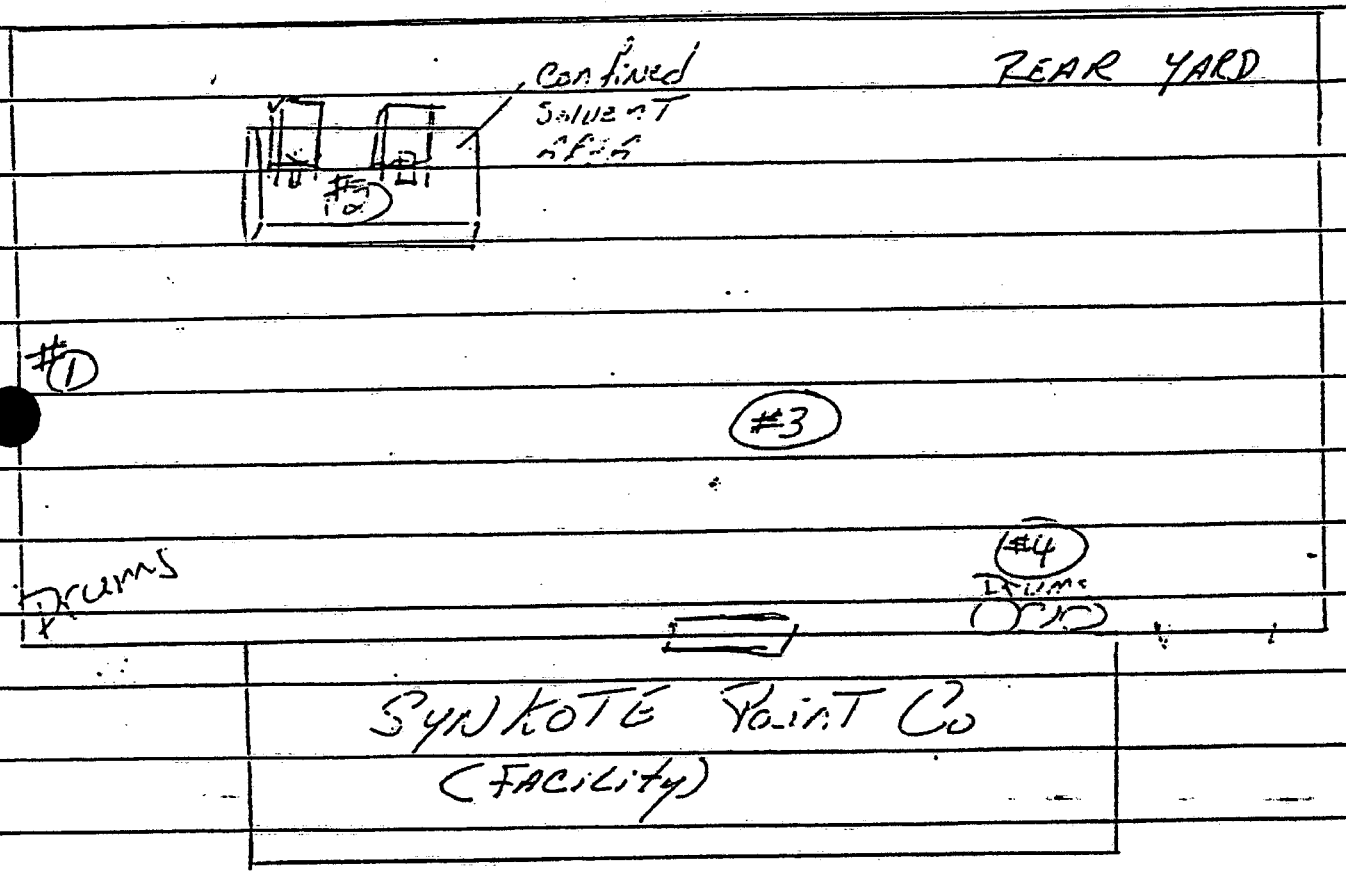
Numerous damaged, empty, fuel, and leaking 55 gallon drums were observed on site along with unused solvent storage tanks. Mr. Max stated that he has no plans for a cleanup of the site due to lack of funds.

Samples were transported Chain of Custody to the courier for Volatile Organic analysis by the Department of Health Lab in Trenton. Photographs of the areas sampled are attached.

Richard White

ATTACHMENT P-2

#1
#2
#3
#4 } Sampling Points



1. Drums are found Throughout yard.
2. NOT Drawn to Scale

ATTACHMENT P-3

Form VST-010
8/79

PLEASE TYPE OR PRINT
WITH BALLPOINT PEN

STATE OF NEW JERSEY
Department of Environmental Protection
Division of Water Resources
WATER ANALYSIS

RECEIVED
DIVISION OF WATER RESOURCES
SEP 1 1985

MUNICIPALITY: Elmwood Park	COUNTY: Bergen	STREAM:
FACILITY: Sunkote Paint Co	LOCATION: 144-160 Ivan Ridge Ave	
REPRESENTATIVE: R. Max	TITLE: President	COLL NAME: White, DeCandia
REMARKS: Excavation #1 - Surface soil		221 240

BACT. LAB NO.
DATE REC'D.
BOTTLE NO. 29183
DATE REC'D.
STORET ENT. READ

PRIORITY

STATION IDENTIFICATION NUMBER: S C, | YR. MO. DAY: 850703 | HOUR: 1015.

29183

FIELD ANALYSIS

Water Temp °C	P10,	
D.O.-Winkler	P300,	
D.O.-Probe	P299,	
pH (Field)	P400,	
Sample Depth-ft.	P3,	
Gage Height-ft.	P65,	
Spec. Cond. @ 25°C	P95,	
Salinity ‰	P480,	
Tide Stage	P70211,	

BACTERIOLOGICAL - DILUTIONS (REQUESTED)

Fecal Coliform / Total Coliform	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10
Fecal Streptococci	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10

Fecal coli /100 ml	☐ MPN P31615, ☐ MF P31613,	
Fecal Strept MPN/100 ml	P31677,	
Tot coli MPN/100 ml	P31505,	

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) _____ SAMPLE
SEED YES ☐ NO ☐

CONC.%			
BOD			

BOD ☐ 5-DAY P310, ☐ 6-DAY P312,

ANALYSIS	UNITS	PARAMETER	VALUE	RMKS.
V.O. SCAN		P		
SOIL		P		
SAMPLE		P		
ETHYL BENZENE	ppm	P	.17	
CUMENE		P	3.500	
N-PROPYLBENZENE		P	2.280	
STYRENE		P	1.740	
TOLUENE		P	.965	
1,2,4 TRIMETHYLBENZENE		P	3.540	
1,3,5 TRIMETHYLBENZENE		P	2.530	
O-XYLENE		P	.205	
M-XYLENE		P	.480	
P-XYLENE		P	.160	
+ NUMEROUS		P		
UNIDENTIFIED PEAKS		P		

RECEIVED
AUG 08 1985
DEPT. ENVIRONMENTAL PROTECTION
NEWARK OFFICE

REPORT SUBMITTED
JUL 22 1985
NJDOH Environmental
Chemistry Laboratory

DATE	TIME	CHAIN OF CUSTODY FROM (NAME)	TO (NAME)

Chemist Review _____

Part 1(White) - Water Quality Inventory Copy
Part 2(Green) - Chemistry Copy
Part 3(Pink) - Water Resources Copy(For Transmission)
Part 4(Yellow) - Bacteriology Copy

p.126

ATTACHMENT P-4

Form VST-010
8/79

STATE OF NEW JERSEY
Department of Environmental Protection
Division of Water Resources
WATER ANALYSIS

CHAIN OF CUSTODY

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

RECEIVED
DIVISION OF WATER RESOURCES
ENFORCEMENT
10 26 AM '85

MUNICIPALITY: Elmwood Park	COUNTY: Bergen	STREAM: —
FACILITY: SUNKOTE Paint	LOCATION: 144-160 VAN RIPER AVE	
REPRESENTATIVE: K. MAX	TITLE: President	COLL NAME: White, DeCandia
REMARKS: EXCAVATION #2 - Surface soil 221 24D		

BACT.-LAB NO.
DATE REC'D.
BOTTLE NO. 29184
DATE REC'D.
STORET ENT. READ

SORTY

STATION IDENTIFICATION NUMBER	YR. MO. DAY	HOUR
SC	850703	1025

29184

FIELD ANALYSIS

Water Temp °C	P10	
D.O.-Winkler	P300	
D.O.-Probe	P299	
pH (Field)	P400	
Sample Depth-ft.	P3	
Gage Height-ft.	P65	
Spec. Cond. @ 25°C	P95	
Salinity 0/00	P480	
Tide Stage	P70211	

BACTERIOLOGICAL - DILUTIONS (REQUESTED)

Fecal Coliform	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10
Fecal Streptococci	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10

Fecal coli /100 ml: ☐ MPN P31615, ☐ MF P31613

Fecal Strept MPN/100 ml: P31677

Tot coli MPN/100 ml: P31505

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) _____ SAMPLE

SEED YES ☐ NO ☐

CONC.%

BOD

BOD ☐ 5-DAY P310, ☐ 6-DAY P312

ANALYSIS	UNITS	PARAMETER	VALUE	RMKS.
V.O. SCAN		P		
		P		
		P		
		P		
Soil		P		
		P		
Sample		P		
		P		
		P		
BENZENE	PPM	P	.48	
N-butylbenzene		P	.6.330	
Sec-butylbenzene		P	.13	
ETHYLBENZENE		P	.6.890	
CUMENE		P	.27	
p-cymene		P	.27	
N-propylbenzene		P	.25	
STYRENE		P	.16	
TOLUENE		P	.14	
1,2,4-trimethylbenzene		P	.718	
1,3,5-trimethylbenzene		P	.23	
O-xylene		P	.59	
M-xylene		P	.44	
p-xylene		P	.14	
+ NUMEROUS		P		
unidentified peaks		P		

DATE	TIME	CHAIN OF CUSTODY (FROM NAME)	TO (NAME)
		RECEIVED AUG 08 1985 DEPT. ENVIRONMENTAL PROTECTION NEWARK OFFICE	REPORT SUBMITTED JUL 23 1985 NJDOH Environmental Chemistry Laboratory

Chemist Review _____

Part 1(White) - Water Quality Inventory Copy
Part 2(Green) - Chemistry Copy
Part 3(Pink) - Water Resources Copy (For Transmission)
Part 4(Yellow) - Bacteriology Copy

ATTACHMENT P-5

p. 127

Form VST-010
3/79

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

STATE OF NEW JERSEY
Department of Environmental Protection
Division of Water Resources

RECEIVED
DIVISION OF WATER RESOURCES

WATER ANALYSIS

MUNICIPALITY: Elmwood Park	COUNTY: Bergen	STREAM: —
FACILITY: SUNKOTE Paint Co	LOCATION: 1 Piper Ave	
REPRESENTATIVE: R MAX	TITLE: President	COLL NAME: White, DeCandia
REMARKS: EXCAVATION #3 - surface soil, 221, 24D		

BACT. LAB NO. ____
DATE REC'D. ____
BOTTLE NO. 29185
DATE REC'D. ____
STORET ENT. ____ READ ____

DRITY

STATION IDENTIFICATION NUMBER: SC, ____, YR. MO. DAY: 850703 HOUR: 1035.

29185

FIELD ANALYSIS

Water Temp °C	P10.	
D.O.-Winkler	P300.	
D.O.-Probe	P299.	
pH (Field)	P400.	
Sample Depth-ft.	P3.	
Gage Height-ft.	P65.	
Spec. Cond. @ 25°C	P95.	
Salinity ‰	P480.	
Tide Stage	P70211.	

BACTERIOLOGICAL - DILUTIONS (REQUESTED)

Fecal Coliform	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10
Total Coliform	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10
Fecal Streptococci	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10

Fecal coli /100 ml ☐ MPN P31615. ☐ MF P31613.

Fecal Strept MPN/100 ml P31677.

Tot coli MPN/100 ml P31505.

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) ____ SAMPLE
SEED YES ☐ NO ☐

CONC.%			
BOD			

BOD ☐ 5-DAY P310. ☐ 6-DAY P312.

ANALYSIS	UNITS	PARAMETER	VALUE	RMKS.
V.O. SCAN				
Soil Sample				
BENZENE	ppM	P	2.245	
sec-butylbenzene		P	113	
Ethylbenzene		P	1.250	
Cumene		P	10	
p-cymene		P	380	
n-propylbenzene		P	4.900	
Styrene		P	103	
Toluene		P	5.500	
1,3,5-trimethylbenzene		P	0.900	
o-xylene		P	204	
m-xylene		P	316	
p-xylene		P	126	
+ numerous unidentified peaks		P		

RECEIVED
DIVISION OF WATER RESOURCES

DATE	TIME	CHAIN OF CUSTODY FROM (NAME)	REPORT SUBMITTED TO (NAME)
		AUG 08 1985	JUL 22 1985
		DEPT. ENVIRONMENTAL PROTECTION NEWARK OFFICE	NJDOH Environmental Chemistry Laboratory

Chemist Review ____

Part 1(White) - Water Quality Inventory Copy
Part 2(Green) - Chemistry Copy
Part 3(Pink) - Water Resources Copy(For Transmission)
Part 4(Yellow) - Bacteriology Copy

ATTACHMENT P-6

p. 128

8/79

STATE OF NEW JERSEY
Department of Environmental Protection
Division of Water Resources

RECEIVED
DIVISION OF WATER RESOURCES
WATER ANALYSIS

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

MUNICIPALITY: Elmwood Park	COUNTY: Bergen	STREAM:
FACILITY: SANKOTE Paint Co	LOCATION: 1000-1010 26 AM PIPER AVE	
REPRESENTATIVE: R. K MAX	TITLE: President	COLL NAME: White, DeLandia
REMARKS: EXCAVATION #4 - surface soil		221 24D

BACT. LAB NO.
DATE REC'D.
BOTTLE NO. 29186
DATE REC'D.
STORET ENT. READ

Priority

STATION IDENTIFICATION NUMBER: SC, | YR. MO. DAY: 850703 | HOUR: 1045.

29186

FIELD ANALYSIS

Water Temp °C	P10,	
D.O.-Winkler	P300,	
D.O.-Probe	P299,	
pH (Field)	P400,	
Sample Depth-ft.	P3,	
Gage Height-ft.	P65,	
Spec. Cond. @ 25°C	P95,	
Salinity ‰	P480,	
Tide Stage	P70211,	

BACTERIOLOGICAL - DILUTIONS (REQUESTED)

Fecal Coliform								
Tot Coliform	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10
Fecal Streptococci	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10

Fecal coli /100 ml: MPN P31615, MF P31613,

Fecal Strept MPN/100 ml: P31677,

Tot coli MPN/100 ml: P31505,

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) _____ SAMPLE

SEED YES NO

CONC.%			
BOD			

BOD: 5-DAY P310, 6-DAY P312,

ANALYSIS	UNITS	PARAMETER	VALUE	RMKS.
VOC SCAN				
Soil Sample				
CUMENE	ppb	P	100	
1,2,4 TRIMETHYLBENZENE		P	100	
O-XYLENE		P	100	
M-XYLENE		P	2610	

RECEIVED
AUG 08 1985
DEPT. ENVIRONMENTAL PROTECTION
NEWARK OFFICE

DATE	TIME	CHAIN OF CUSTODY FROM (NAME)	TO (NAME)

REPORT SUBMITTED
JUL 22 1985
NJDEP Environmental Chemistry Laboratory

Chemist Review _____

Part 1(White) - Water Quality Inventory Copy
Part 2(Green) - Chemistry Copy
Part 3(Pink) - Water Resources Copy(For Transmission)
Part 4(Yellow) - Bacteriology Copy

ATTACHMENT P-7

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
Trenton, N.J. 08625-0029

Jorge H. Berkowitz, Ph.D.
Acting Director

(609) 292-1637
Fax # (609) 984-7938

June 14, 1989

Boswell Engineering
330 Phillips Avenue
South Hackensack, New Jersey 07606

ATTN: Anthony Gencarelli

0221001

Dear Mr. Gencarelli:

RE: Garfield Water Department
VOC Contamination

Unacceptable levels of volatile organic contamination, particularly trichloroethhylene and tetrachloroethylene have been detected in the Garfield Water Department Distribution System for some time. Their source has beeen verified as emanating from supply wells in Elmwood Park and at Midland Avenue. The Bureau of Safe Drinking Water (Bureau) has directed that remedial measures be instituted to bring water to within acceptable limits.

A permit was issued by the Bureau on July 22, 1988 for the construction of packed column aeration facilities, an acceptable treatment technology for this problem. Accordingly, the Bureau whole heartedly endorses the expedient construction of said treatment facilities.

Sincerely,

Barker Hamill, Chief
Bureau of Safe Drinking Water

BH:BOSWELL:jh

New Jersey is an Equal Opportunity Employer
Recycled Paper

ATTACHMENT 1

City of Garfield

New Jersey

DEPARTMENT OF PUBLIC WORKS
(201) 546-2200
478-9081

Mr. Nunzio Santora
Superintendent

Joanne Romano
Secretary

March 22, 1989

PWID 0221001

State of New Jersey
Department of Enviromental Protection
Division of Water Resources
Bureau of Safe Drinking Water
CN -029
Trenton, New Jersey 08625

Dear Mr. Monaco:

Please be advised that the City of Garfield Water Department has shut down effective 3/20/89 all of our wells, both in the Garfield well fields and the Elmwood Park well fields. We will not be restarting any of these fields until air strippers are built. The expected completion will not be until the end of 1989 or early 1990.

Please note that at this time, I feel that I need only (1) #280 sample taken. We are currently buying our water from Passaic Valley Water Company. The only exception to this would be in an emergency with our supply. If it is needed at that time then we would use our Elmwood Park wells # 1,4,10,12 and 14 until repairs could be made to our supply lines from Passaic Valley Water Company.

Thank you for your attention to this matter. If any questions, please feel free to contact me.

Sincerely,

Mr. Michael J. Sferruzzo

Mr. Michael J. Sferruzzo
Licensed Water Operator

cc: Mr. William Boyle
Mr. Nunzio Santora
file

ATTACHMENT R

Form DWR-052
3/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

REPORT OF PHONE CALL OR VISIT

Bureau or Office Metro

In _____ Out ✓ File _____

Date 6/1/89 Time - Routing file

Person Contacted Maria John / ~~Joh~~ Mike Sferuzzo Phone No. _____

Affiliation BSDW / Garfield water Dept

Subject of Call/Visit Elmwood Park wellfield

Summary of Call/Visit Maria told me verbally the MCL violations that caused BSDW to tell Garfield (verbally) to stop using the Elmwood Park wellfield.

Dec 88	5.31 ppb	Trichloro ethylene	8.97 ppb	Tetra chloro ethylene
1/10/89	4.03	"	7.97	"
2/7/89	3.05	"	3.69	"
3/14/89	4.19	"	6.93	"

The MCL limit for individual contaminants is 1.0 ppb.

I called Mike Sferuzzo inquiring where those samples were taken. He said that the operating wells flowed to the clearwell & where then sampled before mixing w/ PVWC water. The wells are no longer in use.

Action Recommended _____

John M. Brennan
Signature

p.132

ATTACHMENT S

REFERENCE NO. 2

EPA ID	Site Name Address City County Name	Zip Code	Cong Dist	NFRAP Flag	Oprble Unit	Action Type	Action Lead	Action Qualif	Actual Start Date	Actual Compl Date
NJD064263817	SYNCON RESINS		09							
	77 JACOBUS AVE									
	KEARNY	07032								
	HUDSON	017								
					01	CO 001	S		12/20/82	09/29/86
					02	CO 002	S		09/27/96	07/23/98
					00	DS 001	S			04/10/84
						HR 001	F			12/01/82
						IP 001	S		12/20/82	
						NF 001	F			09/08/83
						NP 001	F			07/23/82
					01	OM 002	SN		10/13/93	
					00	PA 001	F	L		07/01/82
					01	RA 001	S		05/23/89	
						RD 001	S		06/26/87	02/28/89
						RM 001	F			03/31/83
						RO 001	S			09/29/86
					00	RS 001	F	S	03/27/90	09/14/90
						RS 002	F	S	10/17/91	10/28/91
						RV 001	S	S	12/20/82	
						SI 001	F	H	07/01/82	08/01/82
					01	WP 001	S		12/20/82	05/15/83
NJD001394089	SYNKOTE PAINT		09							
	144-160 VAN RIPER AVE									
	ELMWOOD PARK E	07407								
	BERGEN	003								
					00	DS 001	F			09/19/86
						PA 001	S	L	08/07/87	09/01/87
						RV 001	F	C	09/15/89	01/03/91
						SI 001	S	D	11/01/89	12/31/89
NJD042061978	SYNTHATRON CORP		05							
	50 INTERVALE RD									
	PARSIPPANY	07054								
	MORRIS	027								
					00	DS 001	F			07/01/79
						PA 001	F	L		10/01/79
						SI 001	S	D		12/30/91

Ref. No. 2
p. 1/2

Site Name EPA ID	Alias Name/ID Alias Street Alias City/ County Name	Alias ID	County Code	Zip Code	Federal Facility Flag	Cong. Dist.
SYBRON CHEMICAL DIVISION NJD002339406	SYBRON CHEMICAL DIVISION BURLINGTON	101	005		N	04
SYNCON RESINS NJD064263817	SYNCON RESINS HUDSON HUDSON	101	017		N	09
SYNKOTE PAINT NJD001394089	SYNKOTE PAINT BERGEN BERGEN	101	003		N	09
T.E.C.T. INC NJD980769384	T.E.K. COMPANY DRUM DUMP BERGEN	201	003		N	09
	TEK BERGEN	101				
TABERNACLE DRUM DUMP NJD980761357	TABERNACLE DRUM DUMP BURLINGTON BURLINGTON	101	005		N	03
TARA ELECTRONICS, LOHNER EN NJD011689783	LOHNER ENTERPRISES INC 985 US HIGHWAY 202/206 S SOMERVILLE SOMERSET	101	035		N	07
	LOHNER ENTERPRISES INC SOMERSET	102				
TECHNICAL INFO SYS /DIV AMER NJD000603365	TECHNICAL INFO SYS /DIV AMER SOMERSET SOMERSET	101	035		N	07
TENNECO CHEMICAL INC /ELIZAE NJD011246337	NUODEX INC UNION	101	039		N	12
TENNECO CHEMICAL INC /FLEMII NJD001890300	TENNECO CHEMICAL INC /FLEMII HUNTERDON HUNTERDON	101	019		N	13
TENNECO POLYMERS, INC NJD001890185	TENNECO CHEMICALS, INC BURLINGTON	101	005		N	04
TEXACO SERVICE STATION-UPPE NJD986566479	GRACE OIL CO RTE 9 & ROOSEVELT BLVD MARMORA CAPE MAY	101	009	08223	N	02
	GRACE OIL CO CAPE MAY	102			N	02
TEXACO USA NJD065808875	STAR ENTERPRISE (NJD06580887 909 DELANCY STREET NEWARK ESSEX	101	013	07105	N	10
TEXACO USA /A DIV OF TEXACO NJD067505958	BAYONNE TERMINAL HUDSON	101	017		N	14

Ref. No. 2, p. 2/2

REFERENCE NO. 3

TDD No. 02-00-02-0006
CONTRACT No. 68-W5-0019

Figure 3
Four Mile Radius Map
Synkote Paint Site
Elmwood Park, NJ

LEGEND

- Site Location
  - -Longitude: -74 06 59 West
  - -Latitude: 40 54 10 North
- Approximate Drinking Well Location
  - G - Garfield Well
  - F - Fairlawn Well
  - R - Ridgewood Well

N
W E
S

Scale in Feet

3000 0 3000

SOURCE: USGS 7.5 Minute Series (Topographic) Quadrangles: Paterson, NJ 1955, photorevised 1981; Hackensack, NJ 1955, photorevised 1981; Weehawken, NJ NY 1967, photorevised 1981; Orange, NJ 1955 photorevised 1981; Elizabeth, NJ 1967, photorevised 1981

Date: 6/14/00

WESTON
MANAGERS DESIGNERS/CONSULTANTS

FEDERAL PROGRAMS DIVISION

REFERENCE NO. 4

Ref. No. 4, p. 1/7

1 March 2000
1415 - START members H. Allen and G. Gilliland arrived at the Synkote Paint site to conduct an off-site reconnaissance. The site is located at 150 Van Riper Avenue, in Elmwood Park, Bergen county, New Jersey. The site address has been reported as 144-160 Van Riper. The site is situated in an industrial park across Van Riper from a residential area. Beyond the residences (to the north) is interstate 80. The site is bordered to the east by Kreisler ~~Corporation~~ (HK) Industrial Corporation, and to the west is a small vacant lot. The southern boundary is the Susquehanna + Western railroad. The site is inactive and has been abandoned. The site is overgrown and some scrap metal (baffles and old equipment) could be observed from off-site. No other areas of stained soil or waste were observed. The site is fenced and kept locked at all times. There is no evidence of

vandalism. Barbed wire has been strung along this fence. No evidence of pesticides or nuclear waste was observed at the site. ~~No con~~ (HA) Conditions, which would ~~to~~ (HA) warrant immediate action at the site, were also (HA) not evident during the reconnaissance.

Beyond the southern boundary of the ~~Kri~~ (HA) Kreisler Corporation ~~building~~ (HA) property, START observed a ~~cement~~ (HA) culvert from which a minimal stream emerged. This stream flows east-south east along the railroad tracks from the culvert. At approximately 480 feet, the creek passes under the railroad tracks (to the southern side) and flows southwest. Another branch of this stream meets at the culvert and passes under the tracks as well (also to the south side). The culvert under the tracks is the confluence of these two streams.

The site is flat but unpaved save the parking area on

Van Riper outside the site fence. The synkote process building borders this lot. Storm drains, on both sides of Van Riper are located just beyond Synkote's eastern boundary with Kreisler Corp. This area is ~~complet~~ HA paved. completely. Four residences within 200 feet of Synkote, face the site from across Van Riper Avenue (to the north). START departed from the site at approximately 1500 hours.

— [signature] 3/1/00 —

HA

HA

WLU MANAGERS DESIGNERS/CONSULTANTS

SHEET ____ of ____

CLIENT/SUBJECT Synkote Paint W.O. NO. ____

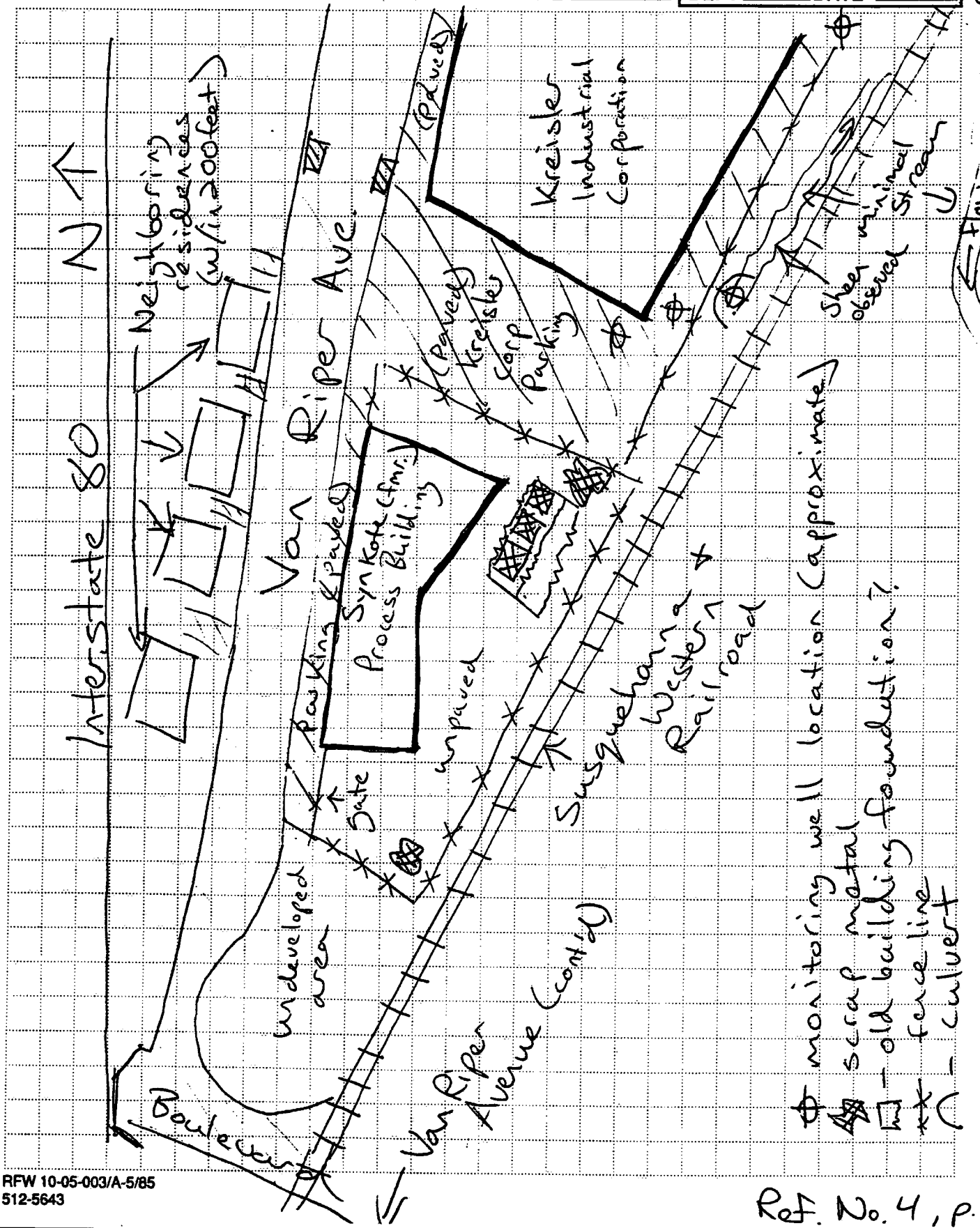
TASK DESCRIPTION Site Map TASK NO. ____

PREPARED BY ____ DEPT ____ DATE ____

MATH CHECK BY ____ DEPT ____ DATE ____

METHOD REV. BY ____ DEPT ____ DATE ____

APPROVED BY ____ DEPT ____ DATE ____



RFW 10-05-003/A-5/85
512-5643

Ref. No. 4, p.51

1 March 2000

1515 - START members H. Allen and G. Gilliland visit the Elmwood Park Tax Assessor's office. A review of Elmwood Park tax maps indicates that the minimal stream bordering the site is known as the Fleischer Brook. The brook is contained in an underground culvert north of the site where it begins near Franklin Street. The brook flows below ground and is fed by storm drains on the streets above. The brook surfaces south of the Kreisler Corp. site after flowing beneath the property. The Tax assessor reported that the town engineer was Boswell Engineering in Hackensack, NJ.

The following is a list of properties bordering the Synkote site, located on the same block no. 1401.

Lot No.	Acreage	Owner / Address
1	0.416	Property Concepts 150 Van Riper Ave.
2	2.03	Sydney Messer 180 Van Riper Ave.

Ref. No. 4, p. 617

Lot No.	Acreage	Owner/Address
~~3~~ 4 (HA)	unk.	Goralski 200 Van Riper
3	↓	Van Riper Holding Co 192 Van Riper
5	↓	Vincent + Rosetta De R 206 Van Riper

Block 1407 (borders Synkote to South - across tracks)

Lot No.	Acreage	Owner
1	6.377	R Marcalu

The information above was obtained from the Elmwood park tax assesso book.

Harry [illegible] 3/1/00

(HA)

REFERENCE NO. 5

Surface Water Quality Standards

N. J. A. C. 7:9B

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office Of Environmental Planning
April 1998

Ref. No. 5, p. 1/

STATE OF NEW JERSEY
Christine Todd Whitman, Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Robert Shinn, Commissioner

ENVIRONMENTAL PLANNING AND SCIENCE
Bob Tudor, Assistant Commissioner

SURFACE WATER QUALITY STANDARDS

Authority
N.J.S.A. 13:1D-1 et seq., 58:10A-1 et seq.,and 58:11A-1 et seq.

Effective Date
Readoption - April 17, 1998
Amendments - May 18, 1998

Executive Order No. 66(1978) Expiration Date
Chapter 9B, Surface Water Quality Standards, expires on April 18, 2003

A copy of this document can be obtained by calling 609-633-7020
or by sending a written request to:

Office of Environmental Planning
Department of Environmental Protection
P.O. Box 418
Trenton, NJ 08625

Ref. No. 5, p. 2/7

"DRBC" means Delaware River Basin Commission.

"EC50" means the median effective concentration of a toxic substance expressed as a statistical estimate of the concentration that has a specified adverse effect on 50 percent of the test organisms under specified test conditions, based on the results of an acute bioassay.

"Epilimnion" means the freely circulating upper region of a thermally stratified waterbody extending from the surface to the thermocline.

"Existing uses" means those uses actually attained in the waterbody on or after November 28, 1975, whether or not they are included in the Surface Water Quality Standards.

"Federal Act" means the "Federal Water Pollution Control Act" (33 U.S.C. § 1251 et seq.), commonly referred to as the Clean Water Act, including all subsequent supplements and amendments.

"Flow-through bioassay" means a toxicity test in which the test solutions flow into and out of the test chambers on a once-through basis for the duration of the test, in accordance with N.J.A.C. 7:18.

"Fresh water(s)" means all nontidal and tidal waters generally having a salinity, due to natural sources, of less than or equal to 3.5 parts per thousand at mean high tide.

"FW" means the general surface water classification applied to fresh waters.

"FW1" means those fresh waters, as designated in N.J.A.C. 7:9B-1.15(h) Table 6, that are to be maintained in their natural state of quality (set aside for posterity) and not subjected to any man-made wastewater discharges or increases in runoff from anthropogenic activities. These waters are set aside for posterity because of their clarity, color, scenic setting, other characteristic of aesthetic value, unique ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s).

"FW2" means the general surface water classification applied to those fresh waters that are not designated as FW1 or Pinelands Waters.

"Groundwater" means that portion of water beneath the land surface that is within the zone of saturation (below the water table) where pore spaces are filled with water.

"Heat dissipation area" means a mixing zone, as may be designated by the Department, into which thermal effluents may be discharged for the purpose of mixing, dispersing, or dissipating such effluents without creating nuisances, hazardous

Ref. No. 5, p. 3/7

"Nonpoint source" or "NPS" means:

1. Any man-made or man-induced activity, factor, or condition, other than a point source, from which pollutants are or may be discharged;
2. Any man-made or man-induced activity, factor, or condition, other than a point source, that may temporarily or permanently change any chemical, physical, biological, or radiological characteristic of waters of the State from what was or is the natural, pristine condition of such waters, or that may increase the degree of such change; or
3. Any activity, factor, or condition, other than a point source, that contributes or may contribute to water pollution.

"Nontrout waters" means fresh waters that have not been designated in N.J.A.C. 7:9B-1.15(b) through (h) as trout production or trout maintenance. These waters are generally not suitable for trout because of their physical, chemical, or biological characteristics, but are suitable for a wide variety of other fish species.

"NPDES" means National Pollutant Discharge Elimination System.

"NT" means nontrout waters.

"Nutrient" means a chemical element or compound, such as nitrogen or phosphorus, which is essential to and promotes the growth and development of organisms.

"Outstanding National Resource Waters" means high quality waters that constitute an outstanding national resource (for example, waters of National/State Parks and Wildlife Refuges and waters of exceptional recreational or ecological significance) as designated in N.J.A.C. 7:9B-1.15(i).

"Persistent" means relatively resistant to degradation, generally having a half life of over 96 hours.

"Pinelands waters" means all waters within the boundaries of the Pinelands Area, except those waters designated as FW1 in N.J.A.C. 7:9B-1.15(h) Table 6, as established in the Pinelands Protection Act (N.J.S.A. 13:18A-1 et seq.) and shown on Plate 1 of the "Comprehensive Management Plan" adopted by the New Jersey Pinelands Commission in November 1980.

"PL" means the general surface water classification applied to Pinelands Waters.

"Point source" or "PS" means any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

Ref. No. 5, p. 4/7

(g) In those cases in which a thermal discharge is involved, the procedures for reclassifying segments for more restrictive uses shall be consistent with section 316 of the Federal Clean Water Act.

7:9B-1.12 Designated uses of FW1, PL, FW2, SE1, SE2, SE3, and SC waters

(a) In all FW1 waters the designated uses are:

1. Set aside for posterity to represent the natural aquatic environment and its associated biota;

2. Primary and secondary contact recreation;

3. Maintenance, migration and propagation of the natural and established aquatic biota; and

4. Any other reasonable uses.

(b) In all PL waters the designated uses are:

1. Cranberry bog water supply and other agricultural uses;

2. Maintenance, migration and propagation of the natural and established biota indigenous to this unique ecological system;

3. Public potable water supply after conventional filtration treatment (a series of processes including filtration, flocculation, coagulation, and sedimentation, resulting in substantial particulate removal but no consistent removal of chemical constituents) and disinfection;

4. Primary and secondary contact recreation; and

5. Any other reasonable uses.

(c) In all FW2 waters the designated uses are:

1. Maintenance, migration and propagation of the natural and established biota;

2. Primary and secondary contact recreation;

3. Industrial and agricultural water supply;

4. Public potable water supply after conventional filtration treatment (a series of processes including filtration, flocculation, coagulation, and

Ref. No. 5, p. 5/7

sedimentation, resulting in substantial particulate removal but no consistent removal of chemical constituents) and disinfection; and

5. Any other reasonable uses.

(d) In all SE1 waters the designated uses are:

1. Shellfish harvesting in accordance with N.J.A.C. 7:12;

2. Maintenance, migration and propagation of the natural and established biota;

3. Primary and secondary contact recreation; and

4. Any other reasonable uses.

(e) In all SE2 waters the designated uses are:

1. Maintenance, migration and propagation of the natural and established biota;

2. Migration of diadromous fish;

3. Maintenance of wildlife;

4. Secondary contact recreation; and

5. Any other reasonable uses.

(f) In all SE3 waters the designated uses are:

1. Secondary contact recreation;

2. Maintenance and migration of fish populations;

3. Migration of diadromous fish;

4. Maintenance of wildlife; and

5. Any other reasonable uses.

(g) In all SC waters the designated uses are:

1. Shellfish harvesting in accordance with N.J.A.C. 7:12;

Ref. No. 5, p. 6/7

Pequannock River	
PASSAIC RIVER	
(Mendham) - Source downstream to, but not including, Osborn Pond or tributaries described separately below	FW2-TP(C1)
(Paterson) - Outlet of Osborn Pond to Dundee Lake dam	FW2-NT
(Little Falls) - Dundee Lake dam to confluence with Second River	FW2-NT/SE2
(Newark) - Confluence with Second River to mouth	SE3
TRIBUTARIES	
(Great Piece Meadows State Park) - Tributaries within Great Piece Meadows State Park	FW2-NT(C1)
PECKMAN RIVER (Verona) - Entire length	FW2-NT
PEQUANNOCK RIVER	
MAIN STEM	
(Vernon) - Source to confluence with Pacack Brook	FW1(tp)
(Hardyston) - Pacack Brook to, but not including, Oak Ridge Reservoir	FW2-TM
(Newfoundland) - Outlet of Oak Ridge Reservoir downstream to, but not including Charlotteburg Reservoir	FW2-TP(C1)
(Charlotteburg) - Outlet of Charlotteburg Reservoir to, but not including, Macopin Reservoir or the tributaries described separately below	FW2-TM
(Kinnelon) - Macopin Reservoir outlet to Hamburg Turnpike bridge in Pompton Lakes Borough	FW2-TP(C1)
(Riverdale) - Hamburg Turnpike bridge in Pompton Lakes Borough to confluence with Wanaque River	FW2-TM
(Pompton Plains) - Confluence with Wanaque River downstream to confluence with Pompton River	FW2-NT
TRIBUTARIES	
(Copperas Mtn.) - Entire length	FW2-TP(C1)
(Smoke Rise) - Entire length	FW2-TP(C1)
(Green Pond Junction) - Tributary at Green Pond Junction from its origin downstream to Route 23	FW1(tm)
(Jefferson) - Tributary joining the main stem about 3500± feet southeast of the Sussex-Passaic County line, near Jefferson from its origin to about 2000 feet upstream of the pond	FW1(tm)
(Lake Kampfe) - Source to, but not including, Lake Kampfe	FW2-TM
(Lake Kampfe) - Lake Kampfe to Pequannock River, except tributary described separately below	FW2-NT
(Lake Kampfe) - Tributary within the boundaries of	FW2-NT(C1)

Ref. No. 5, p. 717

REFERENCE NO. 6

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

BEDROCK GEOLOGIC MAP OF NORTHERN NEW JERSEY

By Avery Ala Drake, Jr., Richard A. Volkert, Donald H. Monteverde, Gregory C. Herman, Hugh F. Houghton, Ronald A. Parker, and Richard F. Dalton

Prepared in cooperation with the
NEW JERSEY GEOLOGICAL SURVEY

MISCELLANEOUS INVESTIGATIONS SERIES
Published by the U.S. Geological Survey, 1996

ISBN 0-607-86641-1
9 780607 866414

Ref. No. 6, p. 1

joining. Lower part of the uppermost flow has pillow structures; upper part has pahoehoe flow structures. Tops and bottoms of flow layers are vesicular. Maximum thickness is about 182 m (597 ft)

JTRp
JTRpms
JTRps
JTRpsc
JTRpcq

Passaic Formation (Lower Jurassic and Upper Triassic) (Olsen, 1980)—Reddish-brown to brownish-purple and grayish-red siltstone and shale (JTRp) maximum thickness 3,600 m (11,810 ft). At places contains mapped sandy mudstone (JTRpms), sandstone (JTRps), conglomeratic sandstone (JTRpsc) and conglomerate containing clasts of quartzite (JTRpcq), or limestone (JTRpcl). Formation coarsens up section and to the southwest. Quartzite conglomerate unit (JTRpcq) is reddish-brown pebble conglomerate, pebbly sandstone, and sandstone in upward-fining sequences 1 to 2 m (3–6 ft) thick. Clasts are subangular to subrounded, quartz and quartzite in sandstone matrix. Sandstone is medium to coarse grained, feldspathic (up to 20 percent feldspar), and locally contains pebble and cobble layers. Conglomerate thickness exceeds 850 m (2,790 ft). Limestone conglomerate unit (JTRpcl) is a medium-bedded to massive, pebble to boulder conglomerate. Clasts are subangular dolomitic limestone in matrix of brownish- to purplish-red sandstone to mudstone; matrix weathers light gray to white near faults. Maximum thickness unknown.

Conglomeratic sandstone (JTRpsc) is brownish-red pebble conglomerate, medium- to coarse-grained feldspathic sandstone, and micaceous siltstone; unit is planar to low-angle trough cross laminated, burrowed, and contains local pebble layers. Unit forms upward-fining sequences 0.5 to 2.5 m (1.6–8 ft) thick. Conglomeratic sandstone thickness exceeds 800 m (2,625 ft). Sandstone (JTRps) is interbedded grayish-red to brownish-red, medium- to fine-grained, medium- to thick-bedded sandstone and brownish- to purplish-red, coarse-grained siltstone; unit is planar to ripple cross laminated, fissile, locally calcareous, contains desiccation cracks and root casts. Upward-fining cycles are 1.8 to 4.6 m (6–15 ft) thick. Sandstone beds are coarser and thicker near conglomerate units (JTRpcq, JTRpcl). Maximum thickness about 1,100 m (3,610 ft).

Sandy mudstone (JTRpms) is reddish-brown to brownish-red, massive, silty to sandy mudstone and siltstone, which are bioturbated, ripple cross laminated, and interbedded with lenticular sandstone. To southwest where similar lithologic units also occur, they have not been mapped separately, but have been included in undivided unit JTRp. Rhythmic cycles 2 to 7 m (7–23 ft) thick of gray-bed sequences (TRpg), termed Van Houten cycles by Olsen (1985), contain basal thin-bedded to finely laminated shale to siltstone, which grade upward through laminated to microlaminated, locally calcareous mudstone to siltstone and finally into massive silty mudstone. Lowest part of cycle has some desiccation features and local fossils; middle part has highest organic content and the most fossils; highest part contains mudcracks, burrows, and root casts. Gray-bed cycles are abundant in lower half of Passaic Formation and less common in upper half. Rocks of the Passaic Formation have been locally thermally metamorphosed to hornfels where in contact with the Orange Mountain Basalt, diabase dikes, and sheetlike intrusions. Total thickness of formation ranges from 3,500 to 3,600 m (11,480–11,810 ft)

TRl
TRlr
TRlcq

Lockatong Formation (Upper Triassic) (Kümmel, 1897)—Cyclically deposited sequences consisting of light- to dark-gray, greenish-gray, and black, dolomitic or analcime-bearing silty argillite, laminated mudstone, silty to calcareous, argillaceous, very fine grained pyritic sandstone and siltstone, and minor silty limestone (TRl). Grayish-red, grayish-purple, and dark-brownish-red sequences (TRlr) common in upper half. Two types of cycles are recognized: detrital and chemical. Detrital cycles average 5.2 m (17 ft) thick and consist of basal, argillaceous, very fine grained sandstone to coarse siltstone; medial, dark-gray to black, laminated siltstone, silty mudstone, or silty limestone; and upper, light- to dark-gray, silty to dolomitic or analcime-rich mudstone, argillitic siltstone, or very fine grained sandstone. Chemical cycles are similar to detrital cycles, but thinner, averaging 3.2 m (10.5 ft). Cycles in northern Newark basin are thinner and have arkosic sandstone in lower and upper parts. Upper part of formation in northern basin composed mostly of light-gray to light-pinkish-gray or light-brown, coarse- to fine-grained, thick- to massive-bedded arkosic sandstone (TRla) . Thermally metamorphosed into hornfels where intruded by diabase (Jd). Interfingers laterally and gradationally with quartz sandstone and conglomerate (TRls) and quartzite conglomerate (TRlcq) near Triassic border fault in southwestern area

iferous sandstone and pebbl
are interbedded with siltston
Formation and contain well-s
white quartz pebbles less thar
tional. About 14 m (46 ft) thi

Esopus Formation (Vanuxem,
laminated to thin-bedded silt
mudstone, dusky-blue sandst
iferous siltstone and sandsto
with the Connelly Conglomer
thick at Greenwood Lake anc
wood Valley

Connelly Conglomerate (Cha
very light gray to yellowish-gr
ate. Quartz pebbles average 1
well rounded, and well sort
Berkshire Valley Formation. A

Berkshire Valley and Poxonc
Silurian)—Thickness ranges f
122 m (400 ft) in Longwood

Berkshire Valley Formation (B
weathering, medium-gray to p
iferous limestone interbedde
siltstone and silty dolomite, me
erate, and grayish-black, think
able. Thickness ranges from 2

Poxono Island Formation (W
medium-bedded sequence of
gray, mud-cracked dolomite;
eous sandstone, siltstone, an
dolomite; and quartz-pebble c
gular pebbles as much as 2 cn
shales at lower contact are tra
Thickness ranges from 49 to 8

Longwood Shale (Upper and
reddish-brown, thin- to very th
bedded, very dark red, very th
Lower contact conformable. A

Sg

Green Pond Conglomerate (
1836)—Medium- to coarse-gra
itic arkose and orthoquartzite,
siltstone. Grades downward in
medium- to coarse-grained, thi
conglomerate containing clas
yellowish-gray sandstone and
white-gray and pink milky quar
in.), and rare red shale clasts a
quartz pebbles average 2.5 c
pebble conglomerate and qua
grayish-green quartzite. Uncon
Allentown Dolomite, Leithsvill
305 m (1,000 ft) thick

Om

Martinsburg Formation (Uppe
gray-weathering, light-olive- t
thin, discontinuous silty lense
Reservoir fault north of Bowli
man and Mitchell, 1991). Con

O€a

Allentown Dolomite (Lower Ord
1909)—Medium- to very light g
very thick bedded dolomite c
Oolites and algal stromatolites
increases downward towards lc
ville Formation. Unit does not
borings near Flanders (Volkert
0 to 73 m (0–240 ft) due to er

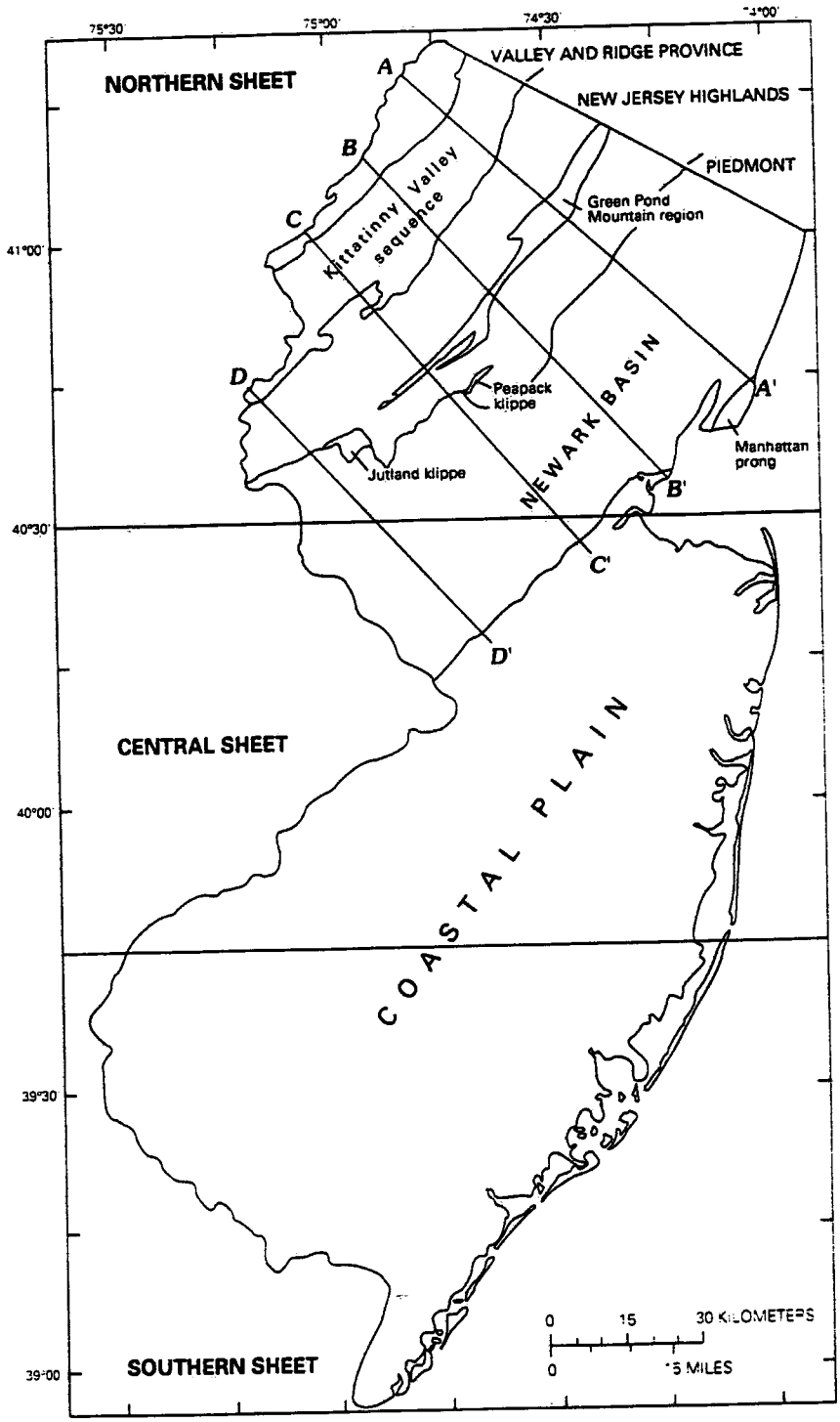
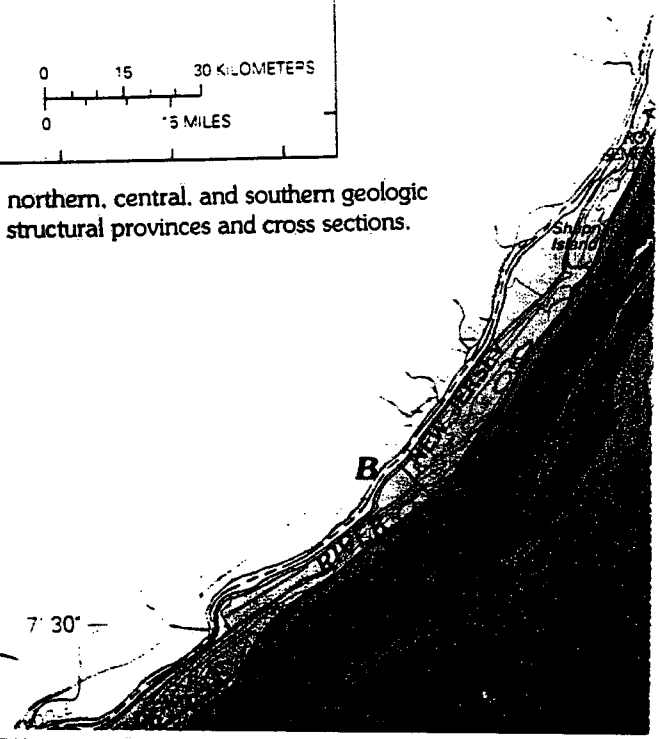
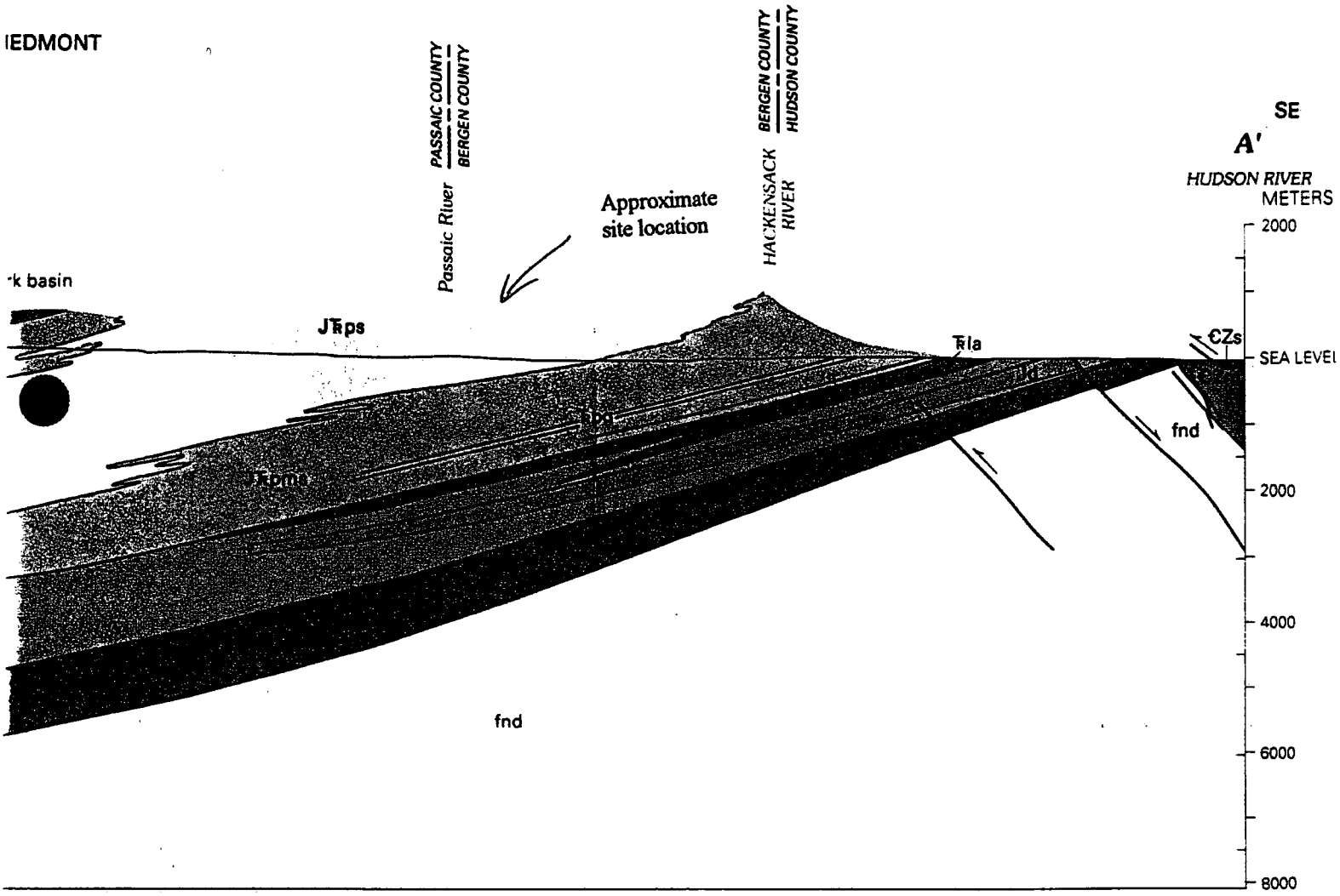


Figure 1.— Index map showing the location of the northern, central, and southern geologic map sheets of New Jersey: the physiographic and structural provinces and cross sections.



Ref. No. 6, p. 2

Approximate site location
Upper Saddle River
Ramsey
Allendale
Woodcliff Lake
Wyckoff
Waldwick
Midland Park
Ridgewood
Hillsdale
River Vale
Old Tappan
Harrington Park
Norwood
Emerson
Closter
Oradell
Haworth
Paramus
Dumont
New Milford
River Edge
Bergenfield
Fair Lawn
PATERSON
Elmwood Park
Saddle Brook
Teaneck
Hackensack
Clifton
Garfield
Lodi
Bogota
PASSAIC
Hasbrouck Heights
Ridgefield Park
Wallington
Wood-Ridge
Carlstadt
East Rutherford
Nutley
Rutherford
Lyndhurst
Belleville
Little Ferry
RIVERVALE TOWNSHIP
BERGEN CO
NEW JERSEY
NEW YORK



Ref. No. 6, p. 4

SE
B'
METERS
2000

REFERENCE NO. 7

FROST ASSOCIATES

88 Founders Village, Clinton, CT 06413
(860) 669-5859 FAX (860) 669-5869

March 7, 2000

To: Roy F. Weston Inc - Region II START
1090 King Georges Post Road, Suite 201
Edison, NJ

Attn: Harry Allen

Fr: Frost Associates
Founders Village
Clinton, Conn 06413

Tel: (203) 669-5859
Fax: (860) 669-5859

Sub: Synkote Paint
Elmwood Park, NJ

CERCLIS:

Job: 6530

Site Longitude: 74-06-59 74.116386
Site Latitude : 40-54-11 40.903061

The CENTRACTS report below identifies the population, households, and private water wells of each Block Group that lies within, or partially within, the 4, 3, 2, 1, .5, and .25, mile "rings" of the latitude and longitude coordinates above. A CENTRACTS report may have up to six radii of any length and 1500 block groups.

CENTRACTS uses the 1990 Block Group population and Block Group house count data found in the Census Bureau's 1990 STF-1A files. The sources of water supply data are from The Bureau's 1990 STF-3A files. The boundary line coordinates of the Block Groups were extracted from the Census Bureau's 1990 TIGER/Line Files.

CENTRACTS reports are created with programs written by Frost Associates, 88 Founders Village, Clinton Conn 06413. The code was written using Microsoft's Quick-Basic Ver. 4.5.

Latitude and Longitude coordinates identifying a site are entered in degrees and decimal degrees. One or more county files holding Block Group boundary lines are selected for use by CENTRACTS by determining whether the site coordinates fall within the minimum and maximum Lat\Lon coordinates of each county in the state.

Each Block Group line segment has Lat\Lon coordinates representing the "From" and "To" ends of that line. All coordinates from the selected county files are read and converted from degrees, decimal degrees to X\Y miles from the site location. Each line segment is then examined whether it lies within or partially within the maximum ring from the site.

The unique Block Group ID numbers of each line segment that lie within the maximum ring are retained. All Block Group boundary lines matching the Block Group numbers are then extracted from the respective county files to obtain all sides of the included Block Groups. Boundary records are then sorted in adjacent side order to determine the shape and area of each Block Group polygon.

A method to solve for the area of a polygon is to take one-half the sum of the products obtained by multiplying each X-coordinate by the difference between the adjacent Y-coordinates. For a polygon with coordinates at adjacent angles A, B, C, D, and E. The formula can be expressed:

Area = 1/2{Xa(Ye-Yb)+ Xb(Ya-Yb)+ Xc(Yb-Yd)+ Xd(Yc-Ye)+ Xe(Yd-Ya)}

For each ring, the selected Block Groups will be inside, outside, or intersected by the ring. When a polygon is intersected, the partial Block Group area within that ring is calculated using the method described below.

When a ring intersects a Block Group, the intersect points are solved and plotted at the points where the ring enters and exits the shape. The chord line, a line within the circle connecting the intersect points is determined. This chord line is used to calculate the segment area, the half moon shape between the chord line and the ring, and the sub-polygon created by the chord line and the Block Group boundaries that lie outside the ring.

The segment area is subtracted from the sub-polygon area to determine the area of the sub-polygon outside the ring. The area outside the ring is then subtracted from the area of the entire polygon to arrive at the inside area. This inside area is then divided by the tract's total area to determine the percentage of area within the ring. This process is repeated for each block group that is intersected by one of the rings. The total area, partial area, and percentage of partial area of those block groups within, or partially within a ring, are held in memory for the report.

On occasion, the algorithm described above is unable to determine the area of the partial area. Within the report program is a "Paint" routine which allows an enclosed shape to be highlighted. Another routine calculates the percentage of highlighted screen pixels to the pixels within the polygon. A manual entry is allowed. Both the "paint" method and manual entry method over ride the calculated method.

CENTRACTS lists, starting on page 4, all Block Groups in State, County, Census Tract, and Block Group ID order that lie within, or partially within, the maximum ring. Each Block Group is identified by a City or Town name and by the Block Group's State, County, Tract and Block Group ID number. Following is the Block Group's 1990 populu tion and house count extracted from the Census Bureau's 1990 STF-1A files.

The next four columns display water source data from the 1990 STF-3A files. The first column is "Units with Public system or private company source of water", followed by "Units with individual well, Drilled, source of water"; "Units with individual well, Dug, source of water" and "Units with Other source of water".

For each ring, CENTRACTS then shows the Block Groups that are within that ring, the Block Group's total area in square miles, the partial area of the Block Group within that ring, and the partial percentage within the ring. The areas of the included Block Group and the partial areas are then totaled.

The last section tallies the demographic data within each ring. The percentage of area for each Block Group is multiplied times the census data for that Block Group and totaled for all Block Group's within the ring. Ring totals are then determined by subtracting the three mile data from the four mile, the two mile from the three mile, one from the two, etc... Population on private wells is calculated using the formula: ((Drilled + Dug Wells) / Households) * Population

Ref. No. 7, p. 2/4

Synkote Paint
Elmwood Park, NJ

Site Data

Population:	453178.16
Households:	171107.84
Drilled Wells:	479.03
Dug Wells:	27.96
Other Water Sources:	223.96

Partial (RING) data

Within Ring: 4 Mile(s) and 3 Mile(s)

Population:	170236.47 ←
Households:	67177.12
Drilled Wells:	228.73
Dug Wells:	8.96
Other Water Sources:	97.48

** Population On Private Wells: 602.33

Within Ring: 3 Mile(s) and 2 Mile(s)

Population:	179860.66 ←
Households:	64251.18
Drilled Wells:	203.76
Dug Wells:	19.00
Other Water Sources:	91.97

** Population On Private Wells: 623.57

Within Ring: 2 Mile(s) and 1 Mile(s)

Population:	84347.74 ←
Households:	32352.90
Drilled Wells:	46.54
Dug Wells:	0.00
Other Water Sources:	34.50

** Population On Private Wells: 121.34

Within Ring: 1 Mile(s) and .5 Mile(s)

Population:	14662.22 ←
Households:	5716.60
Drilled Wells:	0.00
Dug Wells:	0.00
Other Water Sources:	0.00

** Population On Private Wells: 0.00

Ref. No. 7, p. 3/4

Synkote Paint
Elmwood Park, NJ

---- Within Ring: .5 Mile(s) and .25 Mile(s) ----

Population:	3211.88 ←
Households:	1270.48
Drilled Wells:	0.00
Dug Wells:	0.00
Other Water Sources:	0.00

** Population On Private Wells: 0.00

---- Within Ring: .25 Mile(s) and 0 Mile(s) ----

Population:	859.18 ←
Households:	339.57
Drilled Wells:	0.00
Dug Wells:	0.00
Other Water Sources:	0.00

** Population On Private Wells: 0.00

** Total Population On Private Wells: 1347.24

Ref. No. 7, p. 4/4

REFERENCE NO. 8

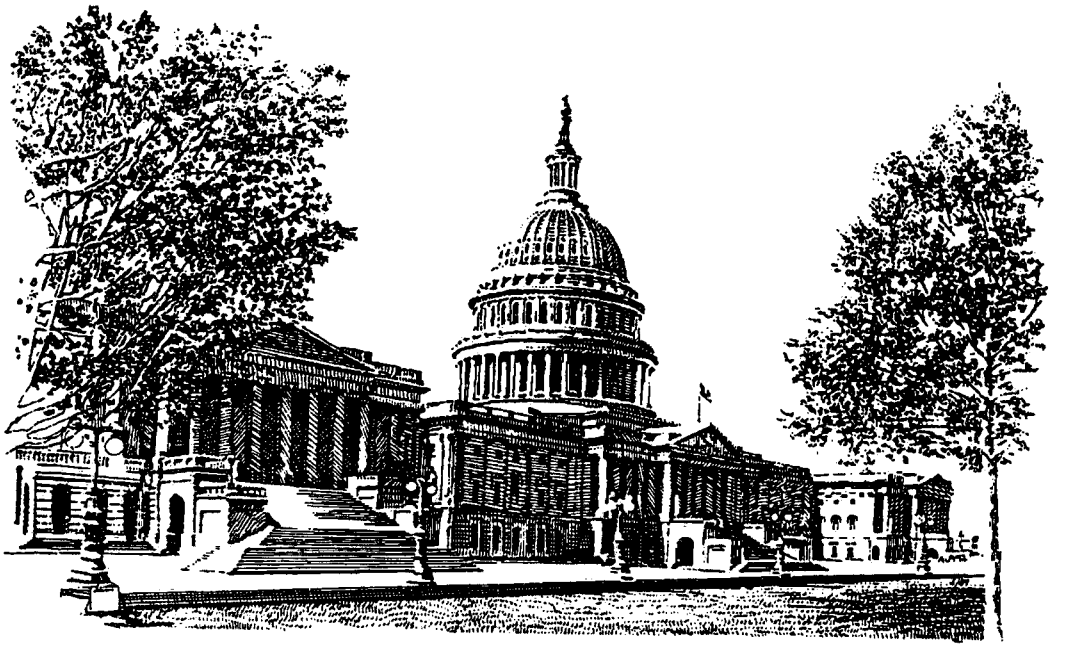
Volume 2

New Jersey - Wyoming,
American Samoa, Guam, Puerto Rico,
and Virgin Islands of the United States

Congressional District Atlas

103rd Congress of the United States

Issued February 1993



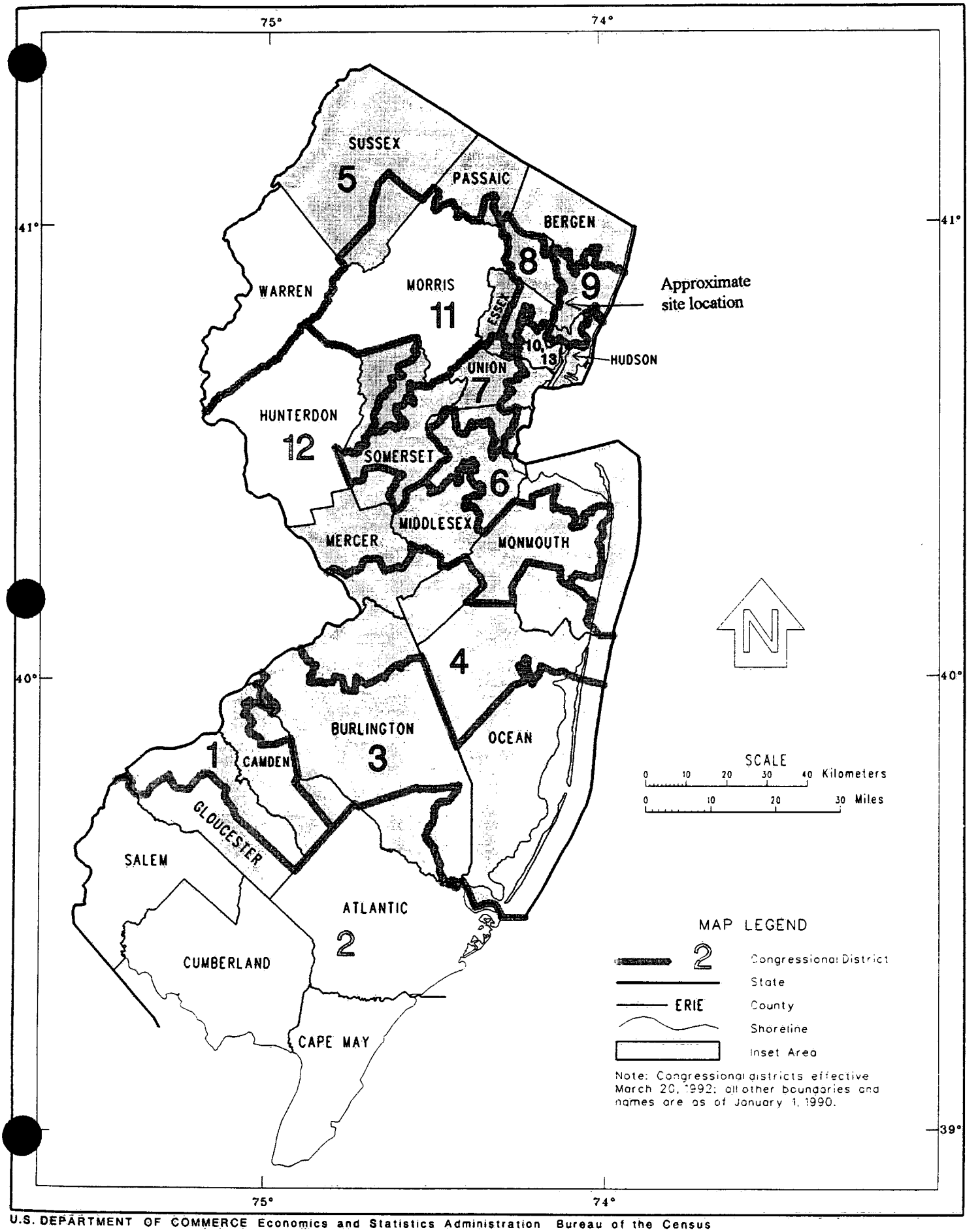
U.S. Department of Commerce
Ronald H. Brown, Secretary
John Rollwagen, Deputy Secretary

Economics and Statistics Administration
Jeffrey Mayer, Acting Under Secretary

BUREAU OF THE CENSUS
Harry A. Scarr, Acting Director

Ref. No. 8, p. 1/4

Congressional Districts (13 Districts)



U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration Bureau of the Census

CONGRESSIONAL DISTRICT ATLAS

NEW JERSEY-1

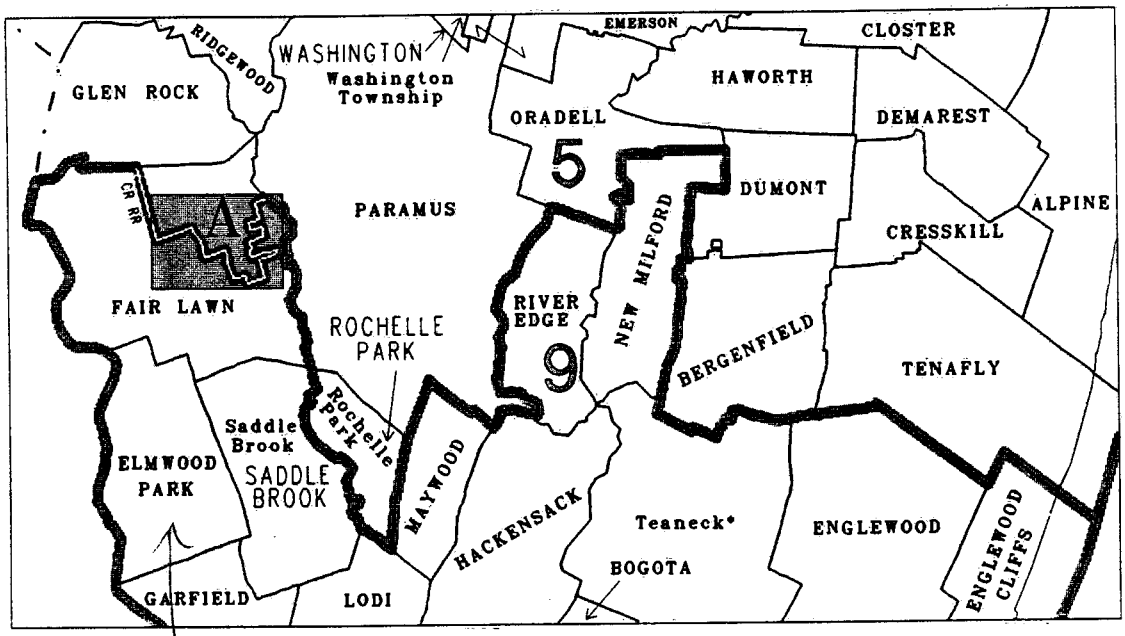
Ref. No. 8, p. 2/4

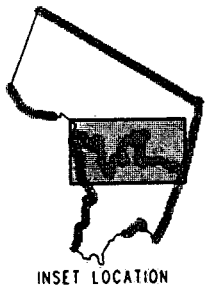
Congressional District Inset Map Legend

	2	Congressional District
		State
		County
	CAMPO	American Indian Reservation
	Kaw	Tribal Designated Statistical Area
	YORK	County Subdivision
	ROME	Incorporated Place
	Zena	Census Designated Place
	Lake Erie	Large River, Lake, or Water Body
	Main St	Feature
	A	Inset Area
*		An asterisk following a place name indicates that the place is coextensive with a county subdivision. The county subdivision name is shown only when it differs from the place name.
		A fishhook joins contiguous and/or discontiguous parts of the same geographic entity.

Note: Congressional districts effective March 20, 1992; all other boundaries and names are as of January 1, 1990. Where State, county, and/or county subdivision boundaries coincide, the map shows the boundary symbol for only the highest-ranking of these geographic entities. Where a State, county, and/or county subdivision boundary coincides with the boundary of an American Indian area or a place, the map does not show the boundary symbol for the American Indian area or the place.

BERGEN COUNTY (PART)

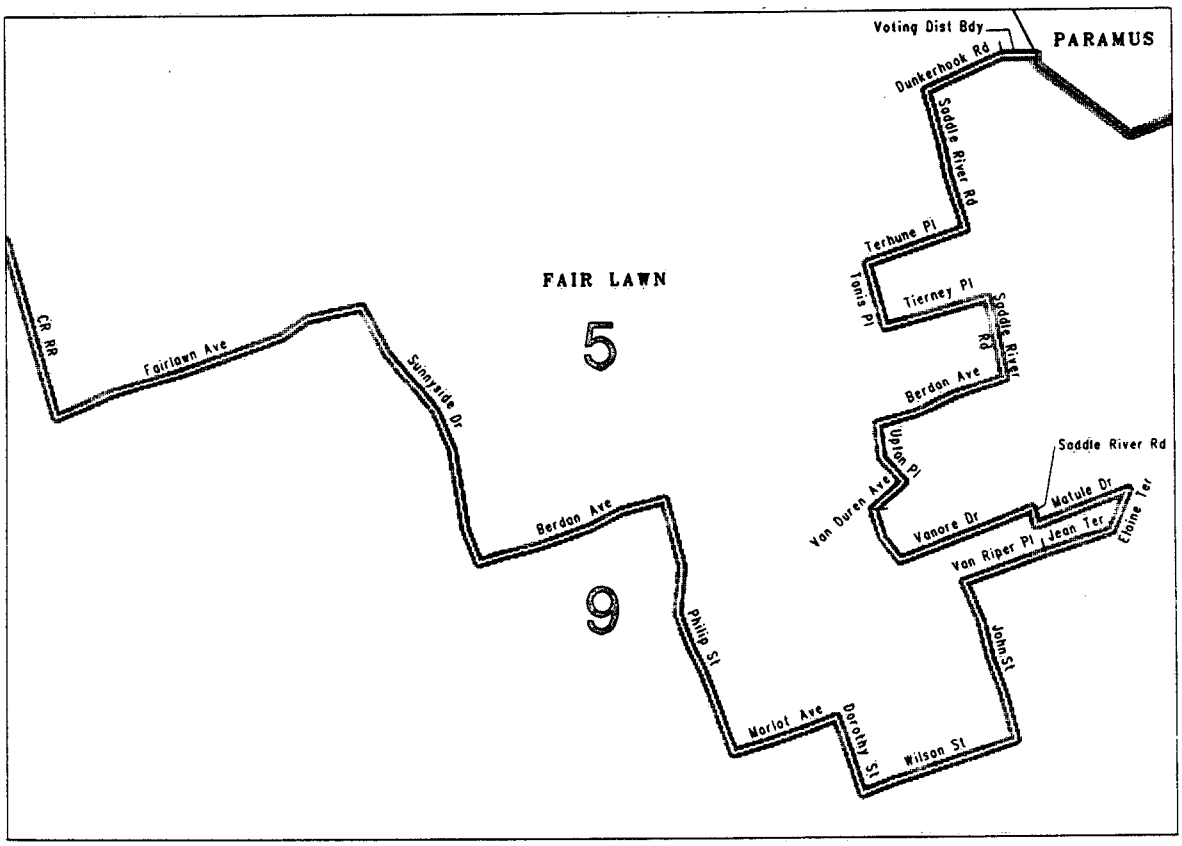




Approximate site location

SCALE
0 1 2 3 4 Kilometers
0 1 2 3 Miles

INSET A



SCALE
0 500 Meters
0 500 1000 1500 2000 Feet

Ref. No. 8. p. 4/4

REFERENCE NO. 9

NJSDC 1990 Census Publication

Housing Units and Household Population

New Jersey, Counties and Municipalities

1990

April 1991

$5.00

Ref. No. 9, p. 1/4

NJSDC-PH90-2

NJSDC 1990 CENSUS PUBLICATION

HOUSING UNITS AND HOUSEHOLD POPULATION NEW JERSEY, COUNTIES AND MUNICIPALITIES: 1990

State of New Jersey
Jim Florio, Governor

Department of Labor
Raymond L. Bramucci, Commissioner

Division of Labor Market and Demographic Research
New Jersey State Data Center
CN 388
Trenton, New Jersey 08625-0388

March 1991

Ref. No. 9, p2/1

Table 2. Housing Units, Households, and Persons in Households and Group Quarters: 1990 (Cont.)
New Jersey Municipalities by Counties

The population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.

BERGEN County Municipalities	(1) Total Housing Units	(2) Vacant Housing Units	(3) Total Persons	(4) Persons in Group Quarters	(5) Total Households (1)-(2)	(6) Persons in Households (3)-(4)	(7) Persons per Household (6)/(5)
Hasbrouck Heights borough	4,510	147	11,488	0	4,363	11,488	2.63
Haworth borough	1,142	19	3,384	0	1,123	3,384	3.01
Hillsdale borough	3,422	96	9,750	0	3,326	9,750	2.93
Ho-Ho-Kus borough	1,448	71	3,935	0	1,377	3,935	2.86
Leonia borough	3,337	121	8,365	4	3,216	8,361	2.60
Little Ferry borough	4,427	333	9,989	0	4,094	9,989	2.44
Lodi borough	9,472	504	22,355	161	8,968	22,194	2.47
Lyndhurst township	7,741	578	18,262	0	7,163	18,262	2.55
Mahwah township	7,249	449	17,905	889	6,800	17,016	2.50
Maywood borough	3,778	81	9,473	0	3,697	9,473	2.56
Midland Park borough	2,615	84	7,047	0	2,531	7,047	2.78
Montvale borough	2,439	62	6,946	9	2,377	6,937	2.92
Moonachie borough	1,117	33	2,817	0	1,084	2,817	2.60
New Milford borough	6,353	187	15,990	233	6,166	15,757	2.56
North Arlington borough	6,406	752	13,790	24	5,654	13,766	2.43
Northvale borough	1,556	47	4,563	0	1,509	4,563	3.02
Norwood borough	1,608	70	4,858	87	1,538	4,771	3.10
Oakland borough	4,019	112	11,997	273	3,907	11,724	3.00
Old Tappan borough	1,355	52	4,254	43	1,303	4,211	3.23
Oradell borough	2,836	69	8,024	21	2,767	8,003	2.89
Palisades Park borough	6,049	272	14,536	0	5,777	14,536	2.52
Paramus borough	7,892	116	25,067	1,191	7,776	23,876	3.07
Park Ridge borough	3,063	130	8,102	0	2,933	8,102	2.76
Ramsey borough	4,960	307	13,228	30	4,653	13,198	2.84
Ridgefield borough	4,106	223	9,996	0	3,883	9,996	2.57
Ridgefield Park village	5,126	159	12,454	0	4,967	12,454	2.51

continued ...

Ref. No. 9, p. 3/4

Table 2. Housing Units, Households, and Persons in Households and Group Quarters: 1990 (Cont.)
New Jersey Municipalities by Counties

The population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.

BERGEN County Municipalities	(1) Total Housing Units	(2) Vacant Housing Units	(3) Total Persons	(4) Persons in Group Quarters	(5) Total Households (1)-(2)	(6) Persons in Households (3)-(4)	(7) Persons per Household (6)/(5)
BERGEN COUNTY	324,817	15,937	825,380	9,150	308,880	816,230	2.64
Allendale borough	1,915	56	5,900	191	1,859	5,709	3.07
Alpine borough	582	48	1,716	0	534	1,716	3.21
Bergenfield borough	9,035	236	24,458	41	8,799	24,417	2.77
Bogota borough	2,844	67	7,824	13	2,777	7,811	2.81
Carlstadt borough	2,449	257	5,510	4	2,192	5,506	2.51
Cliffside Park borough	9,809	1,030	20,393	13	8,779	20,380	2.32
Closter borough	2,767	98	8,094	49	2,669	8,045	3.01
Cresskill borough	2,600	63	7,558	82	2,537	7,476	2.95
Demarest borough	1,610	39	4,800	22	1,571	4,778	3.04
Dumont borough	6,328	151	17,187	1	6,177	17,186	2.78
East Rutherford borough	3,817	551	7,902	196	3,266	7,706	2.36
Edgewater borough	2,827	467	5,001	8	2,360	4,993	2.12
Elmwood Park borough	6,940	183	17,623	0	6,757	17,623	2.61
Emerson borough	2,257	40	6,930	249	2,217	6,681	3.01
Englewood city	9,411	440	24,850	215	8,971	24,635	2.75
Englewood Cliffs borough	1,879	46	5,634	85	1,833	5,549	3.03
Fair Lawn borough	11,759	266	30,548	156	11,493	30,392	2.64
Fairview borough	4,686	407	10,733	0	4,279	10,733	2.51
Fort Lee borough	16,847	1,611	31,997	2	15,236	31,995	2.10
Franklin Lakes borough	3,171	109	9,873	0	3,062	9,873	3.22
Garfield city	11,458	512	26,727	1	10,946	26,726	2.44
Glen Rock borough	3,963	112	10,883	0	3,851	10,883	2.83
Hackensack city	17,705	1,241	37,049	1,429	16,464	35,620	2.16
Harrington Park borough	1,511	35	4,623	0	1,476	4,623	3.13

continued ...

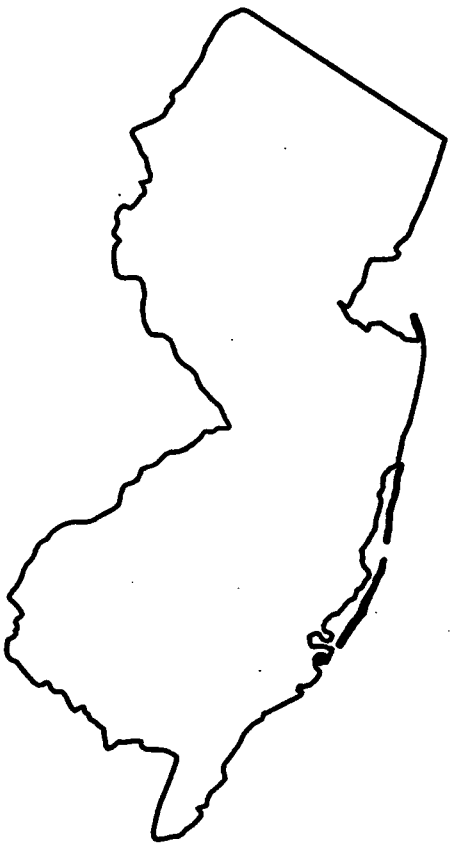
Ref. No. 1, p. 41

REFERENCE NO. 10

Water Resources Data
New Jersey
Water Year 1996

Volume 1. Surface-Water Data

by T.J. Reed, G.L. Centinaro, M.J. DeLuca, J.T. Hutchinson, and J. Scudder



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-96-1
Prepared in cooperation with the New Jersey Department
of Environmental Protection and with other agencies

Ref. No. 10, p. 1/4

01390500 SADDLE RIVER AT RIDGEWOOD, NJ

LOCATION.--Lat 40°59'05", long 74°05'30", Bergen County, Hydrologic Unit 02030103, on left bank 15 ft upstream from bridge on State Highway 17 in Ridgewood and 2.8 mi upstream from Hohokus Brook.

DRAINAGE AREA.--21.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1954 to September 1974, October 1977 to current year. Operated as a maximum-stage gage water years 1975-77.

REVISED RECORDS.--WRD-NJ 1974: 1971.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 71.74 ft above sea level (levels from New Jersey Geological Survey bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor. The flow past this station is affected by pumpage from wells by United Water New Jersey and others. Several measurements of water temperature were made during the year. Satellite telemeter at station.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of July 23, 1945, reached a discharge of 6,400 ft^3/s, at site 1.6 mi upstream, drainage area, 19.1 mi^2, by slope-area measurement.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 6	0415	520	4.28	Apr. 2	0245	421	3.94
Oct. 21	1700	429	3.97	Apr. 16	0915	786	5.09
Oct. 28	1030	928	5.47	June 3	2200	590	4.50
Nov. 12	0530	936	5.49	July 3	2100	421	3.94
Jan. 19	2000	*1,160	*6.05	July 13	1200	676	4.77
Jan. 27	1615	871	5.32				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.5	19	19	12	52	38	49	75	18	39	24	6.5
2	e1.5	66	19	13	49	40	172	46	16	18	19	6.3
3	e2.0	36	18	15	48	39	60	45	169	82	51	5.9
4	e1.5	26	18	14	44	35	51	46	124	46	23	5.6
5	59	21	17	26	44	38	47	40	64	22	19	5.5
6	215	20	22	14	46	102	44	48	31	17	17	6.3
7	41	36	18	16	e43	91	54	41	26	15	14	9.3
8	23	55	17	30	36	62	77	38	22	70	14	10
9	14	25	18	36	47	52	53	36	20	78	16	8.1
10	11	20	18	23	47	44	84	49	20	25	16	7.4
11	8.4	57	17	17	50	45	57	58	24	19	13	7.5
12	6.6	364	25	22	43	50	50	111	26	17	12	7.6
13	6.1	57	18	35	34	58	63	47	23	362	16	12
14	14	78	15	29	33	59	49	39	27	74	14	18
15	97	116	15	24	31	60	46	36	19	54	12	8.2
16	25	46	17	18	30	62	392	76	17	63	11	6.8
17	18	37	17	15	30	47	109	68	16	32	13	73
18	16	33	16	15	28	44	73	45	17	27	10	86
19	15	35	15	450	26	49	62	41	22	28	9.4	20
20	14	30	17	162	46	128	58	37	28	25	9.4	13
21	134	28	17	64	175	57	55	34	21	21	9.2	10
22	64	25	15	49	85	48	51	33	17	20	8.7	24
23	27	23	14	43	63	42	50	30	19	24	12	20
24	20	22	14	152	99	39	52	28	15	22	16	11
25	18	21	14	104	59	38	45	26	16	20	13	11
26	17	21	14	53	50	37	45	25	13	26	9.2	9.2
27	17	20	14	362	45	34	42	27	12	19	8.6	8.2
28	317	20	13	144	49	34	38	25	15	17	8.3	8.3
29	49	20	12	77	41	43	70	24	12	16	7.8	41
30	27	19	12	68	---	43	71	21	42	17	7.4	12
31	20	---	12	61	---	42	---	19	---	35	6.8	---
TOTAL	1299.6	1396	507	2163	1473	1600	2169	1314	911	1350	439.8	477.7
MEAN	41.9	46.5	16.4	69.8	50.8	51.6	72.3	42.4	30.4	43.5	14.2	15.9
MAX	317	364	25	450	175	128	392	111	169	362	51	86
MIN	1.5	19	12	12	26	34	38	19	12	15	6.8	5.5
CFSM	1.94	2.15	.76	3.23	2.35	2.39	3.35	1.96	1.41	2.02	.66	.74
IN.	2.24	2.40	.87	3.73	2.54	2.76	3.74	2.26	1.57	2.32	.76	.82

Ref. No. 10, p. 2/4

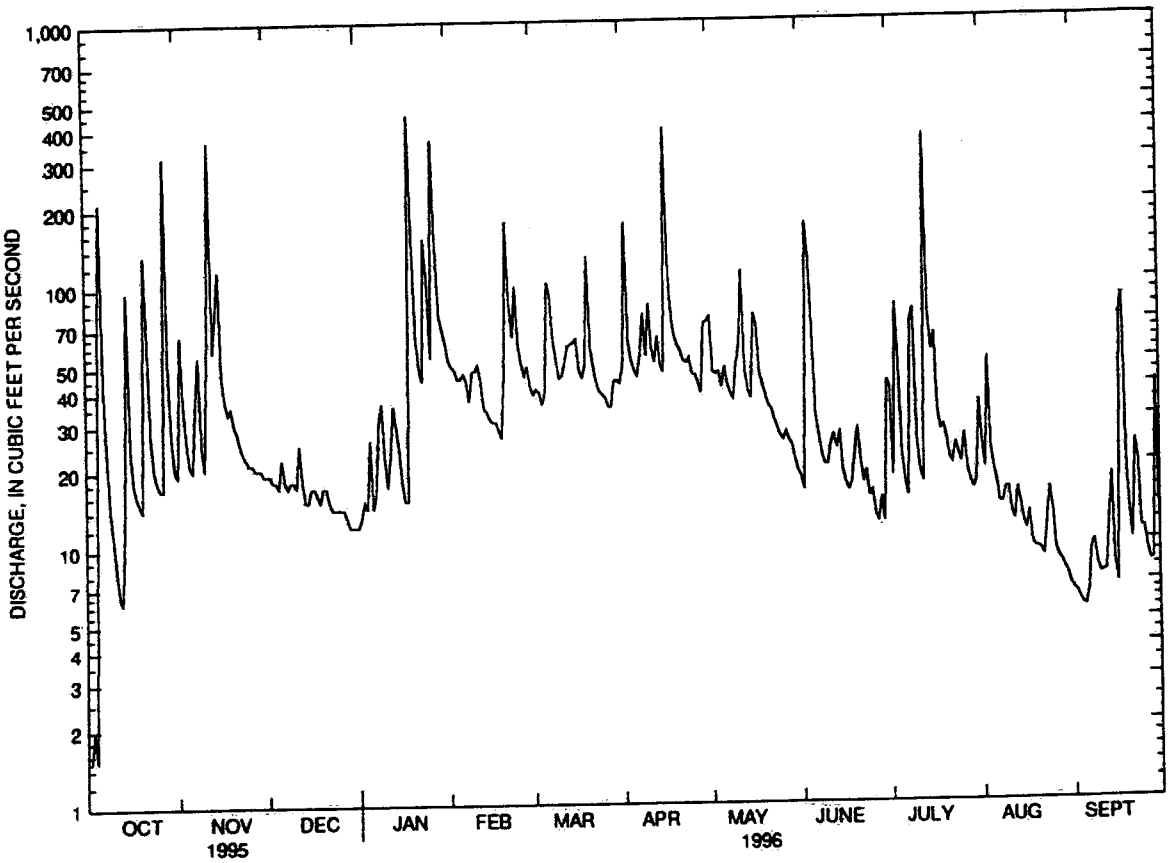
01390500 SADDLE RIVER AT RIDGEWOOD, NJ--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1996, BY WATER YEAR (WY)

MEAN	22.1	34.6	35.8	36.6	40.6	55.2	59.1	42.8	27.5	20.8	19.6	18.0
MAX	104	109	109	115	86.9	104	152	118	121	87.6	77.1	70.6
(WY)	1956	1978	1973	1979	1961	1983	1983	1989	1972	1984	1955	1971
MIN	5.79	8.41	7.49	6.43	11.8	15.6	11.0	12.4	7.46	3.23	2.69	2.34
(WY)	1983	1982	1981	1981	1980	1985	1985	1995	1965	1966	1995	1980

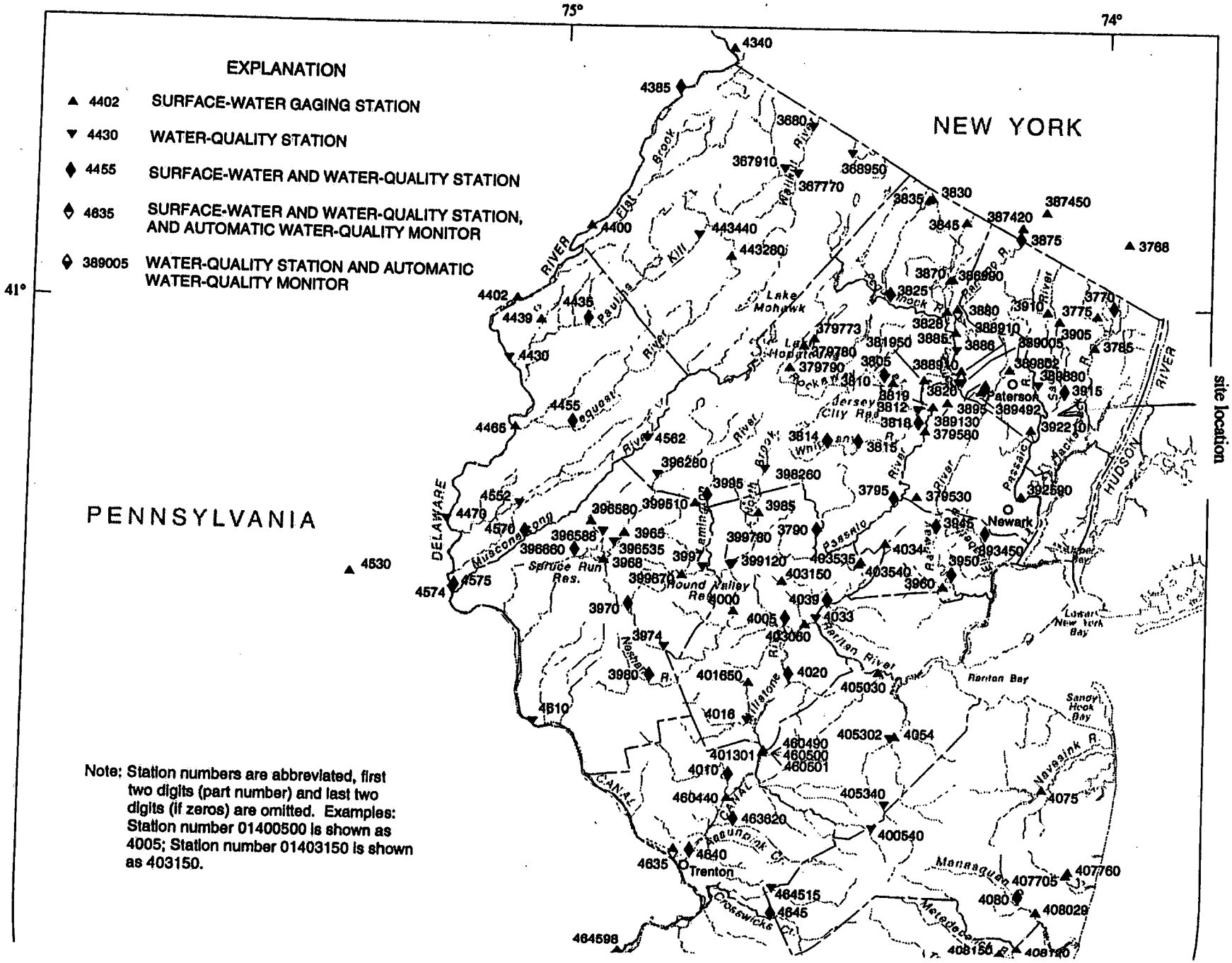
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1955 - 1996	
ANNUAL TOTAL	7022.27		15100.1			
ANNUAL MEAN	19.2		41.3		34.3	
HIGHEST ANNUAL MEAN					58.7	1984
LOWEST ANNUAL MEAN					14.7	1995
HIGHEST DAILY MEAN	364	Nov 12	450	Jan 19	1250	Nov 8 1977
LOWEST DAILY MEAN	.50	Sep 15	1.5	Oct 1	.20	Sep 17 1966
ANNUAL SEVEN-DAY MINIMUM	.75	Sep 10	6.1	Aug 31	.75	Sep 10 1995
INSTANTANEOUS PEAK FLOW			1160	Jan 19	4650	Nov 8 1977
INSTANTANEOUS PEAK STAGE			6.05	Jan 19	12.25	Nov 8 1977
INSTANTANEOUS LOW FLOW			---		vb ---	
ANNUAL RUNOFF (CFSM)	.89		1.91		1.59	
ANNUAL RUNOFF (INCHES)	12.09		26.01		21.60	
10 PERCENT EXCEEDS	31		73		68	
50 PERCENT EXCEEDS	14		26		22	
90 PERCENT EXCEEDS	1.8		11		6.8	

e Estimated.



_____ 01390500 SADDLE RIVER AT RIDGEWOOD, NJ, DAILY MEAN DISCHARGE

Ref No. 10, p. 3/4



Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01400500 is shown as 4005; Station number 01403150 is shown as 403150.

Ref. No. 10, p. 41

REFERENCE NO. 11

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		PROJECT NOTE
To: Synkote Paint site file	DATE: 3/20/00	Page 1 of 1
FROM: Harry Allen		
SUBJECT: Synkote Paint Site: Groundwater Population Information		
REFERENCE: N/A		

On 1 March 2000 START members G. Gilliland and H. Allen visited the Ridgewood Water Department. START spoke with William Mowell, engineer for the department. Mr. Mowell stated that Ridgewood Water Department serves the communities of Ridgewood, Glen Rock, Wyckoff, and Midland Park. The total population served is approximately 60,000 persons. Water is distributed by a blended system that consists of 53 active wells. No single well serves more than 40% of the total population. A population of approximately 1,130 persons has been apportioned to each of the Ridgewood wells.

On 7 March 2000, START member Gilliland visited the Fair Lawn Water Department. Gilliland spoke with Ken Garrison, Town Engineer on this date. Mr. Garrison reported that Fair Lawn has a blended system consisting of 16 wells, most of which have treatment systems for VOCs. The wells provide approximately equal amounts of water to the system. Fair Lawn also buys water from the Passaic Valley Water Commission (PVWC), and United Water Normally, 60% of the supply comes from the Fair Lawn wells collectively, 30% from PVWC, and 10% from United Water; however, the percentages from the other water companies increases in the summertime. Fair Lawn doesn't sell water to any other suppliers. Gilliland obtained a copy of the 1999 system pumpage report. The report stated that 43.5% of the total came from PVWC wells. Based on this report, approximately 46.5% of the total population is provided with water from the Fair Lawn wells. The total population served by Fair Lawn Water Department is approximately 30,548 persons. Approximately 14,205 persons are served by the Fair Lawn wells. Approximately 885 persons will be apportioned to each of the wells.

Ref. No. 11

REFERENCE NO. 12

U.S. DEPARTMENT OF COMMERCE
LUTHER H. HODGES, Secretary

WEATHER BUR
F. W. REICHELDERFER,

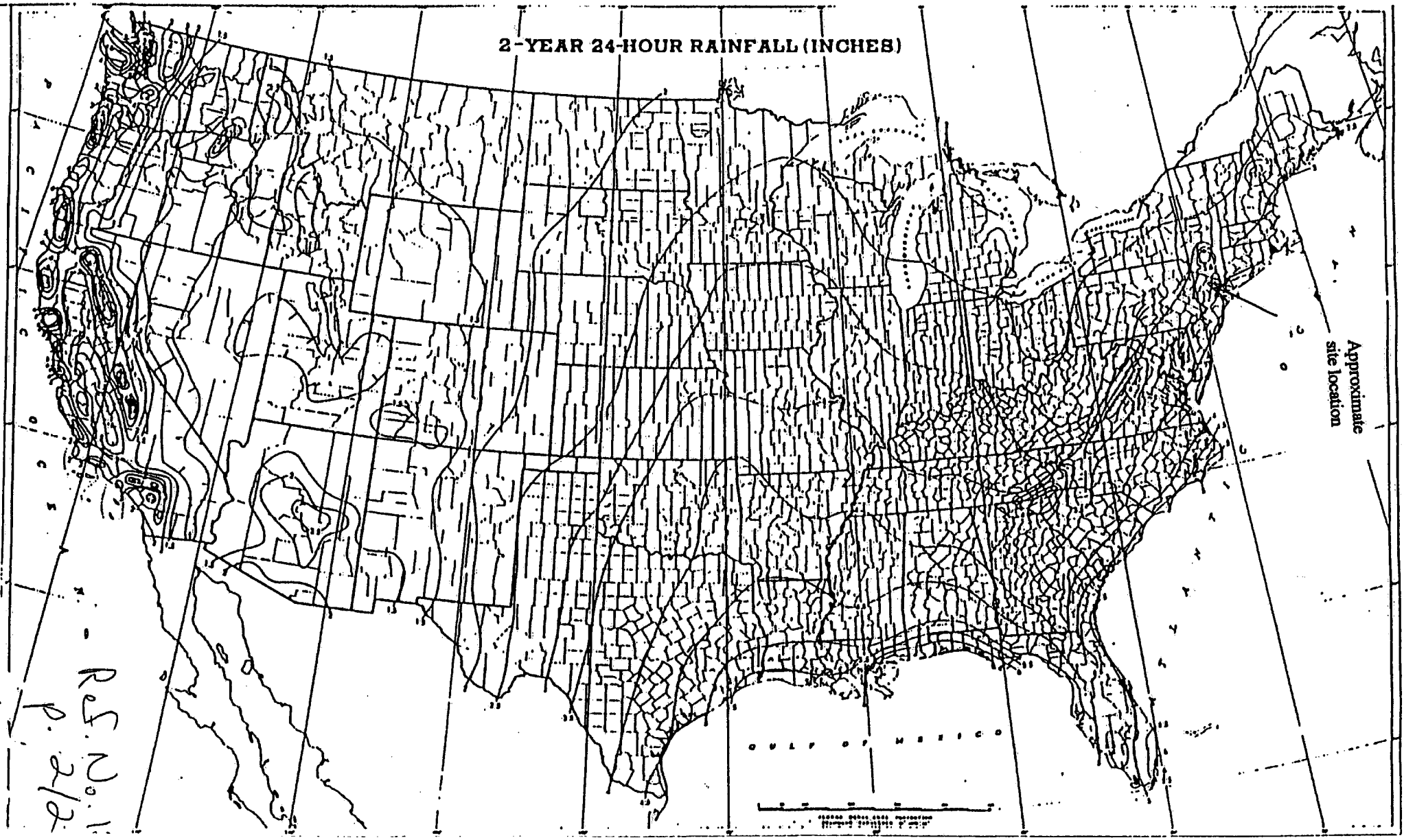
TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years

Prepared by
DAVID M. HERSHFIELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture

Ref. No. 12, p. 1/2


2-YEAR 24-HOUR RAINFALL (INCHES)
Approximate site location
GULF OF MEXICO

Ref. No. 1
p. 212

REFERENCE NO. 13

TDD No. 02-00-00-000
CONTRACT No. 68-W5

Figure 4
Fifteen Mile Surface Wate
Synkote Paint Sit
Elmwood Park, N

LEGEND

- Site Location
  - -Longitude: -74 06
  - -Latitude: 40 54 1
- Surface Water Pathw Mile Marker
- Fifteen Mile Surface Water Pathway
- HRS Eligible Wetlan
- HRS Ineligible Wetla

N W E S

Scale in Feet

3000 0

SOURCE: USGS 7.5 Minute Series (Topograp Paterson, NJ 1955, photorevised 1981; Hack photorevised 1981; Weehawken, NJ NY 1967 Orange, NJ 1955 photorevised 1981; Elizabe photorevised 1981

Date: 6/14/00

WESTON
MANAGERS DESIGNERS/CONSULTANTS

REFERENCE NO. 14

12-14-90
Vol. 55 No. 241

federal register

Friday
December 14, 1990

Book 2

United States
Government
Printing Office
SUPERINTENDENT
OF DOCUMENTS
Washington, DC 20402

OFFICIAL BUSINESS
Penalty for private use, $300

SECOND CLASS NEWSPAPER

Postage and Fees Paid
U.S. Government Printing Office
(ISSN 0097-6326)

Ref. No. 14, p. 1

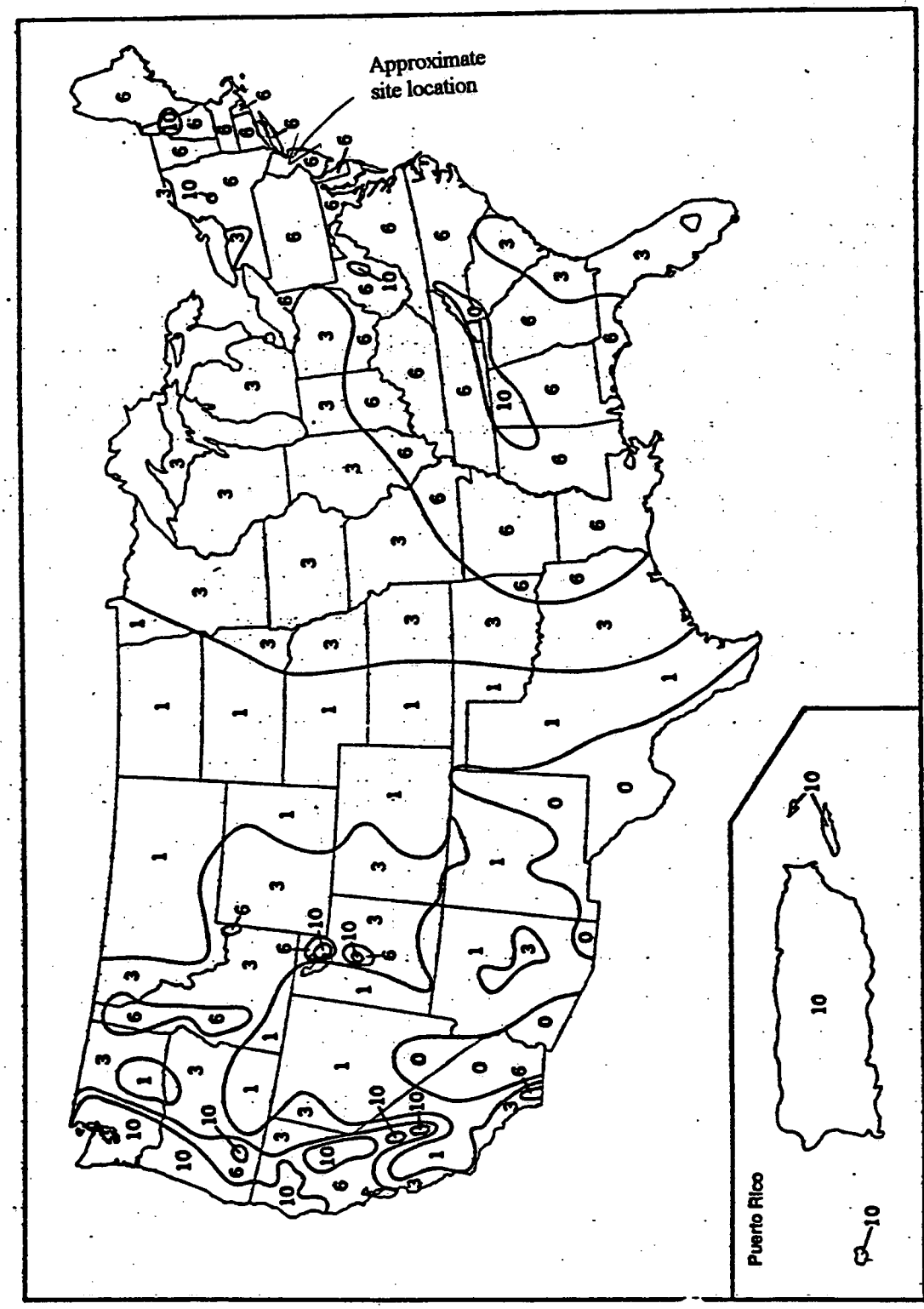


FIGURE 3-2
NET PRECIPITATION FACTOR VALUES

Ref. No. 14, p. 2

–When measured monthly evapotranspiration is not available, calculate monthly potential evapotranspiration (E_i) as follows:

$E_i = 0.6\ F_i\ (10\ T_i/I)^a$

where:

E_i = Monthly potential evapotranspiration (inches) for month i.

F_i = Monthly latitude adjusting value for month i.

T_i = Mean monthly temperature (°C) for month i.

$$I = \sum_{i=1}^{12} (T_i/5)^{1.514}$$

$$a = 6.75 \times 10^{-7} I^3 - 7.71 \times 10^{-5} I^2 + 1.79 \times 10^{-2} I + 0.49239$$

Select the latitude adjusting value for each month from Table 3–3. For latitudes lower than 50° North or 20° South, determine the monthly latitude adjusting value by interpolation.

• Calculate monthly net precipitation by subtracting monthly evapotranspiration (or monthly potential evapotranspiration) from monthly precipitation. If evapotranspiration (or potential evapotranspiration) exceeds precipitation for a month, assign that month a net precipitation value of 0.

• Calculate the annual net precipitation by summing the monthly net precipitation values.

• Based on the annual net precipitation, assign a net precipitation factor value from Table 3–4.

Enter the value assigned from Figure 3–2 or from Table 3–4, as appropriate, in Table 3–1.

TABLE 3–3.—MONTHLY LATITUDE ADJUSTING VALUES[a]

Latitude[b] (degrees)	Month											
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
≥50 N	0.74	0.78	1.02	1.15	1.33	1.38	1.37	1.25	1.06	0.92	0.76	0.70
45 N	0.80	0.81	1.02	1.13	1.28	1.29	1.31	1.21	1.04	0.94	0.79	0.75
40 N	0.84	0.83	1.03	1.11	1.24	1.25	1.27	1.18	1.04	0.96	0.83	0.81
35 N	0.87	0.85	1.03	1.09	1.21	1.21	1.23	1.16	1.03	0.97	0.89	0.85
30 N	0.90	0.87	1.03	1.08	1.18	1.17	1.20	1.14	1.03	0.98	0.89	0.88
20 N	0.95	0.90	1.03	1.05	1.13	1.11	1.14	1.11	1.02	1.00	0.93	0.94
10 N	1.00	0.91	1.03	1.03	1.08	1.06	1.08	1.07	1.02	1.02	0.98	0.99
0	1.04	0.94	1.04	1.01	1.04	1.01	1.04	1.04	1.01	1.04	1.01	1.04
10 S	1.08	0.97	1.05	0.99	1.00	0.96	1.00	1.02	1.00	1.06	1.05	1.09
20 S	1.14	0.99	1.05	0.97	0.96	0.91	0.95	0.99	1.00	1.08	1.09	1.15

[a] Do not round to nearest integer.
[b] For unlisted latitudes lower than 50° North or 20° South, determine the latitude adjusting value by interpolation.

TABLE 3–4.—NET PRECIPITATION FACTOR VALUES

Net precipitation (inches)	Assigned value
0	0
Greater than 0 to 5	1
Greater than 5 to 15	3
Greater than 15 to 30	6
Greater than 30	10

3.1.2.3 *Depth to aquifer.* Evaluate depth to aquifer by determining the depth from the lowest known point of hazardous substances at a site to the top of the aquifer being evaluated, considering all layers in that interval. Measure the depth to an aquifer as the distance from the surface to the top of the aquifer minus the distance from the surface to the lowest known point of hazardous substances eligible to be evaluated for that aquifer. In evaluating depth to aquifer in karst terrain, assign a thickness of 0 feet to a karst aquifer that underlies any portion of the sources at the site. Based on the calculated depth, assign a value from Table 3–5 to the depth to aquifer factor.

Determine the depth to aquifer only at locations within 2 miles of the sources at the site, except: if observed ground water contamination attributable to sources at the site extends more than 2 miles beyond these sources, use any location within the limits of this observed ground water contamination when evaluating the depth to aquifer factor for any aquifer that does not have an observed release. If the necessary geologic information is available at multiple locations, calculate the depth to aquifer at each location. Use the location having the smallest depth to assign the factor value. Enter this value in Table 3–1.

TABLE 3–5.—DEPTH TO AQUIFER FACTOR VALUES

Depth to aquifer[a] (feet)	Assigned value
Less than or equal to 25	5
Greater than 25 to 250	3
Greater than 250	1

[a] Use depth of all layers between the hazardous substances and aquifer. Assign a thickness of 0 feet to any karst aquifer that underlies any portion of the sources at the site.

3.1.2.4 *Travel time.* Evaluate the travel time factor based on the geologic materials in the interval between the lowest known point of hazardous substances at the site and the top of the aquifer being evaluated. Assign a value to the travel time factor as follows:

• If the depth to aquifer (see section 3.1.2.3) is 10 feet or less, assign a value of 35.

• If, for the interval being evaluated, all layers that underlie a portion of the sources at the site are karst, assign a value of 35.

• Otherwise:

–Select the lowest hydraulic conductivity layer(s) from within the above interval. Consider only layers at least 3 feet thick. However, do not consider layers or portions of layers within the first 10 feet of the depth to the aquifer.

–Determine hydraulic conductivities for individual layers from Table 3–6 or from in-situ or laboratory tests. Use representative, measured, hydraulic conductivity values whenever available.

–If more than one layer has the same lowest hydraulic conductivity, include all such layers and sum their thicknesses. Assign a thickness of 0 feet to a karst layer that underlies any portion of the sources at the site.

–Assign a value from Table 3–7 to the travel time factor, based on the thickness and hydraulic conductivity of the lowest hydraulic conductivity layer(s).

Ref. No. 14, p. 3

TABLE 3-6.—HYDRAULIC CONDUCTIVITY OF GEOLOGIC MATERIALS

Type of material	Assigned hydraulic conductivity [a] (cm/sec)
Clay; low permeability till (compact unfractured till); shale; unfractured metamorphic and igneous rocks	10^{-8}
Silt; loesses; silty clays; sediments that are predominantly silts; moderately permeable till (fine-grained, unconsolidated till, or compact till with some fractures); low permeability limestones and dolomites (no karst); low permeability sandstone; low permeability fractured igneous and metamorphic rocks	10^{-6}
Sands; sandy silts; sediments that are predominantly sand; highly permeable till (coarse-grained, unconsolidated or compact and highly fractured); peat; moderately permeable limestones and dolomites (no karst); moderately permeable sandstone; moderately permeable fractured igneous and metamorphic rocks	10^{-4}
Gravel; clean sand; highly permeable fractured igneous and metamorphic rocks; permeable basalt; karst limestones and dolomites	10^{-2}

[a] Do not round to nearest integer.

TABLE 3-7.—TRAVEL TIME FACTOR VALUES [a]

Hydraulic conductivity (cm/sec)	Thickness of lowest hydraulic conductivity layer(s)[b] (feet)			
	Greater than 3 to 5	Greater than 5 to 100	Greater than 100 to 500	Greater than 500
Greater than or equal to 10^{-3}	35	35	35	25
Less than 10^{-3} to 10^{-5}	35	25	15	15
Less than 10^{-5} to 10^{-7}	15	15	5	5
Less than 10^{-7}	5	5	1	1

[a] If depth to aquifer is 10 feet or less or if, for the interval being evaluated, all layers that underlie a portion of the sources at the site are karst, assign a value of 35.

[b] Consider only layers at least 3 feet thick. Do not consider layers or portions of layers within the first 10 feet of the depth to the aquifer.

Determine travel time only at locations within 2 miles of the sources at the site, except if observed ground water contamination attributable to sources at the site extends more than 2 miles beyond these sources, use any location within the limits of this observed ground water contamination when evaluating the travel time factor for any aquifer that does not have an observed release. If the necessary subsurface geologic information is available at multiple locations, evaluate the travel time factor at each location. Use the location having the highest travel time factor value to assign the factor value for the aquifer. Enter this value in Table 3-1.

3.1.2.5 *Calculation of potential to release factor value.* Sum the factor values for net precipitation, depth to aquifer, and travel time, and multiply this sum by the factor value for containment. Assign this product as the potential to release factor value for the aquifer. Enter this value in Table 3-1.

3.1.3 *Calculation of likelihood of release factor category value.* If an observed release is established for an aquifer, assign the observed release factor value of 550 as the likelihood of release factor category value for that aquifer. Otherwise, assign the potential to release factor value for that aquifer as the likelihood of release value. Enter the value assigned in Table 3-1.

3.2 *Waste characteristics.* Evaluate the waste characteristics factor category for an aquifer based on two factors: toxicity/mobility and hazardous waste quantity. Evaluate only those hazardous substances available to migrate from the sources at the site to ground water. Such hazardous substances include:

- Hazardous substances that meet the criteria for an observed release to ground water.
- All hazardous substances associated with a source that has a ground water containment factor value greater than 0 (see sections 2.2.2, 2.2.3, and 3.1.2.1).

3.2.1 *Toxicity/mobility.* For each hazardous substance, assign a toxicity factor value, a mobility factor value, and a combined toxicity/mobility factor value as specified in the following sections. Select the toxicity/mobility factor value for the aquifer being evaluated as specified in section 3.2.1.3.

3.2.1.1 *Toxicity.* Assign a toxicity factor value to each hazardous substance as specified in Section 2.4.1.1.

3.2.1.2 *Mobility.* Assign a mobility factor value to each hazardous substance for the aquifer being evaluated as follows:

- For any hazardous substance that meets the criteria for an observed release by chemical analysis to one or more aquifers underlying the sources at the site, regardless of the aquifer being evaluated, assign a mobility factor value of 1.
- For any hazardous substance that does not meet the criteria for an observed release by chemical analysis to at least one of the aquifers, assign that hazardous substance a mobility factor value from Table 3-8 for the aquifer being evaluated, based on its water solubility and distribution coefficient (K_d).
- If the hazardous substance cannot be assigned a mobility factor value because data on its water solubility or distribution coefficient are not available, use other hazardous substances for which information is available in evaluating the pathway.

TABLE 3-8.—GROUND WATER MOBILITY FACTOR VALUES [a]

Water solubility (mg/l)	Distribution coefficient (K_d) (ml/g)			
	Karst [c]	≤10	>10 to 1,000	>1,000
Present as liquid [b]	1	1	0.01	0.0001
Greater than 100	1	1	0.01	0.0001
Greater than 1 to 100	0.2	0.2	0.002	2×10^{-5}
Greater than 0.01 to 1	0.002	0.002	2×10^{-5}	2×10^{-7}
Less than or equal to 0.01	2×10^{-5}	2×10^{-5}	2×10^{-7}	2×10^{-9}

[a] Do not round to nearest integer.
[b] Use if the hazardous substance is present or deposited as a liquid.
[c] Use if the entire interval from the source to the aquifer being evaluated is karst.

Ref. No. 14, p. 4

Drainage area. Determine the drainage area for the sources at the site. Include in this drainage area both the source areas and the area upgradient of the sources, but exclude any portion of this drainage area for which runoff is diverted from entering the sources by storm sewers or run-on control and/or runoff management systems. Assign a drainage area value for the watershed from Table 4–3.

Soil group. Based on the predominant soil group within the drainage area described above, assign a soil group designation for the watershed from Table 4–4 as follows:

• Select the predominant soil group as that type which comprises the largest total area within the applicable drainage area.

• If a predominant soil group cannot be delineated, select that soil group in the drainage area that yields the highest value for the runoff factor.

Calculation of runoff factor value. Assign a combined rainfall/runoff value for the watershed from Table 4–5, based on the 2-year, 24-hour rainfall and the soil group designation. Determine the runoff factor value for the watershed from Table 4–6, based on the rainfall/runoff and drainage area values. Enter the runoff factor value in Table 4–1.

TABLE 4–3.—DRAINAGE AREA VALUES

Drainage area (acres)	Assigned value
Less than 50	1
50 to 250	2
Greater than 250 to 1,000	3
Greater than 1,000	4

TABLE 4–4.—SOIL GROUP DESIGNATIONS

Surface soil description	Soil group designation
Coarse-textured soils with high infiltration rates (for example, sands, loamy sands).	A
Medium-textured soils with moderate infiltration rates (for example, sandy loams, loams).	B
Moderately fine-textured soils with low infiltration rates (for example, silty loams, silts, sandy clay loams).	C
Fine-textured soils with very low infiltration rates (for example, clays, sandy clays, silty clay loams, clay loams, silty clays); or impermeable surfaces (for example, pavement).	D

TABLE 4–5.—RAINFALL/RUNOFF VALUES

2-Year, 24-hour rainfall (inches)	Soil group designation			
	A	B	C	D
Less than 1.0	0	0	2	3
1.0 to less than 1.5	0	1	2	3
1.5 to less than 2.0	0	2	3	4
2.0 to less than 2.5	1	2	3	4
2.5 to less than 3.0	2	3	4	4
3.0 to less than 3.5	2	3	4	5
3.5 or greater	3	4	5	6

TABLE 4–6.—RUNOFF FACTOR VALUES

Drainage area value	Rainfall/runoff value						
	0	1	2	3	4	5	6
	0	0	0	1	1	1	1
	0	0	1	1	2	3	4
	0	0	1	3	7	11	15
	0	1	2	7	17	25	25

4.1.2.1.2.1.3 *Distance to surface water.* Evaluate the distance to surface water as the shortest distance, along the overland segment, from any source with a surface water containment factor value greater than 0 to either the mean high water level for tidal waters or the mean water level for other surface waters. Based on this distance, assign a value from Table 4–7 to the distance to surface water factor for the watershed. Enter this value in Table 4–1.

4.1.2.1.2.1.4 *Calculation of factor value for potential to release by overland flow.* Sum the factor values for runoff and distance to surface water for the watershed and multiply this sum by the factor value for containment. Assign the resulting product as the factor value for potential to release by overland flow for the watershed. Enter this value in Table 4–1.

4.1.2.1.2.2 *Potential to release by flood.* Evaluate potential to release by flood for each watershed as the product of two factors: containment (flood) and flood frequency. Evaluate potential to release by flood separately for each source that is within the watershed. Furthermore, for each source, evaluate potential to release by flood separately for each category of floodplain in which the source lies. (See section 4.1.2.1.2.2.2 for the applicable floodplain categories.) Calculate the value for the potential to release by flood factor as specified in 4.1.2.1.2.2.3.

4.1.2.1.2.2.1 *Containment (flood).* For each source within the watershed, separately evaluate the containment (flood) factor for each category of floodplain in which the source is partially or wholly located. Assign a containment (flood) factor value from Table 4–8 to each floodplain category applicable to that source. Assign a containment (flood) factor value of 0 to each floodplain category in which the source does not lie.

4.1.2.1.2.2.2 *Flood frequency.* For each source within the watershed, separately evaluate the flood frequency factor for each category of floodplain in which the source is partially or wholly located. Assign a flood frequency factor value from Table 4–9 to each floodplain category in which the source is located.

4.1.2.1.2.2.3 *Calculation of factor value for potential to release by flood.* For each source within the watershed and for each category of floodplain in which the source is partially or wholly located, calculate a separate potential to release by flood factor value. Calculate this value as the product of the containment (flood) value and the flood frequency value applicable to the source for the floodplain category. Select the highest value calculated for those sources that meet the minimum size requirement specified in section 4.1.2.1.2.1.1 and assign it as the value for the potential to release by flood factor for the watershed. However, if, for this watershed, no source at the site meets the minimum size requirement, select the highest value calculated for the sources at the site eligible to be evaluated for this watershed and assign it as the value for this factor.

TABLE 4–7.—DISTANCE TO SURFACE WATER FACTOR VALUES

Distance	Assigned value
Less than 100 feet	25
100 feet to 500 feet	20
Greater than 500 feet to 1,000 feet	16
Greater than 1,000 feet to 2,500 feet	9
Greater than 2,500 feet to 1.5 miles	6
Greater than 1.5 miles to 2 miles	3

TABLE 4–8.—CONTAINMENT (FLOOD) FACTOR VALUES

Containment criteria	Assigned value
Documentation that containment at the source is designed, constructed, operated, and maintained to prevent a washout of hazardous substances by the flood being evaluated.	0
Other	10

TABLE 4–9.—FLOOD FREQUENCY FACTOR VALUES

Floodplain category	Assigned value
Source floods annually	50
Source in 10-year floodplain	50
Source in 100-year floodplain	25
Source in 500-year floodplain	7
None of above	0

Enter this highest potential to release by flood factor value for the watershed in Table 4–1, as well as the values for containment (flood) and flood frequency that yield this highest value.

4.1.2.1.2.3 *Calculation of potential to release factor value.* Sum the factor values assigned to the watershed for potential to release by overland flow and potential to release by flood. Assign this sum as the potential to release factor value for the watershed, subject to a maximum value of 500. Enter this value in Table 4–1.

4.1.2.1.3 *Calculation of drinking water threat-likelihood of release factor category value.* If an observed release is established for the watershed, assign the observed release factor value of 550 as the likelihood of release factor category value for that watershed. Otherwise, assign the potential to release factor value for that watershed as the likelihood of release factor category value for that watershed. Enter the value assigned in Table 4–1.

4.1.2.2 *Drinking water threat-waste characteristics.* Evaluate the waste characteristics factor category for each

Ref. 14, p. 5

the hazardous substance with the highest toxicity/persistence factor value for the watershed to assign the toxicity/persistence factor value for the drinking water threat for the watershed. Enter this value in Table 4–1.

4.1.2.2.2 *Hazardous waste quantity.* Assign a hazardous waste quantity factor value for the watershed as specified in section 2.4.2. Enter this value in Table 4–1.

4.1.2.2.3 *Calculation of drinking water threat-waste characteristics factor category value.* Multiply the toxicity/persistence and hazardous waste quantity factor values for the watershed, subject to a maximum product of 1 x 10^8. Based on this product, assign a value from Table 2–7 (section 2.4.3.1) to the drinking water threat-waste characteristics factor category for the watershed. Enter this value in Table 4–1.

TABLE 4–12.—TOXICITY/PERSISTENCE FACTOR VALUES [a]

Persistence factor value	Toxicity factor value					
	10,000	1,000	100	10	1	0
1.0	10,000	1,000	100	10	1	0
0.4	4,000	400	40	4	0.4	0
0.07	700	70	7	0.7	0.07	0
0.0007	7	0.7	0.07	0.007	0.0007	0

[a] Do not round to nearest integer.

4.1.2.3 *Drinking water threat-targets.* Evaluate the targets factor category for each watershed based on three factors: nearest intake, population, and resources.

To evaluate the nearest intake and population factors, determine whether the target surface water intakes are subject to actual or potential contamination as specified in section 4.1.1.2. Use either an observed release based on direct observation at the intake or the exposure concentrations from samples (or comparable samples) taken at or beyond the intake to make this determination (see section 4.1.2.1.1). The exposure concentrations for a sample (that is, surface water, benthic, or sediment sample) consist of the concentrations of those hazardous substances present that are significantly above background levels and attributable at least in part to the site (that is, those hazardous substance concentrations that meet the criteria for an observed release).

When an intake is subject to actual contamination, evaluate it using Level I concentrations or Level II concentrations. If the actual contamination is based on an observed release by direct observation, use Level II concentrations for that intake. However, if the actual contamination is based on an observed release from samples, determine which level applies for the intake by comparing the exposure concentrations from samples (or comparable samples) to health-based benchmarks as specified in sections 2.5.1 and 2.5.2. Use the health-based benchmarks from Table 3–10 (section 3.3.1) in determining the level of contamination from samples. For contaminated sediments with no identified source, evaluate the actual contamination using Level II concentrations (see section 4.1.1.2).

4.1.2.3.1 *Nearest intake.* Evaluate the nearest intake factor based on the drinking water intakes along the overland/flood hazardous substance migration path for the watershed. Include standby intakes in evaluating this factor only if they are used for supply at least once a year.

Assign the nearest intake factor a value as follows and enter the value in Table 4–1:

- If one or more of these drinking water intakes is subject to Level I concentrations as specified in section 4.1.2.3, assign a factor value of 50.
- If not, but if one or more of these drinking water intakes is subject to Level II concentrations, assign a factor value of 45.
- If none of these drinking water intakes is subject to Level I or Level II concentrations, determine the nearest of these drinking water intakes, as measured from the probable point of entry (or from the point where measurement begins for contaminated sediments with no identified source). Assign a dilution weight from Table 4–13 to this intake, based on the type of surface water body in which it is located. Multiply this dilution weight by 20, round the product to the nearest integer, and assign it as the factor value.

Assign the dilution weight from Table 4–13 as follows:

TABLE 4–13.—SURFACE WATER DILUTION WEIGHTS

Type of surface water body [a]		Assigned dilution weight [b]
Descriptor	Flow characteristics	
Minimal stream	Less than 10 cfs [c]	1
Small to moderate stream	10 to 100 cfs	0.1
Moderate to large stream	Greater than 100 to 1,000 cfs	0.01
Large stream to river	Greater than 1,000 to 10,000 cfs	0.001
Large river	Greater than 10,000 to 100,000 cfs	0.0001
Very large river	Greater than 100,000 cfs	0.00001
Coastal tidal waters [d]	Flow not applicable, depth not applicable	0.0001
Shallow ocean zone [e] or Great Lake	Flow not applicable, depth less than 20 feet	0.0001
Moderate depth ocean zone [e] or Great Lake	Flow not applicable, depth 20 to 200 feet	0.00001
Deep ocean zone [e] or Great Lake	Flow not applicable, depth greater than 200 feet	0.000005
3-mile mixing zone in quiet flowing river	10 cfs or greater	0.5

[a] Treat each lake as a separate type of water body and assign a dilution weight as specified in text.
[b] Do not round to nearest integer.
[c] cfs = cubic feet per second.
[d] Embayments, harbors, sounds, estuaries, back bays, lagoons, wetlands, etc., seaward from mouths of rivers and landward from baseline of Territorial Sea.
[e] Seaward from baseline of Territorial Sea. This baseline represents the generalized U.S. coastline. It is parallel to the seaward limit of the Territorial Sea and other maritime limits such as the inner boundary of the Federal fisheries jurisdiction and the limit of States jurisdiction under the Submerged Lands Act, as amended.

- For a river (that is, surface water body types specified in Table 4–13 as minimal stream through very large river), assign a dilution weight based on the average annual flow in the river at the intake. If available, use the average annual discharge as defined in the U.S. Geological Survey Water Resources Data Annual Report. Otherwise, estimate the average annual flow.
- For a lake, assign a dilution weight as follows:
  - For a lake that has surface water flow entering the lake, assign a dilution weight based on the sum of the

Ref. 14, p. 6

REFERENCE NO. 15

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

BOROUGH OF
ELMWOOD PARK,
NEW JERSEY
BERGEN COUNTY

ONLY PANEL PRINTED

COMMUNITY-PANEL NUMBER
340500 0001 B

MAP REVISED:

FEBRUARY 26, 1982

federal emergency management agency
federal insurance administration

Ref. No. 15, p. 1/3

KEY TO MAP

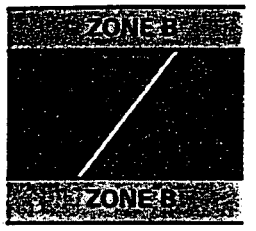
500-Year Flood Boundary

100-Year Flood Boundary

Zone Designations*

100-Year Flood Boundary

500-Year Flood Boundary



Base Flood Elevation Line With Elevation In Feet** — 513

Base Flood Elevation in Feet Where Uniform Within Zone** — (EL 987)

Elevation Reference Mark — RM7 ×

River Mile — • M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

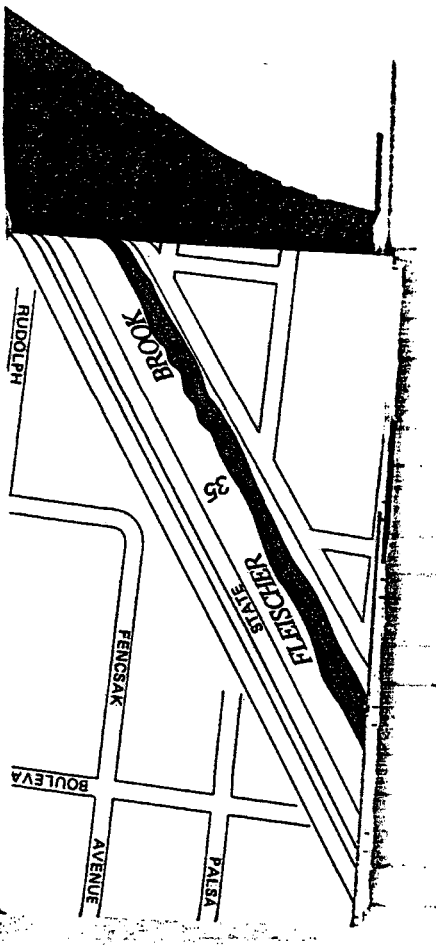
*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

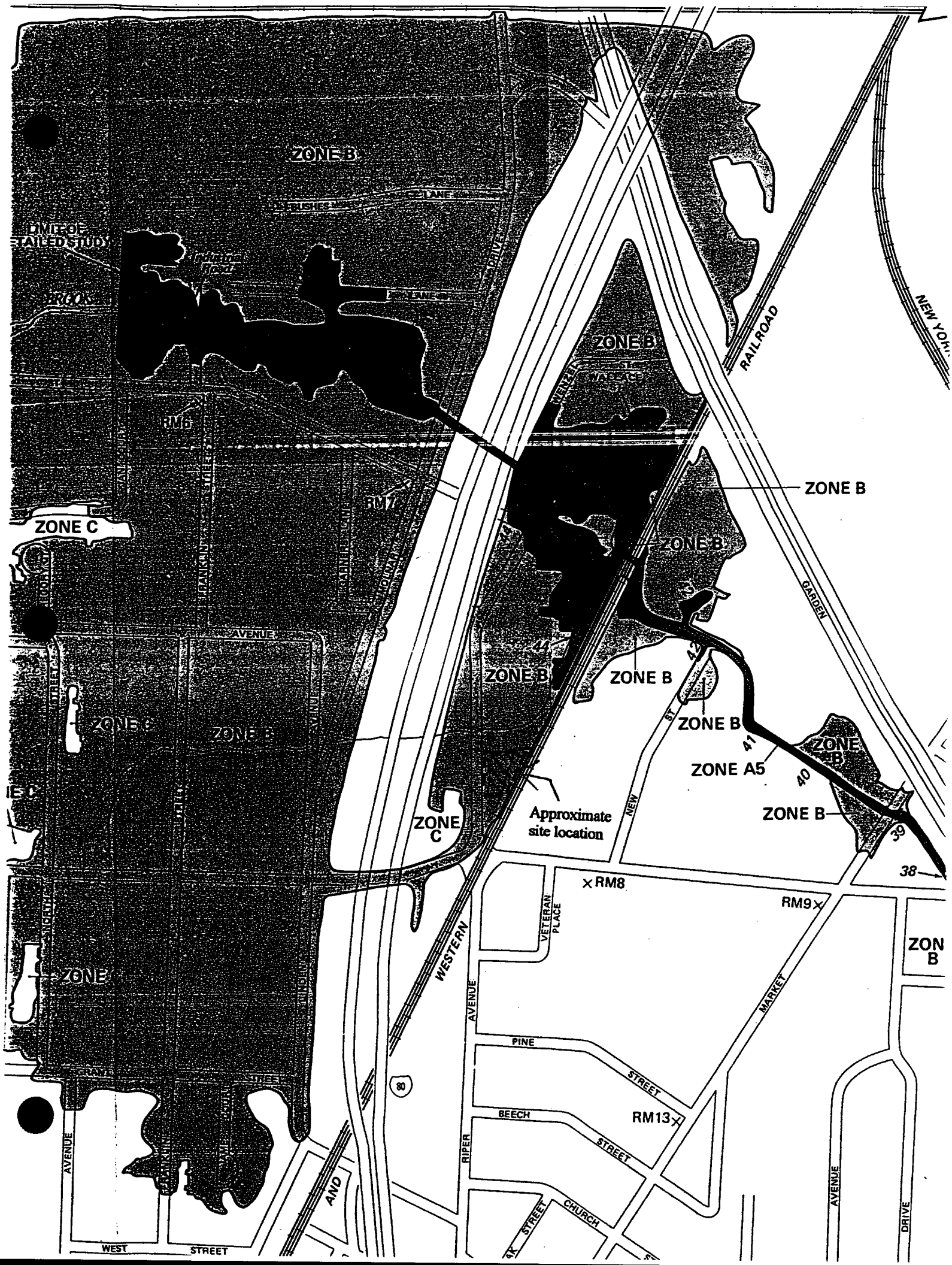
NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or



Ref, No. 15, p. 2/3

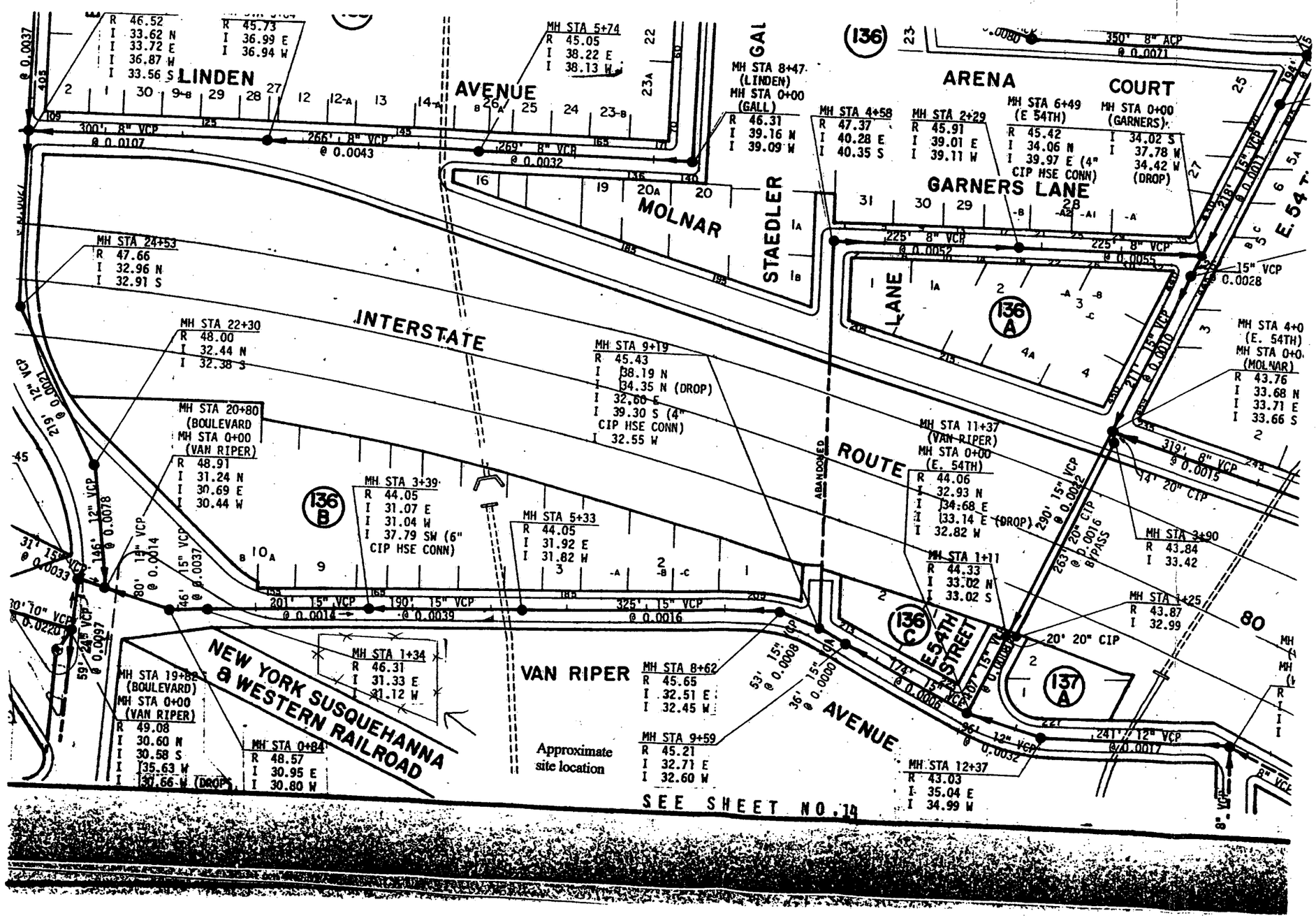

ZONE B
LIMIT OF DETAILED STUDY
BROOK
RM6
RM7
ZONE C
ZONE B
ZONE B
ZONE B
ZONE B
ZONE B
ZONE B
ZONE B
ZONE A5
ZONE B
ZONE B
ZONE C
ZONE C
ZONE C
Approximate site location
RM8
RM9
RM13
RAILROAD
NEW YORK
GARDEN
NEW
ST
WESTERN
AVENUE
VETERAN PLACE
MARKET
PINE
STREET
BEECH
STREET
RIPER
CHURCH
STREET
AND
80
WEST
STREET
AVENUE
DRIVE
44
42
41
40
39
38

REFERENCE NO. 16

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		PROJECT NOTE
To: Synkote Paint site file	DATE: 3/20/00	Page 1 of 1
FROM: Harry Allen		
SUBJECT: Synkote Paint Site: Location of Fleischer's Brook		
REFERENCE: Tax Maps from Boswell Engineering, 330 Phillips Avenue, South Hackensack, NJ 07606		

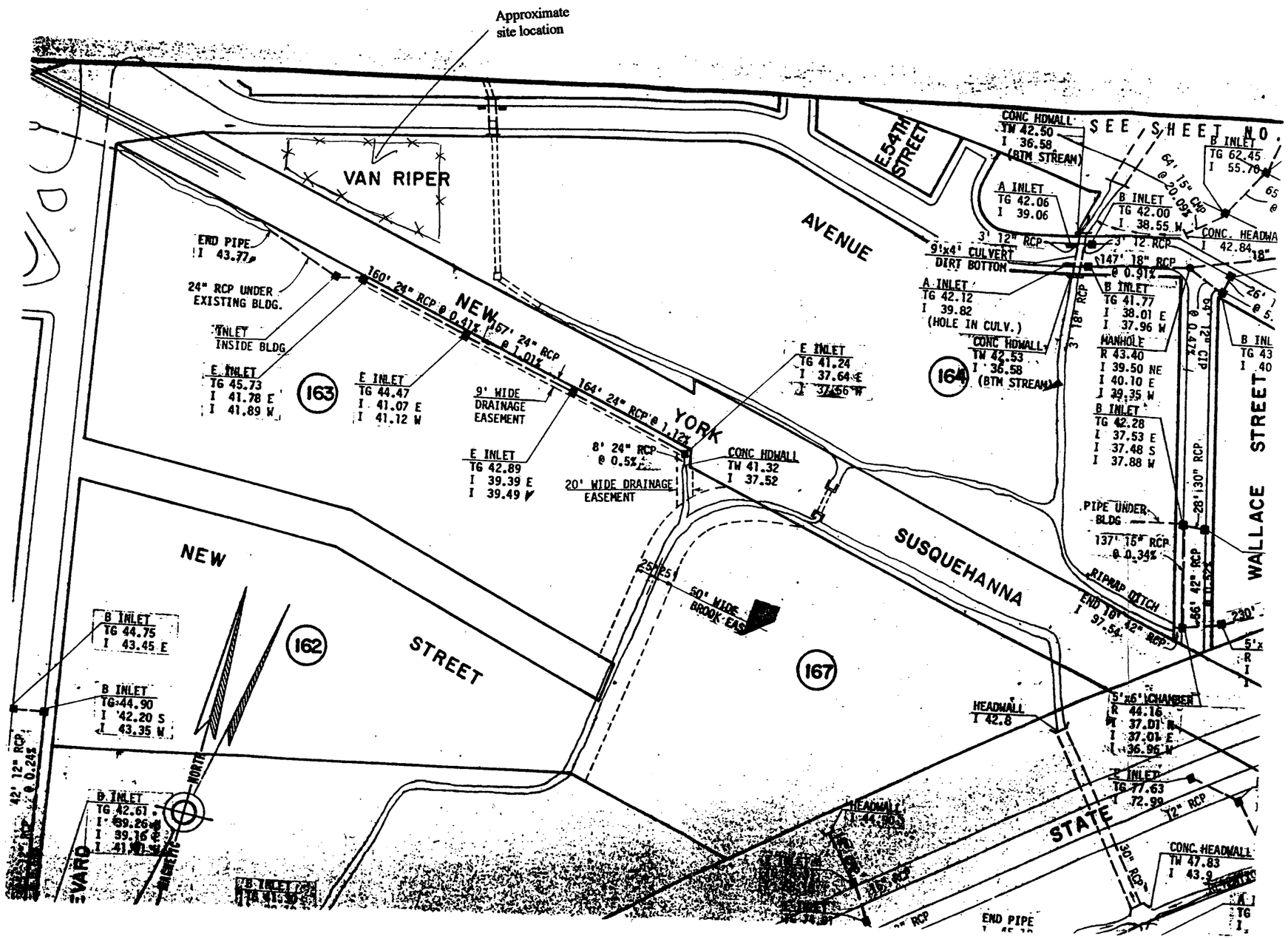
On 17 March 2000, START H. Allen spoke with engineer Peter Tenkate, of Boswell Engineering. Mr. Tenkate sent copies of tax maps for Elmwood Park, NJ. These maps indicate that Fleischer's Brook is contained in an underground cement culvert, upstream of the Synkote Paint property. The map shows that storm water runoff from the site, as well as from the adjacent properties along Van Riper Ave., enters the Fleischer's Brook culvert. Fleischer's Brook is completely inaccessible from any point upstream of Synkote Paint. Fleischer's Brook is not a fishery and contains 0 miles of wetland frontage.

Ref. No. 16, p. 1/1

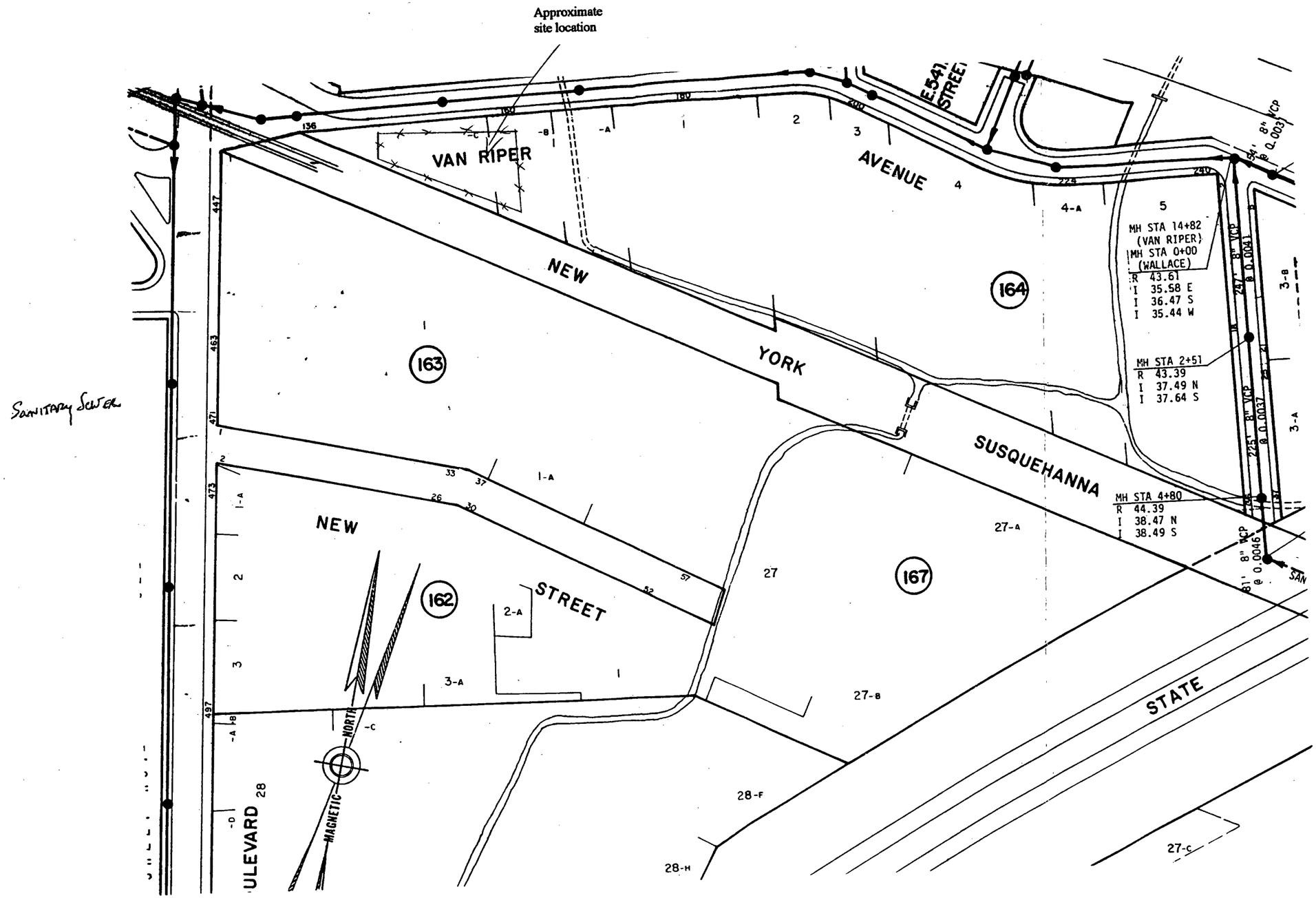


SANITARY SEWER

Ref. No. 16, p. 2/4


Approximate site location
VAN RIPER
AVENUE
E.54TH STREET
SEE SHEET NO.
NEW YORK
SUSQUEHANNA
STATE
NEW STREET
WALLACE STREET
163
162
164
167
END PIPE I 43.77
24" RCP UNDER EXISTING BLDG.
INLET INSIDE BLDG
E INLET TG 45.73 I 41.78 E I 41.89 W
E INLET TG 44.47 I 41.07 E I 41.12 W
160' 24" RCP @ 0.41%
167' 24" RCP @ 1.01%
164' 24" RCP @ 1.12%
9' WIDE DRAINAGE EASEMENT
E INLET TG 42.89 I 39.39 E I 39.49 W
8' 24" RCP @ 0.5%
20' WIDE DRAINAGE EASEMENT
CONC HDWALL TW 41.32 I 37.52
E INLET TG 41.24 I 37.64 E I 37.56 W
CONC HDWALL TW 42.50 I 36.58 (BTM STREAM)
A INLET TG 42.06 I 39.06
B INLET TG 42.00 I 38.55 W
3' 12" RCP
9'x4' CULVERT DIRT BOTTOM
147' 18" RCP @ 0.91%
A INLET TG 42.12 I 39.82 (HOLE IN CULV.)
CONC HDWALL TW 42.53 I 36.58 (BTM STREAM)
B INLET TG 41.77 I 38.01 E I 37.96 W
MANHOLE R 43.40 I 39.50 NE I 40.10 E I 39.35 W
B INLET TG 42.28 I 37.53 E I 37.48 S I 37.88 W
PIPE UNDER BLDG
137' 15" RCP @ 0.34%
RIPRAP DITCH
END 18' 42" RCP I 97.54
B INLET TG 62.45 I 55.70
CONC. HEADWA I 42.84
B INL TG 43 I 40
64' 15" CMP @ 20.09%
64' 12" CIP @ 0.47%
28' 30" RCP
56' 42" RCP
230'
5'x6' CHAMBER R 44.16 I 37.01 E I 37.01 E I 36.96 W
E INLET TG 77.63 I 72.99
12" RCP
30" RCP
CONC. HEADWALL TW 47.83 I 43.9
HEADWALL I 42.8
HEADWALL I 44.90
END PIPE
50' WIDE BROOK EAS
25' 25'
B INLET TG 44.75 I 43.45 E
B INLET TG 44.90 I 42.20 S I 43.35 W
B INLET TG 42.61 I 39.26 I 39.16 E I 41.01 W
42' 12" RCP @ 0.24%
NORTH
MAGNETIC
STORM SEWER

Ref. No. 16, p. 3/4



Sanitary Sewer

Ref. No. 16, p. 41

REFERENCE NO. 17

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		PROJECT NOTE
To: Synkote Paint site file	DATE: 3/16/00	Page 1 of 1
FROM: Harry Allen		
SUBJECT: Synkote Paint Site Public and Domestic Groundwater Populations		
REFERENCE: U. S. Geological Survey (USGS) Topographic Maps, New Jersey Geological Survey PSW 2000 Program Data, USGS Water-resources Division, Groundwater Data, and telecon notes.		

On 16 March 2000, START H. Allen plotted the locations of drinking water wells, found within a four mile radius of Synkote Paint, on USGS Topographic maps. Names and locations of drinking water supply wells were provided by the USGS and the NJGS PSW2000 programs. With the information, START calculated the distance to each well from the site to determine the distance ring in which it was located. Information on public supply wells as provided by NJGS was compared to the USGS information. The NJGS geographic coordinates of the public wells were plotted. The operating status of these wells was confirmed by the respective water department. The population apportioned to each municipally owned public supply well was determined by contacting the well owner (see attached telecon notes). No domestic wells were found within the 4 - mile target distance rings. The population, per distance ring, is specified below.

Distance Ring:	**Population (rounded to the nearest 5):**
0 - ¼ mile:	0
¼ - ½ mile:	0
½ - 1 mile:	16,200
1 - 2 miles:	1,770
2 - 3 miles:	12,390
3 - 4 miles:	14,475
Total Population:	44,835

Ref. No. 17, p. 1/32

Public and Domestic Water Supply Within 4-miles

Synkote Paint Site

	Site Latitude:	405410	Lat. Seconds(y):	40.9027777778			
	Site Longitude:	740659	Long. Seconds(x):	74.1163888889			
Well Name	Well ID	Latitude	Longitude	Water Use	Population	Depth (ft)	Distance (mi)
Garfield Water/Elmwd Pk. 1 - INACTIVE	NA	405440	740716	Public Supply	0	404	0.63
Garfield Water Dep. Elmwood Pk. 5	G5	405443	740703	Public Supply	1,800	353	0.64
Garfield Water/Elmwd Pk. 7 - INACTIVE	NA	405445	740656	Public Supply	0		0.67
Garfield Water Dep. Elmwood Pk. 4	G4	405447	740708	Public Supply	1,800	353	0.72
Garfield Water Dep. Elmwood Pk. 12	G12	405444	740721	Public Supply	1,800	350	0.73
Garfield Water Dep. Elmwood Pk. 2	G2	405446	740715	Public Supply	1,800		0.73
Garfield Water Dep. Elmwood Pk. 11	G11	405448	740647	Public Supply	1,800		0.75
Garfield Water/Elmwd Pk. 17 - INACTIVE	NA	405433	740741	Public Supply	0	353	0.76
Garfield Water Dep. Elmwood Pk. 14	G14	405440	740733	Public Supply	1,800	485	0.76
Garfield Water Dep. Elmwood Pk. 8	G8	405451	740655	Public Supply	1,800	354	0.79
Garfield Water Dep. Elmwood Pk. 10	G10	405452	740649	Public Supply	1,800	350	0.82
Garfield Water Dep. Elmwood Pk. 16	G16	405437	740746	Public Supply	1,800	400	0.86
Garfield Water Dep. No. 8C - INACTIVE	NA	405325	740647	Public Supply	0	405	0.88
Garfield Water Dep. No. 1A - INACTIVE	NA	405303	740606	Public Supply	0	400	1.50
Fairlawn Water Dep. No. 8	F8	405531	740716	Public Supply	885	430	1.57
Garfield Water Dep. No. 2 - INACTIVE	NA	405258	740609	Public Supply	0		1.56
Garfield Water Dep. No. 4 - INACTIVE	NA	405245	740613	Public Supply	0		1.76
Garfield Water Dep. No. 6 - INACTIVE	NA	405245	740610	Public Supply	0		1.78
Garfield Water Dep. No. 5 - INACTIVE	NA	405244	740611	Public Supply	0		1.79
Fairlawn Water Dep. No. 5	F5	405550	740721	Public Supply	885		1.95
Fairlawn Water Dep. No. 7	F7	405551	740733	Public Supply	885	458	2.00
Fairlawn Water Dep. No. 2	NA	405554	740722	Public Supply	885	300	2.02
Fairlawn Water Dep. No. 15	NA	405540	740815	Public Supply	885	402	2.05
Fairlawn Water Dep. No. 19	NA	405539	740822	Public Supply	885	400	2.09
Fairlawn Water Dep. No. 16	NA	405536	740828	Public Supply	885	413	2.10
United Water: Rochelle Park - INACTIVE	NA	405453	740447	Public Supply	0		2.10
Fairlawn Water Dep. No. 9	NA	405554	740754	Public Supply	885	404	2.15
Fairlawn Water Dep. No. 17	NA	405542	740831	Public Supply	885	350	2.22
Fairlawn Water Dep. No. 28	NA	405606	740642	Public Supply	885	355	2.24
Fairlawn Water Dep. No. 25	NA	405607	740611	Public Supply	885	370	2.35
Fairlawn Water Dep. No. 26	NA	405611	740614	Public Supply	885	400	2.41
Fairlawn Water Dep. No. 14	NA	405625	740809	Public Supply	885	400	2.79
Fairlawn Water Dep. No. 12	NA	405629	740805	Public Supply	885		2.84
Fairlawn Water Dep. No. 11	NA	405636	740808	Public Supply	885		2.98
Fairlawn Water Dep. No. 10	NA	405638	740803	Public Supply	885		2.99
Hawthorne Water Dep. S. Wagaraw 15	NA	405620	740917	Public Supply	905		3.21
Hawthorne Water Dep. S. Wagaraw 12	NA	405623	740916	Public Supply	905	300	3.24
Hawthorne Water Dep. Wagaraw 10	NA	405625	740917	Public Supply	905	300	3.28
Ridgewood Water Dep. Leigh	R1	405710	740616	Public Supply	1,130	300	3.51
Hawthorne Water Dep. Wagaraw 3	NA	405628	740937	Public Supply	905	300	3.51
Hawthorne Water Dep. Wagaraw 4	NA	405629	740937	Public Supply	905	300	3.53
Hawthorne Water Dep. Wagaraw 5	NA	405630	740937	Public Supply	905	285	3.54
Hawthorne Water Dep. Wagaraw 6	NA	405631	740937	Public Supply	905	388	3.56
Hawthorne Water Dep. Wagaraw 7	NA	405631	740938	Public Supply	905	369	3.57
Hawthorne Water Dep. Wagaraw 8	NA	405634	740938	Public Supply	905	416	3.61
Hawthorne Water Dep. Maitland Ave.	NA	405638	740940	Public Supply	905	400	3.69
Ridgewood Water Dep. Main Well	R2	405714	740826	Public Supply	1,130	302	3.75
Hawthorne Water Dep. Cedar Ave.	NA	405650	740936	Public Supply	905	398	3.83
Ridgewood Water Dep. Stevens	R3	405727	740612	Public Supply	1,130		3.84
Ridgewood Water Dep. Ackerman	R4	405735	740641	Public Supply	1,130	303	3.94

Population served based on the distance of wells from the site (in miles):

0-1/4	0
1/4-1/2	0
1/2-1	16200
1-2	1770
2-3	12390
3-4	14475

Total population served by wells: 44835

Ref. No. 17, p. 2/32

SYNKOTE_PSW

PSW.DAT revision: 643,984 10-05-99 5:19P
Search conducted: 02-11-2000 09:51:07 Search radius: 21120 feet
Chosen search parameters were NAD27 geographic coordinates
Location entered: Latitude: 40°54'11" Longitude: 74°6'59"
Easting: 598273.035 Northing: 754147.627

Distance: 3461 ft
Permit #: 00-00416
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 7
Address: Gilbert Ave & East 54th St
Operational status: Operational
Latitude: 40°54'45.138" Longitude: 74°6'56.323"
Easting: 598463.367 ft Northing: 757603.152 ft
Confinement Status: Unconfined

Distance: 15641 ft
Permit #: 23-00249
Owner: Fairlawn Water Dept
Well Name: Well 10
Address: 11th St & Henderson Blvd
Operational status: Operational
Latitude: 40°56'37.675" Longitude: 74°8'3.256"
Easting: 593277.156 ft Northing: 768969.343 ft
Confinement Status: Unconfined

Distance: 15570 ft
Permit #: 23-00250
Owner: Fairlawn Water Dept
Well Name: Well 11
Address: Ontario Ave & Chester St
Operational status: Operational
Latitude: 40°56'35.612" Longitude: 74°8'8.249"
Easting: 592894.893 ft Northing: 768758.957 ft
Confinement Status: Unconfined

Distance: 14879 ft
Permit #: 23-00251
Owner: Fairlawn Water Dept
Well Name: Well 12
Address: Westmorland Ave & Parmelee Ave
Operational status: Operational
Latitude: 40°56'29.269" Longitude: 74°8'4.903"
Easting: 593154.300 ft Northing: 768118.083 ft
Confinement Status: Unconfined

Distance: 19697 ft
Permit #: 23-01443
Owner: Ridgewood Water Dept
Well Name: Main Well
Address: DeBoer Dr & Rte 208
Operational status: Operational
Latitude: 40°57'13.977" Longitude: 74°8'26.498"
Easting: 591478.489 ft Northing: 772635.441 ft
Confinement Status: Unconfined

Distance: 20645 ft
Permit #: 23-02227
Owner: Ridgewood Water Dept
Well Name: Ackerman Well
Address: Chadwick Pl & Prospect St
Operational status: Operational
Latitude: 40°57'34.526" Longitude: 74°6'40.529"
Easting: 599599.706 ft Northing: 774749.805 ft
Confinement Status: Unconfined

Distance: 20080 ft
Permit #: 23-04139
Owner: Hawthorne Water Dept
Well Name: Cedar Ave Well
Address: Cedar Ave & May St
Operational status: Operational
Latitude: 40°56'49.873" Longitude: 74°9'35.736"
Easting: 586175.789 ft Northing: 770175.071 ft
Confinement Status: Unconfined

Distance: 20173 ft
Permit #: 23-04170
Owner: Ridgewood Water Dept
Well Name: Stevens Well
Address: Newcomb Rd & Ellington Rd
Operational status: Operational
Latitude: 40°57'27.105" Longitude: 74°6'11.77"
Easting: 601809.404 ft Northing: 774008.722 ft
Confinement Status: Unconfined

Distance: 18414 ft
Permit #: 23-04171
Owner: Ridgewood Water Dept
Well Name: Leigh Well

Address: Leigh Terrace
Operational status: Operational
Latitude: 40°57'9.966" Longitude: 74°6'15.669"
Easting: 601518.184 ft Northing: 772273.045 ft
Confinement Status: Unconfined

Distance: 19396 ft
Permit #: 23-05139
Owner: Hawthorne Water Dept
Well Name: Maitland Ave Well
Address: Maitland Ave
Operational status: Operational
Latitude: 40°56'38.432" Longitude: 74°9'40.471"
Easting: 585816.937 ft Northing: 769015.865 ft
Confinement Status: Unconfined

Distance: 12329 ft
Permit #: 23-07538
Owner: Fairlawn Water Dept
Well Name: Well 25
Address: Morlot Ave & Dorothy St
Operational status: Operational
Latitude: 40°56'7.244" Longitude: 74°6'10.939"
Easting: 601909.904 ft Northing: 765927.534 ft
Confinement Status: Unconfined

Distance: 12664 ft
Permit #: 23-07539
Owner: Fairlawn Water Dept
Well Name: Well 26
Address: Morlot Ave & Dorothy St
Operational status: Operational
Latitude: 40°56'11.355" Longitude: 74°6'13.823"
Easting: 601686.705 ft Northing: 766342.427 ft
Confinement Status: Unconfined

Distance: 11661 ft
Permit #: 23-07541
Owner: Fairlawn Water Dept
Well Name: Well 28
Address: Mayfair Terr & Norwood Dr
Operational status: Operational
Latitude: 40°56'5.535" Longitude: 74°6'42.353"
Easting: 599499.797 ft Northing: 765743.761 ft
Confinement Status: Unconfined

Distance: 10731 ft
Permit #: 26-00393
Owner: Fairlawn Water Dept
Well Name: Well 15
Address: Essex St at Memorial Park
Operational status: Operational
Latitude: 40°55'40.105" Longitude: 74°8'14.791"
Easting: 592416.202 ft Northing: 763139.817 ft
Confinement Status: Unconfined

Distance: 11024 ft
Permit #: 26-00465
Owner: Fairlawn Water Dept
Well Name: Well 16
Address: Arnot Pl at Memorial Park
Operational status: Operational
Latitude: 40°55'36.45" Longitude: 74°8'28.066"
Easting: 591398.763 ft Northing: 762765.746 ft
Confinement Status: Unconfined

Distance: 11631 ft
Permit #: 26-01032
Owner: Fairlawn Water Dept
Well Name: Well 17
Address: Avenue of Heros at Memorial Park
Operational status: Operational
Latitude: 40°55'42.264" Longitude: 74°8'31.09"
Easting: 591164.247 ft Northing: 763353.162 ft
Confinement Status: Unconfined

Distance: 10902 ft
Permit #: 26-01197
Owner: Fairlawn Water Dept
Well Name: Well 19
Address: Cange Pl at Memorial Park
Operational status: Operational
Latitude: 40°55'38.592" Longitude: 74°8'21.665"
Easting: 591889.146 ft Northing: 762984.524 ft
Confinement Status: Unconfined

Distance: 10974 ft
Permit #: 26-03017
Owner: United Water
Well Name: Rochelle Park Well

Address: Roosevelt Ave
Operational status: Operational
Latitude: 40°54'52.816" Longitude: 74°4'47.124"
Easting: 608378.558 ft Northing: 758425.791 ft
Confinement Status: Unconfined

Distance: 16590 ft
Permit #: 26-03027
Owner: Wallington Water Dept
Well Name: Lester Street Well
Address: Lester St & Anderson Ave
Operational status: Inactive
Latitude: 40°51'27.218" Longitude: 74°7'8.352"
Easting: 597627.128 ft Northing: 737570.679 ft
Confinement Status: Unconfined

Distance: 20377 ft
Permit #: 26-03933
Owner: Wallington Water Dept
Well Name: Dull Field Well
Address: Johnson Ave & Alden St
Operational status: Inactive
Latitude: 40°50'54.075" Longitude: 74°6'3.644"
Easting: 602614.306 ft Northing: 734238.879 ft
Confinement Status: Unconfined

Distance: 16474 ft
Permit #: 26-03934
Owner: Wallington Water Dept
Well Name: Main Street Well
Address: Main Ave & Krug Ct
Operational status: Inactive
Latitude: 40°51'32.124" Longitude: 74°6'12.215"
Easting: 601938.261 ft Northing: 738086.260 ft
Confinement Status: Unconfined

Distance: 9397 ft
Permit #: 26-04009
Owner: Garfield Water Dept
Well Name: Well 4
Address: 413 Midland Ave
Operational status: Operational
Latitude: 40°52'44.903" Longitude: 74°6'13.166"
Easting: 601831.791 ft Northing: 745450.805 ft
Confinement Status: Unconfined

Distance: 9557 ft
Permit #: 26-04010
Owner: Garfield Water Dept
Well Name: Well 5
Address: Midland Ave
Operational status: Operational
Latitude: 40°52'43.971" Longitude: 74°6'10.689"
Easting: 602022.481 ft Northing: 745357.366 ft
Confinement Status: Unconfined

Distance: 8033 ft
Permit #: 26-04016
Owner: Garfield Water Dept
Well Name: Well 1A
Address: Midland Ave & Outwater Lane
Operational status: Operational
Latitude: 40°53'2.782" Longitude: 74°6'5.524"
Easting: 602410.525 ft Northing: 747262.643 ft
Confinement Status: Unconfined

Distance: 8304 ft
Permit #: 26-04063
Owner: Garfield Water Dept
Well Name: Well 2
Address: Outwater Lane & Henreita Place
Operational status: Operational
Latitude: 40°52'58.069" Longitude: 74°6'9.436"
Easting: 602112.203 ft Northing: 746784.350 ft
Confinement Status: Unconfined

Distance: 4738 ft
Permit #: 26-04064
Owner: Garfield Water Dept
Well Name: Well 8C
Address: Laurel St & Dolphine Pkwy
Operational status: Operational
Latitude: 40°53'25.067" Longitude: 74°6'47.054"
Easting: 599210.872 ft Northing: 749503.478 ft
Confinement Status: Unconfined

Distance: 9446 ft
Permit #: 26-04103/2
Owner: Garfield Water Dept
Well Name: Well 6

Address: Midland Ave & Elizabeth St
Operational status: Operational
Latitude: 40°52'45.415" Longitude: 74°6'9.9"
Easting: 602082.419 ft Northing: 745503.731 ft
Confinement Status: Unconfined

Distance: 18459 ft
Permit #: 43-00061
Owner: Hawthorne Water Dept
Well Name: Wagaraw Well 3
Address: Wagaraw Ave
Operational status: Operational
Latitude: 40°56'28.43" Longitude: 74°9'37.123"
Easting: 586077.824 ft Northing: 768004.692 ft
Confinement Status: Unconfined

Distance: 18527 ft
Permit #: 43-00062
Owner: Hawthorne Water Dept
Well Name: Wagaraw Well 4
Address: Wagaraw Ave
Operational status: Operational
Latitude: 40°56'29.391" Longitude: 74°9'37.01"
Easting: 586086.085 ft Northing: 768101.926 ft
Confinement Status: Unconfined

Distance: 18597 ft
Permit #: 43-00063
Owner: Hawthorne Water Dept
Well Name: Wagaraw Well 5
Address: Wagaraw Ave
Operational status: Operational
Latitude: 40°56'30.385" Longitude: 74°9'36.887"
Easting: 586095.176 ft Northing: 768202.616 ft
Confinement Status: Unconfined

Distance: 18671 ft
Permit #: 43-00064
Owner: Hawthorne Water Dept
Well Name: Wagaraw Well 6
Address: Wagaraw Ave
Operational status: Operational
Latitude: 40°56'31.344" Longitude: 74°9'36.893"
Easting: 586094.268 ft Northing: 768299.571 ft
Confinement Status: Unconfined

Distance: 18733 ft
Permit #: 43-00065
Owner: Hawthorne Water Dept
Well Name: Wagaraw Well 7
Address: Wagaraw Ave
Operational status: Operational
Latitude: 40°56'31.23" Longitude: 74°9'38.312"
Easting: 585985.476 ft Northing: 768287.694 ft
Confinement Status: Unconfined

Distance: 18911 ft
Permit #: 43-00066
Owner: Hawthorne Water Dept
Well Name: Wagaraw Well 8
Address: Wagaraw Ave
Operational status: Operational
Latitude: 40°56'33.607" Longitude: 74°9'38.222"
Easting: 585991.440 ft Northing: 768528.232 ft
Confinement Status: Unconfined

Distance: 17217 ft
Permit #: 43-00067
Owner: Hawthorne Water Dept
Well Name: South Wagaraw Well 10
Address: Wagaraw Ave
Operational status: Operational
Latitude: 40°56'25.314" Longitude: 74°9'16.677"
Easting: 587648.048 ft Northing: 767695.530 ft
Confinement Status: Unconfined

Distance: 17051 ft
Permit #: 43-00068
Owner: Hawthorne Water Dept
Well Name: South Wagaraw Well 12
Address: Wagaraw Ave
Operational status: Operational
Latitude: 40°56'23.35" Longitude: 74°9'16.468"
Easting: 587664.932 ft Northing: 767496.762 ft
Confinement Status: Unconfined

Distance: 16811 ft
Permit #: 43-00069
Owner: Hawthorne Water Dept
Well Name: South Wagaraw Well 15

Address: Wagaraw Ave
Operational status: Operational
Latitude: 40°56'20.247" Longitude: 74°9'16.578"
Easting: 587657.741 ft Northing: 767182.735 ft
Confinement Status: Unconfined

Distance: 14601 ft
Permit #: 43-00097
Owner: Fairlawn Water Dept
Well Name: Well 14
Address: Westmoreland Ave
Operational status: Operational
Latitude: 40°56'25.034" Longitude: 74°8'9.404"
Easting: 592810.735 ft Northing: 767688.146 ft
Confinement Status: Unconfined

Distance: 17443 ft
Permit #: 46-00074
Owner: Wallington Water Dept
Well Name: Well 5
Address: Hathaway St & Main
Operational status: Inactive
Latitude: 40°51'18.831" Longitude: 74°6'48.083"
Easting: 599188.300 ft Northing: 736728.698 ft
Confinement Status: Unconfined

Distance: 17319 ft
Permit #: 46-00075
Owner: Wallington Water Dept
Well Name: Well 8
Address: Hathaway St & Main
Operational status: Inactive
Latitude: 40°51'20.095" Longitude: 74°6'47.145"
Easting: 599259.778 ft Northing: 736856.969 ft
Confinement Status: Unknown

Distance: 3202 ft
Permit #: 46-00113
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 1
Address: Boulevard & Gilbert Ave
Operational status: Operational
Latitude: 40°54'39.745" Longitude: 74°7'16.432"
Easting: 596921.914 ft Northing: 757050.657 ft
Confinement Status: Unconfined

Distance: 3711 ft
Permit #: 46-00114
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 2
Address: Boulevard & Washington Ave
Operational status: Operational
Latitude: 40°54'45.518" Longitude: 74°7'15.334"
Easting: 597003.708 ft Northing: 757635.229 ft
Confinement Status: Unconfined

Distance: 3697 ft
Permit #: 46-00115
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 4
Address: Boulevard & Washington Ave
Operational status: Operational
Latitude: 40°54'46.894" Longitude: 74°7'7.994"
Easting: 597566.628 ft Northing: 757776.986 ft
Confinement Status: Unconfined

Distance: 3294 ft
Permit #: 46-00116
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 5
Address: Gilbert Ave
Operational status: Operational
Latitude: 40°54'43.376" Longitude: 74°7'3.374"
Easting: 597922.858 ft Northing: 757422.514 ft
Confinement Status: Unconfined

Distance: 4040 ft
Permit #: 46-00117
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 8
Address: East 54th St & Lincoln Ave
Operational status: Operational
Latitude: 40°54'50.803" Longitude: 74°6'54.912"
Easting: 598569.178 ft Northing: 758176.949 ft
Confinement Status: Unconfined

Distance: 4232 ft
Permit #: 46-00118
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 10

Address: East 54th St & Dapp Ct
Operational status: Operational
Latitude: 40°54'52.071" Longitude: 74°6'48.599"
Easting: 599053.288 ft Northing: 758307.391 ft
Confinement Status: Unconfined

Distance: 3902 ft
Permit #: 46-00119
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 11
Address: Gilbert Ave
Operational status: Operational
Latitude: 40°54'48.403" Longitude: 74°6'46.664"
Easting: 599203.434 ft Northing: 757936.824 ft
Confinement Status: Unconfined

Distance: 3708 ft
Permit #: 46-00120
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 12
Address: Boulevard & Washington Ave
Operational status: Operational
Latitude: 40°54'43.51" Longitude: 74°7'21.286"
Easting: 596547.593 ft Northing: 757430.105 ft
Confinement Status: Unconfined

Distance: 3917 ft
Permit #: 46-00121
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 14
Address: Washington Ave & Viviney St
Operational status: Operational
Latitude: 40°54'39.813" Longitude: 74°7'33.059"
Easting: 595645.378 ft Northing: 757052.001 ft
Confinement Status: Unconfined

Distance: 4437 ft
Permit #: 46-00122
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 16
Address: Elm St & Washington Ave
Operational status: Operational
Latitude: 40°54'36.77" Longitude: 74°7'45.752"
Easting: 594672.183 ft Northing: 756739.999 ft
Confinement Status: Unconfined

Distance: 3919 ft
Permit #: 46-00123
Owner: Garfield Water Dept
Well Name: Elmwood Park Well 17
Address: Gilbert Ave & Elm St
Operational status: Operational
Latitude: 40°54'33.419" Longitude: 74°7'40.622"
Easting: 595067.544 ft Northing: 756402.487 ft
Confinement Status: Unconfined

Distance: 10547 ft
Permit #: 46-00147
Owner: Fairlawn Water Dept
Well Name: Well 2
Address: Romaine St
Operational status: Operational
Latitude: 40°55'53.776" Longitude: 74°7'21.792"
Easting: 596478.044 ft Northing: 764540.541 ft
Confinement Status: Unconfined

Distance: 10453 ft
Permit #: 46-00151
Owner: Fairlawn Water Dept
Well Name: Well 7
Address: Burbank St & Norma Ave
Operational status: Operational
Latitude: 40°55'51.025" Longitude: 74°7'33.002"
Easting: 595618.913 ft Northing: 764258.423 ft
Confinement Status: Unconfined

Distance: 8166 ft
Permit #: 46-00152
Owner: Fairlawn Water Dept
Well Name: Well 8
Address: Willow St
Operational status: Operational
Latitude: 40°55'30.646" Longitude: 74°7'16.089"
Easting: 596925.900 ft Northing: 762201.669 ft
Confinement Status: Unconfined

Distance: 11221 ft
Permit #: 46-00153
Owner: Fairlawn Water Dept
Well Name: Well 9

Address: George St
Operational status: Operational
Latitude: 40°55'53.792" Longitude: 74°7'53.814"
Easting: 594020.409 ft Northing: 764531.607 ft
Confinement Status: Unconfined

Distance: 10163 ft
Permit #: 46-00219
Owner: Fairlawn Water Dept
Well Name: Well 5
Address: Bellair Ave & 17th St
Operational status: Operational
Latitude: 40°55'50.089" Longitude: 74°7'20.513"
Easting: 596577.818 ft Northing: 764167.836 ft
Confinement Status: Unconfined

Distance: 6774 ft
Permit #: 97-02020
Owner: Rumpernook BWK Inc
Well Name: Well
Address: 17-15 Broadway (Rte 4)
Operational status: Closed
Latitude: 40°55'17.913" Longitude: 74°7'1.663"
Easting: 598038.900 ft Northing: 760918.000 ft
Confinement Status: To be determined

Distance: 21005 ft
Permit #: 97-02032
Owner: House Holding Corp
Well Name: Well
Address: 262 Rte 17 North
Operational status: Operational
Latitude: 40°51'30.4" Longitude: 74°4'5.741"
Easting: 611656.600 ft Northing: 737957.800 ft
Confinement Status: To be determined

Distance: 18450 ft
Permit #: 97-02074
Owner: Fiesta Hut
Well Name: Well
Address: 241 Rte 4 West
Operational status: Operational
Latitude: 40°54'55.901" Longitude: 74°3'6.101"
Easting: 616132.500 ft Northing: 758776.500 ft
Confinement Status: To be determined

EXPLANATION OF THE GROUND WATER DATA TABLES

----------WATER-QUALITY DATA TABLE----------

Water-quality data for the period October 1, 1998 to present are provisional and subject to revision.

For ground-water sites, if we realize that a well has been sealed the local identifier is modified to include the word "SEALED". Water-quality samples collected at those sites were collected before the well was sealed.

Coded remarks you might see:
"<", less than, ">" greater than, "E" estimated, "K", non-ideal colony count

EXPLANATION OF THE GROUND WATER DATA TABLES

----------USGS DESCRIPTIVE WELL INFORMATION (GWSI) TABLE----------

Please be aware of the following in regards to the table of descriptive well information (GWSI). (GWSI is the USGS Ground Water Site Inventory database.)

1. The table contains the records in our GWSI database, but we do not have records for all wells in the state of New Jersey. In general we enter records as we need them for work on our various projects.

2. The data are all provisional and subject to revision. Most of the data comes from well driller's well records which are submitted to the NJ Department of Environmental Protection, Bureau of Safe Drinking Water in observance of the State's well permitting program; other data may be taken from well permits and other sources. If in the course of our project work a site is visited and some part of the GWSI record is found no longer correct, that data is updated, however much of the data has not been field checked. Also there are few mechanisms for our being informed of changes to original information, such as changes depth of the well.

3. The GWSI components in this file were selected because we think they are the most useful to requestors. The GWSI system has other components. If our database shows a change in some component, two or more lines of information are printed for that site with the bottom line having the most recent information.

4. Some of the variables, including aquifer and county are coded. Lists of these codes are attached

5. In some cases, you may see a site with some data on a second line. In these cases, the first line contains the more recent data; the next line contains earlier data.

6. Following are the components in your GWSI table:

1.) SITE-ID/STATION NUMBER- a 15 digit unique number identifying the site, by which it can be retrieved. This number is used to uniquely identify each site on your table of water-quality data.

Ref. No. 17, p. 16/32

2.) LOCAL WELL NUMBER - a name assigned to a well to distinguish it from other wells belonging to the same owner, such as "Well #4".
3.) COUNTY - FIPS county code of the site location (see attached).
4.) TOWNSHIP - the township, city or borough of the site location.
5.) DEPTH OF WELL - depth of the finished well, in feet below land surface.
6.) TOP OF OPEN INTERVAL (FT) - depth in feet from land surface to top of
7.) AQUIFER CODE - a code identifying the primary aquifer unit from which the water is obtained (codes attached).
8.) CASING MATERIAL - a code representing the material of the casing (codes attached).
9.) PRIMARY USE OF SITE - a code indicating the principal use of the site or the purpose for which the site was constructed (codes attached).
10.) PRIMARY USE OF WATER - a code indicating the principal use of water from the site (codes attached).
11.) NEW JERSEY PERMIT-NUMBER - the NJ well permit number.
12.) LATITUDE - latitude of the site in degrees, minutes and seconds.
13.) LONGITUDE - longitude of the site in degrees, minutes and seconds.
14.) NEW JERSEY UNIQUE NUMBER - the number which was used for this site on the web page from which you made your data request.

----------GWSI CODES----------

Selected codes used in the Ground Water Site Information system (GWSI)

County codes (C8)

01 - Atlantic
03 - Bergen
05 - Burlington
07 - Camden
09 - Cape May
11 - Cumberland
13 - Essex
15 - Gloucester
17 - Hudson
19 - Hunterdon
21 - Mercer
23 - Middlesex
25 - Monmouth
27 - Morris
29 - Ocean
31 - Passaic
33 - Salem
35 - Somerset
37 - Sussex
39 - Union
41 - Warren

Primary Use of Site codes(C23)

Ref. No. 17, p. 17/32

A - anode
C - standby, emergency supply
D - drain
E - geothermal
G - seismic
H - heat reservoir
M - mine
O - observation
P - oil or gas
R - recharge
S - repressurize
T - test
U - unused
W - withdrawal
X - waste
Z - destroyed

Primary Use of Water codes (C24)

A - air conditioning
B - bottling
C - commercial
D - dewater
E - power
F - fire
H - domestic
I - irrigation
J - industrial (cooling)
K - mining
M - medicinal
N - industrial
P - public supply
Q - aquaculture
R - recreation
S - stock
T - institutional
U - unused
Y - desalinization
Z - other

Casing material (C80)

B-brick
C-concrete
D-copper

34	211MLRL	MOUNT LAUREL SAND
34	211MLRW	MOUNT LAUREL SAND-WENONAH FORMATION
34	211MRPA	MAGOTHY-RARITAN-POTOMAC AQUIFER SYSTEM, UNDIFFERENTIATED
34	211MRPAL	MAGOTHY-RARITAN-POTOMAC AQUIFER SYSTEM, LOWER AQUIFER
34	211MRPAM	MAGOTHY-RARITAN-POTOMAC AQUIFER SYSTEM, MIDDLE AQUIFER
34	211MRPAU	MAGOTHY-RARITAN-POTOMAC AQUIFER SYSTEM, UPPER AQUIFER
34	211MRSL	MARSHALLTOWN FORMATION
34	211NVSK	NAVESINK FORMATION
34	211ODBG	OLD BRIDGE SAND MEMBER OF MAGOTHY FORMATION
34	211RDBK	RED BANK SAND
34	211RRTN	RARITAN FORMATION
34	211SRVL	SAYREVILLE SAND MEMBER OF RARITAN FORMATION
34	211TNTN	TINTON SAND
34	211WBMV	WOODBURY CLAY-MERCHANTVILLE FORMATION
34	211WDBR	WOODBURY CLAY
34	211WNNH	WENONAH FORMATION
34	217PTMC	POTOMAC GROUP
34	227BNTN	BOONTON FORMATION
34	227BRCK	BRUNSWICK GROUP
34	227BRCKS	BRUNSWICK GROUP SEDIMENTARY
34	227BSLT	BASALT
34	227CGLM	CONGLOMERATE
34	227DIBS	DIABASE
34	227FLVL	FELTVILLE FORMATION
34	227HKMN	HOOK MOUNTAIN BASALT
34	227NWRK	NEWARK SUPERGROUP
34	227ORGM	ORANGE MOUNTAIN BASALT
34	227PRKS	PREAKNESS BASALT
34	227PSSC	PASSAIC FORMATION
34	227TOWC	TOWACO FORMATION
34	230TRSC	TRIASSIC SYSTEM
34	231CGLMU	UNCLASSIFIED CONGLOMERATES
34	231HMCK	HAMMER CREEK FORMATION
34	231LMCG	LIMESTONE CONGLOMERATE
34	231LCKG	LOCKATONG FORMATION
34	231QRCG	QUARTZITE CONGLOMERATE
34	231SCKN	STOCKTON FORMATION
34	300PLZC	PALEOZOIC ERATHEM
34	300WSCK	WISSAHICKON GNEISS
34	324KTTNL	LOWER KITTATINY LIMESTONE
34	324KTTNM	MIDDLE KITTATINY LIMESTONE
34	340DVNN	DEVONIAN SYSTEM
34	341SKMK	SKUNNEMUNK CONGLOMERATE
34	344BLVL	BELLVALE SANDSTONE
34	344CRNL	CORNWALL SHALE
34	344ESPS	ESOPUS FORMATION
34	344KNUS	KANOUSE SANDSTONE
34	344MRCL	MARCELLUS SHALE
34	344ONDG	ONONDAGA LIMESTONE
34	347CMNS	COEYMANS FORMATION
34	347DEPU	DEPUE LIMESTONE MEMBER OF COEYMANS FORMATION

Ref. No. 17, p. 19/32

NEW JERSEY UNIQUE NUMBER	SITE-ID	LOCAL WELL NUMBER	COUNTY	TOWNSHIP	AQUIFER CODE	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
030001	405438074072301	GARFIELD 11	003	ELMWOOD PARK BORO	227BRCKS	353	30.00	353.00
030086	405647074054201	HWC PRMUS TW1	003	PARAMUS BORO	227BRCKS	353	39.58	353.00
030092	405459074045601	HWC RCHL PK TW	003	ROCHELLE PARK TWP	227BRCKS	473	77.83	473.00
030093	405505074051501	HWC RPK TW2314	003	ROCHELLE PARK TWP	227BRCKS	348	38.00	348.00
030229	405714074082501	MAIN ST	003	GLEN ROCK BORO	227BRCKS	302	--	--
							52.5	302
030232	405646074043801	RIDGEWOOD CC 1-CLUBHOUSE	003	PARAMUS BORO	227BRCKS	306	54	306
030233	405415074074601	MARCAL PAPER 3	003	ELMWOOD PARK BORO	227BRCKS	325	30	325
030264	405126074060201	FARMLAND DAIRY 3	003	WALLINGTON BORO	227BRCKS	300	--	--
							50	300
030266	405159074050501	LODI BORO-TERRACE AVE	003	LODI BORO	227BRCKS	607	--	--
							48.5	607
030267	405241074041301	LODI BORO-COLUMBIA AVE	003	LODI BORO	227BRCKS	409	49.2	409
030268	405217074052301	LODI BORO-HOME PL-TW2	003	LODI BORO	227BRCKS	450	--	--
							56	450
030271	405205074042301	KRISO 1	003	HASBROUCK HEIGHTS BORO	227BRCKS	150	32	150
030272	405146074035401	MORONI 1	003	HASBROUCK HEIGHTS BORO	112SFDF	203	--	--
030273	405156074043001	NIMMO & CO 1	003	HASBROUCK HEIGHTS BORO	227BRCKS	180	31	180
030274	405207074043001	MITCHELL 1	003	HASBROUCK HEIGHTS BORO	227BRCKS	118	25	118
030285	405130074065301	QUALITY TROPICAL FISH 1	003	WALLINGTON BORO	227BRCKS	188	146	188
030286	405053074060401	WALLINGTON 2 OBS	003	WALLINGTON BORO	227PSSC	126	49	126
030287	405106074055701	WALLINGTON 1 OBS	003	WALLINGTON BORO	227PSSC	184	39	184
030288	405107074060901	WALLINGTON 3 OBS	003	WALLINGTON BORO	227PSSC	179	55	179
030296	405250074053401	LODI BORO-FARNHAM-ARNOT1	003	LODI BORO	227PSSC	400	70	400
030297	405259074050601	LODI BORO-WILSON-KIMMIG4	003	LODI BORO	227PSSC	307	40	307
030298	405317074050301	LODI BORO-WILSON-KIMMIG5	003	LODI BORO	227PSSC	300	40	300
030299	405053074060402	DULL FIELD	003	WALLINGTON BORO	227PSSC	400	--	--
							45.5	400
030300	405127074070701	LESTER STREET	003	WALLINGTON BORO	227PSSC	400	101	400
030308	405045074070401	OKF JAN 1970	003	EAST RUTHERFORD TWP	227PSSC	580	--	--
							142	580
030309	405049074071001	OKF NOV 1970	003	EAST RUTHERFORD TWP	227PSSC	300	143	300
030310	405209074063801	GARFIELD 5B	003	GARFIELD CITY	227PSSC	276	--	--
							61	276
030311	405251074065101	GARFIELD 1A TW	003	GARFIELD CITY	227PSSC	400	--	--
							50	400
030312	405300074055201	GARFIELD 2A GASTON AVE	003	GARFIELD CITY	227PSSC	475	--	--
							77	475
030313	405318074064801	GARFIELD 8C TW	003	GARFIELD CITY	227PSSC	405	--	--
							35	405

p. 20/32

NEW JERSEY UNIQUE NUMBER	CASING MATERIAL	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LATITUDE-LONGITUDE-CONVERTED FROM NAD1927	PRIMARY USE OF SITE	PRIMARY USE OF WATER	NEW JERSEY PERMIT NUMBER
030001	-	405438	740722	(*)	O	U	46-00119
030086	S	405647	740541	(*)	T	U	23-05450
030092	S	405459	740455	(*)	T	U	26-03017
030093	S	405505	740514	(*)	T	U	26-04504
030229	S	405714	740824	(*)	W	P	--
	S			(*)			23-01443
030232	S	405646	740437	(*)	W	C	43-00032
030233	S	405415	740745	(*)	W	N	46-00010
030264	S	405126	740601	(*)	W	N	--
	S			(*)			26-04250
030266	S	405159	740504	(*)	W	P	--
	S			(*)			26-01037
030267	S	405241	740412	(*)	W	P	46-00073
030268	S	405217	740522	(*)	W	P	--
	S			(*)			26-03185
030271	S	405205	740422	(*)	W	H	26-05307
030272	S	405146	740353	(*)	W	N	26-04705
030273	S	405156	740429	(*)	W	H	26-04929
030274	S	405207	740429	(*)	W	H	26-05013
030285	S	405130	740652	(*)	W	Q	26-08433
030286	I	405053	740603	(*)	O	U	26-15757
030287	I	405106	740556	(*)	O	U	26-15756
030288	I	405107	740608	(*)	O	U	26-15755
030296	S	405250	740533	(*)	U	P	46-00068
030297	S	405259	740505	(*)	W	P	46-00069
030298	S	405317	740502	(*)	W	P	46-00070
030299	S	405053	740603	(*)	W	P	--
	S			(*)			26-03933
030300	S	405127	740706	(*)	W	P	26-03027
030308	-	405045	740703	(*)	W	N	--
	-			(*)			26-04317
030309	-	405049	740709	(*)	W	N	26-04341
030310	S	405209	740637	(*)	W	P	--
	-			(*)			26-04010
030311	S	405251	740650	(*)	W	P	--
	S			(*)			26-04016
030312	S	405300	740551	(*)	W	P	--
	S			(*)			26-04063
030313	S	405318	740647	(*)	W	P	--
	S			(*)			26-04064

P.21/32

NEW JERSEY UNIQUE NUMBER	SITE-ID	LOCAL WELL NUMBER	COUNTY	TOWNSHIP	AQUIFER CODE	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
030314	405405074065601	DAK 4	003	ELMWOOD PARK BORO	227PSSC	250	81	250
030317	405540074081801	FAIR LAWN 19	003	FAIR LAWN BORO	227PSSC	400	--	--
							47	400
030318	405540074082801	FAIR LAWN 17 TH	003	FAIR LAWN BORO	227PSSC	350	52	350
030319	405540074083001	FAIR LAWN 16	003	FAIR LAWN BORO	227PSSC	413	--	--
							49	413
030321	405640074073001	EINSON 2	003	FAIR LAWN BORO	227PSSC	325	18.83	325
030322	405645074073501	EINSON 1	003	FAIR LAWN BORO	227PSSC	390	48	390
030323	405648074073501	EINSON 3	003	FAIR LAWN BORO	227PSSC	302	16	302
030324	405652074075801	NABISCO 2	003	FAIR LAWN BORO	227PSSC	393	58	393
030325	405711074061701	LEIGH AVE TW	003	GLEN ROCK BORO	227PSSC	300	--	--
							86	300
030345	405532074050501	ARCOLA CC 4	003	PARAMUS BORO	227PSSC	208	38	208
030352	405548074073201	FLWD 7 BURBANK ST	003	FAIR LAWN BORO	227PSSC	458	--	--
							60	458
030353	405550074075801	FLWD 9 GEORGE ST	003	FAIR LAWN BORO	227PSSC	404	--	--
							47.75	404
030354	405604074064101	FLWD TR-4 (28)	003	FAIR LAWN BORO	227PSSC	355	50	355
030355	405606074061201	FLWD TW R-1 (25)	003	FAIR LAWN BORO	227PSSC	370	59	370
030356	405608074061301	FLWD 26 VAN DUREN AVE	003	FAIR LAWN BORO	227PSSC	400	51	400
030357	405633074063301	FLWD TR-3 (27)	003	FAIR LAWN BORO	227PSSC	340	69	340
030359	405728074061201	NEWCOMBE RD	003	VILLAGE OF RIDGEWOOD	227PSSC	300	--	--
							70	300
030360	405734074063601	ACKERMAN	003	GLEN ROCK BORO	227PSSC	303	--	--
							49	303
030398	405055074060401	MAIN AVE	003	WALLINGTON BORO	227PSSC	400	--	--
							118.83	400
030399	405134074055501	FARMLAND 1	003	WALLINGTON BORO	227PSSC	650	--	--
							120	650
030401	405231074053201	CORA BELLA TW 3	003	LODI BORO	227PSSC	470	--	--
							48	470
030404	405420074061001	COOLING BRK ASSOC 2	003	SADDLE BROOK TWP	227PSSC	400	58	400
030405	405420074060001	COOLING PARK 80E 1	003	SADDLE BROOK TWP	227PSSC	300	40	300
030406	405410074061901	COOLING PARK 80W 4	003	SADDLE BROOK TWP	227PSSC	300	63	300
030407	405416074061501	COOLING BRK ASSOC 1	003	SADDLE BROOK TWP	227PSSC	400	56	400
030411	405528074071501	FLWD 8 LYNCREST	003	FAIR LAWN BORO	227PSSC	430	--	--
030414	405430074074501	GCWD 1	003	ELMWOOD PARK BORO	227PSSC	404	--	--
030415	405430074074502	GCWD 4	003	ELMWOOD PARK BORO	227PSSC	353	--	--
030416	405430074074503	GCWD 5	003	ELMWOOD PARK BORO	227PSSC	353	--	--
030417	405430074074504	GCWD 8	003	ELMWOOD PARK BORO	227PSSC	354	--	--

P. 22/32

NEW JERSEY UNIQUE NUMBER	CASING MATERIAL	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LATITUDE-LONGITUDE-CONVERTED FROM NAD1927	PRIMARY USE OF SITE	PRIMARY USE OF WATER	NEW JERSEY PERMIT NUMBER
030314	S	405405	740655	(*)	W	N	26-05037
030317	S	405540	740817	(*)	W	P	--
	S			(*)			26-01197
030318	S	405540	740827	(*)	W	P	26-01032
030319	-	405540	740829	(*)	W	N	--
	S			(*)			26-00465
030321	S	405640	740729	(*)	W	N	23-02038
030322	S	405645	740734	(*)	W	N	23-01946
030323	S	405648	740734	(*)	W	J	23-02081
030324	S	405652	740757	(*)	W	J	23-03369
030325	S	405711	740616	(*)	W	P	--
	S			(*)			23-04171
030345	S	405532	740504	(*)	W	I	26-03872
030352	S	405548	740731	(*)	W	P	--
	S			(*)			46-00151
030353	S	405550	740757	(*)	W	P	--
	S			(*)			46-00153
030354	S	405604	740640	(*)	W	P	23-07541
030355	S	405606	740611	(*)	W	P	23-07538
030356	S	405608	740612	(*)	W	P	23-07539
030357	S	405633	740632	(*)	W	P	23-07540
030359	S	405728	740611	(*)	T	U	--
	S			(*)			23-04170
030360	S	405734	740635	(*)	T	U	--
	S			(*)			23-02227
030398	S	405055	740603	(*)	W	P	--
	S			(*)			26-03934
030399	S	405134	740554	(*)	W	N	--
	S			(*)			26-04169
030401	S	405231	740531	(*)	W	P	--
	S			(*)			26-03183
030404	S	405420	740609	(*)	W	J	26-04235
030405	S	405420	740559	(*)	W	J	26-04104
030406	S	405410	740618	(*)	W	J	26-05301
030407	S	405416	740614	(*)	W	J	26-04234
030411	-	405528	740714	(*)	W	P	46-00152
030414	-	405430	740744	(*)	W	P	46-00113
030415	-	405430	740744	(*)	W	P	46-00115
030416	-	405430	740744	(*)	W	P	46-00116
030417	-	405430	740744	(*)	W	P	46-00117

p. 23/24

NEW JERSEY UNIQUE NUMBER	SITE-ID	LOCAL WELL NUMBER	COUNTY	TOWNSHIP	AQUIFER CODE	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
030418	405430074074505	GCWD 10	003	ELMWOOD PARK BORO	227PSSC	350	--	--
030419	405430074074506	GCWD 12	003	ELMWOOD PARK BORO	227PSSC	350	--	--
030420	405430074074507	GCWD 14	003	ELMWOOD PARK BORO	227PSSC	485	--	--
030421	405430074074508	GCWD 16	003	ELMWOOD PARK BORO	227PSSC	400	--	--
030422	405430074074509	GCWD 17	003	ELMWOOD PARK BORO	227PSSC	353	--	--
030423	405549074072401	FLWD 2	003	FAIR LAWN BORO	227PSSC	300	--	--
030424	405647074080701	FLWD 14	003	FAIR LAWN BORO	227PSSC	400	--	--
030455	405236074065301	FLEISCHER BROOK AREA 4B	003	GARFIELD CITY	227PSSC	400	--	--
							38	400
030456	405244074065301	LIZETTE & FLEISCHER 6B	003	GARFIELD CITY	227PSSC	300	--	--
							52	300
030457	405255074065301	GARFIELD 7	003	GARFIELD CITY	227PSSC	710	--	--
							43	710
030458	405433074075301	GARFIELD 1	003	ELMWOOD PARK BORO	227PSSC	300	--	--
030459	405433074075302	ELMWOOD PARK 2	003	ELMWOOD PARK BORO	227PSSC	358	--	--
030460	405540074081601	FLWD MEM PARK 15	003	FAIR LAWN BORO	227PSSC	402	46	402
030461	405636074080301	WESTMORELAND FLD 10	003	FAIR LAWN BORO	227PSSC	300	35	300
030462	405636074080901	FLWD WESTMORELAND 11	003	FAIR LAWN BORO	227PSSC	400	54	400
030481	405633074050001	2-COUNTRY CLUB	003	PARAMUS BORO	227PSSC	275	--	--
030484	405407074075301	MARCAL 1	003	ELMWOOD PARK BORO	227PSSC	150	--	--
030485	405407074075302	MARCAL 2	003	ELMWOOD PARK BORO	227PSSC	280	--	--
030486	405407074075303	MARCAL 4	003	ELMWOOD PARK BORO	227PSSC	80	--	--
030487	405407074075304	MARCAL 5	003	ELMWOOD PARK BORO	227PSSC	125	--	--
030488	405407074075305	MARCAL 6	003	ELMWOOD PARK BORO	227PSSC	300	--	--
030490	405300074051301	LODI BORO-STA 2 NO 7	003	LODI BORO	227PSSC	332	--	--
030491	405300074051302	LODI BORO-LAWRENCE AVE	003	LODI BORO	227PSSC	373	--	--
030492	405127074064701	HATHAWAY ST 5	003	WALLINGTON BORO	227PSSC	507	--	--
030493	405127074064702	PASSAIC RIVER 8	003	WALLINGTON BORO	227PSSC	503	--	--
030501	405540074051301	ARCOLA CC 3 PARAMUS	003	PARAMUS BORO	227PSSC	200	--	--
030507	405407074070001	DAK 2	003	ELMWOOD PARK BORO	227PSSC	150	--	--
030508	405407074070002	DAK 3	003	ELMWOOD PARK BORO	227PSSC	200	--	--
030509	405545074072201	FLWD 5 BELLAIR AVE	003	FAIR LAWN BORO	227PSSC	300	--	--
030512	405630074081001	FLWD WESTMORELAND 12	003	FAIR LAWN BORO	227PSSC	400	40	400
030519	405713074051301	BERGEN CO COLLEGE 1	003	PARAMUS BORO	227PSSC	200	--	--
030520	405713074051302	BERGEN CO PARK 2	003	PARAMUS BORO	227PSSC	210	--	--
030530	405553074060701	FLBORO 3/SEALED	003	FAIR LAWN BORO	227PSSC	300	--	--
030531	405553074060702	FLBORO MW-4	003	FAIR LAWN BORO	227PSSC	300	--	--
030532	405553074060703	FLBORO 6/SEALED	003	FAIR LAWN BORO	227PSSC	500	--	--
030534	405640074053001	PARAMUS GOLF 1	003	PARAMUS BORO	227PSSC	150	--	--
030535	405642074053201	PARAMUS GOLF 2	003	PARAMUS BORO	227PSSC	200	--	--

p. 24/32

NEW JERSEY UNIQUE NUMBER	CASING MATERIAL	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LATITUDE-LONGITUDE-CONVERTED FROM NAD1927	PRIMARY USE OF SITE	PRIMARY USE OF WATER	NEW JERSEY PERMIT NUMBER
030418	-	405451	740654	(*)	W	P	46-00118
030419	-	405440	740719	(*)	W	P	46-00120
030420	-	405430	740744	(*)	W	P	46-00121
030421	-	405430	740744	(*)	W	P	46-00122
030422	-	405430	740744	(*)	W	P	46-00123
030423	-	405549	740723	(*)	W	P	46-00147
030424	-	405647	740806	(*)	W	P	43-00097
030455	S	405236	740652	(*)	T	U	--
	S			(*)			26-04009
030456	S	405244	740652	(*)	W	P	--
	S			(*)			26-04103A
030457	S	405255	740652	(*)	W	P	--
	S			(*)			26-04017
030458	-	405433	740752	(*)	W	P	46-00124
030459	-	405433	740752	(*)	W	P	46-00114
030460	S	405540	740815	(*)	W	P	26-00393
030461	S	405636	740802	(*)	W	P	23-00249
030462	S	405636	740808	(*)	W	P	23-00250
030481	-	405633	740459	(*)	W	P	43-00033
030484	-	405407	740752	(*)	W	N	46-00008
030485	-	405407	740752	(*)	W	N	46-00009
030486	-	405407	740752	(*)	W	N	46-00011
030487	-	405407	740752	(*)	W	N	46-00012
030488	-	405407	740752	(*)	W	N	46-00013
030490	-	405300	740512	(*)	W	P	46-00071
030491	-	405300	740512	(*)	W	P	46-00072
030492	-	405127	740646	(*)	W	P	46-00074
030493	-	405127	740646	(*)	W	P	46-00075
030501	-	405540	740512	(*)	W	R	46-00126
030507	-	405407	740659	(*)	W	N	46-00210
030508	-	405407	740659	(*)	W	N	46-00211
030509	-	405545	740721	(*)	W	P	46-00219
030512	S	405630	740809	(*)	W	P	23-00251
030519	-	405713	740512	(*)	W	P	43-00101
030520	-	405713	740512	(*)	W	R	43-00100
030530	-	405553	740606	(*)	Z	P	46-00148
030531	-	405553	740606	(*)	O	P	46-00149
030532	-	405553	740606	(*)	Z	P	46-00150
030534	-	405640	740529	(*)	W	I	43-00096
030535	-	405642	740531	(*)	W	I	43-00095

p. 25/32

NEW JERSEY UNIQUE NUMBER	SITE-ID	LOCAL WELL NUMBER	COUNTY	TOWNSHIP	AQUIFER CODE	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
030536	405404074065501	DAK 1 IND	003	ELMWOOD PARK BORO	227PSSC	150	79	150
030537	405651074074801	FISHER RECOVERY PW-5	003	FAIR LAWN BORO	227PSSC	350	24	350
030538	405652074074501	FISHER RECOVERY PW-4	003	FAIR LAWN BORO	227PSSC	400	28	400
030539	405653074073001	FISHER PW-2	003	FAIR LAWN BORO	227PSSC	335	50	335
030552	405643074044601	RIDGEWOOD 3-WEST	003	PARAMUS BORO	227PSSC	500	29	500
030564	405138074054801	CWC-SC PW-4	003	WOODRIDGE BORO	227PSSC	300	23	300
030565	405139074054801	CWC-SC PW-3	003	WOODRIDGE BORO	227PSSC	240	18	240
030566	405139074055001	CWC RW-8	003	WOODRIDGE BORO	227PSSC	100	30	100
030567	405145074054401	CWC-SC PW-2	003	WOODRIDGE BORO	227PSSC	180	38	180
030568	405146074053001	CWC-SC PW-5	003	WOODRIDGE BORO	227PSSC	200	33	200
030569	405151074054001	CWC-SC PW-1	003	WOODRIDGE BORO	227PSSC	200	38	200
030570	405649074073901	FISHER TWP-7	003	FAIR LAWN BORO	227PSSC	12	--	--
030571	405650074073801	FISHER TPW-6	003	FAIR LAWN BORO	227PSSC	12	--	--
030572	405651074073701	FISHER TPW-4	003	FAIR LAWN BORO	227PSSC	12	--	--
030573	405651074074001	FISHER TPW-5	003	FAIR LAWN BORO	227PSSC	12	--	--
030574	405653074073701	FISHER TWP-3	003	FAIR LAWN BORO	227PSSC	12	--	--
030575	405654074073501	FISHER TPW-2	003	FAIR LAWN BORO	227PSSC	12	--	--
030576	405654074073701	FISHER TPW-1R	003	FAIR LAWN BORO	227PSSC	17	--	--
030594	405157074034201	TAKASAGO 1	003	TETERBORO BORO	227PSSC	445	227	445
030598	405633074083601	STEAM LEASING PW2	003	FAIR LAWN BORO	227PSSC	310	--	--
030599	405638074083201	STEAM LEASING PW1	003	FAIR LAWN BORO	227PSSC	400	56	310
310002	405151074091401	FED SWEETS 1	031	CLIFTON CITY	227BRCKS	400	50	400
310007	405121074064201	PRESCOTT 1	031	PASSAIC CITY	227BRCKS	500	49.00	400.00
310013	405237074095701	YEAST PRO 1	031	CLIFTON CITY	227BRCKS	285	--	--
310033	405247074082001	ARLINGTON AVE 3	031	CLIFTON CITY	227BRCKS	408	50	408
310070	405618074091801	S WAGARAW 10	031	HAWTHORNE BORO	227PSSC	300	--	--
310071	405618074091802	S WAGARAW 12	031	HAWTHORNE BORO	227PSSC	300	--	--
310072	405618074091803	S WAGARAW 11	031	HAWTHORNE BORO	227PSSC	300	--	--
310073	405625074094001	WAGARAW 5	031	HAWTHORNE BORO	227PSSC	285	--	--
310074	405625074094002	WAGARAW 6	031	HAWTHORNE BORO	227PSSC	388	--	--
310075	405625074094003	WAGARAW 3	031	HAWTHORNE BORO	227PSSC	300	--	--
310076	405625074094004	WAGARAW 4	031	HAWTHORNE BORO	227PSSC	300	--	--
310077	405625074094005	WAGARAW 7	031	HAWTHORNE BORO	227PSSC	369	--	--
310078	405625074094006	WAGARAW 8	031	HAWTHORNE BORO	227PSSC	416	--	--
310079	405639074093901	MAITLAND AVE	031	HAWTHORNE BORO	227PSSC	400	--	--
310080	405649074093101	CEDAR AVE WELL	031	HAWTHORNE BORO	227PSSC	398	60	400
310128	405140074070001	DYE-TEX 2	031	PASSAIC CITY	227PSSC	300	79	398

p.26/32

NEW JERSEY UNIQUE NUMBER	CASING MATERIAL	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LATITUDE-LONGITUDE-CONVERTED FROM NAD1927	PRIMARY USE OF SITE	PRIMARY USE OF WATER	NEW JERSEY PERMIT NUMBER
030536	S	405404	740654	(*)	W	N	26-00466
030537	S	405651	740747	(*)	W	Z	23-08700
030538	S	405652	740744	(*)	W	Z	23-08701
030539	S	405653	740729	(*)	W	N	26-05038
030552	-	405643	740445	(*)	W	I	23-03832
030564	S	405138	740547	(*)	W	Z	26-35341
030565	S	405139	740547	(*)	W	Z	26-35342
030566	S	405139	740549	(*)	W	Z	26-42263
030567	S	405145	740543	(*)	W	Z	26-35339
030568	S	405146	740529	(*)	W	Z	26-35340
030569	S	405151	740539	(*)	W	Z	26-35338
030570	-	405649	740738	(*)	W	N	23-14017
030571	-	405650	740737	(*)	W	N	23-14019
030572	-	405651	740736	(*)	W	N	23-14023
030573	-	405651	740739	(*)	W	N	23-14018
030574	-	405653	740736	(*)	W	N	23-14021
030575	-	405654	740734	(*)	W	N	23-14020
030576	-	405654	740736	(*)	W	N	23-14311
030594	S	405157	740341	(*)	W	N	26-03466
030598	S	405633	740835	(*)	W	N	--
	S			(*)			23-13895
030599	S	405638	740831	(*)	W	N	23-06893
310002	-	405151	740913	(*)	W	N	26-00110
310007	-	405121	740641	(*)	W	N	--
310013	-	405237	740956	(*)	W	N	26-05035
310033	S	405247	740819	(*)	W	N	26-04613
310070	-	405618	740917	(*)	W	P	43-00067
310071	-	405618	740917	(*)	W	P	43-00069
310072	-	405618	740917	(*)	W	P	43-00068
310073	-	405625	740939	(*)	W	P	43-00063
310074	-	405625	740939	(*)	W	P	43-00064
310075	-	405625	740939	(*)	W	P	43-00061
310076	-	405625	740939	(*)	W	P	43-00062
310077	-	405625	740939	(*)	W	P	43-00065
310078	-	405625	740939	(*)	W	P	43-00066
310079	S	405639	740938	(*)	W	P	--
	S			(*)			23-05139
310080	S	405649	740930	(*)	W	P	--
	S			(*)			23-04139
310128	-	405140	740659	(*)	W	N	46-00218

P. 2/32

NEW JERSEY UNIQUE NUMBER	SITE-ID	LOCAL WELL NUMBER	COUNTY	TOWNSHIP	AQUIFER CODE	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
310129	405153074070001	DYE-TEX 1	031	PASSAIC CITY	227PSSC	220	--	--
310152	405615074083502	PAPERBOARD SPEC 2	031	PATERSON CITY	227PSSC	800	--	--
310155	405615074083501	PAPERBOARD SPEC 1	031	PATERSON CITY	227PSSC	800	--	--
310160	405212074084501	BASF CORP 2/SEALED	031	CLIFTON CITY	227PSSC	600	21	600
310162	405400074091201	SHIPPING RM 1	031	PATERSON CITY	227PSSC	402	21.5	402
310163	405148074084601	SWEPCO 1	031	CLIFTON CITY	227PSSC	300	52	300

Ref. No. 17, p. 28

NEW JERSEY UNIQUE NUMBER	CASING MATERIAL	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LATITUDE-LONGITUDE-CONVERTED FROM NAD1927	PRIMARY USE OF SITE	PRIMARY USE OF WATER	NEW JERSEY PERMIT NUMBER
310129	-	405153	740659	(*)	W	N	46-00217
310152	-	405615	740834	(*)	W	N	43-00099
310155	-	405615	740834	(*)	W	N	43-00098
310160	S	405212	740844	(*)	Z	N	26-02812
310162	S	405400	740911	(*)	W	N	26-00755
310163	S	405148	740845	(*)	W	N	26-05011

Ref. No. 17, p. 29/32

Site Inspection Prioritization Report -
Synkote Paint
Telecon Note

Site Name and Address:	**START PM:** Harry Allen	**Contact:** Mike Sferruzzeo
Synkote Paint, 150 Van Riper Avenue, Elmwood Park, NJ	**Phone:** 732-225-6116	**Phone:** 973-546-2200
Date of Call: Wednesday, 16 March 2000	**Time of Call:** 1400 Hours	

On 16 March 2000, START H. Allen spoke with Mike Sferruzzeo of the Garfield Water Department office. Mr. Sferruzzeo stated that Garfield Water Department serves approximately 36,000 people. The department operates 9 wells which serve 45% of the total population. The remainder of the water is supplied by the Passaic Valley Water Commission. The well water is blended before distribution. Although Garfield Water Department owns approximately 18 wells, only 9 are presently in operation. The active wells are nos. 2, 4, 5, 8, 10, 11, 12, 14, and 16. All of these wells provide less than 40% of the total supply; therefore, each of these wells serves approximately 1,800 people.
Mr. Sferruzzeo also stated that the nine operating wells have had air strippers installed.

Signature of START member Harry Allen

Ref. No. 17, p. 30/3

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM			TELECON NOTE
CONTROL NO:	DATE: March 8, 2000	TIME: 1135	
DISTRIBUTION: TDD file 02-00-01-0005			
CONVERSATION WITH: Ron Tatham	OF Hawthorne WD	PHONE (973) 427-2501	
RECORDED BY: Gerald Gilliland, Region II START			

DISCUSSION:

Hawthorne Water Supply System

There are 21 active wells in the Hawthorne system. The Borough Hall (Grand Ave) and Goffle Rd 2 wells are inactive. South Wagaraw 11 is an observation well. No single well provides more than 40% of the total system supply. The population served is 19,000 persons through 6,000 connections. Some of the water is blended and some of the wells are individual, then there are four points of entry into one distribution system, and then the water is distributed. All wells are open-hole in the Brunswick Formation. He confirmed that they range in depth from 285 to 485 feet. Hawthorne WD doesn't buy water from any other water suppliers. Last year, Hawthorne sold about 25 million gallons to Ridgewood WD, which was about 2.5% of their total pumpage.

Signature: GG

Ref. No. 17, p. 31/32

Site Inspection Prioritization Report -
Synkote Paint
Telecon Note

Site Name and Address: Synkote Paint, 150 Van Riper Avenue, Elmwood Park, NJ	**START PM:** Harry Allen	**Contact:** Tom Elgert, Manager Engineering Design & Construction
	Phone: 732-225-6116	**Phone:** 201-784-9434
Date of Call: Tuesday, 28 March 2000	**Time of Call:** 1000 Hours	

On 28 March 2000, START H. Allen spoke with Tom Elgert of United Water Corporation. Mr. Elgert stated that the United Water: Rochelle Park well, on Roosevelt Avenue has been sealed and abandoned. The well is currently inactive and, therefore, serves zero persons.

Signature of START member Harry Allen

Ref. No. 17, p. 32/32

REFERENCE NO. 18

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		PROJECT NOTE
To: Synkote Paint site file	DATE: 2/29/00	Page 1 of 1
FROM: Harry Allen		
SUBJECT: Synkote Paint Site Drainage Area and Approximate Flow Rate of the Fleischer's Brook		
REFERENCE: USGS Topographic Maps, USGS's Water Resources Data, New Jersey, Water Year 1996, Hazard Ranking System Guidance Manual, and letter to James Rooney, EPA, from Everett Miller, USGS		

The drainage area for the Synkote Paint was calculated from USGS Topographic Maps using the Hazard Ranking System Guidance Manual Section 8.2 - Delineation of Watersheds and Drainage Areas. The drainage area for the site was determined to be **0.5 acre**.

Fleischer's Brook is a tributary of the Passaic River; therefore, the flow rate of the brook was calculated by equilibrating the ratio of flow rate over drainage area of the Passaic River to that of Fleischer's Brook. The flow rate and drainage area of the Passaic River were taken from USGS's Water Resources Data, New Jersey, Water Year 1996. The drainage area of Fleischer's Brook was calculated by Everett Miller of USGS as **1.78 miles²**. The ratio was solved for flow rate in cubic feet per second (cfs). The flow rate of Fleischer's Brook was determined to be approximately **5 cfs**, using the method below.

Drainage area of Fleischer's Brook watershed: 1.78 mi^2
Drainage area of Passaic River watershed: 803 mi^2
Average of mean monthly flow rates for the Passaic River: 2,725 cfs
x = approximate flow rate of Fleischer's Brook (cfs)

$2{,}725\ cfs/803\ mi^2 = x/1.78\ mi^2$
$1.78\ mi^2 * (2{,}725\ cfs/803\ mi^2) = x$
x = 5.04 cfs

Ref. No. 18

REFERENCE NO. 19

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		TELECON NOTE
CONTROL NO:	DATE: 3 June 1999	TIME: 1515
DISTRIBUTION: Iceland Coin Laundry and Dry Cleaning Groundwater Contamination		
CONVERSATION WITH: Steve Spayd	OF NJGS	PHONE (609) 984-6587
RECORDED BY: Diane Minsavage, Region II START		

DISCUSSION:

Wellhead Protection Area

The Well Head Protection Program was taken over by the Source Water Assessment Program. The Source Water Assessment Program defines the sources of water; therefore, the source of water obtained from wells would be groundwater. A Preliminary Assessment Plan was put in 1998; the plan will be sent to the EPA this month. The Well Head Protection Areas (WHPAs) have not been delineated yet - there is just a plan. Some areas (counties) have draft WHPA maps; there are draft WHPA maps for Cumberland County. SS can determine if site overlies WHPA or if WHPA is located within 4 miles of the site; SS indicated that it was very likely that a WHPA is located within 4 miles of the site. To obtain site specific info - fax a map showing the location of the site on a topo map with a the request (i.e., does the site overlie WHPA and/or is WHPA located within 4 miles of the site) noting information is needed by tomorrow to SS at (609) 633-1004.

Signature: Diane Minsavage

Ref. No. 19

REFERENCE NO. 20

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		PROJECT NOTE
To: Synkote Paint site file	DATE: 3/8/00	Page 1 of 1
FROM: Harry Allen		
SUBJECT: Synkote Paint Site, Sensitive Environments (within a 4 mile radius or 15 miles downstream).		
REFERENCE: USGS Topographic Maps, letter and information package from New Jersey Department of Environmental Protection's Natural Heritage Program, Hazard Ranking System Rule.		

On 8 March 2000 START member Allen received information from the NJDEP's Natural Heritage Program office regarding federal and state designated sensitive environments in the vicinity of the Synkote Paint site. This information included the approximate location, and the population status of species characterized as endangered or threatened. The Natural Heritage office provided a list of endangered or threatened species said to be located in the "general vicinity of the project site." These species habitats cannot be pinpointed by Natural Heritage methods; therefore, they were evaluated, for the purposes of this SIP report, as if located within the 3 to 4 mile distance ring. The Natural Heritage office also reported that one state endangered species was located "on or in the immediate vicinity of associated waterways" in the Synkote Paint report. This species habitat location is considered to be within 15 miles downstream of the site; however, the exact location is not known.

Sensitive Environments within 4 miles:		within 15 downstream miles:
On-site	N/A	Peregrine Falcon (SE)
> 0 - 1/4 mile	N/A	
> 1/4 - ½ mile	N/A	
> ½ - 1 mile	N/A	
> 1 - 2 mile	N/A	
> 2 - 3 mile	N/A	
> 3 - 4 mile	Wood Turtle (ST), American Burying Beetle (FE, SE), Featherfoil (SE), Minute Duckweed (FE)	

Legend - FE - designated by the federal government as an "endangered" species; FT - designated by the federal government as "threatened"; SE - designated by the state government as an "endangered" species; ST - designated by the state government as "threatened."

Ref. No. 20, p. 1 /11

Christine Todd Whitman
Governor

State of New Jersey

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

Division of Parks and Forestry
Office of Natural Lands Management
Natural Heritage Program
P.O. Box 404
Trenton, NJ 08625-0404
Tel. #609-984-1339
Fax. #609-984-1427

March 1, 2000

Harry L. Allen
Superfund Technical Assessment and Response Team
Roy F. Weston, Inc.
1090 King Georges Post Road, Suite 201
Edison, NJ 08837-3703

Re: Synkote Paint and Associated Waterways

Dear Mr. Allen:

Thank you for your data request regarding rare species information for the above referenced project site in Bergen, Passaic, Essex and Hudson Counties.

The Natural Heritage Data Base does not have any records for rare plants, animals, or natural communities on the Synkote Paint site. However, there are records for two occurrences of rare species that may be on or in the immediate vicinity of the waterways that you have associated with the site. The attached list provides additional information about these occurrences. Also attached is a list of rare species from records in the general vicinity of the project site (within approximately 4 miles).

Additionally, enclosed are lists of rare species and natural communities that have been documented from Bergen, Passaic, Essex and Hudson Counties. These county lists can be used as master species lists for directing further inventory work. If suitable habitat is present within the study area, these species have potential to be present. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend you contact the Division of Fish, Game and Wildlife, Endangered and Nongame Species Program.

In order to red flag the general locations of documented occurrences of rare and endangered species and natural communities, we have prepared computer generated Natural Heritage Index Maps. Enclosed please find these maps for the Hackensack, Elizabeth, Weehawken, Orange and Paterson USGS quadrangles. If individual projects are to be located in the shaded areas of these maps, the Natural Heritage Program can be contacted for additional information.

PLEASE SEE THE ATTACHED 'CAUTIONS AND RESTRICTIONS ON NHP DATA'.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Thomas F. Breden
Supervisor

cc: Lawrence Niles
Thomas Hampton
NHP File No. 00-4007481

NATURAL LANDS MANAGEMENT

CAUTIONS AND RESTRICTIONS ON NATURAL HERITAGE DATA

The quantity and quality of data collected by the Natural Heritage Program is dependent on the research and observations of many individuals and organizations. Not all of this information is the result of comprehensive or site-specific field surveys. Some natural areas in New Jersey have never been thoroughly surveyed. As a result, new locations for plant and animal species are continuously added to the data base. Since data acquisition is a dynamic, ongoing process, the Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of New Jersey. Information supplied by the Natural Heritage Program summarizes existing data known to the program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. The attached data is provided as one source of information to assist others in the preservation of natural diversity.

This office cannot provide a letter of interpretation or a statement addressing the classification of wetlands as defined by the Freshwater Wetlands Act. Requests for such determination should be sent to the DEP Land Use Regulation Program, P.O. Box 401, Trenton, NJ 08625-0401.

This cautions and restrictions notice must be included whenever information provided by the Natural Heritage Database is published.

28 FEB 2000

ON OR IN THE IMMEDIATE VICINITY OF ASSOCIATED WATERWAYS
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK	SRANK	DATE OBSERVED	IDENT.
*** Vertebrates								
FALCO PEREGRINUS	PEREGRINE FALCON		E		G4	S1B,S?N	1994-05-??	Y
*** Vascular plants								
RANUNCULUS PUSILLUS	LOW SPEARWORT				G5	S2	1935-03-31	Y

2 Records Processed

Ref. No 20, p. 5/11

28 FEB 2000

GENERAL VICINITY OF PROJECT SITE
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK	SRANK	DATE OBSERVED	IDENT.
*** Vertebrates								
CLEMMYS INSCULPTA	WOOD TURTLE		T		G4	S3	1987-07-01	?
*** Invertebrates								
ALASMIDONTA UNDULATA	TRIANGLE FLOATER				G4	S3	????-??-??	Y
ERYNNIS LUCILIUS	COLUMBINE DUSKY WING				G4	SH	????-04-19	Y
NICROPHORUS AMERICANUS	AMERICAN BURYING BEETLE	LE	E		G1	SH	??56-??-??	Y
PAPILIO CRESPHONTES	GIANT SWALLOWTAIL				G5	S1	????-08-04	Y
PIERIS VIRGINIENSIS	WEST VIRGINIA WHITE				G3G4	SH	????-05-06	Y
PIERIS VIRGINIENSIS	WEST VIRGINIA WHITE				G3G4	SH	????-05-06	Y
PYRGUS WYANDOT	SOUTHERN GRIZZLED SKIPPER				G2	SH	1905-04-30	Y
PYRGUS WYANDOT	SOUTHERN GRIZZLED SKIPPER				G2	SH	1908-05-03	Y
WILLIAMSONIA LINTNERI	RINGED BOGHAUNTER				G2	SH	????-05-04	Y
*** Vascular plants								
ANEMONE CANADENSIS	CANADA ANEMONE				G5	SX	1864-06-??	Y
ANEMONE CANADENSIS	CANADA ANEMONE				G5	SX	1890-06-29	Y
HOTTONIA INFLATA	FEATHERFOIL		E		G4	S1	1937-06-13	Y
HOTTONIA INFLATA	FEATHERFOIL		E		G4	S1	1874-06-20	Y
LEMNA PERPUSILLA	MINUTE DUCKWEED		E		G5	S1	1935-07-14	Y

15 Records Processed

Ref. No. 80, p. 6/11

EXPLANATIONS OF CODES USED IN NATURAL HERITAGE REPORTS

FEDERAL STATUS CODES

The following U.S. Fish and Wildlife Service categories and their definitions of endangered and threatened plants and animals have been modified from the U.S. Fish and Wildlife Service (F.R. Vol. 50 No. 188; Vol. 61, No. 40; F.R. 50 CFR Part 17). Federal Status codes reported for species follow the most recent listing.

LE Taxa formally listed as endangered.

LT Taxa formally listed as threatened.

PE Taxa already proposed to be formally listed as endangered.

PT Taxa already proposed to be formally listed as threatened.

C Taxa for which the Service currently has on file sufficient information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species.

S/A Similarity of appearance species.

STATE STATUS CODES

Two animal lists provide state status codes after the Endangered and Nongame Species Conservation Act of 1973 (NSSA 23:2A-13 et. seq.): the list of endangered species (N.J.A.C. 7:25-4.13) and the list defining status of indigenous, nongame wildlife species of New Jersey (N.J.A.C. 7:25-4.17(a)). The status of animal species is determined by the Nongame and Endangered Species Program (ENSP). The state status codes and definitions provided reflect the most recent lists that were revised in the New Jersey Register, Monday, June 3, 1991.

D Declining species-a species which has exhibited a continued decline in population numbers over the years.

E Endangered species-an endangered species is one whose prospects for survival within the state are in immediate danger due to one or many factors - a loss of habitat, over exploitation, predation, competition, disease. An endangered species requires immediate assistance or extinction will probably follow.

EX Extirpated species-a species that formerly occurred in New Jersey, but is not now known to exist within the state.

I Introduced species-a species not native to New Jersey that could not have established itself here without the assistance of man.

INC Increasing species-a species whose population has exhibited a significant increase, beyond the normal range of its life cycle, over a long term period.

T Threatened species-a species that may become endangered if conditions surrounding the species begin to or continue to deteriorate.

P Peripheral species-a species whose occurrence in New Jersey is at the extreme edge of its present natural range.

S Stable species-a species whose population is not undergoing any long-term increase/decrease within its natural cycle.

U Undetermined species-a species about which there is not enough information available to determine the status.

Status for animals separated by a slash(/) indicate a duel status. First status refers to the state breeding population, and the second status refers to the migratory or winter population.

Plant taxa listed as endangered are from New Jersey's official Endangered Plant Species List N.J.S.A. 131B-15.151 et seq.

E Native New Jersey plant species whose survival in the State or nation is in jeopardy.

REGIONAL STATUS CODES FOR PLANTS

LP Indicates taxa listed by the Pinelands Commission as endangered or threatened within their legal jurisdiction. Not all species currently tracked by the Pinelands Commission are tracked by the Natural Heritage Program. A complete list of endangered and threatened Pineland species is included in the New Jersey Pinelands Comprehensive Management Plan.

EXPLANATION OF GLOBAL AND STATE ELEMENT RANKS

The Nature Conservancy has developed a ranking system for use in identifying elements (rare species and natural communities) of natural diversity most endangered with extinction. Each element is ranked according to its global, national, and state (or subnational in other countries) rarity. These ranks are used to prioritize conservation work so that the most endangered elements receive attention first. Definitions for element ranks are after The Nature Conservancy (1982; Chapter 4, 4.1-1 through 4.4.1.3-3).

GLOBAL ELEMENT RANKS

G1 Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G2 Imperiled globally because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extinction throughout its range.

G3 Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout it's range; with the number of occurrences in the range of 21 to 100.

G4 Apparently secure globally; although it may be quite rare in parts of its range, especially at the periphery.

G5 Demonstrably secure globally; although it may be quite rare in parts of its range, especially at the periphery.

GH Of historical occurrence throughout its range i.e., formerly part of the established biota, with the expectation that it may be rediscovered.

GU Possibly in peril range-wide but status uncertain; more information needed.

GX Believed to be extinct throughout range (e.g., passenger pigeon) with virtually no likelihood that it will be rediscovered.

G? Species has not yet been ranked.

STATE ELEMENT RANKS

S1 Critically imperiled in New Jersey because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres)

Ref. No. 20, p. 8/11

Elements so ranked are often restricted to very specialized conditions or habitats and/or restricted to an extremely small geographical area of the state. Also included are elements which were formerly more abundant, but because of habitat destruction or some other critical factor of its biology, they have been demonstrably reduced in abundance. In essence, these are elements for which, even with intensive searching, sizable additional occurrences are unlikely to be discovered.

S2 Imperiled in New Jersey because of rarity (6 to 20 occurrences). Historically many of these elements may have been more frequent but are now known from very few extant occurrences, primarily because of habitat destruction. Diligent searching may yield additional occurrences.

S3 Rare in state with 21 to 100 occurrences (plant species in this category have only 21 to 50 occurrences). Includes elements which are widely distributed in the state but with small populations/acreage or elements with restricted distribution, but locally abundant. Not yet imperiled in state but may soon be if current trends continue. Searching often yields additional occurrences.

S4 Apparently secure in state, with many occurrences.

S5 Demonstrably secure in state and essentially ineradicable under present conditions.

SA Accidental in state, including species (usually birds or butterflies) recorded once or twice or only at very great intervals, hundreds or even thousands of miles outside their usual range; a few of these species may even have bred on the one or two occasions they were recorded; examples include European strays or western birds on the East Coast and vice-versa.

SE Elements that are clearly exotic in New Jersey including those taxa not native to North America (introduced taxa) or taxa deliberately or accidentally introduced into the State from other parts of North America (adventive taxa). Taxa ranked SE are not a conservation priority (viable introduced occurrences of G1 or G2 elements may be exceptions).

SH Elements of historical occurrence in New Jersey. Despite some searching of historical occurrences and/or potential habitat, no extant occurrences are known. Since not all of the historical occurrences have been field surveyed, and unsearched potential habitat remains, historically ranked taxa are considered possibly extant, and remain a conservation priority for continued field work.

SP Element has potential to occur in New Jersey, but no occurrences have been reported.

SR Elements reported from New Jersey, but without persuasive documentation which would provide a basis for either accepting or rejecting the report. In some instances documentation may exist, but as of yet, its source or location has not been determined.

SRF Elements erroneously reported from New Jersey, but this error persists in the literature.

SU Elements believed to be in peril but the degree of rarity uncertain. Also included are rare taxa of uncertain taxonomical standing. More information is needed to resolve rank.

SX Elements that have been determined or are presumed to be extirpated from New Jersey. All historical occurrences have been searched and a reasonable search of potential habitat has been completed. Extirpated taxa are not a current conservation priority.

SXC Elements presumed extirpated from New Jersey, but native populations collected from the wild exist in cultivation.

SZ Not of practical conservation concern in New Jersey, because there are no definable occurrences, although the taxon is native and appears regularly in the state. An SZ rank will generally be used for long distance migrants whose occurrences during their migrations are too irregular (in terms of repeated visitation to the same locations), transitory, and dispersed to be reliably identified, mapped and

protected. In other words, the migrant regularly passes through the state, but enduring, mappable element occurrences cannot be defined.

Typically, the SZ rank applies to a non-breeding population (N) in the state - for example, birds on migration. An SZ rank may in a few instances also apply to a breeding population (B), for example certain lepidoptera which regularly die out every year with no significant return migration.

Although the SZ rank typically applies to migrants, it should not be used indiscriminately. Just because a species is on migration does not mean it receives an SZ rank. SZ will only apply when the migrants occur in an irregular, transitory and dispersed manner.

B Refers to the breeding population of the element in the state.

N Refers to the non-breeding population of the element in the state.

T Element ranks containing a "T" indicate that the infraspecific taxon is being ranked differently than the full species. For example *Stachys palustris* var. *homotricha* is ranked "G5T? SH" meaning the full species is globally secure but the global rarity of the var. *homotricha* has not been determined; in New Jersey the variety is ranked historic.

Q Elements containing a "Q" in the global portion of its rank indicates that the taxon is of questionable, or uncertain taxonomical standing, e.g., some authors regard it as a full species, while others treat it at the subspecific level.

.1 Elements documented from a single location.

Note: To express uncertainty, the most likely rank is assigned and a question mark added (e.g., G2?). A range is indicated by combining two ranks (e.g., G1G2, S1S3).

IDENTIFICATION CODES

These codes refer to whether the identification of the species or community has been checked by a reliable individual and is indicative of significant habitat.

Y Identification has been verified and is indicative of significant habitat.

BLANK Identification has not been verified but there is no reason to believe it is not indicative of significant habitat.

? Either it has not been determined if the record is indicative of significant habitat or the identification of the species or community may be confusing or disputed.

Revised September 1998

Ref. No. 20, p. 10/1

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		PROJECT NOTE
To: Synkote Paint site file	DATE: 2/29/00	Page 1 of 1
FROM: Harry Allen		
SUBJECT: Synkote Paint Site Wetland Frontage and Acreage		
REFERENCE: USGS Topographic Maps, National Wetlands Inventory (NWI) Topographic Maps, and the HRS Guidance Manual, Highlight A-8, pg. A-22		

On 29 February 2000 START member Allen delineated the HRS eligible wetlands, applicable to the air and surface water migration pathways, for the Synkote Paint site evaluation. START used the HRS guidance on the "Comparison of HRS Wetlands Definition and Wetlands Classification System Used for NWI Maps" was used to determine which wetlands could be counted as HRS wetlands. USGS and NWI maps were used to plot the 15 mile surface water migration pathway. The wetland frontage for each surface water body was calculated by measuring the distance along the wetland shoreline, where it touches that surface water body. USGS and NWI maps were also used to determine wetland acreage for the air pathway evaluation. Wetland acreage was calculated by adding the number of acres within each target distance ring. The following are the results of the wetland delineation:

Distance from Synkote Paint:	Wetlands (acres):	Wetland Frontage (miles):
On site	0	Passaic River: 1.5
0 - 1/4 mile	0	(starting at 2 mi downstream of the site)
>1/4 - 1/2 mile	5	
>1/2 - 1 mile	20	
>1 - 2 miles	80	
>2 - 3 miles	230	
>3 - 4 miles	235	

Ref. No. 20, p. 11/1

Approximate site location
NATIONAL WETLANDS INVENTORY
UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Prepared by Office of Biological Services for the National Wetlands Inventory
SCALE 1:24 000
WETLAND LEGEND
U — Primarily represents upland areas, but may include unclassified wetlands such as man-modified areas, non photo-identifiable areas and/or unintentional omissions.
ECOLOGICAL SYSTEM
Ecological Subsystem
CLASS
Subclass
E — ESTUARINE
1 — Subtidal
2 — Intertidal
M — MARINE
1 — Subtidal
2 — Intertidal
P — PALUSTRINE
No Subsystem
L — LACUSTRINE
1 — Limnetic
2 — Littoral
R — RIVERINE
1 — Tidal
2 — Lower Perennial
3 — Upper Perennial
4 — Intermittent
5 — Unknown Perennial
MODIFYING TERMS
In order to more adequately describe wetland and aquatic habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.
WATER REGIME(1)
Non-Tidal
Tidal
WATER CHEMISTRY
Coastal Salinity
Inland Salinity
pH Modifiers for all Fresh Water
SOIL
SPECIAL MODIFIERS
(1) Information on the water regime modifiers found on this legend, but not found in the classification system, may be obtained from the above listed source.
(1) EM — EMERGENTS are only found in the Riverine Tidal and Riverine Lower Perennial Ecological Subsystems. All other classes are found in all Riverine Ecological Subsystems.

REFERENCE NO. 21

United States Department of the Interior

GEOLOGICAL SURVEY
Water Resources Division
420 Federal Building
P. O. Box 1238
Trenton, N. J. 08607

November 29, 1973

Mr. James Rooney
Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10007

Dear Mr. Rooney:

As we have discussed previously, I have tabulated below estimated 7-day 10-year minimum flows for 22 gaging stations in New Jersey that have not previously had these figures computed because of either severe regulation or short periods of record.

Station Number	Station Name	Estimated 7-day 10-year minimum discharge in cfs
101384000	Wanaque River at Monks, N. J.	3.1
101388000	Ramapo River at Pompton Lakes, N. J.	13
101388500	Pompton River at Pompton Plains, N. J.	37
101389500	Passaic River at Little Falls, N. J.	29
101392000	Weasel Brook at Clifton, N. J.	.12
101393500	Elizabeth River at Elizabeth, N. J.	1.4
101394000	West Br. Rahway River at Millburn, N. J.	0
101394500	Rahway River near Springfield, N. J.	1.0
101395000	Rahway River at Rahway, N. J.	.28
101396000	Robinsons Br. Rahway R. at Rahway, N. J.	0
101400932	Baldwin Creek near Pennington, N. J.	0
101401500	Millstone River near Kingston, N. J.	6.9
101402000	Millstone River at Blackwells Mills, N. J.	16
101403500	Green Brook at Plainfield, N. J.	0
101404000	Green Brook at Bound Brook, N. J.	9.9
101455200	Pohatcong Creek at New Village, N. J.	.46
101456000	Musconetcong R. near Hackettstown, N. J.	12
101462000	Delaware River at Lambertville, N. J.	*
101465850	South Br. Rancocas Creek at Vincentown, N. J.	7.6
101466000	Middle Br. Mt. Misery Brook in Lebanon State Forest, N. J.	0
101476600	Still Run near Mickleton, N. J.	.61
101403000	Raritan River at Bound Brook, N. J.	59

* Use Delaware River at Riegelsville, N. J. or Delaware River at Trenton, N. J. or interpolate between two stations.

Ref. No. 21, p. 173

r publish these figures nor would we like to have them quoted probably hydrologically insignificant or even erroneous. They igures that are computed on the basis of the existing record with the existing conditions of regulation during the years n some cases, the pattern of regulation has changed dras- e course of the life of the gaging station and the computed not represent current conditions. In the case of some streams y short records, the figure quoted is based on insufficient period of rd.

With these strong warnings on the validity of the figures furnished, I trust it will be of some help to you.

For the District Chief, John E. McCall:

Sincerely yours,

E. G. Miller

Everett G. Miller
Chief, Hydrologic Studies Section

Ref. No. 21, p. 2/3

R = regulated stream

Ref: Statistical Summary of N.J. Stream Flow Records — USGS Water Resources Circular No. 2

STATION NUMBER	STATION DESCRIPTION	STATION CORELLATED TO	RATED 10 YR (CFS) LOW FLOW	DRAINAGE AREA (SQ MI)	RUNOFF (CFS / SQ MI) COEFFICIE
3814 MENDHAM	WHIPPANY RIVER NEAR MORRISTOWN NJ	3815 (Z) (7.605)	1.7	14.0	0.12
3814.7 MENDHAM	WHIPPANY RIVER NO. 2 AT GREYSTONE PARK STATE HOSPITAL N.J.	3815 (Z) (7.605)	EXTRAP 0.4	1.39	0.29
3814.9 MORRISTOWN	WHIPPANY RIVER TRIB AT MORRIS PLAINS NJ	3815 (Z) (7.605)	2.5	7.77	0.32
3819 CALDWELL	PASSAIC RIVER AT PINE BROOK NJ	3795 (K) (3.082)	30.5	349	0.09
3820 POMPTON PLAINS	PASSAIC RIVER AT TWO BRIDGES N.J.	3795 (K) (3.082)	22 ? QUESTIONABLE	361	
3890 POMPTON PLAINS	POMPTON RIVER AT TWO BRIDGES NJ	3885 CHECK RAW DATA		380	
3899.05 HACKENSACK	FLEISCHER BROOK AT EAST PATERSON NJ	3910 (F) (3.260)	~~[illegible]~~ 0.082	1.78	0.05
3904.5 PARK RIDGE	SADDLE RIVER AT UPPER SADDLE RIVER NJ	3905 (2.313)	~~[illegible]~~ 2.2	10.9	0.20
3911.1 HACKENSACK	SADDLE RIVER AT PARAMUS NJ	3915 (12.619)	8.4	45.0	0.19
3914.85 HACKENSACK	SPROUT BROOK AT ROCHELLE PARK N.J.	3905 (2.313)	3.4	5.56	0.61
3961.2 CHESTER	SOUTH BRANCH RARITAN RIVER AT BARTLEY NJ	3965 (S) (20.768)	2.5	12.5	0.20
3961.8 CHESTER	DRAKES BROOK AT BARTLEY NJ	3965 (S) (20.768)	4.5	16.6	0.27

REFERENCE NO. 22

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM **PROJECT NOTE**

To:
Synkote Paint site file

DATE:
3/21/00

FROM:
Harry Allen

SUBJECT:
CERCLA Removal Action Documentation: Synkote Paint Site

REFERENCE:
Hazardous waste manifests, authorization request forms, memo from Region II Technical Assistance Team to EPA, Re: Assessment of Remaining Potential Hazards at the Synkote Paint Site, and Work Plan for Packaging, Transportation and Disposal at the Synkote Paints Site.

The U. S. EPA performed a Removal Action under the Comprehensive Environmental Compensation and Liability Act (CERCLA). In October 1989, Waste at the site was containerized and overpacked according to waste compatibility. S & D Engineering Services, Inc., of Edison, New Jersey, conducted the Removal Action at the site, under an EPA Emergency Response Cleanup Services (ERCS) contract. S & D sampled all the drums at the site and stabilized the laboratory chemicals present inside the building. In June 1990, S & D overpacked all the drums and paint cans on the site. During this Removal Action, EPA disposed 248 containers off site. The following is a waste manifest summary:

Waste Classification (shipping name and ID number):	**Number of Containers:**
Waste Flammable Solid N.O.S./UN 1325	54
Waste Flammable Liquid N.O.S./UN 1993	66
Hazardous Waste Solid N.O.S./NA 9189	15
Hazardous Waste Liquid N.O.S./NA 9189	113

All containers were shipped to ThermalKem Inc., Rock Hill, South Carolina for incineration. Each manifest was accompanied by an Authorization Request Form (ARF). Each ARF form listed the constituents of each waste stream. These constituents included several Volatile Organic Compounds (VOCs), including acetone, 2-butanone, toluene, xylene, ethylbenzene, methyl (isobutyl) ketone, 1-ethyl 2-methyl benzene, and tetrachloroethylene. Semivolatile Organic Compounds (SVOCs) present included pyrene, bis (2-ethylhexyl) phthalate.

Ref. No. 22, p. 1/65

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM **PROJECT NOTE**

To: Synkote Paint site file

DATE: 3/21/00

FROM: Harry Allen

SUBJECT: CERCLA Removal Action Documentation: Synkote Paint Site

Inorganic analytes present in the waste stream included arsenic, lead, chromium (hexavalent), mercury, and cyanide. Following the Removal Action, an assessment of remaining potential hazards was performed. It was reported that, outside of the building, 3 aboveground storage tanks remain, as well as 3 drums (containing approximately 2 inches of paint residue), a large mixinig vat (containing 1/2" of residue), a metal hopper, a 125 cubic foot dumpster, several machine parts, some empty drums, and some paint residue on the ground surface. The assessment further noted that 6 reactor vessels were left inside of the building.

WORK PLAN FOR PACKAGING, TRANSPORTATION AND DISPOSAL

AT

THE SYNKOTE PAINTS SITE

ELMWOOD PARK, NEW JERSEY

ISSUED:

PREPARED BY:

S&D ENGINEERING SERVICES, INC.

2 GOURMET LANE

EDISON, N.J. 08837

549-8778

PREPARED FOR:

DWAYNE HARRINGTON

RESPONSE & PREVENTION BRANCH

U.S. EPA REGION II

EDISON, N.J. 08837

Ref. No. 22, p. 3/65

2. SCOPE OF WORK

Our objective is:

Repackaging, transportation and disposal of hazardous wastes at the Synkote Paints site in Elmwood Park, New Jersey.

S&D will conduct removal activities in the Synkote Paints facility. We will repackage drums which are in poor condition and stage them in a secure area until transported and disposed of. The procedure is as follows:

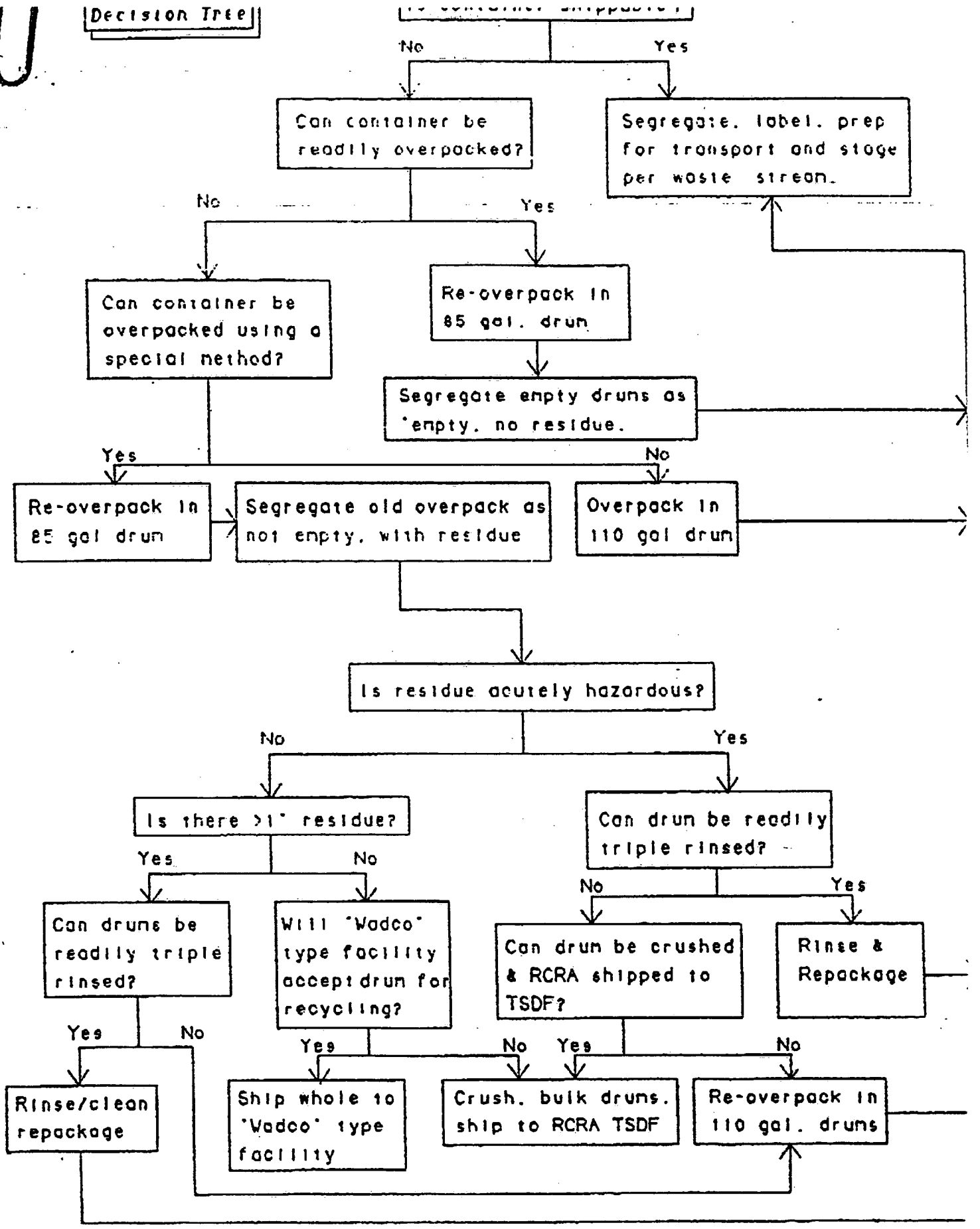
1. TSDF Acceptance
2. Repackaging
3. Transportation
4. Final Disposal

Completion of each of these tasks will depend upon data review and acceptance of the waste by a disposal firm. Actual costs will depend on personnel, equipment, transportation and final disposal.

Listed below is the overall estimated work schedule:

TASK	DESCRIPTION	ESTIMATED TIME FOR COMPLETION (days)
1	Preparation & Planning	
2	Mobilization & Set Up	
3	Drum Handling & Repacking	
4	Empty Drum Handling	
5	Removal & Disposal of Hazardous Waste	
6	Demobilization	

Decision Tree



S&D Environmental Services, Inc
Edison, NJ 4/9/9

Figure 2

Ref. No. 22, p.5/65

ThermalKEM *An American NuKEM Company*

ThermalKEM Inc.
454 S. Anderson Road, BTC 532
Rock Hill, SC 29730
803/329-9690

Date: February 23, 1990

Mr. Dwayne Harrington
USEPA Reg. II/Syndote
Woodbridge Ave.
Edison, NJ 08837

Re: ST # 6-0982

Generator: USEPA Reg.II/Syndote

Broker: S&D Engineering

Approved for receipt at ThermalKEM

after: February 20, 1990

The South Carolina Department of Health and Environmental Control requires that TSD facilities return to the generator and/or broker a signed copy of the Authorization Request Form (ARF) for all waste streams accepted for treatment, storage, or disposal. Attached to this letter is a copy of the ARF for your records.

ThermalKEM, Inc.

Attachment

Ref. No. 22, p. 6/65

WASTE SH...

Authorization Number: ST - 00006 - 0982

RECEIVED FEB 1 1990

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL
PLACE ON SAMPLE CONTAINER

Authorization Number: ST - 00006 - 0982

1 Generator Information:

Generator Name: ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II / SynKote Paint

Generator US EPA ID # NJD001394040

Address: 144-160 Van Riper Avenue USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

City: Elmwood PARK State: NJ Zip Code: 07407

Telephone: (201) 906-6899

SC County (For In-State Generator)

Official Contact: D. Harrington Title: O.S.C.

2 Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) 549-8778

Address: ~~173 Beech Avenue~~ 2 Gourmet Lane City: ~~Metuchen~~ Edison State: NJ Zip: ~~08840~~ 08

3 General Waste Information:

DOT Shipping Name: VARIES (See Attached) DOT Hazard Class: UN/NA #

4 Physical State:

☐ Powder ☐ Paste ☐ Solid ☐ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☒ Lab Pack ☐ Gas (Cylinder) ☐ Other:

5 Inorganics Present:

Total Fluorine — % Total Bromine — % Cyanide — %

Nitric Acid — % Chromic Acid — % Sulfur — %

Sodium Hydroxide — % Potassium Hydroxide — %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes

8 Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl cl chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9 Biological, Pathological or Etiological Materials: List any present: None

10 Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: USEPA-OSC Date: 1/5/90

11 Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: Title: Date:

12 American NuKEM Representative: D. Jones Code: 1

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion — Inhalation — Skin Absorption —

Hazard Rating:

Health — Flammability — Reactivity —

Special

P. 2

AUTHORIZATION REQUEST FORM

1 ___ Amendment X New

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Recycle ___ Landfarm ___ Other ___ Reclaim X Incinerate ___ Energy Recovery

3 **Authorization Number:** ST - 00006 - 0982 ← To be entered by TSD Facility S+D Eng

4 **Generator Information:**

Generator ID # NJD001394040 Name ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II / SynKote Paint

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899

SC County (For In-State Generator Only)

5 **Treatment, Storage, or Disposal Facility Information:**

Facility EPA ID # SCDO 44442333 Name ThermalKEM Inc.

6 ___ Line # (This line # will always represent this specific waste stream.)

PACKAGED LAB Chemicals + Debris

7 **Description of Hazardous Waste**

6666 D001 D002 ___ ___

8 **EPA/DHEC Waste Codes**

9 **DOT Hazard Class** 22

10 **Process Producing Waste:** USEPA Region II Super fund Clean-Up

11 **Enter Quarter for One-Time Disposal:** ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: one times/yr.

12 **Handling Method:** T09

13 **Volume:** (lbs/yr. only) 2,000

14 **Physical State of Waste @ 70°F**
1. ___ solid 2. ___ liquid 3. X N/A

15 **Flash Point (cc)**
1. X N/A 2. ___ <60°F 3. ___ 60–140°F 4. ___ >140°F

For DHEC use only:

Date Received: ___ ___ ___

Note:

DHEC 1969 REV. (8/86)

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

16 Packaging for Shipment: [X] in Drums (size) [30] [ ] in Bulk [ ] Other

17 Method of Transportation: [ ] Railroad tanker [X] Truck [ ] Other [ ] 18 Specific Gravity: [N/A]

19 Viscosity @ 70°F: [ ] Low [ ] Medium [ ] High 20 Layering: [ ] None [ ] Bilayered [ ] Multilayered

21 Suspended Solids: % by weight or volume. Specify exact % [NA] 22 Dissolved Solids: by % weight. Specify exact % [NA]

23 Thousands of Btu's/lbs. Specify: [ ] 24 Organically Bound Sulfur (wt %): [ ] 25 Organically Bound Chloride: [N/A]

26 Organically Bound Nitrogen (wt %): [ ] 27 Toxicity: [ ] High [ ] Medium [ ] Low [N/A] Unknown 28 Ash %: [N/A]

29 Affinity for Water: [ ] Hydrophilic [ ] Lipophilic 30 pH (if hydrophilic): [ ]

31 Visual Description of Waste: Packaged Lab Chemicals in 30 gal. Fiber Drums

32 Constituents: List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%	Non Volatile Organics	%	Acid or Alkalis	%	Salts & Inorganics	%

See Attached

Water: _____ %

P.9

AUTHORIZATION REQUEST FORM (con't)

33 Metallic: (total metals not EP Toxicity Test)

As	NA ppm	Cr_{+3}	NA ppm	Ag	NA ppm	Fe	NA ppm
Ba	___ ppm	Cr^{+6}	___ ppm	Ni	___ ppm	Sb	___ ppm
Cd	___ ppm	Hg	___ ppm	Cu	___ ppm	Mn	___ ppm
Pb	___ ppm	Se	___ ppm	Tl	___ ppm	Co	___ ppm
Zn	___ ppm	Be	___ ppm	Na	___ ppm	Tl	___ ppm

Toxics

Cyanide	NA ppm
Pesticides	___ ppm
Carcinogens	___ ppm
Other Toxics	___ ppm

Other Information: See Packing Slips Attached

34 Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Dwayne Harrington Date Submitted: 2/9/90

Print Name: DWAYNE M. HARRINGTON Title: USEPA - OSC

35 TSD Facility Certification:

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/19/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

p. 10

ThermalKEM *An American NuKEM Company*

ThermalKEM Inc.
454 S. Anderson Road, BTC 532
Rock Hill, SC 29730
803.329-9690

Date: February 27, 1990

Mr. Dwayne Harrington
USEPA Reg. II/Synkote Paint
Woodbridge Avenue
Edison, NJ 08837

Re: ST - SEE LIST BELOW
Generator: USEPA Reg. II/Synkote Paint
Broker: S & D Engineering
Approved for receipt at ThermalKEM, Inc.
after 2-21-90

The South Carolina Department of Health and Environmental Control requires that TSD facilities return to the generator and/or broker a signed copy of the Authorization Request Form (ARF) for all waste streams accepted for treatment, storage, or disposal. Attached to this letter is a copy of the ARF for your records.

ThermalKEM, Inc.

Attachment

ST 88886-1054
88886-1055
88886-1057
88886-1058
88886-1061

Ref. No. 22, p. 11/65

WASTE CHARACTERIZATION FORM

14 Drums

Anal. # ⇒ A860158-227

S&D ~~[illegible]~~ # ⇒ Comp. A

Authorization Number: ST - 88886 - 1054

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL ~~SAMPLE RECEIVED~~ ~~SEND ON SAMPLE CONTAINER~~

FEB 15 1990

1 Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: USEPA Reg. II / Synkote Paint ~~Synkote Paint Company/USEPA Region II~~

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899

SC County (For In-State Generator Only)

2 Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) 549-8778

Address: ~~173 Essex Avenue~~ 2 Gourmet Lane City: ~~Metuchen~~ Edison State: NJ Zip: ~~08840~~ 08837

3 General Waste Information:

DOT Shipping Name: Waste Flammable Liquid, N.O.S. DOT Hazard Class: Flammable UN/NA # 1993

4 Physical State:

☐ Powder ☐ Paste ☐ Solid ☒ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other:

5 Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

8 Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9 Biological, Pathological or Etiological Materials: List any present: None

10 Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: EPA - OSC Date: 2/9/90

11 Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: Title: Date:

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

AUTHORIZATION REQUEST FORM

14 Drum 2

___ Amendment X New

8888

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

___ Landfill ___ Reclaim
___ Recycle X Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

3 Authorization Number: ST - 88886 - 1054 ← To be entered by TSD Facility S+D. Eng

Generator Information:

Generator ID # NJD001394040 Name ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. III/SynKote Paint Co.

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407
USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899

SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCDO 44442333 Name ThermalKEM Inc.

___ Line # (This line # will always represent this specific waste stream.)

WASTE ORGANIC FLAMMABLE LIQUID

Description of Hazardous Waste

10 Process Producing Waste: U.S.E.P.A. Region II Superfund Clean-Up

D001 6666 ___ ___ ___ 08

EPA/DHEC Waste Codes **9 DOT Hazard Class**

1 Enter Quarter for One-Time Disposal: ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: 2 times/yr.

12 Handling Method: T09

13 Volume: (lbs/yr. only) ~8,000 lbs.

4 Physical State of Waste @ 70°F
1. ___ solid 2. X liquid 3. ___ N/A

15 Flash Point (cc)
1. ___ N/A 2. X <60°F 3. ___ 60–140°F 4. ___ >140°F

For DHEC use only:

Date Received: ___ ___ ___

Note: ___

DHEC 1969 REV. (8/86)

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

16 Packaging for Shipment: [X] in Drums (size) [5-85] [ ] in Bulk [ ] Other

17 Method of Transportation: [ ] Railroad tanker [X] Truck [ ] Other [ ] 18 Specific Gravity: [0.82]

19 Viscosity @ 70°F: [X] Low [ ] Medium [ ] High 20 Layering: [X] None [ ] Bilayered [ ] Multilayered

21 Suspended Solids: % by weight or volume. Specify exact % [ ] 22 Dissolved Solids: by % weight. Specify exact % [15]

23 Thousands of Btu's/lbs. Specify: [12-HK] 24 Organically Bound Sulfur (wt %): [<1] 25 Organically Bound Chloride: [<1]

26 Organically Bound Nitrogen (wt %): [<1] 27 Toxicity: [ ] High [ ] Medium [X] Low [ ] Unknown 28 Ash %: [<1]

29 Affinity for Water: [X] Hydrophilic [ ] Lipophilic 30 pH (if hydrophilic): [6.9]

31 Visual Description of Waste: Dark Brown Liquid w/ Brown solids

32 Constituents: List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%
Toluene	5-6
m-Xylene	5-6
o,p-Xylene	3-4
Ethylbenzene	1-2
MIBK	1-2

Non Volatile Organics	%
Oil + Grease	15-17
Pyrene (1,000ppm)	0-1
Bis (2-ethylhexyl) Phthalate	0-1
Non-N.B.S. Determinable	
Inert Organic Liquids	60-62

Acid or Alkalis	%

Salts & Inorganics	%
Ash (Inert Solids)	0-1

Water: 0-1 %

AUTHORIZATION REQUEST FORM (con't)

33 Metallic: (total metals not EP Toxicity Test)

As	< ppm	Cr_{+3}	< ppm	Ag	< ppm	Fe	1100 ppm
Ba	< ppm	Cr^{+6}	8.9 ppm	Ni	< ppm	Sb	< ppm
Cd	< ppm	Hg	37 ppm	Cu	12 ppm	Mn	12 ppm
Pb	81 ppm	Se	< ppm	Ti	30 ppm	Co	15 ppm
Zn	36 ppm	Be	< ppm	Na	510 ppm	Tl	< ppm

Toxics

Cyanide	<50 ppm
Pesticides	< ppm
Carcinogens	< ppm
Other Toxics	< ppm

Other Information: _____

34 Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: [signature] Date Submitted: 2/9/90

Print Name: Dwayne Harrington Title: OSC

35 TSD Facility Certification:

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/19/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

p. 15

WASTE CHARACTERIZATION FORM

Drums

S+D # => Comp. B

Authorization Number: ST - 88886 - 1055

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL
PLACE ON SAMPLE CONTAINER

SAMPLE RECEIVED
FEB 15 1990

1 Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II/SynKote Paint Co

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899

SC County (For In-State Generator Only)

2 Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) ~~549-8778~~

Address: ~~173 Beech Avenue~~ 2 GOURMET LANE City: ~~Metuchen~~ Edison State: NJ Zip: ~~08840~~ 08837

3 General Waste Information:

DOT Shipping Name: Waste Flammable Liquid, N.O.S. DOT Hazard Class: Flammable UN/NA # 1993

4 Physical State:

☐ Powder ☐ Paste ☐ Solid ☒ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other:

5 Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

8 Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9 Biological, Pathological or Etiological Materials: List any present: None

10 Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: OSC Date: 2/9/90

11 Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: Title: Date:

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

AUTHORIZATION REQUEST FORM

___ Amendment X New

8888 To Drums

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Reclaim
S+D Recycle X Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

3 **Authorization Number:** ST - 88886 - 1055 ← To be entered by TSD Facility

S+D Eng.

Generator Information:

Generator ID # NJD001394040 Name ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II/SynKote Paint Co.

Address 144-160 Van Riper Avenue City Elmwood Park State NJ Zip Code 07407
USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899

SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCDO 44442333 Name ThermalKEM Inc.

___ Line # (This line # will always represent this specific waste stream.)

WASTE PAINT Sludge

Description of Hazardous Waste

D001 6666 ___ ___ ___ 68

EPA/DHEC Waste Codes

9 **DOT Hazard Class**

10 **Process Producing Waste:** U.S.E.P.A. Region II Superfund Clean-Up

11 **Enter Quarter for One-Time Disposal:** ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: 2 times/yr.

12 **Handling Method:** T09

13 **Volume:** (lbs/yr. only) ~10,000 lbs.

14 **Physical State of Waste @ 70°F**
1. ___ solid 2. X liquid 3. ___ N/A

15 **Flash Point (cc)**
1. ___ N/A 2. ___ <60°F 3. X 60–140°F 4. ___ >140°F

For DHEC use only:
Date Received: ___ ___ ___

Note: ___

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

16 **Packaging for Shipment:** [X] in Drums (size) [5-85] [ ] in Bulk [ ] Other

17 **Method of Transportation:** [ ] Railroad tanker [X] Truck [ ] Other [ ] **18** **Specific Gravity:** [1.02]

19 **Viscosity @ 70°F:** [ ] Low [ ] Medium [X] High **20** **Layering:** [ ] None [ ] Bilayered [ ] Multilayered

21 **Suspended Solids:** % by weight or volume. Specify exact % [/] **22** **Dissolved Solids:** by % weight. Specify exact % [38]

23 **Thousands of Btu's/lbs.** Specify: [13-15K] **24** **Organically Bound Sulfur** (wt %): [<1] **25** **Organically Bound Chloride:** [<1]

26 **Organically Bound Nitrogen** (wt %): [<1] **27** **Toxicity:** [ ] High [ ] Medium [X] Low [ ] Unknown **28** **Ash %:** [6-8]

29 **Affinity for Water:** [X] Hydrophilic [ ] Lipophilic **30** **pH** (if hydrophilic): [5.6]

31 **Visual Description of Waste:** Blue Sludge (Paint Related Materials)

32 **Constituents:** List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%	Non Volatile Organics	%	Acid or Alkalis	%	Salts & Inorganics	%
MIBK (18ppm)	0-1	Dimethylbenzene Isomers	8-10			Ash (Inert Solids)	6-8
Toluene (46ppm)	0-1	Trimethylbenzene Isome	1-2				
Ethylbenzene (29ppm)	0-1	Ethylmethylbenzene	0-1				
m-Xylene (84ppm)	0-1	Non-N.B.S. Determineable					
o,p-Xylene (67ppm)	0-1	Inert Organic Solids	60-62				
		(Paint Sludges)					

33 **Water:** 12-14 %

AUTHORIZATION REQUEST FORM (con't)

33 **Metallic:** (total metals not EP Toxicity Test)

As	7.0 ppm	Cr_{+3}	< ppm	Ag	< ppm	Fe	530 ppm
Ba	2,600 ppm	Cr^{+6}	41 ppm	Ni	< ppm	Sb	5.3 ppm
Cd	1,500 ppm	Hg	< ppm	Cu	1,000 ppm	Mn	14 ppm
Pb	560 ppm	Se	< ppm	Ti	24 ppm	Co	20 ppm
Zn	180 ppm	Be	< ppm	Na	670 ppm	Tl	13 ppm

Toxics

Cyanide	<50 ppm
Pesticides	< ppm
Carcinogens	< ppm
Other Toxics	< ppm

Other Information: _____

34 **Certification:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: [signature] Date Submitted: 2/9/90

Print Name: Dwayne Harrington Title: DSC

35 **TSD Facility Certification:**

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/19/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

p.19

Authorization Number: ST - 88086 - 1057 Drums 540 # => Comp. D

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL
PLACE ON SAMPLE CONTAINER

SAMPLE RECEIVED
FEB 15 1990

1 Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II / Syn Kote Paint Co.

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899

SC County (For In-State Generator Only)

2 Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) 549-8778

Address: ~~173 Brook Avenue~~ 2 Gourmet LANE City: ~~Metuchen~~ Edison State: NJ Zip: ~~08840~~ 08837

3 General Waste Information:

DOT Shipping Name: Waste Flammable Liquid DOT Hazard Class: Flammable UN/NA # 1993

4 Physical State:

☐ Powder ☐ Paste ☐ Solid ☒ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other:

5 Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

8 Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9 Biological, Pathological or Etiological Materials: List any present: None

10 Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: OSC Date: 2/9/90

11 Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: Title: Date:

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

P.10

AUTHORIZATION REQUEST FORM

Anal. " => A60158-23C

___ Amendment X New 8888 25 Drums

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Reclaim
Recycle Comp X Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

3 **Authorization Number:** ST – 88886 – 1057 ← To be entered by TSD Facility S+D Eng.

Generator Information:

Generator ID # NJD001394040 Name ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II/Synkote Paint Co.

Address 144-160 Van Riper Avenue USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837 City Elmwood PARK State NJ Zip Code 07407

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899 SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCDO 44442333 Name ThermalKEM Inc.

___ Line # (This line # will always represent this specific waste stream.)

WASTE PAINT sludges

Description of Hazardous Waste

D001 6666 ___ ___ ___ 08

10 Process Producing Waste:
U.S.E.P.A. Region II Super Fund Clean-Up

8 EPA/DHEC Waste Codes **9 DOT Hazard Class**

11 Enter Quarter for One-Time Disposal: ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: 2 times/yr.

12 Handling Method: T09

13 Volume: (lbs/yr. only) 11,500

14 Physical State of Waste @ 70°F
1. ___ solid 2. ✓ liquid 3. ___ N/A

15 Flash Point (cc)
1. ___ N/A 2. ___ <60°F 3. X 60–140°F 4. ___ >140°F

For DHEC use only:

Date Received: ___ ___ ___

Note: ___

DHEC 1969 REV. (8/86)

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

16 Packaging for Shipment: [X] in Drums (size) 5-85 [ ] in Bulk [ ] Other

17 Method of Transportation: [ ] Railroad tanker [X] Truck [ ] Other [ ] 18 Specific Gravity: 1.2

19 Viscosity @ 70°F: [ ] Low [ ] Medium [X] High 20 Layering: [ ] None [ ] Bilayered [X] Multilayered

21 Suspended Solids: % by weight or volume. Specify exact % [ ] 22 Dissolved Solids: by % weight. Specify exact % 44

23 Thousands of Btu's/lbs. Specify: 14-16 24 Organically Bound Sulfur (wt %): <1 25 Organically Bound Chloride: <1

26 Organically Bound Nitrogen (wt %): <1 27 Toxicity: [ ] High [ ] Medium [X] Low [ ] Unknown 28 Ash %: 0-

29 Affinity for Water: [X] Hydrophilic [ ] Lipophilic 30 pH (if hydrophilic): 4.9

31 Visual Description of Waste: Black Paint Sludge

32 Constituents: List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%
MIBK	1-2
Toluene	5-7
Ethylbenzene	3-5
m,-Xylene	8-10
o,p-Xylene	5-7
Alkylated Benzenes	1-2
Branched Alkanes	0-1

Non Volatile Organics	%
Oil + Grease	14-16
Bis(2-ethylhexyl) Phthalate	0-1
Dimethylbenzene Isomers	4-6
Ethylmethyl Benzene	
— Isomers	0-1
Non-N.B.S. Determinable	
Inert Organic solids	34-36
(Paint Sludges)	

Acid or Alkalis	%

Salts & Inorganics	%
Iron	0-1

Water: 5-10 %

AUTHORIZATION REQUEST FORM (con't)

33 **Metallic:** (total metals not EP Toxicity Test)

As	< ppm	Cr_{+3}	< ppm	Ag	< ppm	Fe	21,000 ppm
Ba	39 ppm	Cr^{+6}	50 ppm	Ni	16 ppm	Sb	< ppm
Cd	7.4 ppm	Hg	< ppm	Cu	330 ppm	Mn	37 ppm
Pb	240 ppm	Se	13 ppm	Tl	150 ppm	Co	38 ppm
Zn	110 ppm	Be	< ppm	Na	220 ppm	Tl	< ppm

Toxics

Cyanide	<50 ppm
Pesticides	< ppm
Carcinogens	< ppm
Other Toxics	< ppm

Other Information: _____

34 **Certification:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Dwayne Harrington Date Submitted: 2/9/90

Print Name: Dwayne Harrington Title: OSC

35 **TSD Facility Certification:**

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/19/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

p.23

Authorization Number: ST - 88886 - 1058 Drums S+D# => Comp. E

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

SAMPLE RECEIVED
PLACE ON SAMPLE CONTAINER
FEB 15 1990

1 Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: USEPA Reg. II / SynKote Paint Co. ~~Synkote Paint Company/USEPA Region II~~

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899

SC County (For In-State Generator Only)

2 Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) 549-8778

Address: ~~173 Essex Avenue~~ 2 Gourmet Lane City: ~~Metuchen~~ Edison State: NJ Zip: ~~08837~~ 08837

3 General Waste Information:

DOT Shipping Name: Hazardous Waste Liquid, N.O.S. DOT Hazard Class: ORM-E UN/NA # 9189

4 Physical State:

☐ Powder ☐ Paste ☐ Solid ☒ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other:

5 Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

8 Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9 Biological, Pathological or Etiological Materials: List any present: None

10 Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: OSC Date: 2/9/90

11 Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: Title: Date:

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

Page

AUTHORIZATION REQUEST FORM

Anal. # => A60158-231

___ Amendment X New 8888 61 Drums

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Reclaim
S+ Recycle X Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

3 **Authorization Number:** ST - 88886 - 1058 ← To be entered by TSD Facility

S+D Eng

Generator Information:

Generator ID # NJD001394040 Name ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II/Syn Kote Paint Co.

Address 144-160 Van Riper Avenue USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837 City Elmwood PARK State NJ Zip Code 07407

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899 SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCDO 44442333 Name ThermalKEM Inc.

___ Line # (This line # will always represent this specific waste stream.)

WASTE PAINT RELATED MATERIALS

Description of Hazardous Waste

6666 ___ ___ ___ ___ 17

EPA/DHEC Waste Codes **9 DOT Hazard Class**

10 Process Producing Waste:
U.S. E.P.A. Region II Superfund Clean-Up

11 Enter Quarter for One-Time Disposal: ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: 2 times/yr.

12 Handling Method: T09

13 Volume: (lbs/yr. only) ~34,000

14 Physical State of Waste @ 70°F
1. ___ solid 2. X liquid 3. ___ N/A

15 Flash Point (cc)
1. ___ N/A 2. ___ <60°F 3. ___ 60–140°F 4. X >140°F

For DHEC use only:

Date Received: ___ ___ ___

Note: ___

DHEC 1969 REV. (8/86)

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

16 **Packaging for Shipment:** [X] in Drums (size) 5 - 110 [ ] in Bulk [ ] Other

17 **Method of Transportation:** [ ] Railroad tanker [X] Truck [ ] Other [ ] **18** **Specific Gravity:** 0.96

19 **Viscosity @ 70°F:** [ ] Low [X] Medium [ ] High **20** **Layering:** [X] None [ ] Bilayered [ ] Multilayered

21 **Suspended Solids:** % by weight or volume. Specify exact % [ ] **22** **Dissolved Solids:** by % weight. Specify exact % 1.4

23 **Thousands of Btu's/lbs.** Specify: 1-2K **24** **Organically Bound Sulfur** (wt %): <1 **25** **Organically Bound Chloride:** <1

26 **Organically Bound Nitrogen** (wt %): UNK **27** **Toxicity:** [ ] High [ ] Medium [X] Low [ ] Unknown **28** **Ash %:** 0-1

29 **Affinity for Water:** [X] Hydrophilic [ ] Lipophilic **30** **pH** (if hydrophilic): 7.5

31 **Visual Description of Waste:** Tan Liquid

32 **Constituents:** List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%	Non Volatile Organics	%	Acid or Alkalis	%	Salts & Inorganics	%
Acetone	0-1	Oil + Grease	5-7				
2-Butanone (290ppm)	0-1	Dimethylbenzene Isomers	3-5				
MIBK (220ppm)	0-1	Ethylmethylbenzene Isomer	0-1				
Tetrachloroethene	0-1	Non-N.B.S. Petermineable					
Ethylbenzene	0-1	Inert Organic Liquids	11-14				
m-Xylene	0-1						
o,p-Xylene	0-1						

p.26

Water: 65-70 %

AUTHORIZATION REQUEST FORM (con't)

33 Metallic: (total metals not EP Toxicity Test)

As	< ppm	Cr_{+3}	< ppm	Ag	< ppm	Fe	510 ppm
Ba	7.7 ppm	Cr^{+6}	17 ppm	Ni	< ppm	Sb	< ppm
Cd	< ppm	Hg	< ppm	Cu	7.5 ppm	Mn	16 ppm
Pb	43 ppm	Se	< ppm	Tl	< ppm	Co	16 ppm
Zn	100 ppm	Be	< ppm	Na	280 ppm	Tl	< ppm

Toxics

Cyanide	<56 ppm
Pesticides	< ppm
Carcinogens	< ppm
Other Toxics	< ppm

Other Information: _____

34 Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: [signature] Date Submitted: 2/9/90

Print Name: Dwayne Harrington Title: OSC

35 TSD Facility Certification:

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/19/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

WASTE CHARACTERIZATION FORM

Amt. => [illegible]

S+D# => Comp. H

Authorization Number: ST - 88886 - 1061 12 Drums

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL
SAMPLE RECEIVED
PLACE ON SAMPLE CONTAINER

FEB 15 1990

1 Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II/Synkote Paint Co.

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899 SC County (For In-State Generator Only)

2 Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) 549-8778

Address: ~~173 Essex Avenue~~ 2 GOURMET LANE City: ~~Metuchen~~ Edison State: NJ Zip: ~~08840~~ 08837

3 General Waste Information:

DOT Shipping Name: Hazardous Waste Solid, N.O.S. DOT Hazard Class: ORM-E UN/NA # 9189

4 Physical State:

☐ Powder ☐ Paste ☒ Solid ☐ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other: _____

5 Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

8 Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9 Biological, Pathological or Etiological Materials: List any present: None

10 Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: OSC Date: 2/9/90

11 Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: _____ Title: _____ Date: _____

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

AUTHORIZATION REQUEST FORM

Amd => [illegible]

___ Amendment X New 8888 12 Drums

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Reclaim
S+L Recycle Cow X Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

3 **Authorization Number:** ST - 88886 - 1061 ← To be entered by TSD Facility S+D Eng.

Generator Information:

Generator ID # NJD001394040 Name ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II/Synkote Paint Co.

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899 SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCDO 44442333 Name ThermalKEM Inc.

___ Line # (This line # will always represent this specific waste stream.)

WASTE PAINT RELATED MATERIAL

Description of Hazardous Waste

6666 ___ ___ ___ ___ 17

10 Process Producing Waste:

U.S.E.P.A. Region II Superfund Clean-Up

EPA/DHEC Waste Codes **9 DOT Hazard Class**

11 Enter Quarter for One-Time Disposal: ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: 2 times/yr.

12 Handling Method: T09

13 Volume: (lbs/yr. only) ~7,000 lbs.

14 Physical State of Waste @ 70°F
1. X solid 2. ___ liquid 3. ___ N/A

15 Flash Point (cc)
1. ___ N/A 2. ___ <60°F 3. ___ 60–140°F 4. X >140°F

For DHEC use only:

Date Received: ___ ___ ___

Note: ___

DHEC 1969 REV. (8/86)

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

16 **Packaging for Shipment:** [X] in Drums (size) [30 - 85] [ ] in Bulk [ ] Other

17 **Method of Transportation:** [ ] Railroad tanker [X] Truck [ ] Other [ ] **18** **Specific Gravity:** [1.1]

19 **Viscosity @ 70°F:** [ ] Low [ ] Medium [X] High **20** **Layering:** [X] None [ ] Bilayered [ ] Multilayered

21 **Suspended Solids:** % by weight or volume. Specify exact % [/] **22** **Dissolved Solids:** by % weight. Specify exact % [75]

23 **Thousands of Btu's/lbs.** Specify: [8-10K] **24** **Organically Bound Sulfur** (wt %): [<1] **25** **Organically Bound Chloride:** [<1]

26 **Organically Bound Nitrogen** (wt %): [<1] **27** **Toxicity:** [ ] High [ ] Medium [X] Low [ ] Unknown **28** **Ash %:** [4-6]

29 **Affinity for Water:** [X] Hydrophilic [ ] Lipophilic **30** **pH** (if hydrophilic): [7.6]

31 **Visual Description of Waste:** Brown/Black Solid

32 **Constituents:** List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%	Non Volatile Organics	%	Acid or Alkalis	%	Salts & Inorganics	%
Toluene	0-1	Oil & Grease	20-22			Ash (Inert Solids)	4-6
Ethylbenzene	0-1	Dimethylbenzene Isomers	3-5				
m-Xylene	2-4	Non-N.B.S. Determinable					
o,p-Xylene	2-4	Inert Organic Solids	46-48				
Alkylated Benzene	0-1						

Water: 5-8 %

AUTHORIZATION REQUEST FORM (con't)

33 **Metallic:** (total metals not EP Toxicity Test)

As	< ppm	Cr_{+3}	< ppm	Ag	< ppm	Fe	1,500 ppm
Ba	20 ppm	Cr_{+6}	59 ppm	Ni	11 ppm	Sb	< ppm
Cd	< ppm	Hg	< ppm	Cu	18 ppm	Mn	11 ppm
Pb	260 ppm	Se	7.5 ppm	Ti	8.0 ppm	Co	< ppm
Zn	29 ppm	Be	< ppm	Na	230 ppm	Tl	< ppm

Toxics

Cyanide	<50 ppm
Pesticides	< ppm
Carcinogens	< ppm
Other Toxics	< ppm

Other Information: _____

34 **Certification:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: [signature] Date Submitted: 2/9/90

Print Name: Dwayne Harrington Title: OSC

35 **TSD Facility Certification:**

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 02/19/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

P.31

ThermalKEM *An American NuKEM Company*

ThermalKEM Inc.
454 S. Anderson Road, BTC 532
Rock Hill, SC 29730
803/329-9690

Date: March 6, 1990

Mr. Dwayne Harrington
USEPA Reg.II/Synkote Paint Co.
Woodbridge Avenue
Edison, NJ 08837

Re: ST - SEE LSIT BELOW
Generator: USEPA Reg. II/Synkote Paint Co.
Broker: S & D Engineering
Approved for receipt at ThermalKEM, Inc.
after 2-22-90

The South Carolina Department of Health and Environmental Control requires that TSD facilities return to the generator and/or broker a signed copy of the Authorization Request Form (ARF) for all waste streams accepted for treatment, storage, or disposal. Attached to this letter is a copy of the ARF for your records.

ThermalKEM, Inc.

Attachment

ST 88886-1059
88886-1062
88886-1063

Ref. No. 22, p. 321

WASTE CHARACTERIZATION FORM

Authorization Number: ST - 88886 - 1059 32 drums S+D # => Comp. F

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL ~~PLACE ON SAMPLE CONTAINER~~

FEB 15 1990

1 Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II / Synkote Paint Co.

Address: 144-160 Van Riper Avenue City: Elmwood PARK State: NJ Zip Code: 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact: D. Harrington Title: O.S.C. Telephone: (201) 906-6899 SC County (For In-State Generator Only)

2 Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) 549-8778

Address: ~~[illegible]~~ 2 Gourmet Lane City: ~~Metuchen~~ Edison State: NJ Zip: ~~08840~~ 08837

3 General Waste Information:

DOT Shipping Name: Hazardous Waste Liquid, N.O.S. DOT Hazard Class: ORM-E UN/NA # 9189

4 Physical State:

☐ Powder ☐ Paste ☐ Solid ☒ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other: _____

5 Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

8 Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9 Biological, Pathological or Etiological Materials: List any present: None

10 Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: OSC Date: 2/9/90

11 Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: _____ Title: _____ Date: _____

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating: Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating: Health ____ Flammability ____ Reactivity ____

Special ____

AUTHORIZATION REQUEST FORM

Anal. => A60158-232

1 ___ Amendment X New 8888 32 Drums

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Reclaim
S+D # ___ Recycle ___ Incinerate X
___ Landfarm ___ Energy Recovery
___ Other ___

3 **Authorization Number:** ST - 88886 - 1059 ← To be entered by TSD Facility S+D Eng

4 **Generator Information:**

Generator ID # NJD001394040 Name USEPA Reg. II/SynKote Paint Co. ~~Synkote Paint Company/USEPA Region II~~

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407
USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899 ___ SC County (For In-State Generator Only)

5 **Treatment, Storage, or Disposal Facility Information:**

Facility EPA ID # SCDO 44442333 Name *ThermalKEM Inc.*

6 ___ Line # (This line # will always represent this specific waste stream.)

WASTE PAINT RELATED MATERIALS w/ RAINWATER

7 **Description of Hazardous Waste**

8 **EPA/DHEC Waste Codes** 66666 ___ ___ ___ ___

9 **DOT Hazard Class** 17

10 **Process Producing Waste:** U.S.E.P.A. Region II Superfund Clean-Up

11 **Enter Quarter for One-Time Disposal:** ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: 2 times/yr.

12 **Handling Method:** T09

13 **Volume:** (lbs/yr. only) ~18,000

14 **Physical State of Waste @ 70°F**
1. ___ solid 2. X liquid 3. ___ N/A

15 **Flash Point (cc)**
1. ___ N/A 2. ___ <60°F 3. ___ 60–140°F 4. X >140°F

For DHEC use only:
Date Received: ___ ___ ___

Note: ___

P3

AUTHORIZATION REQUEST FORM (con't)

6-1054

Facility Use Only:

16 Packaging for Shipment: [X] in Drums (size) [30-110] [ ] in Bulk [ ] Other

17 Method of Transportation: [ ] Railroad tanker [X] Truck [ ] Other [ ]

18 Specific Gravity: [1.1]

19 Viscosity @ 70°F: [ ] Low [X] Medium [ ] High

20 Layering: [ ] None [X] Bilayered [ ] Multilayered

21 Suspended Solids: % by weight or volume. Specify exact % [—]

22 Dissolved Solids: by % weight. Specify exact % [28]

23 Thousands of Btu's/lbs. Specify: [<1K]

24 Organically Bound Sulfur (wt %): [<1]

25 Organically Bound Chloride: [<1]

26 Organically Bound Nitrogen (wt %): [<1]

27 Toxicity: [ ] High [ ] Medium [X] Low [ ] Unknown

28 Ash %: [~~28~~ 21]

29 Affinity for Water: [X] Hydrophilic [ ] Lipophilic

30 pH (if hydrophilic): [5.3]

31 Visual Description of Waste: ~~Da~~ Dark Brown Liquid / Dark Brown Sludge

32 Constituents: List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%
MIBK (240ppm)	0-1
Toluene (110ppm)	0-1
Ethylbenzene (300ppm)	0-1
m-Xylene (620ppm)	0-1
o,p-Xylene (530ppm)	0-1

Non Volatile Organics	%
Oil + Grease	7-9
Dimethylbenzene Isomer	0-1
Non-N.B.S. Determinable	
Inert Organic Solids	36-38

Acid or Alkalis	%

Salts & Inorganics	%
Ash (Inert Solids)	~~15-20~~ 21

Water: 70-72 %

p. 35

AUTHORIZATION REQUEST FORM (con't)

33 **Metallic:** (total metals not EP Toxicity Test)

As	<1 ppm	Cr_{+3}	<1 ppm	Ag	<1 ppm	Fe	1,300 ppm
Ba	32 ppm	Cr^{+6}	11 ppm	Ni	<1 ppm	Sb	3.3 ppm
Cd	18 ppm	Hg	<1 ppm	Cu	4.2 ppm	Mn	19 ppm
Pb	36 ppm	Se	<1 ppm	Tl	<1 ppm	Co	<1 ppm
Zn	39 ppm	Be	<1 ppm	Na	260 ppm	Tl	<1 ppm

Toxics

Cyanide	<50 ppm
Pesticides	— ppm
Carcinogens	— ppm
Other Toxics	— ppm

Other Information: _____

34 **Certification:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Dwayne M Harrington Date Submitted: 2/9/90

Print Name: Dwayne Harrington Title: OSC

35 **TSD Facility Certification:**

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/15/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

WASTE CHARACTERIZATION FORM

Authorization Number: ST - 88886 - 1062 17 Drums S+D #=> Comp. #I

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL
PLACE ON SAMPLE CONTAINER

FEB 15 1990

Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: ~~Synkote Paint Company/USEPA Region~~ USEPA Reg. II / Synkote Paint

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899 SC County (For In-State Generator Only)

Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) 549-8778

Address: ~~173 Essex Avenue~~ 2 Gourmet Lane City: ~~Metuchen~~ Edison State: NJ Zip: ~~08840~~ 08837

General Waste Information:

DOT Shipping Name: Hazardous Waste Liquid, N.O.S. DOT Hazard Class: ORM-E UN/NA # 9189

Physical State:

☐ Powder ☐ Paste ☐ Solid ☒ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other:

Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

Biological, Pathological or Etiological Materials: List any present: None

10 Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: OSC Date: 2/9/90

11 Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: _____ Title: _____ Date: _____

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

P.3

AUTHORIZATION REQUEST FORM

___ Amendment X New

8888 17 Drums

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Reclaim
___ Recycle X Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

3 **Authorization Number:** ST - 88886 - 1062 ← **To be entered by TSD Facility** St D Engi

Generator Information:

Generator ID # NJD001394040 Name USEPA Reg. II / Synkote Paint Co. ~~Synkote Paint Company/USEPA Region II~~

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407
USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899 ___ SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCDO 44442333 Name *ThermalKEM Inc.*

___ Line # (This line # will **always** represent this specific waste stream.)

ASTE PAINT RELATED MATERIAL

Description of Hazardous Waste

66 66 ___ ___ ___ ___ 17

EPA/DHEC Waste Codes **9 DOT Hazard Class**

10 Process Producing Waste: U.S. E.P.A. Region II Superfund Clean-Up

Enter Quarter for One-Time Disposal: ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: 2 times/yr.

12 Handling Method: T09

13 Volume: (lbs/yr. only) ~10,000 lbs

Physical State of Waste @ 70°F
1. ___ solid 2. X liquid 3. ___ N/A

15 Flash Point (cc)
1. ___ N/A 2. ___ <60°F 3. ___ 60–140°F 4. X >140°F

For DHEC use only:

Date Received: ___ ___ ___

Note: ___

P-3

AUTHORIZATION REQUEST FORM (con't)

6-1062

Facility Use Only:

16 Packaging for Shipment: [X] in Drums (size) 30-110 [ ] in Bulk [ ] Other

17 Method of Transportation: [ ] Railroad tanker [X] Truck [ ] Other [ ] 18 Specific Gravity: .97

19 Viscosity @70°F: [✓] Low [ ] Medium [ ] High 20 Layering: [ ] None [X] Bilayered [ ] Multilayered

21 Suspended Solids: % by weight or volume. Specify exact % [ ] 22 Dissolved Solids: by % weight. Specify exact % 6.4

23 Thousands of Btu's/lbs. Specify: 1-2K 24 Organically Bound Sulfur (wt %): <1 25 Organically Bound Chloride: <1

26 Organically Bound Nitrogen (wt %): <1 27 Toxicity: [ ] High [ ] Medium [X] Low [ ] Unknown 28 Ash %: ~~25-30~~ 2-4%

29 Affinity for Water: [X] Hydrophilic [ ] Lipophilic 30 pH (if hydrophilic): 8.4

31 Visual Description of Waste: Light Brown Liquid / Grey Sludge

32 Constituents: List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%	Non Volatile Organics	%	Acid or Alkalis	%	Salts & Inorganics	%
MIBK	0-1	Oil + Grease	5-7			Aluminum	0-1
Toluene	0-1	Bis(2-Ethylhexyl)Phthalate	0-1			Ash (Inert Solids)	~~15-20~~ 2-4
Ethylbenzene	0-1	Dimethylbenzene Isomer	2-4				
m-Xylene	0-1	Non-N.B.S. Determinable	—				
o,p-Xylene	0-1	Inert Organic Solids	22-26				

Water: 60-65 %

P 30

AUTHORIZATION REQUEST FORM (con't)

33 Metallic: (total metals not EP Toxicity Test)

As	< ppm	Cr_{+3}	< ppm	Ag	< ppm	Fe	880 ppm
Ba	54 ppm	Cr^{+6}	120 ppm	Ni	13 ppm	Sb	10 ppm
Cd	< ppm	Hg	< ppm	Cu	31 ppm	Mn	45 ppm
Pb	570 ppm	Se	11 ppm	Ti	39 ppm	Co	19 ppm
Zn	59 ppm	Be	< ppm	Na	190 ppm	Tl	< ppm

Toxics

Cyanide	<10	ppm
Pesticides	—	ppm
Carcinogens	—	ppm
Other Toxics	—	ppm

Other Information: _____

34 Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: [signature] Date Submitted: 2/9/90

Print Name: Dwayne Harrington Title: asc

35 TSD Facility Certification:

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/19/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

p.40

Authorization Number: ST - 88886 - 1063 6 drums STD* => Comp. J

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL ON SAMPLE CONTAINER

SAMPLE RECEIVED FEB 15 1990

1 Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II/Synkote Paint Co.

Address 144-160 Van Riper Avenue City Elmwood Park State NJ Zip Code 07407

-- USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899 SC County (For In-State Generator Only)

2 Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) ~~549-8778~~

Address: ~~173 Essex Avenue~~ 2 Gourmet Lane City: ~~Metuchen~~ Edison State: NJ Zip: ~~08840~~ 08837

3 General Waste Information:

DOT Shipping Name: Hazardous Waste Liquid, N.O.S. DOT Hazard Class: ORM-E UN/NA # 9189

4 Physical State:

☐ Powder ☐ Paste ☐ Solid ☒ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other:

5 Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

8 Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

9 Biological, Pathological or Etiological Materials: List any present: None

10 Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements of South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: OSC Date: 2/2/90

11 Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste is non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: _____ Title: _____ Date: _____

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

14

AUTHORIZATION REQUEST FORM

Acct # => 160158-236

1 ___ Amendment X New

8888 6 Drums

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Reclaim
STD Recycle Corp. X Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

3 **Authorization Number:** ST - 88886 - 1063 ← To be entered by TSD Facility S+D Eng

4 **Generator Information:**

Generator ID # NJD001394040 Name ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II / Syn Kote Paint Co.

Address 144-160 Van Riper Avenue City Elmwood Park State NJ Zip Code 07407
USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899

SC County (For In-State Generator Only)

5 **Treatment, Storage, or Disposal Facility Information:**

Facility EPA ID # SCDO 44442333 Name *ThermalKEM Inc.*

6 ___ Line # (This line # will always represent this specific waste stream.)

WASTE PAINT RELATED MATERIAL w/ RAINWATER

7 **Description of Hazardous Waste**

16666 ___ ___ ___ ___ 17

8 **EPA/DHEC Waste Codes** 9 **DOT Hazard Class**

10 **Process Producing Waste:**
U.S.E.P.A. Region II Superfund Clean-Up

11 **Enter Quarter for One-Time Disposal:** ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: 2 times/yr.

12 **Handling Method:** T09

13 **Volume:** (lbs/yr. only) ~3000 lbs

14 **Physical State of Waste @ 70°F**
1. ___ solid 2. X liquid 3. ___ N/A

15 **Flash Point (cc)**
1. ___ N/A 2. ___ <60°F 3. ___ 60–140°F 4. X >140°F

For DHEC use only:
Date Received: ___ ___ ___

Note: ___

DHEC 1969 REV. (8/86)

AUTHORIZATION REQUEST FORM (con't)

6-1063

Facility Use Only:

16 **Packaging for Shipment:** [X] in Drums (size) [30-110] [ ] in Bulk [ ] Other

17 **Method of Transportation:** [ ] Railroad tanker [X] Truck [ ] Other [ ] **18** **Specific Gravity:** [0.96]

19 **Viscosity @ 70°F:** [ ] Low [ ] Medium [X] High **20** **Layering:** [ ] None [X] Bilayered [ ] Multilayered

21 **Suspended Solids:** % by weight or volume. Specify exact % [ ] **22** **Dissolved Solids:** by % weight. Specify exact % [0.9]

23 **Thousands of Btu's/lbs.** Specify: [7915] **24** **Organically Bound Sulfur** (wt %): [<1] **25** **Organically Bound Chloride:** [<1]

26 **Organically Bound Nitrogen** (wt %): [<1] **27** **Toxicity:** [ ] High [ ] Medium [X] Low [ ] Unknown **28** **Ash %:** [~~22-35~~ <1]

29 **Affinity for Water:** [X] Hydrophilic [ ] Lipophilic **30** **pH** (if hydrophilic): [4.1]

31 **Visual Description of Waste:** Yellowish Liquid / Grey Solid

32 **Constituents:** List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%
MIBK	0-1
Toluene	0-1
Ethylbenze	0-1
m-Xylene	1-2
o,p-Xylene	1-2
1-Ethyl-2-Methylbenzene	2-3

Non Volatile Organics	%
Oil & Grease	20-22
Dimethylbenzene Isomers	3-4
~~Inert~~	
Non-N.B.S. Determinable	
Inert Organic Solids	~~33-35~~
	10-12

Acid or Alkalis	%

Salts & Inorganics	%
Inert solids (Ash)	<1 ~~55~~

P.43 **Water:** 65-70 %

AUTHORIZATION REQUEST FORM (con't)

33 Metallic: (total metals not EP Toxicity Test)

As	— ppm	Cr_{+3}	— ppm	Ag	— ppm	Fe	1,300 ppm
Ba	32 ppm	Cr_{+6}	340 ppm	Ni	— ppm	Sb	26 ppm
Cd	— ppm	Hg	— ppm	Cu	20 ppm	Mn	86 ppm
Pb	1,600 ppm	Se	— ppm	Ti	16 ppm	Co	12 ppm
Zn	73 ppm	Be	— ppm	Na	180 ppm	Tl	12 ppm

Toxics

Cyanide	<50 ppm
Pesticides	— ppm
Carcinogens	— ppm
Other Toxics	— ppm

Other Information: _____

34 Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: [signature] Date Submitted: 1/9/90

Print Name: Dwayne Harrington Title: OSC

35 TSD Facility Certification:

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/19/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISO..

p.4

ThermalKEM *An American NuKEM Company*

ThermalKEM Inc.
454 S. Anderson Road. BTC 532
Rock Hill. SC 29730
803 329-9690

Date: March 6, 1990

Mr. Dwayne Harrington
USEPA Reg.II/Synkote Paint Co.
Woodbridge Avenue
Edison, NJ 08837

Re: ST - SEE LSIT BELOW
Generator: USEPA Reg. II/Synkote Paint Co.
Broker: S & D Engineering
Approved for receipt at ThermalKEM, Inc.
after 2-27-90

The South Carolina Department of Health and Environmental Control requires that TSD facilities return to the generator and/or broker a signed copy of the Authorization Request Form (ARF) for all waste streams accepted for treatment, storage, or disposal. Attached to this letter is a copy of the ARF for your records.

ThermalKEM, Inc.

Attachment

ST 88886-1056
88886-1060

Ref. No. 22, p. 45/6

uthorization Number: ST - 88886 - 1056 Drums STD # => Comp. C

OTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL ~~STAPLE TO COVER~~ ~~PEEL ON SAMPLE CONTAINER~~

FEB 15 1990

Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: USEPA Reg. II/ Syn Kote Paint Co ~~Synkote Paint Company/USEPA Region II~~

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6899

SC County (For In-State Generator Only)

Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) 549-8778

Address: ~~111 Bacon Avenue~~ 2 GOURMET LANE City: ~~Matawan~~ Edison State: NJ Zip: ~~08840~~ 08837

General Waste Information:

DOT Shipping Name: Waste Flammable Solid, N.O.S. DOT Hazard Class: Flammable UN/NA # 1325

Physical State:

☐ Powder ☐ Paste ☒ Solid ☐ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other: _____

Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, (nickel), vinyl chloride, (chromium (VI)), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

Biological, Pathological or Etiological Materials: List any present: None

Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: OSC Date: 2/9/90

Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: _____ Title: _____ Date: _____

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

p.4

AUTHORIZATION REQUEST FORM

Drums

___ Amendment X New 8888

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Reclaim
St Recycle X Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

3 Authorization Number: ST - 88886 - 1056 ← **To be entered by TSD Facility** St D Eng.

Generator Information:

Generator ID # NJD001394040 Name ~~Synkote Paint Company/USEPA Region II~~ USEPA Reg. II/SynKote Paint Co.

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code 07407

USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-6399 ___ SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCDO 44442333 Name ThermalKEM Inc.

___ Line # (This line # will always represent this specific waste stream.)

ASTE PAINT SOLIDS w/WATER

Description of Hazardous Waste

0001 6666 ___ ___ ___ 08

EPA/DHEC Waste Codes

9 DOT Hazard Class

10 Process Producing Waste:
U.S.E.P.A. Region II Superfund Clean-Up

Enter Quarter for One-Time Disposal: ___ / ___ Qtr/yr.

12 Handling Method: T09

If Multiple Shipments Enter Frequency Here: 2 times/yr.

13 Volume: (lbs/yr. only) ~6000 lbs.

Physical State of Waste @ 70°F
1. X solid 2. ___ liquid 3. ___ N/A

15 Flash Point (cc)
1. ___ N/A 2. ___ <60°F 3. X 60–140°F 4. ___ >140°F

DHEC use only:

Date Received: ___ ___ ___

Note: ___

47 P.

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

16 **Packaging for Shipment:** [X] in Drums (size) [5-85] [ ] in Bulk [ ] Other

17 **Method of Transportation:** [ ] Railroad tanker [X] Truck [ ] Other [ ] **18** **Specific Gravity:** [1.1]

19 **Viscosity @ 70°F:** [ ] Low [ ] Medium [X] High **20** **Layering:** [X] None [ ] Bilayered [ ] Multilayered

21 **Suspended Solids:** % by weight or volume. Specify exact % [ ] **22** **Dissolved Solids:** by % weight. Specify exact % [65]

23 **Thousands of Btu's/lbs.** Specify: [8-10K] **24** **Organically Bound Sulfur** (wt %): [<1] **25** **Organically Bound Chloride:** [<1]

26 **Organically Bound Nitrogen** (wt %): [<1] **27** **Toxicity:** [ ] High [ ] Medium [X] Low [ ] Unknown **28** **Ash %:** [4-6]

29 **Affinity for Water:** [X] Hydrophilic [ ] Lipophilic **30** **pH** (if hydrophilic): [5.9]

31 **Visual Description of Waste:** Grey Solid

32 **Constituents:** List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%	Non Volatile Organics	%	Acid or Alkalis	%	Salts & Inorganics	%
MIBK	1-2	Oil + Grease	8-10			Aluminum	0-1
Toluene	3-5	Isophorone (230ppm)	0-1			Copper	0-1
Ethylbenzene	1-2	Naphthalene (170ppm)	0-1			Iron	0-1
m-Xylene	3-5	Bis(2-ethyl-hexyl) Phthalate	1-2			Lead	1-2
o,p-Xylene	2-4	Dimethylbenzene Isomers	3-5				
		Trimethylbenzene Isomers	1-2				
		Non-N.B.S. Determinable					
		Inert Organic Solids	36-38				

Water: 18-20 %

p.48

AUTHORIZATION REQUEST FORM (con't)

33 Metallic: (total metals not EP Toxicity Test)

As	/ ppm	Cr_{+3}	/ ppm	Ag	/ ppm	Fe	10,000 ppm
Ba	1,000 ppm	Cr_{+6}	5,000 ppm	Ni	130 ppm	Sb	60 ppm
Cd	2.4 ppm	Hg	/ ppm	Cu	12,000 ppm	Mn	410 ppm
Pb	8,000 ppm	Se	/ ppm	Ti	190 ppm	Co	53 ppm
Zn	900 ppm	Be	/ ppm	Na	410 ppm	Tl	/ ppm

Toxics

Cyanide	<50 ppm
Pesticides	/ ppm
Carcinogens	/ ppm
Other Toxics	/ ppm

Other Information: _____

34 Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Dwayne Harrington Date Submitted: 2/2/90

Print Name: Dwayne Harrington Title: OSC

35 TSD Facility Certification:

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/27/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

WASTE CHARACTERIZATION FORM

Authorization Number: ST - 88886 - 1060 33 drums

S+O # => Comp. G

NOTE: All items should be accurately completed to assure you obtain the most rapid waste approval.

PEEL OFF LABEL
PLACE ON SAMPLE CONTAINER

SAMPLE RECEIVED
FEB 15 1990

Generator Information:

Generator US EPA ID # NJD001394040 Generator Name: USEPA Reg. II/Synkote Paint Co. ~~Synkote Paint Company/USEPA Region II~~

Address 144-160 Van Riper Avenue City Elmwood PARK State NJ Zip Code ~~07407~~ 08837

USEPA Reg. II/Woodbridge Ave., Edison, NJ

Official Contact D. Harrington Title O.S.C. Telephone ~~(201) 906-6800~~

SC County (For In-State Generator Only)

Broker Information:

Name: S & D Engineering Official Contact: George Press Telephone: (201) ~~549-8778~~

Address: ~~173 Essex Avenue~~ 2 Gourmet Lane City: ~~Metuchen~~ Edison State: ~~NJ~~ Zip: ~~08840~~ 08837

General Waste Information:

DOT Shipping Name: Hazardous Waste Solid, N.O.S. DOT Hazard Class: ORM-E UN/NA # 9189

Physical State:

☐ Powder ☐ Paste ☒ Solid ☐ Liquid ☐ Slurry ☐ Resins ☐ Aerosols ☐ Lab Pack ☐ Gas (Cylinder) ☐ Other:

Inorganics Present:

Total Fluorine <1 % Total Bromine <1 % Cyanide <1 %

Nitric Acid <1 % Chromic Acid <1 % Sulfur <1 %

Sodium Hydroxide <1 % Potassium Hydroxide <1 %

6 Organics Present:

PCB <2 ppm

Dioxins — ppm

Furans — ppm

7 Reactivity:

Is waste reactive under 40 CFR 261.23? ☐ Yes ☒ No

Carcinogens: Circle if present: arsenic, asbestos, benzene, benzidene, beryllium, bis (chloromethyl) ether, diethylstilbesterol, 2-naphthylamine, nickel, vinyl chloride, chromium (VI), acrylonitril, cylcophosphamide, 1, 2,-diphenyl hydrazine, ethylene oxide, melphalan.

Biological, Pathological or Etiological Materials: List any present: None

Authorization To Correct ARF:

I authorize ThermalKEM to make corrections to the attached Authorization Request Form, such corrections being consistent with the results of sample characterization and/or regulatory requirements South Carolina DHEC. I understand that a corrected copy will be sent to me.

Signature: [signature] Title: OSC Date: 2/9/90

Certification For Non-Hazardous Waste:

I certify that to the best of my knowledge the information provided hereon is correct, and the waste non-hazardous by RCRA definition. Non-hazardous wastes do not require shipment approval by South Carolina Department of Solid and Hazardous Waste.

Signature: Title: Date:

12 American NuKEM Representative: D. Jones Code: 111E

☒ Rock Hill, SC (803) 329-9690 ☐ Paramus, NJ (201) 262-3440 ☐ Southfield, MI (313) 353-5880

13 To Be Completed by ThermalKEM

Toxicity Rating:

Ingestion ____ Inhalation ____ Skin Absorption ____

Hazard Rating:

Health ____ Flammability ____ Reactivity ____

Special ____

AUTHORIZATION REQUEST FORM

___ Amendment X New 8888 33 Drums

South Carolina Department of Health and Environmental Control
Bureau of Solid and Hazardous Waste (803) 734-5200

2 ___ Landfill ___ Reclaim
S+D Recycle Clean-up X Incinerate
___ Landfarm ___ Energy Recovery
___ Other ___

3 Authorization Number: ST - 88886 - 1060 ← **To be entered by TSD Facility** S+D Eng.

Generator Information:

Generator ID # NJD001394040 Name USEPA Reg. II/ Syn Kote Paint Co. ~~Synkote Paint Company/USEPA Region II~~

Address 144-160 Van Riper Avenue USEPA Reg. II/Woodbridge Ave., Edison, NJ 08837 City Elmwood PARK State NJ Zip Code 07407

Official Contact D. Harrington Title O.S.C. Telephone (201) 906-8899

SC County (For In-State Generator Only)

Treatment, Storage, or Disposal Facility Information:

Facility EPA ID # SCDO 44442333 Name *ThermalKEM Inc.*

___ Line # (This line # will always represent this specific waste stream.)

ASTE PAINT RELATED MATERIAL

Description of Hazardous Waste

6.666 ___ ___ ___ ___ 17

EPA/DHEC Waste Codes **9 DOT Hazard Class**

10 Process Producing Waste: U.S.E.P.A. Region II Superfund Clean-Up

Enter Quarter for One-Time Disposal: ___ / ___ Qtr/yr.

If Multiple Shipments Enter Frequency Here: 2 times/yr.

12 Handling Method: T09

13 Volume: (lbs/yr. only) ~ 15,000 lbs

Physical State of Waste @ 70°F
1. X solid 2. ___ liquid 3. ___ N/A

15 Flash Point (cc)
1. ___ N/A 2. ___ <60°F 3. ___ 60–140°F 4. X >140°F

r DHEC use only:

ite Received: ___ ___ ___

Note: ___

EC 1969 REV. (8/88)

P. 51

AUTHORIZATION REQUEST FORM (con't)

Facility Use Only:

16 **Packaging for Shipment:** [X] in Drums (size) [30-110] [ ] in Bulk [ ] Other

17 **Method of Transportation:** [ ] Railroad tanker [X] Truck [ ] Other [ ] **18** **Specific Gravity:** [1.6]

19 **Viscosity @ 70°F:** [ ] Low [ ] Medium [X] High **20** **Layering:** [X] None [ ] Bilayered [ ] Multilayered

21 **Suspended Solids:** % by weight or volume. Specify exact % [ ] **22** **Dissolved Solids:** by % weight. Specify exact % [84]

23 **Thousands of Btu's/lbs.** Specify: [2-4K] **24** **Organically Bound Sulfur** (wt %): [<1] **25** **Organically Bound Chloride:** [1.4]

26 **Organically Bound Nitrogen** (wt %): [<1] **27** **Toxicity:** [ ] High [ ] Medium [X] Low [ ] Unknown **28** **Ash %:** [0-1]

29 **Affinity for Water:** [X] Hydrophilic [ ] Lipophilic **30** **pH** (if hydrophilic): [8.8]

31 **Visual Description of Waste:** Purple Solid

32 **Constituents:** List specific constituents by name and corresponding percentage in waste stream.

Volatile Organics	%
MIBK	0-1
Toluene	0-1
Ethylbenzene	0-1
m-Xylene	0-1
O,P-Xylene	0-1

Non Volatile Organics	%
Oil + Grease	7-10
Phenol	0-1
1,2 Dichlorobenzene	0-1
Diethyl Phlate	0-1
Pentachlorophenol	0-1
Dimethylbenzene Isomers	0-1
Non-N.B.S. Determinable	
Inert Organic Solids	53-55

Acid or Alkalis	%

Salts & Inorganics	%
Aluminum	0-1
Calcium	1-2
Iron	4-6
Lead	2-3
Sodium	0-1

33 **Water:** 10-14 %

AUTHORIZATION REQUEST FORM (con't)

33 Metallic: (total metals not EP Toxicity Test)

As	/ ppm	Cr_{+3}	/ ppm	Ag	/ ppm	Fe	47,000 ppm
Ba	550 ppm	Cr_{+6}	1,400 ppm	Ni	28 ppm	Sb	/ ppm
Cd	/ ppm	Hg	/ ppm	Cu	9,100 ppm	Mn	580 ppm
Pb	24,000 ppm	Se	/ ppm	Tl	500 ppm	Co	99 ppm
Zn	1,300 ppm	Be	/ ppm	Na	11,000 ppm	Tl	/ ppm

Toxics

Cyanide	<50 ppm
Pesticides	/ ppm
Carcinogens	/ ppm
Other Toxics	/ ppm

Other Information: _____

34 Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Dwayne M. Harrington Date Submitted: 2/9/90

Print Name: Dwayne Harrington Title: OSC

35 TSD Facility Certification:

I certify that based on the information presented in this document this facility is permitted to accept the waste stream described hereon, and do hereby inform the generator listed hereon of acceptance of the waste for treatment, storage, and/or disposal in the manner designated, and in compliance with the TSD Facility's standard terms and conditions.

Signature: Jonna A. Romeo Date Submitted: 2/27/90

Print Name: JONNA ROMEO Title: WASTE APPROVAL SUPERVISOR

ThermalKEM *An American NuKEM Company*

ThermalKEM Inc.
454 S. Anderson Road, BTC 532
Rock Hill, SC 29730
803/329-9690

January 9, 1990

Mr. Dwayne Harrington
USEPA Region II
Woodbridge Avenue
Edison, NJ 08837

Dear Mr. Harrington:

As a service to you and as a statement of our appreciation of your business, allow us to review our existing procedures for scheduling shipments into ThermalKEM. Following these procedures will minimize receiving problems for you and help to insure prompt vehicle turn-around.

All shipments must be scheduled in advance. Typically, three to four weeks notice is required. To schedule shipments, please contact Customer Service at (803) 329-9690. The following information is needed for scheduling:

* Company Name (Generator)
* Shipping Address
* Contact Name
* Telephone Number
* Purchase Order Number
* Type of Transportation, i.e., Customer truck, Customer arranged transporter, or ThermalKEM to arrange.
* Waste Stream ST Numbers
* Number of containers and sizes per ST number
* If lab packs are to be scheduled, the approved packing slips control number will be required.

Once your order has been approved and scheduled within our system, you will be given a SAN (Shippers Authorization Number). This number identifies the order as scheduled and approved for acceptance on the schedule date. You must write the five digit SAN on the South Carolina manifest under Section 15. Please advise ThermalKEM Customer Service of any changes to the original order prior to shipment as these changes must be approved and added to your SAN by Customer Service. Shipments arriving at ThermalKEM without a SAN must be rejected and returned to you at your cost.

We need your help and attention to this matter as Compliance Regulations do not permit ThermalKEM to accept any unscheduled or unapproved waste streams. We thank you for scheduling orders with accuracy and completeness. Your questions are always welcome.

Sincerely,

M.T. "Mickie" Humphreys
Customer Service Supervisor

MTH/sja

Ref. No. 22, p. 54

Form VHW-001
2/78

DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOLID WASTE ADMINISTRATION

A

SPECIAL WASTE MANIFEST

A 45888

SECTION I TO BE COMPLETED BY THE SPECIAL WASTE GENERATOR

Plant Identification Number 0 0 7 1 7 Pick-Up Date 1 1 / 1 1 / 7 9 (MO. DAY YR.)
Company Name SYNKOTE PAINT Company
Pick-Up Address 144 VAN RIPER AVE. ELMWOOD PARK, NJ 07407
Name of Hauler SYNKOTE PAINT Company Address SAME
Name of Facility SCIENTIFIC CHEMICAL PROCESSING Address 411 WILSON AVE. NEWARK, NJ
Emergency Spill Phone Nos.: 609-292-5560 or 609-292-7172

Handling Instructions:

Waste Type	Number of Containers	Physical State	Hazard ID.	Total Quantity (Identify units in pounds or gallons use P for pounds and G for gallons)	Pounds or Gallons	SECTION V TO BE COMPLETED BY THE SPECIAL WASTE FACILITY OPERATOR: Rejected Amount
1. Acid Solution						
2. Alkaline Solution						
3. Arsenic Residues						
4. Catalyst Residues						
5. Cyanide Residues						
6. Chlorinated (Dioxin, Furan) Residues						
7. Etching, Pickling, & Plating Residue						
8. Explosive Residue						
9. Filter Clays, Filter Aids						
10. Ester, Alcohol, Ether, Ketone, Glycol Residues						
11. Heavy Metal Residue						
12. Organic and Heavy Metal Residue Mixture						
13. Latex Residue						
14. Peroxide						
15. Oil and Oil Sludges, Emulsions						
16. Paint and Pigment Residues	24	L	F	1320	G	
17. Pesticides						
18. Pharmaceutical Wastes (Drugs, etc.)						
19. Lacramators, Amines, Mercaptans, Amide						
20. Plasticizer, Resin, Monomer, Elastomer Residues						
21. PCB,PBB Contaminated Materials						
22. Solvent, Halogenated Organic						
23. Solvent, Mixed						
24. Still Bottoms						
25. Radioactive Residue						
26. Tetraethyl Lead Residues						
Other (See Instructions)						
27.						
28.						
29.						
30.						

NO. 3

I certify that the above information is correct to the best of my knowledge.
Date 1/11/79 Signature and Title James Burrows Office Mgr.

SECTION II TO BE COMPLETED BY THE SPECIAL WASTE HAULER

I certify that the described quantity of material (s) listed in Section I was collected by me.
Date 1/11/79 Signature [illegible] Vehicle License Plate Number State NJ Number X K 3 M

SECTION III TO BE COMPLETED BY THE SPECIAL WASTE HAULER

Name of Hauler [illegible] SYNKOTE Address 144 Van Riper Ave Elmwood Pk, NJ
I certify that the described quantity of material (s) listed in Section I was hauled by me to the Special Waste Facility named in Section I
Date 1/11/79 Signature [illegible] Vehicle License Plate Number X K 3 M

SECTION IV TO BE COMPLETED BY THE SPECIAL WASTE FACILITY

Name of Facility SCP Address 411 WILSON AVE NEWARK
Registration Number [illegible] Date Waste Received 1/11/79 ☒ Accepted ☐ Rejected
I certify that the hauler stated above delivered the waste described in Section I to this Facility.

Date 1-11-10 Signature and Title [illegible] manager

A – ADMINISTRATION COPY

South Carolina Department of Health and Environmental Control

Bureau of Solid & Hazardous Waste Mgt.
2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-5200
Emergency & Holidays: (803)253-6488

PLEASE PRINT or TYPE (Form designed for use on elite [12-pitch] typewriter) Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID No. NJD001394040 Manifest Document No. 91001
2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is by State law.

3. Generator's Name and Mailing Address
USEPA Region II
Woodbridge Ave.
Edison New Jersey 08837 / SYNKOTE PAINTS
144-160 VAN RIPER AVE
ELMWOOD PARK N.J.
07407

4. Generator's Phone (201) 906-6899

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: VoCon
6. U.S. EPA ID Number: PAD097155014

C. State Transporter's ID

D. Transporter's Phone: 215-868-5800

7. Transporter 2 Company Name
8. U.S. EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ThermalKEM Inc.
2324 Vernesdale Road
Rock Hill, SC 29730

10. U.S. EPA ID Number: SCD044442333

G. State Facility's ID

H. Facility's Phone: 803-324-5310

11. U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. HAZARDOUS WASTE SOLID, N.O.S. / ORM-E / NA 9189	001	CM	00022	Y	6666
b.					
c.					

J. Additional Descriptions for Materials Listed Above

a. ST-00005-2912
b. ST-
c. ST-
d. ST-

K. Handling Codes for Wastes Listed Above: T09

15. Special Handing Instructions and Additional Information
TRANS ID # NJDEPS 7465
DECAL # 73634 #11200
SAN 94979 IN THE EVENT OF AN EMERGENCY CONTACT
D. HARRINGTON AT EPA
908-548-8730

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: DWAYNE M. HARRINGTON
Signature: [signature]
Month Day Year: 01 02 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: WILLIAM HUNT
Signature: [signature]
Month Day Year: 01 02 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

19. Discrepancy Indication Space
a lbs. c lbs.
b lbs. d lbs.

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: [signature]
Signature: [signature]
Month Day Year: 01 03 91

GENERATOR

TRANSPORTER

FACILITY

p. 56

ThermalKEM

NuKEM CORPORATION

GENERATOR RESTRICTED WASTE NOTIFICATION LAND DISPOSAL RESTRICTIONS COMPLIANCE

EFFFECTIVE DATE: AUGUST 8, 1990

This form meets generator restricted waste notification to ThermalKEM as required by 40 CFR Part 268.7. The notification statement under category IV is not required by law. However, we strongly request that you adhere to the intent. It has been written and included by ThermalKEM for the safety and benefit of our customers and our employees.

SYNKOTE PAINTS
144-160 VAN RIPER AVE
ELMWOOD PARK N.J.
07407

Generator Name/Location USEPA Region II, Woodbridge Ave. Edison N.J. 08837

EPA ID Number NJD 001394 040 Manifest Number 91001

THIS FORM IS MANIFEST NUMBER SPECIFIC. PLEASE USE A NEW FORM FOR EACH MANIFEST NUMBER!

Waste Analysis Available? Yes ____ No X. If yes, attach copy per 40 CFR Part 268.7 (a) (1) (iv).

I. RESTRICTED WASTE NOTIFICATION (Corresponding Treatment Standard(s)) Certain wastes have been restricted from land disposal effective May 8, 1990, but are treatable at ThermalKEM. Restricted wastes [treatable at ThermalKEM] are listed in the attached Table I & II. If your waste is classified as any of those listed in Table I, write your ST number(s), the waste code(s), circle the waste code and its **specific constituents**, and check the applicable notification statement below. If your waste is classified as any of those listed in Table II, write your ST number(s), the waste code(s), the **corresponding treatment standard** from Table II as referenced by the 40 CFR 268.41, 268.42, or 268.43 designation and check the notification statement below. The treatment standard for each is the waste code marked "x" in Table II. Use additional forms as necessary to account for all ST numbers on your shipment. Treatment standards may be specific constituent limits or designated treatment technologies, i.e., Incineration by these Part 268 references. Please detach Table II and submit only this notification with your manifest.

			TREATMENT STANDARD - 40 CFR			
			268.41(a)	268.42(a)	268.43(a)	268
Example:	ST Number 00003-xxxx	Code(s): D001	☐	☒	☐	☐
ST Number	____	Code(s): ____ ____	☐	☐	☐	☐
ST Number	____	Code(s): ____ ____	☐	☐	☐	☐
ST Number	____	Code(s): ____ ____	☐	☐	☐	☐
ST Number	____	Code(s): ____ ____	☐	☐	☐	☐

(✓) ____ **I notify that I personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste does not comply with the treatment standards specified in 40 CFR 268, Subpart D and all applicable prohibitions set forth in appropriate regulatory treatment standard (to the appropriate treatment standard, if applicable) prior to land disposal.**

II. WASTE SPECIFIC PROHIBITIONS. (California list wastes.) Additional notification is required under 40 CFR 268.32(j) to state specific characteristics for which land disposal is prohibited. If your waste contains any of these constituents or meets any of these properties, please check below.

1) ____ PCB ≥ 50 ppm 2) ____ Halogenated organic carbon, (HOC's) ≥ 1000 mg/1

3) ____ Liquids or any free liquids associated with any solid or sludge, containing the following metals or compounds of these metals:

____ Nickel (Ni) ≥ 134 mg/1 ____ Thallium (Tl) ≥ 130 mg/1

ST Number ____ Code(s): ____ ____ ____ ____

ST Number ____ Code(s): ____ ____ ____ ____

III. LAB PACK CERTIFICATION (APPENDIX IV & V) If your waste is contained in lab packs and is listed in Appendix IV - ORGANOMETALLIC LAB PACKS or V - ORGANIC LAB PACKS, one or both of the following certifications must be checked and the respective container numbers listed.

A. APPENDIX IV - ORGANOMETALLIC LAB PACKS

Container Number(s) ____ ____ ____ ____ ____ ____ ____

(✓) ____ **I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only the wastes specified in Appendix IV to part 268 or solid wastes not subject to regulation under Part 261. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.**

B. APPENDIX V - ORGANIC LAB PACKS

Container Number(s) ____ ____ ____ ____ ____ ____ ____

(✓) ____ **I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste and that the lab pack contains only organic waste specified in Appendix V to part 268 or solid wastes not subject to regulation under Part 261. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.**

IV. UNRESTRICTED WASTE NOTIFICATION If your waste does not fall into the categories listed above in Items I, II, or III, write in the ST Number(s) and the waste code(s) [South Carolina Designation = 7777 OR 6666] and check the following notification statement.

ST Number 00005-2912 Code(s): 6666 ____ ____ ____

ST Number ____ Code(s): ____ ____ ____ ____

(✓) ____ **I notify that I have personally examined and am familiar with the waste through analysis and testing or through notification that the waste is not restricted as specified in 40 CFR 268, Subpart D and all applicable prohibitions set forth in 268.32 or RCRA 3004(d).**

Signature: Bruce Sprague Date: 12/31/90

Print Name: BRUCE SPRAGUE Title: CHIEF, RESPONSE & PREVENTION BRANCH

PLEASE INCLUDE THIS NOTIFICATION WITH ORIGINAL SIGNATURE WITH YOUR MANIFEST!

Revised 9/27/88 & 10/19/88 & 5/13/89 & 7/1/90

p. 57

and Environmental Control

2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-5200
Emergency & Holidays: (803)253-6488

PLEASE PRINT or TYPE (Form designed for use on elite [12-pitch] typewriter) Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID No. N J D 0 0 1 3 9 4 0 4 0 9 0 0 0 3 — Manifest Document No.
2. Page 1 of 2

Information in the shaded areas is not required by Federal law, but is by State law.

Generator's Name and Mailing Address: USEPA Region II, Woodbridge Ave., Edison, N.J. — SYNKOTE PAINTS, 144-160 Van Riper Ave., Elmwood Park, N.J. 07407

4. Generator's Phone (201) 906-6899

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: S&J TRANSPORTATION
6. U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6
C. State Transporter's ID: NJD071629976
D. Transporter's Phone: 609-769-2741

7. Transporter 2 Company Name
8. U.S. EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address: ThermalKEM Inc., 2324 Vernesdale Road, Rock Hill, SC 29730
10. U.S. EPA ID Number: S C D 0 4 4 4 4 2 3 3 3
G. State Facility's ID
H. Facility's Phone: 803-324-5310

11. U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Waste Flammable Liquid, N.O.S. / Flammable Liquid / UN 1993	1	DM	55	G	6666 D001
b. Waste Flammable Liquid, N.O.S. / Flammable Liquid / UN 1993	15	DM	825	G	6666 D001
c. Waste Flammable Liquid, N.O.S. / Flammable Liquid / UN 1993	1	DM	55	G	6666 D001
d. Waste Flammable Solid, N.O.S. / Flammable Solid / UN 1325	10	DM	550	G	6666 D001

J. Additional Descriptions for Materials Listed Above
a. ST-8886-1055
b. ST-8886-1055
c. ST-8886-1055
d. ST-8886-1056

K. Handling Codes for Wastes Listed Above: T09

15. Special Handling Instructions and Additional Information
TRANS. I.D.# NJDEPS 0-3217
DECAL# 33214
SAN 93838
#9575
a.) 55 gal. Drum
b.) 55 gal. Drum inside 85 gal. O/P
c.) 55 gal. Drum inside 85 gal. inside 110 gal. O/P
D.) 55 gal Drum inside 85 gal. O/P

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 1[illegible] minutes for treatment storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Wayne Harrington — Signature: [signature] — Month Day Year: 06 27 90

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Bruce Nichols — Signature: [signature] — Month Day Year: 06 27 90

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space
a. 466 lbs. c. 466 lbs.
b. 6084 lbs. d. 6022 lbs.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Samuel Newman — Signature: [signature] — Month Day Year: 06 29 90

GENERATOR

p. 58

Please print or type. (Form designed for use on elite [12-pitch] typewriter) Form approved OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's U.S. EPA ID No.	Manifest Document No.	22. Page	Information in the shaded areas is not required by Federal Law, but is by State Law.
	NJD001394040	90003	2	

23. Generator's Name
USEPA Region II
EDISON, N.J. 03837
SYNKOTE PAINTS

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 1 Company Name
S&J TRANSPORTATION

25. U.S. EPA ID Number
NJD071629976

N. State Transporter's ID NJD071629976

O. Transporter's Phone (609) 769-2741

26. Transporter _____ Company Name

27. U.S. EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a. Waste Flammable Liquid, N.O.S. / Flammable Liquid / UN 1993	2	DM	110	G	6666 D001
b. Waste Flammable Liquid, N.O.S. / Flammable Liquid / UN 1993	30	DM	1650	G	6666 D001
c.					
d.					
e.					
f.					
g.					
h.					
i.					

S. Additional Descriptions for Materials Listed Above

a ST 88886 1057 c ST g ST
b ST 88886 1057 e ST h ST
c ST f ST i ST

T. Handling Codes for Wastes Listed Above

T09

32. Special Handling Instructions and Additional Information
a.) 55 gal. Drum
b) 55 gal. Drum inside 85 gal. O/P.

SAN 93838

33. Transporter _____ Acknowledgement of Receipt of Materials

Printed/Typed Name: Dwayne Harrington
Signature: [signature]
Date: Month Day Year 06 27 90

34. Transporter _____ Acknowledgement of Receipt of Materials

Printed/Typed Name: Bruce Nichols
Signature: Bruce Nichols
Date: Month Day Year 06 27 90

35. Discrepancy Indication Space

a 1096 lbs. d lbs. g lbs.
b 16434 lbs. e lbs. h lbs.
c lbs. f lbs. i lbs.

GENERATOR

TRANSPORTER

FACILITY

EPA Form 8700-22A (9/88) Previous editions are obsolete (DUEC #1088A) (Rev. 5/89)

and Environmental Control

2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-5200
Emergency & Holidays: (803)253-6488

PLEASE PRINT or TYPE (Form designed for use on elite [12-pitch] typewriter) Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID No. NJD001394040 Manifest Document No. 90002
2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is by State law.

3. Generator's Name and Mailing Address
USEPA Region II
Woodbridge Av.
Edison, N.J. 08837
SYNKOTE PAINTS
144-160 Van Ripen Ave.
Elmwood Park, N.J. 07407

4. Generator's Phone (201) 906-6899

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: S&J TRANSPORTATION CO.
6. U.S. EPA ID Number: NJD071629976
C. State Transporter's ID: NJD071629976
D. Transporter's Phone: 609-769-2741

7. Transporter 2 Company Name
8. U.S. EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
ThermalKEM Inc.
2324 Vernesdale Road
Rock Hill, SC 29730
10. U.S. EPA ID Number: SCD044442333
G. State Facility's ID
H. Facility's Phone: 803-324-5310

11. U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. HAZARDOUS WASTE LIQUID, N.O.S. / ORM-E / NA9189	31	DM	1705	G	6666
b. HAZARDOUS WASTE LIQUID, N.O.S. / ORM-E / NA9189	2	DM	110	G	6666
c. HAZARDOUS WASTE SOLID, N.O.S. / ORM-E / NA9189	6	DM	330	G	6666
d. HAZARDOUS WASTE SOLID, N.O.S. / ORM-E / NA9189	25	DM	1375	G	6666

J. Additional Descriptions for Materials Listed Above
a. ST-88886-1059
b. ST-88886-1059
c. ST-88886-1060
d. ST-88886-1060

K. Handling Codes for Wastes Listed Above: T09

15. Special Handing Instructions and Additional Information
TRANS. I.D. #NJDEPS 0-3217
DECAL # 33224
SAN 93840
a.) 55 gal. inside 85 gal. O/P.
b.) 55 gal. inside 85 gal inside 110 gal. O/P.
c.) 55 gal. Drums
d.) 55 gal. inside 85 gal. O/P. #9570

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: DWAYNE HARRINGTON | Signature: [signature] | Month Day Year: 06 26 90

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ~~DWAYNE HARRINGTON~~ | Signature: [signature] | Month Day Year: 06 26 90

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: ELMER F. LYNAM, JR | Signature: [signature] | Month Day Year: 06 26 90

19. Discrepancy Indication Space
a. 15567 lbs. c. 4382 lbs.
b. 1004 lbs. d. 18260 lbs.

20. Facility Owner or Operator; Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Samuel Dunham | Signature: [signature] | Month Day Year: 06 27 90

GENERATOR

TRANSPORTER

FACILITY

p. 60

and Environmental Control

2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-5200
Emergency & Holidays: (803)253-6488

PLEASE PRINT or TYPE (Form designed for use on elite [12-pitch] typewriter) Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID No. NJD001394040 Manifest Document No. 90001
2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is by State law.

3. Generator's Name and Mailing Address
USEPA Region II
Woodbridge Ave
Edison, N.J. 08837
Synkote Paints
144-160 Van Riper Ave.
Elmwood Park, N.J. 07407

4. Generator's Phone (201) 906-6899

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: S&J Transportation Co
6. U.S. EPA ID Number: NJD071629976

C. State Transporter's ID

D. Transporter's Phone: 609-769-2741

7. Transporter 2 Company Name

8. U.S. EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ThermalKEM Inc.
2324 Vernesdale Road
Rock Hill, SC 29730

10. U.S. EPA ID Number: SCD044442333

G. State Facility's ID

H. Facility's Phone: 803-324-5310

11. U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. Hazardous Waste Liquid, N.O.S. / ORM-E / NA 9189	1	DM	55	G	6666
b. Hazardous Waste Liquid, N.O.S. / ORM-E / NA 9189	54	DM	2970	G	6666
c. Hazardous Waste Liquid, N.O.S. / ORM-E / NA 9189	2	DM	110	G	6666
d.					

GENERATOR

J. Additional Descriptions for Materials Listed Above
a. ST-88886-1058
b. ST-88886-1058
c. ST-88886-1058
d. ST-

K. Handling Codes for Wastes Listed Above
T09

15. Special Handing Instructions and Additional Information
TRANS. I.D. # NJDEPS 0-3217
DECAL # 33236
SAN 93839
b.) 55 gal. Drums inside 85 gal. O/P.
c.) 55 gal. Drums inside 85 gal. O/P inside 110 gal. O/P. #9569

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Dwayne Harrington
Signature: [signature]
Month Day Year: 06 26 90

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Gregg Beal
Signature: Gregg Beal
Month Day Year: 06 26 90

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

FACILITY

19. Discrepancy Indication Space
a. 438 lbs. c. 876 lbs.
b. 23,665 lbs. d. lbs.

20. Facility Owner or Operator; Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Samuel Dunham
Signature: [signature]
Month Day Year: 06 27 90

p. 61

South Carolina Department of Environmental Control

2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-5200
Emergency & Holidays: (803)253-6488

PLEASE PRINT or TYPE (Form designed for use on elite [12-pitch] typewriter) Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID No. N J D 0 0 1 3 9 4 0 4 0 — Manifest Document No. 9 0 0 0 4
2. Page 1 of 2

Information in the shaded areas is not required by Federal law, but is by State law.

3. Generator's Name and Mailing Address
USEPA REGION II
WOODBRIDGE AVE.
EDISON, N.J. 08837
SYNKOTE PAINTS
144-160 VAN RIPER AVE.
ELMWOOD PARK, N.J. 07407

4. Generator's Phone (201) 906-6899

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: S&J TRANSPORTATION
6. U.S. EPA ID Number: N J D 0 7 1 6 2 9 9 7 6

C. State Transporter's ID

D. Transporter's Phone: 609-769-2741

7. Transporter 2 Company Name
8. U.S. EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ThermalKEM Inc.
2324 Vernesdale Road
Rock Hill, SC 29730

10. U.S. EPA ID Number: S C D 0 4 4 4 4 2 3 3 3

G. State Facility's ID

H. Facility's Phone: 803-324-5310

11. U.S. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE FLAMMABLE LIQUID, N.O.S. / FLAMMABLE LIQUID / UN 1993	14	DM	770	G	6666 0001
b. HAZARDOUS WASTE SOLID, N.O.S. / ORM-E / NA 9189	11	DM	605	G	6666
c. HAZARDOUS WASTE SOLID, N.O.S. / ORM-E / NA 9189	7	DM	385	G	6666
d. HAZARDOUS WASTE SOLID, N.O.S. / ORM-E / NA 9189	4	DM	220	G	6666

J. Additional Descriptions for Materials Listed Above
a. S T - 8 8 8 8 6 - 1 0 5 4
b. S T - 8 8 8 8 6 - 1 0 6 1
c. S T - 8 8 8 8 6 - 1 0 6 1
d. S T - 8 8 8 8 6 - 1 0 6 1

K. Handling Codes for Wastes Listed Above: T09

15. Special Handing Instructions and Additional Information
TRANS. I.D. # NJDEPS 0-3217
DECAL # 33229
SAN 93841
#9580
a.) 55 gal. inside 85 gal. O/P.
b.) 55 gal. Drum
c.) 55 gal. inside 85 gal. O/P
d.) 55 gal. inside 85 gal inside 110 gal O/P

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St. S.W., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Dwayne Harrington — Signature: [signature] — Month Day Year: 06 27 90

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: LUKE FOGG — Signature: Luke Fogg — Month Day Year: 06 27 90

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space
a 5241 lbs. c 3515 lbs.
b 5524 lbs. d 2009 lbs.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Samuel [signature] — Signature: [signature] — Month Day Year: 06 29 90

GENERATOR — TRANSPORTER — FACILITY

P. 62

Please print or type. (Form designed for use on elite [12-pitch] typewriter) Form approved OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST *(Continuation Sheet)*

21. Generator's U.S. EPA ID No.: NJD001394040 — Manifest Document No.: 90004

22. Page: 2

Information in the shaded areas is not required by Federal Law, but is by State Law.

23. Generator's Name: USEPA REGION II, EDISON. N.J. 08837 — SYNKOTE PAINTS

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 1 Company Name: S+J TRANSPORTATION

25. U.S. EPA ID Number: NJD071629976

N. State Transporter's ID

O. Transporter's Phone: 609-769-2741

26. Transporter ____ Company Name

27. U.S. EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a. HAZARDOUS WASTE LIQUID, N.O.S. / ORM-E / NA9189	17	DM	935	G	6666
b. HAZARDOUS WASTE LIQUID, N.O.S. / ORM-E / NA9189	6	DM	330	G	6666
c. WASTE FLAMMABLE LIQUID, N.O.S. / FLAMMABLE LIQUID / UN 1993	3	DF	90	G	6666 D001
d. WASTE FLAMMABLE SOLIDS, N.O.S. / FLAMMABLE SOLID / UN 1325	5	DF	150	G	6666 D001
e.					
f.					
g.					
h.					
i.					

S. Additional Descriptions for Materials Listed Above

a ST 88886 1062 c ST 00006 0982 g ST
b ST 88886 1063 e ST h ST
c ST 00006 0982 f ST i ST

T. Handling Codes for Wastes Listed Above: T09

32. Special Handling Instructions and Additional Information

a.) 55 gal. inside of 85 gal. O/P.
b.) 55 gal. inside of 85 gal. O/P
c.) 30 gal. Lab Pack
d.) 30 gal. Lab Pack

SAN 93841

33. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: LUKE FOGG — Signature: [signature] — Date: Month Day Year 06 27 90

34. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date: Month Day Year

35. Discrepancy Indication Space

ST-86-1062 reject IDM - positive flame test with spacks

a 7528 lbs. d 1245 lbs. g lbs.
b 2629 lbs. e lbs. h lbs.
c 947 lbs. f lbs. i lbs.

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22A (9/88) Previous editions are obsolete (DUEC #1088A) (Rev. 5/88)

To: Dwayne Harrington, EPA-OSC

From: Beverly Lawson, TAT
Ali Lochhead

Date: October 9, 1990

Re: Assessment of Remaining Potential Hazards
Synkote Paints Site, Elmwood Park, New Jersey

Synkote Paints is an abandoned paint and solvent-based coatings manufacturing facility in Elmwood Park, New Jersey. Approximately 300 drums, containers and reactor vessels containing solvents, paint wastes, corrosives, and laboratory chemicals were abandoned at the site in 1986. In October 1989, EPA initiated a CERCLA Removal Action at the Synkote Paints site.

In October 1989, EPA contractors sampled all of the drums at the site and stabilized the laboratory chemicals via lab packing in DOT approved containers. A security system was installed at this time. Between October and June 1990, the security system was inspected regularly.

In June 1990, EPA contractors overpacked all the drums and paint cans on site. The shipment of overpacks was transported to ThermalKem, Rock Hill South Carolina, for incineration.

A number of potential hazards remain both in the building and outside on the property:

1) Approximately three (3) aboveground storage tanks remain at the rear of the property (southern border).
2) Located in front of the storage tanks are two (2) x 85 gallon drums, which contain assorted garbage and three (3) drums (2 x 55 gallon and 1 x 85 gallon), which contain a 2" thick paint residue.
3) One (1) large mixing vat, containing a half inch of residue, is located on the southeastern corner of the building.
4) A metal hopper was found adjacent to the mixing vat, along the back wall of the facility.
5) Situated to the west of the hopper are one (1) 55 gallon rusted drum, six (6) plastic paint residue buckets, and two (2) 35 gallon rusted drums.
6) Located further to the west, along the back wall of the building are three machine parts and a large metal roller.
7) A large metal 5'x5'x5' dumpster, as well as various other metal and plastic trash are located on the southwestern-most portion of the property.

Ref. No. 22, p. 64/65

8) Numerous patches of paint residue (approximately 2-3" thick) were noted on the ground adjacent to the back wall of the building.
9) Located inside the building in the drum room (eastern most room) are six (6) reactor vessels.
10) Contamination of the soil and groundwater have been noted during previous site investigations.

For the removal action to be complete, the above mentioned potential hazards should be attended to in the appropriate manner.

REFERENCE NO. 23

United States
Environmental Protection
Agency

Office of Solid Waste and
Emergency Response
Washington, DC 20460

EPA/540/R95/128
May 1996

Superfund

EPA

Soil Screening Guidance: Technical Background Document

Second Edition

Ref. No. 23, p. 1/2

Table A-1 (continued)

Inorganics				Migration to ground water	
CAS No.	Compound	Ingestion (mg/kg)	Inhalation fugitive particulate (mg/kg)	20 DAF (mg/kg)	1 DAF (mg/kg)
7440-36-0	Antimony	31 [b]	— [c]	5	0.3
7440-38-2	Arsenic	0.4 [e]	750 [e]	29 [i]	1 [i]
7440-39-3	Barium	5,500 [b]	6.9E+05 [b]	1,600 [i]	82 [i]
7440-41-7	Beryllium	0.1 [e]	1,300 [e]	63 [i]	3 [i]
7440-43-9	Cadmium	78 [b,m]	1,800 [e]	8 [i]	0.4 [i]
7440-47-3	Chromium (total)	390 [b]	270 [e]	38 [i]	2 [i]
16065-83-1	Chromium (III)	78,000 [b]	— [c]	— [g]	— [g]
18540-29-9	Chromium (VI)	390 [b]	270 [e]	38 [i]	2 [i]
57-12-5	Cyanide (amenable)	1,600 [b]	— [c]	40	2
7439-92-1	Lead	400 [k]	— [k]	— [k]	— [k]
7440-02-0	Nickel	1,600 [b]	13,000 [e]	130 [i]	7 [i]
7782-49-2	Selenium	390 [b]	— [c]	5 [i]	0.3 [i]
7440-22-4	Silver	390 [b]	— [c]	34 [b,i]	2 [b,i]
7440-28-0	Thallium	— [c]	— [c]	0.7 [i]	0.04 [i]
7440-62-2	Vanadium	550 [b]	— [c]	6,000 [b]	300 [b]
7440-66-6	Zinc	23,000 [b]	— [c]	12,000 [b,i]	620 [b,i]

DAF = Dilution and attenuation factor.

[a] Screening levels based on human health criteria only.

[b] Calculated values correspond to a noncancer hazard quotient of 1.

[c] No toxicity criteria available for that route of exposure.

[d] Soil saturation concentration (C_{sat}).

[e] Calculated values correspond to a cancer risk level of 1 in 1,000,000.

[f] Level is at or below Contract Laboratory Program required quantitation limit for Regular Analytical Services (RAS).

[g] Chemical-specific properties are such that this pathway is not of concern at any soil contaminant concentration.

[h] A preliminary remediation goal of 1 mg/kg has been set for PCBs based on *Guidance on Remedial Actions for Superfund Sites with PCB Contamination* (U.S. EPA, 1990) and on EPA efforts to manage PCB contamination.

[i] SSL for pH of 6.8.

[j] Ingestion SSL adjusted by a factor of 0.5 to account for dermal exposure.

[k] A screening level of 400 mg/kg has been set for lead based on *Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities* (U.S. EPA, 1994).

[l] SSL is based on RfD for mercuric chloride (CAS No. 007487-94-7).

[m] SSL is based on dietary RfD.

Ref. No. 23, p. 21.

REFERENCE NO. 24

INTERIM

SOIL SURVEY

OF

BERGEN COUNTY

NEW JERSEY

A PRELIMINARY REPORT
FOR THE

BERGEN COUNTY
SOIL CONSERVATION DISTRICT

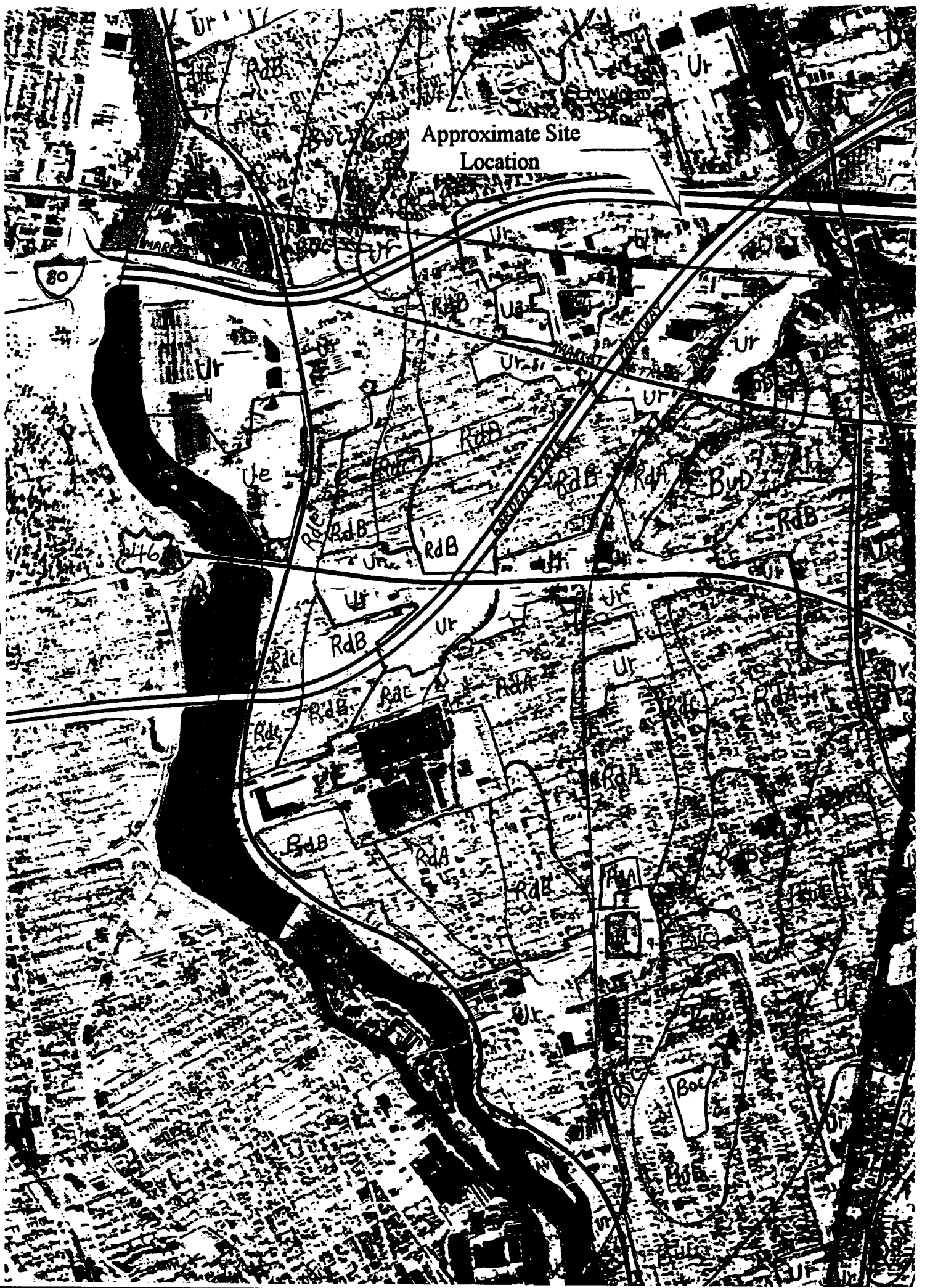
JANUARY 1989

PROTECTION AGENCY

UNITED STATES DEPARTMENT
OF AGRICULTURE
SOIL CONSERVATION SERVICE
ADVANCED UNEDITED COPY

PRICE $20.00

Ref. No. 24, p. 117


Approximate Site
Location
80
Ur
RdB
RdA
Ue
Boc

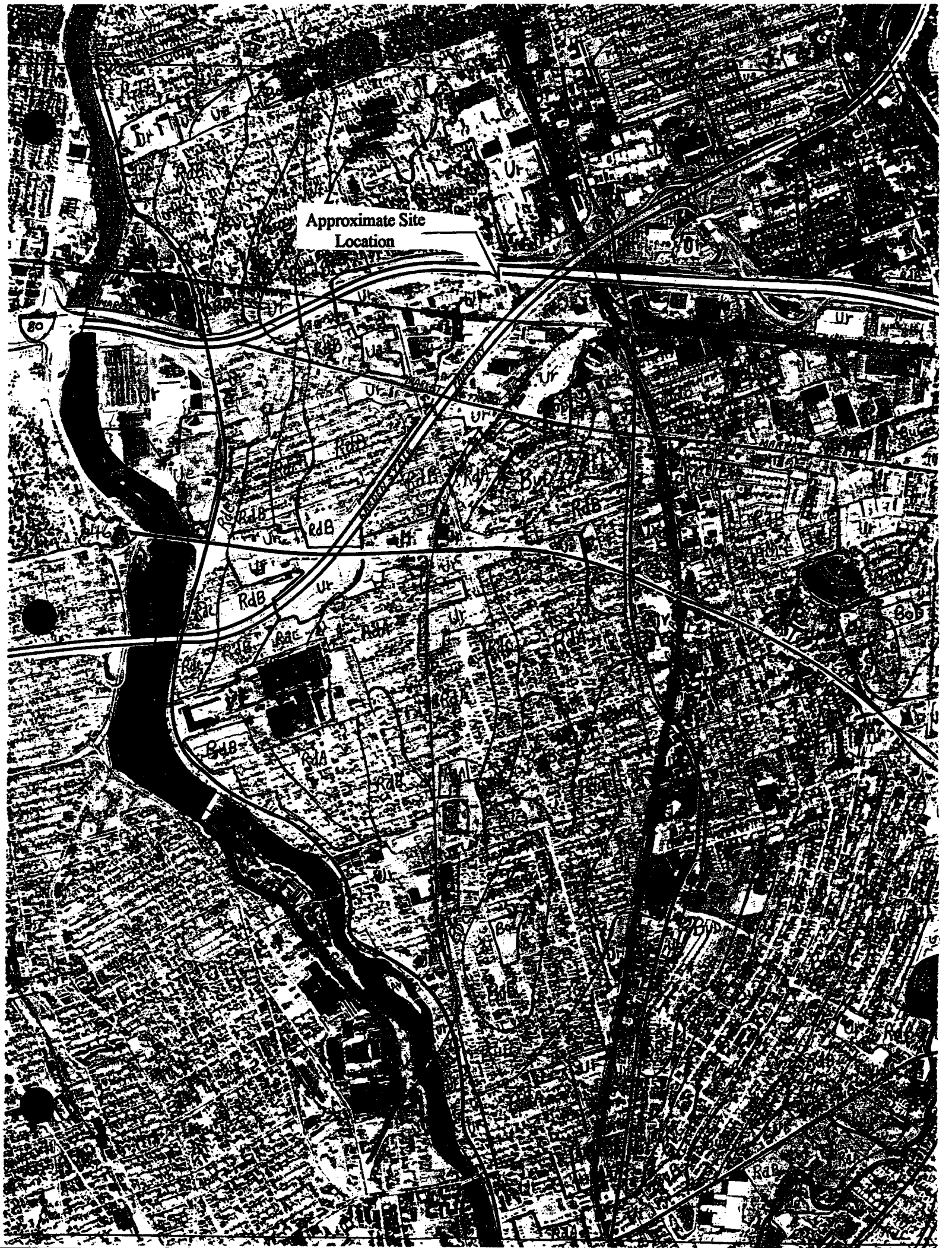

Approximate Site Location
80

TABLE A.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symboi	Soil name	Acres	Percent
Ad	Adrian muck	590	0.4
BoB	Boonton gravelly loam, 3 to 8 percent slopes	1,160	0.7
BoC	Boonton gravelly loam, 8 to 15 percent slopes	2,545	1.6
BoD	Boonton gravelly loam, 15 to 25 percent slopes	935	0.6
BoE	Boonton gravelly loam, 25 to 35 percent slopes	1,335	0.8
BrB	Boonton gravelly loam, 3 to 8 percent slopes, very stony	260	0.2
BrC	Boonton gravelly loam, 8 to 15 percent slopes, very stony	670	0.4
BrD	Boonton gravelly loam, 15 to 25 percent slopes, very stony	265	0.2
BsB	Boonton-Rock outcrop complex, 3 to 8 percent slopes	435	0.3
BsC	Boonton-Rock outcrop complex, 8 to 15 percent slopes	1,095	0.7
BsD	Boonton-Rock outcrop complex, 15 to 25 percent slopes	405	0.3
BsE	Boonton-Rock outcrop complex, very steep	1,210	0.8
BUB	Boonton-Urban land complex, undulating	7,155	4.5
BUC	Boonton-Urban land complex, gently rolling	8,610	5.4
BUD	Boonton-Urban land complex, hilly	4,800	3.0
BUE	Boonton-Urban land complex, very hilly	1,340	0.8
Ca	Carlisle muck	270	0.2
DuB	Dunellen loam, 3 to 8 percent slopes	1,220	0.8
DuC	Dunellen loam, 8 to 15 percent slopes	1,580	1.0
DuD	Dunellen loam, 15 to 25 percent slopes	280	0.2
DVA	Dunellen-Urban land complex, nearly level	4,180	2.6
DVB	Dunellen-Urban land complex, undulating	15,280	9.7
DVC	Dunellen-Urban land complex, rolling	12,945	8.2
DVD	Dunellen-Urban land complex, hilly	1,510	1.0
FL	Fluvaquents, loamy	1,920	1.2
HaB	Haledon gravelly loam, 3 to 8 percent slopes	460	0.3
HbB	Haledon gravelly loam, 3 to 8 percent slopes, very stony	930	0.6
HUB	Haledon-Urban land complex, undulating	1,780	1.1
HvA	Hasbrouck loam, 0 to 3 percent slopes, very stony	960	0.6
HzB	Hibernia loam, 3 to 8 percent slopes, very stony	520	0.3
OtD	Otisville gravelly loamy sand, 15 to 25 percent slopes	360	0.2
OtE	Otisville gravelly loamy sand, 25 to 35 percent slopes	310	0.2
PoA	Pascack silt loam, 0 to 3 percent slopes	1,200	0.8
Pr	Preakness silt loam	2,000	1.3
Ps	Pits, Sand and Gravel	200	0.1
RaA	Riverhead sandy loam, 0 to 3 percent slopes	400	0.3
RaB	Riverhead sandy loam, 3 to 8 percent slopes	1,890	1.2
RaC	Riverhead sandy loam, 8 to 15 percent slopes	2,290	1.4
RoC	Rockaway gravelly loam, 8 to 15 percent slopes, very stony	560	0.4
RoD	Rockaway gravelly loam, 15 to 25 percent slopes, very stony	490	0.3
RoE	Rockaway gravelly loam, 25 to 35 percent slopes, very stony	710	0.4
RrC	Rockaway-Rock outcrop complex, gently rolling	2,240	1.4
RrD	Rockaway-Rock outcrop complex, hilly	1,210	0.8
RrE	Rockaway-Rock outcrop complex, very hilly	3,260	2.1
SU	Sulfihemists and Sulfaquents, frequently flooded	3,190	2.0
Ua	Udorthents, loamy	1,400	0.9
Ub	Udorthents, organic substratum	840	0.5
Uc	Udorthents, organic substratum-Urban land complex	750	0.5
Ud	Udorthents, refuse substratum	1,270	0.8
Ue	Udorthents, wet substratum	4,360	2.8
Uf	Udorthents, wet substratum-Urban land complex	8,160	5.2
UR	Urban land	22,570	14.3
WeB	Wethersfield gravelly loam, 3 to 8 percent slopes	1,520	1.0
WeC	Wethersfield gravelly loam, 8 to 15 percent slopes	1,555	1.0
WeD	Wethersfield gravelly loam, 15 to 25 percent slopes	605	0.4
WeE	Wethersfield gravelly loam, 25 to 35 percent slopes	405	0.3
WrD	Wethersfield gravelly loam, 15 to 25 percent slopes, very stony	405	0.3
WsB	Wethersfield-Rock outcrop complex, 3 to 8 percent slopes	575	0.4
WsC	Wethersfield-Rock outcrop complex, 8 to 15 percent slopes	1,025	0.6
WsD	Wethersfield-Rock outcrop complex, 15 to 25 percent slopes	515	0.3
WsE	Wethersfield-Rock outcrop complex, very steep	390	0.2
WUB	Wethersfield-Urban land complex, undulating	1,005	0.6
WUC	Wethersfield-Urban land complex, gently rolling	2,070	1.3
WUD	Wethersfield-Urban land complex, hilly	1,250	0.8
W	Water (less than 40 acres)	1,510	1.0
water	Water (greater than 40 acres)	8,865	5.6
	Total	158,000	100.0

Ref. No. 24, p. 41

UR Urban land

This unit is nearly level or gently sloping. It occurs throughout the survey area except in the boro of Alpine and west of the Mahwah River in the boros of Mawah and Oakland. Individual areas are irregular in shape and range from 5 to more than 750 acres in size. Slopes range from 1 to 5 percent.

This unit has been cut or filled and covered with an impervious surface such as paving materials or buildings over 85 percent of the areas.

Included in mapping are high density residential areas that are less than 85 percent covered and contain reworked soil material or Udorthents. In the Meadowlands area, the soils are either Udorthents, loamy or Udorthents, wet substratum. Included areas make up about 25 percent of the unit.

This unit is used for commercial and industrial development such as shopping malls and office building complexes. Some areas are utilized for central school sites.

Capability subclass is not assigned.

Ref. No. 24, p. 517

WUB Wethersfield-Urban land complex, undulating

This unit consists of well drained Wethersfield soils and Urban land. It is on top of long, broad glacial till ridges and on convex, broad glacial till plains in the northern part of the county, east of the Ramapo River. Individual areas are irregular in shape. Most areas are between 5 and 100 acres in size. Slopes range from 3 to 8 percent. The Wethersfield soils and Urban Land occur in such an intricate pattern in this unit that they could not be shown separately on the soil map. The unit consists of about 55 percent Wethersfield soils, 30 percent Urban Land and 15 percent other soils.

Typically, Wethersfield soils have a dark brown gravelly loam surface layer about 8 inches thick. The subsoil is 18 inches thick. The upper 10 inches is friable, yellowish brown gravelly loam. The lower 8 inches is friable, strong brown gravelly loam. The substratum is reddish yellow gravelly fine sandy loam to a depth of 65 inches. It is firm in place.

Urban land consists of areas with an impervious surface such as buildings, paved driveways, patios and paved walkways.

Included in mapping are a few areas of Wethersfield soils that are less than 3 percent slopes or more than 8 percent slopes. Also included are somewhat poorly drained Haledon soils in small slightly concave areas and narrow drainageways. Where this unit is adjacent to areas of the Wethersfield-Rock outcrop complex, soils that are less than 40 inches deep are included. Included soils make up about 15 percent of the mapped acreage.

Permeability is moderate in the solum and slow in the substratum. Surface runoff is medium in the Wethersfield part of the unit and very rapid in the Urban land part. The hazard of erosion is moderate. The available water capacity is moderate. In unlimed areas, the reaction is very strongly or strongly acid in the surface and subsoil layers and strongly or moderately acid in the substratum. Frost action potential is moderate.

Areas of this unit are devoted essentially to single family residential use. Individual lots vary in size from primarily 1/4 acre to 1 acre.

Slow permeability in the substratum is the major limiting factor for installation of sanitary facilities, community and recreational facilities development. The Wethersfield soils are well suited for plantings to provide cover and food for small animals and birds.

Capability subclass is not assigned.

Ref. No. 24, p. 6/7

tilth - the physical condition of soil as related to its ease of tillage, fitness as a seedbed, and its impedance to seedling emergence and root penetration.

topsoil - (i) The layer of soil moved in cultivation. See surface soil. (ii) The A horizon. (iii) The A1 horizon. (iv) Presumable fertile soil material used to topdress roadbanks, gardens, and lawns.

total potential (of soil water) - See soil water.

total pressure - See soil water.

type, soil - See soil type.

U

unsaturated flow - The movement of water in a soil which is not filled to capacity with water.

upper plastic limit - See liquid limit.

urban land - Areas so altered or obstructed by urban works or structures that identification of soils is not feasible. A miscellaneous land type.

V

value, color - The relative lightness or intensity of color and approximately a function of the square root of the total amount of light. One of the three variables of color. See Munsell color system, hue, and chroma.

variant - See soil variant.

varve - A distinct band representing the annual deposit in sedimentary materials regardless of origin and usually consisting of two layers, one a thick, light-colored layer of silt and fine sand and the other a thin, dark-colored layer of clay.

very coarse sand - See soil separates and soil texture.

very fine sand - See soil separates and soil texture.

very fine sandy loam - See soil texture.

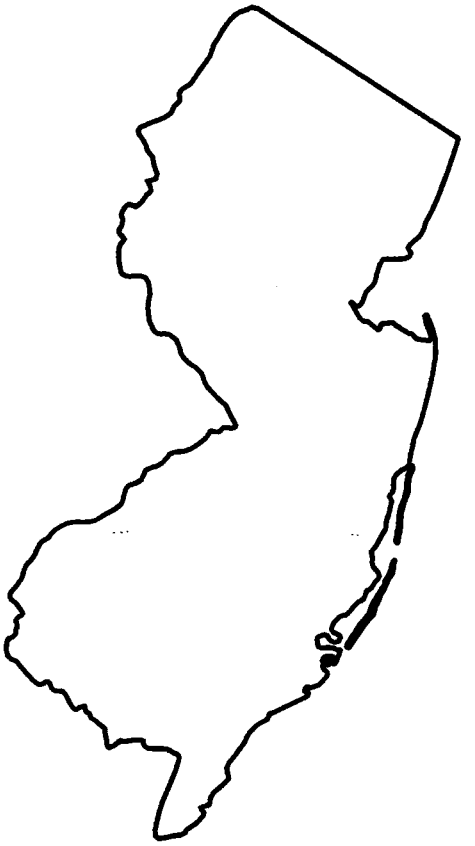
Ref. No. 24, p. 7/7

REFERENCE NO. 25

Water Resources Data New Jersey Water Year 1996

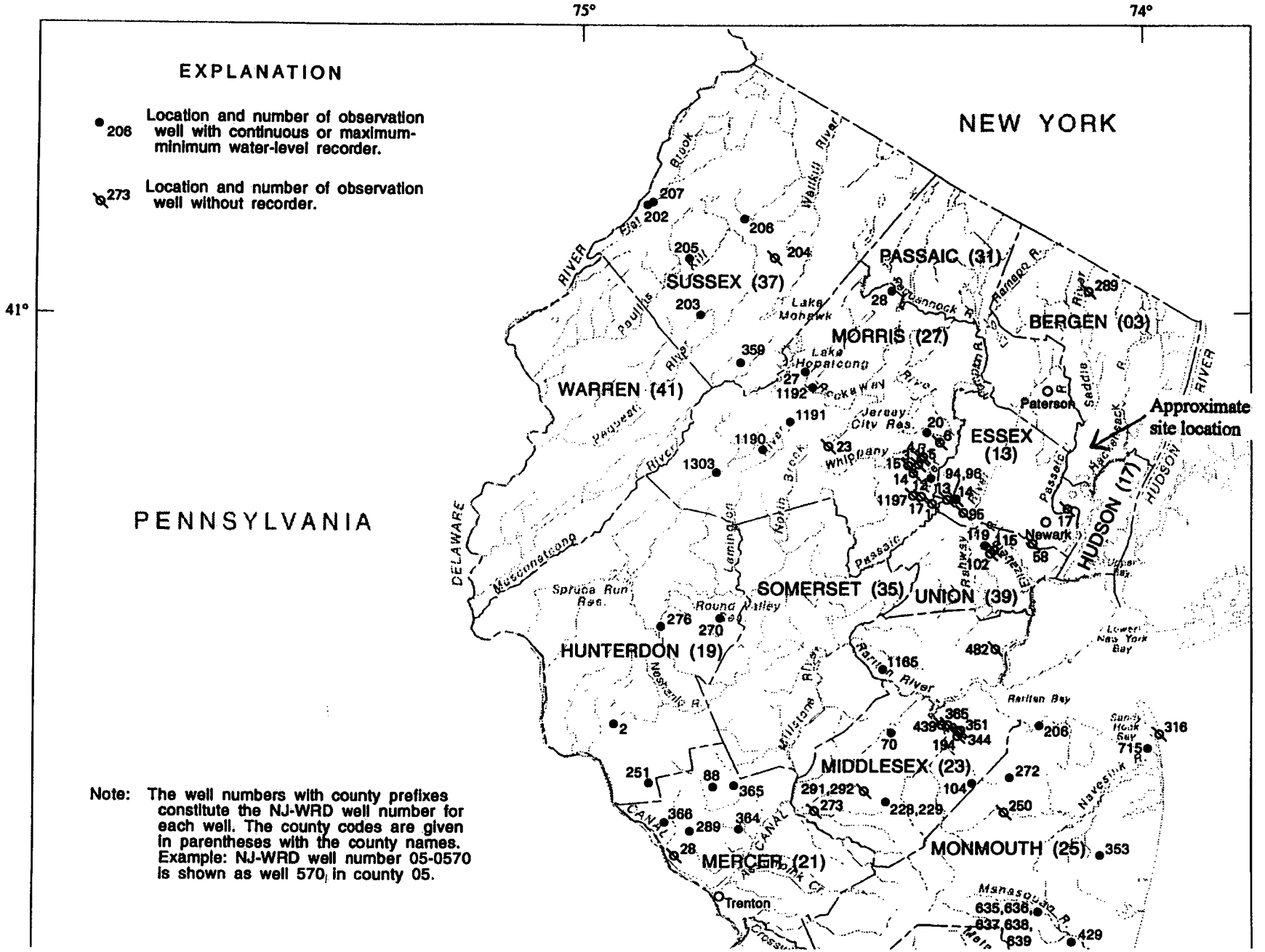
Volume 2. Ground-Water Data

by W.D. Jones and M.J. DeLuca



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-96-2
Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies

Ref. No. 25, p. 1/3



Ref. No. 25, p. 243

404106074171901. Local I.D., Union County Park Obs. NJ-WRD Well Number. 39-0119.

LOCATION.--Lat 40°41'06", long 74°17'19", Hydrologic Unit 02030104, at Galloping Hill Golf Course, Kenilworth Borough.
Owner: Union County Park Commission.

AQUIFER.--Passaic Formation of Triassic-Jurassic age.

WELL CHARACTERISTICS.--Drilled artesian observation well, depth 290 ft.

INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Periodic measurements, Aug. 1975 to July 1984. Water-level recorder, June 1943 to Aug. 1975.

DATUM.--Land surface is 69.00 ft above sea level.
Measuring point: Top of recorder shelf, 2.30 ft above land surface.

REMARKS.--Water level is affected by nearby pumping of irrigation well.

PERIOD OF RECORD.--June 1943 to current year. Records for 1975 to 1983 are unpublished and are available in files of the New Jersey District Office.

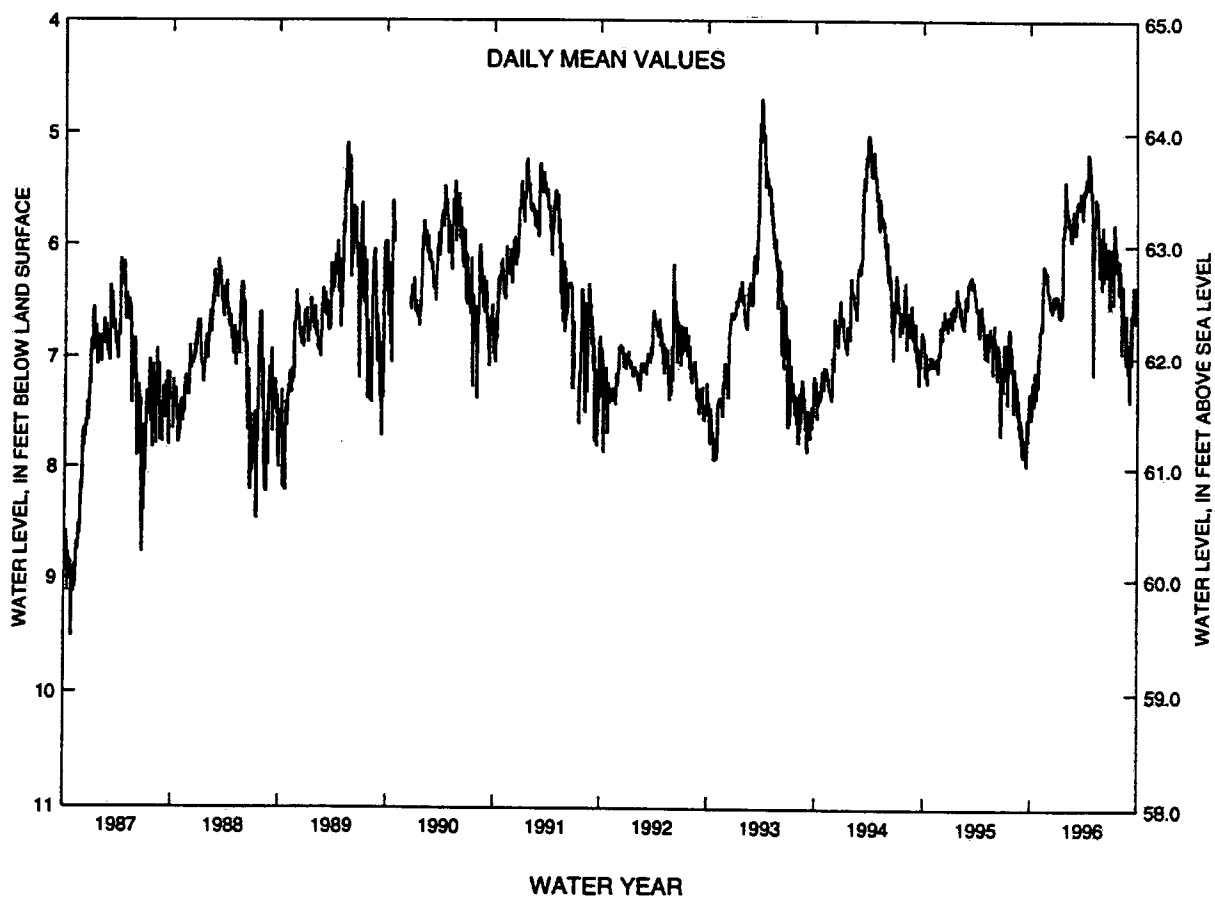
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.06 ft below land surface, June 2, 1952; lowest, 16.05 ft below land surface, June 29, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.49	6.75	6.49	6.60	5.70	5.89	5.54	5.83	5.83	6.08	6.25	7.41
10	7.38	6.76	6.49	6.59	5.81	5.67	5.40	5.80	6.08	6.07	6.60	6.62
15	7.17	6.17	6.58	6.62	5.92	5.63	5.50	5.79	6.06	5.80	6.61	6.59
20	7.38	6.19	6.45	5.95	5.93	5.53	5.20	5.85	6.15	6.05	6.99	6.48
25	7.23	6.27	6.45	5.80	5.68	5.60	5.39	6.17	6.20	6.23	6.61	6.50
EOM	6.98	6.42	6.48	5.51	5.85	5.63	6.23	6.32	6.19	6.21	7.15	6.37
MEAN	7.28	6.46	6.50	6.23	5.80	5.69	5.44	6.00	6.17	6.15	6.69	6.70

WTR YR 1996 MEAN 6.26 HIGH 5.16 APR 16-17 LOW 8.19 OCT 3

NJ-WRD WELL NO. 39-0119



Ref. No. 25, p. 3/3

REFERENCE NO. 26

The EDR-Radius Map
with GeoCheck®

Synkote Paint
150 Van Riper Avenue
Elmwood Park, NJ 07407

Inquiry Number: 1487778.1p

April 21, 2000

Environmental Data Resources, Inc.
an edr company

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	5
Orphan Summary	79

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-6
Physical Setting Source Map Findings	A-7
Physical Setting Source Records Searched	A-16

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer and Other Information

This Report contains information obtained from a variety of public and other sources and Environmental Data Resources, Inc. (EDR) makes no representation or warranty regarding the accuracy, reliability, quality, suitability, or completeness of said information or the information contained in this report. The customer shall assume full responsibility for the use of this report.
NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, EXPRESSED OR IMPLIED, SHALL APPLY AND EDR SPECIFICALLY DISCLAIMS THE MAKING OF SUCH WARRANTIES. IN NO EVENT SHALL EDR BE LIABLE TO ANYONE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES. COPYRIGHT (C) 2000 BY ENVIRONMENTAL DATA RESOURCES, INC. ALL RIGHTS RESERVED.

Unless otherwise indicated, all trademarks used herein are the property of Environmental Data Resources, Inc. or its affiliates.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-97. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY ADDRESS

150 VAN RIPER AVENUE
ELMWOOD PARK, NJ 07407

TARGET PROPERTY COORDINATES

Latitude (North):	40.902800 - 40' 54' 10.1"
Longitude (West):	74.116400 - 74' 6' 59.0"
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	574423.6
UTM Y (Meters):	4528131.0
State Plane X (Feet):	2152115.5
State Plane Y (Feet):	754306.8

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 2440074-H1 HACKENSACK, NJ
Source: USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS
The target property was identified in the following government records. For more information on this property see page 5 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
SYNKOTE PAINT 144-160 VAN RIPER AVE ELMWOOD PARK BORO, NJ 07407	CERCLIS FINDS RCRIS-LQG	NJD001394089

SURROUNDING SITES: DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-97 search radius around the target property for the following Databases:

FEDERAL ASTM STANDARD

NPL:..... National Priority List
Delisted NPL:..... NPL Deletions
RCRIS-TSD:..... Resource Conservation and Recovery Information System
ERNS:..... Emergency Response Notification System

STATE ASTM STANDARD

SWF/LF:..... Solid Waste Facility Directory

FEDERAL ASTM SUPPLEMENTAL

CONSENT:..... Superfund (CERCLA) Consent Decrees

EXECUTIVE SUMMARY

ROD:..... ROD
HMIRS:..... Hazardous Materials Information Reporting System
MLTS:..... Material Licensing Tracking System
MINES:..... Mines Master Index File
NPL Lien:..... NPL Liens
PADS:..... PCB Activity Database System
RAATS:..... RCRA Administrative Action Tracking System
TRIS:..... Toxic Chemical Release Inventory System
TSCA:..... Toxic Substances Control Act

STATE OR LOCAL ASTM SUPPLEMENTAL

Maj Facilities:..... NJ Major Facilities
NJ Spills:..... NJ Spill
NJ Release:..... Hazardous Material Incident Database
NJ PF:..... Publicly Funded Cleanups Site Status Report
CHROME:..... Known Chromate Chemical Production Waste Sites

EDR PROPRIETARY DATABASES

Coal Gas:..... Former Manufactured gas (Coal Gas) Sites.

SURROUNDING SITES: DATABASES WITH MAPPED SITES

Unmapped (orphan) sites are not considered in the foregoing analysis.

Elevations have been determined from the USGS 1 degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the target property includes a tolerance of +/- 10 feet. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

FEDERAL ASTM STANDARD

CERCLIS-NFRAP: As of February 1995. CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

A review of the CERC-NFRAP list, as provided by EDR, and dated 02/14/2000 has revealed that there are 2 CERC-NFRAP sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ENGLE DOSTDYK INC.	*465 BOULEVARD STREET*	*0 - 1/8 WSW*	*2*	*5*
KREISLER INDUSTRIAL CORP	*180 VAN RIPER AVE*	*0 - 1/8 NW*	*10*	*13*

EXECUTIVE SUMMARY

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 09/07/1999 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CUSTOM CHEMICALS COMPANY	*30 PAUL KOHNER PLACE*	*1/2 - 1 WSW*	*H36*	*43*

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 12/22/1999 has revealed that there are 7 RCRIS-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
KINDS AUTO BODY	*224 VAN RIPER AVE*	*0 - 1/8 N*	*A4*	*9*
PHILLIPS PRECISION INC	*7 PAUL KOHNER PL*	*0 - 1/8 S*	*B5*	*10*
ORADELL BOROUGH OF	*1 VETERANS PL*	*0 - 1/8 WSW*	*6*	*10*
GABRIEL INDUSTRIES	*1 PAUL KOHNER PL*	*0 - 1/8 SSW*	*B7*	*11*
GABRIEL INDUSTRIES	*1 PAUL KOHNER PL*	*0 - 1/8 SSW*	*B8*	*11*
MASTER ENGRAVING INC	*17 WALLACE ST*	*1/8 - 1/4 E*	*D15*	*21*
ENTERPIRSE AUTO BODY	*28 WALLACE ST*	*1/8 - 1/4 E*	*D16*	*22*

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 12/22/1999 has revealed that there are 6 RCRIS-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ENGLE DOSTDYK INC.	*465 BOULEVARD STREET*	*0 - 1/8 WSW*	*2*	*5*
THRELFALL AUTO BODY	*224 VAN RIPER AVE*	*0 - 1/8 N*	*A3*	*9*
KREISLER INDUSTRIAL CORP	*180 VAN RIPER AVE*	*0 - 1/8 NW*	*10*	*13*
HAWKER ETERNACELL INC	*495 BOULEVARD*	*1/8 - 1/4 S*	*14*	*17*
ROYAL CLEANERS & TAILORS	*376 MARKET ST*	*1/8 - 1/4 SSW*	*E18*	*24*
STAR ENTERPRISE	*357 MARKET & BOULEVARD*	*1/8 - 1/4 SSW*	*F21*	*32*

STATE ASTM STANDARD

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Protection & Energy's Site Status Report.

A review of the SHWS list, as provided by EDR, has revealed that there are 24 SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
HAWKER ETERNACELL INC	*495 BOULEVARD*	*1/8 - 1/4 S*	*14*	*17*

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
BRUCES AUTO CLINIC INC	*348 MARKET ST*	*1/8 - 1/4 S*	*19*	*24*
K&M CERTIFIED AUTOMOTIVE INC.	*257 MOLNAR DRIVE*	*1/8 - 1/4 ENE*	*22*	*32*
SERVICE STATION ELMWOOD PARK B	*226 MARKET ST*	*1/4 - 1/2 WSW*	*29*	*37*
MOBIL SERVICE STATION ELMWOOD	*300 MOLNAR DR*	*1/4 - 1/2 ENE*	*30*	*37*
ALLSTATE AIR CONDITIONING CO	*206 MARKET ST*	*1/4 - 1/2 WSW*	*31*	*38*
STOR DYNAMICS CORP	*99 MAIN AVE*	*1/4 - 1/2 NNE*	*34*	*41*
CHEMICAL PRODUCTS CORP	*125 MAIN AVE*	*1/2 - 1 NNE*	*35*	*42*
CUSTOM CHEMICALS COMPANY	*30 PAUL KOHNER PLACE*	*1/2 - 1 WSW*	*H36*	*43*
ELMWOOD PARK MUNICIPAL BLDG	*182 MARKET ST*	*1/2 - 1 WSW*	*H37*	*45*
LARKINS FRIENDLY SERVICE INCOR	129 MARKET ST	1/2 - 1 W	38	48
TEXACO SERVICE STATION	*RTE 80 & PEHLE AVE*	*1/2 - 1 E*	*39*	*48*
CONTINENTAL BAKING COMPANY	*330 MIDLAND AVE*	*1/2 - 1 NE*	*40*	*48*
AZCO STEEL	*100 MIDLAND AVE*	*1/2 - 1 ESE*	*41*	*51*
ELMWOOD PARK MOBIL	*RTE 46 AT ROOSEVELT AVE*	*1/2 - 1 SSW*	*42*	*51*
SUNOCO SERVICE STATION ELMWOOD	RIVER DR / LEE ST	1/2 - 1 WNW	43	56
EMPIRE OVERALL DRY CLEANERS IN	*18 STEFANIC AVE*	*1/2 - 1 S*	*44*	*57*
SUNOCO SERVICE STATION ELMWOOD	RTE 46 E / ROOSEVELT	1/2 - 1 SSW	45	59
GARDEN STATE PARKWAY INTERCHAN	GSP (EXIT 159) / RTE	1/2 - 1 ENE	46	59
BERDAN HOLDING COMPANY	11 TO 12 RIVER RD	1/2 - 1 WNW	47	59
SUNOCO SERVICE STATION ELMWOOD	RTE 46 W / MEYER ST	1/2 - 1 SE	48	60
LA CENA FINE FOODS LIMITED	*4 ROSOL LANE*	*1/2 - 1 NNE*	*49*	*60*
MARCAL PAPER MILLS INC	*1 MARKET ST*	*1/2 - 1 W*	*50*	*61*
510 SYLVAN STREET	510 SYLVAN ST	1/2 - 1 ESE	51	77

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Protection & Energy's Incident Report.

A review of the LUST list, as provided by EDR, and dated 11/16/1999 has revealed that there are 13 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
DOLPHIN FITNESS	*475 BLVD*	*1/8 - 1/4 SSE*	*12*	*15*
TEXACO SERVICE STATION	*357 MARKET ST & BLVD RD*	*1/8 - 1/4 SSE*	*20*	*28*
BRUCE'S AUTO CLINIC	348 MARKET ST	1/8 - 1/4 SW	F23	35
ST LEOS CHURCH	324 MARKET ST	1/4 - 1/2 SW	G24	35
SAINT LEO'S CHURCH	324 MARKET ST	1/4 - 1/2 SW	G25	36
KIRSCH OIL (FORMER)	457 MARKET ST	1/4 - 1/2 SSE	26	36
K & M AUTO (FORMER S/S)	257 MOLNAR DR	1/4 - 1/2 ENE	27	36
PREVENTATIVE MAINTENANCE SERVI	MARKET / CHURCH ST	1/4 - 1/2 SW	28	37
SERVICE STATION ELMWOOD PARK B	*226 MARKET ST*	*1/4 - 1/2 WSW*	*29*	*37*
MOBIL SERVICE STATION ELMWOOD	*300 MOLNAR DR*	*1/4 - 1/2 ENE*	*30*	*37*
ALLSTATE AIR CONDITIONING CO	*206 MARKET ST*	*1/4 - 1/2 WSW*	*31*	*38*
WEAVER MFG CORP	*355 E 54TH ST*	*1/4 - 1/2 NNE*	*32*	*40*
PERRELLY'S GARAGE	211 MARKET ST	1/4 - 1/2 WSW	33	41

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Protection & Energy's UST Data.

A review of the UST list, as provided by EDR, and dated 09/15/1999 has revealed that there are 10 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ENGLE DOSTDYK INC.	*465 BOULEVARD STREET*	*0 - 1/8 WSW*	*2*	*5*

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
KII HOLDING CO.	1 PAUL KOUNER PL	0 - 1/8 SSW	B9	11
ADVANCED EQUIPMENT CORPORATION	111 VAN RIPER AVENUE	1/8 - 1/4 WSW	C11	14
DOLPHIN FITNESS	***475 BLVD***	***1/8 - 1/4 SSE***	***12***	***15***
XEROX CORPORATION	101 VAN RIPER AVENUE	1/8 - 1/4 WSW	C13	16
HAWKER ETERNACELL INC	***495 BOULEVARD***	***1/8 - 1/4 S***	***14***	***17***
ST LEO'S CHURCH/SCHOOL	324 MARKET ST	1/8 - 1/4 SSW	E17	22
BRUCES AUTO CLINIC INC	***348 MARKET ST***	***1/8 - 1/4 S***	***19***	***24***
TEXACO SERVICE STATION	***357 MARKET ST & BLVD RD***	***1/8 - 1/4 SSE***	***20***	***28***
K&M CERTIFIED AUTOMOTIVE INC.	***257 MOLNAR DRIVE***	***1/8 - 1/4 ENE***	***22***	***32***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
GARDEN STATE PARKWAY	CERC-NFRAP,SHWS
EXXON SERVICE STATION EDGEWATER BOROUGH	SHWS
GILBERT AVE PUMP STATION	UST,SHWS,LUST
ELMWOOD PARK PUMP STATION	SHWS
L J & M LAPLACE CHEMICAL COMPANY	SHWS
TEXACO SERVICE STATION ELMWOOD PARK BORO	SHWS
AETNA CHEMICAL CORPORATION	CERCLIS,FINDS,RCRIS-LQG Maj Facilities,SHWS
FUDE TILE OF ELMWOOD PARK INC	LUST
ELMWOOD PARK FRIENDLY SERVICE	LUST
CITGO SERVICE STAITON (FORMER)	LUST
SUNOCO S/S #0006-6894	LUST
ELMWOOD PRK LIBRARY	LUST
PUMP STATION #6	LUST
SCHEUER MOTOR SALES INC	UST
P & P BUSINESS CORPORATION	UST
FUDA TILE OF ELMWOOD PARK	UST
ELMWOOD AUTO SALES	UST
SANITARY SEWER STATION #6	UST
EXXON CO USA 32053	RCRIS-SQG,FINDS
EXXON SERVICE STATION ELMWOOD PARK	FINDS,RCRIS-LQG

★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

♟ Coal Gasification Sites (if requested)

National Priority List Sites

Landfill Sites

Power transmission lines

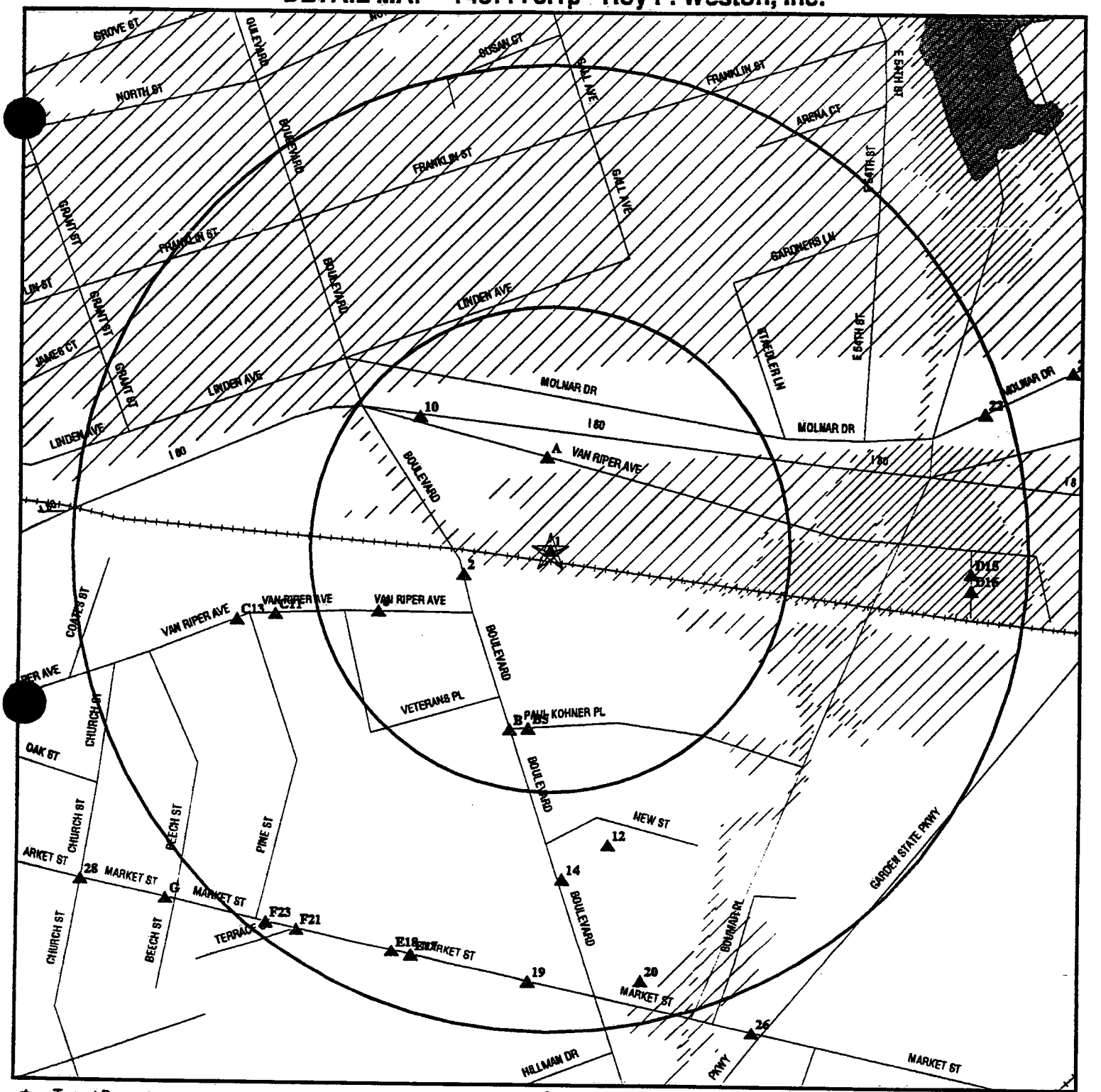
Oil & Gas pipelines

100-year flood zone

500-year flood zone

Wetlands per National Wetlands Inventory (1994)

TARGET PROPERTY:	Synkote Paint	CUSTOMER:	Roy F. Weston, Inc.
ADDRESS:	150 Van Riper Avenue	CONTACT:	Harry L. Allen
CITY/STATE/ZIP:	Elmwood Park NJ 07407	INQUIRY #:	1487778.1p
LAT/LONG:	40.9028 / 74.1164	DATE:	April 21, 2000 1:18 pm



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ● Sites at elevations lower than the target property
- Coal Gasification Sites (if requested)
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Wetlands per National Wetlands Inventory (1994)

TARGET PROPERTY:	Synkote Paint	CUSTOMER:	Roy F. Weston, Inc.
ADDRESS:	150 Van Riper Avenue	CONTACT:	Harry L. Allen
CITY/STATE/ZIP:	Elmwood Park NJ 07407	INQUIRY #:	1487778.1p
LAT/LONG:	40.9028 / 74.1164	DATE:	April 21, 2000 1:19 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
CERCLIS	X	0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.250	2	0	NR	NR	NR	2
CORRACTS		1.000	0	0	0	1	NR	1
RCRIS-TSD		0.500	0	0	0	NR	NR	0
RCRIS Lg. Quan. Gen.	X	0.250	5	2	NR	NR	NR	7
RCRIS Sm. Quan. Gen.		0.250	3	3	NR	NR	NR	6
ERNS		TP	NR	NR	NR	NR	NR	0
STATE ASTM STANDARD								
State Haz. Waste		1.000	0	3	4	17	NR	24
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	3	10	NR	NR	13
UST		0.250	2	8	NR	NR	NR	10
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
NJ Major Facilities		0.500	0	0	0	NR	NR	0
NJ Spill		TP	NR	NR	NR	NR	NR	0
NJ Release		TP	NR	NR	NR	NR	NR	0
NJ PF		TP	NR	NR	NR	NR	NR	0
CHROME		TP	NR	NR	NR	NR	NR	0
EDR PROPRIETARY DATABASES								
Coal Gas		1.000	0	0	0	0	NR	0

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
CLIFTON	1000186338	GARDEN STATE PARKWAY	EXIT 154 AREA	07011	CERC-NFRAP, SHWS	NJD981084783
ELMWOOD PARK	1000337670	EXXON CO USA 32053	RTE 46 W & GANTNER AVE	07407	RCRIS-SQG, FINDS	
ELMWOOD PARK	1000708463	EXXON SERVICE STATION ELMWOOD PARK	RTE 46 E	07407	FINDS, RCRIS-LQG	
ELMWOOD PARK	S103910598	FUDE TILE OF ELMWOOD PARK INC	261 RTE 46 WEST	07407	LUST	
ELMWOOD PARK	S103911239	ELMWOOD PARK FRIENDLY SERVICE	RT 46 / ROOSEVELT	07407	LUST	
ELMWOOD PARK	S103911556	CITGO SERVICE STAITON (FORMER)	68 RTE 46 E	07407	LUST	88-04-13-1217
ELMWOOD PARK	S103911637	SUNOCO S/S #0006-6894	RTE 46 E / ROOSEVELT AVE	07407	LUST	91-01-08-1507
ELMWOOD PARK	U000368034	SCHEUER MOTOR SALES INC	285 RT 46 WEST	07407	UST	0259581
ELMWOOD PARK	U000369666	P & P BUSINESS CORPORATION	285 RT 46 W	07407	UST	0064929
ELMWOOD PARK	U003404772	FUDA TILE OF ELMWOOD PARK	261 RT 46 W	07407	UST	0330446
ELMWOOD PARK	S103029225	EXXON SERVICE STATION EDGEWATER BOROUGH	210 RTE 46 / MILL ST		SHWS	NJD982189144
ELMWOOD PARK	U003564117	ELMWOOD AUTO SALES	30 BROADWAY RT 4	07407	UST	0103448
ELMWOOD PARK	U003194955	GILBERT AVE PUMP STATION	GILBERT AVE	07407	UST, SHWS, LUST	0318099
ELMWOOD PARK	S103029224	ELMWOOD PARK PUMP STATION	GILBERT AVE		SHWS	NJL800227589
ELMWOOD PARK	S103911409	ELMWOOD PRK LIBRARY	LEE STREET	07407	LUST	
ELMWOOD PARK	S103029227	L J & M LAPLACE CHEMICAL COMPANY	LELIARTS LN		SHWS	NJD001382373
ELMWOOD PARK	U003194958	SANITARY SEWER STATION #6	MARKET & BLVD	07407	UST	0318125
ELMWOOD PARK	S103911443	PUMP STATION #6	MARKET / BLVD	07407	LUST	
ELMWOOD PARK	S101204248	TEXACO SERVICE STATION ELMWOOD PARK BORO	357 MARKET ST		SHWS	NJD986580819
ELMWOOD PARK	1000306760	AETNA CHEMICAL CORPORATION	WALLACE STREET	07407	CERCLIS, FINDS, RCRIS-LQG, Maj Facilities, SHWS	2110015600

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SYNKOTE PAINT
150 VAN RIPER AVENUE
ELMWOOD PARK, NJ 07407

TARGET PROPERTY COORDINATES

Latitude (North):	40.902802 - 40° 54' 10.1"
Longitude (West):	74.116402 - 74° 6' 59.0"
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	574423.6
UTM Y (Meters):	4528131.0
State Plane X (Feet):	2152115.5
State Plane Y (Feet):	754306.8

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-97, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property: 2440074-H1 HACKENSACK, NJ
Source: USGS 7.5 min quad index

GENERAL TOPOGRAPHIC GRADIENT AT TARGET PROPERTY

Target Property: General WSW

Source: General Topographic Gradient has been determined from the USGS 1 Degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Q3 Flood Data Electronic Coverage
BERGEN, NJ	YES

Flood Plain Panel at Target Property:	34003C0188F / CWPP
Additional Panels in search area:	3404040002A / CBPP
	3404040004A / CBPP
	3403980004B / CBPP
	34003C0186F / CWPP
	34003C0167F / CWPP
	34003C0169F / CWPP

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Coverage
HACKENSACK	YES

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Site-Specific Hydrogeological Data*:

Search Radius:	2.0 miles
Location Relative to TP:	0 - 1/8 Mile WSW
Site Name:	Synkote Paint
Site EPA ID Number:	NJD001394089
Groundwater Flow Direction:	UNKNOWN.
Measured Depth to Water:	1 foot to 4 feet in the vicinity of the site, although the depth to ground water at t
Hydraulic Connection:	Information is not available about the hydraulic connection between the near surface low permeability overburden and the underlying Brunswick Formation bedrock (lower aquifer), but ground water in the lower aquifer at a nearby site is confined.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

AQUIFLOW™

Search Radius: 2.000 Miles.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Geologic Code:	Tr
Era:	Mesozoic
System:	Triassic
Series:	Triassic

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

Soil Layer Information						
	Boundary			Classification		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silt loam
gravelly - sandy loam
sandy loam
shaly - loam

Surficial Soil Types: silt loam
gravelly - sandy loam
sandy loam
shaly - loam

Shallow Soil Types: fine sandy loam

Deeper Soil Types: loam
unweathered bedrock
weathered bedrock
very gravelly - sand

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-97, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B4	405438074072301	1/2 - 1 Mile NNW

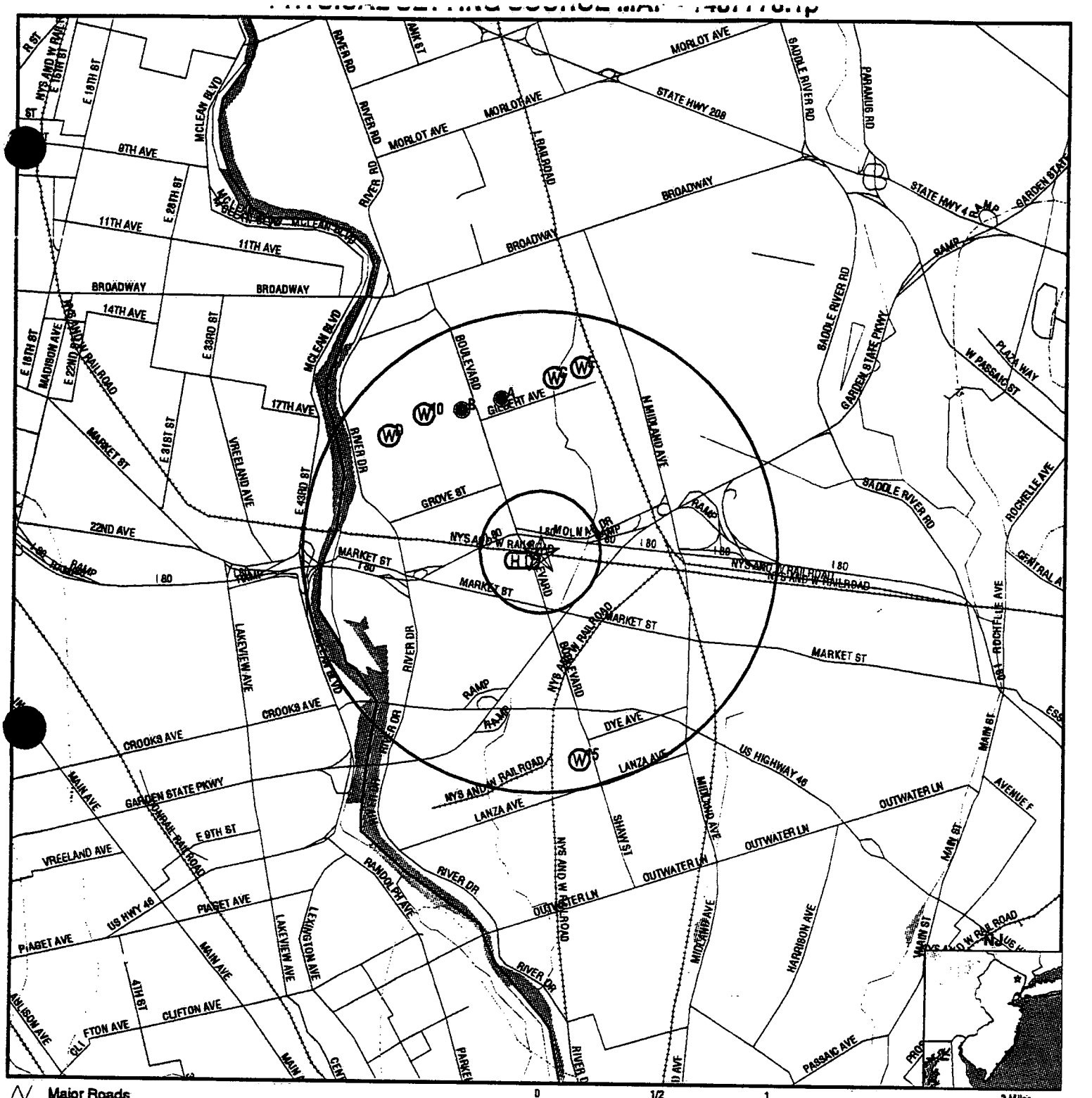
FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	NJ0221001	1/2 - 1 Mile NNW

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	NJ00001977	1/2 - 1 Mile NNW
A3	NJ00001980	1/2 - 1 Mile North
C5	NJ00000800	1/2 - 1 Mile North
A6	NJ00001979	1/2 - 1 Mile North
B7	NJ00001984	1/2 - 1 Mile NNW
A8	NJ00001978	1/2 - 1 Mile NNW
D9	NJ00001987	1/2 - 1 Mile NW
10	NJ00001985	1/2 - 1 Mile NW
E11	NJ00001983	1/2 - 1 Mile NNE
C12	NJ00001981	1/2 - 1 Mile North
E13	NJ00001982	1/2 - 1 Mile North
D14	NJ00001986	1/2 - 1 Mile NW
15	NJ00000802	1/2 - 1 Mile SSE



- Major Roads
- Contour Lines
- Water Wells
- Public Water Supply Wells
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Cluster of Multiple Icons
- Earthquake epicenter, Richter 5 or greater
- Closest Hydrogeological Data

0 1/2 1 2 Miles

TARGET PROPERTY:	Synkote Paint	CUSTOMER:	Roy F. Weston, Inc.
ADDRESS:	150 Van Riper Avenue	CONTACT:	Harry L. Allen
CITY/STATE/ZIP:	Elmwood Park NJ 07407	INQUIRY #:	1487778.1p
LAT/LONG:	40.9028 / 74.1164	DATE:	April 21, 2000 1:19 pm

Map ID Direction Distance Elevation	Database	EDR ID Number
A1 **NNW** **1/2 - 1 Mile** **Higher**	**FRDS PWS**	**NJ0221001**

PWS ID:	NJ0221001	PWS Status:	Active
Date Initiated:	June / 2077	Date Deactivated:	Not Reported
PWS Name:	GARFIELD W DEPT GARFIELD W DEPT OUTWATER LANE GARFIELD, NJ 07026		
Addressee / Facility:	System Owner/Responsible Party GARFIELD W DEPT CITY HALL OUTWATER GARFIELD, NJ 07026		

Facility Latitude:	40 52 48	Facility Longitude	074 06 18
Facility Latitude:	40 52 51	Facility Longitude	074 06 04
Facility Latitude:	40 53 00	Facility Longitude	074 06 13
Facility Latitude:	40 53 00	Facility Longitude	074 06 14
Facility Latitude:	40 53 02	Facility Longitude	074 06 06
Facility Latitude:	40 54 35	Facility Longitude	074 08 00
Facility Latitude:	40 54 39	Facility Longitude	074 07 48
Facility Latitude:	40 54 40	Facility Longitude	074 07 17
Facility Latitude:	40 54 40	Facility Longitude	074 07 29
Facility Latitude:	40 54 41	Facility Longitude	074 07 11
Facility Latitude:	40 54 44	Facility Longitude	074 06 48
Facility Latitude:	40 54 44	Facility Longitude	074 07 03
Facility Latitude:	40 54 45	Facility Longitude	074 07 29
Facility Latitude:	40 54 47	Facility Longitude	074 07 08
Facility Latitude:	40 54 52	Facility Longitude	074 07 00
Facility Latitude:	40 54 55	Facility Longitude	074 07 18
Facility Latitude:	40 55 00	Facility Longitude	074 06 48
City Served:	GARFIELD		
Treatment Class:	Mixed (treated and untreated)	Population Served:	0.001 - 50.000 Persons

PWS currently has or has had major violation(s) or enforcement: Yes

VIOLATIONS INFORMATION:

Violation ID:	9223395	Source ID:	Not Reported	PWS Phone:	2015462200
Vio. beginning Date:	07/01/92	Vio. end Date:	12/31/92	Vio. Period:	6 Months
Num of required Samples:	Not Reported	Number of Samples Taken:		Not Reported	
Analysis Result:	Not Reported	Maximum Contaminant Level:		Not Reported	
Analysis Method:	Not Reported				
Violation Type:	Initial Tap Sampling for Pb and Cu				
Contaminant:	LEAD & COPPER RULE				
Vio. Awareness Date:	Not Reported				

Violation ID:	9223396	Source ID:	Not Reported	PWS Phone:	2015462200
Vio. beginning Date:	07/01/92	Vio. end Date:	12/31/92	Vio. Period:	6 Months
Num of required Samples:	Not Reported	Number of Samples Taken:		Not Reported	
Analysis Result:	Not Reported	Maximum Contaminant Level:		Not Reported	
Analysis Method:	Not Reported				
Violation Type:	Initial Tap Sampling for Pb and Cu				
Contaminant:	LEAD & COPPER RULE				
Vio. Awareness Date:	Not Reported				

Violation ID:	9323746	Source ID:	Not Reported	PWS Phone:	2015462200
Vio. beginning Date:	01/01/93	Vio. end Date:	03/31/93	Vio. Period:	3 Months
Num of required Samples:		Number of Samples Taken:		0	
Analysis Result:	Not Reported	Maximum Contaminant Level:		Not Reported	
Analysis Method:	Not Reported				
Violation Type:	Monitoring, Regular				
Contaminant:	TTHM				
Vio. Awareness Date:	Not Reported				

Violation ID:	9450001	Source ID:	Not Reported	PWS Phone:	Not Reported
Vio. beginning Date:	07/01/93	Vio. end Date:	12/31/93	Vio. Period:	6 Months
Num of required Samples:	Not Reported	Number of Samples Taken:		Not Reported	
Analysis Result:	Not Reported	Maximum Contaminant Level:		Not Reported	
Analysis Method:	Not Reported				
Violation Type:	Initial Tap Sampling for Pb and Cu				
Contaminant:	LEAD & COPPER RULE				
Vio. Awareness Date:	Not Reported				

ENFORCEMENT INFORMATION:

System Name:	GARFIELD W DEPT		
Violation Type:	Initial Tap Sampling for Pb and Cu		
Contaminant:	LEAD & COPPER RULE		
Compliance Period:	1994-01-01 - 1994-06-30	Analytical Value:	00000000.00
Violation ID:	9464240	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level. Acute (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1994-08-01 - 1994-08-31	Analytical Value:	00000000.00
Violation ID:	9458478	Enforcement ID:	9483037
Enforcement Date:	1994-09-02	Enf. Action:	State Violation/Reminder Notice
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level. Acute (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1994-08-01 - 1994-08-31	Analytical Value:	00000000.00
Violation ID:	9458478	Enforcement ID:	9483038
Enforcement Date:	1994-09-02	Enf. Action:	State Public Notif Requested
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level. Acute (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1994-08-01 - 1994-08-31	Analytical Value:	00000000.00
Violation ID:	9458478	Enforcement ID:	9483039
Enforcement Date:	1994-09-15	Enf. Action:	State Public Notif Received
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level. Acute (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1994-08-01 - 1994-08-31	Analytical Value:	00000000.00
Violation ID:	9458478	Enforcement ID:	9483040
Enforcement Date:	1994-09-30	Enf. Action:	State Compliance Achieved
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level. Monthly (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1994-08-01 - 1994-08-31	Analytical Value:	00000000.00
Violation ID:	9458477	Enforcement ID:	9483034
Enforcement Date:	1994-08-01	Enf. Action:	State Violation/Reminder Notice

ENFORCEMENT INFORMATION:

System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Monthly (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1994-08-01 - 1994-08-31	Analytical Value:	00000000.00
Violation ID:	9458477	Enforcement ID:	9483035
Enforcement Date:	1994-08-01	Enf. Action:	State Public Notif Requested
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Monthly (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1994-08-01 - 1994-08-31	Analytical Value:	00000000.00
Violation ID:	9458477	Enforcement ID:	9483036
Enforcement Date:	1994-08-12	Enf. Action:	State Public Notif Received
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Acute (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-07-01 - 1995-07-31	Analytical Value:	00000000.00
Violation ID:	9572613	Enforcement ID:	9593523
Enforcement Date:	1995-07-31	Enf. Action:	State Violation/Reminder Notice
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Acute (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-07-01 - 1995-07-31	Analytical Value:	00000000.00
Violation ID:	9572613	Enforcement ID:	9593524
Enforcement Date:	1995-08-22	Enf. Action:	State Public Notif Requested
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Acute (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-07-01 - 1995-07-31	Analytical Value:	00000000.00
Violation ID:	9572613	Enforcement ID:	9593525
Enforcement Date:	1995-08-30	Enf. Action:	State Public Notif Received
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Acute (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-07-01 - 1995-07-31	Analytical Value:	00000000.00
Violation ID:	9572613	Enforcement ID:	9593526
Enforcement Date:	1995-08-30	Enf. Action:	State Compliance Achieved
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Monthly (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-07-01 - 1995-07-31	Analytical Value:	00000000.00
Violation ID:	9572612	Enforcement ID:	9593523
Enforcement Date:	1995-07-31	Enf. Action:	State Violation/Reminder Notice
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Monthly (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-07-01 - 1995-07-31	Analytical Value:	00000000.00
Violation ID:	9572612	Enforcement ID:	9593524
Enforcement Date:	1995-08-22	Enf. Action:	State Public Notif Requested
System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Monthly (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-07-01 - 1995-07-31	Analytical Value:	00000000.00
Violation ID:	9572612	Enforcement ID:	9593525
Enforcement Date:	1995-08-30	Enf. Action:	State Public Notif Received

ENFORCEMENT INFORMATION:

System Name:	GARFIELD W DEPT		
Violation Type:	Max Contaminant Level, Monthly (TCR)		
Contaminant:	COLIFORM (TCR)		
Compliance Period:	1995-07-01 - 1995-07-31	Analytical Value:	00000000.00
Violation ID:	9572612	Enforcement ID:	9593526
Enforcement Date:	1995-08-30	Enf. Action:	State Compliance Achieved
System Name:	GARFIELD W DEPT		
Violation Type:	Initial Tap Sampling for Pb and Cu		
Contaminant:	LEAD & COPPER RULE		
Compliance Period:	1993-07-01 - 2015-12-31	Analytical Value:	0000000.00000
Violation ID:	9450001	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	GARFIELD W DEPT		
Violation Type:	Initial Tap Sampling for Pb and Cu		
Contaminant:	LEAD & COPPER RULE		
Compliance Period:	1992-07-01 - 2015-12-31	Analytical Value:	0000000.00000
Violation ID:	9223395	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	GARFIELD W DEPT		
Violation Type:	Initial Tap Sampling for Pb and Cu		
Contaminant:	LEAD & COPPER RULE		
Compliance Period:	1992-07-01 - 2015-12-31	Analytical Value:	0000000.00000
Violation ID:	9223396	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported
System Name:	GARFIELD W DEPT		
Violation Type:	Initial Tap Sampling for Pb and Cu		
Contaminant:	LEAD & COPPER RULE		
Compliance Period:	1994-01-01 - 2015-12-31	Analytical Value:	0000000.00000
Violation ID:	9464240	Enforcement ID:	Not Reported
Enforcement Date:	Not Reported	Enf. Action:	Not Reported

A2
NNW
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001977**

Public Water Supply ID:	0221001	Permit Number:	46-00113
Well ID:	4600113	FIPS Code:	03067
X Coordinate:	596921.9375	Y Coordinate:	757050.6875
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

A3
North
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001980**

Public Water Supply ID:	0221001	Permit Number:	46-00116
Well ID:	4600116	FIPS Code:	03067
X Coordinate:	597922.875	Y Coordinate:	757422.5
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

B4
NNW
1/2 - 1 Mile
Higher

FED USGS **405438074072301**

BASIC WELL DATA

Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1925	County:	Bergen
Altitude:	65.00 ft.	State:	New Jersey
Well Depth:	353.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	9.00 ft.	Prim. Use of Site:	Observation
Date Measured:	03081926	Prim. Use of Water:	Unused

C5
North
1/2 - 1 Mile
Higher

NJ WELLS **NJ00000800**

Public Water Supply ID:	0221001	Permit Number:	26-04017
Well ID:	2604017	FIPS Code:	03067
X Coordinate:	598463.375	Y Coordinate:	757603.125
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

A6
North
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001979**

Public Water Supply ID:	0221001	Permit Number:	46-00115
Well ID:	4600115	FIPS Code:	03067
X Coordinate:	597566.625	Y Coordinate:	75:77:77
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

B7
NNW
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001984**

Public Water Supply ID:	0221001	Permit Number:	46-00120
Well ID:	4600120	FIPS Code:	03067
X Coordinate:	596547.5625	Y Coordinate:	757430.125
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

A8
NNW
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001978**

Public Water Supply ID:	0221001	Permit Number:	46-00114
Well ID:	4600114	FIPS Code:	03067
X Coordinate:	597003.6875	Y Coordinate:	757635.25
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

D9
NW
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001987**

Public Water Supply ID:	0221001	Permit Number:	46-00123
Well ID:	4600123	FIPS Code:	03067
X Coordinate:	595067.5625	Y Coordinate:	756402.5
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Paterson NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

10
NW
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001985**

Public Water Supply ID:	0221001	Permit Number:	46-00121
Well ID:	4600121	FIPS Code:	03067
X Coordinate:	595645.375	Y Coordinate:	75:70:52
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Paterson NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

E11
NNE
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001983**

Public Water Supply ID:	0221001	Permit Number:	46-00119
Well ID:	4600119	FIPS Code:	03067
X Coordinate:	599203.4375	Y Coordinate:	757936.8125
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

C12
North
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001981**

Public Water Supply ID:	0221001	Permit Number:	46-00117
Well ID:	4600117	FIPS Code:	03067
X Coordinate:	598569.1875	Y Coordinate:	758176.9375
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

E13
North
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001982**

Public Water Supply ID:	0221001	Permit Number:	46-00118
Well ID:	4600118	FIPS Code:	03067
X Coordinate:	599053.3125	Y Coordinate:	758307.375
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

D14
NW
1/2 - 1 Mile
Higher

NJ WELLS **NJ00001986**

Public Water Supply ID:	0221001	Permit Number:	46-00122
Well ID:	4600122	FIPS Code:	03067
X Coordinate:	594672.1875	Y Coordinate:	75:67:40
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Paterson NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

15
SSE
1/2 - 1 Mile
Higher

NJ WELLS **NJ00000802**

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Public Water Supply ID:	0221001	Permit Number:	26-04064
Well ID:	2604064	FIPS Code:	03105
X Coordinate:	599210.875	Y Coordinate:	749503.5
PWS Name:	Garfield Water Dept		
USGS 7.5' Quadrangle:	Hackensack NJ		
Geologic Formation:	Not Reported		
Hydrologic Unit:	Not Reported		
Confinement Status:	Unconfined		

REFERENCE NO. 27

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM **PROJECT NOTE**

To:
Synkote Paint site file

DATE:
3/14/00

FROM:
Harry Allen

SUBJECT:
Site Location Coordinates for the Synkote Paint Site

REFERENCE:
U. S. Geological Survey (7.5 Minute Series) Topographic Quadrangle for Hackensack, NJ.

START H. Allen plotted the location of the Synkote Paint Company site on the USGS Topographic Quadrangle for Hackensack, NJ. A coordinator, based on the 1:24,000 scale, was used to obtain the latitude and longitude coordinates of the site. The coordiantes were determined to be the following:

LATITUDE: **40°54'10" North**

LONGITUDE: **72°06'59" West**

Ref. No. 27