Received:
Reviewed: 12/30/91
Recommend: H
by G. Ferreira

SITE INSPECTION

DeSoto, Inc

PENNSAUKEN TOWNSHIP, CAMDEN COUNTY

EPA ID No.: NJD005440342

New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
Bureau of Planning and Assessment

200055

DESOTO, INC.
8600 RIVER ROAD
PENNSAUKEN TOWNSHIP, CAMDEN COUNTY, NEW JERSEY
EPA ID # NJD005440342

TABLE OF CONTENTS

NARRATIVE

MAPS

1. UNITED STATES GEOLOGICAL SURVEY TOPOGRAPHIC MAP - CAMDEN QUADRANGLE
2. SITE MAP
3. SITE MAP
4. TAX MAP
5. CAMDEN COUNTY ROAD MAP (1984)
6. NEW JERSEY ATLAS BASE MAP - SHEETS 27 AND 31
7. NEW JERSEY ATLAS WATER SUPPLY OVERLAY - SHEETS 27 AND 31
8. NEW JERSEY ATLAS GEOLOGIC OVERLAY - SHEETS 27 AND 31
9. COMPUTER GENERATED WATER WITHDRAWAL POINTS MAP

ATTACHMENTS

A. TITLE OF DESOTO PROPERTY; MARCH 28, 1963; NJDEP, DIVISION OF HAZARDOUS WASTE MANAGEMENT (DHWM), BUREAU OF ENVIRONMENTAL EVALUATION AND CLEANUP RESPONSIBILITY ASSESSMENT (BEECRA)

B. GENERAL INFORMATION SUBMISSION AND SITE EVALUATION SUBMISSION, NJDEP, DHWM, BEECRA

C. INVESTIGATION REPORT; MAY 4, 1987; NJDEP, DHWM, BUREAU OF SOUTHERN ENFORCEMENT (BSE)

D. AGREEMENT OF SALE AND PURCHASE; AUGUST 30, 1984; NJDEP, DHWM, BEECRA

E. MEMO CONCERNING WASTE STORAGE; APRIL 5, 1984; NJDEP, DHWM, BUREAU OF HAZARDOUS WASTE ENGINEERING (BHWE)

F. LETTER REGARDING A USEPA INSPECTION; SEPTEMBER 18, 1981; NJDEP, DHWM, BSE

G. RCRA INSPECTION FORM; SEPTEMBER 18, 1981; NJDEP, DHWM, BSE

H. FIELD NOTES RELATING TO AMOUNT OF WASTES DISPOSED, NJDEP, DIVISION OF WATER RESOURCES (DWR), BUREAU OF GROUNDWATER POLLUTION ABATEMENT (BGWPA)

I. INVENTORY OF HAZARDOUS WASTE SHIPMENTS TO AND FROM SWOPE OIL; DECEMBER 2, 1977; NJDEP, DHWM, BEECRA

J. DIRECTIVE AND NOTICE TO INSURERS; JULY 9, 1986; NJDEP, DHWM, BSE

K. MEMO CONCERNING A JULY 17, 1984 ECRA INSPECTION; AUGUST 22, 1984; NJDEP, DHWM, BEECRA

L. ECRA INSPECTION REPORT WITH DEFICIENCIES NOTED; JULY 17, 1984; NJDEP, DHWM, BEECRA

M. ECRA SAMPLING PLAN; OCTOBER 12, 1984; NJDEP, DHWM, BEECRA

N. ADDENDUM OF INFORMATION TO THE ORIGINAL ECRA GENERAL INFORMATION SUBMISSION; JULY 23, 1984; NJDEP, DHWM, BEECRA

O. DESOTO TANK TESTING RESULTS; AUGUST 3, 1984; NJDEP, DHWM, BEECRA

P. IT CORPORATION'S CONTAMINATION INVESTIGATION OF THE CLARIFIER/SEPARATOR TANK; OCTOBER 4, 1984; NJDEP, DHWM, BEECRA

Q. IT CORPORATION'S WORK PLAN AND TANK INVESTIGATION; JULY 23, 1984; NJDEP, DHWM, BEECRA

R. USEPA NOTIFICATION OF HAZARDOUS WASTE ACTIVITY; AUGUST 8, 1980; NJDEP, DHWM, BHWE

S. LETTER FROM THE NJDEP CONCERNING DESOTO'S CLOSURE; SEPTEMBER 10, 1984; NJDEP, DHWM, BSE

T. NEGATIVE DECLARATION AFFIDAVIT; JUNE 21, 1984; NJDEP, DHWM, BEECRA

U. DEED OF EASEMENT; SEPTEMBER 9, 1982; NJDEP, DHWM, BEECRA

V. DESOTO INCIDENT REPORT; MARCH 23, 1981; NJDEP, DHWM, BSE

W. MEMO CONCERNING SAMPLING RESULTS; NOVEMBER 28, 1984; NJDEP, DHWM, BEECRA

X. ADDENDUM TO IT CORPORATION'S WORK PLAN; NJDEP, DHWM, BEECRA

Y. DESOTO PRE-SAMPLING ASSESSMENT; FEBRUARY 19, 1991; NJDEP, DHWM, BUREAU OF PLANNING AND ASSESSMENT

Z. BUREAU OF SITE ASSESSMENT SAMPLING RESULTS; MARCH 14, 1991

NARRATIVE

DESOTO, INC.
8600 RIVER ROAD
PENNSAUKEN TOWNSHIP, CAMDEN COUNTY, NEW JERSEY
EPA ID # NJD005440342

GENERAL INFORMATION AND SITE HISTORY

DeSoto, Inc. (DeSoto) is a 19.3-acre site which occupies Block 248Z, Lot 5 in Pennsauken Township, Camden County, New Jersey. The area surrounding DeSoto is partially industrial with a residential area bordering the southern edge of the property. Pennsauken Sanitary Landfill borders to the northeast and Camden's Morris Wellfield is approximately 1,000 feet to the west, across River Road. There is an estimated population of 85,000 within 4 miles.

DeSoto purchased the property from Mr. and Mrs. Robeson in March 1963. The land was undeveloped prior to the sale and immediately after the purchase, the paint manufacturing facility was constructed. The plant was designed to produce water- and solvent-borne coatings for the consumer market and solvent-borne coatings for industrial applications. In 1971 a dry solids detergent manufacturing operation was added to the Pennsauken plant. On December 4, 1984 DeSoto sold the property to Aluminum Shapes, Inc. who own an adjacent building on River Road. Two Aluminum Shapes subsidaries, Esther Williams Pools and Spas and Johnny Weismuller Products, currently occupy the building and manufacture pools, spas and miscellaneous aluminum products.

SITE OPERATIONS OF CONCERN

On January 3, 1964 DeSoto began manufacturing water-borne and solvent-borne paints at its newly constructed plant. A dry solids detergent manufacturing operation was added in 1971.

The manufacturing of solvent-borne paints included a blending of emulsions with organic solvents such as toluene, methyl ethyl ketone, xylene and mineral spirits. This mixture was then blended by ball or sand mills with a titanium dioxide slurry to produce a finished product.

In the water-borne (latex) paint manufacturing process, water, rather than organic solvent, was used as the vehicle and high-sheer mixers were used instead of ball or sand mills. The principal components of the water-borne paints were latex emulsion, titanium dioxide, silicas, additives and water. Both types of paints were temporarily stored in two 6,000-gallon thin-down tanks prior to packaging into cans, drums or bulk transport vehicles.

The dry solids detergent operation involved a continuous blending of sodium carbonate, liquid sodium silicate, perfumes and other minor additives at a temperature slightly above ambient to produce the high density solid detergent. After being cooled, the finished product was conveyed to a bulk storage tank and then to a semi-automatic assembly line where the detergent was packaged for sale.

Hazardous wastes were generated from the manufacturing of solvent-borne paints. Wastes included solvents used to clean the ball mills, sand mills, thin-down tanks and associated equipment between batches. Because of the cost of virgin solvents, this mixture was ordinarily reclaimed solvent and

was known as "wash solvent". The dirty wash solvent was pumped to one of two outside diked bulk storage tanks (approximately 7,000 gallons each) where it was temporarily held until being reclaimed by another company.

The storage tanks and diked area were inspected by the NJDEP/Division of Hazardous Waste Management (DHWM)/Bureau of Planning and Assessment (BPA) on February 19, 1991. Although the waste storage tanks had reportedly not been used since solvent-borne paint production ended in 1977, high levels of volatile organic compounds (VOCs) were detected with an HNu photoionization detector and an Organic Vapor Analyzer (OVA) around the perimeter of the dike during the inspection (Attachment Y).

Solvent-borne paints were occasionally returned because of age or condition and would be reused with other batches of similar paint, thus retaining the value of the raw materials. If the "off-spec" paints could not be reused in this manner, they were disposed of as hazardous waste. Other hazardous wastes included laboratory chemicals and samples.

All solvent-borne paint production ended in 1977 and most of the hazardous substances were removed from the thin-down and waste tanks. A September 18, 1981 Resource Concervation Recovery Act (RCRA) inspection conducted by Division of Waste Management (DWM) personnel noted twenty-one 55-gallon drums of solvent-based paints in good condition on the drum storage pad. Seven of the drums were solidified and the remaining drums were awaiting solidification. DeSoto shipped its hazardous waste to Niagara Falls, New York for two years (14 tons), Gems Landfill in Gloucester Township, New Jersey and Swope Oil located 0.5 mile to the east. Swope Oil recovered solvents from DeSoto from December 1964 to February 1977. DeSoto also disposed nonhazardous latex paint sludge (approximately 1,620 tons) from a subsurface, concrete clarifier/separator to the adjacent Pennsauken Landfill over an 18-year period.

Operations ceased at DeSoto in 1982. Before the facility could be sold, DeSoto was required to close through the NJDEP/Division of Hazardous Waste Management (DHWM)/Bureau of Environmental Evaluation and Cleanup Responsibility Assessment (BEECRA) under the Environmental Cleanup Responsibility Act (ECRA) program. A NJDEP/DHWM/BEECRA inspection was conducted on July 17, 1984 with ten deficiencies noted (Attachments K and L). The deficiencies included 1,300 gallons of various solvents remaining in eight 4,000-gallon and three 8,000-gallon underground tanks; the unknown status and sampling of the latex paint wastewater clarifier/separator; and removing the remaining inventory of paint (approximately 4,000 pints) from the facility.

On October 12, 1984 DeSoto submitted to the NJDEP an ECRA Sampling Plan which addressed deficiencies noted in the above inspection. DeSoto removed all organic solvents that remained in the tanks and had the material sent for disposal to S & W Waste, Inc. in Kearny, New Jersey. All tanks, lines, pumps and equipment involved in the production of solvent-borne paints were emptied and cleaned and the wash solvent retained and sent to Swope Oil. Protanic Corp. of Milwaukee, Wisconsin was contracted to test the tank systems for possible leakage. All 14 tank systems were tested between July 17 and 23, 1984 and were found to be tight.

IT Corp. of Pittsburgh, Pennsylvania was contracted by DeSoto to investigate possible soil contamination from the clarifier/separator unit. The tank under investigation was a four-chambered concrete vessel formerly used as a primary clarifier/separator for latex paint process water. It was located south of the main plant building and was 39 feet long and 11 feet wide. When active, it received effluent from the plant via a 4-inch diameter pipe. After separation of solids and liquids, tank waters were discharged to the Pennsauken Sewerage Authority. On August 23, 1984, IT Corp. initiated sampling with four soil borings around the tank. Analytical data from the sampling episode revealed no environmental or public health risk posed by the concentrations of substances found in the samples. The tank was subsequently filled with sand and gravel, concreted over and covered with soil. Over 4,000 one pint cans of latex paint were removed and properly disposed of. The remaining deficiencies addressed during the July 17, 1984 inspection by the NJDEP/BEECRA involved nonhazardous wastes and were remediated by DeSoto (Attachment M).

DeSoto submitted a Part A Hazardous Waste Permit Application to the USEPA on November 5, 1980. The permit specified the storage of 555,000 gallons in containers, storage of 12 million gallons in tanks and 10 million gallons of treatment per day. DeSoto received approval from the Pennsauken Sewerage Authority to discharge wastewater into the municipal sewage colletion system in August 1977. It is unknown if a permit was issued for this discharge.

On March 21, 1984 DeSoto submitted to the NJDEP documentation of complete closure of all hazardous waste treatment and storage activities. DeSoto was subsequently delisted as a treatment, storage and disposal (TSD) facility on September 10, 1984. Based on a NJDEP/DHWM/BEECRA investigation and DeSoto's Initial Notice Submission, a Negative Declaration was issued on November 16, 1984.

The NJDEP/Division of Hazardous Waste Management (DHWM)/Bureau of Planning and Assesment (BPA) conducted a Site Inspection at Desoto on March 14, 1991. Five soil samples were collected adjacent to the two former solvent waste storage tanks. This tank area was previously delisted as a TSD by the Bureau of Hazardous Waste Engineering in September 1984. The results will be discussed below.

GROUNDWATER ROUTE

DeSoto is located within the Inner Coastal Plain Physiographic Province of New Jersey, over an outcrop area of the Potomac-Raritan-Magothy (PRM) Formation. The deposits of this formation are of early to late Cretaceous age and overlie crystalline bedrock which is approximately 200 feet deep. Localized beds of hematite-cemented sands also exist within the formation and have been encountered in test borings at the adjacent Pennsauken Landfill.

The PRM Formation forms a wedge-shaped body 150 to 200 feet thick on site. The aquifer system located within the PRM Formation is the most heavily utilized in the area, accounting for over 90 percent of the Burlington, Gloucester and Camden area's water supply. It consists of aquifers composed of sand and gravel and confining units of silt and clay. Three major aquifers have been defined within the aquifer system; the upper, middle and lower aquifers. The hydrogeology of this system is extremely

complex with several clay layers exhibiting discontinuities throughout the upper and middle PRM system.

The Township of Pennsauken, in conjunction with its operation of the adjacent landfill, installed a groundwater monitoring well on the northeastern section of the DeSoto property. The date of this installation is unknown. DeSoto granted an easement (10 feet by 10 feet) which would allow the township to construct, operate and maintain the monitoring well. The well was designed to provide data on potential subsurface migration of contaminants from the landfill. Discharges of contaminants from the landfill have contributed to the local and regional groundwater contamination problem.

The City of Camden owns and operates three wellfields, Morris, Delair and Puchack, within a 1-mile radius of the site. The Morris Wellfield is located to the west across River Road about 1,500 feet from the site. With its nine operable wells, it is the City of Camden's most productive wellfield pumping approximately 18 million gallons per day (mgd). The Delair Wellfield is located several hundred feet south of the Betsy Ross Bridge and consists of three wells with a capacity of 5,340 gallons per minute (gpm). The Puchack Wellfield also borders the Betsy Ross Bridge and currently has three operable wells which are blended with water from the Morris Wellfield. All of Camden's municipal wells draw water from the lower PRM aquifer and range in depth from 107 feet to 290 feet. These three wellfield systems service 50,000 residents.

In general, Camden's wellfields have a history of high levels of iron, manganese, chromium, mercury and volatile organic compounds (VOCs). The localized cone of depression around the wellfields is significant enough to capture contaminants introduced into the groundwater table.

Other municipal water suppliers within a 4-mile radius include the Merchantville-Pennsauken Water Commission (serving 50,000 residents), the New Jersey-American Water Company (serving 36,500 residents) and the Maple Shade Township Municipal Water System (serving 20,500 residents). Well logs indicate several domestic supply wells in the area but the Merchantville-Pennsauken Water Commission and the NJDEP, Division of Water Resources (DWR), Bureau of Southern Enforcement (BSE) have no knowledge of any private domestic wells currently being used.

There are approximately 11 industrial wells within a 4-mile radius.

Originally, the natural groundwater flow was westerly, towards the Delaware River, but increased pumpage in the PRM aquifer system has reversed the groundwater flow toward the pumping centers and the Delaware River is now a recharge boundary. Depending on which of Camden's wellfields are pumping will determine the local groundwater movement, however, the general movement is southwesterly.

Because on site soil contamination has been detected in the latest round of sampling, there is a potential for contaminants to migrate to the groundwater.

SURFACE WATER ROUTE

The Delaware River lies 0.5 mile to the west and Pennsauken Creek (classified as FW-2 Non-Trout waters) lies approximately 2,000 feet to the north of DeSoto. The Delaware River is used primarily for industrial purposes. There are no upstream and downstream surface water intakes used for drinking purposes within 15 miles of the site.

The state and federally endangered shortnose sturgeon inhabits the river. There are wetlands associated with the river 0.5 mile from the site.

On May 4, 1972 the Pennsauken Sewerage Authority notified DeSoto that they were in violation of local regulations because of latex paint waste discharges to the sewerage system. In response, DeSoto installed a clarifier/separator treatment system to remove pollutants from the plant effluent.

On March 23, 1981 a spill involving approximately 1,000 gallons of titanium dioxide water slurry occurred at the site. Most of the slurry was contained and cleaned up, however, between 50 and 100 gallons escaped through the storm sewer and discharged into marshlands which lead to the Delaware River approximately 0.5 mile away. Titanium dioxide has a high whiting power and a small amount of material will color a large volume of water.

AIR ROUTE

In 1977 residents in the vicinity complained about solvent-type emissions from the DeSoto plant. The State of New Jersey, Department of Law and Public Safety, Environmental Protection Section required DeSoto to develop a compliance plan which included certain physical and operational changes at the facility. On March 9, 1977, the State filed a complaint in Superior Court to legally bind DeSoto in a Consent Judgement to the agreed upon corrective measures. The Consent Judgement was signed by DeSoto and most of the corrective measures were taken in accordance with the provisions. Shortly thereafter, however, a management decision was made to discontinue the manufacturing of industrial solvent-borne coatings at the plant and the matter was resolved.

DeSoto had a permit to operate air pollution control apparatus or equipment (#P-4860) approved by the NJDEP on September 12, 1972 and expired on September 12, 1977.

There is no potential for air contamination as the current facility operations do not produce contaminants that may migrate to air.

SOIL

The soils underlying the site are a member of the Downer-Woodstown-Dragston Association. These soils consist of gently sloping grayish-brown sandy soils deposited by streams or rivers. Elevations range from 5 to 100 feet above sea level.

Soils surrounding the four-chambered concrete tank formerly used as a clarifier/separator for latex paint process waste water were sampled on August 23, 1984 by IT Corp. of Pittsburgh, Pennsylvania. Two samples were collected from each of four soil borings from the perimeter of the tank. Two contaminants, bis (2-ethylhexyl) phthalate and cadmium were detected at

a level of 850 parts per billion (ppb) and 5.2 parts per million (ppm), respectively, in two of the samples. The occurrence of these specific compounds at the levels indicated did not warrant any additional sampling or cleanup. The NJDEP, DHWM, BEECRA approved a negative declaration for DeSoto subsequent to this investigation.

During the July 17, 1984 NJDEP, DHWM, BEECRA inspection, titanium dioxide powder was spilled on the ground adjacent to the titanium dioxide loading area and material alleged to be soda ash was observed on the railroad siding. These and other deficiencies were addressed and cleaned up in an October 12, 1984 ECRA Sampling Plan (Attachment M).

On March 14, 1991 the NJDEP/DHWM/BPA performed a site inspection at the facility. Five soil samples were collected adjacent to two aboveground solvent waste storage tanks located 100 feet east of the former tank farm. Elevated levels of volatile and semivolatile organic compounds were detected.

DIRECT CONTACT
There have been no reported incidents of direct contact and there is no potential since operations ceased in 1982 and all hazardous wastes were hauled off site prior to the sale of the property.

FIRE AND EXPLOSION
There have been no reported incidents of fire and explosion and there is no potential due to the cessation of operations.

ADDITIONAL CONSIDERATIONS
There has been no reported damage to flora, fauna, off-site property or contamination of the food chain and there is no potential for such damage.

ENFORCEMENT ACTIONS
Other than the violations addressed during the July 17, 1984 NJDEP, DHWM, BEECRA inspection, there have been no enforcement actions cited against DeSoto.

SUMMARY OF SAMPLING DATA

1.	Sampling date:	August 23, 1984
	Sampled by:	IT Corporation 5103 Old William Penn Highway Pittsburgh, Pennsylvania 15632
	Samples:	Four soil boring samples
	Laboratory:	IT Corporation 5103 Old William Penn Highway Pittsburgh, Pennsylvania 15632 Lab Certification # 77564
	Parameters:	All priority pollutants except pesticides and polychlorinated biphenyls (PCBs)

Sample description:	Four soil borings were drilled around the perimeter of the clarifier/separator tank. One sample was collected from each boring at approximately 8 feet (1A, 2A, 3A and 4A) and another sample was collected from each boring at approximately 12 feet (1B, 2B, 3B and 4B).
Contaminants detected:	Cadmium was detected ranging from 0.05 ppm to 5.2 ppm. Bis (2-ethylhexyl)phthalate was detected at 850 ppm in one sample.
QA/QC:	None
File location:	Attachment P NJDEP/DRPSR/BEECRA 401 E. State Street Trenton, New Jersey

2.

Sampling date:	March 14, 1991
Sampled by:	NJDEP/DRPSR/BSA Robbinsville, New Jersey
Samples:	Five soil samples
Laboratory:	TCT-St. Louis St. Louis, Missouri Lab Certification No. 64777
Parameters:	Total USEPA Target Compound List
Sample description:	Five soil samples were collected adjacent to two aboveground waste solvent tanks. The samples were collected at a depth ranging from the surface to 3 feet
Contaminants detected:	High levels of volatiles and semivolatiles were detected. (See Table 1)
QA/QC:	One field blank was collected. A chain-of-custody was implemented. A formal QA validation was performed on the data.
File location:	Attachment Z NJDEP/DRPSR/BSA Robbinsville, New Jersey

Recommendations

Because of the confirmed soil contamination revealed in this investigation, the Bureau of Site Assessment recommends the site be transfered to the DRPSR/Southern Field Office for implementation of a cleanup of the affected area. No further action under CERCLA is warranted.

Submitted by:

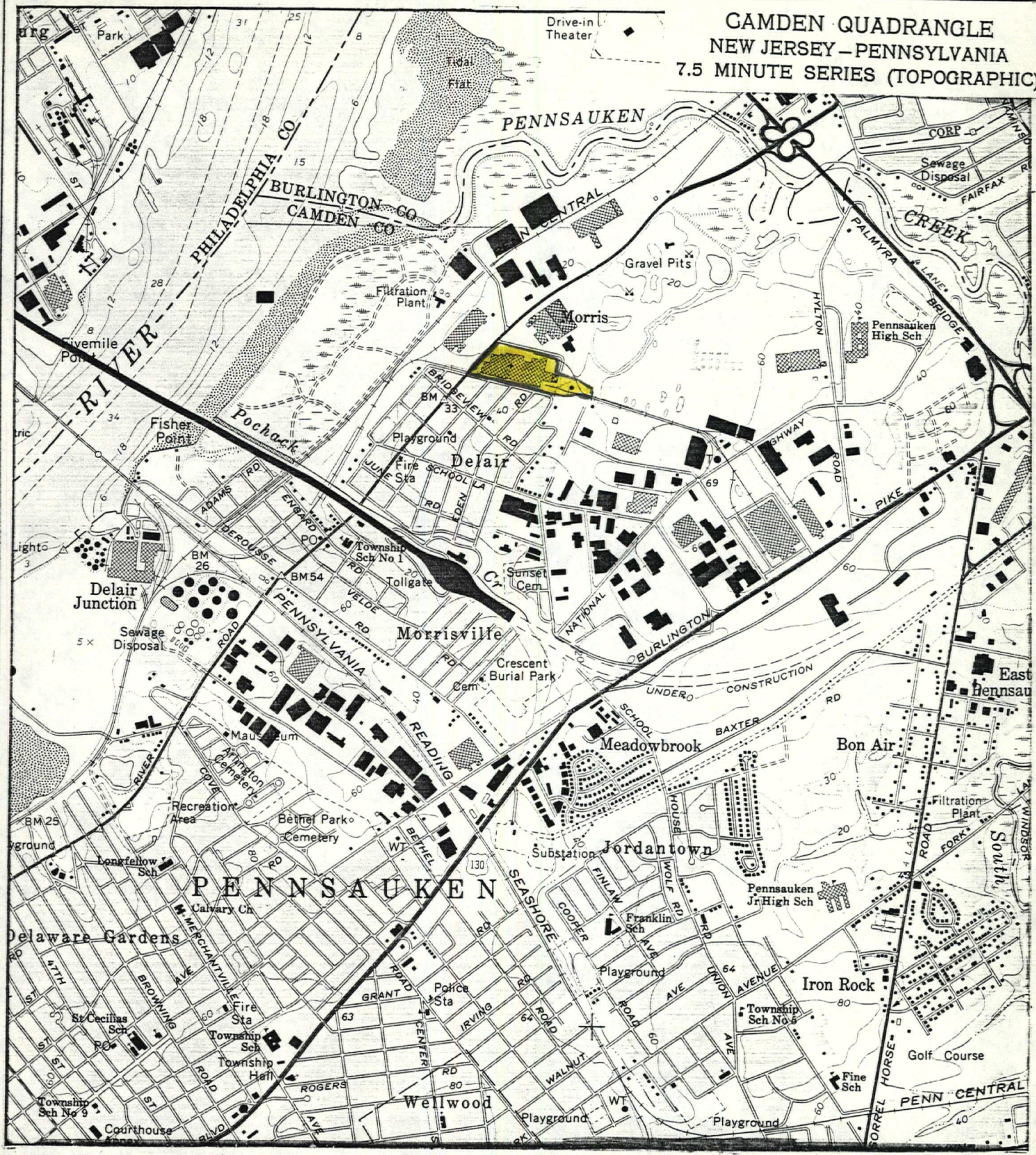
Dan Maltese
HSMS IV
Bureau of Site Assessment
September 23, 1991

TABLE 1

Contaminant	S1	S2	S3	S4	S5
Depth	1.5' to 3'	0 to 6"	0 to 6"	1.5'	1.5'
2-butanone	130				
4-methyl-2-pentanone	400E				
toluene	250E			5,200E	66
ethylbenzene	870E				620
xylene	4,600E	6J	13J	76,000E	10,600E
tetrachloroethene		230	150		
isophorone	8,900E		130		
naphthalene	1,300			7,000E	3,500
2-methylnaphthalene	200J			2,000	560
di-n-butylphthalate	120J	330J	380J	720	190J
bis(2-ethylhexyl)phthalate			310J		

All values are in ppb
blanks indicate non detect values
E= estimated value
J= estimated value

MAPS



Desoto, Incorporated
8600 River Rd., Pennsauken
Twp., Camden Co., New Jersey

EPA ID # NJD005440342
Lat: 39 59 06 Lon: 75 02 44

ATTACHMENT Map 1

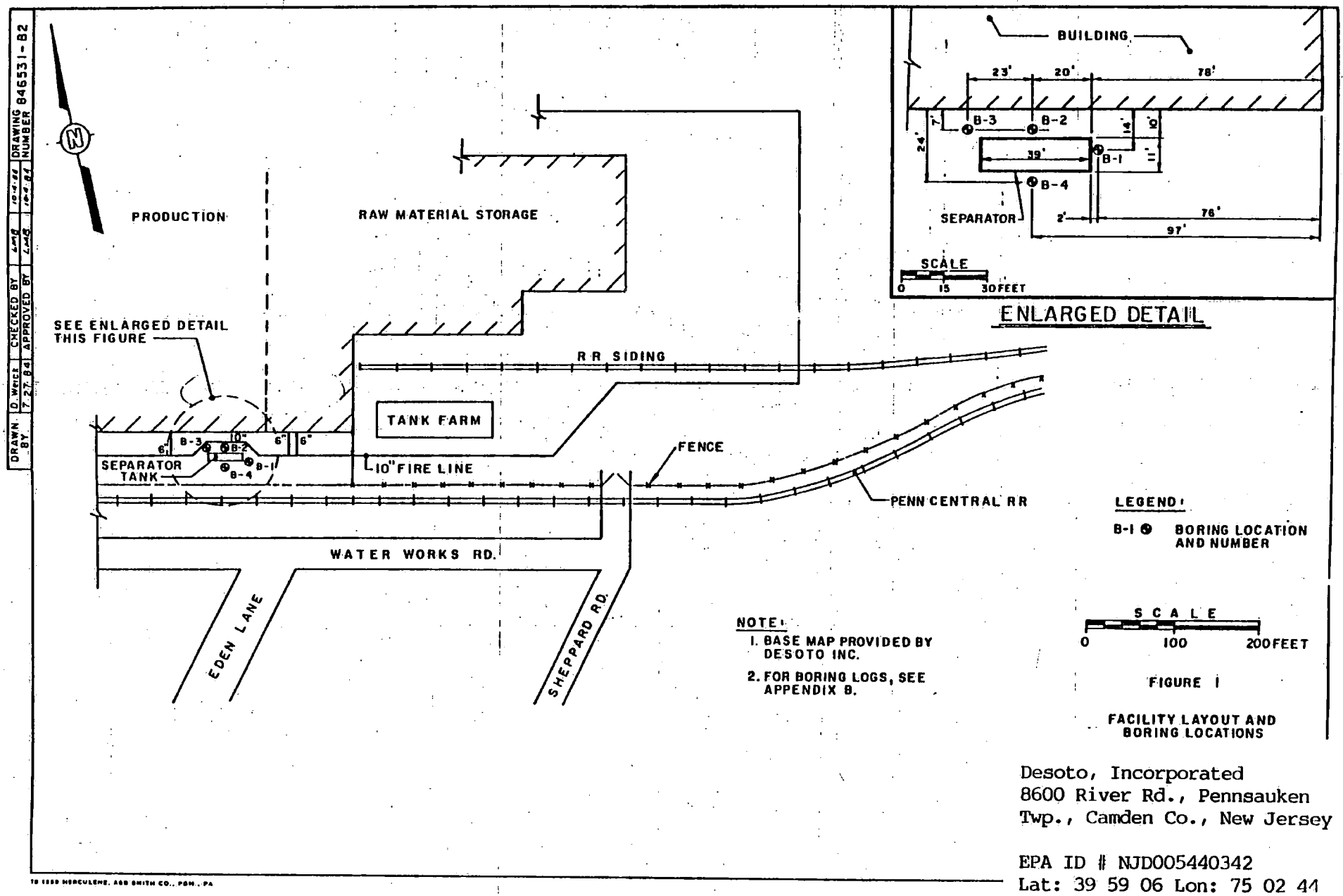


FIGURE 1

FACILITY LAYOUT AND BORING LOCATIONS

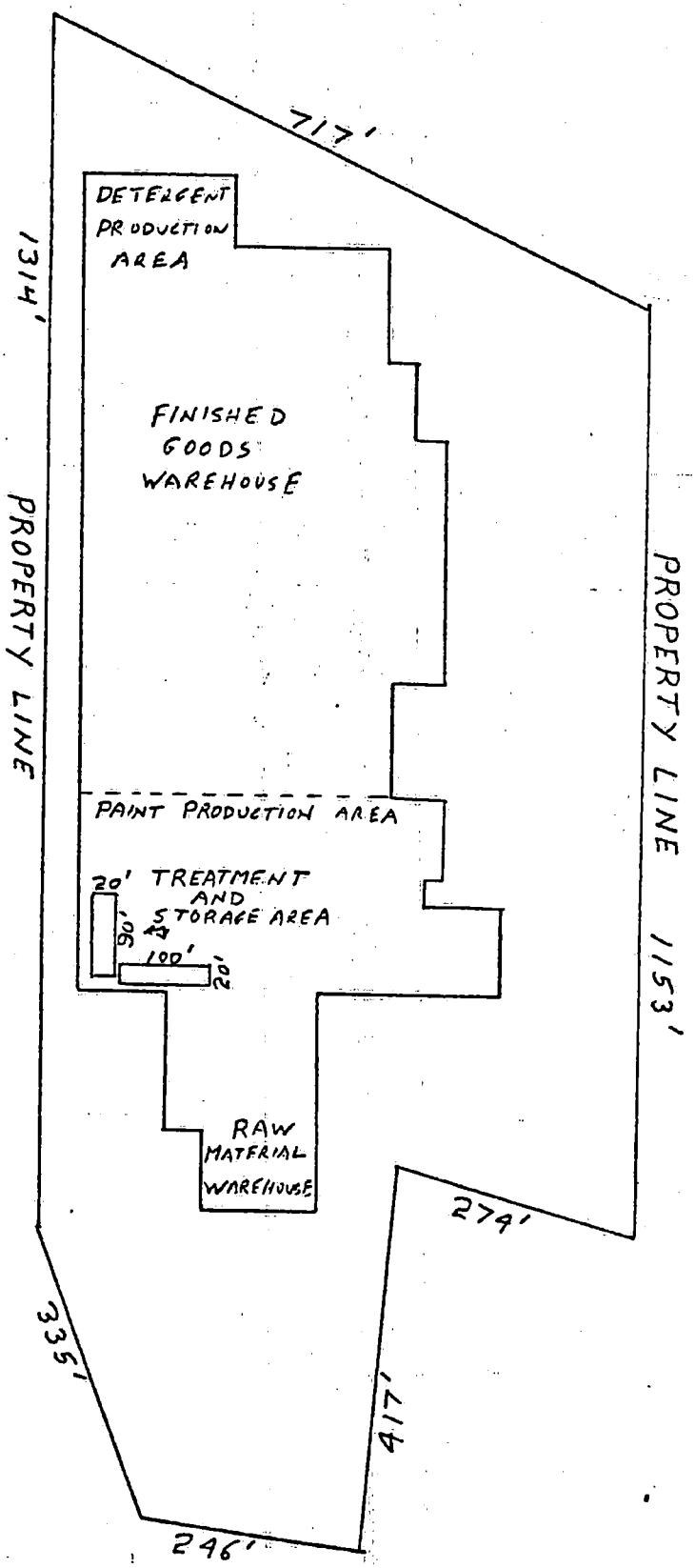
Desoto, Incorporated
8600 River Rd., Pennsauken
Twp., Camden Co., New Jersey

EPA ID # NJD005440342
Lat: 39 59 06 Lon: 75 02 44

ATTACHMENT Map 2

Continued from page 4.

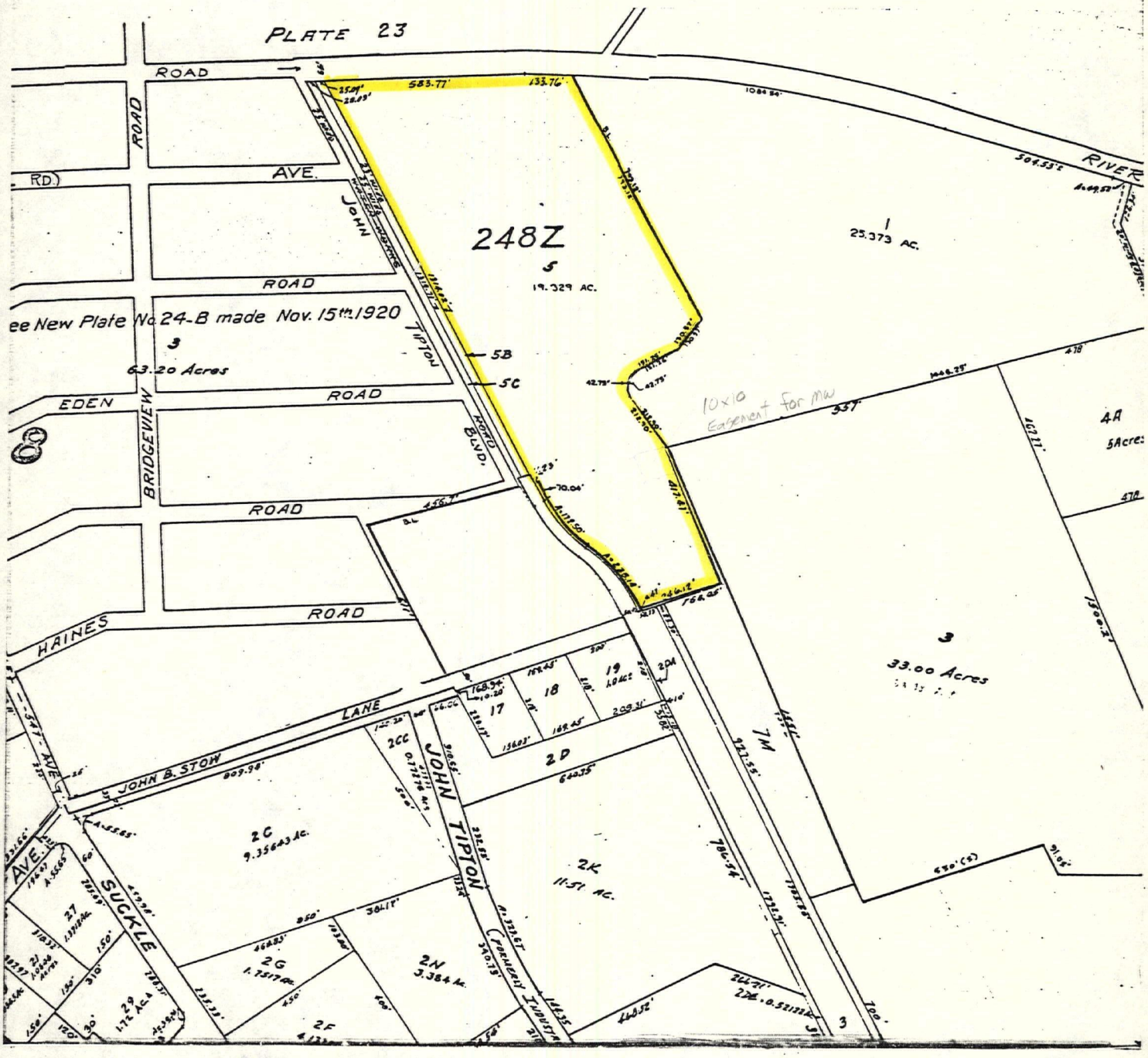
V. FACILITY DRAWING (see page 4)



Desoto, Incorporated
8600 River Rd., Pennsauken
Twp., Camden Co., New Jersey
EPA ID # NJD005440342
Lat: 39 59 06 Lon: 75 02 44

SCALE - 1" = 200'

ATTACHMENT Ma03

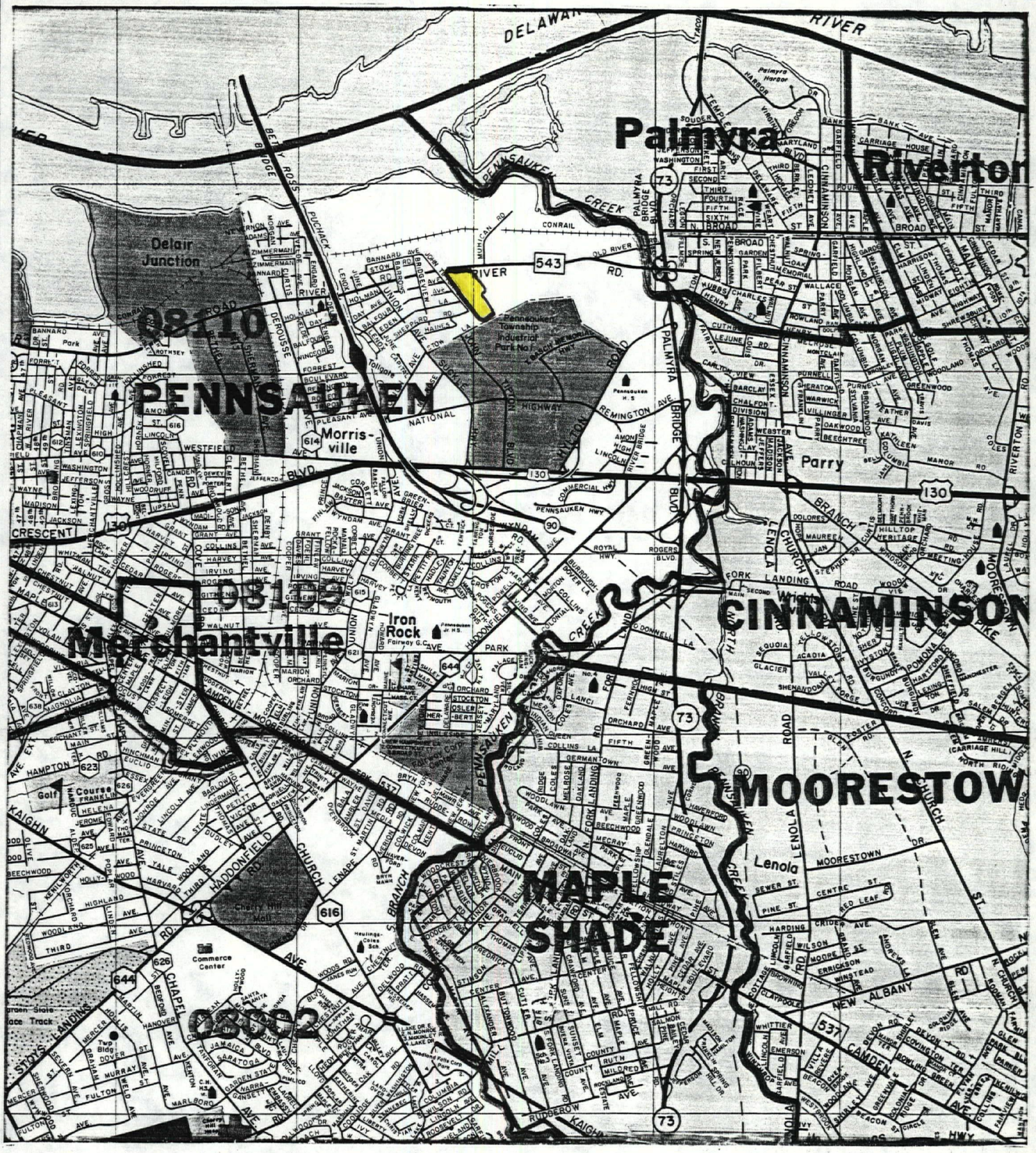


TAX MAP

Desoto, Incorporated
8600 River Rd., Pennsauken
Twp., Camden Co., New Jersey

EPA ID # NJD005440342
Lat: 39 59 06 Lon: 75 02 44

ATTACHMENT Map 4



Camden County
New Jersey

SCALE:

1/2 0 1 MILE

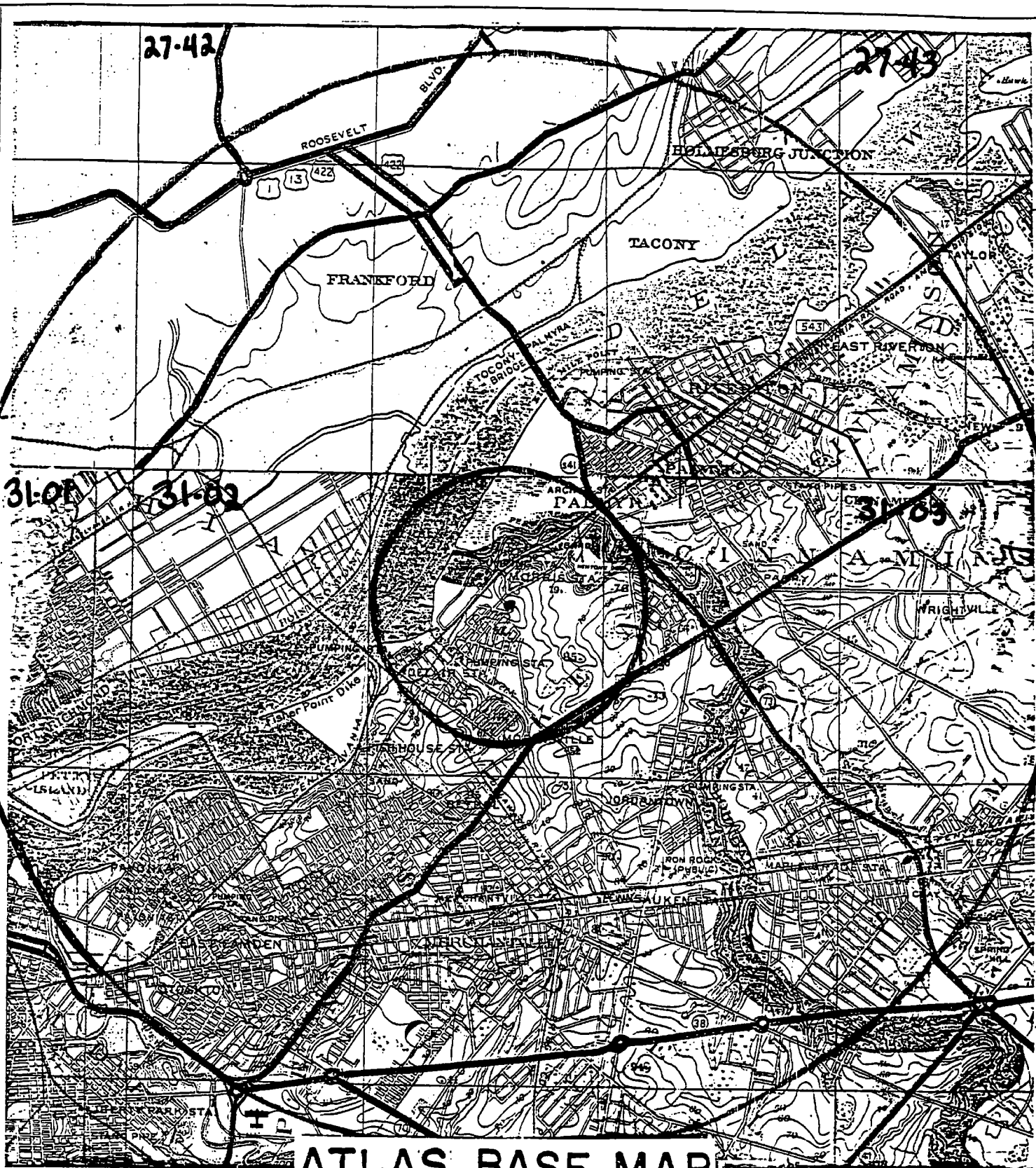
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

.5 0 1 KILOMETER

Desoto, Incorporated
8600 River Rd., Pennsauken Twp., Camden Co., New Jersey

EPA ID # NJD005440342
Lat: 39 59 06 Lon: 75 02 44

ATTACHMENT Map 5



ATLAS BASE MAP

Scale: 1 Mile to an Inch.

Miles: 1 ¾ ½ ¼ 0 1 2 3

Yards: 1000 500 0 1000 2000 3000

Meters: 500 0 1000 2000 3000

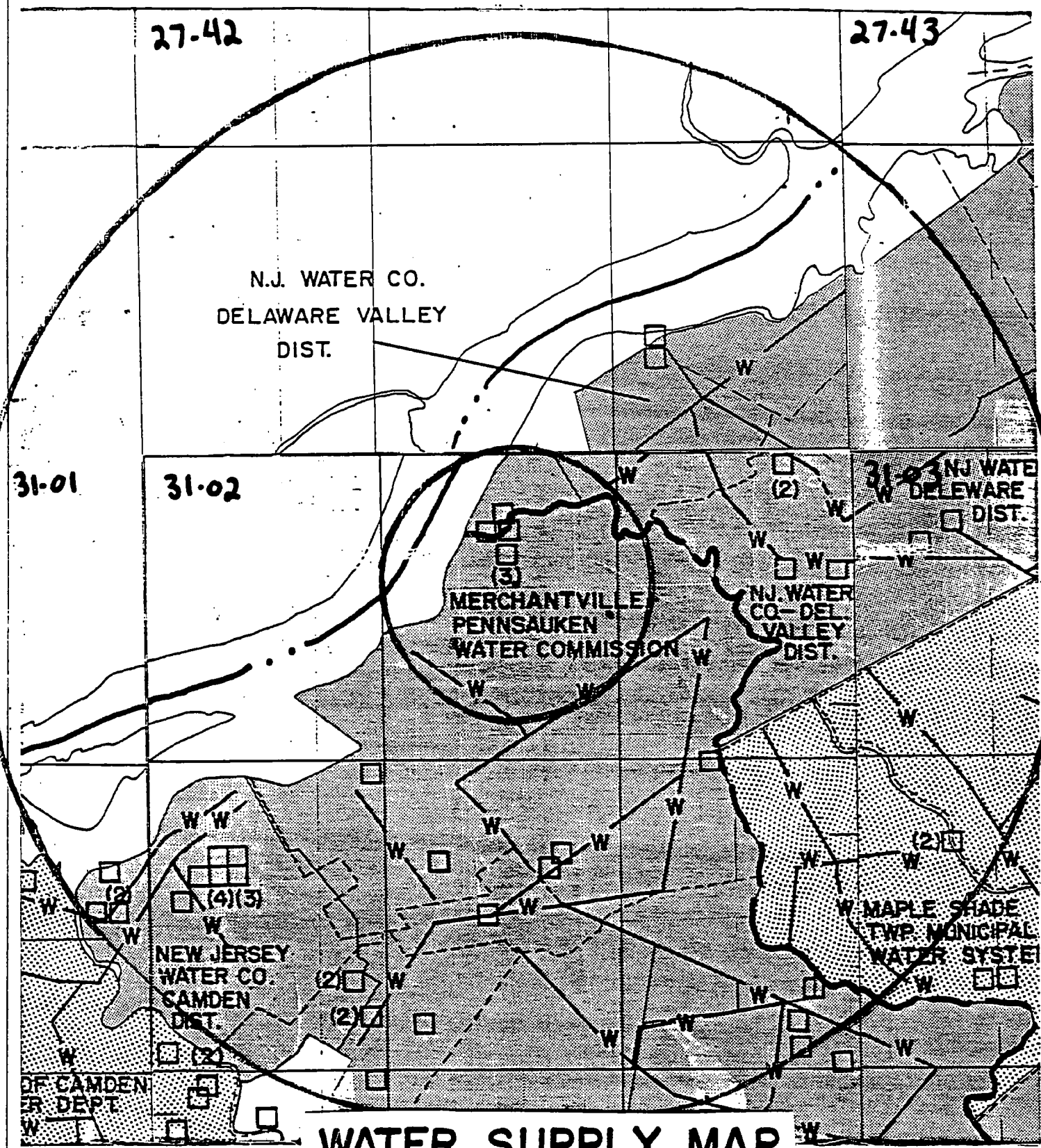
A. HOEN & CO. BALTIMORE, MD.

Contour interval: 20 feet

Desoto, Incorporated
8600 River Rd., Pennsauken
Twp., Camden Co., New Jersey

EPA ID # NJD005440342
Lat: 39 59 06 Lon: 75 02 44

ATTACHMENT Map 6



Scale: 1 Mile to an Inch.

Miles

Yards

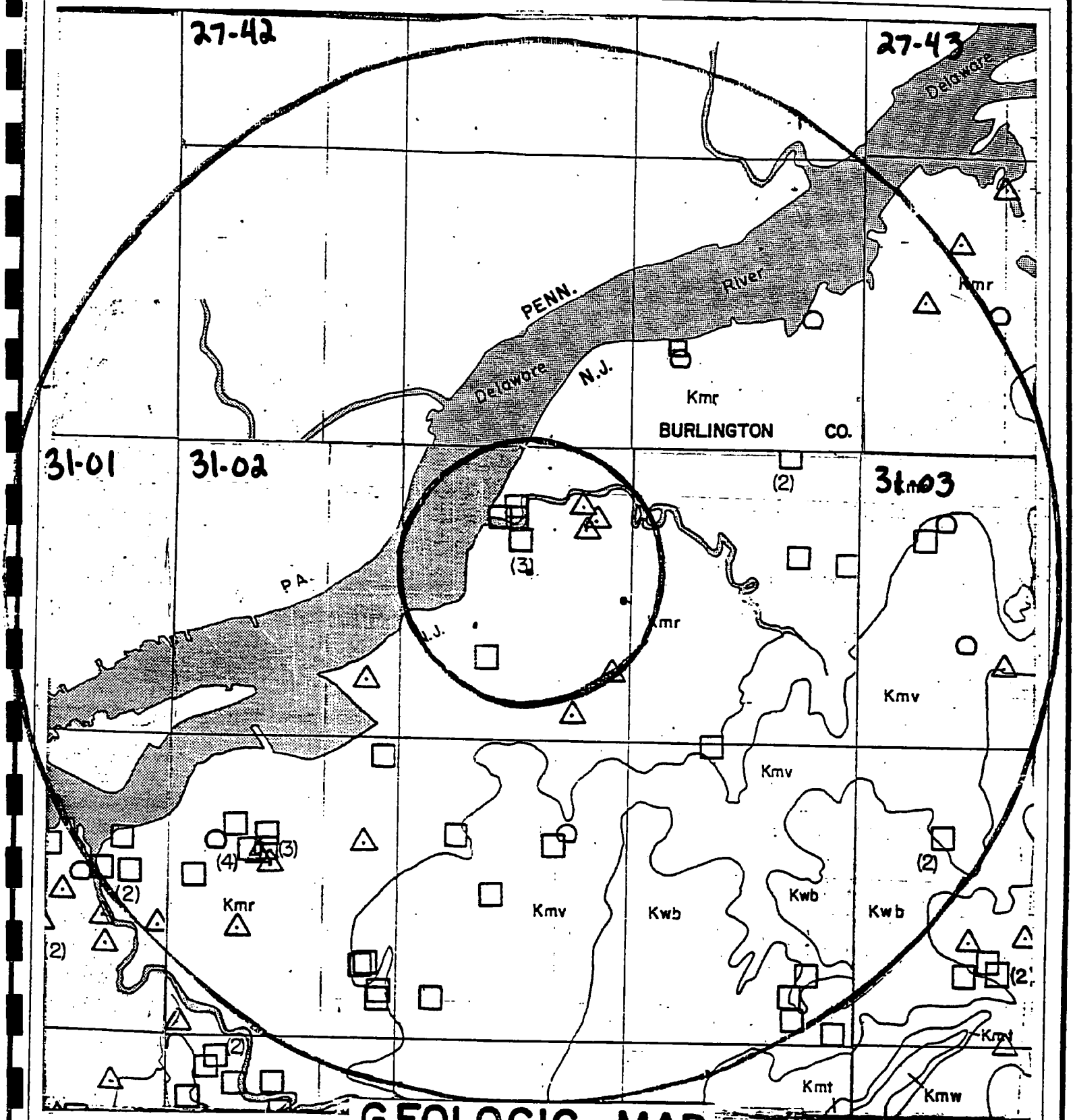
Meters

Contour interval: 20 feet

Desoto, Incorporated
8600 River Rd., Pennsauken
Twp., Camden Co., New Jersey

EPA ID # NJD005440342
Lat: 39 59 06 Lon: 75 02 44

ATTACHMENT MAP 7



GEOLOGIC MAP

Scale: 1 Mile to an Inch.

Miles 1 3/4 1/2 1/4 0 1 2 3

Yards 1000 500 0 1000 2000 3000

Meters 1000 500 0 1000 2000 3000

A. HOEN & CO. BALTIMORE, MD.

Contour Interval: 20 feet

Desoto, Incorporated
8600 River Rd., Pennsauken
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EPA ID # NJD005440342
Lat: 39 59 06 Lon: 75 02 44

ATTACHMENT Map 8

BLOCK #27-42

A. Frankford

B. Delaware River-Pompeston Creek, Pennsauken

C. 2. Map No. Location Period of Record
193 Delaware River at Palmyra 1962-

3. 193 Delaware River at Palmyra 1964

Water Quality Standards: (explained in Atlas Sheet description) FW3, TW2

D. Magothy and Raritan Formation (Kmr)

E. 1. Physiographic Province: Coastal Plain
Subdivision: Inner Plain
Major Topographic Features: Delaware River, Clay and Marl Region
Elevations (ft.above sea level): hills 50, valleys 0
Relief (ft.): 50

2. a. Normal Year: 43"
Dry Year: 36"
Wet Year: 49"

b. January: 33°F
July: 76°F

c. 250 days. Last killing frost: 4/15; first killing frost: 10/25

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
27-42-648	Riverton-Palmyra Water Co.	1955	62/84	100	503	Qps
27-42-667	Natl. Casin	1955	-	22	75	"
27-42-672	Riverton Palmyra Water Co.	1958	51/71	76	503	"

J. Geodetic Control Survey monuments described
Index Map 44; adjacent Index Maps 48,49

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
27-43-271	Riverside Twp.	1954	35/47	47	75	Kmr
27-43-276	St.Peters R.C. Church	1956	52/64	64	100	"
27-43-279	Bishop's Dairies	1956	53/63	63	100	"
27-43-278	Delaware Valley Water Co.	1967	97/120	120	800	"
27-43-278	"	1955	-	100	15	"
27-43-286	"	1955	97/118	118	483	"
27-43-324	Beauknit Mills (3 wells)	-	-	65(av.)	150(av.)	"
27-43-336	Levitt & Sons, Inc.	-	-	280	-	"
27-43-391	"	1955	-	250	-	"
27-43-391	Robbins,Edward & Sons	1959	-	181	250	"
27-43-393	Levitt, Wm.	1955	147/199	199	990	"
27-43-423	Amico Sand & Gravel Co.	1957	39/49	49	120	"
27-43-427	Haeganes Sponge Iron Co.	1951	119/134	136	326	"
27-43-438	Delaware River Water Co.	1959	89/130	130	974	"
27-43-446	Air Reduction Sales Corp.	1953	138/158	165	115	"
27-43-456	Shell Chemical Co.	1958	101/134	135	254	"
27-43-529	Bridgeboro School Bd.	-	-	250	-	"
27-43-537	Delaware Valley Water Co.	1970	181/235	236	760	"
27-43-539	Delran Twp.	1960	222/232	232	75	"
27-43-543	Delaware River Water Co.	1964	115/165	168	1218	"
27-43-546	Millside Farms	1956	90/106	106	444	"
27-43-551	Holy Cross High School	1958	154/174	174	185	"
27-43-571	Gulf Development Co.	1963	147/157	162	100	"

J. Geodetic Control Survey monuments described
Index Map 44; adjacent Index Maps 45,48,49

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
31-01-652	City of Camden, #5	1963	134-169	171	1000	Kmr
31-01-655	H. Kohnstamm & Co., Inc.	1954	116-136	136	150	"
31-01-656	U.S. Gasket, #1	1953	130-141	153	100	"
31-01-657	Savar Amusement Corp.	1950	82-113	113	500*	Kr
31-01-657	Stanley Corp. of America	1949	118-138	150	200*	"
31-01-662	City of Camden, #15	1954	116-136	155	1000	"
31-01-664	Camden Water Dept., #1-A	1953	135-170	175	1000	"
31-01-665	City of Camden, Test Well #1	1950	129-150	166	300	"
31-01-665	" #14	1953	105-145	164	1000	"
31-01-667	Sungil Co.	1947	147-157	157	100	"
31-01-669	Paris Produce Co.	1964	150-166	167	100	Kmr
31-01-673	Lintonia Pure Food Shop, Inc.	1950	102-123	128	315*	"
31-01-681	Savar Amusement Corp., #2	1950	110-130	130	500*	Kr
31-01-681	Camden Trust Co.	1949	93-123	127	430*	"
31-01-684	Stanley Corp. of America	1949	110-130	152	600*	"
31-01-687	Savar Amusement Corp.	1949	114-134	138	600	"
31-01-691	Baltimore Markets, #2	1950	138-170	170	1200*	"
31-01-912	Public Service Elec.& Gas Co.	1950	120-146	149	600	"
31-01-912	"	1954	113-145	145	350	"
31-01-916	City of Camden, #2-B	1953	111-136	204	1000	"
31-01-921	Stanley Corp. of America	1949	86-150	163	250*	"
31-01-928	Samuel Adelson	1952	92-102	102	200	"
31-01-929	Camden Water Dept.	1948	111-136	165	1012	"
31-01-934	Liberty Theatre #1	1949	112-130	130	150	"
31-01-943	MacAndrews & Forbes Co.	1951	82-103	114	350	"
31-01-956	Camden Water Dept.,#7	1966	123-163	167	1023	"
31-01-961	City of Camden, #11	1942	124-154	166	1005	"

*Indicates use as a recharge well.

J. Geodetic Control Survey monuments described in Index Map 48; Adjacent Index Maps 44,54

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
31-02-195	Paragon Oil Co., #1	1961	51-61	61	100	Kmr
31-02-225	City of Camden, #4-A	1960	95-130	134	1585	"
31-02-227	" #5-NA	1960	79-114	121	1529	"
31-02-228	" #3	1953	73-107	136	1000	"
31-02-228	" #8	1953	89-124	141	1000	"
31-02-228	" #10	1960	75-115	118	1529	"
31-02-235	Kingston Trap Rock	1955	55-65	68	125	"
31-02-238	" #2	1966	115-123	127	200	"
31-02-238	Atlantic Blue Diamond Corp.	1958	100-110	110	180	"
31-02-281	City of Camden	1975	140-180	190	1200	"
31-02-293	Meadow Brook Swim Club	1963	97-107	107	200	"
31-02-297	H&H Industries	1959	71-81	81	100	"
31-02-331	Riverton-Palmyra Water Co.#16	1965	144-176	192	1034	"
31-02-331	" #13	1963	166-197	206	610	"
31-02-361	Delaware Valley Water Co.,#28	1969	225-260	264	1200	"
31-02-363	" #31	1970	215-261	267	1002	"
31-02-419	New Jersey Water Co.,#50	1958	139-170	176	1000	"
31-02-427	" #25	1961	305-367	399	1050	"
31-02-433	Merchantville-Pennsauken Water Co.	1968	109-139	139	882	"
31-02-442	City of Camden, Test #6	1954	153-175	181	210	Kr
31-02-443	New Jersey Water Co.,#44	1950	154-186	187	1400	Kmr
31-02-443	" #45	1950	141-173	173	955	"
31-02-443	" #46	1950	148-178	179	1400	"
31-02-443	" #48	1954	122-164	171	1412	"
31-02-444	City of Camden, #16	1954	149-179	181	1000	"
31-02-449	Savar Amusement Corp.	1949	169-189	189	450	"
31-02-451	H. Kohnstomm & Co.,Inc.,#5-A	1967	163-184	194	200	"
31-02-451	"	1959	133-158	158	250	"
31-02-451	New Jersey Water Co.,#52	1965	147-198	198	1404	"
31-02-451	" #38	1933	126-162	166	846	"
31-02-451	" #47	1953	159-175	177	1012	"
31-02-462	Parks Dairies	1958	154-170	172	200	"
31-02-477	Camden Co. Park Commission	1950	186-217	217	1200	"
31-02-492	Merchantville-Pennsauken Water Comm., #9	1956	107-137	141	875	"
31-02-492	" #10	1963	223-258	262	1000	"
31-02-496	" #2-A	1965	110-140	143	900	"
31-02-496	" #1-R	1971	132-152	159	875	"
31-02-519	" Test Well	1963	118-138	160	400	"
31-02-537	" Test Well #1	1956	247-268	293	317	"
31-02-554	" #2	1962	245-285	300	1040	"
31-02-561	" #6	1957	242-277	283	1020	"
31-02-575	Camden Co.Board of Ed.	1967	322-401	401	320	"
31-02-621	Merchantville-Pennsauken Water Comm., #7	1958	240-275	330	1000	"
31-02-692	" #8	1960	207-237	240	875	"
31-02-694	New Jersey Water Co.,#22	1960	371-453	497	1067	"
31-02-697	" #24	1961	112-167	186	1051	"
31-02-699	"	1967	376-427	430	1030	"

31-02-712	City of Camden, Test #5	1953	205-225	277	280	Kmr
31-02-712	"	1953	185-225	243	1000	"
31-02-712	" #17	1954	230-265	274	1000	"
31-02-714	"	1953	90-115	123	1000	"
31-02-716	Our Lady of Lourdes Hospital	1963	237-257	261	275	"
31-02-718	A. N. Stoll Werck, Inc.	1950	111-131	136	210	"
31-02-725	Boro.of Collingswood, #3-R	1960	257-287	294	1000	Kr
31-02-728	" #2-B	1960	248-278	308	1000	Kmr
31-02-754	Friendship Dairy, #1	1955	143-164	164	100	"
31-02-773	Boro.of Collingswood,Test #1	1964	307-333	370	-	"
31-02-774	A.M.Ellis Theatres,Inc.,#3	1961	83-103	115	250*	"
31-02-781	Boro.of Collingswood, "B"	1965	224-313	336	1034	"
31-02-782	" "A"	1965	219-312	331	1034	"
31-02-837	New Jersey National Guard	1956	96-111	111	150	"
31-02-857	Morgan Brothers, Inc.	1967	431-451	451	302	"
31-02-865	Joe's Trailer Camp	1955	112-122	122	70	"
31-02-879	Twp. of Haddon, #4	1965	417-448	455	1000	"
31-02-879	" #3	1956	432-469	490	800	"
31-02-887	" Bd.of Ed.,#1	1966	142-162	165	200	"
31-02-887	" New #1	1968	401-479	481	870	"
31-02-898	Boro.of Haddonfield,Test #1	1965	490-510	510	350	"
31-02-899	"	1967	307-372	380	1029	"
31-02-982	New Jersey Water Co.,#23	1960	321-378	405	1001	"
31-02-982	" #13	1953	491-527	527	1200	"
31-02-986	Hunt Tract Swimming Club	1957	232-243	243	90	"

*Indicates use as a recharge well.

J. Geodetic Control Survey monuments described in Index Map 48; Adjacent Index Maps 44,49,54,55

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
31-03-119	Riverton-Palmyra Water Co. #12	1961	157-196	201	900	Kmr
31-03-127	#10	1959	240-281	308	1051	"
31-03-135	#15	1964	166-225	229	1060	"
31-03-136	#14	1964	179-229	325	1266	"
31-03-158	Campbell Soup Co.	1959	-	264	-	Kr
31-03-183	"	1971	339-369	395	602	"
31-03-258	Moorestown Field Club, #1	1964	274-302	304	400	"
31-03-328	Twp. of Moorestown, #4	1960	298-337	360	700	Kmr
31-03-336	" #8	1967	282-332	362	717	"
31-03-368	R.C.A.	1959	-	221	-	"
31-03-389	Harold Collins	1953	253-283	283	500	"
31-03-427	Twp. of Maple Shade	1955	211-272	282	1020	"
31-03-427	"	1972	210-270	280	700	"
31-03-458	Interface Corp.	1956	146-156	156	159	"
31-03-465	Twp. of Moorestown	1963	248-288	302	805	"
31-03-466	Moorestown Water Co.	1963	248-288	290	1000	"
31-03-467	Savar Corp.	1955	155-166	166	120	"
31-03-482	Twp. of Maple Shade	1961	414-463	494	1001	"
31-03-483	"	1965	173-209	212	1034	"
31-03-483	"	1975	160-200	220	1007	"
31-03-483	"	1975	440-500	523	1438	"
31-03-489	Layne-New York Co., Inc.	1960	267-287	291	250	"
31-03-541	Town of Moorestown	1914	-	517	-	Wgn
31-03-589	Mt.Laurel Water Co., #1	1961	558-589	594	548	Kmr
31-03-594	" #2	1965	362-399	399	750	"
31-03-671	Colonial Pipeline Co.	1963	-	188	150	"
31-03-676	Mt.Laurel Twp.M.U.A., Test #2	1973	596-616	689	108	"
31-03-684	" " #1	1973	627-647	681	250	"
31-03-692	Merchantville-Pennsauken Water Comm.	1960	207-237	240	875	"
31-03-746	N. J. Water Co., #27	1963	366-417	541	812	"
31-03-762	" #28	1964	175-207	268	857	"
31-03-795	Arthur Champion	1960	-	299	-	"
31-03-816	Sea Jay Swim Club	1963	227-237	237	150	"
31-03-818	H.D.& H. Development Co.	1962	410-460	465	550	"
31-03-827	PSE&G Co.	1958	239-245	245	75	"
31-03-898	Evesham Twp.Utility Auth.#3	1967	288-334	341	608	"
31-03-938	Joseph Rudderow	1954	440-456	458	250	Kr
31-03-961	Cherry Valley Const.Co.	1961	-	274	-	"

J. Geodetic Control Survey monuments described in Index Map 49; adjacent Index Maps 44,45,48,54,55

LEGEND FOR ATLAS SHEET

△ INDUSTRIAL WELL YIELD OVER 70 GALLONS PER MINUTE

□ PUBLIC SUPPLY WELL YIELDING OVER 70 GALLONS PER MINUTE

⊕ UNSUCCESSFULL ROCK WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

⊙ UNSUCCESSFULL SAND WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

⊡ NO TEST – NO DATA ON YIELD

——— FAULT (DASHED WHERE INFERRED)

——— CONTACT (DASHED WHERE INFERRED)

PIEDMONT / COASTAL PLAIN — PHYSIOGRAPHIC PROVINCE BOUNDARY

WATER SUPPLY TRANSMISSION LINE

SEDIMENTARY ROCKS

TERTIARY

Tbh	BEACON HILL GRAVEL
Tch	COHANSEY SAND
Tkw	KIRKWOOD SAND
Tmq	MANASQUAN MARL
Tvt	VINCENTOWN SAND
Tht	HORNERSTOWN MARL

CRETACEOUS

Krb	RED BANK
Krbt	RED BANK (TRANSITIONAL UNIT)
Krbg	RED BANK (GLAUCONITE SAND UNIT)
Kns	NAVESINK MARL
Kml	MOUNT LAUREL SAND
Kw	WENONAH SAND
Kmt	MARSHALLTOWN FORMATION
Ket	ENGLISHTOWN SAND
Kwb	WOODBURY CLAY
Kmv	MERCHANTVILLE CLAY
Kmr	MAGOTHY AND RARITAN FORMATIONS
Km	MAGOTHY FORMATION
Kr	RARITAN FORMATION

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

SUBJECT TO REVISION

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

LATITUDE 395915
LONGITUDE 750237

DRAFT

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

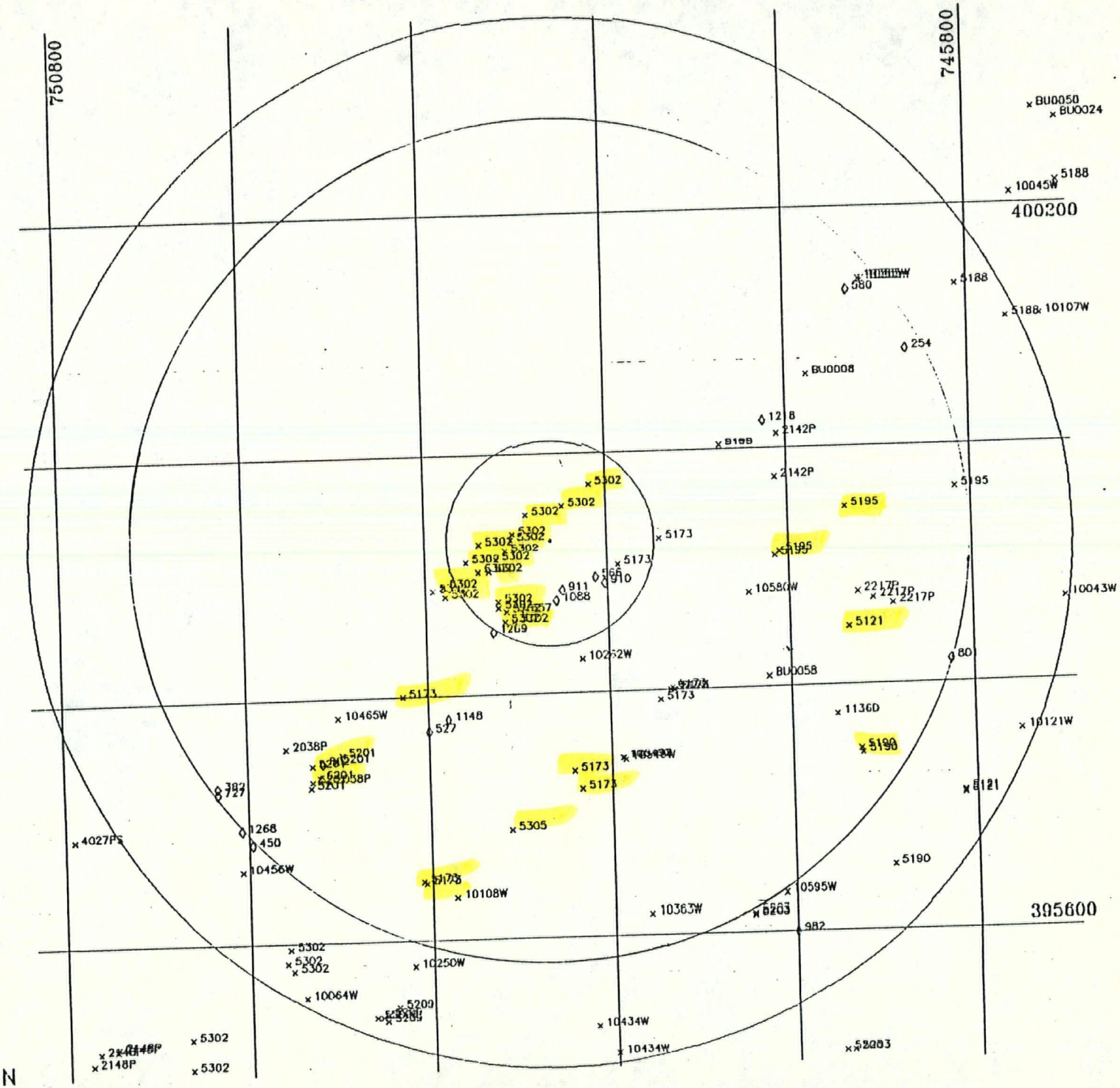
0 mile 1

× 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: 04/17/91



SUBJECT TO REVISION

MAP 9

 PRELIMINARY SURVEY OF WATER WITHDRAWAL POINTS WITHIN 5.0 MILES OF 395915 LAT. 750237 LON. (IN ORDER BY PERMIT NUMBER) - 04/17/91

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
10043W	FIRST PRESBYTERIAN CHURCH	3104691	1	395840	745700	F	5.0	05	22		GWR		
10045W	RIVERSIDE BOARD OF EDUCATION	2704523	1	400205	745730	T	5.5	05	30		GWR		
10064W	OUR LADY OF LOURDES MED. CENT.	3104620	1	395532	750525	F	4.9	07	08	257	GWR		250
10107W	HOLY CROSS HIGH SCHOOL	2702821	1	400106	745712	F	5.2	05	10	174	GWR		400
10108W	CAMDEN CO VOC. & TECH. SCHOOLS	3105139	1	395620	750344	F	3.5	07	15	401	GWR		
10121W	CORDES, WILLIAM JR.		1	395735	745730	U	4.9	09	05	150	GTOK		500
10250W	BISHOP EUSTACE PREP SCHOOL	3117884	1	395547	750413	T	4.2	07	27	150	GWR		200
10262W	SCHAEVITZ, LUCAS	3103339	1	395816	750218	T	1.2	07	27		GWR		
	SCHAEVITZ, LUCAS	3103437	2	395816	750218	T	1.2	07	27		GWR		
	SCHAEVITZ, LUCAS	3103444	3	395816	750219	T	1.2	07	27		GWR		
10353W	CHERRY HILL INN	UNKNOWN	1	395610	750136	T	3.6	07	15	179	GWR		400
10365W	HOEGANAES CORP./RIVERTON PLANT	2700238	LAYNE 1	400125	745908	T	3.9	05	08	136	GWR		300
	HOEGANAES CORP./RIVERTON PLANT	WELLPOINTS		400125	745910	U	3.9	05	08	13	GWR		66
10434W	GARDEN STATE RACE TRACK, INC.	5100094	1	395514	750213	T	4.6	07	09	154	GWR		300
	GARDEN STATE RACE TRACK, INC.	5100095	2	395500	750200	M	4.9	07	09	150	GWR		400
10456W	CONCORD CHEMICAL CO., INC.	5100154	1	395635	750605	F	4.3	07	08	140	GWW		400
10465W	ELK ASPHALT/WEST BANK OIL	DELAWARE	RIVER	395750	750600	F	2.6	07	27		SDDEL		
10549W	SYCAMORE RIDGE APARTMENTS	3127629	3	395725	750151	T	2.2	07	27		GWR		45
10580W	STAR GAS SERVICE	3129179	1	395846	750027		2.0	05	19		GWR		50
10595W	GENTILE, ALBERT JR/PRODUCE JNT	3130128		395618	750007	T	4.0	05	19				
1134D	MOORESTOWN TOWNSHIP	DEWATERING	DEWATERING	395745	745930	T	3.2	05	22	24	GOOM	GWW	127
2039P	GENERAL COLOR CO.	3119275	7	395735	750535		3.2	07	08	194	GWR		180
	GENERAL COLOR CO.	3105364	6	395719	750507		3.1	07	08	194	GWR		0
2143P	RIVERTON COUNTRY CLUB	3118429	1A	400009	750006	S	2.4	05	31	119	GWR		500
	RIVERTON COUNTRY CLUB	2704844	2	395945	750008	S	2.2	05	31	174	GWR		500
2148P	MAC ANDREWS & FORBES COMPANY	3100290	1	395607	750729	F	6.4	07	08	103	GWR		300
	MAC ANDREWS & FORBES COMPANY	5100035	2	395500	750745		6.6	07		99	GWR		350
	MAC ANDREWS & FORBES COMPANY	3123560	2R	395508	750729	F	6.4	07	08	140	GWR		350
	MAC ANDREWS & FORBES COMPANY	DELAWARE RIVER		395506	750740	U	6.5	07	08		SDDEL		
2217P	CAMPBELL SOUP COMPANY	3105715	1	395839	745852	T	3.4	05	22	272	GWR		500
	CAMPBELL SOUP COMPANY	3103673	2 RECHARGE	395845	745915	T	3.0	05	22	266	GWR		
	CAMPBELL SOUP COMPANY	3103674	1 OBS.	395842	745905	T	3.2	05	22	268	GWR		
4027PS	GENERAL ELECTRIC/GCSD	DELAWARE RIVER		395652	750754	T	5.4	07	08		SDDEL		
5121	MOORESTOWN TOWNSHIP	5100041	3	395705	745608	F	4.5	05	22	305	GWR		700
	MOORESTOWN TOWNSHIP	3104663	5	395704	745808	F	4.7	05	22	302	GWR		805
	MOORESTOWN TOWNSHIP	3104727	6	395704	745903	F	4.7	05	22	302	GWR		700
	MOORESTOWN TOWNSHIP	3105202	7	395828	745921	F	3.0	05	22	385	GWR		1000
5173	MERCHANTVILLE-PENNSAUKEN WATER	3105641	BROWNING1A	395627	750404		3.5	07	24	152	GWR		875
	MERCHANTVILLE-PENNSAUKEN WATER	3101417	DEL GARD 2	395800	750417		2.0	07	27	147	GWR		700
	MERCHANTVILLE-PENNSAUKEN WATER	3102915	MARION 1	395720	750225		2.2	07	27	279	GWR		1000
	MERCHANTVILLE-PENNSAUKEN WATER	3104641	MARION 2	395711	750220		2.4	07	27	262	GWR		1000
	MERCHANTVILLE-PENNSAUKEN WATER	3104836	BROWNING2A	395628	750406		3.4	07	27	140	GWR		900
	MERCHANTVILLE-PENNSAUKEN WATER	3105110	NATL HWY 1	395902	750153		0.7	07	27	231	GWR		1000
	MERCHANTVILLE-PENNSAUKEN WATER	3100010	PARK AVE 1	395800	750117		1.8	07	27	274	GWR		1005
	MERCHANTVILLE-PENNSAUKEN WATER	5100064	PARK AVE 2	395800	750118		1.8	07	27	262	GWR		1000
	MERCHANTVILLE-PENNSAUKEN WATER	3103534	PARK AVE 3	395801	750119		1.0	07	27	277	GWR		1000
	MERCHANTVILLE-PENNSAUKEN WATER	3100011	PARK AVE 5	395800	750120		1.8	07	27	290	GWR		1005
	MERCHANTVILLE-PENNSAUKEN WATER	3114564	PARK AVE 6	395755	750127		1.8	07	27	270	GWR		1000
	MERCHANTVILLE-PENNSAUKEN WATER	3119207	NATL HWY 2	395915	750125		1.1	07	27	211	GWR		1000
5188	NEW JERSEY-AMERICAN WATER CO.	2703080	LEON 19	400122	745907		4.6	05	10	130	GWR		700
	NEW JERSEY-AMERICAN WATER CO.	2704651	TAYLOR 29	400210	745700		5.9	05	30	120	GWR		700
	NEW JERSEY-AMERICAN WATER CO.	2704247	CHESTER 23	400105	745734		4.9	05	10	168	GWR		1000
	NEW JERSEY-AMERICAN WATER CO.	2704680	CHESTER 24	400105	745734		4.9	05	10	150	GWR		1000
5190	MAPLE SHADE TOWNSHIP	3100060	2	395725	745914		3.6	05	19	126	GWR		140
	MAPLE SHADE TOWNSHIP	3106020	8	395727	745915		3.6	05	19	280	GWR		760

 PRELIMINARY SURVEY OF WATER WITHDRAWAL POINTS WITHIN 5.0 MILES OF 395915 LAT. 750237 LON. (IN ORDER BY PERMIT NUMBER) - 04/17/91

PERMIT NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
	MAPLE SHADE TOWNSHIP	3108922	9	395630	745855		4.5	05	19	220	GWR		1000
	MAPLE SHADE TOWNSHIP	3103923	10	395630	745855		4.5	05	19	523	GWR		1500
	MAPLE SHADE TOWNSHIP	3112925	11	395727	745915		3.6	05	19	450	GWR		1250
5195	NEW JERSEY-AMERICAN WATER CO.	3104697	14NEWALBAN	395938	745810	F	3.9	05	08	229	GWR		1000
	NEW JERSEY-AMERICAN WATER CO.	3104733	25NEWALBAN	395939	745810	F	3.9	05	08	225	GWR		800
	NEW JERSEY-AMERICAN WATER CO.	3103835	10 POMONA	395929	745922	F	2.9	05	08	281	GWR		800
	NEW JERSEY-AMERICAN WATER CO.	3104276	12 POMONA	395929	745922	F	2.9	05	08	196	GWR		700
	NEW JERSEY-AMERICAN WATER CO.	3105321	28 STEPHEN	395904	750009	F	2.2	05	08	262	GWR		1000
	NEW JERSEY-AMERICAN WATER CO.	3105437	31 STEPHEN	395906	750006	F	2.2	05	08	270	GWR		1000
	NEW JERSEY-AMERICAN WATER CO.	3104576	13HIGHLAND	400002	750044	F	1.9	05	08	197	GWR		700
	NEW JERSEY-AMERICAN WATER CO.	3104864	27HIGHLAND	400002	750044	F	1.9	05	08	176	GWR		1000
5201	NEW JERSEY-AMERICAN WATER CO.	3103456	50	395726	750519	F	3.1	07	08	170	GWR		700
	NEW JERSEY-AMERICAN WATER CO.	3104780	51	395720	750513	F	3.2	07	08	192	GWR		1300
	NEW JERSEY-AMERICAN WATER CO.	3104847	52	395715	750519	F	3.3	07	08	198	GWR		1050
	NEW JERSEY-AMERICAN WATER CO.	3118947	53	395729	750562	F	2.9	07	08	194	GWR		1000
	NEW JERSEY-AMERICAN WATER CO.	3118944	54	395731	750458	F	2.9	07	08	195	GWR		1000
	NEW JERSEY-AMERICAN WATER CO.	3120270	55	395718	750518	F	3.2	07	08	176	GWR		1050
5203	NEW JERSEY-AMERICAN WATER CO.	3104051	COLUMBIA22	395609	750028		4.0	07	09	453	GWR		1050
	NEW JERSEY-AMERICAN WATER CO.	3104274	COLUMBIA24	395608	750028		4.0	07	09	167	GWR		900
	NEW JERSEY-AMERICAN WATER CO.	3105033	COLUMBIA31	395609	750028		4.0	07	09	427	GWR		1050
	NEW JERSEY-AMERICAN WATER CO.	5100007	KINGSTON25	395458	745929		5.6	07	09	367	GWR		1050
	NEW JERSEY-AMERICAN WATER CO.	3104669	KINGSTON27	395458	745924		5.7	07	09	417	GWR		870
	NEW JERSEY-AMERICAN WATER CO.	3104742	KINGSTON28	395458	745929		5.6	07	09	207	GWR		840
5209	COLLINGSWOOD BOROUGH	3104053	2R	395519	750432		4.8	07	12	281	GWR		700
	COLLINGSWOOD BOROUGH	3104054	3R	395522	750432		4.8	07	12	290	GWR		800
	COLLINGSWOOD BOROUGH	5100030	4	395521	750435		4.8	07	12	304	GWR		870
	COLLINGSWOOD BOROUGH	3100079	5	395521	750439		4.8	07	12	311	GWR		850
	COLLINGSWOOD BOROUGH	5100031	6	395526	750424		4.7	07	12	281	GWR		1000
	COLLINGSWOOD BOROUGH	3104799	7	395521	750439		4.8	07	12	312	GWR		1000
5302	CAMDEN CITY, WATER DIVISION	5100050	MORRIS 1	395944	750211		0.7	07	27	107	GWR		1600
	CAMDEN CITY, WATER DIVISION	3100945	MORRIS 3	395933	750229		0.4	07	27	107	GWR		1800
	CAMDEN CITY, WATER DIVISION	3104252	MORRIS 4	395929	750253		0.4	07	27	134	GWR		1600
	CAMDEN CITY, WATER DIVISION	5100051	MORRIS 6	395900	750318		0.7	07	27	139	GWR		1700
	CAMDEN CITY, WATER DIVISION	5100052	MORRIS 7	395916	750303		0.4	07	27	125	GWR		1650
	CAMDEN CITY, WATER DIVISION	3100944	MORRIS 9	395910	750307		0.4	07	27	129	GWR		1670
	CAMDEN CITY, WATER DIVISION	3104251	MORRIS 10	395919	750302		0.4	07	27	118	GWR		1400
	CAMDEN CITY, WATER DIVISION	5100076	MORRIS 9	395906	750313		0.6	07	27	148	GWR		1670
	CAMDEN CITY, WATER DIVISION	3116814	MORRIS 12	395914	750324		0.7	07	27	122	GWR		2020
	CAMDEN CITY, WATER DIVISION	3115745	MORRIS 11	395900	750325		0.8	07	27	149	GWR		2030
	CAMDEN CITY, WATER DIVISION	3116813	MORRIS 13	395905	750333		0.8	07	27	135	GWR		2060
	CAMDEN CITY, WATER DIVISION	5100053	DELAIR 1	395849	750347		1.1	07	27	141	GWR		1690
	CAMDEN CITY, WATER DIVISION	5100054	DELAIR 2	395851	750355		1.2	07	27	146	GWR		1830
	CAMDEN CITY, WATER DIVISION	5100055	DELAIR 3	395853	750348		1.1	07	27	135	GWR		1830
	CAMDEN CITY, WATER DIVISION	5100056	PUCHACK 1	395845	750312		0.8	07	27	141	GWR		1500
	CAMDEN CITY, WATER DIVISION	5100057	PUCHACK 2	395842	750312		0.8	07	27	169	GWR		1000
	CAMDEN CITY, WATER DIVISION	5100058	PUCHACK 3	395840	750307		0.8	07	27	176	GWR		1280
	CAMDEN CITY, WATER DIVISION	5100059	PUCHACK 5	395835	750308		0.9	07	27	186	GWR		1324
	CAMDEN CITY, WATER DIVISION	3108526A	PUCHACK 7	395835	750302		0.8	07	27	180	GWR		2260
	CAMDEN CITY, WATER DIVISION	5100060	CITY 7	395457	750640		6.1	07	08	163	GWR		1500
	CAMDEN CITY, WATER DIVISION	5100061	CITY 11	395512	750640		5.8	07	08	159	GWR		1010
	CAMDEN CITY, WATER DIVISION	3100904	CITY 13	395537	750635		4.6	07	08	230	GWR		1200
	CAMDEN CITY, WATER DIVISION	3101250	CITY 17	395546	750633		4.8	07	08	270	GWR		1500
	CAMDEN CITY, WATER DIVISION	3109574	CITY 18	395550	750637		4.7	07	08	290	GWR		1200
	CAMDEN CITY, WATER DIVISION	3104649	CITY 5	395457	750640		6.1	07	08	171	GWR		1100
5305	MERCHANTVILLE-PENNSAUKEN	3104642	WOODBINE 1	395652	750307		2.8	07	24	258	GWR		1000
	MERCHANTVILLE-PENNSAUKEN	3114563	WOODBINE 2	395652	750307		2.8	07	24	227	GWR		1000

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
BU0008	HUNTER, JOHN	POND 1	POND 1	400038	745945	F	3.0	05	08	12	SDDEL		600
BU0024	RUES BROTHERS	PANCOCAS CREEK	STREAM 1	400240	745660	T	6.3	05	09		SDRAN		
BU0050	VARSACI, F & M	PANCOCAS CREEK	STREAM 1	400245	745715	F	6.2	05	12		SDRAN		
BU0058	FARM SOLD	STREAM 1	STREAM 1	395805	750015	F	2.5	05	24		SDRAN		
	FARM SOLD	POND 1	POND 1	395805	750015	F	2.5	05	24	15	GWET		

Number of Observations: 116

Page 1 of NJGS CASE INDEX SITES WITHIN 5.0 MILES OF 395915 LAT. 750237 LON. AS OF 12/22/87 (IN ORDER BY SITE NUMBER) - 04/17/91

SITENUM	NAME	LAT	LON	DISTANCE	CONTAM	FNCODE1	FNCODE2	STATUS1	STATUS2
254	CINNAMINSON WELL CONTAMINATION, BURLINGTON CO.	400050	745840	3.9	00	2080	0	1	E
382	CAMDEN MUNICIPAL WELLS, CAMDEN CITY, CAMDEN CO.	395716	750620	4.0	00	0102	2080	1	
450	CONRAIL, FAVONIA YARD, CAMDEN, CAMDEN CO.	395648	750558	4.1	53	103	180	1	
527	SGL MODERN HARD CHROME SERVICE, PENNSAUKEN, CAMDEN CO.	395742	750400	2.2	39	2080	0	9	
566	SHOFE OIL AND CHEMICAL, PENNSAUKEN, CAMDEN CO.	395856	750208	0.6	00	2080	0	1	E
580	HOEGANAES-INTERLAKE, CINNAMINSON TWP., BURLINGTON CO.	400120	745918	3.8	00	2080	0	9	
657	CAMDEN'S PUCHACK WELL FIELD, CAMDEN CO.	395840	750255	0.7	39	2080	0	1	
727	HARRISON AVE. LANDFILL, CAMDEN, CAMDEN CO.	395713	750620	4.0	0	2080	0	9	
801	KEM FASTENING SYSTEMS, MOORESTOWN, BURLINGTON CO.	395811	745915	4.0	00	2050	2080	1	B
802	LANGSTON DIV-MOLING MACHINE CO., CAMDEN, CAMDEN CO.	395727	750511	3.1	00	2080		1	B
910	MERCHANTVILLE/PENNSAUKEN WATER COMMISION, PENNSAUKEN, CAMDEN CO.	395853	750202	0.7	00	0102	2080	1	C
911	PENLAR ANODIZING, PENNSAUKEN, CAMDEN CO.	395850	750230	0.5	00	2080	0	1	C
932	MAPLE SHADE AMOCO, HIGHLAND PARK, MIDDLESEX CO.	395600	75 0	4.4	0	0	0	3	
1068	GARDEN STATE MOTORS, PENNSAUKEN, CAMDEN CO.	395945	750234	0.6	53	2080	0	1	B
1148	SHELL SERVICE STATION, RT 130 & BORWING RD, PENNSAUKEN, CAMDEN CO.	395748	750347	2.0	51			3	
1218	NEW JERSEY WATER COMPANY, RIVERTON-PALMYRA, BURLINGTON CO.	400015	750015	2.4	05	2088		1	
1268	ADVANCED CHEMICAL TECHNOLOGY, CAMDEN CITY, CAMDEN CO.	395655	750606	4.0	68	0102	2080	1	B
1269	ADVANCED PROCESS SUPPLY, PENNSAUKEN, CAMDEN CO.	395830	750316	1.0	00	2090		1	B

Number of Observations: 18

ATTACHMENT A

West Jersey Title and Guaranty Company

CAMDEN, NEW JERSEY

App. No. 218663 Policy No. 268669 Amount, $ [redacted]

This Policy of Title Insurance *WITNESSETH THAT* West Jersey Title and Guaranty Company (hereinafter called the Company) in consideration of the payment of its premium for insuring the title to the land hereinafter described in Schedule A of this Policy, hereby covenants that it will indemnify, keep harmless and insure DESOTO CHEMICAL COATINGS, INC., a corporation under and by virtue of the laws of the State of Delaware,

(hereinafter called the insured)
~~and all persons or corporations lawfully claiming the estate and property hereinafter mentioned under~~ by descent or will, and all persons to whom this Policy may be transferred with the assent of this Company, testified by the signatures of its proper officers, endorsed thereon, against all loss or damage, not exceeding THREE HUNDRED THOUSAND - dollars, which the said Insured shall sustain by reason of defects in or unmarketability of the title of the Insured to the estate, mortgage or interest described in Schedule A, hereto annexed, or because of liens or encumbrances charging the same at the date of this Policy;—saving estates, defects, objections, liens or encumbrances excepted in Schedule B or by the Conditions and Provisions of this Policy, hereto annexed; which Schedules, Conditions and Provisions are hereby incorporated into and made part of this Contract. The loss and the amount to be ascertained in the manner provided in the said Conditions and Provisions and to be payable upon compliance by the Insured with the stipulations of said Conditions and Provisions and not otherwise.

This Policy is issued upon an application by or in behalf of the Insured, numbered 218663 and agreed by all persons or corporations claiming under this Policy to be a warranty of the facts therein stated.

IN WITNESS WHEREOF, West Jersey Title and Guaranty Company has caused its common seal to be hereunto affixed, and these presents to be signed by its President and Secretary, this twenty-eighth day of March in the year of our Lord one thousand nine hundred and sixty-three.

President

Secretary

SCHEDULE A

1. The Estate or Interest of Insured covered by this Policy.

   Estate in fee simple.

2. How Title is vested in the Insured.

   By Four Deeds:
   One Deed from George B. Robeson and Marie K., his wife, dated March 27, 1963, recorded March 28, 1963 in the Register's Office of Camden County in Book 2614 of Deeds, page 332.
   One Deed of Easement from George B. Robeson and Marie K., his wife, dated March 27, 1963, recorded March 28, 1963 in the said Office in Book 2614 of Deeds, page 332.
   The other Deed from George B. Robeson and Marie K., his wife and Philip B. Robeson and Lesley W., his wife, dated March 27, 1963, recorded March 28, 1963 in Book 2614 of Deeds, page 338.
   And the other Deed of Easement from George B. Robeson and Marie K., his wife and Philip B. Robeson and Lesley W., his wife, dated March 27, 1963, recorded March 28, 1963 in Book 2614 of Deeds, page 338.

~~3. Description of the property insured.~~

3. Description of the property insured.

   Premises situate in the Township of Pennsauken, County of Camden and State of New Jersey; described as set forth in the Schedule attached hereto.

SCHEDULE B

Showing estates, defects or objections to title, and liens, charges and encumbrances thereon, which do or may now exist, and against which the Company does not agree to insure or indemnify.

1. ANY VARIATION in location of lines, or dimensions and any other objections and easements which an accurate survey approved by this Company would disclose, or which are visible, or are known to the Insured. Affects Easements 1 to 4 inclusive.

2. AGREEMENT: Between Fidelity Corporation, a corporation of New Jersey and Public Service Electric and Gas Company, a corporation of New Jersey, dated February 25, 1954, recorded March 8, 1954 in Deed Book 1807, page 439 &c. Affects Easement No. 3.

3. EASEMENT in Deed from Rebecca A. Beckenbach, widow of Jacob A. Beckenbach, and others, to City of Camden, dated October 28, 1896, recorded October 29, 1896 in Deed Book 216, page 58 &c. Affects Easement No. 4.

4. SLOPE and drainage rights as reserved in Deed from County of Camden, to The Township of Pennsauken in the County of Camden, dated June 30, 1955, recorded in Book 1934, page 466. Affects Tract of 21.160 Acres and Easement No.2.

5. FLOODING and drainage rights, if any, in Pennsauken Creek or in any stream or water course crossing or affecting Easement No. [illegible]

ATTACHMENT A

6. JURISDICTION and rights of the United States of America in that part of Easement No. 4 lying below high water mark of Pennsauken Creek, claimed as navigable water and so to be maintained.

dated March 27, 1963, recorded March 28, 1963 in Book 2614, page 338.

13. RIGHTS of the State of New Jersey in that part of Easement #4 lying below high water mark of Pennsauken Creek.

WEST JERSEY TITLE AND GUARANTY COMPANY

By- Joseph E. Lewellen

Joseph E. Lewellen, Secretary.

A2

ATTACHMENT B

(19)

GENERAL INFORMATION SUBMISSION

1. Facility: DeSoto, Inc.
8600 River Road
Pennsauken, New Jersey 08110

(609-665-6700)

Township: Pennsauken

County: Camden

Latitude and Longitude: A full legal description of the Site is provided as Attachment A

Owner: DeSoto, Inc.
1700 South Mt. Prospect Road
Des Plaines, Illinois 60018

(312-391-9000)

Standard Industrial Classification:
2851 Paint Manufacturing
2841 Detergent Manufacturing

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2. The Site was undeveloped land when purchased by DeSoto. Immediately afterwards, the paint manufacturing facility was constructed by DeSoto for its exclusive use. As such, there are no previous owners or operators nor any known former operations at the Site.

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3. A decision to close the Site was announced on February 4, 1982. DeSoto's right to close the facility was then challanged by the labor union representing the employees. A judicial order prohibiting the closing (but not ordering the resumption of

ATTACHMENT B1

manufacturing operations) of the facility was issued. For the next two years the matter worked its way through the Courts as well as through the National Labor Relations Board, until both reached a decision in 1984 allowing the actual "closing" of the facility on economic grounds.

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4. There is no current agreement to sell, lease or otherwise transfer the property to other parties. However, DeSoto wishes to do so as soon as a purchaser can be found.

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5. Since there is no current agreement to sell the property, there is no date known to us at this time when the transfer will occur.

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6. The following is the name and other appropriate information regarding the agent authorized to work with the Department concerning the provisions of ECRA.

Kenneth A. Walanski, P.E.
Corporate Environmental Engineer
DeSoto, Inc.
1700 South Mt. Prospect Road
Des Plaines, Illinois 60018
(312-391-9334)

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7. The following is a list of all federal and state environmental permits applied for and received throughout the history of DeSoto's ownership of the site.

a) U.S. Environmental Protection Agency
Hazardous Waste Permit Application, Part A

B2

Permit Application Date: November 5, 1980
Permit Approval or Denial: Yes, Part A only
Permit Expiration Date: Not Applicable
Permit Identification Number: NJD005440342

b) Pennsauken Sewerage Authority
Municipal Building
5605 N. Crescent Boulevard
Pennsauken, New Jersey 08110

i) Permit to locate Factory and to Discharge Wastewater
Permit Application Date: September 8, 1972
Permit Approval: Yes
Permit Expiration Date: None
Permit Identification Number: None

ii) Application to Discharge Waste In the Municipal Sewage Collection System
Permit Application Date: August 25, 1977
Permit Approval: Unknown
Permit Expiration Date: Unknown
Permit Identification Number: Unknown

c) State of New Jersey
Department of Environmental Protection
Division of Environmental Quality
John Fitch Plaza
P.O. Box 1390
Trenton, New Jersey 08625

Permit to operate air pollution control Apparatus or Equipment
Permit Application Date: March 16, 1971
Permit Approval: Yes, September 12, 1972
Permit Expiration Date: September 12, 1977
Permit Identification Number: P-4860

d) State of New Jersey
Department of Environmental Protection
Division of Environmental Quality
John Fitch Plaza
P.O. Box 2807
Trenton, New Jersey 08625

Application for a "Permit to Construct, Install or Alter Control Apparatus or Equipment". DeSoto was seeking permission to install conservation vents and bottom filling pipes to bulk solvent storage tanks, as well as

B3

permission to paint the tanks white in accordance with applicable air pollution regulations.

Permit Application Date: July 20, 1976
Permit Approval: No
Permit Disapproval Date: August 10, 1976
Reason for Disapproval: Organic emissions from tanks were judged to be in excess of those allowed by codes.

Resolution of Matter: All industrial solvent-borne coatings manufacturing operations at the Site were permanently discontinued, thereby eliminating the need for the storage tanks.

e) State of New Jersey
Department of Environmental Protection
Division of Water Resources
P.O. Box CN-029
Trenton, New Jersey 08625

NJPDES/Significant Industrial User
for discharge of wastewater to a POTW
Permit Application Date: July 27, 1981
Permit Approval: No
Reason: Operations at the Site ceased, and as such there was no reason to pursue permitting.

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8. The following is a list of all New Jersey Department of Environmental Protection, or other governmental enforcement actions for violation of any applicable federal, state or local environmental laws or regulations throughout the history of ownership of the Site.

a) U.S. EPA
Region II
26 Federal Plaza
New York, New York 10007

On December 5, 1973, the Site was notified by the U.S. EPA that they did not have an NPDES permit for the discharging of wastewater to a federally controlled surface water. The Site formally responded, saying that they were not a point source under applicable laws and regulations, and discharged wastewater only to sewer. The U.S. EPA took no furthur action and the matter was resolved.

B4

b) Pennsauken Sewerage Authority
Municipal Building
5605 North Crescent Boulevard
Pennsauken, New Jersey 08110

On May 4, 1972, the Pennsauken Sewerage Authority notified the Site that they were in violation of local regulations because of latex paint waste discharges to the sewerage system. In response to the communication, DeSoto installed a physical-chemical wastewater treatment system to remove pollutants for the plant effluent. This action brought the Site into full compliance with the requirements of the PSA.

c) State of New Jersey
Department of Law and Public Safety
Division of Law
Environmental Protection Section
36 West State Street
Trenton, New Jersey 08625

In 1977, in response to complaints from residents in the vicinity of the Site, the New Jersey Department of Environmental Protection alledged that organic emissions and odors in excess of those allowed by the regulations were being emitted from the solvent-borne coatings manufacturing operations at the Facility. DeSoto believed, and still maintains, that the source of the odors was an adjacent manufacturing facility which had numerous and large spray painting operations using solvent-borne coatings.

In subsequent meetings between DeSoto and the Department, a compliance plan was developed which included certain physical and operational changes at the facility. DeSoto agreed to all of these. On March 9, 1977, a complaint was filed in Superior Court on behalf of the Department of Environmental Protection. This complaint was filed in order to legally bind DeSoto in a Consent Judgement to the agreed upon corrective measures.

The Consent Judgement was signed by DeSoto, and most of the corrective measures were taken in accordance with its provisions. However, shortly thereafter a management decision was made to discontinue the manufacture of industrial solvent-borne coatings at the Site. Consequently, the matter was resolved to the satisfaction of the Department of Environmental Protection.

d) State of New Jersey
Department of Environmental Protection
Division of Waste Management

B5

120 Rt. 156
Yardville, New Jersey 08620

On September 9, 1983, the Department of Environmental Protection notified the Site that it had failed to submit a Hazardous Waste Generator Annual Report for calendar year 1982. In response to the notice, an annual report was filed.

e) State of New Jersey
Department of Environmental Protection
Division of Waste Management
120 Rt. 156
Yardville, New Jersey 08620

On September 6, 1983, the Department of Environmantal Protection notified the Site of its failure to establish financial assurance for closure and post-closure and to demonstrate financial responsibility for claims. In response to the notice, the instruments were filed which were necessary to demonstrate compliance with the financial responsibility provisions of the State's hazardous waste regulations.

f) State of New Jersey
Department of Environmental Protection
Division of Waste Management
120 Rt. 156
CN 402
Yardville, New Jersey 08625

On October 29, 1982, the Department of Environmental Protection notified the Site of its failure to submit an annual report for calendar year 1981. In response to the notice, an annual report was submitted.

SITE EVALUATION SUBMISSION

9. A scale map identifying all area where hazardous substances or waste were generated, manufactured, refined, transported, treated, stored, handled or disposed, above or below ground is attached.

B6

10. All manufacturing at the Facility ceased on February 4, 1982, when DeSoto intended to close the plant due to its uneconomical operation. Subsequent legal and administrative action taken by the labor union representing the employees, in which they demanded the full resumption of all operations, delayed formal "closing" until 1984, when the Courts and the National Labor Relations Board ruled that DeSoto would not have to resume operations there.

The following is a detailed description of the two individual manufacturing operations which were conducted at the Site, i.e. 1) paint and coatings manufacturing and 2) solid detergent manufacturing from the Facility's opening on January 3, 1964, until all regular operations ceased on February 4, 1982.

PAINT MANUFACTURING

On January 3, 1964, DeSoto began waterborne and solvent-borne paint manufacturing operations at its newly constructed Pennsauken Plant. The plant was designed to produce water-borne and solvent-borne coatings for the do-it-yourself consumer market and solvent-borne coatings for industiral applications. The physical facility contained several discrete operational and processing components relating to the production, storage, and shipment of coatings. These are:

Raw Material Storage The manufacture of paints is essentially a blending operation in which liquid, solid and semi-solid raw materials are combined to produce a finished product. For storing these raw materials the Facility had (1) an indoor dry raw material storage area for pallet loads of bagged dry solids; (2) indoor bulk storage tanks for non-combustible liquids such as latex emulsions; (3) outdoor bulk storage tanks below grade for flammable raw materials, primarily organic solvents; (4) indoor bulk storage tanks for titanium dioxide slurry, and (5) indoor storage of drummed liquids which could not be economically managed in bulk.

Bagging Dry raw materials were removed from their bags in an operation which was inappropriately referred to as "bagging". A worker would cut open the bags in a hooded area and empty its contents into the high speed disperser, which would blend the pigment particles with a vehicle by wetting the particles and forming a slurry.

B7

Pigment Dispersion The next step in paint manufacturing is the dispersion of dry solid pigments such as titanium dioxide, silicas, etc. in water if the paint is to be a "latex", or in organic solvent if the coating is to be an "Oil" based product. This was also commonly known as the "grinding" step and was intended to wet the pigment particles in order to suspend them in the vehicle.

Water-borne pigment dispersions were made in high-sheer mixers, known as Hockmeyers after their manufacturer. An extremely viscous paste-like material was produced which would be used in the next step in the manufacturing operation.

Solvent-borne pigment dispersions were made in sand mills or in ball mills. In addition to dispersing the pigments in an organic solvent, some size reduction is affected in a ball mill.

Thin-Down Tanks After dispersion of the pigments in a vehicle, the material is transferred to tanks where furthur additions of raw materials are made. These tanks are known in the jargon of the coatings industry as "thin-down" or sometimes "let-down" tanks. These tanks are as large as the particular batch of coating to be made, ranging in size to 6000 gallons.

In the manufacture of latex paint, the latex emulsion, coloring agents and water are added and mixed in the thin-down tanks. In the production of solvent-borne coatings, the resin, colorants and organic solvent are added. The material in the thin-down tanks is finished product, i.e. a paint or coating, which is temporarily stored there until it is filled into cans, drums, or bulk transport vehicle.

Filling Area A large portion of the production area is dedicated to filling. For latex paint, there were two automated filling lines which fill, label and pack gallons or quarts of paint. A single, non-automatic filling line for two gallon "pails" was also used. Solvent-borne coatings for the consumer market were also filled in automatic lines, while industrial products were filled into drums or tank wagons.

Warehouse After filling, the coatings are sent to the warehouse part of the Facility for storage prior to shipment.

Shipping Docks for the loading of shipments onto trucks were also an integral part of the Facility.

Laboratory The Facility contained a fully equipped quality control laboratory for analysis of incoming raw materials and for finished products. The laboratory was responsible for determining the make-up of "hits" to the thin-down tanks, i.e.

the amount of colorants, emulsion, etc. in order to produce a quality product.

Office The Facility contained a large office for administration of their day to day affairs. This included payroll, ordering, personnel administration, etc.

DETERGENT MANUFACTURING

In 1971, a dry solids detergent manufacturing operation was added to the Pennsauken Plant. The process is a proprietary one, designed to produce a high density product for the consumer market by continuously blending sodium carbonate, silicates and additives. The following are the component elements for the overall process.

Raw Material Storage Solid sodium carbonate was stored in an outdoor bulk storage tank. Liquid sodium silicate was also stored in bulk. Perfumes and other minor additives were stored in drums.

Raw Material Unloading Dry and liquid raw materials were brought to the Facility in bulk, either by railcar or by tank wagon. A dedicated railroad siding was used for this purpose. Dry sodium carbonate was mechanically conveyed to the bulk storage outside bulk storage tank.

Blending A Patterson-Kelly continuous blender formed the heart of the manufacturing process. In it the sodium carbonate, sodium silicate, perfumes and additives were mixed and reacted exothermically at a temperature slightly above ambient, producing the high density solid detergent.

Cooling After being blended and reacted, the product was cooled in a continuous cooling reel to essentially ambient. Room air, drawn into the cooling reel, was the cooling medium and it was discharged into a baghouse to prevent the release of particulates.

Finished Product Storage Upon exiting the cooling reel, the finished product was conveyed to a bulk storage tank which were located on the exterior of the building.

B9

Filling and Packaging A semi-automatic line was used to fill and package the detergents.

Warehouse and Shipping After packaging, the detergents were pallatized and sent to the warehouse for storage. Later, as a function of orders, the detergents were shipped to stores for ultimate sale to the consumer.

Hazardous Substance and Waste Generation, Manufacturing, Refining, Transportation, Treatment, Storage and Handling on Site

During the manufacture of solvent-borne coatings, hazardous substances were used, transported, stored and handled on site. In addition, hazardous wastes were also generated and stored on site. However, no hazardous wastes were ever disposed of on site. The following is a complete and detailed description of the individual operations which involved hazardous substances or wastes.

Solvent-Borne Paint Manufacturing In the manufacture of solvent-borne coatings, organic solvents such as toluene, methyl ethyl ketone, xylene and mineral spirits were used as a vehicle and as such were an integral part of the coatings.

a) Storage: These solvents were stored either in outside underground tanks or in drums when only limited quantities were needed. They were also transported from the underground storage tanks to the production area by means of hard piping.

b) Wash Solvent: A clean but low-grade mixture of organic solvents was used to clean the ball mills, sand mills, thin down tanks and associated equipment between batches. Because of the cost of virgin solvents, this mixture was ordinarily reclaimed solvent and was known appropriately as "wash solvent". The dirty wash solvent was pumped to one of two outside bulk storage tanks where it was temporarily held until the reclaiming company could transport it to the site of their operation.

c) Off-Spec Coatings: Occasionally, coatings were returned because of age or condition. Such "off-spec" or "distressed" materials could be reused in other batches of similar paint or coatings, and in that way the value of the raw materials would be recovered. If the off-spec coating could not be reused in this manner, it was sent off-site for disposal.

d) Laboratory: Chemicals were routinely used in the laboratory, and mixtures, reagents, samples, etc. required disposal. These were sent for disposal as "lab packs".

B10

Water-Borne Coatings Manufacturing The manufacture of latex paints closely parallels the steps used to make solvent borne coatings, except that ball and sand mills are not used and water, rather than organic solvent, is used as the vehicle. However, none of the raw materials used in latex paints is a hazardous substance, the principle components being latex emulsion, titanium dioxide, silicas, additives, and water.

a) Storage: Liquid raw materials which were used in large quantities were stored in bulk storage tanks, indoors, to prevent them from freezing. Titanium dioxide slurry, approximately 50% water and 50% titanium dioxide, was also stored in bulk. Dry raw materials were stored indoors in paper bags, on pallets until used.

No hazardous substances were used in the manufacture of latex paint, and consequently none were stored.

b) Wash Water: Tanks and equipment dedicated to the manufacture of latex paint require cleaning between batches, unless the rinse water is assimilateable in a next batch. This wash, or "rinse" water was handled in one of two ways. It would either be a) sent to a holding tank, where it would be accumulated with other compatible rinse water and later used in the manufacture of other batches of paint. This wash water has been referred to as "reuse water". Alternatively, if the quality of the wash water was such that it could not be combined and reused, it was pumped to the wastewater treatment system.

The wastewater treatment system is a classical physical-chemical one, utilizing two 5000 gallon tanks and a polyelectrolyte as a flocculating agent. One tank was used as the rapid mix tank, and the other the clarifier and sludge concentrator. Clarified supernatant was discharged to the Pennsauken Sanitary District, and sludge was sent for disposal to a local landfill.

In 1981, an experimental secondary and tertiary wastewater treatment system was installed. After physical-chemical treatment, the effluent was pumped to a ultrafiltration system, followed by carbon absorption. This system was not totally operational before manufacturing ceased and as such the process was never fully evaluated.

Neither the wastewater from the manufacture of latex paint, or the sludge generated by the treatment of it, was classified as a hazardous waste according to New Jersey or Federal regulations. Additionally, neither was a hazardous substance according to the regulations.

c) Off-Specification Coatings: Occasionally, latex paint would be returned to the Site because of age or condition. This "distressed" material was evaluated to determine if it could be

B11

incorporated into new batches of paint, and in that way we could recover the cost of the raw materials. If it was determined that the paint would not be reused, it was sent off-site for ultimate disposal. Since latex paints are not hazardous substances or hazardous wastes, they were sent to a local landfill after receiving permission to do so.

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11. The Site has no vessels, surface impoundments, secured landfills, or other types of stroage facilities containing hazardous substances or hazardous wastes remaining.

During the course of its operation, the Site contained vessels, i.e. tanks, which were used to store hazardous substances. However, all hazardous substances were removed from these vessels either in 1977, when all industrial sovlvent-borne paint production stopped at the Site, or in 1982 when all operations totally ceased.

In 1980, the Site filed a "Notification of Harardous Waste Activity" as a hazardous waste generator and a "Part A Application" as a hazardous waste storage site. This was done because hazardous waste was generated and subsequently stored in drums on-site for longer than ninety days prior to off-site disposal. All hazardous wastes have been removed and formal hazardous waste site closure has been undertaken (documents attached) and formally approved by the State of New Jersey.

---

12. No hazardous substances or hazardous wastes remain on the Site.

The following is a description and inventory, based on available records, of hazardous substances and wastes which were generated, refined, transported, treated, stored, handled, above or below ground at the Site.

a) No inventory exists for the quantities and types of organic solvents which were used at the Site in the production of coatings. These business records, to the best of our knowledge, do not exist.

b) No hazardous substances or wastes were treated at the Site.

B12

c) The only available information relating to the shipment

of hazardous substances to the site is the attached document "Inventory of Shipments to and from the Swope Oil and Chemical Co." The other hazardous substances shipped to the Site were those used as raw materials in the manufacture of coatings, and no records for such shipments exist.

d) Hazardous substances transported off the site include solvent-borne coatings, an inventory and discription of which does not, to the best of our knowledge, exist.

e) An inventory and description of hazardous wastes generated and transported off the Site, is shown in the two attached documents. These are (1) Inventory of Shipments to and from the Swope Oil and Chemical Co., and (2) copies of the hazardous waste manifests for all such shipments since the adoption of those regulations.

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13. To the best of our knowledge, no spill of a hazardous substance or hazardous waste occurred during the years in which the Site was operated.

---

14. Because the Site was fully paved and manufacturing activity was contained within a building, no soil, groundwater or surface water sampling plan is intended.

The City of Pennsauken, in conjunction with its operation of landfill, has installed a groundwater monitoring well on the Site. DeSoto has not been provided (nor have we requested) any data from the well. This well was designed to provide data on potential subsurface migration of pollutants from the landfill and not from the DeSoto Site.

DeSoto proposes that the Department of Environmental Protection not require sampling or a sampling plan pursuant to N.J.A.C. 7:1-3.7(d)14, for soil, groundwater, surface water and air for the following reasons.

a) All of the hazardous substances and hazardous wastes have been removed from the Site, pursuant to the Facility's Hazardous Waste Closure Plan, and the liability provisions of the federal Superfund Act.

b) All tanks, lines, pumps, equipment etc., have been decontaminated, resulting in a clean manufacturing facility. B13

c) The facility is essentially enclosed within the confines of a building. Therefore, almost all activity relating to the handling, generation, transportation and storage of hazardous substances and wastes took place on concrete flooring, with little opportunity for migration to the subsurface.

d) Groundwater contamination, given the extremely remote possibility that it could have occurred during the course of life of the facility, would be detectable by the groundwater monitoring well which is owned and operated by the county. To the best of our knowledge, no such contamination has been found.

ON-SITE well monitors adjacent landfill — [illegible]

---

15. The following is a detailed description of the procedures which were used to decontaminate and/or decommission equipment and buildings involved with the generation, manufacture, refining, transportation, treatment, storage, handling or disposal of hazardous waste or hazardous substances.

a) All hazardous waste has been removed from the Site and decontamination procedures completed in accordance with the Facility Closure Plan. Formal Closure has been requested and granted by the New Jersey Department of Environmental Protection.

b) All tanks, lines, pumps and equipment involved in the production of solvent-borne coatings, and remaining off-specification paint were emptied and cleaned. Wash solvent was sent to:

Swope Oil and Chemical Co,
Pennsauken, New Jersey

c) Solidified solvent based paint was sent to:

Cecos International
5647 North 56th Street
Niagra Falls, New York 14303

d) Laboratory chemicals were sent either of the following locactions:

Advance Environmental Tech. Corp
Goldmine Road
Mt. Olive, New Jersey 07836

Emergency & Technical Services Corp.

B14

Route 515
Vernon, New Jersey 07462

e) Many bulk storage tanks have been removed and sent to other DeSoto manufacturing locations in order to reuse them.

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16. No soil, groundwater, or surface water sampling was, to the best of our knowledge, ever conducted at the facility. Also, the facility was not a direct discharger of wastewater to a surface water, and as such no effluent quality monitoring was ever conducted.

B15

ATTACHMENT C

Form DWM-051
1/86

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INVESTIGATION

CASE #: _____

DWM FILE #: 04-27-12

TIME ARRIVED: 1520

INVESTIGATOR: S. FROW

DATE: 5/4/87

TIME DEPARTED: 1535

LOCATION: (DESOTO INC.)

PROPERTY OWNER: _____

ADDRESS: 8600 River Road

MAILING ADDRESS: _____

Pennsauken County - Camden

BLOCK: 248Z LOT: 5

RESPONSIBLE PARTY _____

LOCATION TELEPHONE #: _____

ADDRESS: _____

EPA ID #: NJD 005 440 342

LOCAL HEALTH DEPT. REP. _____

TELEPHONE #: _____

ORIGIN OF COMPLAINT: _____

TELEPHONE #: _____

NATURE OF COMPLAINT: Limited RCRA Facility Assessment

PHOTOGRAPHS TAKEN: _____

SAMPLE #: _____

FINDINGS: Arrived at the site at approx 1520 hrs. Facility at 8600 River Road is no longer DESOTO, is now occupied by Esther Williams Pools & SPAs and JOHNNY WEISSMULLER PRODUCTS which are both affiliated with Aluminum Shapes INC.

The facility is bounded by Aluminum Shapes Inc at 9000 River Road and John Tipton Blvd at the edge of Pennsauken Industrial Park. The facility looks to be very well kept and may be able to accommodate RAIL shipments. There was no evidence of dumping on the property. This writer secured from the area at approx. 1535 hrs.

Review of the file indicates that DESOTO, INC went through a complete closure of all hazardous waste areas under the direction of BHWE and was delisted 9/10/84. The property was subsequently sold to Aluminum Shapes, Inc. Review of previous RCRA inspections indicates that the overall housekeeping practices of DESOTO INC were excellent and that all applicable regulations were complied with. No forwarding address is available.

Terry Ostrander 5/28/87
Supervisor Signature

Investigator Signature

COPIES: White - DWM File Yellow - Local Health Dept. Pink - Investigator

ATTACHMENT C1

①

SUMMARY OF FINDINGS

FACILITY DESCRIPTION AND OPERATIONS

On September 10, 1984 De Soto, Inc was delisted as a TSD Facility by the Bureau of Hazardous Waste Engineering. A copy of the notification is attached.

Upon arriving at the facility I was stopped at the gate by the guard. I was informed that the facility is no longer De Soto, Inc. Evidently De Soto went out of business and this property is now owned by Aluminium Shapes, Inc. The facility is to be operated by Ester Willions Pools, Inc.

After leaving the facility I proceeded to the Pennsauken Municipal Office, Tax Assessor. I was informed that Aluminium Shapes, Inc. purchased the property on 11/20/84. The person in this office did not have a forwarding address.

ATTACHMENT D

AGREEMENT OF SALE AND PURCHASE

AGREEMENT made this 30th day of August, 1984, between DESOTO, INC. a Delaware corporation, ("Seller"), and ALUMINUM SHAPES, INC., a New Jersey corporation, or its assignee or nominee ("Purchaser").

BACKGROUND:

In consideration of the covenants contained herein, the parties agree as follows:

1. Agreement to Sell and Purchase. Seller agrees to sell to Purchaser, and Purchaser agrees to purchase from Seller, subject to the terms and conditions of this agreement, the property situate at 8600 River Road, Pennsauken, New Jersey, consisting of the following:

(a) The tract of land more fully described by metes and bounds on Exhibit A hereto, with the buildings, fixtures and other improvements situate thereon (said tract of land and said buildings, fixtures and improvements being hereafter collectively referred to as the "Real Property"); together with all right, title and interest of Seller in and to any land lying in the bed of any highway, street, road or avenue,

ATTACHMENT D1

ATTACHMENT E

31

ADM-012

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO File

FROM William Sharples William Sharples DATE April 5, 1984

SUBJECT DeSoto, Inc., Chemical Coatings Division, 8600 River Road, Pennsauken, NJ - EPA ID NO. NJD005440342

The above subject facility submitted to the Bureau a closure certification for hazardous waste drum storage, tank storage and tank treatment on March 21, 1984.

On April 3, 1984 the writer performed an engineering inspection with Mr. Anthony Portella, Maintenance Manager of the subject facility. According to Mr. Portella the subject facility has been closed or inactive for the past two years. The facility used to generate oil and water base paints/coatings waste. This waste was stored in four mixing tanks then transferred to two settling tanks where ultrafiltration or pigment removal occurred prior to reuse of the water base in other paints. Drummed wastes were stored outdoors on a blacktop pad. Two tanks located outdoors in a diked area were used to store waste solvents.

To date all tanks are empty and no drums exist on-site.

ATTACHMENT E1

ATTACHMENT F

04-

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
26 FEDERAL PLAZA
NEW YORK NEW YORK 10278

APR 8 1982

Irving P. Schwerd, Plant Manager
5003 River Road
Pennsauken, NJ 08110

Re:
Jesco Inc.
EPA Identification number: NJD053440342
Facility located at : Pennsauken, NJ

Inspection performed on : September 18, 1981

Dear Sir or Madam:

The Environmental Protection Agency ("EPA") is charged with responsibility for implementing the Solid Waste Disposal Act, as amended, 42 U.S.C. §6901 et seq. ("the Act"). [Note: Among the statutes amending the Act is the Resource Conservation and Recovery Act ("RCRA"), 90 Stat. 2795, P.L. 94-580 (1976).]

In accordance with this responsibility, an inspection was performed at the above-referenced facility ('the facility") by a duly authorized representative of the EPA pursuant to Section 3007 of the Act. On the basis of this inspection, the Director of the Enforcement Division of the EPA Region II office has determined that you have violated Section 3005 of the Act, 42 U.S.C. §6925 and the regulation promulgated thereunder, as specified by the checked boxes on the following pages.

1. By notification you informed EPA that you conduct activities at the facilit involving "hazardous waste," as that term is defined in Section 1004(5) of the Act 42 U.S.C. §6904(5) and in 40 CFR §261.3. By the submittal of a Part A application pursuant to the requirements of 40 CFR Part 122, you requested a permit to conduct such hazardous waste activities.

2. The above-referenced inspection revealed that your facility was being used f the treatment, storage, or disposal of hazardous waste.

3. 40 CFR Part 265 sets interim status standards for treatment, storage and disposal facilities for hazardous wastes. These interim status standards apply until final administrative disposition of permit applications submitted by the owners of these facilities has been made. No such final disposition has been made with respect to your facility, and thus the standards of Part 265 apply to th facility.

4. The above-referenced inspection revealed that your facility was in violation of certain provisions of the Part 265 interim status standards. The following checked paragraphs indicate the regulatory provisions that have been violated:

ATTACHMENT F1

ATTACHMENT G

(7)

RCRA INSPECTION REVIEW SHEET

Name of Facility - DESOTO INCORPORATED
RCRA ID# - NJD005440342
Date of Inspection - 9-18-81
Type of Inspection: Generator Transporter TSD
Name of EPA/State Inspector - WAYNE HOWITZ N.J.D.E.P.

Findings of Inspection:
WERE ~~[illegible]~~ THE FOLLOWING VIOLATIONS IN ACCORDANCE 40 CFR PARTS:

262.32(b) - NO MARKINGS ON CONTAINERS.
265.65(b) - NO WRITTEN INSPECTION SCHEDULE.
265.16(d) - NO PERSONNEL TRAINING PLAN

Action(s) Taken: MR. MCGROARTY, QUALITY ASSURANCE MANAGER, WAS INFORMED OF THE ABOVE NOTED VIOLATIONS, ACCORDING TO MR. MCGROARTY THOSE ~~[illegible]~~ VIOLATIONS WILL BE CORRECTED.

Action(s) Recommended: NOTICE OF VIOLATION ~~[illegible]~~

21-558

ATTACHMENT G1

RCRA GENERATOR INSPECTION FORM

COMPANY NAME: DESOTO INCORPORATED

EPA I.D. NUMBER: NJD005440342

COMPANY ADDRESS: 8600 RIVER Rd. PENNSAUKEN, N.J 08110

COMPANY CONTACT OR OFFICIAL: MICHAEL MCGROARTY

INSPECTOR'S NAME: WAYNE HOWITZ

TITLE: QUALITY ASSURANCE MANAGER SAFETY

BRANCH/ORGANIZATION: N.J. DEP

CHECK IF FACILITY IS ALSO A TSD FACILITY [X]

DATE OF INSPECTION: 9-18-81

	YES	NO	DON'T KNOW
(1) Is there reason to believe that the facility has hazardous waste on site?	X		

a. If yes, what leads you to believe it is hazardous waste? Check appropriate box:

[ ] Company admits that its waste is hazardous during the inspection.

[X] Company admitted the waste is hazardous in its RCRA notification and/or Part A Permit Application.

[ ] The waste material is listed in the regulations as a hazardous waste from a nonspecific source (§261.31)

[X] The waste material is listed in the regulations as a hazardous waste from a specific source (§261.32)

[ ] The material or product is listed in the regulations as a discarded commercial chemical product (§261.33)

[ ] EPA testing has shown characteristics of ignitability, corrosivity, reactivity or extraction procedure toxicity, or has revealed hazardous constituents (please attach analysis report)

[ ] Company is unsure but there is reason to believe that waste materials are hazardous. (Explain)

G2

	YES	NO	DON'T KNOW
b. Is there reason to believe that there are hazardous wastes on-site which the company claims are merely products or raw materials?		X	

Please explain:

c. Identity the hazardous wastes that are on-site, and estimate approximate quantities of each.
21 - drums of SOLVENT BASED PAINT
7 of these 21 drums ARE SOLIDIFIED
14 ARE AWAITING SOLIDIFICATION

d. Describe the activities that result in the generation of hazardous waste. MANUFACTURE of WATER AND LATEX SOLVENT BASED PAINT

(2) Is hazardous waste stored on site?	X		
a. What is the longest period that it has been accumulated? SINCE NOV. 19TH 1980			
b. Is the date when drums were placed in storage marked on each drum?		X	
(3) Has hazardous waste been shipped from this facility since November 19, 1980?		X	
a. If "yes," approximately how many shipments were made?			
(4) Approximately how many hazardous waste shipments off site have been made since November 19, 1980? 0			
a. Does it appear from the available information that there is a manifest copy available for <u>each</u> hazardous waste shipment that has been made?			

b. If "no" or "don't know," please elaborate.
TO DATE 9-18-81, DESOTO HAS NOT SHIPPED ANY WASTE OFF SITE SINCE 11/19/80

G3

	YES	NO	DON'T KNOW
c. Does each manifest (or a representative sample) have the following information?			
- a manifest document number		N/A	
- the generator's name, mailing address, telephone number, and EPA identification number		N/A	
- the name, and EPA identification number of each transporter		N/A	
- the name, address and EPA identification number of the designated facility and an alternate facility, if any:		N/A	
- a description of the wastes (DOT)		N/A	
- the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers as loaded into or onto the transport vehicle		N/A	
- a certification that the materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation under regulations of the Department of Transportation and the EPA		N/A	
(5) Were there any hazardous wastes stored on site at the time of the inspection?	X		
a. If "yes," do they appear properly packaged (if in containers) or, if in tanks, are the tanks secure?	X		
b. If not properly packaged or in secure tanks, please explain.			
c. Are containers clearly marked and labelled?		X	
d. Do any containers appear to be leaking?		X	
e. If "yes," approximately how many?	0		

*(6) Has the generator submitted an annual report to EPA covering the previous calendar year? — N/A —

a. How do you know?

(7) Has the generator received signed copies (from the TSD facility) of all manifests for wastes shipped off site more than 35 days ago? N/A — —

a. If "no," have Exception Reports been submitted to EPA covering these shipments? — — —

(8) General comments.

HOUSE KEEPING OF DRUM STORAGE AREA & OVER ALL FACILITY IS EXCELLENT.

* The effective date for this requirement is March 1, 1982.

RCRA TREATMENT, STORAGE AND DISPOSAL FACILITY INSPECTION FORM
FOR TSD FACILITIES ONLY

COMPANY NAME: DESOTO INCORPORATED

EPA I.D. Number: NJD005440342

COMPANY ADDRESS: 2600 RIVER RD. PENNSAUKEN N.J

COMPANY CONTACT OR OFFICIAL: MICHAEL MCGROARY

OTHER ENVIRONMENTAL PERMITS HELD BY FACILITY: ☐ NPDES ☐ AIR ☐ OTHER

TITLE: QUALITY ASSURANCE MANAGER

INSPECTOR'S NAME: WAYNE HOWITZ

DATE OF INSPECTION: 09-18-81

BRANCH/ORGANIZATION: N.J. DEP BUREAU OF HAZARDOUS WASTE

TIME OF DAY INSPECTION TOOK PLACE:

(1) Is there reason to believe that the facility has hazardous waste on site?

a. If yes, what leads you to believe it is hazardous waste? Check appropriate box:

☐ Company admits that its waste is hazardous during the inspection.

☑ Company admitted the waste is hazardous in its RCRA notification and/or Part A Permit Application.

☐ The waste material is listed in the regulations as a hazardous waste from a nonspecific source (§261.31)

☑ The waste material is listed in the regulations as a hazardous waste from a specific source (§261.32)

☐ The material or product is listed in the regulations as a discarded commercial chemical product (§261.33)

☐ EPA testing has shown characteristics of ignitability, corrosivity, reactivity or extraction procedure toxicity, or has revealed hazardous constituents (please attach analysis report)

☐ Company is unsure but there is reason to believe that waste materials are hazardous. (Explain)

	YES	NO	DON'T KNOW
b. Is there reason to believe that there are hazardous wastes on-site which the company claims are merely products or raw materials?		X	

Please explain:

c. Identify the hazardous wastes that are on-site, and estimate approximate quantities of each.

(2) Does the facility generate hazardous waste?	X		
(3) Does the facility transport hazardous waste?		X	
(4) Does the facility treat, store or dispose of hazardous waste?	X		

G6

VISUAL OBSERVATIONS

	YES	NO	DON'T KNOW
(5) SITE SECURITY (§265.14)			
a. Is there a 24-hour surveillance system?	✓		
b. Is there a suitable barrier which completely surrounds the active portion of the facility?	✓		
c. Are there "Danger-Unauthorized Personnel Keep Out" signs posted at each entrance to the facility?	✓		
(6) Are there ignitable, reactive or incompatible wastes on site? (§265.27)	✓		
a. If "YES", what are the approximate quantities? 21-55 gallon drums of solidified solvent based paint waste			
b. If "YES", have precautions been taken to prevent accidential ignition or reaction of ignitable or reactive waste?	✓		
c. If "YES", explain Waste materials are stored in a well ventilated & secure area.			
d. In your opinion, are proper precautions taken so that these wastes do not:			
- generate extreme heat or pressure, fire or explosion, or violent reaction?	✓		
- produce uncontrolled toxic mists, fumes, dusts, or gases in sufficent quantities to threaten human health?	✓		
- produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions?	✓		
- damage the structural integrity of the device or facility containing the waste?	✓		
- threaten human health or the environment?	✓		

Please explain your answers, and comment if necessary.

e. Are there any additional precautions which you would recommend to improve hazardous waste handling procedures at the facility?

(7) Does the facility comply with preparedness and prevention requirements including maintaining: (§265.32)

	YES	NO	DON'T KNOW
- an internal communications or alarm system?	X		
- a telephone or other device to summon emergency assistance from local authorities?	X		
- portable fire equipment?	X		
- adequate aisle space?	X		
- in your opinion, do the types of wastes on site require all of the above procedures, or are some not needed? Explain.	X		

In your opinion, do the types of wastes on site require all of the above procedures, or are some not needed? Explain.
Yes All Are Needed.

*(8) Have you inspected to verify that the groundwater monitoring wells (if any) mentioned in the facility's groundwater monitoring plan (see no. 19 below) are properly installed?	N/A		
If you have, please comment, as appropriate.			
(9) a. Is there any reason to believe that groundwater contamination already exists from this facility? If "YES", explain.			
b. Do you believe that operation of this facility may affect groundwater quality?			
c. If "YES", explain.			

RECORDS INSPECTION

(10) Has the facility received hazardous waste from an off-site source since Nov. 19, 1980 (effective date of the regulations)?		X	
a. If "YES", does it appear that the facility has a copy of a manifest for each hazardous waste load received?		N/A	
b. How many post-November 19 manifests does it have? (If the number is large, you may estimate)	N/A		
c. Does each manifest (or a representative sample) have the following information?			
- a manifest document number		N/A	

* This requirement applies only after November 19, 1981.

G8

	YES	NO	DON'T KNOW
- the generator's name, mailing address, telephone number, and EPA identification number	___	___	___
- the name, and EPA identification number of each transporter	___	___	___
- the name, address and EPA identification number of the designated facility and an alternate facility, if any;	___	___	___
- a DOT description of the wastes	___	___	___
- the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers as loaded into or onto the transport vehicle	___	___	___
- a certification that the materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation under regulations of the Department of Transportation and the EPA	___	___	___
d. Are there any indications that unmanifested hazardous wastes have been received since November 19, 1980? If YES, explain.	___	✓	___
(11) Does the facility have a written waste analysis plan specifying test methods, sampling methods and sampling frequency? (§265.13)	✓	___	___
a. Does the character of wastes handled at the facility change from day to day, week to week, etc., thus requiring frequent testing? (You may check more than one) Waste characteristics vary ___ All wastes are basically the same ✓ Company treats all waste as hazardous ___ Don't Know ___			
b. Does hazardous waste come to this facility from off-site sources?	___	✓	___
c. If waste comes from an off-site source, are there procedures in the plan to insure that wastes received conform to the accompanying manifest?	___	N/A	___
(12) INSPECTIONS (§265.15)			
a. Does the facility have a written inspection schedule?	___	✓	___
b. Does the schedule identify the types of problems to be looked for and the frequency for inspections?	___	✓	___
c. Does the owner/operator record inspections in a log?	___	✓	___
d. Is there evidence that problems reported in the inspection log have not been remedied? If "YES," please explain.	___	✓	___

G9

	YES	NO	DON'T KNOW
(13) PERSONNEL TRAINING (§265.16)			
a. Is there written documentation of the following:			
- job title for each position at the facility related to hazardous waste management and the name of the employee filling each job?		✓	
- type and amount of training to be given to personnel in jobs related to hazardous waste management?		✓	
- actual training or experience received by personnel?		✓	
(14) Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosion or any unplanned release of hazardous waste? (§265.51)	✓		
a. Does the plan describe arrangements made with local authorities?	✓		
b. Has the contingency plan been submitted to local authorities?	✓		
How do you know? LETTER FROM MR. LESLIE RICH INSPECTOR BUREAU OF FIRE PREVENTION, PENNSAUKEN FIRE DEPARTMENT. DATED: 8/18/81			
c. Does the plan list names, addresses, and phone numbers of Emergency Coordinators?	✓		
d. Does the plan have a list of what emergency equipment is available?	✓		
e. Is there a provision for evacuating facility personnel?	✓		
f. Was an Emergency Coordinator present or on call at the time of the inspection?	✓		
(15) Does the owner/operator keep a written operating record with: (§265.73)			
- a description of wastes received with methods and dates of treatment, storage or disposal?		N/A	
- location and quantity of each waste?		N/A	
- detailed records and results of waste analysis and treatability tests performed on wastes coming into the facility?		N/A	
- detailed operating summary reports and description of all emergency incidents that required the implementation of the facility contingency plan?		N/A	
*(16) Does the facility have written closure and post-closure plans? (§265.110)	✓		
a. Does the written closure plan include:			
- a description of how and when the facility will be partially (if applicable) and ultimately closed?	✓		

* Effective date for this requirement is May 19, 1981.

	YES	NO	DON'T KNOW
- an estimate of the maximum inventory of wastes in storage or treatment at any time during the life of the facility?	✓		
- a description of the steps necessary to decontaminate facility equipment during closure?	✓		
- a schedule for final closure including the anticipated date when wastes will no longer be received and when final closure will be completed?	✓		
b. What is the anticipated date for final closure?			
†c. Does the owner/operator have a written post-closure plan identifying the activities which will be carried on after closure and the frequency of these activities?		N/A	
d. Does the written post-closure plan include:			
- a description of planned groundwater monitoring activities and their frequencies during post-closure?	✓		
- a description of planned maintenance activities and frequencies to ensure integrity of final cover during post-closure?	✓		
- the name, address and phone number of a person or office to contact during post-closure?			
*(17) Does the owner/operator have a written estimate of the cost of closing the facility? (§265.142) What is it? $5000.00	✓		
*(18) Does the owner/operator have a written estimate of the cost for post-closure monitoring and maintenance?			
What is it? (§265.144)	✓		
*(19) Has a groundwater monitoring plan been submitted to the Regional Administrator for facilities containing a surface impoundment, landfill or land treatment process? (This requirement does not apply to recycling facilities.) (§265.90)	N/A		
a. Does the plan indicate that at least one monitoring well has been installed hydraulically upgradient from the limit of the waste mangement area?			
b. Does the plan indicate that there are at least three monitoring wells installed hydraulically downgradient at the limit of the waste management area?			

† This section applies only to disposal facilities.

* Effective date for this requirement is May 19, 1981.

G11

SITE-SPECIFIC

Please circle all appropriate activities and answer questions on indicated pages for all activities circled. When you submit your report, include only those site-specific pages that you have used.

STORAGE	TREATMENT	DISPOSAL
Waste Pile p. 9	Tank p. 8	Landfill pp. 10-11
Surface Impoundment p. 8	Surface Impoundment pp. 8-9	Land Treatment pp. 9, 10
(Container) p. 7	Incineration pp. 12-13	Surface Impoundment p. 8
Tank, above ground p. 8	Thermal Treatment pp. 12-13	Other _____
Tank, below ground p. 8	Land Treatment pp. 9-10	
Other _____	Chemical, Physical p. 13 and Biological Treatment (other than in tanks, surface impoundment or land treatment facilities)	
	Other _____	

CONTAINERS (§265.170)

	YES	NO	DON'T KNOW
1. Are there any leaking containers? If "YES", explain.		X	
2. Are there any containers which appear in danger of leaking? If "YES", explain.		X	
3. Do wastes appear compatible with container materials?		X	
4. Are all containers closed except those in use?	X		
5. Do containers appear to be opened, handled or stored in a manner which may rupture the containers or cause them to leak?		X	
6. How often does the plant manager claim to inspect container storage areas? TWICE A WEEK.			
7. Does it appear that incompatible wastes are being stored in close proximity to one another? If "YES", explain.		X	
8. Are containers holding ignitable or reactive wastes located at least 15 meters (50 feet) from the facility's property line?			N/A

9. What is the approximate number and size of containers with hazardous wastes?
21 - 55-gallon drums.

G12

ATTACHMENT H

(a)

De Soto Chemical 8600 River Road

- pretreatment phy/chemical -
- sludge 97T/yr. to landfill
- Zinc used on site
- formaldehyde used on site
- non-haz latex paint waste to Pennsauken landfill 18 yrs. - 1620 tons
- solvent based paint waste to Niagara Falls - 2 yrs. 14 tons

Aluminum Shapes - 1600 - no well

- pretreatment - neutralization & oil and grease removal
- generates waste
- subject to SPCC plan
- air emissions permit
- discharge 14,000 gpd of heavy metal waste to POTW
- " 135 T/yr to S+W waste
- haul 60T/y paint waste S+W
- haul 60 T/y. oil waste
- discharge 126,000 gpd to POTW
- phenols present in disch to POTW
- chromium " " " " "

Natico 1600 Nat'l Hwy. - no well

- air emissions permit
- Sanitary + cooling water 33,000 gpd

C J Osborn

- POTW discharge contains priority pollutants
- subject to SPCC
- air emissions permit
- discharge phenols to POTW
- corrosive + solvents, thinners + degreasers

ATTACHMENT H1

ATTACHMENT I

ATTACHMENT c

INVENTORY OF SHIPMENTS TO AND FROM THE SWOPE OIL AND CHEMICAL CO.

ATTACHMENT I1

SHIPMENTS TO SWOPE OIL & CHEMICAL COMPANY

DATE	QTY GALS	ITEM	DOCUMENT DESCRIPTION DATE	DOCUMENT
12/21/64	5,000	Dirty Solvent	12/21/64	DeSoto Bill of Lading #2465
			12/21/64	Wagner Demurrage Ticket
			12/21/64	Wagner Bill of Lading #10118
1/18/65	4,500	Dirty Solvent	1/18/65	DeSoto Bill of Lading #2477
			1/18/65	Wagner Bill of Lading #160
1/29/65	4,700	Dirty Solvent	1/29/65	DeSoto Bill of Lading #2482
			1/29/65	Wagner Bill of Lading #11987
2/10/65	5,500	Dirty Solvent	2/10/65	DeSoto Bill of Lading #2491
			2/10/65	Wagner Demurrage Ticket
			2/10/65	Wagner Bill of Lading #9921
2/23/65	4,105	Dirty Solvent	2/23/65	DeSoto Bill of Lading #2498
			2/23/65	Wagner Bill of Lading #11104
3/4/65	4,500	Dirty Solvent	3/4/65	DeSoto Bill of Lading #2506
			3/4/65	Wagner Bill of Lading #313
3/15/65	4,700	Dirty Solvent	3/15/65	DeSoto Bill of Lading #2513
			3/15/65	Wagner Bill of Lading #321

RETURN SHIPMENTS TO DeSOTO

DATE	QTY GALS	ITEM	DOCUMENT DESCRIPTION DATE	DOCUMENT
1/5/64	4,377	Recovered Solvent	1/5/65	Swope Bill of Lading
			1/5/65	Wagner Bill of Lading #425
			1/5/65	Swope Invoice #3847
			1/5/65	DeSoto Receiving Report #01-1003
		(Dirty Xylol)	1/7/65	DeSoto Purchase Order #01-38
			1/19/65	DeSoto Check to Swope #2331
1/25/65	3,280	Recovered Solvent	1/25/65	Swope Bill of Lading
			1/25/65	Wagner Bill of Lading #167
			1/25/65	Swope Invoice #3858
			1/7/65	DeSoto Purchase Order #01-38
			2/5/65	DeSoto Check to Swope #2600
2/-/65	3,795	Recovered Solvent	2/-/65	Swope Bill of Lading (two pages of copyset)
			2/4/65	Wagner Bill of Lading #175
			2/4/65	Swope Invoice #3865
			1/28/65	DeSoto Purchase Order 01-324 (two pages of copyset)
			2/15/65	DeSoto Check to Swope #2786
2/26/65	3,905	Recovered Solvent	2/26/65	Swope Bill of Lading
			2/26/65	Wagner Bill of Lading #11717
			2/26/65	Swope Invoice #3873
			2/9/65	DeSoto Purchase Order #01-471 (two pages of copyset)
			3/8/65	DeSoto Check to Swope #3174
3/4/65	3,097	Recovered Solvent	3/4/65	Swope Bill of Lading
			3/4/65	Wagner Bill of Lading #312
			3/4/65	Swope Invoice #3877
			2/23/65	DeSoto Purchase Order 01-669 (two pages of copyset)
			3/16/65	DeSoto Check to Swope #3310
3/17/65	3,800	Recovered Solvent	3/17/65	Swope Bill of Lading
			3/17/65	Wagner Bill of Lading #10356
			3/17/65	Swope Invoice #3886
			3/3/65	DeSoto Purchase Order #01-793 (two pages of copyset)
			3/29/65	DeSoto Check to Swope #3569
3/25/65	3,557	Recovered Solvent	3/25/65	Swope Bill of Lading
			3/25/65	Swope Invoice #3891
			3/26/65	Wagner Bill of Lading #1184
			3/22/65	DeSoto Purchase Order #01-1042 (two pages of copyset)
			4/8/65	DeSoto Check to Swope #3737

SHIPMENTS TO SWOPE OIL & CHEMICAL COMPANY

DATE	QTY GALS	ITEM	DOCUMENT DESCRIPTION DATE	DOCUMENT
2/17/77	6,700	Xylol	2/9/77	Chem Leaman Frt Bill #02 03583
2/17/77	5,719	Xylol	2/22/77	Chem Leaman Frt Bill #02 16224

RETURN SHIPMENTS TO DESOTO

DATE	QTY GALS	ITEM	DOCUMENT DESCRIPTION DATE	DOCUMENT
2/17/77	5,100	Recovered Solvent Disposal of Residue/2,860 Gal	2/17/77	Swope Invoice #5969
			2/17/77	DeSoto Rec Report #111 52691
		Freight Charges	2/28/77	Swope Invoice #5975
			2/22/77	Chem Leaman Frt Bill #02 16224
			2/22/77	Chem Leaman Frt Bill #02 16225
			3/11/77	DeSoto Voucher
3/31/77	5,000	Recovered Solvent	3/31/77	Swope Invoice #5990
			8/11/77	DeSoto Voucher
10/17/77		2 Loads Residue Pumped Out/Hauled Away	10/17/77	Swope Invoice #6026
			10/21/77	DeSoto Voucher
10/25/77	12,050	Waste Material/ Pumped out/Hauled Away	10/25/77	Swope Invoice #6032
			11/2/77	DeSoto Voucher
12/2/77		Statement that unreclaimed solvent has been disposed of	12/2/77	Swope Letter from Lillian Greenberg

Proper name and address for abbreviated companies:

(a) DeSoto, Inc.
8600 River Road
Pennsauken, New Jersey 08110

(b) Swope Oil & Chemical Company
8281 National Highway
Pennsauken, New Jersey 08110

(c) Wagner Truck Lines
Jobstown, New Jersey

(d) Matlack, Inc.
10 W. Baltimore Avenue
Lansdowne, Pennsylvania 19050

(e) P. B. Mutrie Motor Trans., Inc.
Calvary Street
Waltham, Massachusetts 02154
(Main Office

(f) Machise Express Co., Inc.
500 N. Egg Harbor Road
Hammonton, New Jersey 08037

(g) Blue Line Transfer

(h) Chemical Leaman Tank Lines, Inc.
P. O. Box 200
Downingtown, Pennsylvania 19335

13

ATTACHMENT J

(2)

Disposal of Gems Landfill

4-27-12

Let's protect our earth

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF HAZARDOUS WASTE MANAGEMENT

CN 028, Trenton, N.J. 08625

609 - 292 - 1250

JOHN J. TRELA, Ph.D.
ACTING DIRECTOR

IN THE MATTER OF THE GLOUCESTER ENVIRONMENTAL MANAGEMENT SERVICES, INC. LANDFILL

-AND-

ARCO SPECIAL CHEMICAL COMPANY, INC.;
ATLANTIC RICHFIELD CO., INC.;
CBS RECORDS, INC.;
CERTAINTEED CORPORATION;
COLE BUSINESS FURNITURE CO.;
COLE STEEL COMPANY;
DAUBERT INDUSTRIES, INC.;
DESOTO CHEMICAL CO.;
GENERAL METALCRAFT, INC.;
GILBERT-SPRUANCE CO., INC.;
GLIDDEN COATING AND RESINS;
H.J. HOLMAN COMPANY;
M.A. BRUDER AND SONS, INC.;
PHILADELPHIA NEWSPAPERS, INC.;
SARTOMER RESINS, INC.;
S.C.M. CORPORATION;
SHERWIN-WILLIAMS CO., INC.;
TRIANGLE PUBLICATIONS, INC.;
UNITED STATES PRINTING INK CO., INC.;
VINELAND CHEMICAL CO., INC.;

DIRECTIVE
AND
NOTICE TO INSURERS
NUMBER TWO

Respondents

This DIRECTIVE is issued to the above-captioned Respondents pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (hereinafter "the Department") by N.J.S.A. 13:1D-1 et seq., and the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq., and duly delegated to the Assistant Director for Enforcement of the Division of Waste Management pursuant to N.J.S.A. 13:1B-4.

On March 4, 1986, the Department issued a Directive and Notice to Insurers (hereinafter "Directive Number One") in the

RECEIVED

JUL 14 1986

ATTACHMENT J1

Division of Waste Mgt.

Matter of the Gloucester Environmental Management Services, Inc. Landfill. A copy of Directive Number One is attached hereto and is incorporated herein.

FINDINGS

A. THE SITE

1. The Gloucester Environmental Management Services, Inc. (hereinafter "GEMS") Landfill is an approximately sixty acre landfill site located at the intersection of Erial and Hickstown Roads in Gloucester Township, Camden County, New Jersey, Plate 31, Block 357, Lot 9 on the municipal tax map. The GEMS Landfill has been operated at various times by various entities and has been also known as, among other things, the Gloucester Township Landfill or Dump and the Amadei Landfill or Dump. The Landfill shall be referred to herein as the "GEMS Landfill" or "the site".

B. RESPONDENTS

2. CBS Records, Inc. (hereinafter "CBS") of Pitman, N.J. is a corporation that produced various chemical products and wastes, including hazardous substances.

3. Certainteed Corporation (hereinafter "Certainteed") of Valley Forge, Pa., is a corporation that produced various chemical products and wastes, including hazardous substances.

4. Cole Steel Company (hereinafter "Cole Steel"), predecessor to Cole Business Furniture Co., of York, Pa., is a company that generated various chemical products and wastes, including hazardous substances.

5. Cole Business Furniture Co. of York, Pa. is the parent of or successor to Cole Steel Company.

6. Daubert Industries (hereinafter "Daubert") of Oak Brook, Illinois, is a corporation that produced various chemical products and wastes, including hazardous substances.

7. Desoto Chemical Company (hereinafter "Desoto") whose last known location was in Delair, N.J., was a corporation that produced various chemical products and wastes including hazardous substances.

8. General Metalcraft, Inc. (hereinafter "General Metalcraft") of Dover, Delaware, is a corporation that produced various chemical-based products and wastes, including hazardous substances.

J2

C. SITE HISTORY

19. Gloucester Township originally operated a twelve (12) acre landfill at the site during the 1950's and 1960's.

20. On July 17, 1969 Gloucester Township leased the site to Amadei Sand and Gravel for operation as a sand and gravel pit and a landfill.

21. Anthony Amadei and Sidney Liss personally guaranteed Amadei Sand and Gravel's performance of the lease for the site including that Amadei Sand and Gravel would adhere to all present and future laws, rules and regulations of the State of New Jersey, Camden County and the Township of Gloucester regarding the operation and maintenance of the site.

22. Among the officers of Amadei Sand and Gravel and the individuals responsible for the operation of the landfill site and for the disposal of hazardous substances therein were Anthony Amadei, Jack M. Liss, and Sidney Liss.

23. In 1976 the registration for the GEMS Landfill site was transferred from Amadei Sand and Gravel to Gloucester Environmental Management Services Inc. (GEMS). The principals and officers of GEMS were Anthony Amadei, Dennis Dubin, David Erlich, and Richard Winn.

24. GEMS ceased operations at the landfill in November of 1981.

25. GMES, Anthony Amadei, Dennis Dubin, David Erlich, Richard Winn, and Robert Wisner allowed hazardous wastes, including hazardous substances, to be landfilled at the GEMS Landfill.

D. GENERATORS AND HAULERS

26. Certainteed disposed or arranged for the disposal of hazardous substances at the GEMS Landfill.

27. CBS Records hired Marvin Jonas, Inc. (hereinafter "Jonas Waste Removal") of Sewell, N.J. to transport and dispose of hazardous substances.

28. Cole Steel hired Jonas Waste Removal to transport and dispose of hazardous substances.

29. Daubert hired Jonas Waste Removal to transport and dispose of hazardous substances.

30. Desoto hired Jonas Waste Removal to transport and dispose of hazardous substances.

three (3) barbed wire strands and with metal posts set in concrete.

46. The current estimated cost for the erection of the fence is one hundred and fifty thousand dollars ($150,000). This estimated cost does not reflect land acquisition costs, if any.

I. LIABILITY

BASED ON THE FOREGOING AND THE ENTIRE ADMINISTRATIVE RECORD:

47. The hazardous substances referred to above were and are continuing to be discharged into the water and/or onto the lands of the State of New Jersey in violation of Section 4 of the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11c.

48. Arco Special Chemical Company, Atlantic Richfield Company, CBS, Certainteed, Cole Business Furniture Company, Cole Steel, Danbert, Desoto, General Metalcraft, Gilbert-Spurance, Glidden, H.J. Holman Co., M.A.B., Philadelphia Newspapers, Sartomer Resins, S.C.M. Corporation, Sherwin-Williams, Triangle, U.S. Printing Ink, and Vineland (hereinafter "Respondents") are responsible for the discharge of hazardous substances at and around the GEMS Landfill.

49. Pursuant to N.J.S.A. 58:10-23.11g(c), the Respondents, along with those Respondents set forth in Directive Number One, are strictly liable, jointly and severally, without regard to fault, for all costs of the cleanup and removal of the hazardous substances discharged at or around the GEMS Landfill.

50. Pursuant to N.J.S.A. 58:10-23.11f, whenever a hazardous substance is discharged, the Department may, in its discretion, act to remove or arrange for the removal of such discharge or may direct the dischargers to remove, or arrange for the removal of such discharge.

DIRECTIVE

NOW, THEREFORE, RESPONDENTS ARE HEREBY DIRECTED TO:

51. Arrange for the construction of a perimeter fence as set forth in paragraphs 43 through 45, by paying the sum of one hundred and fifty thousand dollars ($150,000) to the Department on or before August 12, 1986. Payment shall be made by certified check payable to "Treasurer, State of New Jersey."

NOTICE

52. In the event that the costs of implementing these immediate remedial measures exceed current estimates, the Department reserves the right to direct the Respondents to pay such additional costs and to seek full reimbursement and damages for all such costs. In addition, the Department reserves the right to seek reimbursement and damages from the Respondents for the costs of designing and implementing other immediate remedial measures it deems necessary and for the costs of designing and implementing the selected remedial action alternative or to compel the Respondents to design and implement other immediate remedial measures and/or the selected alternative. Furthermore, the Department reserves the right to require Respondents to take, or arrange for the taking of, additional remedial actions should the Department determine that such actions are necessary to protect public health and safety or the environment.

53. If Respondents fail to make the payment set forth in paragraph 50, on or before August 12, 1986, the Department will utilize public funds to finance the costs of the specified immediate remedial actions. In addition, should Respondents fail to make the payment, the Department will commence suit against the Respondents seeking reimbursement and damages for all costs incurred. Specifically, failure to comply with this DIRECTIVE will increase Respondents' liability to the Department to an amount equal to three (3) times the costs of conducting the immediate remedial measures set forth herein.

54. The Department reserves all rights and remedies under the Spill Compensation and Control Act and all other applicable statutes other than those set forth herein.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DATE: July 9 86

Ronald Corcory
Acting Assistant Director
Division of Waste Management

ATTACHMENT K

(15)

M E M O R A N D U M

August 22, 1984

TO: Anthony J. McMahon, Chief,
Bureau of Industrial Site Evaluation

THROUGH: Richard J. McMahon, Assistant Chief,
Bureau of Industrial Site Evaluation

FROM: Maria C. Petix, Case Manager,
Bureau of Industrial Site Evaluation

SUBJECT: DeSoto Incorporate
8600 River Road
Pennsauken, New Jersey
ECRA Case No. 84-147

On July 17, 1984 the I conducted a Preliminary ECRA Inspection at the DeSoto Inc. facility, Pennsauken, New Jersey. The writer met with Mr. Anthony Patello, Maintenance Supervisor and Protanic Professional Tank Investigation Corporation, contractor, performing petro-tite tank tests on the underground tank farm.

DeSoto Inc. made latex-based paints. The facility was closed approximately two years ago, a financial decision of the company. On the day of inspection, machinery and house clean-up was the only on-going activity.

Findings:

Upon entering the site, the writer noted nine areas of concern:

1. Tank Farm.

   The tank farm was found to contain approximately 3,000 gallons of hazardous substances. These substances were left behind when the company closed. According to Mr. Patello, DeSoto did not realize the tanks contained residual product. Consequent to the finding, DeSoto initiated tank testing for all 11 underground tanks. Tank capacity ranged from 4,000 - 8,000 gallons. Upon the day of inspection, Protanic was in the process of performing "Kent-Moore" tank tests.

2. Upon reviewing the plant's site plan, a concrete "separator box" was used prior to 1974 as a receptacle for liquid wastes from paint

ATTACHMENT K1

manufacturing. DeSoto was notified that this area must addressed in a sampling plan. Priority pollutant analyses must be performed.

3. Soda Ash.

   Soda ash was found on the railroad siding and in the elevator shaft in the building. DeSoto advised to remove substances.

4. On the northern side of the building, what appeared to be titanium dioxide power was spilled on the ground. DeSoto was instructed to remove all residual substances from the ground.

5. The trash compactor was found to contain residual solids. The solids spilled onto the ground and on the asphalt pavement. DeSoto was instructed to remove all residual solids from the area.

6. Drain in Solvent Recovery Tank Farm.

   DeSoto must determine the final disposition of the tank farm drain. Mr. Patello believed that the drain was fully enclosed; rain water was pumped out by a sump. I asked him to supply documentation to verify his statement.

7. Trough Area.

   The concrete trough along the the tank car fill area must be cleaned. Residuals remained in the drains and trough.

8. Storage Area - Bulk.

   The floors in the bulk storage area were found to have residuals of paint and paint sludges. The company was advised to scarify the floors.

   Inside the building, there were approximately 4,000 cans of paint (inventory) remaining in the quality assurance retaining room. It was stated that these quart cans are product and will be given to employees.

9. Laboratory Decommissioning.

   Laboratory wastes still remain. DeSoto was instructed to manifest all waste lab packs, and supply documentation for same.

K2

Recommendations:

The writer recommends that DeSoto implement the above as a part of a sampling plan for the facility. This sampling plan should encompass all areas of concern, including but not limited, to soil borings of the separator box, cleanup of residual spillage on the ground, decommissioning of laboratory equipment and waste, and provide all documentation for above-mentioned items.

M.C.P.

MCP/33sn

K3

ATTACHMENT L

(23)

Bureau of Industrial Site Evaluation
Environmental Cleanup Responsibility Act

Report of Inspection

ECRA CASE # 84-147 Date of Inspection July 17, 1984

Inspection Category: Preliminary X Final _____

Inspector Maria C. Petix

Industrial Establishment De Soto, Incorporated

Location 8600 Pennsauken Road

Pennsauken, Camden County

Individuals Involved: Anthony Patello, Maintenance Manager, DeSoto, Inc.

NARRATIVE DESCRIPTION: (SEE ATTACHED)

DEFICIENCIES NOTED: (See Attached List)

ACTIONS REQUIRED ON THE PART OF THE APPLICANT: (See Attached List)

ACTIONS REQUIRED ON THE PART OF BISE: Notify USEPA of DeSoto's ECRA Notification

Inspector/Case Manager Signature Maria C. Petix

Approved: Richard Kat, Assistant Chief
Bureau of Industrial Site Evaluation

ATTACHMENT L1

ATTACHMENTS--DESOTO, INC.

NARRATIVE DESCRIPTION: Latex and oil-based paints were manufactured at the facility Current conditions--the facility is virtually empty. All products and substances were removed. Equipment and appurtenances in paint manufacturing were decommissioned.

Underground tank testing was being conducted by Protanic Tank Testing, Inc.

DEFICIENCIES NOTED:

1. Underground tank farm contained approximately 1300 gallons of product. (product being various solvents).
2. Material alleged to be soda ash was observed on railroad siding.
3. Alleged titanium dioxide power spilled on ground adjacent to the titanium dioxide loading area.
4. Previously used wastewater separator box, now covered with vegetation remains on site.
5. Residuals of unidentifiable substances remain in the trough and drains in the tank car filling area.
6. Residual solids spilled from the trash dumpster onto the ground.
7. Disposition of Solvent Recovery Tank farm sump is unknown.
8. Floors in the bulk storage area contain heavy paint sludge residue.
9. Laboratory decommissioning incomplete.
10. Over four thousand cans (one pint containers) of paint samples remain in the Quality Assurance Retaining Room.

REQUIRED ACTION:

1. Provide detailed sampling plan designed to evaluate the extent and degree of contamination (if any) in the area identified under Deficiencies Noted, Items 1 thru 7.
2. Provide detailed description of procedures used for scarifying the Bulk Storage Area floors, decommissioning and disposing of Laboratory wastes and final disposition of paints in the Quality Assurance Retaining Room.
3. Supply copies of all manifests forms.
4. Provide underground tank test certification results.

L2

ATTACHMENT M

27

ENVIRONMENTAL CLEANUP RESPONSIBILITY ACT

SAMPLING PLAN

DESOTO, INC.
8600 RIVER ROAD
PENNSAUKEN, CAMDEN COUNTY, NEW JERSEY
ECRA CASE #84-147
OCTOBER 12, 1984

ATTACHMENT M1

OVERVIEW

The New Jersey Department of Environmental Protection (DEP), in accordance with the requirements of the Environmental Cleanup and Responsibility Act (ECRA), has reviewed DeSoto's initial ECRA submission for a facility located in Pennsauken, Camden County. As part of their review, the DEP also inspected the facility.

As a result of the on-site inspection and an information review, the DEP disapproved DeSoto's Negative Declaration. They cited a number of alleged deficiencies which, in their view, needed to be addressed or corrected prior to issuing an ECRA clearence for the facility. They directed DeSoto to correct the alleged deficiencies and then provide a "Sampling Plan" which outlines the measures which were taken to satisfactorily meet their demands before an ECRA clearence would be provided.

This "Sampling Plan" systematically addresses each of the alleged deficiencies which the DEP provided as the basis for denying an ECRA clearence to the facility. In cases where action needed to be taken, a detailed description of that action is provided along with supporting documentation (if available). In those instances where testing or studies were required, the results of the tests or studies are provided. Lastly, some alleged deficiencies were resolved by clarification.

ALLEGED DEFICIENCIES AND CORRECTIVE STEPS TAKEN

1. UNDERGROUND TANK FARM CONTAINED APPROXIMATELY 1300 GALLONS OF ORGANIC SOLVENT.

During the underground tank testing, approximately 800 gallons of organic solvents were discovered in the tanks. This material was sent for disposal to S&W Waste, Inc., Karney, New Jersey. A copy of the manifest (No. NJ 0226811) for the shipment is attaced as Attachment 1.

2. MATERIAL ALLEGED TO BE SODA ASH WAS OBSERVED ON RAILROAD SIDING.

In accordance with the request of the facility's ECRA caseworker, the soda ash (a non-hazardous substance and a non-hazardous waste) on the facility's railroad siding has been removed and sent for disposal.

M2

3. ALLEGED TITANIUM DIOXIDE POWER (sic) ON GROUND ADJACENT TO THE TITANIUM DIOXIDE LOADING (sic) AREA.

In accordance with the request of the facility's ECRA caseworker, the titanium dioxide powder (a non-hazardous substance and a non-hazardous waste) has been removed from the unloading station area.

4. PREVIOUSLY USED WASTEWATER SEPARATOR BOX, NOW COVERED WITH VEGETATION REMAINS ON SITE.

In accordance with the request of the facility's ECRA caseworker, a coring study was conducted to determine what, if any subsurface contamination existed in the vacinity of an unused wastewater clarifier which at one time was in series with the sanitary sewer line.

Prior to undertaking the coring study, the DEP reviewed the proposed testing protocol and approved it. The approval letter is included as Attachment 2.

The coring study conclusively demonstrated that the subsurface adjacent to the wasterwater clarifier was not contaminated nor did it pose an environmental or public health risk. The results of the coring study are provided as Attachement 3.

5. RESIDUALS OF UNIDENTIFIABLE SUBSTANCES REMAIN IN THE TROUGH AND DRAINS IN THE TANK CAR FILLING AREA.

All dried latex emulsions and resins which are non-hazardous substances and non-hazardous wastes, have been removed from the trough and drains in the tank car filling area.

6. RESIDUAL SOLIDS SPILLED FROM THE TRASH DUMPSTER ONTO THE GROUND.

Residues on the ground adjacent to the trash dumpster (all of which are non-hazardous wastes and non-hazardous substances), were removed and sent for disposal.

7. DISPOSITION OF SOLVENT RECOVERY TANK FARM SUMP IS UNKNOWN.

The sump in the waste solvent tank farm area is concrete lined. It was used to provide a low point from which precipitation could be effectively pumped out of the area.

M3

8. FLOORS IN THE BULK STORAGE AREA CONTAIN HEAVY PAINT SLUDGE RESIDUE (sic).

Paint was not stored in the Bulk Storage Area and as such could not have collected on the floor there. This area was dedicated to latex emulsions, a non-hazardous substance and non-hazardous waste.

However, in accordance with the request of the facility's ECRA caseworker, the floor in the bulk storage was cleaned and all of the residues were removed.

9. LABORATORY DECOMMISSIONING INCOMPLETE.

All of the laboratory reagents have been removed and sent for disposal. Attachment 4 contains the manifests which were used to affect the disposal of these substances.

10. OVER FOUR THOUSAND CANS (ONE PINT CONTAINERS) OF PAINT SAMPLES REMAIN IN THE QUALITY ASSURANCE RETAINING ROOM.

The one pint cans in the Quality Assurance Retaining Room, contained latex paint, a non-hazardous waste and a non-hazardous substance. However, in accordance with the request of the facility's ECRA caseworker, these have been removed and sent for disposal.

11. COPIES OF ALL MANIFESTS

Except for the manifests discussed above, Attachment 5 contains copies of all manifests which were used after July 17, 1984 for the shipment of hazardous wastes from the facility (copies of all other manifests have been already sent to the DEP).

12. DETAILED DESCRIPTION OF PROCEDURES USED FOR SCARIFYING THE BULK STORAGE AREA FLOORS, DECOMMISSIONING AND DISPOSING OF LABORATORY WASTES AND FINAL DISPOSITION OF PAINTS IN THE QUALITY ASSURANCE RETAINING ROOM.

A. The floors in the bulk storage were scraped of all residual resins and emulsions.

B. All laboratory reagents were removed, cataloged and transported for disposal in accordance with the regulations of the State of New Jersey. Copies of manifests are provided.

M4

C. All retain samples of latex paint have been removed from the facility and disposed of in accordance with the regulations of the State of New Jersey.

13. PROVIDE UNDERGROUND TANK TEST CERTIFICATION RESULTS.

The results of the underground tank leak testing are provided as Attachment 6.

Kenneth A. Walanski 10-12-04

K.A. Walanski, P.E.

M5

ATTACHMENT N

DeSoto, Inc.
1700 SOUTH MOUNT PROSPECT ROAD, DES PLAINES, ILLINOIS 60018 TELEPHONE 312-391-9000
(412) 243-3230

July 23, 1984

Mr. Anthony J. McMahon
Division of Waste Management
Bureau of Industrial Site Evaluation
Department of Environmental Protection
P. O. Box CN 029
Trenton, New Jersey 08625

Attention: Ms. Maria Petix

Re: DeSoto, Inc.
8600 River Road
Pennsauken, Camden County, N. J.

Dear Mr. McMahon:

The following information is provided as an addendum to the original Environmental Clean-up Responsibility Act (ECRA) submission for the facility.

1. A sampling plan is being prepared which will address Department of Environmental Protection (DEP) concerns over possible subsurface contamination from a below grade wastewater separator at the facility. The plan will be submitted to the DEP for its approval. Afterwards it will be implemented and the results provided to the DEP. This separator was used as a primary clarifier for wastewater generated during the production of latex paint, and was completely independent of transfer or storage systems used for wastes from organic solvent-borne (often referred to as oil-base) paints.

2. The secondary containment area for the two abovegrade waste solvent tanks has a sump with a concrete bottom. This sump was used as an accumulation point to effect the pumping out of precipitation, and has no outlet.

3. The organic solvent which was discovered in the underground tanks, the laboratory schemicals, and the containers of what appears to be sulfuric acid will be removed from the facility. The DEP will be notified of the location to which these materials are sent, and provided with copies of manifests if they are managed as hazardous wastes.

4. There are no wells on the site, with the exception of the one which is owned and operated by Pennsauken Township.

5. Residual titanium dioxide and sodium carbonate will be removed from the railroad tracks, even though they are not hazardous substances/wastes and do not fall under the ambit of ECRA.

6. The floors within the building will be cleaned of residues even though these materials, i.e. titanium dioxide, latex emulsion, sodium carbonate and inorganic pigments, are not hazardous substances/wastes and do not fall under the ambit of ECRA.

received
30 JUL 1984

ATTACHMENT N1

Mr. Anthony J. McMahon
Department of Environmental Protection
Trenton, N.J. 08625
Attn: Ms. Maria Petix

7. No wastes or other substances, either hazardous or not, were ever buried on the site.

Sincerely,

Ken Walanski

K. A. Walanski, P.E.
Corporate Environmental Engineer

N2

ATTACHMENT O

PROTANIC PROFESSIONAL TANK INVESTIGATION CORP.

P.O. BOX 17591 • MILWAUKEE, WISCONSIN 53217 • PHONE WISCONSIN (414) 332-9422
332-0494

August 3, 1984

Mr. Ken Wallenski
DeSoto, Inc.
1700 S. Mount Prospect Road
Des Plaines, IL 60018

RECEIVED
AUG 7 1984
ENGINEERING DEPT.

Re: Tank System Test, July 17, 18 & 19, 1984
8600 River Road
Pennsauken, New Jersey

Dear Mr. Wallenski:

The tank systems tested at this location are identified as follows:

Tank System # 1 8,000 gallon tank.
Tank System # 2 8,000 gallon tank.
Tank System # 3 8,000 gallon tank.

The National Fire Protection Association's criteria for a tight tank system is a system with a rate of leak less than .050 gal/hr. These are calculated, mathematical tolerances only and are not meant to indicate the permission of any leak.

During the stand-pipe test procedure the liquid hydrostatic pressure applied to the underground tank system is generally two to three times greater than normal liquid storage pressures. This increase in hydrostatic pressure will amplify the indicated rate of leak accordingly.

Tank System # 1 showed a rate of leak of +.023 gal/hr.
Tank System # 1 is tight.

Tank System # 2 showed a rate of leak of -.013 gal/hr.
Tank System # 2 is tight.

MEMBER PEI PETROLEUM EQUIPMENT INSTITUTE

ATTACHMENT 01

PROTANIC PROFESSIONAL TANK INVESTIGATION CORP.

P.O. BOX 17591 • MILWAUKEE, WISCONSIN 53217 • PHONE WISCONSIN (414) 332-9422
332-0494

August 3, 1984

Mr. Ken Wallenski
Page 2

Tank System # 3 showed a rate of leak of +.010 gal/hr.
Tank System # 3 is tight.

Prior to the test procedure the tanks were filled with water for test purposes and all product lines were disconnected.

Sincerely,

William J. Furpora

WJP/mmo

MEMBER PEI PETROLEUM EQUIPMENT INSTITUTE

02

PROTANIC PROFESSIONAL TANK INVESTIGATION CORP.

P.O. BOX 17591 • MILWAUKEE, WISCONSIN 53217 • PHONE WISCONSIN (414) 332-9422
332-0494

RECEIVED
AUG 7 1984
ENGINEERING DEPT.

August 3, 1984

Mr. Ken Wallenski
DeSoto, Inc.
1700 S. Mount Prospect Road
Des Plaines, IL 60018

Re: Tank System Test, July 17 & 18, 1984
8600 River Road
Pennsauken, New Jersey

Dear Mr. Wallenski:

The tank systems tested at this location are identified as follows:

Tank System # 4 4,000 gallon tank.
Tank System # 5 4,000 gallon tank.
Tank System # 6 4,000 gallon tank.

The National Fire Protection Association's criteria for a tight tank system is a system with a rate of leak less than .050 gal/hr. These are calculated, mathematical tolerances only and are not meant to indicate the permission of any leak.

During the stand-pipe test procedure the liquid hydrostatic pressure applied to the underground tank system is generally two to three times greater than normal liquid storage pressures. This increase in hydrostatic pressure will amplify the indicated rate of leak accordingly.

Tank System # 4 showed a rate of leak of +.003 gal/hr.
Tank System # 4 is tight.

Tank System # 5 showed a rate of leak of +.018 gal/hr.
Tank System # 5 is tight.

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332-0494

August 3, 1984

Mr. Ken Wallenski
Page 2

Tank System # 6 showed a rate of leak of +.009 gal/hr.
Tank System # 6 is tight.

Prior to the test procedure the tanks were filled with water for test purposes and all product lines were disconnected.

Sincerely,

William J. Purpora

WJP/mmo

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04

PROTANIC PROFESSIONAL TANK INVESTIGATION CORP.

P.O. BOX 17591 • MILWAUKEE, WISCONSIN 53217 • PHONE WISCONSIN (414) 332-9422
332-0494

August 3, 1984

RECEIVED
AUG 7 1984
ENGINEERING DEPT.

Mr. Ken Wallenski
DeSoto, Inc.
1700 S. Mount Prospect Road
Des Plaines, IL 60018

Re: Tank System Test, July 19 & 20, 1984
8600 River Road
Pennsauken, New Jersey

Dear Mr. Wallenski:

The tank systems tested at this location are identified as follows:

Tank System # 7	4,000 gallon tank.
Tank System # 8	4,000 gallon tank.
Tank System # 9	4,000 gallon tank.

The National Fire Protection Association's criteria for a tight tank system is a system with a rate of leak less than .050 gal/hr. These are calculated, mathematical tolerances only and are not meant to indicate the permission of any leak.

During the stand-pipe test procedure the liquid hydrostatic pressure applied to the underground tank system is generally two to three times greater than normal liquid storage pressures. This increase in hydrostatic pressure will amplify the indicated rate of leak accordingly.

Tank System # 7 showed a rate of leak of +.015 gal/hr.
Tank System # 7 is tight.

Tank System # 8 showed a rate of leak of -.022 gal/hr.
Tank System # 8 is tight.

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05

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332-0494

August 3, 1984

Mr. Ken Wallenski
Page 2

Tank System # 9 showed a rate of leak of +.005 gal/hr.
Tank System # 9 is tight.

Prior to the test procedure the tanks were filled with water for test purposes and the product lines were disconnected.

Sincerely,

William J. Purpora

WJP/mmo

MEMBER PEI PETROLEUM EQUIPMENT INSTITUTE

06

PROTANIC PROFESSIONAL TANK INVESTIGATION CORP.

P.O. BOX 17591 • MILWAUKEE, WISCONSIN 53217 • PHONE WISCONSIN (414) 332-9422
332-0494

August 3, 1984

RECEIVED
AUG 7 1984
ENGINEERING DEPT.

Mr. Ken Wallenski
DeSoto Inc.
1700 S. Mount Prospect Road
Des Plaines, IL 60018

Re: Tank System Test, July 20, 1984
8600 River Road
Pennsauken, New Jersey

Dear Mr. Wallenski:

The tank systems tested at this location are identified as follows:

Tank System # 10 4,000 gallon tank.
Tank System # 11 4,000 gallon tank.

The National Fire Protection Association's criteria for a tight tank system is a system with a rate of leak less than .050 gal/hr. These are calculated, mathematical tolerances only and are not meant to indicate the permission of any leak.

During the stand-pipe test procedure the liquid hydrostatic pressure applied to the underground tank system is generally two to three times greater than normal liquid storage pressures. This increase in hydrostatic pressure will amplify the indicated rate of leak accordingly.

Tank System # 10 showed a rate of leak of +.032 gal/hr.
Tank System # 10 is tight.

Tank System # 11 showed a rate of leak of +.027 gal/hr.
Tank System # 11 is tight.

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PROTANIC PROFESSIONAL TANK INVESTIGATION CORP.

P.O. BOX 17591 • MILWAUKEE, WISCONSIN 53217 • PHONE WISCONSIN (414) 332-9422
332-0494

RECEIVED
AUG 7 1984
ENGINEERING DEPT.

August 3, 1984

Mr. Ken Wallenski
DeSoto Inc.
1700 S. Mount Prospect Road
Des Plaines, IL 60018

Re: Tank System Test, July 23, 1984
8600 River Road
Pennsauken, New Jersey

Dear Mr. Wallenski:

The tank systems tested at this location are identified as follows:

Tank System # 12	7,500 gallon tank.
Tank System # 13	7,500 gallon tank.
Tank System # 14	25,000 gallon tank.

The National Fire Protection Association's criteria for a tight tank system is a system with a rate of leak less than .050 gal/hr. These are calculated, mathematical tolerances only and are not meant to indicate the permission of any leak.

During the stand-pipe test procedure the liquid hydrostatic pressure applied to the underground tank system is generally two to three times greater than normal liquid storage pressures. This increase in hydrostatic pressure will amplify the indicated rate of leak accordingly.

Tank System # 12 showed a rate of leak of +.008 gal/hr.
Tank System # 12 is tight.

Tank System # 13 showed a rate of leak of +.004 gal/hr.
Tank System # 13 is tight.

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08

PROTANIC PROFESSIONAL TANK INVESTIGATION CORP.

P.O. BOX 17591 • MILWAUKEE, WISCONSIN 53217 • PHONE WISCONSIN (414) 332-9422
332-0494

August 3, 1984

Mr. Ken Wallenski
Page 2

Tank System # 14 showed a rate of leak of -.015 gal/hr.
Tank System # 14 is tight.

Prior to the test procedure the tanks were filled with water for test purposes.

Prior to the test procedure of tank system # 12 the vent pipe was found to be leaking and repaired.

Sincerely,

William J. Purpora

WJP/mmo

MEMBER PEI PETROLEUM EQUIPMENT INSTITUTE

09

ATTACHMENT P

CONTAMINATION INVESTIGATION
BURIED DECOMMISSIONED TANK
PENNSAUKEN, NEW JERSEY

PREPARED FOR

DESOTO, INC.
DES PLAINES, ILLINOIS

OCTOBER 4, 1984

PROJECT NO. 846531

IT CORPORATION
PITTSBURGH, PENNSYLVANIA

ATTACHMENT P1

TABLE OF CONTENTS

	PAGE
LIST OF TABLES/LIST OF FIGURES	iii
1.0 INTRODUCTION	1
1.1 BACKGROUND	1
1.2 PURPOSE AND OBJECTIVES OF STUDY	1
2.0 METHODOLOGY	3
2.1 FIELD PROGRAM	3
2.1.1 Soil Borings	3
2.1.2 Sample Collection	4
2.1.3 Sample Identification	6
2.1.4 Chain-of-Custody	6
2.2 LABORATORY TESTING	8
2.2.1 Selection of Samples for Analysis	8
2.2.2 Analysis Program	8
2.2.3 Laboratory Facility	10
2.3 QUALITY ASSURANCE PLAN	11
2.3.1 Procurement and Control of Subcontractors	11
2.3.2 Instructions and Procedures	12
2.3.3 Identification and Control of Samples	12
2.3.4 Test Control	12
2.3.5 Control of Measuring and Test Equipment	13
2.3.6 Nonconformance/Corrective Action	14
2.3.7 Project Records Administration	14
3.0 DISCUSSION OF RESULTS	15
3.1 SUBSURFACE CONDITIONS	15
3.2 EXTENT AND DEGREE OF CONTAMINATION	15
3.2.1 Organic Priority Pollutants	16
3.2.2 Heavy Metals	17
3.2.3 Cyanides and Phenolic Compounds	17
4.0 SUMMARY AND CONCLUSIONS	19

P2

1.0 INTRODUCTION

Under contract to DeSoto, Inc. (DeSoto), IT Corporation (IT) has performed an investigation relative to potential contamination from a buried decommissioned tank at the DeSoto plant in Pennsauken, New Jersey. This report provides an account of the activities and results of this study.

1.1 BACKGROUND

The tank under investigation is a four-chambered concrete vessel formerly used as a primary clarifier/separator for latex paint process water. It is located south of the main plant building and is approximately 39 feet long and 11 feet wide (Figure 1). When active, it received effluent from the plant via a four-inch-diameter line. After separation of solids and liquids, tank waters were discharged to the Pennsauken Sewer Authority. The bottom of the tank was about six feet below the ground surface with the sidewalls extending about 1.7 feet above grade (Figure 2). As part of the tank decommissioning, DeSoto removed the sludge contained in the clarifier, filled the tank with sand and gravel, placed concrete over the tank, and covered it with soil. Although oil-based paints were manufactured at the plant, associated liquid wastes were prohibited from entry into this tank; an independent collection system was used for these wastes.

1.2 PURPOSE AND OBJECTIVES OF STUDY

DeSoto plans to sell the Pennsauken plant property. Pursuant to the requirements of the New Jersey Environmental Cleanup Responsibility Act (ECRA), DeSoto requires information for submittal to the New Jersey Department of Environmental Protection, Bureau of Industrial Site Evaluation (DEP), regarding potential soil contamination. The buried tank described in Section 1.1 was the focus of potential contamination concern. The purpose of the IT study was to develop needed data in strict compliance with ECRA regulations and requirements. Work plans were submitted and notice was given to the DEP prior to initiating this investigation.

2.0 METHODOLOGY

2.1 FIELD PROGRAM

The field program undertaken for this project involved the selection of locations for and installation of four borings to access subsurface soils for sampling. Information obtained from site exploration activities was recorded and documented in accordance with appropriate sections of the IT Quality Assurance Manual. Required documentation for this project included daily logs of project activities and subsurface logs. Completed forms are given as Appendices A and B, respectively.

2.1.1 Soil Borings

On August 20, 1984, an IT representative met with DeSoto plant personnel to review proposed boring locations. The locations of the buried tank and nearby underground utilities were evaluated and access conditions assessed. Based on this inspection, four boring locations were selected as shown in Figure 1.

Boring development occurred on August 23, 1984. Drilling was performed under the supervision of an IT field geologist. Holes were advanced using a Mobile Model B-61 truck-mounted rotary drill rig; hollow-stem augers, which precluded the need for drilling mud, were employed. Borings were advanced to depths of 14 to 15 feet. These depths were sufficient to accomplish the following:

- Assure soil samples were made available from horizons at or below the bottom of the tank
- Penetrate fill materials and reach natural soils.

In each of the borings, soil materials encountered were sampled and Standard Penetration tests performed continuously using a split-spoon sampler in accordance with the American Society for Testing and Materials (ASTM) Procedure D 1586. Borings were logged by the IT field geologist; boring logs are provided as Appendix B. As the continuous

samples were collected, they were visually inspected in conjunction with the logging effort. During the logging process, emphasis was placed on identifying evidence of contamination such as differences in soil texture, color, or the presence of noticeable odors. An internal IT technical procedure entitled "IT Visual Classification of Subsurface Materials, Classification Log Legend" describes the manner in which information obtained from subsurface borings was recorded.

2.1.2 Sample Collection

The following considerations formed the basis for the site-specific sampling program:

- Location and number of stations to be sampled
- Methods of sampling to be employed
- Volume of samples to be collected
- Type and kind of analyses to be performed in the laboratory
- Procedures and precautions to be followed during sampling
- Methods of preservation and shipment.

The following general procedure was used to implement the field sampling program:

- Prepare and study a site map showing the location of sampling
- Review the sample collection program to become familiar with the overall scope of the study and also sampling procedures and equipment, handling procedures, and shipping requirements
- Determine the characteristics of the material to be sampled, become familiar with the safety precautions and practices, and obtain the necessary safety equipment

Prior to the collection of each sample, the split-spoon was triple cleaned as follows:

- Primary wash with tap water
- Wipe with hexane
- Secondary wash with distilled water.

The augers were decontaminated only if noticeable signs (e.g., odor) of contamination existed in the hole.

2.1.3 Sample Identification

Sample containers were marked to allow identification from the time of collection and packaging through shipping and storage. Sample identification included the following:

- Project name and number
- Sample number
- Sampling location (e.g., boring, sampling interval)
- Sampling date
- Individual performing the sampling.

Samples were placed in ice chests containing "blue ice" or a similar pack of frozen gel and packed to prevent breakage during shipment. All of the collected samples were delivered to IT's analytical laboratory near Pittsburgh, Pennsylvania. Sample storage in the laboratory was in a refrigerated, secure area until required analyses were completed.

2.1.4 Chain-of-Custody

The following is a discussion of IT's chain-of-custody program that was implemented in conjunction with the transport of soil samples from the DeSoto site to IT's laboratory. Chain-of-custody procedures are designed to document sample possession from the time of collection to disposal, in accordance with federal guidelines. For the purpose of these procedures, a sample is considered in custody if it is:

2.2 LABORATORY TESTING

2.2.1 Selection of Samples for Analysis

Samples for analysis were selected by the IT field geologist on the basis of evidence of contamination and position within the soil profile. One sample which represented either an area of evident contamination or soil conditions at the base of the tank was selected from each boring for analysis. The second sample selected from each boring was that taken at the top of the undisturbed materials. This protocol provides data concerning the migration of contaminants (evident or not) into the natural materials zone. The location at the base of the tank was selected because it is the zone closest to the tank which can be used to detect contamination.

The samples selected for analysis are identified in Table 1. The shallower (A-series) samples reflect conditions adjacent to the base of the tank. The deeper (B-series) samples reflect conditions of the top of the native soils.

2.2.2 Analysis Program

The analytical parameters selected--all priority pollutants except pesticides and polychlorinated biphenyls (PCBs)--were those requested by the New Jersey DEP during discussions between DeSoto representatives and Ms. Maria Petix of the DEP. These parameters were selected on the basis of the site developmental history and the nature of the processes at the site which may have resulted in environmental contamination.

The methods used by IT's laboratory in the conduct of these analyses are those recommended by the U.S. Environmental Protection Agency (EPA). Samples were prepared and analyzed in accordance with accepted protocols.

Soil samples for organic contaminant analysis were prepared and then analyzed by gas chromatography/mass spectrometry (GC/MS) in accordance with the following EPA procedures (U.S. Environmental Protection Agency, 1980b):

- Volatile Compounds - Method 8.24
- Acid Extractable Compounds - Method 8.25
- Base-Neutral Extractable Compounds - Method 8.25.

Heavy metals were determined by first digesting the soil with nitric acid and then analyzing the extract using the following EPA procedures (U.S. Environmental Protection Agency, 1979):

- Antimony - Method 204.2
- Arsenic - Method 206.2
- Beryllium - Method 210.2
- Cadmium - Method 213.1
- Chromium - Method 218.1
- Copper - Method 220.1
- Lead - Method 239.1
- Mercury - Method 245.1
- Nickel - Method 249.1
- Selenium - Method 270.2
- Silver - Method 272.2
- Thallium - Method 279.2
- Zinc - Method 289.2.

Soil samples subjected to cyanide and phenolic compound analyses were prepared by deionized water digestion/distillation. Analyses of the distillates were performed in accordance with accepted procedures as follows:

- Cyanide - Method 335.2 (U.S. Environmental Protection Agency, 1979)

- Phenolic Compounds - Method 510B (American Public Health Association, et al., 1980).

IT accomplished the analyses at the detection limits given in Table 2. The detection limits for organics on the table are generally those required by the EPA for the Contract Laboratory Program (CLP). The

detection limits for metals generally represent drinking water standards or practically achievable levels needed for meaningful data interpretation. Explanations for detection limits arrived at other than by the above methods are described in the table.

The results of this testing are given in Tables 3, 4, 5, and 6. The reported data relate to the total composition of the soils analyzed and, as such, are pertinent to the evaluation of potential direct-contact and airborne exposure pathways. The reported values do not directly reflect the fraction of the organic or inorganic compounds/elements that would normally be leached from the soil by infiltrating rainwater.

2.2.3 Laboratory Facility

The analytical program for this project was completed by the following laboratories:

- IT Corporation
  5310 Old William Penn Highway
  Export, Pennsylvania 15632
  (412) 327-3030

- IT Corporation
  17605 Fabrica Way
  Cerritos, California 90701
  (213) 921-9831.

The procedures in IT laboratories have been reviewed by many federal and state regulatory agencies. The laboratory in Pittsburgh (Export) maintains the following certifications and proficiency ratings:

- EPA and the Commonwealth of Pennsylvania for drinking water analyses under the Safe Drinking Water Act (Laboratory Certification No. 38-120).

- National Institute for Occupational Safety and Health (NIOSH) under the Proficiency Analytical Testing (PAT) Program (Laboratory Identification No. 15225001).

- EPA Natural Gas Condensate Check Sample Program for PCBs.

- The laboratory participates in the certification program with the American Association of State Highway and Transportation Officials (AASHTO) Materials Reference Laboratory at the National Bureau of Standards in Washington, DC.

- The laboratory is approved by the Commonwealth of Kentucky to perform overburden/soil analyses. Approval is granted by the Division of Regulatory Services, University of Kentucky, Lexington, Kentucky.

IT's Cerritos laboratory is certified as and EPA CLP laboratory and maintains various other state and federal certifications.

It should be noted that IT is currently under contract to Diamond Shamrock to complete analyses associated with dioxin and other chemical evaluations at the 80 Lister Avenue site, Newark, New Jersey. As part of this project, IT's laboratory facilities have been evaluated and accepted by the New Jersey DEP.

2.3 QUALITY ASSURANCE PLAN

Project activities (i.e., field, laboratory, and office) were controlled by applicable elements of the following project-specific Quality Assurance Program. The program is based on the requirements of:

- IT Quality Assurance Manual
- EPA guidelines and recommendations
- Available contract documents and the statement of work.

2.3.1 Procurement and Control of Subcontractors

IT used the procurement documents to "pass down" the performance of specific quality requirements to the subcontractor. The "pass down" of specific requirements provided that appropriate conditions could be met without requiring the subcontractor to have his own individual quality assurance program.

3.0 DISCUSSION OF RESULTS

This chapter presents the results of the investigation of the buried decommissioned tank at the DeSoto Pennsauken, New Jersey plant.

3.1 SUBSURFACE CONDITIONS

The area around the separator tank is underlain by 11 to 12 feet of fill, comprised of fine to coarse sand with little or no fines (Unified Standard Classification System [USCS] SP-SW). These sands are generally loose to medium dense with an average Standard Penetration resistance of approximately nine blows per foot. Based on the gradation and density of these sands, the saturated permeability of these materials is expected to be on the order of 10^{-2} centimeter per second.

The fill is underlain by natural soils. The upper two feet of soil is comprised of medium dense to very dense medium to coarse sand with little or no fines (SP-SW). A layer of sandy silt/silty sand (ML-SM) and very dense fine to medium sand appears to lie beneath the coarser materials. The saturated permeability of these natural soils would be expected to range from approximately 1×10^{-4} to 8×10^{-3} centimeter per second.

Many of the observed soils were moist, but no significant water inflow to the borings was noted. It is inferred that the bottom of the tank lies above the water table; seasonal fluctuations in ground water elevations may alter this situation at certain times of the year.

3.2 EXTENT AND DEGREE OF CONTAMINATION

The results of laboratory testing of the collected soil samples (Tables 3 through 6) demonstrate that no significant contamination of the subsurface has occurred in the vicinity of the wastewater clarifier nor is there any environmental or public health threat associated with it. The following sections provide a more detailed basis for these conclusions.

3.2.1 Organic Priority Pollutants

Except for a trace amount of ethylbenzene (16 parts per billion) at a single location, no volatile organic priority pollutants were detected in any of the soil samples (Table 3). There are no established standards for allowable ethylbenzene concentrations in soil or water. The EPA recently determined at the Enterprise Avenue waste site in Philadelphia, Pennsylvania that a level of 12,000 parts per billion in soil constituted a threshold for environmental concern. During remedial action at this site, soils containing ethylbenzene concentrations below this threshold were not subject to removal and allowed to be used at the site as backfill. Based on these factors, a localized soil concentration of 16 parts per billion ethylbenzene does not constitute an environmental or public health threat.

None of the acid-extractable priority pollutants were detected in site soil samples (Table 4).

No base-neutral extractable priority pollutants were found above detection limits, with the exception of bis (2-ethylhexyl) phthalate (Table 5). This compound was found above detection limits in single sample at a concentration of 850 parts per billion. No standards for allowable soil or water concentrations have been established, but the following guidance (U.S. Environmental Protection Agency, 1980a) is available for water concentrations (parts per billion):

- To protect human health - 15,000
- No adverse effect level in drinking water (as calculated by the National Academy of Science/ National Research Council - 4,200.

Based on these factors, the observed soil concentration of 850 parts per billion does not constitute an environmental or public health threat.

3.2.2 Heavy Metals

Table 6 lists the concentrations of heavy metals found in the site soils. Because heavy metals are a natural component of all soils, a comparison of the analytical results with the range of heavy metal concentrations normally found in soils (Table 7) provides a basis for an assessment. Such a comparison indicates that the concentrations of heavy metals found in the soils around the separator tank are within the ranges found in natural soil (for those heavy metals for which normal range data were available).

A normal concentration range of cadmium in soils was not available in the literature reviewed. To assess the significance of the cadmium concentrations found in site soil samples, an evaluation of leachability is appropriate. The solubility of cadmium compounds is very sensitive to pH, and it is apparent that the amount of cadmium that could be leached from site soils is quite limited. Calculations based on solubility-pH relationships for cadmium hydroxide (Benefield, et al., 1982) indicate that this soil would produce a nondetectable cadmium concentration in the extraction procedure (EP) leachate.

3.2.3 Cyanides and Phenolic Compounds

Cyanide was not detected above 0.5 part per million in any of the tested soils (Table 6). The results of the GC/MS analysis of acid-extractable priority pollutants (Section 3.2.1, Table 4) indicate that no phenolic priority pollutants were present.

4.0 SUMMARY AND CONCLUSIONS

Under contract to DeSoto, IT has completed an investigation of potential soil contamination associated with a formerly used separator tank at the DeSoto plant site in Pennsauken, New Jersey. The study, which was designed and executed to meet applicable New Jersey ECRA requirements, involved the development of four soil borings and laboratory analysis of eight soil samples. Samples were selected from horizons at or below the bottom of the tank to define maximum levels of contamination and to assess what, if any, migration of such contamination has occurred. The developed analytical data show that no environmental or public health risk is posed by the concentrations of substances found in the subsurface adjacent to the clarifier.

We trust that this report satisfies your requirements at this time. If you have any questions or need additional information, please do not hesitate to contact us.

Respectfully submitted,

Leo M. Brausch
Manager, Project Development

LMB:mbu

Project No. 846531
October 4, 1984

P14

TABLE 1

SAMPLES SELECTED FOR ANALYSIS

SAMPLE IDENTIFICATION	BORING NUMBER[1]	SPLIT SPOON SAMPLE NUMBER[2]	DEPTH INTERVAL[2] (feet)
B-1A	B-1	S-4	7.0-9.0
B-1B	B-1	S-6	11.0-13.0
B-2A	B-2	S-4	7.0-9.0
B-2B	B-2	S-6	11.0-13.0
B-3A	B-3	S-4	6.0-8.0
B-3B	B-3	S-6	10.0-12.0
B-4A	B-4	S-5	8.0-10.0
B-4B	B-4	S-7	12.0-14.0

[1] For boring locations, see Figure 1.

[2] For descriptions of materials sampled, see boring logs (Appendix B).

TABLE 3

LABORATORY ANALYSIS RESULTS
VOLATILE ORGANIC PRIORITY POLLUTANTS

PARAMETER[1]	CAS NUMBER[2]	SAMPLE IDENTIFICATION[3] (Concentration in micrograms per kilogram or parts per billion)							
		B-1A	B-1B[4]	B-2A	B-2B	B-3A	B-3B	B-4A	B-4B
Acrolein	107-02-8	<50[5]	<50	<50	<50	<50	<50	<40	<50
Acrylonitrile	107-13-3	<50	<50	<50	<50	<50	<50	<50	<50
Benzene	71-43-2	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform	75-25-2	<5	<5	<5	<5	<5	<5	<5	<5
Carbon Tetrachloride	56-23-5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	108-90-7	<5	<5	<5	<5	<5	<5	<5	<5
Chlorodibromomethane	124-48-1	<5	<5	<5	<5	<5	<5	<5	<5
Chloroethane	75-00-3	<10	<10	<10	<10	<10	<10	<10	<10
2-Chloroethylvinyl ether	110-75-8	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	67-66-3	<5	<5	<5	<5	<5	<5	<5	<5
Dichlorobromomethane	75-27-4	<5	<5	<5	<5	<5	<5	<5	<5
Dichlorodifluoromethane	75-71-8	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	75-34-3	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	107-06-2	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethylene	75-35-4	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	78-87-5	<5	<5	<5	<5	<5	<5	<5	<5
1,3-Dichloropropylene	542-75-6	<5	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	100-41-4	<5	<5	16	<5	<5	<5	<5	<5
Methyl bromide	74-83-9	<10	<10	<10	<10	<10	<10	<10	<10
Methyl chloride	74-87-3	<10	<10	<10	<10	<10	<10	<10	<10
Methylene chloride	75-09-2	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	79-34-5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	127-18-4	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	108-88-3	<5	<5	<5	<5	<5	<5	<5	<5
trans-1,2-Dichloroethylene	156-60-5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	71-55-6	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	79-00-5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	79-01-6	<5	<5	<5	<5	<5	<5	<5	<5
Trichlorofluoromethane	75-69-4	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Chloride	75-01-4	<10	<10	<10	<10	<10	<10	<10	<10

(1) For detection limits, see Table 2. Testing procedures are given in Section 2.2.2.

(2) The numbers presented in this column are the Chemical Abstracts Service (CAS) numbers used for cataloging the indicated compounds in the Chemical Abstracts Index.

(3) For sample location information, see Table 1.

(4) Sample was analyzed in duplicate with identical results for each run.

(5) "<" indicates below detection limit for compound.

TABLE 4

LABORATORY TESTING RESULTS
ACID EXTRACTABLE PRIORITY POLLUTANTS

PARAMETER[1]	CAS NUMBER[2]	SAMPLE IDENTIFICATION[3] (Concentration in micrograms per kilogram or parts per billion)							
		B-1A	B-1B	B-2A	B-2B	B-3A	B-3B	B-4A	B-4B
2-Chlorophenol	95-57-8	<330[4]	<330	<330	<330	<330	<330	<330	<330
2,4-Dichlorophenol	120-83-2	<330	<330	<330	<330	<330	<330	<330	<330
2,4-Dimethylphenol	105-67-9	<300	<300	<300	<300	<300	<300	<300	<300
4,6-Dinitro-o-cresol	534-52-1	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600
2,4-Dinitrophenol	51-28-5	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600
2-Nitrophenol	88-75-5	<330	<330	<330	<330	<330	<330	<330	<330
4-Nitrophenol	100-02-7	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600
p-Chloro-m-cresol	59-50-7	<330	<330	<330	<330	<330	<330	<330	<330
Pentachlorophenol	87-86-5	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600
Phenol	108-95-2	<330	<330	<330	<330	<330	<330	<330	<330
2,4,6-Trichlorophenol	88-06-2	<330	<330	<330	<330	<330	<330	<330	<330

(1) For detection limits, see Table 2. Testing procedures are given in text Section 2.2.2.

(2) The numbers presented in this column are the Chemical Abstracts Service (CAS) numbers used for cataloging the indicated compounds in the Chemical Abstracts Index.

(3) For sample location information, see Table 1.

(4) "<" indicates below detection limit for compound.

TABLE 5

LABORATORY ANALYSIS RESULTS
BASE-NEUTRAL EXTRACTABLE
PRIORITY POLLUTANTS

PARAMETER[1]	CAS NUMBER[2]	SAMPLE IDENTIFICATION[3] (Concentration in micrograms per kilogram or parts per billion)							
		B-1A	B-1B	B-2A	B-2B	B-3A	B-3B	B-4A	B-4B
Acenaphthene	83-32-9	<330[4]	<330	<330	<330	<330	<330	<330	<330
Acenaphthylene	208-96-8	<330	<330	<330	<330	<330	<330	<330	<330
Anthracene	120-12-7	<330	<330	<330	<330	<330	<330	<330	<330
Benzidine	92-87-5	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600	<1,600
Benzo(a)anthracene	56-55-3	<330	<330	<330	<330	<330	<330	<330	<330
Benzo(a)pyrene	50-32-8	<330	<330	<330	<330	<330	<330	<330	<330
3,4-Benzofluoranthene	205-99-2	<330	<330	<330	<330	<330	<330	<330	<330
Benzo(ghi)perylene	191-24-2	<330	<330	<330	<330	<330	<330	<330	<330
Benzo(k)fluoranthene	207-08-9	<330	<330	<330	<330	<330	<330	<330	<330
Bis(2-chloroethoxy)methane	111-91-1	<330	<330	<330	<330	<330	<330	<330	<330
Bis(2-chlorethyl)ether	111-44-4	<330	<330	<330	<330	<330	<330	<330	<330
Bis(2-chloroisopropyl)ether	39638-32-9	<330	<330	<330	<330	<330	<330	<330	<330
Bis(chloromethyl)ether	542-88-1	<330	<330	<330	<330	<330	<330	<330	<330
Bis(2-ethylhexyl)phthalate	117-81-7	<330	<330	<330	850	<330	<330	<330	<330
4-Bromophenyl phenyl ether	101-55-3	<330	<330	<330	<330	<330	<330	<330	<330
Butyl benzyl phthalate	85-68-7	<330	<330	<330	<330	<330	<330	<330	<330
2-Chloronaphthalene	91-58-7	<330	<330	<330	<330	<330	<330	<330	<330
4-Chlorophenyl phenyl ether	7005-72-3	<330	<330	<330	<330	<330	<330	<330	<330
Chrysene	218-01-9	<330	<330	<330	<330	<330	<330	<330	<330
Dibenzo(a,h)anthracene	53-70-3	<330	<330	<330	<330	<330	<330	<330	<330
1,2-Dichlorobenzene	95-50-1	<330	<330	<330	<330	<330	<330	<330	<330
1,3-Dichlorobenzene	541-73-1	<330	<330	<330	<330	<330	<330	<330	<330
1,4-Dichlorobenzene	106-46-7	<330	<330	<330	<330	<330	<330	<330	<330
3,3'-Dichlorobenzidine	91-941-1	<660	<660	<660	<660	<660	<660	<660	<660
Diethyl phthalate	84-66-2	<330	<330	<330	<330	<330	<330	<330	<330
Dimethyl phthalate	131-11-3	<330	<330	<330	<330	<330	<330	<330	<330
Di-n-butyl phthalate	84-74-2	<330	<330	<330	<330	<330	<330	<330	<330
2,4-Dinitrotoluene	121-14-2	<330	<330	<330	<330	<330	<330	<330	<330
2,6-Dinitrotoluene	606-20-2	<330	<330	<330	<330	<330	<330	<330	<330

See footnotes at end of table.

TABLE 5
(Continued)

PARAMETER[1]	CAS NUMBER[2]	SAMPLE IDENTIFICATION[3] (Concentration in micrograms per kilogram or parts per billion)							
		B-1A	B-1B	B-2A	B-2B	B-3A	B-3B	B-4A	B-4B
Di-n-octyl phthalate	117-84-0	<330	<330	<330	<330	<330	<330	<330	<330
1,2-Diphenylhydrazine (Azobenzene)[5]	122-6-7	<330	<330	<330	<330	<330	<330	<330	<330
Fluoranthene	206-44-0	<330	<330	<330	<330	<330	<330	<330	<330
Fluorene	86-73-7	<330	<330	<330	<330	<330	<330	<330	<330
Hexachlorobenzene	118-71-1	<330	<330	<330	<330	<330	<330	<330	<330
Hexachlorobutadiene	87-68-3	<330	<330	<330	<330	<330	<330	<330	<330
Hexachlorocyclopentadiene	77-47-4	<330	<330	<330	<330	<330	<330	<330	<330
Hexachloroethane	67-72-1	<330	<330	<330	<330	<330	<330	<330	<330
Indeno(1,2,3-cd)pyrene	193-39-5	<330	<330	<330	<330	<330	<330	<330	<330
Isophorone	78-59-1	<330	<330	<330	<330	<330	<330	<330	<330
Naphthalene	91-20-3	<330	<330	<330	<330	<330	<330	<330	<330
Nitrobenzene	98-95-3	<330	<330	<330	<330	<330	<330	<330	<330
N-Nitrosodimethylene	62-75-9	<330	<330	<330	<330	<330	<330	<330	<330
N-Nitrosodi-n-propylamine	621-64-7	<330	<330	<330	<330	<330	<330	<330	<330
N-Nitrosodiphenylamine (Diphenylamine)[5]	86-30-6	<330	<330	<330	<330	<330	<330	<330	<330
Phenanthrene	85-01-8	<330	<330	<330	<330	<330	<330	<330	<330
Pyrene	129-00-0	<330	<330	<330	<330	<330	<330	<330	<330
1,2,4-Trichlorobenzene	120-82-1	<330	<330	<330	<330	<330	<330	<330	<330

(1) For detection limits, see Table 2. Testing methods given in Section 2.2.2.

(2) The numbers presented in this column are the Chemical Abstracts Service (CAS) numbers used for cataloging the indicated compounds in the Chemical Abstracts Index.

(3) For sample location information, see Table 1.

(4) "<" indicates below detection limit for compound.

(5) Detected as compound in parentheses.

TABLE 6

LABORATORY ANALYSIS RESULTS
METALS, CYANIDE, AND PHENOLIC COMPOUNDS

PARAMETER[1]	UNITS	SAMPLE IDENTIFICATION[2]							
		B-1A	B-1B	B-2A	B-2B	B-3A	B-3B	B-4A	B-4B
Antimony	mg/kg	0.14	<0.05[3]	<0.05	<0.05	<0.05/<0.05[4]	<0.05	<0.05	<0.05
Arsenic	mg/kg	10/11	10	11	11	11	11	10	11
Beryllium	mg/kg	0.24	0.15/0.15	0.20	0.24	0.19	0.20	0.29	0.29
Cadmium	mg/kg	5.2	0.26	0.22	<0.05	0.05	0.05	0.05	0.09/0.09
Chromium (total)	mg/kg	28	13	14/14	17	16	5.7	47	16
Copper	mg/kg	9.4/7.4	7.4	7.0	7.1	7.9	10	14	9.0
Lead	mg/kg	2.1	0.59	1.6/1.1	1.1	0.59	2.6	0.59	<0.50
Mercury	mg/kg	<0.10	<0.10	0.83/0.84	<0.10	<0.10	0.17	<0.10	<0.10
Nickel	mg/kg	25/23	23	19	23	24	17	29	22
Selenium	mg/kg	<0.05	<0.05	<0.05/<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	mg/kg	0.12	0.27	<0.05/0.12	15	5.3	0.17	0.17	4.1
Thallium	mg/kg	0.10	0.10/0.10	0.05	0.10	0.10	0.15	0.10	0.20
Zinc	mg/kg	41/41	26	19	25	34	23	84	33
Total Cyanide	mg/kg	<0.5	<0.5	<0.5	<0.5/<0.5	<0.5	<0.5	<0.5	<0.5
Phenolic Compounds	mg/kg	3.6	2.2	1.9	2.9	1.4/1.0	1.1	0.12	1.3

(1) For detection limits, see Table 2. Testing protocols are given in Section 2.2.2.

(2) For sample location information, see Table 1.

(3) "<" indicates below detection limit for element/compound.

(4) "#/#" indicates duplicate analysis as part of laboratory quality control program.

IT CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 846531	PROJECT NAME: De Soto Inc	
BORING NUMBER: B-1	COORDINATES: —	DATE: 8-23-84
ELEVATION: —	GWL: Depth — Date/Time —	DATE STARTED: 8-23-84
ENGINEER/GEOLOGIST: O Brunner	Depth — Date/Time —	DATE COMPLETED: 8-23-84
DRILLING METHODS: Hollow Stem Augers / Split Spoon Samples		PAGE 1 OF 1

DEPTH (Ft)	SAMPLE TYPE & NO.	BLOWS ON SAMPLER PER (6")	RECOVERY (%)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1				Concrete Pad			
2	S-1	2,2,4,6	25%	Fill: Loose, Brown, Medium grained, sand, some silt, moist	SW		Samples have a chemical odor
3							
4	S-2	2,3,4,5	20%	Fill: Loose, Brown, med. grained sand, some gray silt, moist	SW		
5							
6	S-3	6,6,11,19	75%	Fill: Med dense lt. brown and brown, med to course grained sand, little gravel, moist	SP		
7							
8	S-4	10,11,11,13	75%	Fill: Med. dense, brown med. grained sand, trace gravel, moist	SW		
9							
10	S-5	8,9,11,16	75%				
11							
12	S-6	5,7,8,7	80%	Med. dense, brown, med. grained, sand. trace dk brown sandy silt, moist	SW		
13							
14	S-7	6,6,7,7	20%	Med. stiff. brown, sandy silt, little clay, moist	ML		
15							

NOTES B.O.H 15.0'

Drilling contractor: Empire Soil Testing

Weather: Cloudy 72° some scattered rain

Driller: R. Logel

Helper: T. Carlini

Drill: Mobile Drill Model B-61

P21

IT CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 8465 31	PROJECT NAME: DE SOTO INC	
BORING NUMBER: B-2	COORDINATES: —	DATE: 2-23-84
ELEVATION: —	GWL: Depth — Date/Time —	DATE STARTED: 2-23-84
ENGINEER/GEOLOGIST: D. BRUNNER	Depth — Date/Time —	DATE COMPLETED: 2-23-84
DRILLING METHODS: HOLLOW STEM AUGERS / CONTINOUS SPLIT SPOON SAMPLE		PAGE 1 OF 1

DEPTH (FT)	SAMPLE TYPE & NO.	BLOWS ON SAMPLER PER (6")	RECOVERY (%)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
				CONCRETE PAD			SAMPLES HAVE A CHEMICAL ODOR
1							
2	S-1	3,3,4 4	20%	FILL: BROWN AND GRAY, LOOSE MED TO FINE GRAINED SAND SOME SILT, MOIST	SP		
3							
4	S-2	2,3,3, 4	0%	NO RECOVERY			
5							
6	S-3	3,5,5, 7	20%	FILL: MED. DENSE, BROWN, MED GRAINED SAND, SOME SANDY SILT, TRACE GRAVEL, MOIST	SP		
7							
8	S-4	4,4,7, 7	75%				
9							
10	S-5	10,12, 12 14	75%				
11				MED. DENSE, BROWN, MED. GRAINED, SAND, SOME LAYERS SANDY SILT, MOIST	SP		
12	S-6	13,15, 14,13	80%				
13				DENSE LT. BROWN, SANDY SILT, SOME CLAY, MOIST	SM		
14	S-7	17,23 27,33	85%	VERY DENSE LT. BROWN AND BROWN FINE TO MED. SAND, LITTLE SILT MOIST	SW		
15							

NOTES

B.P.H. 15.0'

DRILLING CONTRACTOR: EMPIRE SOIL TESTING

DRILLER: R. LOGEL

HELPER: T. CARLINI

WEATHER: CLOUDY 73° WITH SCATTERED RAIN

DRILL: MOBILE DRILL MODEL B-61

P22

IT CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 846531	PROJECT NAME: DE SOTO INC	
BORING NUMBER: B-3	COORDINATES: —	DATE: 8-23-84
ELEVATION: —	GWL: Depth — Date/Time —	DATE STARTED: 8-23-84
ENGINEER/GEOLOGIST: D. BRUNNER	Depth — Date/Time —	DATE COMPLETED: 8-23-84
DRILLING METHODS:		PAGE 1 OF 1

DEPTH (FT.)	SAMPLE TYPE & NO.	BLOWS ON SAMPLER PER (6")	RECOVERY (%)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1	S-1	8, 11, 12, 15	40%	FILL: MED DENSE, BROWN MED. SAND, WITH GRAY SANDY SILT, MOIST	SP		SAMPLE S-1 HAS A SLIGHT CHEMICAL ODOR
2							
3	S-2	10, 8, 6, 6	50%	FILL: MED DENSE BROWN MED. SAND, TRACE GRAVEL, MOIST	SP		
4							
5	S-3	6, 7, 19, 11	25%				
6				FILL: BR MED SAND w/ WHITE RESIDUE			
7	S-4	14, 17, 20, 23	75%	FILL: DENSE BROWN, MED., SAND SOME SILT, TRACE GRAVEL, MOIST	SP		
8							
9	S-5	15, 17, 21, 28	70%				SAMPLE S-6, S-7 HAVE SLIGHT CHEMICAL ODOR
10							
11	S-6	19, 23, 27, 34	70%				
12							
13	S-7	23, 29 33, 40	80%	VERY DENSE BROWN, MED TO COURSE, SAND TRACE GRAVEL MOIST	SW		
14				B.O.H. 14.0'			
15							

NOTES: DRILLING CONTRACTOR: EMPIRE SOIL TESTING

DRILLER: R. LOGEL

HELPER: T. CARLINI

DRILL: MOBILE DRILL MODEL B-61

WEATHER CLOUDY 72° WITH SCATTERED RAIN

P23

IT CORPORATION

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER: 8465 31	PROJECT NAME: DE SOTO INC	
BORING NUMBER: B-4	COORDINATES: —	DATE: 8-23-84
ELEVATION: —	GWL: Depth — Date/Time —	DATE STARTED: 8-23-84
ENGINEER/GEOLOGIST: D. BRUNNER	Depth — Date/Time —	DATE COMPLETED: 8-23-84
DRILLING METHODS: HOLLOW STEM AUGERS / CONTINUOUS SPLIT SPOON SAMPLES		PAGE 1 OF 2

DEPTH (FT)	SAMPLE TYPE & NO.	BLOWS ON SAMPLER PER 6"	RECOVERY (%)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1	S-1	4, 3, 3, 3	15%	FILL: LOOSE, BROWN, MED. TO FINE, SAND. TRACE GRAVEL MOIST	SP		
2							
3	S-2	2, 2, 3, 5	60%	FILL: LOOSE, BROWN, MED SAND, LITTLE SILT, TRACE GRAVEL MOIST.	SP		
4							
5	S-3	4, 4, 4, 5	40%				SAMPLES S-4, 5, 6, 7 and 8 HAVE SLIGHT CHEMICAL ODOR
6							
7	S-4	4, 7, 9, 11	60%	FILL: MED. DENSE BROWN MED SAND, SOME DK GRAYISH BROWN SANDY SILT, TRACE GRAVEL, MOIST	SW		
8							
9	S-5	11, 13, 15, 17	50%	FILL: DENSE, BROWN MED. SAND, TRACE GRAVEL, MOIST	SP		
10							
11	S-6	12, 12, 14, 15	70%				
12							
13	S-7	9, 9, 11, 9	80%	MED DENSE, BROWN MED. TO FINE SAND, TRACE SILT, MOIST	SP		
14							
15							

NOTES

P24

ATTACHMENT Q

CF

IT CORPORATION

July 23, 1984

Project No. 846531

WP
PLAN

Mr. Anthony McMahon
Division Waste Management
Bureau of Industrial Site Evaluation
New Jersey Department
of Environmental Protection
65 Prospect Road
Trenton, NJ 08618

Attn: Maria Petix

Transmittal
Work Plan
Tank Investigation
Pennsauken, New Jersey

Dear Ms. Petrix:

Mr. Ken Walanski of DeSoto, Inc., has requested that IT Corporation (IT) prepare and transmit this work plan to you. The plan presents our scope of work to undertake an investigation relative to a buried decommissioned tank at their Pennsauken, New Jersey plant. It was formulated based on Mr. Walanski's discussions with you. The major items which will be completed as part of this work plan will be the drilling of four holes adjacent to the tank, obtaining soil samples and analyzing them for selected priority pollutants.

Problem Statement

The tank under investigation is a four-chambered concrete container used as a primary clarifier for latex paint process water. It is located in the back portion of the plant property and is approximately 39 feet long and 10 feet wide. When active, it received influent from the plant via a four-inch diameter line. Effluent was discharged to the Pennsauken Sewer Authority. The bottom of the tank was about eight feet below ground surface with the sides nearly two feet high. As part of the decommissioning, DeSoto removed the sludges, filled the tank with sand and gravel, poured concrete over the tank and covered it with dirt. Although oil based paints were manufactured at the plant, liquid wastes were prohibited from entry into this tank (an independent treatment process was used). However, because of the possibility of the liquid wastes from the manufacture of oil-based paints reaching this tank, New Jersey Department of Environmental Protection (NJDEP) is requesting that an investigation be undertaken.

ATTACHMENT Q1

Work Plan

To investigate the subsurface conditions immediately adjacent to the tank, IT will drill four borings (one on each side of the tank). The perimeter of the tank will be located based on the existing drawings and discussion with plant personnel. Actual boring locations will be dependent upon access and location of underground utilities. The borings will be advanced using hollow stem augers and continuous samples will be taken with split spoons. It is expected that each hole will be terminated at a depth of 12 to 15 feet. This will insure that samples are obtained from a depth below the bottom of the tank. Samples will, however, continue to be taken until natural materials are encountered. A detailed log describing subsurface conditions will be prepared for each hole. Prior to sampling, the split-spoon will be triple cleaned as follows:

- Primary wash with water
- Wipe with hexane
- Secondary wash with distilled water

The augers will be decontaminated only if noticeable signs (e.g., odor) of contamination exist in the hole. The samples will be placed in appropriately labeled and sized jars. Two samples from each hole will be selected for analyses and shipped to our laboratory in Pittsburgh. The analyses, which will be performed, will be all priority pollutants with the exception of the pesticides and PCBs. The appropriate methods and detection limits are given in Table 1.

Schedule

IT expects to be in the field within one week of NJDEP's authorization to DeSoto to proceed. During the first day, while the drilling crews will be mobilized, the supervising geologist will meet with plant personnel and familiarize himself with site conditions, delineate underground utilities and lay out the boring locations. The holes will be drilled in the next 2 days and samples delivered to the laboratory within 48 hours of sampling. A report will be issued relative to the findings four weeks after completion of the field program.

Very truly yours,

David Andrews

David E. Andrews
Engineering Operations Manager

DEA:jmc

Enclosure

cc: K. Walanski

Q2

Q3

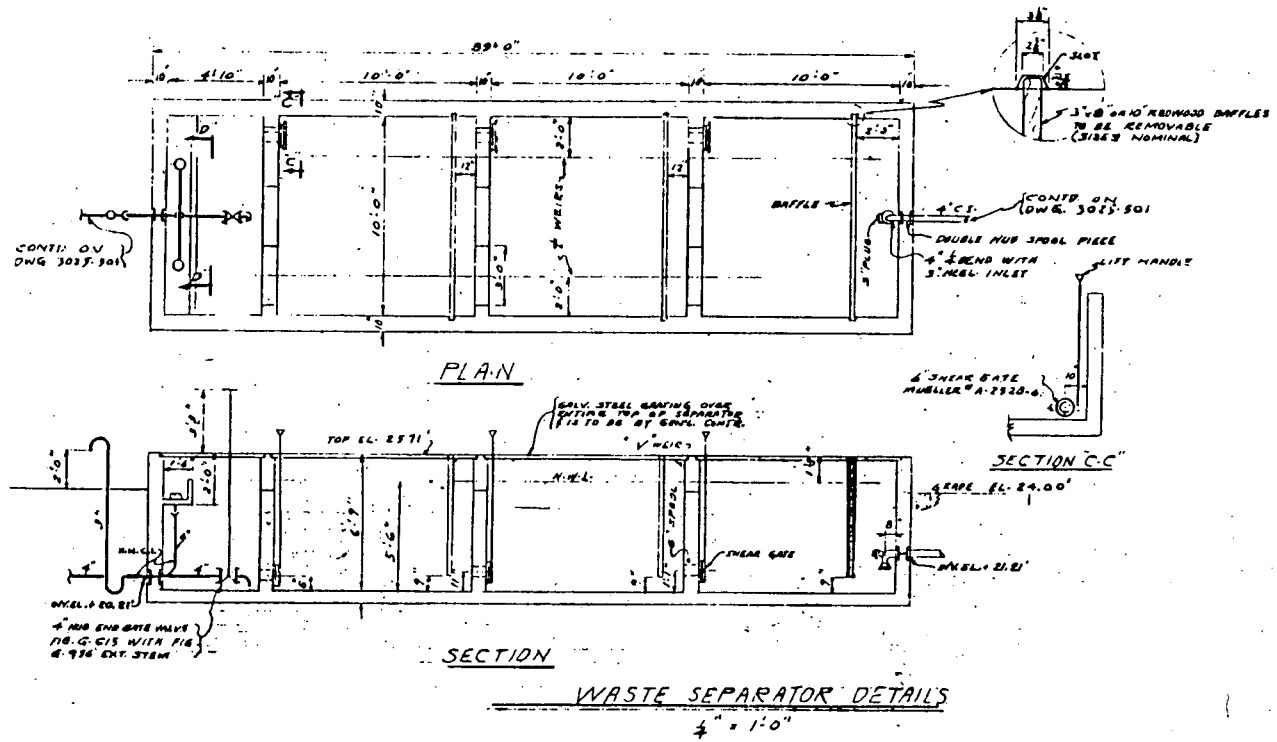


FIGURE 3

WASTE SEPARATOR DETAILS

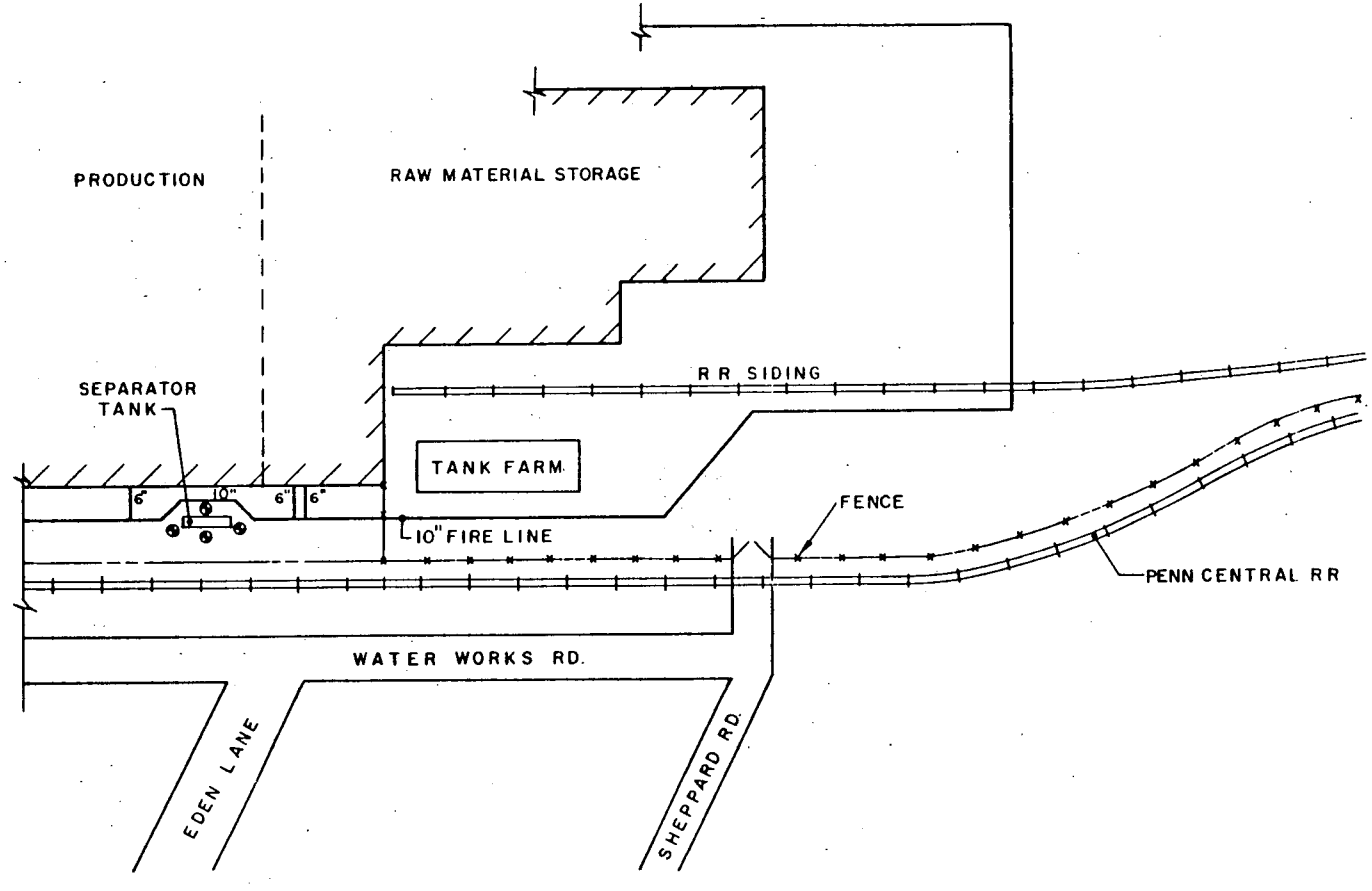
PREPARED FOR

DESOTO, INC.
DES PLAINS, ILLINOIS

DRAWN BY	RW	CHECKED BY		DRAWING NUMBER 84-6531-B1
	7-27-84	APPROVED BY		

IT CORPORATION

18 1253 HERCULENE A&B SMITH CO PGH PA



LEGEND:

⊕ BORING LOCATION

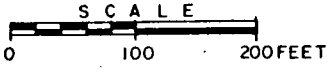


FIGURE 2

FACILITY LAYOUT & BORING LOCATION

PREPARED FOR

DESOTO, INC.
DES PLAINS, ILLINOIS

IT

IT CORPORATION

DRAWN BY	D. Weick	CHECKED BY	
	7-27-84	APPROVED BY	

DRAWING NUMBER 84653 1 - B2

18 1253 HERCULENE, A&B SMITH CO., PGH., PA

ATTACHMENT R

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only.

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

EPA — U.S. ENVIRONMENTAL PROTECTION AGENCY
NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTALLATION'S EPA I.D. NO.	NJD005440342
I. NAME OF INSTALLATION	DESOTO INC
II. INSTALLATION MAILING ADDRESS	8600 RIVER RD PENNSAUKEN, NJ 08110
III. LOCATION OF INSTALLATION	8600 RIVER RD PENNSAUKEN, NJ 08110

Amend 11/18/80 cp

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER: S F 1 — T/A C 1 — APPROVED — DATE RECEIVED (yr., mo., & day)

I. NAME OF INSTALLATION

DESOTO INCORPORATED

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 3 8600 RIVER ROAD

CITY OR TOWN: 4 PENNSAUKEN — ST. NJ — ZIP CODE 08110

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 5 8600 RIVER ROAD

CITY OR TOWN: 6 PENNSAUKEN — ST. NJ — ZIP CODE 08110

IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*: 2 SEARAERD, JAMES P. PLANT MANAGER — PHONE NO. *(area code & no.)* 609-786-7100

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: 8 DESOTO INCORPORATED

DETACH

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*
F = FEDERAL
M = NON-FEDERAL
M

VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [ ] A. FIRST NOTIFICATION
- [X] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO. NJD054440342

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

EPA Form 8700-12 (6-80)

CONTINUE ON REVERSE

ATTACHMENT R1

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

Please print or type with ELITE typ[illegible] ..aracters/inch) in the unshaded areas only.

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTALLATION'S EPA I.D. NO.	NJD005440342
I. NAME OF INSTALLATION	DESOTO INC
II. INSTALLATION MAILING ADDRESS	8600 RIVER RD PENNSAUKEN, NJ 08110
III. LOCATION OF INSTALLATION	8600 RIVER RD PENNSAUKEN, NJ 08110

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER	APPROVED	DATE RECEIVED (yr., mo., & day)
S F NJD005440342 T/A 3 C 1		800812

I. NAME OF INSTALLATION

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: C 3

CITY OR TOWN: C 4 — ST. — ZIP CODE

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: C 5

CITY OR TOWN: C 6 — ST. — ZIP CODE

IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*: C 2 SCHWERD IRVING P PLANT MANAGER

PHONE NO. *(area code & no.)*: 609-665-6700

V. OWNERSHIP

DETACH

A. NAME OF INSTALLATION'S LEGAL OWNER: C 8 DESOTO INCORPORATED

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*

F = FEDERAL
M = NON-FEDERAL

M

VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.: NJD005440342

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

EPA Form 8700-12 (6-80)

CONTINUE ON REVERSE

R2

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only.

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTALLATION'S EPA I.D. NO.	NJD005440342
I. NAME OF INSTALLATION	DESOTO INC
II. INSTALLATION MAILING ADDRESS	8600 RIVER RD PENNSAUKEN, NJ 08110
III. LOCATION OF INSTALLATION	8600 RIVER RD PENNSAUKEN, NJ 08110

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER: F (T/A) 1 — APPROVED — DATE RECEIVED (yr., mo., & day)

I. NAME OF INSTALLATION

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 3

CITY OR TOWN: 4 — ST. — ZIP CODE

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: 5

CITY OR TOWN: 6 — ST. — ZIP CODE

IV. INSTALLATION CONTACT

NAME AND TITLE (last, first, & job title): 2 SCHWERD IRVING P PLANT MANAGER — PHONE NO. (area code & no.): 609-665-6700

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: 8 DESOTO INCORPORATED

DETACH

B. TYPE OF OWNERSHIP (enter the appropriate letter into box): F = FEDERAL, M = NON-FEDERAL — M

VI. TYPE OF HAZARDOUS WASTE ACTIVITY (enter "X" in the appropriate box(es))

- [X] A. GENERATION
- [ ] B. TRANSPORTATION (complete item VII)
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION (transporters only – enter "X" in the appropriate box(es))

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER (specify):

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION (complete item C)

C. INSTALLATION'S EPA I.D. NO.: NJD005440342

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

EPA Form 8700-12 (6-80)

CONTINUE ON REVERSE

R3

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 char. /inch).

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F NJD005440342

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

LABEL ITEMS

I. EPA I.D. NUMBER: NJD005440342

III. FACILITY NAME: DESOTO INC

V. FACILITY MAILING ADDRESS: 8600 RIVER RD, PENNSAUKEN, NJ 08110

VI. FACILITY LOCATION: 8600 RIVER RD, PENNSAUKEN, NJ 08110

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
B. Does or will this facility *(either existing or proposed)* include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

DESOTO INC

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title): SCHIERD IRVING P PLANT MANAGER

B. PHONE (area code & no.): 609 665 6700

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX: 8600 RIVER ROAD

B. CITY OR TOWN: PENNSAUKEN

C. STATE: NJ

D. ZIP CODE: 08110

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: 8600 RIVER ROAD

B. COUNTY NAME: CAMDEN

C. CITY OR TOWN: PENNSAUKEN

D. STATE: NJ

E. ZIP CODE: 08110

F. COUNTY CODE (if known):

R4

Please print or type in the unshaded areas only (fill—in areas are spaced for elite type, i.e., 1 [illegible] s/inch).

Form Approved OMB No. 158-S80004

FORM 3 RCRA

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

S F 1 7 0 0 0 5 4 4 0 5 4 2 T/A 3 C 1

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

C 8 — YR. 6 4 — MO. 0 1 — DAY 0 3 — FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

[ ] 2. NEW FACILITY *(Complete item below.)*

YR. — MO. — DAY — FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES — CODES AND DESIGN CAPACITIES

A. PROCESS CODE — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY — For each code entered in column A enter the capacity of the process.

1. AMOUNT — Enter the amount.
2. UNIT OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U

UNIT OF MEASURE	UNIT OF MEASURE CODE
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H

UNIT OF MEASURE	UNIT OF MEASURE CODE
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

S C DUP T/A C 1

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	555 000	G		7				
2	S 0 2	1200 000	G		8				
3	[illegible]	[illegible]	[illegible]		9				
4	T 0 1	10 000 000	[illegible]		10				

R5

Continued from page 2.
NOTE: Photocopy this page before completi you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1)		FOR OFFICIAL USE ONLY	
W N J D 0 0 5 4 4 0 5 4 2	T/A 3 C 1	W DUP	T/A 3 C 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)				D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	K079	3200000	T05	S02	T01			
2	K081	90000	T	S01	D80			
3	K082	3000000	P	S01	T01			
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

R6

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

F6: A/55 F6: A/56

EPA I.D. NO. (enter from page 1): F A J D 0 0 5 4 4 0 3 4 2 3 6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).*

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground—level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)
39 53 570	072 51 500

VIII. FACILITY OWNER

☐ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. (area code & no.)
E DESOTO INCORPORATED	312-591-9000

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
F 1700 S MT. PROSPECT RD	G DES PLAINES	IL	60018

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
R. J. Anderson-Vice President	R.J. Anderson	[illegible]

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
I. P. Schwerd Plant Manager	Irvin P. Schwerd	11/5/80

CONTINUE ON PAGE 5

R7

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
7 2851 (specify) PAINT MANUFACTURING	7 2841 (specify) DETERGENT MANUFACTURING
C. THIRD	**D. FOURTH**
7 (specify)	7 (specify)

VIII. OPERATOR INFORMATION

A. NAME: 8 DESOTO INCORPORATED

B. Is the name listed in Item VIII-A also the owner? YES ☒ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other", specify.)*
F = FEDERAL, S = STATE, P = PRIVATE, M = PUBLIC *(other than federal or state)*, O = OTHER *(specify)*: P (specify)

D. PHONE *(area code & no.)*: A 609 665 6700

E. STREET OR P.O. BOX: 8600 RIVER RD

F. CITY OR TOWN	G. STATE	H. ZIP CODE
B PENNSAUKEN	NJ	08110

IX. INDIAN LAND
Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
9 N	9 P
B. UIC *(Underground Injection of Fluids)*	**E. OTHER** *(specify)*
9 U	9 (specify)
C. RCRA *(Hazardous Wastes)*	**E. OTHER** *(specify)*
9 R	9 (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements. F9: A/50

XII. NATURE OF BUSINESS *(provide a brief description)*

MANUFACTURE OF CONSUMER PAINTS AND HOUSEHOLD LAUNDRY DETERGENT.

F9: A/51

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
R. J. Anderson - Vice President	[signature]	11/3/80

COMMENTS FOR OFFICIAL USE ONLY

C

EPA Form 3510-1 (6-80) REVERSE

R8

I.D. FOR OFFICIAL USE ONLY			
S		T/A	C
W			1
1	2	13 14	15

IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

A. HAZARDOUS WASTES FROM NON—SPECIFIC SOURCES. Enter the four—digit number from 40 CFR Part 261.31 for each listed hazardous waste from non—specific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four—digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13 K079	14 K080	15 K081	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four—digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four—digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. CHARACTERISTICS OF NON—LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non—listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

☐ 1. IGNITABLE (D001) ☐ 2. CORROSIVE (D002) ☐ 3. REACTIVE (D003) ☐ 4. TOXIC (D000)

X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME & OFFICIAL TITLE *(type or print)*	DATE SIGNED
[signature]	IRVING P. SCHWERD PLANT MANAGER	AUG 5, 1980

EPA Form 8700-12 (6-80) REVERSE

DETACH

R9

IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

I.D. – FOR OFFICIAL USE ONLY

W NJD005440342

A. HAZARDOUS WASTES FROM NON–SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.31 for each listed hazardous waste from non–specific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13 K079	14 K080	15 K081	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four–digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four–digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. CHARACTERISTICS OF NON–LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non–listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

☐ 1. IGNITABLE (D001) ☐ 2. CORROSIVE (D002) ☐ 3. REACTIVE (D003) ☐ 4. TOXIC (D000)

X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE: [signature]

NAME & OFFICIAL TITLE (type or print): IRVING P. SCHWERD PLANT MANAGER

DATE SIGNED: AUG. 8, 1980

DETACH

EPA Form 8700-12 (6-80) REVERSE

ap

R10

I.D. – FOR OFFICIAL USE ONLY

W | 1

IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

A. HAZARDOUS WASTES FROM NON–SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.31 for each listed hazardous waste from non–specific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6

7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
K082					

19	20	21	22	23	24

25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four–digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36

37	38	39	40	41	42

43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four–digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. CHARACTERISTICS OF NON–LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non–listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

☐ 1. IGNITABLE (D001) ☐ 2. CORROSIVE (D002) ☐ 3. REACTIVE (D003) ☐ 4. TOXIC (D000)

X. CERTIFICATION

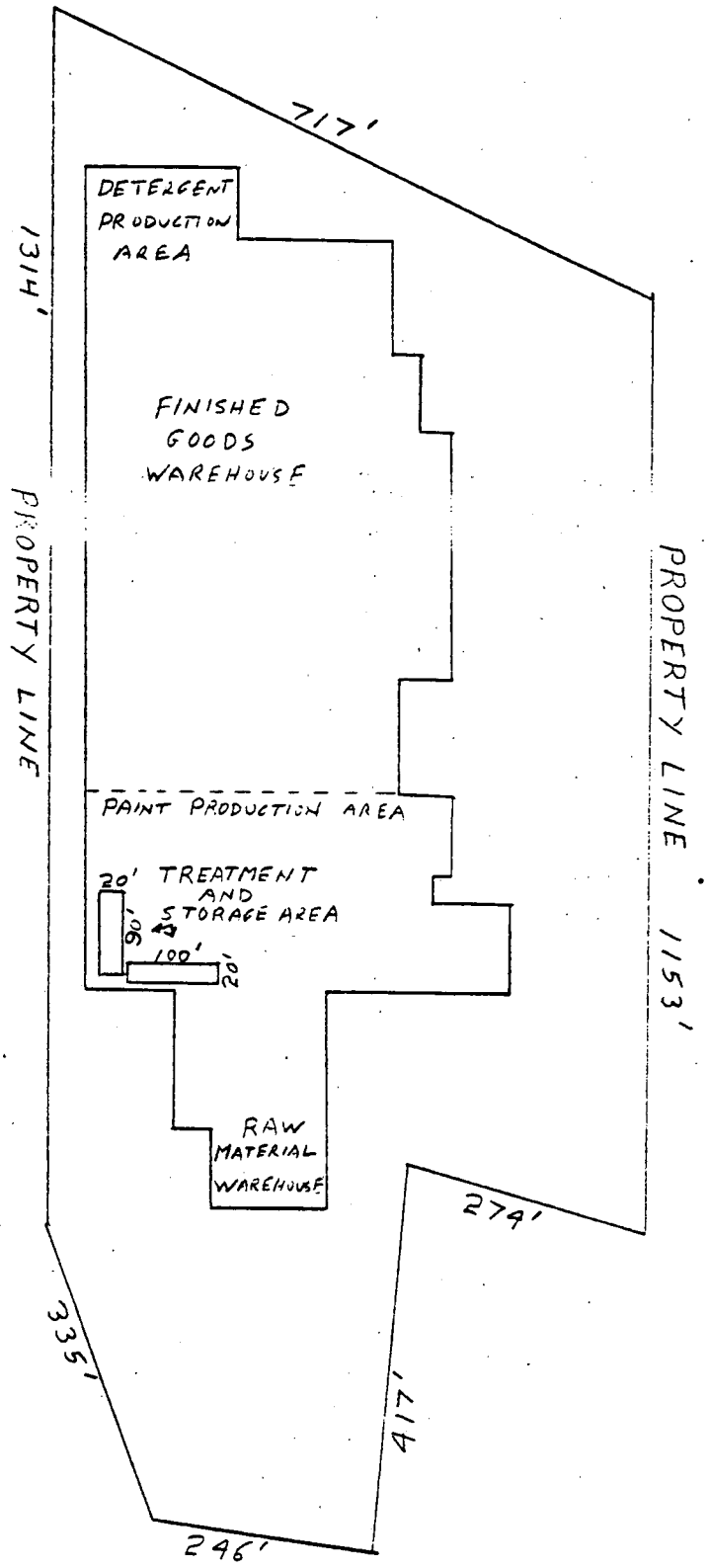
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME & OFFICIAL TITLE *(type or print)*	DATE SIGNED
[signature]	I. P. Schwerd - Plant Manager	11/5/80

EPA Form 8700-12 (6-80) REVERSE

R11

..CILITY DRAWING *(see page 4)*



SCALE: 1" = 200'

R12

ATTACHMENT S

(4)

Ron
4-27-12 SFO

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WASTE MANAGEMENT
32 E. Hanover St., CN 028, Trenton, N.J. 08625

MARWAN M. SADAT, P.E.
DIRECTOR

LINO F. PEREIRA, P.E.
DEPUTY DIRECTOR

10 SEP 1984

Mr. K. A. Walanski, P.E.
Corporate Environmental Engineer
DeSoto, Inc.
1700 South Mount Prospect Road
Des Plaines, IL 60018

RE: Closure
DeSoto, Inc.
8600 River Road
Pennsauken, NJ
NJD 005 440 342

Dear Mr. Walanski:

The Department of Environmental Protection has reviewed your March 21, 1984 notification with documentation as evidence of a complete closure of all hazardous waste storage and treatment activities at the above referenced facility.

The certification of closure by a registered professional engineer and by the owner are in accordance with the requirements of N.J.A.C. 7:26-9.8 and the June 21, 1984 Closure Plan.

On the basis of the aforementioned, the Department concludes that DeSoto, Inc., Pennsauken, NJ identified as:

EPA ID NO. NJD 005 440 342

has completed closure of hazardous waste storage and treatment activities at the facility and is no longer considered a hazardous waste treatment, storage, disposal (TSD) facility.

The EPA identification number can be retained for the site as requested to identify the Pennsauken facility as a generator only provided that the requirements of N.J.A.C. 7:26-9.3(a) are met (copy attached).

Your company's hazardous waste facility is no longer included in DEP's list of "existing facilities" (see N.J.A.C. 7:26-1.4 and 12.3) and therefore does not need to conform with the interim operating requirements of N.J.A.C. 7:26-1 et seq. for existing facilities.

The issuance of this letter by the Department does not indicate, or imply, and should not be construed as a waiver of any requirements pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. and regulations promulgated thereunder concerning New Jersey Pollutant Discharge Elimination System, N.J.A.C. 7:14A-1 et seq. If your facility is in any of the regulated categories identified in the above cited regulations, you are hereby directed to apply for any and all permits necessary within ninety (or 180 days - at the option of DWR) to the Bureau of Ground Water Discharge Permits, CN 029, Trenton, New Jersey, 08625. Applications may be obtained by calling (609) 292-0424.

You are further reminded that to operate a hazardous waste facility without prior approval from the DEP is a violation of the Solid Waste Management Act N.J.S.A. 13:1E-1 et seq.

Very truly yours,

Frank Coolick

Frank Coolick, Chief
Bureau of Hazardous Waste Engineering

EP6/slw
Att.
c: A. Chang, Region II USEPA
S. Schiffman, BHWCM

RECEIVED
SEP 18 1984
Division of Waste Mgt.

ATTACHMENT T

(18)

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

NEGATIVE DECLARATION AFFIDAVIT

RICHARD J. ANDERSON, being first duly sworn, on oath deposes and says as follows:

(1) This Affidavit is a Negative Declaration which is made pursuant to regulations adopted under the New Jersey Environmental Cleanup Responsibility Act, P.L. 1983, c.330 (N.J.S.A. 13:1K-6 et seq.).

(2) I, Richard J. Anderson, Vice-President of DeSoto, Inc. and President of the Chemical Group, am the authorized officer for the DeSoto, Inc. facility located at 8600 River Road, Pennsauken, New Jersey 08625 (the "Site").

(3) On behalf of DeSoto, Inc., I hereby attest that, to the best of my knowledge, there has been no discharge of hazardous substances or wastes on the Site, and no hazardous substances or wastes remain at the Site.

(4) The following information is provided with this Affidavit to substantiate this Negative Declaration:

a. A description of the Site cleanup activities involving the removal of contaminated substances, including manifests, is provided in the attached responses to the "General Information Submission" and "Site Evaluation Submission" requirements of the regulations.

b. No results from soil, groundwater or surface water sampling are provided for the reasons stated in our responses to the "General Information Submission" and "Site Evaluation Submission" requirements of the regulations.

Further, Affiant sayeth not.

R. J. Anderson
R. J. Anderson, Vice President
DeSoto, Inc.

Date: 6/21/84

Subscribed and sworn before me
this 21st day of June, 1984.

Nancy E. Buckert
Notary Public

ATTACHMENT T1

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
HAZARDOUS SITE MITIGATION ADMINISTRATION
CN 028 Trenton, N.J. 08625

MARWAN M. SADAT, P.E
DIRECTOR

JORGE H. BERKOWITZ, PH.D.
ADMINISTRATOR

July 26, 1984

Mr. Kenneth Walanski
DeSoto Inc.
1700 South Mount Prospect Rd.
Des Plaines, IL 60018

Re: DeSoto Incorporate
3600 River Road
Pennsauken, Camden County, NJ

Dear Mr. Walanski:

Please be advised that your Negative Declaration dated June 21, 1984 and received by this office on July 13, 1984 is hereby disapproved, due to the inadequate disclosure regarding the remaining wastes currently stored at the facility.

If you have any questions regarding the above, please feel free to contact Ms. Maria C. Petix of my staff at (609) 633-7141.

Sincerely,

Anthony J. McMahon, Chief
Bureau of Industrial Site
Evaluation

HS95/sje

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

NEGATIVE DECLARATION AFFIDAVIT

RICHARD J. ANDERSON, being first duly sworn, on oath deposes and says as follows:

(1) This Affidavit is a Negative Declaration which is made pursuant to regulations adopted under the New Jersey Environmental Cleanup Responsibility Act, P.L. 1983, c.330 (N.J.S.A. 13:1K-6 et seq.).

(2) I, Richard J. Anderson, Vice-President of DeSoto, Inc. and President of the Chemical Group, am the authorized officer for the DeSoto, Inc. facility located at 8600 River Road, Pennsauken, New Jersey 08625 (the "Site").

(3) On behalf of DeSoto, Inc., I hereby attest that, to the best of my knowledge, there has been no discharge of hazardous substances or wastes on the Site, and no hazardous substances or wastes remain at the Site.

(4) The following information is provided with this Affidavit to substantiate this Negative Declaration:

a. A description of the Site cleanup activities involving the removal of contaminated substances, including manifests, is provided in the attached responses to the "General Information Submission" and "Site Evaluation Submission" requirements of the regulations.

b. No results from soil, groundwater or surface water sampling are provided for the reasons stated in our responses to the "General Information Submission" and "Site Evaluation Submission" requirements of the regulations.

Further, Affiant sayeth not.

R. J. Anderson, Vice President
DeSoto, Inc.

Date: September 28, 1984

Subscribed and sworn before me
this 28th day of September, 1984.

Carol Ellen Carkowski
Notary Public

received
5 OCT 1984

T3

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
HAZARDOUS SITE MITIGATION ADMINISTRATION
CN 028, Trenton, N.J. 08625

MARWAN M. SADAT, P.E.
DIRECTOR

JORGE H. BERKOWITZ, PH.D.
ADMINISTRATOR

November 16, 1984

Kenneth A. Walanski
DeSoto, Inc.
1700 South Mt. Prospect Road
Des Plains, IL 60018

Re: Industrial Establishment: DeSoto, Inc.
Location: 8600 River Road, Pennsauken, Camden County
Block: 248Z Lot(s): 5
Transaction: Sale of Real Property, Building and Easements
Seller(s): DeSoto, Inc., 1700 South Prospect Road, Des Plains, Il.
Buyer(s): Alumium Shapes, Inc., 9000 River Road, DeLair
Negative Declaration: dated September 28, 1984 by R. J. Anderson, Vice President, DeSoto, Inc.

Dear Mr. Walanski:

Pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (DEP) by the Environmental Cleanup Responsibility Act (ECRA, N.J.S.A. 13:1K-6 et seq.) and duly designated to the Chief of the Bureau of Industrial Site Evaluation pursuant to N.J.S.A. 13:1B-4, the referenced Negative Declaration is hereby approved. This approval is based upon information provided in your Initial Notice as well as a DEP investigation of the site.

This approval shall be limited to the referenced transaction only and shall not restrict or prohibit the DEP or any other agency from taking regulatory action under any other statute, rule or regulation.

Sincerely,

Anthony J. McMahon, Chief
Bureau of Industrial Site
Evaluation

HS38/sje

Federal Express

New Jersey Is An Equal Opportunity Employer

T4

ATTACHMENT U

DEED OF EASEMENT

THIS DEED OF EASEMENT, made the 9TH day of September, 1982, between DeSoto, Inc., a corporation having a place of business at River Road in the Township of Pennsauken, County of Camden, State of New Jersey, designated as Grantor (hereinafter sometimes referred to as DeSoto), and the Township of Pennsauken, a body politic and corporate, of the County of Camden, State of New Jersey, designated as Grantee (hereinafter sometimes referred to as Pennsauken).

W I T N E S S E T H :

That the Grantor, DeSoto, Inc., for and in consideration of One and no/100 Dollar ($1.00) and other good and valuable consideration paid and supplied by the Grantee at or before the sealing and delivering of these presents, the receipt of which is hereby acknowledged, and the Grantor being therewith fully satisfied, does by these presents grant, bargain, sell and convey unto the Grantee, Township of Pennsauken, forever, an easement to the lands and premises described hereinbelow pursuant to the terms and conditions set forth herein as follows:

1. DeSoto has granted and conveyed to Pennsauken, subject to the conditions contained herein, an easement, the description of which is recited hereinbelow to construct, operate, maintain and repair monitoring wells needed to monitor leakage which may eminate from the Pennsauken Sanitary Landfill, together with the right to enter on the lands in question of DeSoto as described hereinbelow, so far as may be necessary for any of the purposes aforesaid.

2. Access to the easement area by Grantee, its employees, agents and representatives, shall be permitted only during Grantor's normal working hours through the primary entrance to Grantor's premises and only after a reasonable request for such access is made to and approved by the plant manager of the plant located on the Grantor's premises, or, if the said plant manager is not available, by a corporate officer of the Grantor, or by the owner of the premises. Such requests to enter by the Township of Pennsauken shall not be unreasonably withheld by the Grantor, its employees, agents, and/or representatives.

3. The lands and premises that are subject to this easement and the conditions contained herein are as follows:

ALL THAT CERTAIN tract or parcel of land, situate in the Township of Pennsauken, County of Camden, State of New Jersey, more particularly described in a plan entitled "Proposed Easement-DeSoto Chemical Coatings, Inc. for Pennsauken Township Sanitary Landfill" dated 5/17/82, revised on 8/5/82, by John G. Reutter Associates (a copy of

ATTACHMENT U1

If to Grantee: Township of Pennsauken
5605 North Crescent Boulevard
Pennsauken, New Jersey 08110

Attention: Mayor

Either party may change its address by written notice as to the new address delivered to the other party as hereinabove provided.

10. The provisions of this easement shall be obligatory upon the respective parties hereto and their respective successors and assigns.

IN WITNESS WHEREOF, the Grantor has caused these presents to be signed and attested by its proper corporate officers and its corporate seal to be hereto affixed the day and year first above written.

DESOTO, INC.

By William L. Lamey Jr.
Vice President

ATTEST:

Robert S. Kersch
Secretary

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

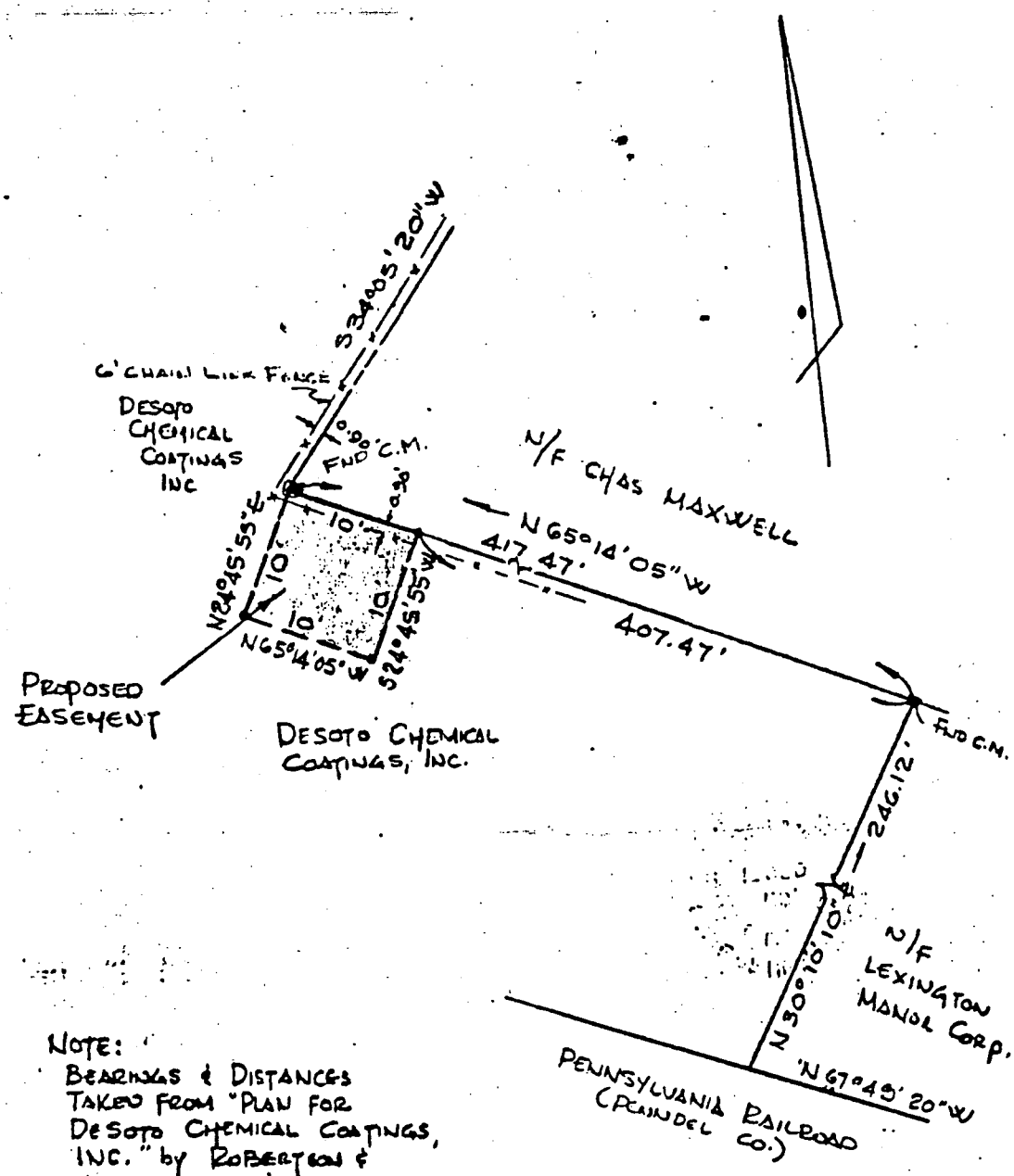
BE IT REMEMBERED, that on September 9, 1982, before me, the subscriber, a Notary Public authorized to take acknowledgments and proofs in said County and State, personally appeared ROBERT S. KERSCH, to me known, who, being by me duly sworn on his oath, deposes and makes proof to my satisfaction that he is the Secretary of DeSoto, Inc., the corporation named in the within instrument; that WILLIAM L. LAMEY, JR. is a Vice President of said corporation; that the execution as well as the making of this instrument has been duly authorized by a proper resolution of the Board of Directors of the said corporation; that deponent well knows the corporate seal of said corporation; that the seal affixed to said instrument is the proper corporate seal and was thereto affixed and said instrument signed and delivered by said Vice President as the voluntary act and deed of said corporation in presence of deponent, who thereupon subscribed his name thereto as attesting witness; and that the full and actual consideration paid or to be paid for the easement evidenced by the within Deed of Easement, as such consideration is defined in P.L. 1968, ch. 49, Sec. 1(c), is $1.00

Subscribed and sworn to
before me this 9TH
day of September, 1982.

Carol Ellen Ratkowski
Notary Public

Prepared By
David W. Munion
mail: David W. Munion
9th & Cooper St.
Camden, N.J. 08101

U2



NOTE:
BEARINGS & DISTANCES TAKEN FROM "PLAN FOR DESOTO CHEMICAL COATINGS, INC." by ROBERTSON & JOHNSON, CE & LS, DATED 3/25/63

NOTE:
• DENOTES 1 1/2" IRON PINS SET

PROPOSED EASEMENT - DESOTO CHEMICAL COATINGS, INC.
SITUATED
PENNSAUKEN TOWNSHIP, CAMDEN COUNTY, NEW JERSEY
FOR
PENNSAUKEN TOWNSHIP SANITARY LANDFILL

REVISION	JOHN G. REUTTER ASSOCIATES CONSULTING ENGINEERS SURVEYORS & PLANNERS CAMDEN, NEW JERSEY	DATE 5/17/82
8/5/82 BEARINGS CHANGED	EDWARD G. DUCLINFIELD JR. LS N.J. LICENSE NO. 15880	SCALE 1"=10'
		DRAWN JRS
		CHECKED DCD
		888

U3

ATTACHMENT V

(6)

orm HMP-005
/80

4-27-12

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF HAZARDOUS SUBSTANCE CONTROL

INCIDENT REPORT

O.H.S.C. Assigned Case Number 81-03-23-006	OFFICE USE ONLY County/Munic. Code

Date 3/23/81	Time (Military) 12:00	O.H.S.C. I.D. No. of Employee Receiving Call — — — — Bill

INCIDENT REPORTED BY:

Name Don Deutsch	Phone 609-665-6700	
Affiliation DeSoto, Inc. Production Manager		
Street		
City	State	Zip Code

INCIDENT LOCATION:

Name DeSoto Inc.	Phone	
Street 8600 River Road		
City Pennsauken	State	Zip Code

SUSPECTED SPILLED SUBSTANCE:

1. ~~Tio~~ Titanium dioxide slurry
2.

Date of Spill 3/23/81	Time (Military)	☐ SOLID ☐ LIQUID ☐ GAS ☐ MIXTURE
Amount Spilled 1500	Units gal	☐ ACTUAL ☐ ESTIMATED ☐ POTENTIAL

Cause: malfunctioning pump gasket blew

Water Body Affected: Small Pond through Storm Sewer

Associated Fire and/or Hazards:

Remarks: not a hazardous substance — NFA jd 3/24/81

O.H.S.C. Assigned Investigator I.D. No. — — — —

SOURCE OF SPILLED SUBSTANCE: ☒ CONFIRMED ☐ ALLEGED

Name Same as Incident	Phone	
Street		
City	State	Zip Code

COMMENTS:

1. Approximately 90% contained before storm sewer
2. Most of the material in the sewer is being cleaned-out.
3. A small amount may reach the pond.
4.

ATTACHMENT VI

Jol G
81-3-23-6

(6.)

DeSoto, Inc.
CHEMICAL COATINGS DIVISION
8600 RIVER ROAD, PENNSAUKEN, NEW JERSEY 08110 TELEPHONE 609-665-6700

April 3, 1981

N. J. Department of Environmental Protection
Division of Hazard Management
120 Route 156
Yardville, New Jersey 08620

Attn: Mr. Bill Cronin

Dear Mr. Cronin:

Confirming our telephone conversation of March 23, 1981, the following is a description of the minor spill which the DeSoto, Inc. plant in Pennsauken, N.J. had in the early morning hours of March 23, 1981. The spill was approximately 1000 gallons of a non-toxic and insoluble Titanium Dioxide water slurry. Most of the 1000 gallons was contained and cleaned up on the plant property, with between 50 and 100 gallon escaping through the storm sewer off the plant property.

As you requested, we have throughly cleaned the storm sewer pipe on the plant property. This storm sewer, after leaving the plant property, ties into other local storm sewers and discharges into marshlands which lead to the Delaware River approximately 1 mile away.

As I explained in our conversation, the amount of material escaping was minimal, but a small amount of material, because of its high whiting power, will color a large volume of water making the condition seem far worse than it really is.

If you require any additional information, please call the writer at anytime.

Very truly yours,

D A Deutsch

D. A. Deutsch
Production Manager

DAD/ep

V2

ATTACHMENT W

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WASTE MANAGEMENT

HAZARDOUS SITE MITIGATION ADMINISTRATION

CN 028, Trenton, N.J. 08625

MARWAN M. SADAT, P.E.
DIRECTOR

JORGE H. BERKOWITZ, PH.D.
ADMINISTRATOR

MEMORANDUM

28 NOV 1984

TO: MARIA KENT-PETIX, CASE MANAGER, BISE

THROUGH: DR. MERRY L. MORRIS, CHIEF, BEERA

THROUGH: ROB PREDALE, ASSISTANT CHIEF, EE/RA R.P.

FROM: PHIL SANDINE, TECHNICAL COORDINATOR, EE/RA

SUBJECT: REVIEW OF SAMPLING AND ANALYTICAL DATA FOR DESOTO, INC. IN PENNSAUKEN, (ECRA 84-147)

These comments are in response to your referral of 26 October 1984.

The facility has been used for the manufacturing of paints.

As we discussed on the phone (13 November), the information and data submitted indicates that the site apparently does not contain areas of contamination that warrant a cleanup. Specifically, the results of the priority pollutants analyses showed only one contaminant in one sample to be above expected "background" levels. This contaminant, bis(2-ethythexyl)phthalate, was detected at a level of 850 ppb. It was not detected in any of the other 7 samples. The occurrence of this specific compound at the level detected does not warrant any additional sampling or cleanup.

HS103:dr

RECEIVED 29 NOV 1984

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ATTACHMENT W1

ATTACHMENT X

(17)

Addendum to IT scope of work

WORK PLAN

TANK INVESTIGATION
PENNSAUKEN, NEW JERSEY
ADDENDUM I

ITEM NO. 1

Justification for the location, number, and frequency of samples.

RESPONSE

As indicated in the Work Plan, four on-site borings will be used to characterize the soils between the ground surface and the undisturbed materials at the site. This is expected to require boring to a depth of 12 to 15 feet. Continuous samples will be collected from all borings and two of the samples from each boring will be returned to IT's laboratory for analysis.

Samples for analysis will be selected in the field on the basis of evidence of contamination and position within the soil profile. As the continuous samples are collected, they will be visually inspected in conjunction with the logging effort. During the logging process, emphasis will be placed on identifying evidence of contamination such as differences in soil texture, color, or the presence of noticeable odors. One sample which represents either an area of evident contamination or soil conditions at the base of the tank will be selected from each boring for analysis. The second sample from each boring that will be analyzed will be taken at the top of the undisturbed materials. This will provide data concerning the migration of contaminants (evident or not) into the natural materials zone. The location at the base of the tank has been selected since it is the zone closest to the tank which can be used to detect contamination from the entire system.

We believe that the analysis of two samples from each boring (approximately 25 percent of total depth) will be suitable for the purposes of this evaluation which is to determine if contamination is present.

ATTACHMENT XL

These procedures will be followed for samples subject to chemical analysis for this project:

- A chain-of-custody record (Figure 1) will be initiated in the field for every sample. This record will accompany its sample.

- Each time responsibility for custody of the sample changes, the new custodian will sign the record and note the date. A copy of the signed record should be made by the immediately previous custodian and sent to the sample custodian at the IT Pittsburgh laboratory to allow tracking of sample possession. All change of custody of samples must be a person-to-person exchange of custody documents and samples.

- Upon sample destruction or disposal, the laboratory custodian responsible for the disposal will complete the chain-of-custody record, file a copy, and send a copy to the Project Manager or to his designated representative for recordkeeping. All samples not consumed during analysis shall be kept for a minimum of three months.

- The following documentation will supplement the chain-of-custody records:

  - Sample label on each sample

  - Soil field collection report and analysis request (copy accompanies the samples)

  - Photographic records (wherever practical).

- Prior to sampling, personnel involved will have received copies of the chain-of-custody procedure. A briefing for these personnel will be held to detail the chain-of-custody procedure (as well as sampling and sample handling procedures). Briefing of personnel is the responsibility of the on-site Field Supervisor or his designated representative.

ITEM NO. 5

Information on the rationale for the analytical parameters that have been selected and information on the analytical methods for each of the analytical parameters.

X2

RESPONSE

The analytical parameters that have been selected--all priority pollutants except pesticides and PCB's--are those requested by the NJDEP during discussions between DeSoto, Inc. representatives and Ms. Maria Petix. These parameters were selected on the basis of the site developmental history and the nature of the processes at the site which may have resulted in environmental contamination.

As indicated in the Work Plan, the soil samples will be analyzed for priority pollutants exclusive of pesticides and PCB's. The methods used by IT's laboratory in the completion of these analyses are those recommended by the U.S. Environmental Protection Agency as referenced in the following documents:

1. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Waste Characterization Branch, Office of Solid Waste, U.S. Environmental Protection Agency, Washington, DC, May 1980.

2. Methods for Chemical Analysis of Water and Wastes, Environmental Monitoring and Support Laboratory, U.S. Environmental Protection Agency, Cincinnati, Ohio, March 1979.

3. Standard Methods for the Examination of Water and Wastewater, 15th Edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, Washington, DC 1980.

The specific analytical methods that will be used for the analysis of samples from the DeSoto, Inc., site are as follows:

- Volatiles - Method 8.24 (from No. 1)
- Acid Compounds - Method 8.25 (from No. 1)
- Base Neutrals - Method 8.25 (from No. 1)
- Metals (from No. 2)

  - Antimony, Method 204.2
  - Arsenic, Method 206.2
  - Beryllium, Method 210.2

X3

- Cadmium, Method 213.1
- Chromium, Method 218.1
- Copper, Method 220.1
- Lead, Method 239.1
- Mercury, Method 245.1
- Nickel, Method 249.1
- Selenium, Method 270.2
- Silver, Method 272.2
- Thallium, Method 279.2
- Zinc, Method 289.2

- Cyanide, Method 335.2 (from No. 2)
- Phenols, Method 510B (from No. 3)

ITEM NO. 6

Information on the name, address, and certification of the laboratory that will complete the analytical program.

RESPONSE

The analytical program for this project will be completed by the following laboratory:

IT Corporation
5310 Old William Penn Highway
Export, PA 15632
412/327-3030, 412/731-8806

The procedures in the IT laboratory have been reviewed by many Federal and state regulatory agencies and the laboratory in Pittsburgh maintains the following certifications and proficiency ratings:

- U.S. Environmental Protection Agency (EPA) and the Commonwealth of Pennsylvania for drinking water analyses under the Safe Drinking Water Act (Laboratory Certification No. 38-120).

- National Institute for Occupational Safety and Health (NIOSH) under the Proficiency Analytical Testing (PAT) Program (Laboratory Identification No. 15225001).

- U.S. Environmental Protection Agency (EPA) Natural Gas Condensate Check Sample Program for PCBs.

X4

- The laboratory participates in the certification program with the American Association of State Highway and Transportation Officials (AASHTO) Materials Reference Laboratory at the National Bureau of Standards in Washington, DC.

- The laboratory is approved by the Commonwealth of Kentucky to perform overburden/soil analyses. Approval is granted by the Division of Regulatory Services, University of Kentucky, Lexington, Kentucky.

It should be noted that IT is currently under contract to Diamond Shamrock to complete analyses associated with dioxin and other chemical evaluations at the 80 Lister Avenue site, Newark, New Jersey. As part of this project, IT's laboratory facilities have been evaluated and accepted by the NJDEP.

ITEM NO. 7

Information on the site Quality Assurance Plan.

RESPONSE

Project activities (i.e., field, laboratory, and office) will be controlled by applicable elements of the following project-specific Quality Assurance Program. The program is based on the requirements of:

- IT Quality Assurance Manual
- EPA guidelines and recommendations
- Available contract documents and the statement of work.

Procurement and Control of Subcontractors

Subcontractors will be delegated applicable quality requirements in the procurement documents, provided that the subcontractor has an internal documented and acceptable quality assurance program. If the subcontractor does not have such a program, IT shall use the procurement documents to "pass down" the performance of specific quality requirements to the

X5

subcontractor. The "pass down" of specific requirements provides that appropriate conditions can be met without requiring the subcontractor to have his own individual quality assurance program.

Instructions and Procedures

Quality-related activities, whether performed in the field, laboratory, or office, will be documented in detailed instructions or procedures. Included among these documents will be:

- Applicable sections of the Quality Assurance Manual
- Specific Work Instructions identifying step-by-step instructions, required equipment and materials, data recording form/format, data processing requirements, required analyses, and documentation and reporting requirements, as appropriate. Whenever possible, recognized standards such as those published by the EPA and the ASTM will be employed.
- Project-Specific Sampling Plan.

Identification and Control of Samples

Samples taken in the field will be labeled to clearly identify sampling location (e.g., site, borehole, depth, and coordinates), sample number, and sampling date, as appropriate.

Packaging, handling, shipping, and storage of samples will be performed in accordance with the Sampling Plan and established work instructions. Packaging will be based on the protection required during handling, shipping, and storage, and the extent to which in situ characteristics must be preserved. Handling and shipping will be performed so that damage, loss, or unacceptable deterioration is prevented. Samples transmitted to the laboratory will be accompanied by a chain-of-custody record providing a record of samples shipped. Approved methods of storage on site and in laboratories will prevent loss or unacceptable

X6

deterioration. Whenever possible, field storage should be indoors in a controlled environment.

Test Control

Laboratory testing will be performed in accordance with documented and approved procedures by trained personnel using calibrated equipment. Test requirements and any acceptance criteria will be provided or approved by the group responsible for the testing. Test performance and results will be completely documented using standard data forms/ formats. Also, reduction of test data will undergo formal documented verification (checking).

Standard IT analytical laboratory quality control checks will be performed. These can include, as appropriate:

- Field blanks (VOA's only)
- Method blanks
- Duplicate samples
- Spiked samples
- Surrogate standards performance evaluation.

Appendix D contains detailed information on laboratory analytical quality control procedures.

Control of Measuring and Test Equipment

Measuring and test equipment used in the field or laboratory will be controlled by a formal calibration program. The program will provide equipment of the proper type, range, accuracy, and precision to provide data compatible with the specified requirements and desired results.

Documented procedures will be used for calibrating the equipment. Whenever possible, widely accepted procedures, such as those published by the ASTM or EPA, or procedures provided by manufacturers shall be adopted.

X7

Calibrated equipment will be uniquely identified by using either the manufacturer's serial number, a calibration system identification number, or other means. This identification, along with a label indicating when the next calibration is due, will be attached to the equipment. If this is not possible, records traceable to the equipment will be readily available for reference.

Measuring and test equipment will be calibrated at prescribed intervals and/or prior to use. Frequency will be based on the type of equipment, inherent stability, manufacturer's recommendations, values given in national standards, intended use, and experience. Equipment will be calibrated, whenever possible, using reference standards traceable to nationally recognized standards (e.g., National Bureau of Standards) or accepted values of natural physical constants. Records will be prepared and maintained for each piece of calibrated measuring and test equipment to indicate that established calibration procedures have been followed.

Equipment that fails calibration or becomes inoperable during use will be removed from service and segregated to prevent inadvertent use, or will be tagged to indicate it is out of calibration. Results of activities performed using equipment that has failed recalibration will be evaluated by laboratory and project management, as appropriate. If the activity results are adversely affected, appropriate personnel will be notified.

Nonconformance/Corrective Action

Procedures will be implemented for the detection, identification, reporting, and follow-up of nonconformances to project requirements. Each nonconformance will be documented by the personnel identifying or originating it. Documentation will, when necessary, include:

- Identification of the individual(s) identifying or originating the nonconformance
- Cause and description of the nonconformance

X8

ATTACHMENT Y

Let's protect our earth

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
CN 028
Trenton, N.J. 08625-0028
(609) 633-1408
Fax # (609) 633-1454

M E M O R A N D U M

TO: File

FROM: Dan Maltese, HSMS IV
Bureau of Planning and Assessment

DATE: February 25, 1991

SUBJECT: PRE-SAMPLING ASSESSMENT OF DESOTO, INC.
EPA ID # NJD005440342

On Tuesday, February 19, 1991, Frank Sorce and myself, NJDEP, DHWM, Bureau of Planning and Assessment, conducted a Pre-Sampling Assessment at the DeSoto, Inc. plant in Pennsauken, New Jersey. The current owner is Aluminum Shapes and the building is currently occupied by Esther Williams Pools and Spas and Johnny Weismeuller Products, both a subsidary of Aluminum Shapes. We were met at Aluminum Shapes at 10:00 a.m. by Ed Willis, environmental engineer for the company and we proceeded across the parking lot to the former DeSoto paint manufacturing facility.

The inside of the building was redesigned for the manufacturing of pools and spas. All tanks used in the production of water-and solvent-based paints were removed from the site prior to sale. Tanks which protruded through the mezzanine were also removed and the openings which were left in the flooring were concreted over.

We proceeded outside to where the tank farm and separator unit were located. No readings from an OVA or a HNu photoionizer were detected around the former tank farm adjacent to the building. This area is currently being used as storage for used machine parts, pallets, etc. and is partially paved. The separator unit is located on the southern side of the building and had been cleaned out, filled in and concreted over by DeSoto. This unit had been sampled and closed through ECRA.

One unit which was not addressed through ECRA or RCRA is the diked waste storage area located about 100 feet east of the former tank farm and in between the railroad siding and the main Penn Central railroad tracks (see attached map). The diked area contains two elevated storage tanks (approximately 2-3,000 gallons each) which were used by DeSoto for storage of wastes from the manufacturing of solvent-borne paints. OVA and HNu readings from the southern downgradient side of the dike around a brick-lined drainage grate reached 30 ppm and 5 ppm, respectively. OVA readings were also recorded (up to 20 ppm) underneath the tanks outlet valve on the southern side of the dike. This valve has been previously bolted closed with a metal plate.

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ATTACHMENT VI

There are several large abandoned propane tanks east of the building towards the end of the property. These were emptied and removed by Aluminum Shapes within the last several years. No readings were recorded with the instruments. Also, there are approximately 7 fire wells surrounding the building which are fed by an on-site water storage tank. There is one monitoring well located in the front parking lot and is used to monitor contaminants from the adjacent Pennsauken Landfill.

We left the site at 12:30 p.m.

DM:mz

Y2

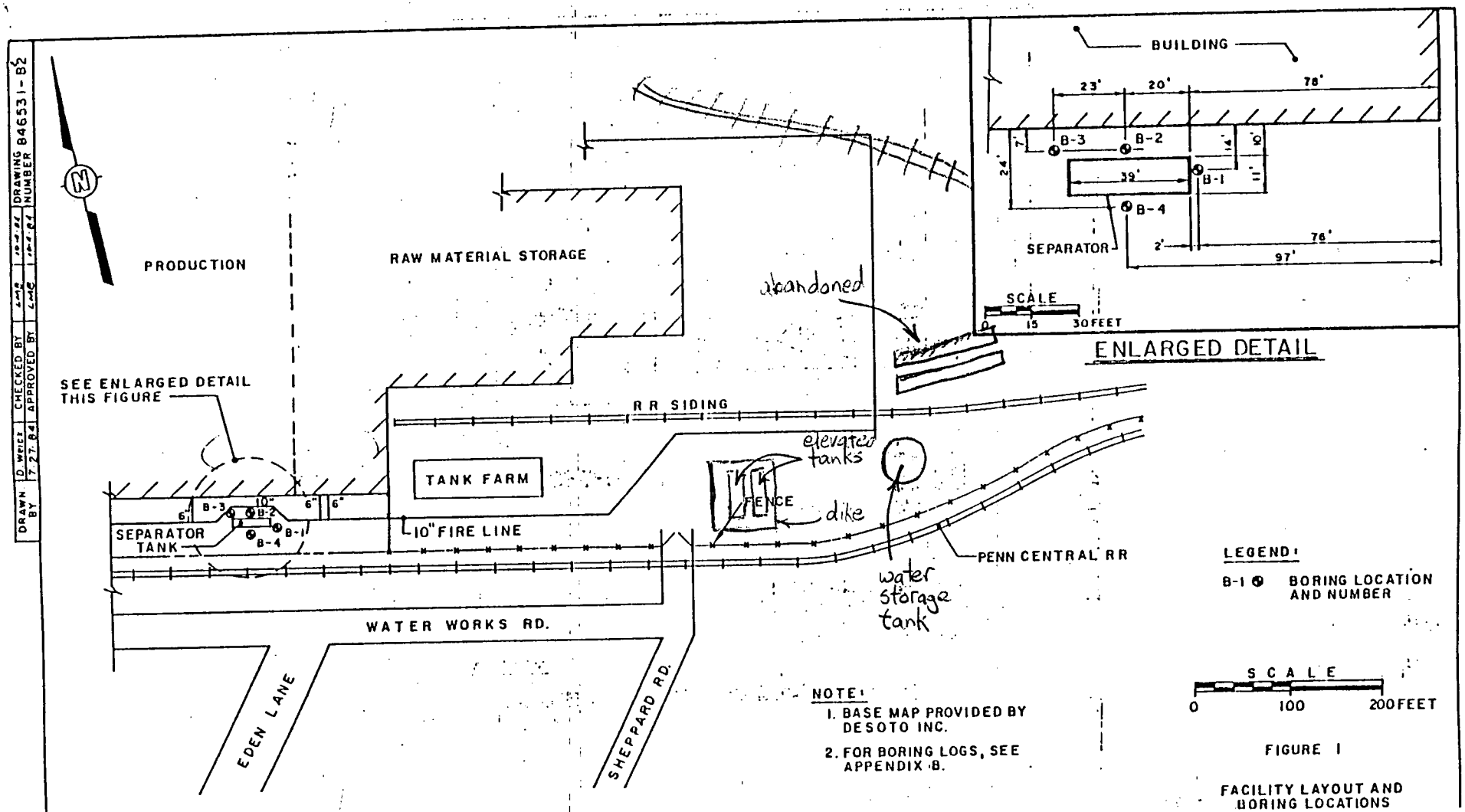

FIGURE 1

FACILITY LAYOUT AND BORING LOCATIONS

Desoto, Incorporated
8600 River Rd., Pennsauken
Twp., Camden Co., New Jersey

EPA ID # NJD005440342
Lat: 39 59 06 Lon: 75 02 44

© 1983 HERCULENE, ABB SMITH CO., PBM., PA

ATTACHMENT Z

TCT - St. Louis

formerly Envirodyne Engineers, Inc.

Consulting Engineers, Scientists and Analytical Services

1908 Innerbelt Business Center Drive
St. Louis, Missouri 63114-5700
Phone (314) 426-0880
Fax (314) 426-4212

April 24, 1991
3540-00011

Mr. Frank Sorce
NJDEP/DHWM/BPA
300 Horizon Center, Route 130
Robbinsville, New Jersey 08691

Dear Mr. Sorce:

Attached is a report of results of analysis of samples received by TCT-St. Louis from the Desoto site under Task IV of our X-408 contract. Five soil samples, one soil sample designated MS/MSD and a field blank were received on March 15, 1991, for analysis of full CLP organics and inorganics. The samples received are listed below:

NJDEP No.	TCT Lab No.
S-1	91001113
S-1 MS/MSD	91001114
S-2	91001115
S-3	91001116
S-4	91001117
S-5	91001118
FIELD BLANK	91001119

The designated sample was used for the matrix spike and matrix spike duplicate for volatile, semi-volatile and pesticide/PCB analyses and compared to sample S-1 for calculation of percent recovery. Because the purpose of this sample was not clear to all sections of the laboratory, this sample (S-1 MS/MSD) was analyzed as a sample as well as MS/duplicate for the inorganic parameters.

QC was performed on the field blank, though not necessary, for the inorganic parameters and is included in the report.

Several of the samples required dilution for the organic parameters.

If you have any questions about this report, please contact me at (314) 426-0880.

Sincerely,

Doni Moore

Doni Moore
Project Manager

ATTACHMENT 21

ANALYTICAL CHRONOLOGY, DESOTO

2/28/91	Initial calibration for volatile soils, 59852B
3/13/91	Sample bottles arrive at NJDEP
3/14/91	Initial Calibration for volatile waters, 59702E, and volatile soils, 59704G.
3/15/91	Samples received at TCT-St. Louis
3/16/91	Volatile analysis: S-1, S-4, and S-5
3/18/91	Initial calibration for volatile soils, 59704G, and volatile analysis: S-1 RE, S-4 RE and S-5 RE Volatile analysis: Field Blank, 59702E
3/19/91	Volatile analysis: S-2 and S-3, 59852B Volatile analysis: S-1 MS and S-1 MSD, 59704G
3/20/91	Extraction of samples for semi-volatile and pesticide/PCB analyses
3/21/91	Distillation and analysis of Cyanide samples.
3/22/91	Initial calibration for semi-volatiles, 59703F
3/28/91	Mercury digestion: Field Blank
3/29/91	Semi-volatile analysis: Field Blank, 59703F Initial calibration for semi-volatiles, 59701D Semi-volatile analysis: S-1, S-1 MS, S-2, S-3, S-4, S-5 and S-1 MSD Mercury analysis: Field blank
4/02/91	Mercury digestion of soil samples. Determination of % Solids on soil samples.
4/03/91	Analysis of pesticide/PCB standards and samples (continuing through 4/04/91) Mercury analysis: all soil samples.
4/08/91	Initial calibration for semi-volatiles, 59701D.
4/09/91	Digestion of all samples ICP and GFAA metals analysis
4/10/91	Semi-volatile analysis: S-3 RE DL, S-4 RE DL and S-1 RE DL GFAA analysis: As, Pb, Ag

ANALYSIS CHRONOLOGY, DESOTO

4/11/91	GFAA analysis: As, Pb Flame AA analysis: K
4/12/91	ICP metals analysis: Al, Ba, Be, Cd, Pb, Mn, Ni, Zn, Ca, Mg, Cr, Co, Cu, Fe, Na, V GFAA analysis: As, Tl
4/15/91	GFAA metals analysis: Sb, Se
4/16/91	GFAA metals analysis: Sb, Se Flame AA analysis: Se

TABLE OF CONTENTS

SAMPLE DATA SUMMARY

3540-00011
SDG: FIELD BLANK

FORM I	1-58
FORM II	59-68
FORM III	69-71
FORM IV	72-98
FORM VIII	99-109
DEP-060	110-116
DEP-059	117-123
DEP-077	124-138
TCT-CHAIN OF CUSTODY/PACKING SLIP	139-141

24

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 91001119

Sample wt/vol: 5 (g/ml) ML Lab File ID: >E6795

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. Date Analyzed: 03/18/91

Column: (pack/cap) CAP Dilution Factor: 1

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

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD BLANK

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 91001119

Sample wt/vol: 5 (g/mL) ML Lab File ID: >E6795

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. Date Analyzed: 03/18/91

Column: (pack/cap) CAP Dilution Factor: 1

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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.				

FORM I VOA-TIC 1/87 Rev.

Z6

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD BLANK

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 91001119

Sample wt/vol: 1000 (g/ml) ML Lab File ID: >F6230

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 91001119

Sample wt/vol: 1000 (g/ml) ML Lab File ID: >F6230

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenyl ether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD BLANK

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) WATER Lab Sample ID: 91001119

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >F6230

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. dec. Date Extracted: 03/20/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/29/91

Cleanup: (Y/N) N pH 5 Dilution Factor: 1

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	128370	PHENOL,2,6-BIS(1,1-DIMETHYL-	16.43	15	J
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FORM I SV-TIC 1/87 Rev.

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EPA SAMPLE NO.

FIELDBLANK

PESTICIDE ORGANICS DATA SHEET
1D

Lab Name: TCT-ST. LOUIS Contract:

Lab Code: TCT Case No.: 3540-11 Sas: SDG No.: Field Blank

Matrix: (soil/water) WATER Lab Sample ID: 91001119

Sample wt/vol: 1000(g/ml) ml Lab File ID:

Level: (low/med) low Date Received: 3/15/91

%Moisture: not dec._NA_ dec._NA_ Date Extracted: 3/20/91

Extraction (SepF/Cont/Sonc) SEPF Date Analyzed: 04/04/91

GPC Cleanup:(Y/N) N pH 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
319-84-6	ALPHA-BHC	0.050	U
319-85-7	BETA-BHC	0.050	U
319-86-8	DELTA-BHC	0.050	U
58-89-9	GAMMA-BHC	0.050	U
76-44-8	HEPTACHLOR	0.050	U
309-00-2	ALDRIN	0.050	U
1024-57-3	HEPTACHLOR EPOXIDE	0.050	U
959-98-8	ENDOSULFAN I	0.050	U
60-57-1	DIELDRIN	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	ENDRIN	0.10	U
33213-65-9	ENDOSULFAN II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	ENDOSULFAN SULFATE	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	METHOXYCHLOR	0.50	U
53494-70-5	ENDRIN KETONE	0.10	U
5103-71-9	ALPHA-CHLORDANE	0.50	U
5103-74-2	GAMMA-CHLORDANE	0.50	U
8001-35-2	TOXAPHENE	1.0	U
12674-11-2	AROCLOR-1016	0.50	U
11104-28-2	AROCLOR-1221	0.50	U
11141-16-5	AROCLOR-1232	0.50	U
53469-21-9	AROCLOR-1242	0.50	U
12672-29-6	AROCLOR-1248	0.50	U
11097-69-1	AROCLOR-1254	1.0	U
11096-82-5	AROCLOR-1260	1.0	U

Z10

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBLANK

Lab Name: TCT-ST. LOUIS

Contract: 3540

Lab Code: TCT

Case No.: 00011

SAS No.:

SDG No.: FIELDBLANK

Matrix (soil/water): WATER

Lab Sample ID: 91001119

Level (low/med): LOW

Date Received: 03/15/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	14.0	U	W	F
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	3.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	27.0	U		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	19.0	U		P
7440-50-8	Copper	9.0	U		P
7439-89-6	Iron	22.0	U		P
7439-92-1	Lead	2.0	B		F
7439-95-4	Magnesium	12.0	U		P
7439-96-5	Manganese	4.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	9.0	U		P
7440-09-7	Potassium	40.0	B		A
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	1.0	U	N	F
7440-23-5	Sodium	95.0	U		P
7440-28-0	Thallium	2.9	B		F
7440-62-2	Vanadium	6.0	U		P
7440-66-6	Zinc	11.0	U		P
	Cyanide	5.0	U		AS

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

Z11

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 5 (g/ml) G Lab File ID: >G0557

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 17 Date Analyzed: 03/16/91

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	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	20	
67-64-1	Acetone	1200	B E
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	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	130	
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	400	E
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	140	B
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	250	E
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	870	E
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	4600	E

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: S-1

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 5 (g/mL) G Lab File ID: >G0557

Level: (low/med) LOW Date Received: 03/15/90

% Moisture: not dec. 17 Date Analyzed: 03/16/91

Column: (pack/cap) CAP Dilution Factor: 1

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

Number TICs found: 10

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	18.86	1100	J
2.		UNKNOWN	19.25	2300	J
3.		UNKNOWN	19.76	1600	J
4.		UNKNOWN	20.28	2200	J
5.		UNKNOWN	21.07	1500	J
6.		UNKNOWN	21.36	710	J
7.		UNKNOWN	22.36	2100	J
8.		UNKNOWN	22.62	820	J
9.	95932	BENZENE,1,2,4,5-TETRAMETHYL	23.58	1100	J
10.	874351	1H-INDENE,2,3-DIHYDRO-5-METHYL	24.42	660	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1 RE

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 4 (g/ml) G Lab File ID: >G0574

Level: (low/med) MED Date Received: 03/15/91

Moisture: not dec. 17 Date Analyzed: 03/18/91

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	1500	U
74-83-9	Bromomethane	1500	U
75-01-4	Vinyl chloride	1500	U
75-00-3	Chloroethane	1500	U
75-09-2	Methylene Chloride	750	U
67-64-1	Acetone	3300	B
75-15-0	Carbon Disulfide	750	U
75-35-4	1,1-Dichloroethene	750	U
75-34-3	1,1-Dichloroethane	750	U
540-59-0	1,2-Dichloroethene (total)	750	U
67-66-3	Chloroform	750	U
107-06-2	1,2-Dichloroethane	750	U
78-93-3	2-Butanone	1500	U
71-55-6	1,1,1-Trichloroethane	750	U
56-23-5	Carbon Tetrachloride	750	U
108-05-4	Vinyl Acetate	1500	U
75-27-4	Bromodichloromethane	750	U
78-87-5	1,2-Dichloropropane	750	U
10061-01-5	cis-1,3-Dichloropropene	750	U
79-01-6	Trichloroethene	750	U
124-48-1	Dibromochloromethane	750	U
79-00-5	1,1,2-Trichloroethane	390	J
71-43-2	Benzene	750	U
10061-02-6	trans-1,3-Dichloropropene	750	U
75-25-2	Bromoform	450	J
108-10-1	4-Methyl-2-pentanone	1500	U
591-78-6	2-Hexanone	1500	U
127-18-4	Tetrachloroethene	750	U
79-34-5	1,1,2,2-Tetrachloroethane	930	
108-88-3	Toluene	750	U
108-90-7	Chlorobenzene	750	U
100-41-4	Ethylbenzene	250	J
100-42-5	Styrene	750	U
1330-20-7	Xylene (total)	1900	

FORM I VOA 1/87 Rev

214

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-1RE

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 4 (g/mL) G Lab File ID: >G0574

Level: (low/med) MED Date Received: 03/15/91

% Moisture: not dec. 17 Date Analyzed: 03/18/91

Column: (pack/cap) CAP Dilution Factor: 1

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

Number TICs found: 10

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	11.65	2000	J
2.	C9H12 ISOMER	19.03	7900	J
3.	TRIMETHYL BENZENE ISOMER	19.21	4500	J
4.	C9H12 ISOMER	19.58	4200	J
5.	C9H12 ISOMER	20.01	14000	J
6.	ETHYL METHYL BENZENE ISOMER	20.89	2900	J
7.	C9H10 ISOMER	21.24	1200	J
8.	C10H24 ISOMER	22.30	~~1200~~ 2900	J
9.	C10H14 ISOMER	22.51	1800	J
10.	C10H14 ISOMER	23.49	2100	J
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FORM I VOA-TIC 1/87 Rev.

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5013

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 17 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	bis(2-Chloroisopropyl)ether	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	8900	E
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	1300	
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	200	J
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5013

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 17 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenyl ether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-butylphthalate	120	J
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	790	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	400	U
117-84-0	Di-n-octylphthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
193-39-5	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-1

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 30 (g/mL) G Lab File ID: >D5013

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 17 dec. Date Extracted: 03/20/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/29/91

Cleanup: (Y/N) N pH 6 Dilution Factor: 1

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

Number TICs found: 20

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	4.27	730	J
2.		UNKNOWN	5.45	19000	J
3.		DIMETHYL BENZENE ISOMER	5.74	1500	J
4.		UNKNOWN	6.27	1300	J
5.		UNKNOWN	6.72	3700	J
6.		UNKNOWN	7.31	3000	J
7.	103651	BENZENE,PROPYL	7.52	1900	J
8.		METHYL BENZENE ISOMER,C9H12	7.68	3400	J
9.		METHYL BENZENE ISOMER,C9H12	7.74	1500	J
10.		TRI-METHYL BENZENE ISOMER	7.86	2300	J
11.		TRI-METHYL BENZENE ISOMER	8.37	4700	J
12.		ETHYL METHYL BENZENE ISOMER	8.88	1300	J
13.		UNKNOWN	8.99	740	J
14.		UNKNOWN C6H12O2 ACID	9.07	490	J
15.		UNKNOWN ALKENE, C9H10	9.13	690	J
16.		UNKNOWN	9.40	9500	J
17.		DIMETHYL-ETHYL BENZENE ISOMER	9.56	1500	J
18.	116029	CYCLOHEXANOL,3,3,5-TRIMETHYL	9.62	740	J
19.		UNKNOWN	10.56	230	J
20.		DIMETHYL ETHYL BENZENE ISOMER	11.25	250	J
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FORM I SV-TIC 1/87 Rev.

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14

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

S-1 RE DL

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5078

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 17 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 04/10/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	1200	U
111-44-4	bis(2-Chloroethyl)Ether	1200	U
95-57-8	2-Chlorophenol	1200	U
541-73-1	1,3-Dichlorobenzene	1200	U
106-46-7	1,4-Dichlorobenzene	1200	U
100-51-6	Benzyl alcohol	1200	U
95-50-1	1,2-Dichlorobenzene	1200	U
95-48-7	2-Methylphenol	1200	U
108-60-1	bis(2-Chloroisopropyl)ether	1200	U
106-44-5	4-Methylphenol	1200	U
621-64-7	N-Nitroso-di-n-propylamine	1200	U
67-72-1	Hexachloroethane	1200	U
98-95-3	Nitrobenzene	1200	U
78-59-1	Isophorone	15000	
88-75-5	2-Nitrophenol	1200	U
105-67-9	2,4-Dimethylphenol	1200	U
65-85-0	Benzoic acid	5800	U
111-91-1	bis(2-Chloroethoxy)methane	1200	U
120-83-2	2,4-Dichlorophenol	1200	U
120-82-1	1,2,4-Trichlorobenzene	1200	U
91-20-3	Naphthalene	1300	
106-47-8	4-Chloroaniline	1200	U
87-68-3	Hexachlorobutadiene	1200	U
59-50-7	4-Chloro-3-methylphenol	1200	U
91-57-6	2-Methylnaphthalene	180	J
77-47-4	Hexachlorocyclopentadiene	1200	U
88-06-2	2,4,6-Trichlorophenol	1200	U
95-95-4	2,4,5-Trichlorophenol	5800	U
91-58-7	2-Chloronaphthalene	1200	U
88-74-4	2-Nitroaniline	5800	U
131-11-3	Dimethylphthalate	1200	U
208-96-8	Acenaphthylene	1200	U
606-20-2	2,6-Dinitrotoluene	1200	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1 RE DL

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5078

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 17 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 04/10/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	5800	U
83-32-9	Acenaphthene	1200	U
51-28-5	2,4-Dinitrophenol	5800	U
100-02-7	4-Nitrophenol	5800	U
132-64-9	Dibenzofuran	1200	U
121-14-2	2,4-Dinitrotoluene	1200	U
84-66-2	Diethylphthalate	1200	U
7005-72-3	4-Chlorophenyl-phenyl ether	1200	U
86-73-7	Fluorene	1200	U
100-01-6	4-Nitroaniline	5800	U
534-52-1	4,6-Dinitro-2-methylphenol	5800	U
86-30-6	N-nitrosodiphenylamine	1200	U
101-55-3	4-Bromophenyl-phenylether	1200	U
118-74-1	Hexachlorobenzene	1200	U
87-86-5	Pentachlorophenol	5800	U
85-01-8	Phenanthrene	1200	U
120-12-7	Anthracene	1200	U
84-74-2	Di-n-butylphthalate	120	J
206-44-0	Fluoranthene	1200	U
129-00-0	Pyrene	1200	U
85-68-7	Butylbenzylphthalate	1200	U
91-94-1	3,3'-Dichlorobenzidine	2400	U
56-55-3	Benzo(a)anthracene	1200	U
218-01-9	Chrysene	1200	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200	U
117-84-0	Di-n-octylphthalate	1200	U
205-99-2	Benzo(b)fluoranthene	1200	U
207-08-9	Benzo(k)fluoranthene	1200	U
50-32-8	Benzo(a)pyrene	1200	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200	U
193-39-5	Dibenzo(a,h)anthracene	1200	U
191-24-2	Benzo(g,h,i)perylene	1200	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-1 RE DL

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 30 (g/mL) G Lab File ID: >D5078

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 17 dec. Date Extracted: 03/20/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/10/91

Cleanup: (Y/N) N pH 5 Dilution Factor: 1

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

Number TICs found: 20

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	5.21	9800	J
2.		DIMETHYL BENZENE ISOMER	5.72	2200	J
3.		DIMETHYL BENZENE ISOMER	6.19	2300	J
4.		UNKNOWN	7.40	1900	J
5.	103651	BENZENE,PROPYL	7.48	2500	J
6.		TRIMETHYL_BENZENE ISOMER	7.68	15000	J
7.		UNKNOWN	7.74	7800	J
8.		UNKNOWN	7.89	12000	J
9.		TRIMETHYL BENZENE ISOMER	8.40	18000	J
10.		TRIMETHYL BENZENE ISOMER	8.89	8400	J
11.		UNKNOWN ALKANE	9.11	2200	J
12.		BENZENE ISOMER	9.42	3100	J
13.		BENZENE ISOMER	9.56	7000	J
14.		BENZENE ISOMER	9.89	2600	J
15.		BENZENE ISOMER	9.95	2600	J
16.		UNKNOWN ALKANE	10.32	1800	J
17.		BENZENE ISOMER	10.65	2900	J
18.		BENZENE ISOMER	10.71	2900	J
19.		DIHYDRO-METHYL 1H-INDENE	11.05	1700	J
20.		BENZENE ISOMER	11.24	3300	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM I SV-TIC 1/87 Rev.

Z21

EPA SAMPLE NO.

S-1

PESTICIDE ORGANICS DATA SHEET
1D

Lab Name: TCT-ST. LOUIS Contract:

Lab Code: TCT Case No.: 3540-11 Sas: SDG No.: Field Blank

Matrix: (soil/water) SOIL Lab Sample ID: 91001113

Sample wt/vol: 30 (g/ml) g Lab File ID:

Level: (low/med) LOW Date Received: 3/15/91

%Moisture: not dec._____ dec. 16.8 Date Extracted: 3/20/91

Extraction (SepF/Cont/Sonc) SONC Date Analyzed: 04/04/91

GPC Cleanup:(Y/N) N pH 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	ALPHA-BHC	9.6	U
319-85-7	BETA-BHC	9.6	U
319-86-8	DELTA-BHC	9.6	U
58-89-9	GAMMA-BHC	9.6	U
76-44-8	HEPTACHLOR	9.6	U
309-00-2	ALDRIN	9.6	U
1024-57-3	HEPTACHLOR EPOXIDE	9.6	U
959-98-8	ENDOSULFAN I	9.6	U
60-57-1	DIELDRIN	19	U
72-55-9	4,4'-DDE	19	U
72-20-8	ENDRIN	19	U
33213-65-9	ENDOSULFAN II	19	U
72-54-8	4,4'-DDD	19	U
1031-07-8	ENDOSULFAN SULFATE	19	U
50-29-3	4,4'-DDT	19	U
72-43-5	METHOXYCHLOR	96	U
53494-70-5	ENDRIN KETONE	19	U
5103-71-9	ALPHA-CHLORDANE	96	U
5103-74-2	GAMMA-CHLORDANE	96	U
8001-35-2	TOXAPHENE	190	U
12674-11-2	AROCLOR-1016	96	U
11104-28-2	AROCLOR-1221	96	U
11141-16-5	AROCLOR-1232	96	U
53469-21-9	AROCLOR-1242	96	U
12672-29-6	AROCLOR-1248	96	U
11097-69-1	AROCLOR-1254	190	U
11096-82-5	AROCLOR-1260	190	U

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1

Lab Name: TCT-ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELDBLANK

Matrix (soil/water): SOIL Lab Sample ID: 91001113

Level (low/med): LOW Date Received: 03/15/91

% Solids: 83.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5890			P
7440-36-0	Antimony	3.4	U	N	F
7440-38-2	Arsenic	1.4	B	N	F
7440-39-3	Barium	23.6	B		P
7440-41-7	Beryllium	1.2	B		P
7440-43-9	Cadmium	0.72	U		P
7440-70-2	Calcium	1860		E	P
7440-47-3	Chromium	20.7			P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	7.0			P
7439-89-6	Iron	15900			P
7439-92-1	Lead	25.1			F
7439-95-4	Magnesium	543	B	E	P
7439-96-5	Manganese	37.0			P
7439-97-6	Mercury	0.15			CV
7440-02-0	Nickel	2.6	B		P
7440-09-7	Potassium	748	B		A
7782-49-2	Selenium	0.24	U	N	F
7440-22-4	Silver	0.24	U	W	F
7440-23-5	Sodium	22.8	U		P
7440-28-0	Thallium	0.53	B		F
7440-62-2	Vanadium	36.8			P
7440-66-6	Zinc	95.9			P
	Cyanide	0.30	U		AS

Color Before: LT.BROWN Clarity Before: N/A Texture: MEDIUM

Color After: LT.YELLOW Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-1MS/MSD

Lab Name: TCT-ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELDBLANK

Matrix (soil/water): SOIL Lab Sample ID: 91001114

Level (low/med): LOW Date Received: 03/15/91

% Solids: 78.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6740			P
7440-36-0	Antimony	3.5	U	N	F
7440-38-2	Arsenic	1.4	B	N	F
7440-39-3	Barium	24.8	B		P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	0.76	U		P
7440-70-2	Calcium	1390		E	P
7440-47-3	Chromium	25.1			P
7440-48-4	Cobalt	4.8	U		P
7440-50-8	Copper	9.1			P
7439-89-6	Iron	12400			P
7439-92-1	Lead	81.4			F
7439-95-4	Magnesium	654	B	E	P
7439-96-5	Manganese	43.1			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	2.8	B		P
7440-09-7	Potassium	1180	B		A
7782-49-2	Selenium	0.34	B	NW	F
7440-22-4	Silver	0.25	U		F
7440-23-5	Sodium	24.1	U		P
7440-28-0	Thallium	0.68	B		F
7440-62-2	Vanadium	48.2			P
7440-66-6	Zinc	104			P
	Cyanide	0.35	B		AS

Color Before: LT.BROWN Clarity Before: N/A Texture: MEDIUM

Color After: LT.YELLOW Clarity After: CLEAR Artifacts:

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-2

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001115

Sample wt/vol: 5 (g/ml) G Lab File ID: >B5924

Level: (low/med) LOW Date Received: 03/15/90

% Moisture: not dec. 14 Date Analyzed: 03/19/91

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	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	1	J
67-64-1	Acetone	4	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	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
108-05-4	Vinyl Acetate	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	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	230	
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	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	J

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-2

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001115

Sample wt/vol: 5 (g/mL) G Lab File ID: >B5924

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 Date Analyzed: 03/19/91

Column: (pack/cap) CAP 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 BENZENE	23.46	7	J
2.		UNKNOWN	26.41	8	J
3.					
4.					
5.					
6.					
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9.					
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FORM I VOA-TIC 1/87 Rev.

Z26

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-2

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001115

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5015

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
100-51-6	Benzyl alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	bis(2-Chloroisopropyl)ether	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	1900	U
95-95-4	2,4,5-Trichlorophenol	380	U
91-58-7	2-Chloronaphthalene	1900	U
88-74-4	2-Nitroaniline	380	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene		

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-2

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001115

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5015

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenyl ether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-butylphthalate	330	J
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	760	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	380	U
117-84-0	Di-n-octylphthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
193-39-5	Dibenzo(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-2

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001115

Sample wt/vol: 30 (g/mL) G Lab File ID: >D5015

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/29/91

Cleanup: (Y/N) N pH 5 Dilution Factor: 1

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

Number TICs found: 15

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	4.24	430	J
2.		UNKNOWN	4.64	210	J
3.		UNKNOWN	5.23	10000	J
4.		UNKNOWN ALKANE	5.42	1300	J
5.		UNKNOWN ALKANE C9H20	5.56	430	J
6.		UNKNOWN	5.70	180	J
7.		UNKNOWN ALKANE	5.74	360	J
8.		UNKNOWN	6.93	180	J
9.		UNKNOWN	7.03	2400	J
10.		UNKNOWN	7.33	1400	J
11.		UNKNOWN	8.23	1600	J
12.		UNKNOWN	8.56	170	J
13.		UNKNOWN	9.19	310	J
14.		UNKNOWN	9.50	3800	J
15.	128370	PHENOL,2,6-BIS(1,1-DIMETHYL-	16.55	190	J
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
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FORM I SV-TIC 1/87 Rev.

Z29

EPA SAMPLE NO.

S-2 DL

PESTICIDE ORGANICS DATA SHEET
1D

Lab Name: TCT-ST. LOUIS Contract:

Lab Code: TCT Case No.: 3540-11 Sas: SDG No.: Field Blank

Matrix: (soil/water) SOIL Lab Sample ID: 91001115

Sample wt/vol: 30 (g/ml) g Lab File ID:

Level: (low/med) LOW Date Received: 3/15/91

%Moisture: not dec.____ dec. 13.6 Date Extracted: 3/20/91

Extraction (SepF/Cont/Sonc) SONC Date Analyzed: 04/04/91

GPC Cleanup:(Y/N) N pH 5 Dilution Factor: 10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	ALPHA-BHC	93	UD
319-85-7	BETA-BHC	93	UD
319-86-8	DELTA-BHC	93	UD
58-89-9	GAMMA-BHC	93	UD
76-44-8	HEPTACHLOR	93	UD
309-00-2	ALDRIN	93	UD
1024-57-3	HEPTACHLOR EPOXIDE	93	UD
959-98-8	ENDOSULFAN I	93	UD
60-57-1	DIELDRIN	190	UD
72-55-9	4,4'-DDE	220	D
72-20-8	ENDRIN	190	UD
33213-65-9	ENDOSULFAN II	190	UD
72-54-8	4,4'-DDD	190	UD
1031-07-8	ENDOSULFAN SULFATE	190	UD
50-29-3	4,4'-DDT	190	UD
72-43-5	METHOXYCHLOR	930	UD
53494-70-5	ENDRIN KETONE	190	UD
5103-71-9	ALPHA-CHLORDANE	930	UD
5103-74-2	GAMMA-CHLORDANE	930	UD
8001-35-2	TOXAPHENE	1900	UD
12674-11-2	AROCLOR-1016	930	UD
11104-28-2	AROCLOR-1221	930	UD
11141-16-5	AROCLOR-1232	930	UD
53469-21-9	AROCLOR-1242	930	UD
12672-29-6	AROCLOR-1248	930	UD
11097-69-1	AROCLOR-1254	1900	UD
11096-82-5	AROCLOR-1260	1900	UD

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-2

Lab Name: TCT-ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELDBLANK

Matrix (soil/water): SOIL Lab Sample ID: 91001115

Level (low/med): LOW Date Received: 03/15/91

% Solids: 86.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7780			P
7440-36-0	Antimony	3.8	B	N	F
7440-38-2	Arsenic	6.2		N	F
7440-39-3	Barium	32.4	B		P
7440-41-7	Beryllium	0.93	B		P
7440-43-9	Cadmium	0.69	U		P
7440-70-2	Calcium	1870		E	P
7440-47-3	Chromium	19.2			P
7440-48-4	Cobalt	6.2	B		P
7440-50-8	Copper	32.4			P
7439-89-6	Iron	11900			P
7439-92-1	Lead	97.5			P
7439-95-4	Magnesium	755	B	E	P
7439-96-5	Manganese	132			P
7439-97-6	Mercury	0.17			CV
7440-02-0	Nickel	6.9	B		P
7440-09-7	Potassium	421	B		A
7782-49-2	Selenium	0.27	B	N	F
7440-22-4	Silver	0.23	U	W	F
7440-23-5	Sodium	22.0	U		P
7440-28-0	Thallium	0.56	B		F
7440-62-2	Vanadium	23.1			P
7440-66-6	Zinc	114			P
	Cyanide	0.40	B		AS

Color Before: BROWN Clarity Before: N/A Texture: MEDIUM

Color After: LT.YELLOW Clarity After: CLEAR Artifacts:

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-3 ~~DL~~

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001116

Sample wt/vol: 1 (g/ml) G Lab File ID: >B5926

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 20 Date Analyzed: 03/19/91

Column: (pack/cap) CAP Dilution Factor: 5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	62	U
74-83-9	Bromomethane	62	U
75-01-4	Vinyl chloride	62	U
75-00-3	Chloroethane	62	U
75-09-2	Methylene Chloride	31	U
67-64-1	Acetone	21	BJ
75-15-0	Carbon Disulfide	31	U
75-35-4	1,1-Dichloroethene	31	U
75-34-3	1,1-Dichloroethane	31	U
540-59-0	1,2-Dichloroethene (total)	31	U
67-66-3	Chloroform	31	U
107-06-2	1,2-Dichloroethane	31	U
108-05-4	Vinyl Acetate	62	U
78-93-3	2-Butanone	62	U
71-55-6	1,1,1-Trichloroethane	31	U
56-23-5	Carbon Tetrachloride	31	U
75-27-4	Bromodichloromethane	31	U
78-87-5	1,2-Dichloropropane	31	U
10061-01-5	cis-1,3-Dichloropropene	31	U
79-01-6	Trichloroethene	31	U
124-48-1	Dibromochloromethane	31	U
79-00-5	1,1,2-Trichloroethane	31	U
71-43-2	Benzene	31	U
10061-02-6	trans-1,3-Dichloropropene	31	U
75-25-2	Bromoform	31	U
108-10-1	4-Methyl-2-pentanone	62	U
591-78-6	2-Hexanone	62	U
127-18-4	Tetrachloroethene	150	
79-34-5	1,1,2,2-Tetrachloroethane	31	U
108-88-3	Toluene	31	U
108-90-7	Chlorobenzene	31	U
100-41-4	Ethylbenzene	31	U
100-42-5	Styrene	31	U
1330-20-7	Xylene (total)	13	J

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-3 DL

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001116

Sample wt/vol: 1 (g/mL) G Lab File ID: >B5926

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 20 Date Analyzed: 03/19/91

Column: (pack/cap) CAP Dilution Factor: 5

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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FORM I VOA-TIC 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-3

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001116

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5016

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 20 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
100-51-6	Benzyl alcohol	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	bis(2-Chloroisopropyl)ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	130	J
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
65-85-0	Benzoic acid	2000	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	2000	U
95-95-4	2,4,5-Trichlorophenol	410	U
91-58-7	2-Chloronaphthalene	2000	U
88-74-4	2-Nitroaniline	410	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene		

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-3

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001116

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5016

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 20 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenyl ether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
84-74-2	Di-n-butylphthalate	380	J
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	820	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)phthalate	310	J
117-84-0	Di-n-octylphthalate	410	U
205-99-2	Benzo(b)fluoranthene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
193-39-5	Dibenzo(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-3

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001116

Sample wt/vol: 30 (g/mL) G Lab File ID: >D5016

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 20 dec. Date Extracted: 03/20/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/29/91

Cleanup: (Y/N) N pH 5 Dilution Factor: 1

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

Number TICs found: 14

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		METHYL PENTENE ISOMER	4.23	320	J
2.		UNKNOWN	4.64	260	J
3.		UNKNOWN	5.21	9600	J
4.		UNKNOWN ALKANE	5.39	780	J
5.		UNKNOWN ALKANE C9H20	5.55	510	J
6.		UNKNOWN ALKANE	5.60	280	J
7.		UNKNOWN	6.92	200	J
8.		UNKNOWN	7.00	1700	J
9.		UNKNOWN	7.33	1800	J
10.		UNKNOWN	8.25	2300	J
11.		UNKNOWN	9.16	240	J
12.		UNKNOWN	9.49	4300	J
13.		UNKNOWN	10.35	220	J
14.	128370	PHENOL,2,6-BIS(1,1-DIMETHYL-	16.54	250	J
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16.					
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FORM I SV-TIC 1/87 Rev.

236

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-3 RE DL

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001116

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5076

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 20 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 04/10/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	1200	U
111-44-4	bis(2-Chloroethyl)Ether	1200	U
95-57-8	2-Chlorophenol	1200	U
541-73-1	1,3-Dichlorobenzene	1200	U
106-46-7	1,4-Dichlorobenzene	1200	U
100-51-6	Benzyl alcohol	1200	U
95-50-1	1,2-Dichlorobenzene	1200	U
95-48-7	2-Methylphenol	1200	U
108-60-1	bis(2-Chloroisopropyl)ether	1200	U
106-44-5	4-Methylphenol	1200	U
621-64-7	N-Nitroso-di-n-propylamine	1200	U
67-72-1	Hexachloroethane	1200	U
98-95-3	Nitrobenzene	1200	U
78-59-1	Isophorone	14000	
88-75-5	2-Nitrophenol	1200	U
105-67-9	2,4-Dimethylphenol	1200	U
65-85-0	Benzoic acid	2500	J
111-91-1	bis(2-Chloroethoxy)methane	1200	U
120-83-2	2,4-Dichlorophenol	1200	U
120-82-1	1,2,4-Trichlorobenzene	1200	U
91-20-3	Naphthalene	1500	
106-47-8	4-Chloroaniline	1200	U
87-68-3	Hexachlorobutadiene	1200	U
59-50-7	4-Chloro-3-methylphenol	1200	U
91-57-6	2-Methylnaphthalene	240	J
77-47-4	Hexachlorocyclopentadiene	1200	U
88-06-2	2,4,6-Trichlorophenol	1200	U
95-95-4	2,4,5-Trichlorophenol	6000	U
91-58-7	2-Chloronaphthalene	1200	U
88-74-4	2-Nitroaniline	6000	U
131-11-3	Dimethylphthalate	1200	U
208-96-8	Acenaphthylene	1200	U
606-20-2	2,6-Dinitrotoluene	1200	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-3 RE DL

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001116

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5076

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 20 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 04/10/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	6000	U
83-32-9	Acenaphthene	1200	U
51-28-5	2,4-Dinitrophenol	6000	U
100-02-7	4-Nitrophenol	6000	U
132-64-9	Dibenzofuran	1200	U
121-14-2	2,4-Dinitrotoluene	1200	U
84-66-2	Diethylphthalate	1200	U
7005-72-3	4-Chlorophenyl-phenyl ether	1200	U
86-73-7	Fluorene	1200	U
100-01-6	4-Nitroaniline	6000	U
534-52-1	4,6-Dinitro-2-methylphenol	6000	U
86-30-6	N-nitrosodiphenylamine	1200	U
101-55-3	4-Bromophenyl-phenylether	1200	U
118-74-1	Hexachlorobenzene	1200	U
87-86-5	Pentachlorophenol	6000	U
85-01-8	Phenanthrene	1200	U
120-12-7	Anthracene	1200	U
84-74-2	Di-n-butylphthalate	180	J
206-44-0	Fluoranthene	1200	U
129-00-0	Pyrene	1200	U
85-68-7	Butylbenzylphthalate	1200	U
91-94-1	3,3'-Dichlorobenzidine	2500	U
56-55-3	Benzo(a)anthracene	1200	U
218-01-9	Chrysene	1200	U
117-81-7	bis(2-Ethylhexyl)phthalate	1200	U
117-84-0	Di-n-octylphthalate	1200	U
205-99-2	Benzo(b)fluoranthene	1200	U
207-08-9	Benzo(k)fluoranthene	1200	U
50-32-8	Benzo(a)pyrene	1200	U
193-39-5	Indeno(1,2,3-cd)pyrene	1200	U
193-39-5	Dibenzo(a,h)anthracene	1200	U
191-24-2	Benzo(g,h,i)perylene	1200	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-3 RE DL

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001116

Sample wt/vol: 30 (g/mL) G Lab File ID: >D5076

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 20 dec. Date Extracted: 03/20/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/10/91

Cleanup: (Y/N) N pH 5 Dilution Factor: 3

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

Number TICs found: 20

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	4.09	2500	J
2.		UNKNOWN	4.86	3800	J
3.		UNKNOWN	5.08	77000	J
4.		UNKNOWN	5.33	8700	J
5.	111762	ETHANOL,2-BUTOXY	6.39	6700	J
6.		C9H12 BENZENE ISOMER	6.74	2100	J
7.	103651	BENZENE, PROPYL	7.35	3400	J
8.		C9H12 BENZENE ISOMER	7.51	11000	J
9.		C9H12 BENZENE ISOMER	7.57	4800	J
10.		C9H12 BENZENE ISOMER	7.69	8200	J
11.		C9H12 TRIMETHYL BENZENE ISOMER	8.20	22000	J
12.		UNKNOWN ALKANE	8.31	3000	J
13.		C9H12 BENZENE ISOMER	8.71	5800	J
14.		UNKNOWN ALKENE	8.98	2200	J
15.	873949	CYCLOHEXANONE,3,3,5-TRIMETHYL	9.16	22000	J
16.		METHYL-PROPYL BENZENE ISOMER	9.29	2000	J
17.		C10H14 ETHYL-DIMETHYL BENZENE	9.41	5700	J
18.		UNKNOWN ALKANE	10.18	1400	J
19.		C10H14 ETHYL-DIMETHYL BENZENE	10.49	850	J
20.		C10H14 BENZENE ISOMER	11.10	1000	J
21.					
22.					
23.					
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FORM I SV-TIC 1/87 Rev.

Z39
35

EPA SAMPLE NO.

S-3 DL

PESTICIDE ORGANICS DATA SHEET
1D

Lab Name: TCT-ST. LOUIS Contract:

Lab Code: TCT Case No.: 3540-11 Sas: SDG No.: Field Blank

Matrix: (soil/water) SOIL Lab Sample ID: 91001116

Sample wt/vol: 30 (g/ml) g Lab File ID:

Level: (low/med) LOW Date Received: 3/15/91

%Moisture: not dec.____ dec.. 19.8 Date Extracted: 3/20/91

Extraction (SepF/Cont/Sonc) SONC Date Analyzed: 04/04/91

GPC Cleanup:(Y/N) N pH 5 Dilution Factor: 10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	ALPHA-BHC	100	UD
319-85-7	BETA-BHC	100	UD
319-86-8	DELTA-BHC	100	UD
58-89-9	GAMMA-BHC	100	UD
76-44-8	HEPTACHLOR	100	UD
309-00-2	ALDRIN	100	UD
1024-57-3	HEPTACHLOR EPOXIDE	100	UD
959-98-8	ENDOSULFAN I	100	UD
60-57-1	DIELDRIN	200	UD
72-55-9	4,4'-DDE	200	UD
72-20-8	ENDRIN	200	UD
33213-65-9	ENDOSULFAN II	200	UD
72-54-8	4,4'-DDD	200	UD
1031-07-8	ENDOSULFAN SULFATE	200	UD
50-29-3	4,4'-DDT	200	UD
72-43-5	METHOXYCHLOR	1000	UD
53494-70-5	ENDRIN KETONE	200	UD
5103-71-9	ALPHA-CHLORDANE	1000	UD
5103-74-2	GAMMA-CHLORDANE	1000	UD
8001-35-2	TOXAPHENE	2000	UD
12674-11-2	AROCLOR-1016	1000	UD
11104-28-2	AROCLOR-1221	1000	UD
11141-16-5	AROCLOR-1232	1000	UD
53469-21-9	AROCLOR-1242	1000	UD
12672-29-6	AROCLOR-1248	1000	UD
11097-69-1	AROCLOR-1254	2000	UD
11096-82-5	AROCLOR-1260	2000	UD

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-3

Lab Name: TCT-ST. LOUIS

Contract: 3540

Lab Code: TCT

Case No.: 00011

SAS No.:

SDG No.: FIELDBLANK

Matrix (soil/water): SOIL

Lab Sample ID: 91001116

Level (low/med): LOW

Date Received: 03/15/91

% Solids: 80.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5090			P
7440-36-0	Antimony	3.5	B	N	F
7440-38-2	Arsenic	6.7		NS	F
7440-39-3	Barium	33.2	B		P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	0.75	U		P
7440-70-2	Calcium	2010		E	P
7440-47-3	Chromium	12.0			P
7440-48-4	Cobalt	7.7	B		P
7440-50-8	Copper	26.9			P
7439-89-6	Iron	13100			P
7439-92-1	Lead	101			P
7439-95-4	Magnesium	693	B	E	P
7439-96-5	Manganese	142			P
7439-97-6	Mercury	0.24			CV
7440-02-0	Nickel	6.2	B		P
7440-09-7	Potassium	379	B		A
7782-49-2	Selenium	0.48	B	NW	F
7440-22-4	Silver	0.25	U	W	F
7440-23-5	Sodium	23.7	U		P
7440-28-0	Thallium	0.52	B		F
7440-62-2	Vanadium	22.2			P
7440-66-6	Zinc	92.8			P
	Cyanide	0.96			AS

Color Before: BROWN

Clarity Before: N/A

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-4

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001117

Sample wt/vol: 5 (g/ml) G Lab File ID: >G0561

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 Date Analyzed: 03/16/91

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	58	U
74-83-9	Bromomethane	58	U
75-01-4	Vinyl chloride	58	U
75-00-3	Chloroethane	58	U
75-09-2	Methylene Chloride	29	U
67-64-1	Acetone	56	BJ
75-15-0	Carbon Disulfide	29	U
75-35-4	1,1-Dichloroethene	29	U
75-34-3	1,1-Dichloroethane	29	U
540-59-0	1,2-Dichloroethene (total)	29	U
67-66-3	Chloroform	29	U
107-06-2	1,2-Dichloroethane	29	U
78-93-3	2-Butanone	58	U
71-55-6	1,1,1-Trichloroethane	29	U
56-23-5	Carbon Tetrachloride	29	U
108-05-4	Vinyl Acetate	58	U
75-27-4	Bromodichloromethane	29	U
78-87-5	1,2-Dichloropropane	29	U
10061-01-5	cis-1,3-Dichloropropene	29	U
79-01-6	Trichloroethene	29	U
124-48-1	Dibromochloromethane	29	U
79-00-5	1,1,2-Trichloroethane	29	U
71-43-2	Benzene	29	U
10061-02-6	trans-1,3-Dichloropropene	29	U
75-25-2	Bromoform	29	U
108-10-1	4-Methyl-2-pentanone	58	U
591-78-6	2-Hexanone	58	U
127-18-4	Tetrachloroethene	400	B
79-34-5	1,1,2,2-Tetrachloroethane	29	U
108-88-3	Toluene	5200	E
108-90-7	Chlorobenzene	29	U
100-41-4	Ethylbenzene	29	U
100-42-5	Styrene	29	U
1330-20-7	Xylene (total)	76000	E

FORM I VOA 1/87 Rev

242

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-4

Lab Name: TCT-ST.LOUIS

Contract: 3540

Lab Code: TCT

Case No.: 00011

SAS No.:

SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL

Lab Sample ID: 91001117

Sample wt/vol: 5 | EAL (g/mL) G

Lab File ID: >G0561

Level: (low/med) LOW

Date Received: 03/15/90

% Moisture: not dec. 14

Date Analyzed: 03/16/91

Column: (pack/cap) CAP

Dilution Factor: 1

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

Number TICs found: 10

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	18.93	2300	J
2.	UNKNOWN	20.36	3900	J
3.	UNKNOWN	21.49	1300	J
4.	UNKNOWN	22.49	3500	J
5.	C10H14 ISOMER	23.24	1000	J
6.	UNKNOWN	23.65	4400	J
7.	C10H12 ISOMER	24.08	2000	J
8.	C10H12 ISOMER	24.47	2900	J
9.	C11H16 ISOMER	25.51	640	J
10.	C10H8 ISOMER	25.69	1600	J
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12.				
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FORM I VOA-TIC

1/87 Rev.

Z43
39

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-4 RE

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001117

Sample wt/vol: 4 (g/ml) G Lab File ID: >G0575

Level: (low/med) MED Date Received: 03/15/91

% Moisture: not dec. 14 Date Analyzed: 03/18/91

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	5800	U
74-83-9	Bromomethane	5800	U
75-01-4	Vinyl chloride	5800	U
75-00-3	Chloroethane	5800	U
75-09-2	Methylene Chloride	2900	U
67-64-1	Acetone	6000	B
75-15-0	Carbon Disulfide	2900	U
75-35-4	1,1-Dichloroethene	2900	U
75-34-3	1,1-Dichloroethane	2900	U
540-59-0	1,2-Dichloroethene (total)	2900	U
67-66-3	Chloroform	2900	U
107-06-2	1,2-Dichloroethane	2900	U
78-93-3	2-Butanone	5800	U
71-55-6	1,1,1-Trichloroethane	2900	U
56-23-5	Carbon Tetrachloride	2900	U
108-05-4	Vinyl Acetate	5800	U
75-27-4	Bromodichloromethane	2900	U
78-87-5	1,2-Dichloropropane	2900	U
10061-01-5	cis-1,3-Dichloropropene	2900	U
79-01-6	Trichloroethene	2900	U
124-48-1	Dibromochloromethane	2900	U
79-00-5	1,1,2-Trichloroethane	2900	U
71-43-2	Benzene	2900	U
10061-02-6	trans-1,3-Dichloropropene	2900	U
75-25-2	Bromoform	2900	U
108-10-1	4-Methyl-2-pentanone	4800	J
591-78-6	2-Hexanone	5800	U
127-18-4	Tetrachloroethene	2900	U
79-34-5	1,1,2,2-Tetrachloroethane	2900	U
108-88-3	Toluene	2200	J
108-90-7	Chlorobenzene	2900	U
100-41-4	Ethylbenzene	15000	
100-42-5	Styrene	2900	U
1330-20-7	Xylene (total)	160000	E

FORM I VOA 1/87 Rev

244
49

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S-4 RE

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001117

Sample wt/vol: 4 (g/mL) G Lab File ID: >G0575

Level: (low/med) MED Date Received: 03/15/91

% Moisture: not dec. 14 Date Analyzed: 03/18/91

Column: (pack/cap) CAP Dilution Factor: 1

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

Number TICs found: 10

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 103651	BENZENE, PROPYL	18.77	23000	J
2.	C9H12 ISOMER	19.02	140000	J
3.	C9H12 ISOMER	19.22	66000	J
4.	C9H12 ISOMER	19.59	58000	J
5.	C9H12 ISOMER	20.00	150000	J
6.	C9H12 ISOMER	20.88	33000	J
7.	UNKNOWN	21.53	17000	J
8.	C10H14 ISOMER	22.31	25000	J
9.	C10H14 ISOMER	22.50	20000	J
10.	C10H14 ISOMER	23.48	23000	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-4

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001117

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5017

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 6 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
100-51-6	Benzyl alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	bis(2-Chloroisopropyl)ether	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	7000	E
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	2000	
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-4

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001117

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5017

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 6 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenyl ether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-butylphthalate	720	
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	380	U
117-84-0	Di-n-octylphthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
193-39-5	Dibenzo(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S-4

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001117

Sample wt/vol: 1000 (g/mL) G Lab File ID: >D5017

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/29/91

Cleanup: (Y/N) N pH 6 Dilution Factor: 1

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

Number TICs found: 20

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	108883	BENZENE,METHYL	3.58	10000	J
2.		UNKNOWN	5.26	110000	J
3.	100414	BENZENE,ETHYL	5.54	170000	J
4.		DIMETHYL BENZENE ISOMER	5.81	680000	J
5.		DIMETHYL BENZENE ISOMER	6.32	230000	J
6.		UNKNOWN C9H20 ALKANE	6.40	64000	J
7.	98828	BENZENE,(1-METHYLETHYL)	6.89	50000	J
8.		UNKNOWN ALKANE	7.20	42000	J
9.	103651	BENZENE,PROPYL	7.52	110000	J
10.		BENZENE ISOMER	7.71	390000	J
11.		METHYL BENZENE ISOMER,C9H12	8.67	170000	J
12.		ETHYL METHYL BENZENE ISOMER	9.03	23000	J
13.		UNKNOWN ALKENE	9.28	16000	J
14.		BENZENE ISOMER	9.55	14000	J
15.		C10H14 BENZENE ISOMER	9.69	23000	J
16.		C10H14 BENZENE ISOMER	10.01	9800	J
17.		UNKNOWN ALKANE	10.40	1500	J
18.		C10H14 BENZENE ISOMER	10.73	1700	J
19.		C10H14 BENZENE ISOMER	10.83	1300	J
20.		BENZENE ISOMER	11.32	1800	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-4 RE DL

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001117

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5077

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 04/10/91

GPC Cleanup: (Y/N) N pH: 6 Dilution Factor: 2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	3700	U
83-32-9	Acenaphthene	770	U
51-28-5	2,4-Dinitrophenol	3700	U
100-02-7	4-Nitrophenol	3700	U
132-64-9	Dibenzofuran	770	U
121-14-2	2,4-Dinitrotoluene	770	U
84-66-2	Diethylphthalate	770	U
7005-72-3	4-Chlorophenyl-phenyl ether	770	U
86-73-7	Fluorene	770	U
100-01-6	4-Nitroaniline	3700	U
534-52-1	4,6-Dinitro-2-methylphenol	3700	U
86-30-6	N-nitrosodiphenylamine	770	U
101-55-3	4-Bromophenyl-phenylether	770	U
118-74-1	Hexachlorobenzene	770	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	770	U
120-12-7	Anthracene	770	U
84-74-2	Di-n-butylphthalate	860	
206-44-0	Fluoranthene	770	U
129-00-0	Pyrene	770	U
85-68-7	Butylbenzylphthalate	770	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)anthracene	770	U
218-01-9	Chrysene	770	U
117-81-7	bis(2-Ethylhexyl)phthalate	770	U
117-84-0	Di-n-octylphthalate	770	U
205-99-2	Benzo(b)fluoranthene	770	U
207-08-9	Benzo(k)fluoranthene	770	U
50-32-8	Benzo(a)pyrene	770	U
193-39-5	Indeno(1,2,3-cd)pyrene	770	U
193-39-5	Dibenzo(a,h)anthracene	770	U
191-24-2	Benzo(g,h,i)perylene	770	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-4 RE DL

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001117

Sample wt/vol: 30 (g/mL) G Lab File ID: >D5077

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/10/91

Cleanup: (Y/N) N pH 6 Dilution Factor: 2

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

Number TICs found: 20

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	4.99	32000	J
2.	100414	BENZENE,ETHYL	5.40	68000	J
3.		DIMETHYL BENZENE ISOMER	5.62	70000	J
4.		DIMETHYL BENZENE ISOMER	6.15	120000	J
5.		UNKNOWN ALKANE	6.26	10000	J
6.	98828	BENZENE,(1-METHYLETHYL)	6.75	22000	J
7.		UNKNOWN ALKANE	6.95	16000	J
8.	103651	BENZENE,PROPYL	7.40	85000	J
9.		BENZENE ISOMER	7.62	190000	J
10.		METHYL BENZENE ISOMER,C9H12	8.36	150000	J
11.		C9H12 METHYL BENZENE ISOMER	8.81	35000	J
12.		UNKNOWN ALKENE	9.05	16000	J
13.		DIETHYL BENZENE ISOMER	9.26	7500	J
14.		METHYL-PROPYL BENZENE ISOMER	9.34	12000	J
15.		C10H14 BENZENE ISOMER	9.48	22000	J
16.		C10H14 BENZENE ISOMER	9.61	5800	J
17.		UNKNOWN ALKANE	10.24	12000	J
18.		C10H14 BENZENE ISOMER	10.54	13000	J
19.		C10H14 BENZENE ISOMER	10.61	13000	J
20.		C10H14 BENZENE ISOMER	11.14	14000	J
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FORM I SV-TIC 1/87 Rev.

250

47

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-4

Lab Name: TCT-ST. LOUIS

Contract: 3540

Lab Code: TCT

Case No.: 00011

SAS No.:

SDG No.: FIELDBLANK

Matrix (soil/water): SOIL

Lab Sample ID: 91001117

Level (low/med): LOW

Date Received: 03/15/91

% Solids: 85.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7020			P
7440-36-0	Antimony	3.4	B	N	F
7440-38-2	Arsenic	2.3		NS	F
7440-39-3	Barium	33.6	B		P
7440-41-7	Beryllium	0.93	B		P
7440-43-9	Cadmium	0.70	U		P
7440-70-2	Calcium	5200		E	P
7440-47-3	Chromium	44.8			P
7440-48-4	Cobalt	10.0	B		P
7440-50-8	Copper	39.9			P
7439-89-6	Iron	15900			P
7439-92-1	Lead	125			P
7439-95-4	Magnesium	5260	B	E	P
7439-96-5	Manganese	144			P
7439-97-6	Mercury	0.50			CV
7440-02-0	Nickel	15.9			P
7440-09-7	Potassium	681	B		A
7782-49-2	Selenium	0.23	U	N	F
7440-22-4	Silver	0.23	U	W	F
7440-23-5	Sodium	207	B		P
7440-28-0	Thallium	0.49	B		F
7440-62-2	Vanadium	34.3			P
7440-66-6	Zinc	178			P
	Cyanide	0.36	B		AS

Color Before: BROWN

Clarity Before: N/A

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-5

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001118

Sample wt/vol: 5 (g/ml) G Lab File ID: >G0563

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 17 Date Analyzed: 03/16/91

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	60	U
74-83-9	Bromomethane	60	U
75-01-4	Vinyl chloride	60	U
75-00-3	Chloroethane	60	U
75-09-2	Methylene Chloride	30	U
67-64-1	Acetone	32	BJ
75-15-0	Carbon Disulfide	30	U
75-35-4	1,1-Dichloroethene	30	U
75-34-3	1,1-Dichloroethane	30	U
540-59-0	1,2-Dichloroethene (total)	30	U
67-66-3	Chloroform	30	U
107-06-2	1,2-Dichloroethane	30	U
78-93-3	2-Butanone	60	U
71-55-6	1,1,1-Trichloroethane	30	U
56-23-5	Carbon Tetrachloride	30	U
108-05-4	Vinyl Acetate	60	U
75-27-4	Bromodichloromethane	30	U
78-87-5	1,2-Dichloropropane	30	U
10061-01-5	cis-1,3-Dichloropropene	30	U
79-01-6	Trichloroethene	30	U
124-48-1	Dibromochloromethane	30	U
79-00-5	1,1,2-Trichloroethane	30	U
71-43-2	Benzene	30	U
10061-02-6	trans-1,3-Dichloropropene	30	U
75-25-2	Bromoform	30	U
108-10-1	4-Methyl-2-pentanone	60	U
591-78-6	2-Hexanone	60	U
127-18-4	Tetrachloroethene	54	B
79-34-5	1,1,2,2-Tetrachloroethane	30	U
108-88-3	Toluene	66	
108-90-7	Chlorobenzene	30	U
100-41-4	Ethylbenzene	620	
100-42-5	Styrene	30	U
1330-20-7	Xylene (total)	10600	E

FORM I VOA 1/87 Rev

252

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-5

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001118

Sample wt/vol: 5 (g/mL) G Lab File ID: >G0563

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 17 Date Analyzed: 03/16/91

Column: (pack/cap) CAP Dilution Factor: 1

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

Number TICs found: 10

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	19.20	10000	J
2.		UNKNOWN	19.75	5700	J
3.		C9H12 ISOMER	20.24	11000	J
4.		C9H12 ISOMER	21.02	4900	J
5.		C10H14 ISOMER	21.59	2200	J
6.		UNKNOWN	22.39	3600	J
7.		UNKNOWN	22.61	3100	J
8.	95932	BENZENE,1,2,4,5-TETRAMETHYL-	23.57	3900	J
9.		1H-INDENE,2,3-DIHYDRO ISOMER	24.04	1600	J
10.		C10H12 ISOMER	24.41	2200	J
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
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FORM I VOA-TIC 1/87 Rev.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-5 RE

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001118

Sample wt/vol: 4 (g/ml) G Lab File ID: >G0576

Level: (low/med) MED Date Received: 03/15/91

% Moisture: not dec. 17 Date Analyzed: 03/18/91

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	1500	U
74-83-9	Bromomethane	1500	U
75-01-4	Vinyl chloride	1500	U
75-00-3	Chloroethane	1500	U
75-09-2	Methylene Chloride	750	U
67-64-1	Acetone	1800	B
75-15-0	Carbon Disulfide	750	U
75-35-4	1,1-Dichloroethene	750	U
75-34-3	1,1-Dichloroethane	750	U
540-59-0	1,2-Dichloroethene (total)	750	U
67-66-3	Chloroform	750	U
107-06-2	1,2-Dichloroethane	750	U
78-93-3	2-Butanone	1500	U
71-55-6	1,1,1-Trichloroethane	750	U
56-23-5	Carbon Tetrachloride	750	U
108-05-4	Vinyl Acetate	1500	U
75-27-4	Bromodichloromethane	750	U
78-87-5	1,2-Dichloropropane	750	U
10061-01-5	cis-1,3-Dichloropropene	750	U
79-01-6	Trichloroethene	750	U
124-48-1	Dibromochloromethane	750	U
79-00-5	1,1,2-Trichloroethane	750	U
71-43-2	Benzene	750	U
10061-02-6	trans-1,3-Dichloropropene	750	U
75-25-2	Bromoform	750	U
108-10-1	4-Methyl-2-pentanone	1500	U
591-78-6	2-Hexanone	1500	U
127-18-4	Tetrachloroethene	460	J
79-34-5	1,1,2,2-Tetrachloroethane	750	U
108-88-3	Toluene	180	J
108-90-7	Chlorobenzene	750	U
100-41-4	Ethylbenzene	1200	
100-42-5	Styrene	750	U
1330-20-7	Xylene (total)	38000	E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-5 RE

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001118

Sample wt/vol: 4 (g/mL) G Lab File ID: >G0576

Level: (low/med) MED Date Received: 03/15/91

% Moisture: not dec. 17 Date Analyzed: 03/18/91

Column: (pack/cap) CAP Dilution Factor: 1

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

Number TICs found: 10

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	41898899	2,3-HEPTADIEN-5-YNE,2,4-DIME	19.07	120000	J
2.		TRIMETHYL BENZENE ISOMER	19.24	90000	J
3.		C9H12 ISOMER	19.61	70000	J
4.	95636	BENZENE,1,2,4-TRIMETHYL	20.04	130000	J
5.		C9H10 ISOMER	20.91	48000	J
6.		UNKNOWN	21.53	23000	J
7.		C10H14 ISOMER	21.73	31000	J
8.		C10H14 ISOMER	22.32	41000	J
9.		C10H14 ISOMER	22.53	30000	J
10.		C10H14 ISOMER	23.49	36000	J
11.					
12.					
13.					
14.					
15.					
16.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

S-5

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001118

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5018

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	bis(2-Chloroisopropyl)ether	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	3500	
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	560	
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1/87 Rev

FORM I SV-1

256

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-5

Lab Name: TCT - ST. LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001118

Sample wt/vol: 30 (g/ml) G Lab File ID: >D5018

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 03/29/91

GPC Cleanup: (Y/N) N pH: 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenyl ether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-butylphthalate	190	J
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	800	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	400	U
117-84-0	Di-n-octylphthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
193-39-5	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

S-5

Lab Name: TCT-ST.LOUIS Contract: 3540

Lab Code: TCT Case No.: 00011 SAS No.: SDG No.: FIELD BLANK

Matrix: (soil/water) SOIL Lab Sample ID: 91001118

Sample wt/vol: 30 (g/mL) G Lab File ID: >D5018

Level: (low/med) LOW Date Received: 03/15/91

% Moisture: not dec. 14 dec. Date Extracted: 03/20/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/29/91

Cleanup: (Y/N) N pH 5 Dilution Factor: 1

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

Number TICs found: 20

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	5.21	9800	J
2.		DIMETHYL BENZENE ISOMER	5.72	2200	J
3.		DIMETHYL BENZENE ISOMER	6.19	2300	J
4.		UNKNOWN	7.40	1900	J
5.	103651	BENZENE,PROPYL	7.48	2500	J
6.		TRI-METHYL BENZENE ISOMER	7.68	15000	J
7.		UNKNOWN	7.74	7800	J
8.		UNKNOWN	7.89	12000	J
9.		TRI-METHYL BENZENE ISOMER	8.40	18000	J
10.		TRI-METHYL BENZENE ISOMER	8.89	8400	J
11.		UNKNOWN ALKENE	9.11	2200	J
12.		BENZENE ISOMER	9.42	3100	J
13.		BENZENE ISOMER	9.56	7000	J
14.		BENZENE ISOMER	9.89	2600	J
15.		BENZENE ISOMER	9.95	2600	J
16.		UNKNOWN ALKANE	10.32	1800	J
17.		BENZENE ISOMER	10.65	2900	J
18.		BENZENE ISOMER	10.71	2900	J
19.		DIHYDRO-METHYL 1H-INDENE	11.05	1700	J
20.		BENZENE ISOMER	11.24	3300	J
21.					
22.					
23.					
24.					
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FORM I SV-TIC 1/87 Rev.

Z58

EPA SAMPLE NO.

S-5

PESTICIDE ORGANICS DATA SHEET
1D

Lab Name: TCT-ST. LOUIS Contract:

Lab Code: TCT Case No.: 3540-11 Sas: SDG No.: Field Blank

Matrix: (soil/water) SOIL Lab Sample ID: 91001118

Sample wt/vol: 30 (g/ml) g Lab File ID:

Level: (low/med) LOW Date Received: 3/15/91

%Moisture: not dec.____ dec. 17.2 Date Extracted: 3/20/91

Extraction (SepF/Cont/Sonc) SONC Date Analyzed: 04/04/91

GPC Cleanup:(Y/N) N pH 5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	ALPHA-BHC	9.7	U
319-85-7	BETA-BHC	9.7	U
319-86-8	DELTA-BHC	9.7	U
58-89-9	GAMMA-BHC	9.7	U
76-44-8	HEPTACHLOR	9.7	U
309-00-2	ALDRIN	9.7	U
1024-57-3	HEPTACHLOR EPOXIDE	9.7	U
959-98-8	ENDOSULFAN I	9.7	U
60-57-1	DIELDRIN	19	U
72-55-9	4,4'-DDE	19	U
72-20-8	ENDRIN	19	U
33213-65-9	ENDOSULFAN II	19	U
72-54-8	4,4'-DDD	19	U
1031-07-8	ENDOSULFAN SULFATE	19	U
50-29-3	4,4'-DDT	19	U
72-43-5	METHOXYCHLOR	97	U
53494-70-5	ENDRIN KETONE	19	U
5103-71-9	ALPHA-CHLORDANE	97	U
5103-74-2	GAMMA-CHLORDANE	97	U
8001-35-2	TOXAPHENE	190	U
12674-11-2	AROCLOR-1016	97	U
11104-28-2	AROCLOR-1221	97	U
11141-16-5	AROCLOR-1232	97	U
53469-21-9	AROCLOR-1242	97	U
12672-29-6	AROCLOR-1248	97	U
11097-69-1	AROCLOR-1254	190	U
11096-82-5	AROCLOR-1260	190	U

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-5

Lab Name: TCT-ST. LOUIS

Contract: 3540

Lab Code: TCT

Case No.: 00011

SAS No.:

SDG No.: FIELDBLANK

Matrix (soil/water): SOIL

Lab Sample ID: 91001118

Level (low/med): LOW

Date Received: 03/15/91

% Solids: 82.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4900			P
7440-36-0	Antimony	3.4	U	N	F
7440-38-2	Arsenic	0.56	B	NW	F
7440-39-3	Barium	19.1	B		P
7440-41-7	Beryllium	1.4			P
7440-43-9	Cadmium	0.72	U		P
7440-70-2	Calcium	1780		E	P
7440-47-3	Chromium	20.8			P
7440-48-4	Cobalt	4.6	U		P
7440-50-8	Copper	8.9			P
7439-89-6	Iron	23800			P
7439-92-1	Lead	9.1			F
7439-95-4	Magnesium	406	B	E	P
7439-96-5	Manganese	26.6			P
7439-97-6	Mercury	0.32			CV
7440-02-0	Nickel	2.9	B		P
7440-09-7	Potassium	1110	B		A
7782-49-2	Selenium	0.26	B	N	F
7440-22-4	Silver	0.24	U	W	F
7440-23-5	Sodium	22.9	U		P
7440-28-0	Thallium	0.53	B		F
7440-62-2	Vanadium	18.8			P
7440-66-6	Zinc	45.2			P
	Cyanide	0.30	U		AS

Color Before: BROWN

Clarity Before: N/A

Texture: MEDIUM

Color After: LT.YELLOW

Clarity After: CLEAR

Artifacts:

Comments: