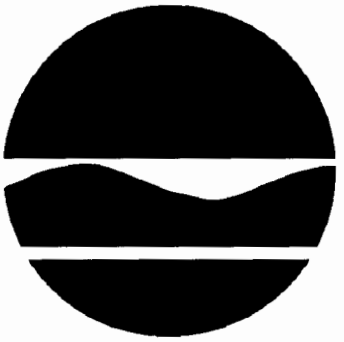
ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

Preliminary Site Assessment Report

Dresser Industries - Site No. 915064
Depew - Erie

DATE: November 1993



Prepared for:

New York State
Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233-7010
Thomas C. Jorling, *Commissioner*

Prepared by:

Division of Hazardous Waste Remediation
Bureau of Hazardous Site Control
Eastern Investigation Section

Introduction

The following information is excerpted from E.C. Jordan Co.'s June 1992 Draft Site Work Plan and is also presented in E.C. Jordan's January 1991 "Task 1: Data Records Search and Assessment, Preliminary Site Assessment, Dresser Industries Site, Final Report." Both were prepared for the New York State Department of Environmental Conservation (NYSDEC).

Site Description

The Dresser Industries Landfill is located on the west side of Transit Road across the street from Dresser Industries' foundry, in the Village of Depew, Erie County, New York. (Figure 1) The site is approximately 15 acres in size and is fenced on all sides except the western property boundary. The area surrounding the site includes industrial facilities, residential properties and undeveloped land. (Figure 2)

The foundry was established in the 1890's by Samuel Gould. Dresser Industries acquired the plant in 1968 and operated the foundry to produce railcar dollies and couplers. Wastes which were generated from producing steel casting included spent bentonite clay, slag, lubricating oil, small amounts of brick, and foundry sand with phenolic binders. In 1976, the company estimated that it generated approximately 8,800 tons per year of these wastes. Based on waste hauler records from 1961 to 1979, approximately 87,000 cubic yards of waste material was disposed at the Dresser facility. This material included approximately 47,680 cubic yards of foundry sand, 35,800 cubic yards of sludge, and 3,700 cubic yards of slag. This material was apparently not segregated and the site consists of mixed waste across the site.

The site has an extensive network of all-terrain vehicle and dirt bike trials.

Previous Investigations

In December 1981, NYSDEC collected one surface water and one sediment sample from a drainage ditch running along the southern boundary of the site. (Figure 3) The samples were analyzed only for total recoverable phenolics (TRP), which were detected in the sediment sample at a concentration of 9.3 microgram per grams and were non-detectable in the surface water sample.

A Phase I investigation was conducted in December 1985, by Recra Environmental. This investigation reported rusted, empty 55-gallon drums scattered throughout the site. According to Dresser's environmental representative, Dresser Industries removed the containers from the site in April or May of 1987. Documentation was unavailable as to the number, condition or contents, if any of these containers.

Additional Sampling

On August 5, 1992, Central Office and Regional Office staff sampled water, sediment and foundry sand waste at the site. (Figure 4) The samples were analyzed for full TCL (Target Compound List) volatiles, semivolatiles, PCBs/pesticides, metals and cyanide. Foundry sand and sediment samples were also analyzed for EP Toxicity Metals. The results of this sampling effort are shown on Tables 1 through 3.

Conclusions

The wastes disposed at the site, including foundry sands with phenolic binders, are not listed hazardous wastes. Additionally, sampling of the waste materials reveals that they do not meet criteria for characteristic hazardous wastes. The placement of lagoon sludges, foundry sands and slag at this site therefore does not constitute hazardous waste disposal. Significant threat has not been fully evaluated, however based on all of the sampling completed to date, significant threat does not appear to be indicated. This site should be referred to the Division of Solid Waste.

FIGURES

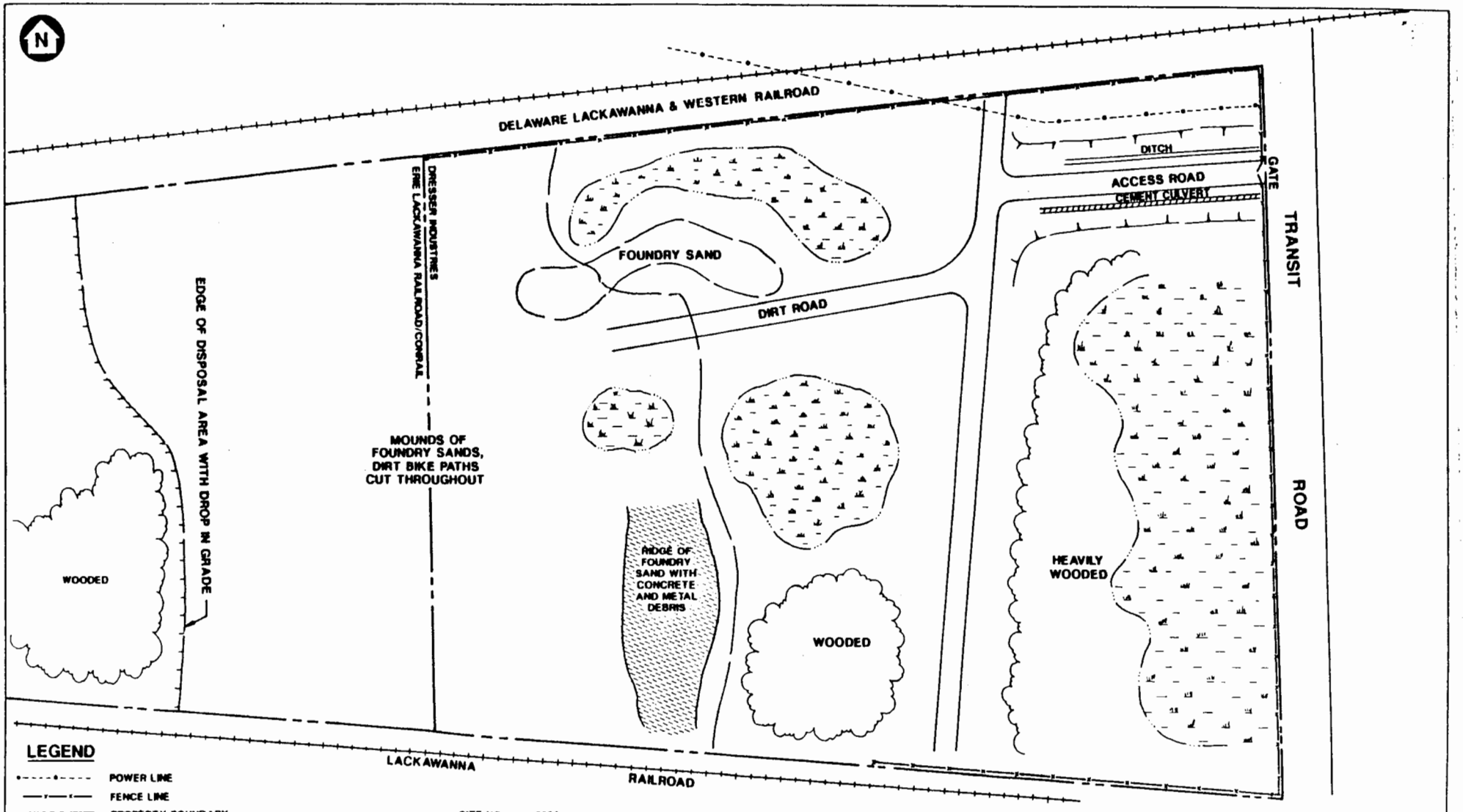
SOURCE: N.Y.S. DEPARTMENT OF TRANSPORTATION, LANCASTER QUADRANGLE DATED 1988, 7.5 MINUTE SERIES

SITE NO: 915064
LOCATION: VILLAGE OF DEPEW
ERIE COUNTY

FIGURE 1
SITE LOCATION MAP
DRESSER INDUSTRIES
PRELIMINARY SITE ASSESSMENT
NEW YORK STATE DEC

ECJORDANCO

7088-20



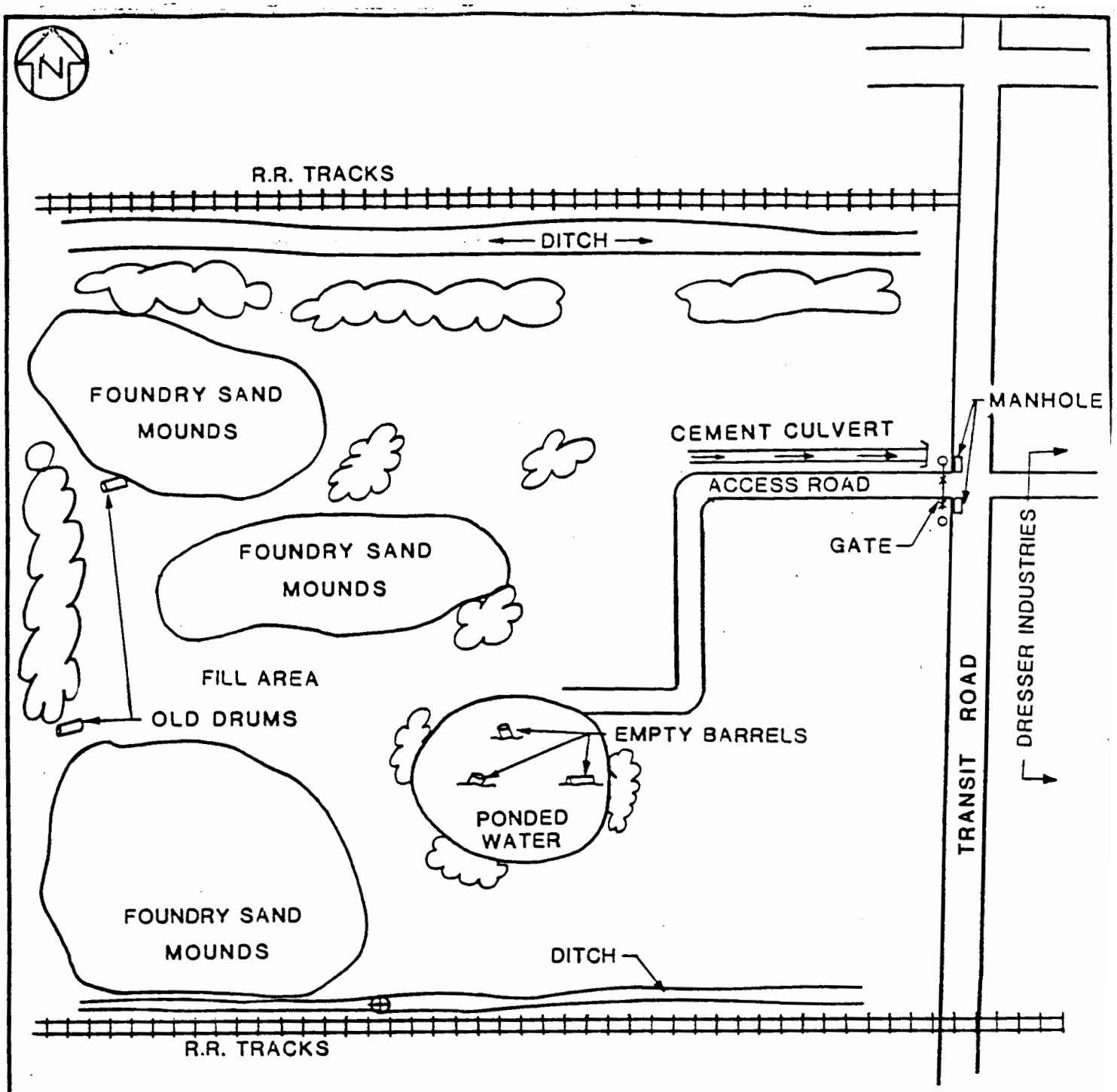
SITE NO. 915064
LOCATION: VILLAGE OF DEPEW
ERIE COUNTY, NEW YORK

NOT TO SCALE

7088-20

FIGURE 2
SITE PLAN
DRESSER INDUSTRIES SITE
PRELIMINARY SITE ASSESSMENT
NEW YORK STATE DEC

E.C. JORDAN CO.



LEGEND

⊕ PREVIOUS SURFACE WATER (R-013-03) AND SEDIMENT SAMPLE (R-013-02)

61160-1

BRUNING

RECRA RESEARCH INC.
BUFFALO, NEW YORK

Scale: NTS		
	By	Date
Dwn.	MS	1/3/86
Ckd.		
Ap'vd.		
Rev.		

DRESSER INDUSTRIES
DEPEW, NEW YORK
N.Y.S. SUPERFUND
PHASE I

Project No. 5C280404

SITE MAP

A | FIGURE 3

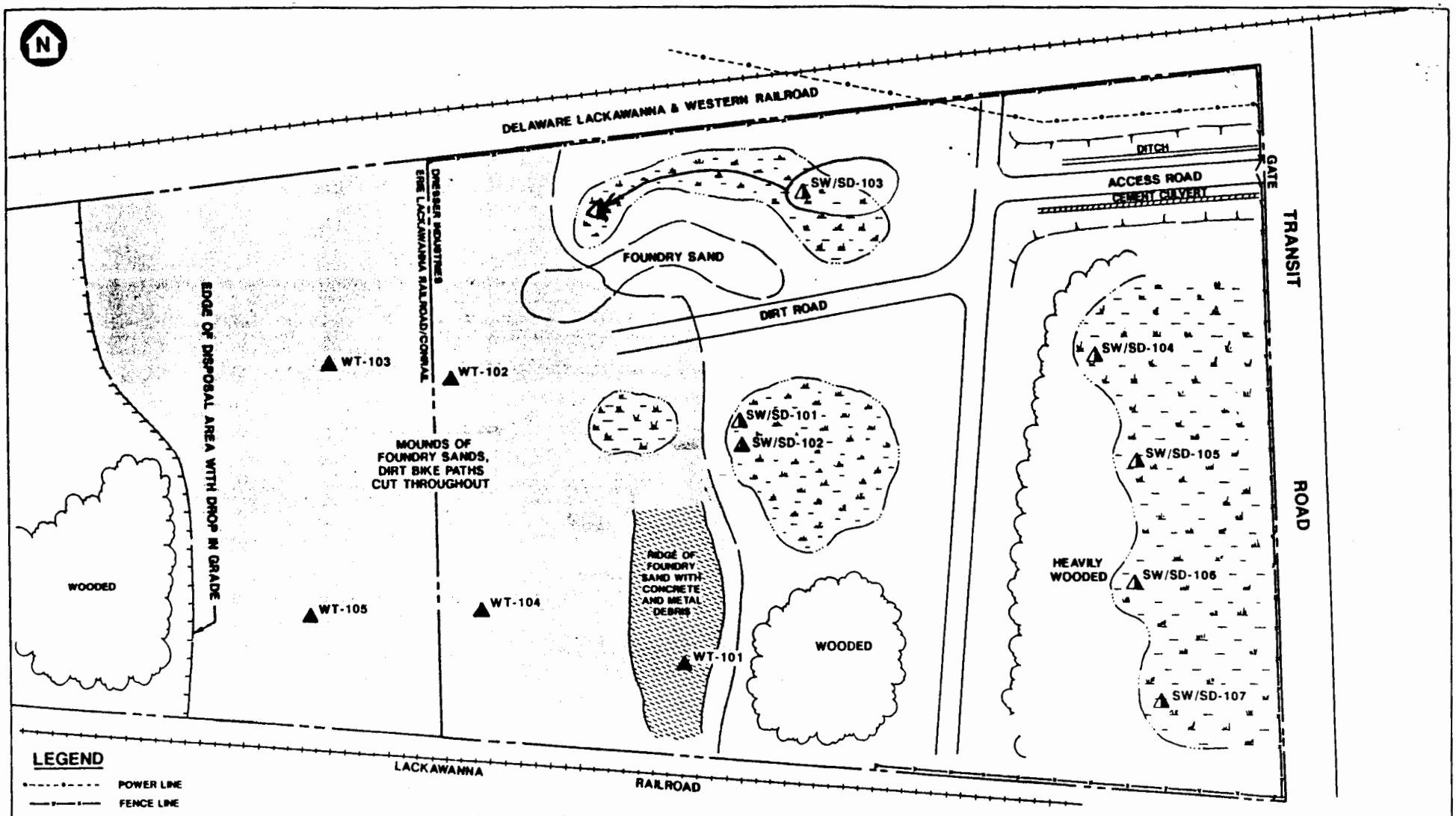


FIGURE 4
EXPLORATION LOCATIONS
DRESSER INDUSTRIES SITE
PRELIMINARY SITE ASSESSMENT
NEW YORK STATE DEC

ECJORDANCO

7088-20

TABLES

TABLE 1

DRESSER INDUSTRIES SITE NO. 915064

SURFACE WATER SAMPLES - Date Sampled August 5, 1992

PARAMETER (ug/l)	SW-101 A554-6A	SW-102 A554-7A	SW-103 A554-5A	SW-104 A554-1A	SW-105 A554-2A	SW-106 A554-3A	SW-107 A554-4A	STANDARD OR GUIDANCE VA
VOLATILES								
Toluene	0.6 J	ND	ND	ND	ND	ND	ND	N/A
SEMIVOLATILES								
Naphthalene	ND	ND	0.5 J	ND	ND	ND	ND	N/A
Acenaphthylene	ND	ND	0.3 J	ND	ND	ND	ND	N/A
Phenanthrene	ND	ND	3 J	ND	ND	ND	ND	N/A
Anthracene	ND	ND	0.5 J	ND	ND	ND	ND	N/A
Carbazole	ND	ND	0.3 J	ND	ND	ND	ND	N/A
Fluoranthene	ND	ND	5 J	ND	ND	ND	ND	N/A
Pyrene	ND	ND	5 J	ND	ND	ND	ND	N/A
Benzo(a)Anthracene	ND	ND	3 J	ND	ND	ND	ND	N/A
Chrysene	ND	ND	3 J	ND	ND	ND	ND	N/A
Bis(2-Ethylhexyl) Phthalate	ND	ND	0.3 J	0.3 J	ND	ND	ND	0.6 (S)
Benzo(b)Fluoranthene	ND	ND	3 J	ND	ND	ND	ND	N/A
Benzo(k)Fluoranthene	ND	ND	1 J	ND	ND	ND	ND	N/A
Benzo(a)Pyrene	ND	ND	2 J	ND	ND	ND	ND	0.0012 (GV)
Indeno(1,2,3	ND	ND	0.7 J	ND	ND	ND	ND	N/A
Benzo(g,h,i)Perylene	ND	ND	0.7 J	ND	ND	ND	ND	N/A
TIC's (Number found)	9	8	16	10	11	9	9	9

TABLE 1 (CONTINUED)

DRESSER INDUSTRIES SITE NO. 915064

SURFACE WATER SAMPLES
Date Sampled - August 5, 1992

PARAMETER	SW-101 A554-6A	SW-102 A554-7A	SW-103 A554-5A	SW-104 A554-1A	SW-105 A554-2A	SW-106 A554-3A	SW-107 A554-4A	CLASS C STANDARD
METALS								
Aluminum	209	149 B	189 B	131 B	401	765	849	100
Barium	90.6	74.7 B	210	67.1 B	74.0 B	68.6 B	148 B	N/A
Calcium	52700	47900	59500	124000	107000	152000	150000	N/A
Copper	ND	19.0 B	18.0 B	12.0 B	16.0 B	ND	28.0	39*
Iron	1860	1350	2330	1310	1070	4290	9200	300
Lead	11.7	6.0	3.0	10.0	15.0	12.0	53.2	18.6*
Magnesium	11700	10800	24000	35000	117000	25200	58000	N/A
Manganese	769	500	366	362	206	662	405	N/A
Potassium	4530 B	4380 B	3640 B	2030 B	3510 B	3010 B	4550	N/A
Sodium	25800	25200	24600	8600	10000	8400	1140	N/A
Zinc	10.3 B	14.1	26.1	12.1 B	16.8 B	ND	90.1	30

* Based on a calculated hardness of 400 ppm

TABLE 2

DRESSER INDUSTRIES SITE NO. 915064

SEDIMENT SAMPLES - Date Sampled August 5, 1992

PARAMETER	SD-101 A554-6B	SD-102 A554-7B	SD-103 A554-5B	SD-104 A554-1B	SD-105 A554-2B	SD-106 A554-3B	SD-107 A554-4B
VOLATILES (ug/kg)							
Acetone	24	ND	71 B	ND	47	12 J	ND
SEMIVOLATILES (ug/kg)							
2,4-Dimethylphenol	ND	32 J	ND	ND	ND	ND	ND
Naphthalene	100 J	270 J	ND	54 J	38 J	ND	ND
2-Methylnaphthalene	100 J	230 J	ND	96 J	53 J	ND	ND
Acenaphthylene	ND	ND	ND	51 J	ND	ND	ND
Acenaphthene	24 J	36 J	ND	29 J	23 J	ND	ND
Dibenzofuran	ND	68 J	ND	32 J	ND	ND	ND
Fluorene	ND	56 J	ND	39 J	ND	ND	ND
Phenanthrene	580	780	70 J	470 J	490 J	110 J	130 J
Anthracene	70 J	110 J	ND	88 J	61 J	ND	ND
Carbazole	39 J	28 J	ND	58 J	55 J	ND	12 J
Fluoranthene	560	540 J	82 J	700	780	170 J	200 J
Pyrene	440 J	480 J	ND	1000	630	140 J	200 J
Butylbenzylphthalate	ND	ND	ND	ND	22 J	ND	ND
Benzo(a)Anthracene	260 J	270 J	43 J	420 J	330 J	83 J	11O J
Chrysene	290 J	300 J	57 J	680	370 J	120 J	140 J
Bis(2-Ethylhexyl)Phthalate	1900	450 J	510 J	1400	130 J	280 J	1800
Benzo (b) Fluoranthene	330 J	360 J	58 J	940	420 J	110 J	170 J
Benzo (k) Fluoranthene	140 J	170 J	22 J	350 J	190 J	43 J	63 J
Benzo (a) Pyrene	ND	ND	ND	500 J	270 J	67 J	96 J
Indeno(1,2,3-cd)Pyrene	ND	ND	ND	200 J	150 J	38 J	55 J
Dibenz(a,h)Anthracene	ND	ND	ND	ND	32 J	ND	4 J
Benzo(g,h,i)Perylene	35 J	ND	ND	180 J	85 J	22 J	42 J
TIC's (No. Found)	20	20	20	20	20	20	20

TABLE 2 (CONTINUED)

DRESSER INDUSTRIES SITE NO. 915064

SEDIMENT SAMPLES
Date Sampled - August 5, 1992

PARAMETER	SD-101 A554-6B	SD-102 A554-7B	SD-103 A554-5B	SD-104 A554-1B	SD-105 A554-2B	SD-106 A554-3B	SD-107 A554-4B
PESTICIDES/PCBs (ug/kg)							
Dieldrin	3.8 JP	ND	ND	ND	ND	ND	ND
4,4'-DDE	2.5 JP	2.1 JP	1.6 J	ND	ND	ND	1.9 JP
Endosulfan II	2.9 JP	5.2 JP	ND	ND	ND	ND	2.8 J
4,4'-DDD	3.6 JP	7.9 P	7.4 P	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	0.68 JP
Methoxychlor	ND	ND	ND	ND	ND	ND	2.7 JP
Endrin ketone	ND	ND	ND	ND	ND	ND	3.6 JP
alpha-Chlordane	1.8 JP	2.6 JP	0.82 J	ND	ND	ND	2.7 P
Aroclor-1254	ND	ND	ND	180 P	160	ND	ND

TABLE 2 (CONTINUED)

DRESSER INDUSTRIES SITE NO. 915064

SEDIMENT SAMPLES - Date Sampled August 5, 1992

PARAMETER	SD-101 A554-6B	SD-102 A554-7B	SD-103 A554-5B	SD-104 A554-1B	SD-105 A554-2B	SD-106 A554-3B	SD-107 A554-4B
METALS (mg/kg)							
Aluminum	4040	5950	3570	8760	10600	16400	9870
Arsenic	4.8	4.4	8.5	20.8	6.4	7.1	9.0
Barium	73.1	121	42.5 B	164	110	123	85.5
Cadmium	1.5 B	ND	1.3 B	3.4 B	3.4 B	0.48 B	0.45 B
Calcium	4920	5930	3020	7990	25500	3850	3810
Chromium	35.8	35.2	12.1	31.3	34.3	23.0	16.5
Cobalt	ND	ND	ND	9.9 B	8.3 B	14.9 B	ND
Copper	54.6	75.3	85.8	110	129	23.6	43.3
Iron	12200	16000	7740	30800	26300	34600	17600
Lead	155	199	170	326	241	93.2	109
Magnesium	1450 B	2060	654 B	2390	3980	3680	2040
Manganese	174	285	82.8	550	208	305	90.0
Mercury	ND	ND	ND	0.35	1.7	ND	ND
Nickel	11.2 B	17.5	ND	29.9	ND	16.8	ND
Potassium	465 B	577 B	375 B	959 B	1080 B	1910	1010 B
Silver	0.33 B	0.29 B	0.14 B	0.25 B	0.30 B	0.15 B	ND
Sodium	405 B	552 B	584 B	466 B	494 B	393 B	376 B
Vanadium	9.9 B	14.0 B	9.7 B	26.9	24.7	31.9	18.0
Zinc	134	186	91.8	342	243	95.2	89.3
EP TOXIC METALS (mg/l)							
Barium (100 mg/l)	0.127 B	0.852	0.620	0.318	0.274	0.103 B	0.635
Cadmium (1 mg/l)	ND	ND	ND	ND	0.0094	ND	ND
Chromium (5 mg/l)	0.011	0.013	ND	0.023	0.019	ND	0.011
Lead (5 mg/l)	0.021	0.0065	0.0043	0.018	0.036	0.0128	0.005
Silver (5 mg/l)	0.004 B	0.0006 B	ND	ND	ND	ND	ND

TABLE 3

DRESSER INDUSTRIES SITE NO. 915064

FOUNDRY SAND WASTE SAMPLES
Date Sampled - August 5, 1992

PARAMETER	WT-101 A554-08	WT-102 A554-12	WT-103 A554-11	WT-104 A554-10	WT-105 A554-09
VOLATILES (ug/kg)					
TCL Volatiles	ND	ND	ND	ND	ND
SEMIVOLATILES (ug/kg)					
Naphthalene	26 J	37 J	65 J	71 J	45 J
2-Methylnaphthalene	ND	28 J	56 J	49 J	37 J
Acenaphthene	ND	4 J	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	170 J
Phenanthrene	61 J	110 J	200 J	130 J	96 J
Anthracene	ND	11 J	22 J	ND	ND
Fluoranthene	32 J	32 J	61 J	ND	ND
Pyrene	ND	34 J	58 J	ND	ND
Benzo (a) Anthracene	ND	19 J	30 J	ND	ND
Chrysene	ND	38 J	65 J	ND	ND
Bis (2-Ethylhexyl) Phthalate	350	71 J	330 J	330 J	410
Benzo (b) Fluoranthene	25 J	ND	ND	ND	ND
Benzo (k) Fluoranthene	7 J	ND	ND	ND	ND
TIC's (No. Found)	20	2O	18	20	20

TABLE 3 (CONTINUED)

DRESSER INDUSTRIES SITE NO. 915064

FOUNDRY SAND WASTE SAMPLES

Date Sampled - August 5, 1992

PARAMETER	WT-101 A554-08	WT-102 A554-12	WT-103 A554-11	WT-104 A554-10	WT-105 A554-09
PESTICIDES/PCBs (ug/kg)					
Endrin	4.3 P	ND	6.2	3.6 J	1.6 JP
Endosulfan II	1.1 JP	ND	ND	ND	ND
Endrin ketone	ND	ND	1.5 JP	ND	ND
Aroclor-1248	ND	1700 P	ND	ND	ND

TABLE 3 (CONTINUED)

DRESSER INDUSTRIES SITE NO. 915064

FOUNDRY SAND WASTE SAMPLES - Date Sampled August 5, 1992

PARAMETER	WT-101 A554-08	WT-102 A554-12	WT-103 A554-11	WT-104 A554-10	WT-105 A554-09
METALS (mg/kg)					
Aluminum	520	676	699	1080	809
Barium	ND	ND	ND	ND	11.6 B
Cadmium	0.10 B	ND	1.5	0.09 B	ND
Calcium	792 B	1170	780 B	740 B	1700
Chromium	14.8	18.3	19.6	8.0	49.7
Copper	16.6	13.8	20.0	14.1	15.4
Iron	9420	7350	8640	5060	6720
Lead	12.4	14.5	19.6	14.4	8.9
Magnesium	233 B	266 B	228 B	267 B	675 B
Manganese	183	232	138	134	555
Nickel	ND	ND	ND	ND	8.0 B
Silver	0.25 B	2.6 B	ND	ND	0.13 B
Sodium	216 B	211 B	228 B	423 B	766 B
Zinc	13.4	8.9	39.4	10.9	10.3
EP TOXICITY METALS (mg/l)					
Barium (100 mg/l)	0.652	0.339	0.597	0.413	1.820
Chromium (5 mg/l)	ND	ND	0.018	ND	0.041
Lead (5 mg/l)	0.0036	0.0064	0.0191	0.004	0.0038
Silver (5 mg/l)	ND	ND	0.0009 B	ND	0.0012 B