SDMS Document
98677

Evidentiary Materials
(cont'd)

B-Line Trucking

TECHNION INC.
681 MAIN STREET
BELLEVILLE, NEW JERSEY 07109

ANALYSIS FOR STANDARD RCRA ANALYSIS AND FOR HEAVY METALS AND PESTICIDES

STATE CERTIFIED DRINKING WATER/WASTE WATER LABORATORY NUMBER 07199

SAMPLE SOURCE: B-Line Trucking

LOCATION: B-Line Trucking

SAMPLE DATE: 8/15/83

TAKEN BY: B-Line Trucking

AT LAB DATE: 8/15/83

ANALYST: S. R. Bakuay

LAB. NUMBER: 5273-51

TEST DESCRIPTION:

RESULTS IN PPM

D. Using the test methods described in Appendix II Cf 40 CFR 261. the concentration, in milligrams per liter, of each of the following contaminants in the extract;

	Sludge Mixure 5271-21	Soil 5271-51
Arsenic	0.1	< 0.1
Barium	1.5	0.2
Cadmium	4.3	0.5
Chromium	0.2	0.1
Lead	1.9	1.5
Mercury	0.005	0.003
Selenium	< 0.01	< 0.01
Silver	< 0.01	< 0.01
Endrin	< 0.01	< 0.01
Lindane	< 0.01	< 0.01
Methoxychlor	< 0.01	< 0.01
Toxaphene	< 0.01	< 0.01
2,4-D	< 0.01	< 0.01
2,4,5-TP Silvex	< 0.01	< 0.01
PCB Concentration	0.007	< .002

Local Limit Baseline Monitoring Report Requirements

The following table is included to assist you in preparing this report.

Company Name B-LINE TRUCKING

Outlet Number # 1

Average Daily flow 3,056 GALS P/DAY

Type of Sample: Composite GRAB

Parameter*	Date of Sample	Sample Results	Average Result	Threshold Value	Local Limit
			Monthly Average Limits (mg/l)		
Arsenic (As)	11/28/94	<0.10			
	12/11/94	<0.010			
	12/23/94	<0.010		0.16	0.16
Cadmium (Cd)	12/7/94	0.052			
	12/11/94	0.356		0.006	.19
	12/23/94	0.11			
Chromium (Cr)	12/13/94	0.022			
	12/15/94	<0.05		0.006	5.36
	12/20/94	<0.00025			
Copper (Cu)	11/29/94	<0.05			
	12/15/94	<0.05		0.092	3.02
	12/16/94	<0.05			
Lead (Pb)	12/6/94	0.0016			
	12/15/94	0.014		0.029	0.54
	12/21/94	<0.005			
Mercury (Hg)	12/6/94	<0.0008			
	12/19/94	<0.0004		0.001	0.080
	12/19/94	<0.0004			
Molybdenum (Mo)	12/4/94	<0.015			
	12/23/94	<0.21		Suspended	Suspended
	12/22/94	<0.21			
Nickel (Ni)	12/6/94	<0.010			
	12/22/94	<0.010		.02	6.9
	12/22/94	<0.010			
Zinc (Zn)	11/29/94	0.10			
	12/22/94	0.20		1.67	1.67
	12/19/94	0.19			

*Note: Metals that are regulated by a categorical limit which is more strict than the PVSC Local Limit need not be included.

ABE000046

Celanese Chemical Co.

Return to:
PASSAIC VALLEY SEWERAGE COMMISSIONERS
700 Broad Street
Newark, N. J. 07102

Date: August 28, 1972

Plant Ref. No. .....

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name: Celanese Chemical Company - Terminal

Address: 354 Doremus Avenue - Newark, N.J. Zip 07105

Person and Title to whom any further inquiries should be directed:

Ronald E. Larsen - Terminals Engineer

Phone No.: 201-589-2705

Number of Employees: 45

Number of Working Days Per Week: 5 - See description of operations

Number of Shifts Per Day: 2

Area of Property: 5.17 Acres, or ..... Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.: ~~2878~~ 2869

Chemical storage

Finished Product(s): Petrochemical storage

Average Production: .....

Raw Materials Used: N/A

Brief Description of Operations: Terminals main function is for chemical storage. Chemicals brought in by ship and tank car and reshipped to customers by tank truck.

Trace Metals Survey
354 Doremus Avenue

Trace Metals ppm

Antimony	<1.0
Arsenic	< .05
Barium	<1.0
Boron	<0.5
Cadmium	.007
Chromium	<.1
Copper	<.1
Lead	<.01
Manganese	.1
Mercury	<.001
Nickle	<.2
Selenium	<.02
Silver	<.01
Thallium	<.02
Tin	<10
Zinc	.1

Return to:
PASSAIC VALLEY SEWERAGE COMMISSIONERS
790 Broad Street
Newark, N. J. 07102

Date: August 28, 1972

Plant Ref. No. .....

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name: Celanese Chemical Company

Address: 375 Doremus Avenue, Newark, N.J. Zip 07105

Person and Title to whom any further inquiries should be directed: Ronald E. Larsen - Terminals Engineer

Phone No.: 201-589-2705

Number of Employees: 45

Number of Working Days Per Week: 7 - See description of operations

Number of Shifts Per Day: 3

Area of Property: 6.21 Acres, or ..... Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.: Chemical storage

Finished Product(s): Petrochemicals

Average Production: Approximately 200,000 lbs/day

Raw Materials Used: Methanol

Brief Description of Operations: Terminals main function is chemical storage. Chemicals brought in by ship and rail car and reshipped by tank car and tank truck. Formaldehyde producing unit which operates 3 shifts a day and 7 days a week.

Trace Metals Survey
375 Doremus Avenue

Trace Metals ppm

Antimony	<1.0
Arsenic	< .05
Barium	<1.0
Boron	<0.5
Cadmium	.002
Chromium	8.1
Copper	<.1
Lead	.04
Manganese	<.1
Mercury	<.001
Nickel	<.2
Selenium	<.02
Silver	<.01
Thallium	<.02
Tin	<10
Zinc	.6

CELANESE
CHEMICAL COMPANY

NEWARK TERMINAL

August 25, 1975

Mr. Vincent J. Olivo
Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey 07105

Dear Mr. Olivo:

Confirming our phone conversation on July 18th, I am enclosing a certified copy of the trace metals in the effluent from our facility.

Also enclosed is a drawing of our property showing tie-ins to the sewer line.

If there are any questions please contact me.

Very truly yours,

CELANESE CHEMICAL COMPANY

John J. Forstchen
Terminal Engineer

JJF:KRT

cc: W. D. Coble
E. F. Gold
R. E. Larsen - Houston
File

JOHN H. BANKS LABORATORIES

INCORPORATED

ANALYTICAL AND RESEARCH LABORATORIES

49 CANNONBALL ROAD POMPTON LAKES, N. J. 07442

REPORT OF ANALYSIS

No 139497 August 22, 1975

In the sample of Sewage effluent

Marked Sample 1, 354 Doremus Ave. , 7-18-75

submitted for assay we find:

Antimony(Sb)----------0.006 ppm

Barium(Ba)----------0.097 ppm

Boron(B)-----less than-----0.02 ppm

Cadmium(Cd)----------0.001 ppm

Chromium(Cr)----------0.18 ppm

Copper(Cu)----------0.92 ppm

Lead(Pb)----------1.98 ppm

Manganese(Mn)----------0.39 ppm

Nickel(Ni)----------0.01 ppm

Silver(Ag)----------0.03 ppm

Thallium(Tl)--~~less than~~----0.02 ppm

Tin(Sn)-------less than----0.1 ppm

Zinc(Zn)----------0.09 ppm

Arsenic(As)----------0.007 ppm

Mercury(Hg)----------0.016 ppm

Selenium(Se)----------0.007 ppm

To Celanese Chemical Co.

JOHN H. BANKS LABORATORIES, INC.

Edwin A. Alinen

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JOHN H. BANKS LABORATORIES

INCORPORATED

ANALYTICAL AND RESEARCH LABORATORIES

49 CANNONBALL ROAD POMPTON LAKES, N. J. 07442

REPORT OF ANALYSIS

No 139498 August 22, 1975

In the sample of Sewage effluent

Marked Sample 2, 375 Doremus Ave., 7-18-75

submitted for assay we find:

Antimony(Sb)----------0.06 ppm

Barium(Ba)----less than-----0.01 ppm

Boron(B)------less than-----0.02 ppm

Cadmium(Cd)----------0.0006 ppm

Chromium(Cr)----------15.97 ppm

Copper(Cu)----------0.09 ppm

Lead(Pb)----------0.54 ppm

Manganese(Mn)----------0.05 ppm

Nickel(Ni)----------0.02 ppm

Silver(AG)----------0.04 ppm

Thallium(Tl)----less than----0.02 ppm

Tin(Sn)--------less than----0.1 ppm

Zinc(Zn)----------0.24 ppm

Arsenic(As)----------0.005 ppm

Mercury(Hg)----------0.012 ppm

Selenium(Se)----------0.004 ppm

To

Celanese Chemical Co.

JOHN H. BANKS LABORATORIES, INC.

Edna A. Alman

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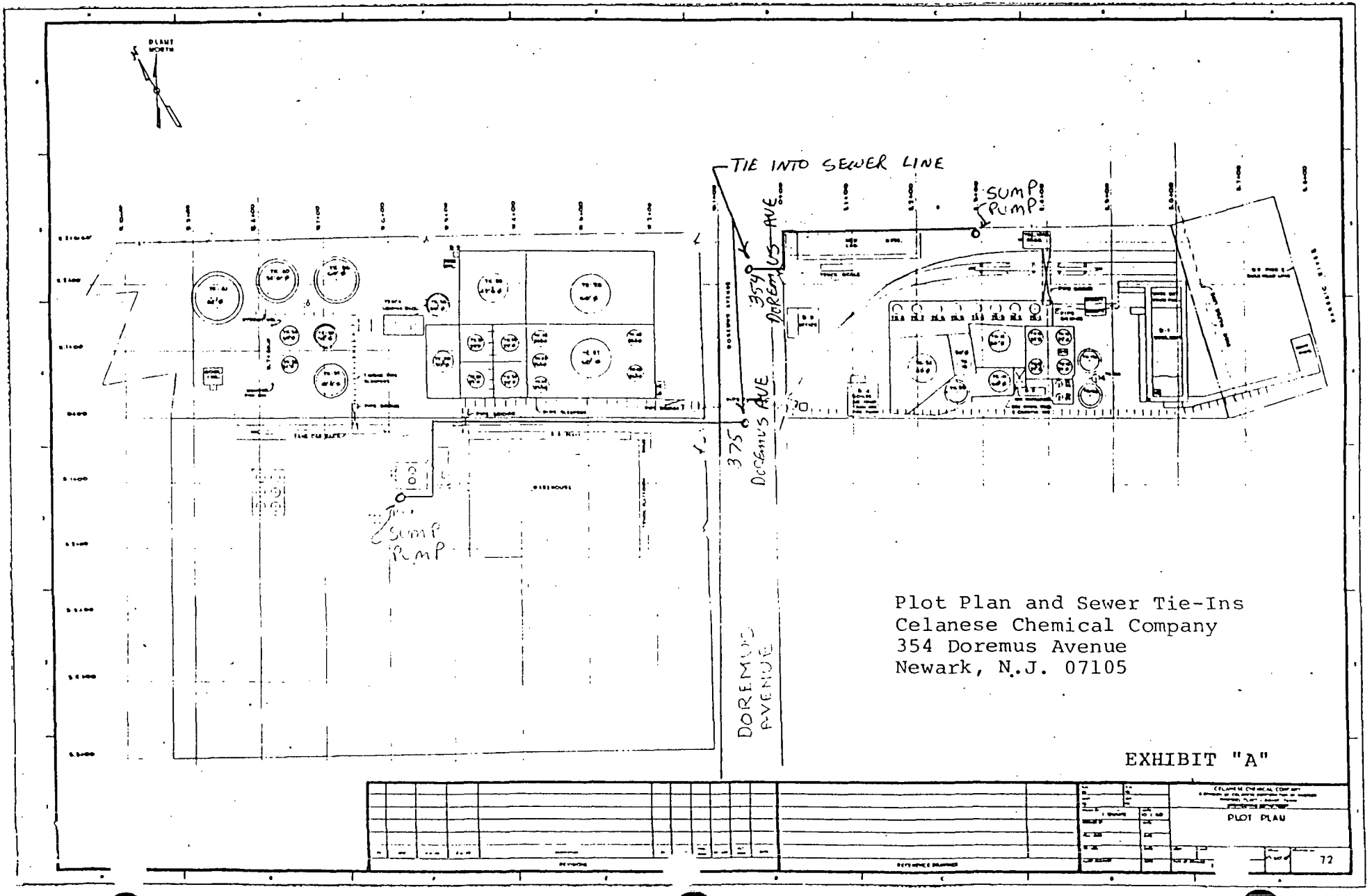

Plot Plan and Sewer Tie-Ins
Celanese Chemical Company
354 Doremus Avenue
Newark, N.J. 07105

EXHIBIT "A"

S.G.

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490
form 1 page 2

DATA PREP/RELEASE BY: _____ / _____

SAMPLE NO: BA206

ORGANICS ANALYSIS DATA SHEET

LABORATORY: California Analytical Labs, Inc.
LAB SAMPLE NO: L358
CONTRACT NO: 68-01-6958

CASE: 3596
QC REPORT: 26
PERCENT MOISTURE: 76

DATE SAMPLE REC'D: 11/30/84
SAMPLE MATRIX: soil
pH: 8.6

->-> COVER LETTER IS AN INTEGRAL PART OF THIS REPORT - PLEASE READ <-<-

SEMIVOLATILE COMPOUNDS

CONCENTRATION: MEDIUM
DATE EXTRACTED/PREPARED: 12/4/84
DATE ANALYZED: 1/22/85
CONC/DIL FACTOR: 0.12G/ML

PP#	CAS#		ug/Kg	PP#	CAS#		ug
61B	62-75-9	N-nitrosodimethylamine	6600 U	1B	83-32-9	acenaphthene	66
65A	108-95-2	phenol	6600 U	59A	51-28-5	2,4-dinitrophenol	320
CL5	62-53-3	aniline	6600 U	58A	100-02-7	4-nitrophenol	320
18B	111-44-4	bis(2-chloroethyl)ether	6600 U	CL8	132-64-9	dibenzofuran	66
24A	95-57-8	2-chlorophenol	6600 U	35B	121-14-2	2,4-dinitrotoluene	66
26B	541-73-1	1,3-dichlorobenzene	6600 U	36B	606-20-2	2,6-dinitrotoluene	66
27B	106-46-7	1,4-dichlorobenzene	6600 U	70B	84-66-2	diethyl phthalate	66
CL6	100-51-6	benzyl alcohol	6600 U	40B	7005-72-3	4-chlorophenyl-phenylether	66
25B	95-50-1	1,2-dichlorobenzene	6600 U	80B	86-73-7	flourene	92
CL2	95-48-7	2-methylphenol	6600 U	CL12	100-01-6	4-nitroaniline	320
42B	39638-32-9	bis(2-chloroisopropyl) ether	6600 U	60A	534-52-1	4,6-dinitro-o-cresol	320
CL3	106-44-5	4-methylphenol	6600 U	62B	86-30-6	N-nitrosodiphenylamine(1)	66
63B	621-64-7	N-nitrosodipropylamine	6600 U	41B	101-55-3	4-bromophenyl phenyl ether	66
12B	67-72-1	hexachloroethane	6600 U	9B	118-74-1	hexachlorobenzene	66
56B	98-95-3	nitrobenzene	6600 U	64A	87-86-5	pentachlorophenol	320
54B	78-59-1	isophorone	6600 U	81B	85-01-8	phenanthrene	300
57A	88-75-5	2-nitrophenol	6600 U	78B	120-12-7	anthracene	66
34A	105-67-9	2,4-dimethylphenol	6600 U	68B	84-74-2	di-n-butyl phthalate	66
CL1	65-85-0	benzoic acid	32000 U	39B	206-44-0	fluoranthene	160
43B	111-91-1	bis(2-chloroethoxy) methane	6600 U	5B	92-87-5	benzidine	320
31A	120-83-2	2,4-dichlorophenol	6600 U	84B	129-00-0	pyrene	180
8B	120-82-1	1,2,4-trichlorobenzene	6600 U	67B	85-68-7	butylbenzylphthalate	66
55B	91-20-3	naphthalene	110000	28B	91-94-1	3,3'-dichlorobenzidine	130
CL7	106-47-8	4-chloroaniline	6600 U	72B	56-55-3	benzo(a)anthracene	150
52B	87-68-3	hexachlorobutadiene	6600 U	66B	117-81-7	bis(2-ethylhexyl)phthalate	19000
22A	59-50-7	4-chloro-3-methylphenol	6600 U	76B	218-01-9	chrysene	150
CL9	91-57-6	2-methylnaphthalene	37000	69B	117-84-0	di-n-octyl phthalate	290
53B	77-47-4	hexachlorocyclopentadiene	6600 U	74B	205-99-2	benzo(b)fluoranthene(2)	6
21A	88-06-2	2,4,6-trichlorophenol	6600 U	75B	207-08-9	benzo(k)fluoranthene(2)	6
CL4	95-95-4	2,4,5-trichlorophenol	32000 U	73B	50-32-8	benzo(a)pyrene	6
20B	91-58-7	2-chloronaphthalene	6600 U	83B	193-39-5	indeno(1,2,3-cd)pyrene	6
CL10	88-74-4	2-nitroaniline	32000 U	82B	53-70-3	dibenzo(a,h)anthracene	6
71B	131-11-3	dimethyl phthalate	6600 U	79B	191-24-2	benzo(g,h,i)perylene	6
77B	208-96-8	acenaphthylene	6600 U				
CL11	99-09-2	3-nitroaniline	32000 U				

(1)-CANNOT BE SEPARATED FROM DIPHENYLAMINE
(2) - COMPOUNDS CO-ELUTE - ANALYSED AS A SINGLE COMPOUND
DATA IS HELD FOR A MINIMUM OF 180 DAYS THEN SENT TO NEIC FOR EVIDENCE AUDITING

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBH 176

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76136-1 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	9700	P	13.	Magnesium	[5200]	P
2.	Antimony	[6.5]	P R	14.	Manganese	915	P R
3.	Arsenic	15 U	F	15.	Mercury	0.4	~~F~~
4.	Barium	442	P	16.	Nickel	484	P
5.	Beryllium	2.1 U	P	17.	Potassium	[2930]	P
6.	Cadmium	37	P R ~~F~~	18.	Selenium	3.3 U	F
7.	Calcium	199000	P	19.	Silver	8.5 U	P R
8.	Chromium	369	P	20.	Sodium	[2940]	P
9.	Cobalt	[35]	P	21.	Thallium	8.1 U	F
10.	Copper	417	P R ~~F~~	22.	Tin	1590	F R
11.	Iron	62800	P ~~F~~	23.	Vanadium	150	P
12.	Lead	326	F	24.	Zinc	2600	P

Cyanide Percent Solids (%) 30.7

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager [signature]

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBA177

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-2 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	14300	P	13.	Magnesium	6070	P
2.	Antimony	[25]	P R	14.	Manganese	556	P R
3.	Arsenic	7.3	F	15.	Mercury	~~0.8~~	*
4.	Barium	1120	P	16.	Nickel	64	P
5.	Beryllium	1.0 U	P	17.	Potassium	4400	P
6.	Cadmium	43	P R*	18.	Selenium	1.5 U	F
7.	Calcium	51100	P	19.	Silver	[4.0]	P R
8.	Chromium	149	P	20.	Sodium	[2000]	P
9.	Cobalt	[14]	P	21.	Thallium	3.7 U	F
10.	Copper	443	P R*	22.	Tin	586	F R
11.	Iron	38300	P *	23.	Vanadium	52	P
12.	Lead	1570	F	24.	Zinc	2880	P

Cyanide Percent Solids (%) 68.2

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Maryann Sam

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBA178

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-3 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	12500	P	13.	Magnesium	5600	P
2.	Antimony	18 U	PR	14.	Manganese	933	PR
3.	Arsenic	11	F	15.	Mercury	~~1.0~~	~~X~~
4.	Barium	415	P	16.	Nickel	58	PE
5.	Beryllium	1.0 U	P	17.	Potassium	3910	P
6.	Cadmium	19	EPR*	18.	Selenium	1.6 U	F
7.	Calcium	141000	P	19.	Silver	4.1 U	PR
8.	Chromium	155	P	20.	Sodium	[1450]	PR
9.	Cobalt	[9.1]	P	21.	Thallium	3.9 U	F
10.	Copper	243	PR*	22.	Tin	914	FR
11.	Iron	25500	P*	23.	Vanadium	48	PE
12.	Lead	582	F	24.	Zinc	1300	P

Cyanide Percent Solids (%) 64.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Maryann Sam

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBA 179

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-4 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	15300	D	13.	Magnesium	7020	P
2.	Antimony	[35]	P R	14.	Manganese	874	P R
3.	Arsenic	10 U	F	15.	Mercury	~~0.5~~	~~X~~
4.	Barium	568	P	16.	Nickel	78	P
5.	Beryllium	1.4 U	P	17.	Potassium	5530	P
6.	Cadmium	20	P R ~~X~~	18.	Selenium	2.2 U	F
7.	Calcium	73100	P	19.	Silver	[8.0]	P R
8.	Chromium	234	P	20.	Sodium	[4060]	P E
9.	Cobalt	[13]	P	21.	Thallium	5.5 U	F
10.	Copper	339	P R ~~X~~	22.	Tin	747	F R
11.	Iron	49200	P ~~X~~	23.	Vanadium	~~89~~ 88	P E
12.	Lead	547	F	24.	Zinc	2140	D

Cyanide Percent Solids (%) 45.2

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Maryann Lamb

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBH-180

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-5 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	15700	P	13.	Magnesium	7480	P
2.	Antimony	[15]	PR	14.	Manganese	432	PR
3.	Arsenic	5.4 U	F	15.	Mercury	0.6	~~F~~
4.	Barium	173	P	16.	Nickel	61	PE
5.	Beryllium	0.7 U	P	17.	Potassium	3880	P
6.	Cadmium	6.7	EPR~~F~~	18.	Selenium	1.1 U	F
7.	Calcium	43000	P	19.	Silver	2.9 U	PR
8.	Chromium	42	P	20.	Sodium	[1500]	PE
9.	Cobalt	[17]	P	21.	Thallium	2.8 U	F
10.	Copper	189	PR~~F~~	22.	Tin	399	FR
11.	Iron	25700	P~~F~~	23.	Vanadium	56	PE
12.	Lead	249	F	24.	Zinc	426	P

Cyanide Percent Solids (%) 70.2

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Maryann Sam

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBA 181

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-6 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	10900	P	13.	Magnesium	3801	P
2.	Antimony	[26]	PR	14.	Manganese	621	PR
3.	Arsenic	~~mg H~~ 5.4U	F	15.	Mercury	2.5	~~X~~
4.	Barium	442	P	16.	Nickel	77	PL
5.	Beryllium	0.8U	P	17.	Potassium	3600	P
6.	Cadmium	17	EP~~X~~	18.	Selenium	3.0U	F
7.	Calcium	[1270]	P	19.	Silver	[5.6]	PR
8.	Chromium	245	P	20.	Sodium	[943]	PL
9.	Cobalt	10	P	21.	Thallium	3.0U	F
10.	Copper	362	PR~~X~~	22.	Tin	204	FR
11.	Iron	52800	P~~X~~	23.	Vanadium	37	P
12.	Lead	974	F	24.	Zinc	135U	P

Cyanide Percent Solids (%) 53.3

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Maryann Sam

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBA 182

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-7 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	10900	P	13.	Magnesium	[3020]	P
2.	Antimony	[27]	P R	14.	Manganese	179	P R
3.	Arsenic	15	F	15.	Mercury	~~0.8~~	~~*~~
4.	Barium	523	P	16.	Nickel	62	P E
5.	Beryllium	0.8U	P	17.	Potassium	[2310]	P
6.	Cadmium	39	E P R ~~*~~	18.	Selenium	1.2U	F
7.	Calcium	[2800]	P	19.	Silver	~~mg 62~~ 3.2U	P R
8.	Chromium	61	P	20.	Sodium	[565]	P E
9.	Cobalt	9.0	P	21.	Thallium	3.0U	F
10.	Copper	342	P R ~~*~~	22.	Tin 279	~~3.0U~~ mg	F R
11.	Iron	25700	P ~~*~~	23.	Vanadium	31	P E
12.	Lead	522	F	24.	Zinc	938	P

Cyanide Percent Solids (%) 82.4

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Narayan Sam

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBH 183

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-8 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	6910	D	13.	Magnesium	2350	P
2.	Antimony	41	PR	14.	Manganese	455	PR
3.	Arsenic	15 ~~7.1U~~ mg	F	15.	Mercury	~~1.1~~	*
4.	Barium	190U	P	16.	Nickel	72	PE
5.	Beryllium	0.8U	P	17.	Potassium	[2090]	P
6.	Cadmium	25	E PR*	18.	Selenium	1.2U	F
7.	Calcium	[377]	P	19.	Silver	[4.5]	PR
8.	Chromium	109	P	20.	Sodium	[1190]	PE
9.	Cobalt	[15]	P	21.	Thallium	3.0U	F
10.	Copper	430	PR*	22.	Tin	307	FR
11.	Iron	52200	P +	23.	Vanadium	31	PE
12.	Lead	2210	F	24.	Zinc	1560	D

Cyanide Percent Solids (%) 83.9

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Maryann Sam

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBH 184

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 7686-9 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	19600	P	13.	Magnesium	7160	P
2.	Antimony	[24]	PR	14.	Manganese	672	PR
3.	Arsenic	7.1 U	F	15.	Mercury	1.1	~~F~~
4.	Barium	383	P	16.	Nickel	95	PE
5.	Beryllium	1.0 U	P	17.	Potassium	5620	P
6.	Cadmium	33	EPR~~F~~	18.	Selenium	1.6 U	F
7.	Calcium	133000	P	19.	Silver	4.1 U	PR
8.	Chromium	842	P	20.	Sodium	[1140]	PE
9.	Cobalt	[22]	P	21.	Thallium	4.0 U	F
10.	Copper	1640	PR~~F~~	22.	Tin	1100	FR
11.	Iron	39500	P ~~F~~	23.	Vanadium	77	PE
12.	Lead	447	F	24.	Zinc	3440	P

Cyanide Percent Solids (%) 63.1

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Maryann Sam

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBA 185

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 7686-10 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	7990	P	13.	Magnesium	[2830]	P
2.	Antimony	[19]	PR	14.	Manganese	250	PR
3.	Arsenic	16	F	15.	Mercury	~~0.7~~	~~*~~
4.	Barium	133	P	16.	Nickel	39	PE
5.	Beryllium	0.8U	P	17.	Potassium	[2420]	P
6.	Cadmium	9.5	EPR~~*~~	18.	Selenium	1.2U	F
7.	Calcium	21400	P	19.	Silver	[3.1]	PR
8.	Chromium	153	P	20.	Sodium	[776]	PE
9.	Cobalt	[5.7]	P	21.	Thallium	3.0U	F
10.	Copper	166	PR~~*~~	22.	Tin	378	FR
11.	Iron	18500	P~~*~~	23.	Vanadium	[33]	PE
12.	Lead	249	F	24.	Zinc	909	P

Cyanide Percent Solids (%) 82.7

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Maryann Sam

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBA 186

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING

CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-11

QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil ✓ Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	11900	D	13.	Magnesium	4790	P
2.	Antimony	[15]	PR	14.	Manganese	314	PR
3.	Arsenic	21	F	15.	Mercury	0.8	✗
4.	Barium	440	P	16.	Nickel	90	PE
5.	Beryllium	0.8U	P	17.	Potassium	~~mg 33~~ [2620]	P
6.	Cadmium	7.6	EPR✗	18.	Selenium	1.2U	F
7.	Calcium	71400	P	19.	Silver	3.2U	PR
8.	Chromium	53	P	20.	Sodium	[1220]	P
9.	Cobalt	[17]	P	21.	Thallium	3.1U	F
10.	Copper	160	PR✗	22.	Tin	748	FR
11.	Iron	23700	P✗	23.	Vanadium	62	P
12.	Lead	231	F	24.	Zinc	607	P

Cyanide

Percent Solids (%) 80.2

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Marjorie Lamb

ANALYTICAL DATA
CELANESE NEWARK TERMINAL
SAMPLING DATA :11/29/94
CASE NUMBER : 3596

INORGANICS

SAMPLE NUMBER	MBA 176	MBA 177	MBA 178	MBA 179
MATRIX	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
UNITS	MG/KG	MG/KG	MG/KG	MG/KG
Aluminum	9700	14300	12500	18300
Antimony	J	J		J
Arsenic		7.3	11	
Barium	442	1120	415	586
Beryllium				
Cadmium	37	43	19	20
Calcium	199000	51100	141000	73100
Chromium	369	149	155	234
Cobalt	J	J	J	J
Copper	417	443	243	339
Iron	62800	38300	25500	49200
Lead	326	1570	582	547
Magnesium	J	6070	5600	7020
Manganese	915	586	233	874
Mercury	E	E	E	E
Nickel	484	64	58	78
Potassium	J	4400	3910	5530
Selenium				
Silver		J		J
Sodium	J	J	J	J
Thallium				
Tin	1590	586	914	747
Vanadium	180	52	48	88
Zinc	2600	2880	1300	2140

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBH 174

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-16 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water ✓ Soil Sludge Other

(ug/L) or mg/kg dry weight (Circle One)

1.	Aluminum	815	P	13.	Magnesium	65700	P
2.	Antimony	37	PE	14.	Manganese	290	PE
3.	Arsenic	9U	F	15.	Mercury	~~1.5~~	R
4.	Barium	[150]	P	16.	Nickel	11	PE
5.	Beryllium	1.3U	P	17.	Potassium	2100	PR
6.	Cadmium	119	EPR~~X~~	18.	Selenium	2.0U	F
7.	Calcium	110000	P	19.	Silver	[5.5]	P
8.	Chromium	[6.2]	P	20.	Sodium	497000	P
9.	Cobalt	4.7U	P	21.	Thallium	5.0U	F
10.	Copper	[11]	P	22.	Tin	62	F
11.	Iron	2163	PE	23.	Vanadium	[11]	PE
12.	Lead	4.5U	F	24.	Zinc	159	PR~~X~~

Cyanide Percent Solids (%)

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBA 173

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 76186-15 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water ✓ Soil Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	59800	P	13.	Magnesium	55600	P
2.	Antimony	393	PE	14.	Manganese	5020	PE
3.	Arsenic	9U	F	15.	Mercury	2.7	R
4.	Barium	2570	P	16.	Nickel	323	PE
5.	Beryllium	5.4	P	17.	Potassium	19500	PR
6.	Cadmium	75	EP R*	18.	Selenium	2.0U	F
7.	Calcium	794000	P	19.	Silver	13	P
8.	Chromium	832	P	20.	Sodium	195000	P
9.	Cobalt	59	P	21.	Thallium	5.0U	F
10.	Copper	1460	P	22.	Tin	670	F
11.	Iron	153000	PE	23.	Vanadium	306	PE
12.	Lead	8120	F	24.	Zinc	7271	P R*

Cyanide Percent Solids (%)

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBH 172

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING

CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 7686-14

QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water ✓ Soil Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	2040	P	13.	Magnesium	11800	P
2.	Antimony	[34]	PE	14.	Manganese	134	PE
3.	Arsenic	9U	F	15.	Mercury	0.5	R
4.	Barium	200	P	16.	Nickel	[21]	PE
5.	Beryllium	1.3U	P	17.	Potassium	8500	PR
6.	Cadmium	12.3	EPR	18.	Selenium	2.0U	F
7.	Calcium	67400	P	19.	Silver	5.2U	P
8.	Chromium	46	P	20.	Sodium	123000	P
9.	Cobalt	4.7U	P	21.	Thallium	5.0U	F
10.	Copper	51	P	22.	Tin	49	F
11.	Iron	4150	PE	23.	Vanadium	[15]	PE
12.	Lead	5.7	F	24.	Zinc	607	PR

Cyanide

Percent Solids (%)

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MBA 171

Date 5/9/85

INORGANIC ANALYSIS DATA SHEET

LAB NAME U S TESTING CASE NO. 3596

SOW NO.

LAB SAMPLE ID. NO. 7686-13 QC REPORT NO.

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water ✓ Soil Sludge Other

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	4030	P	13.	Magnesium	25000	P
2.	Antimony	22	PE	14.	Manganese	915	PE
3.	Arsenic	9U	F	15.	Mercury	1.4	R
4.	Barium	302	P	16.	Nickel	128	PE
5.	Beryllium	1.3U	P	17.	Potassium	14500	PR
6.	Cadmium	28	EPR*	18.	Selenium	2.0U	F
7.	Calcium	164000	P	19.	Silver	75	P
8.	Chromium	273	P	20.	Sodium	162000	P
9.	Cobalt	[13]	P	21.	Thallium	5.0U	F
10.	Copper	209	P	22.	Tin	75	F
11.	Iron	24500	PE	23.	Vanadium	121	PE
12.	Lead	139	F	24.	Zinc	1521	PR*

Cyanide Percent Solids (%)

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

ATTACHMENTS TO
RESPONSE TO REQUEST FOR INFORMATION
HOECHST CELANESE CHEMICAL GROUP, LTD.
NEWARK TERMINAL
354 DOREMUS AVENUE, NEWARK, NEW JERSEY

VOLUME 1 OF 6

October 18, 1996

ATTACHMENT 6A

POTW Effluent Monitoring Data

Miscellaneous:

	East Farm Effluent (mg/l)	West Farm Effluent (mg/l)	Water Supply (mg/l)
Antimony, Total	<0.2	<0.2	<0.2
Arsenic, Total	0.021	0.020	0.017
Beryllium, Total	<0.05	<0.05	<0.05
Cadmium, Total	<0.005	<0.005	<0.005
Chromium, Total	<0.05	<0.05	<0.05
Copper, Total	<0.02	<0.02	<0.02
Lead, Total	<0.1	<0.1	<0.1
Mercury, Total	<0.0002	0.0006	0.0020
Nickel, Total	<0.04	<0.04	<0.04
Selenium, Total	<0.002	<0.002	<0.002
Silver, Total	<0.01	<0.01	<0.01
Thallium, Total	<0.01	<0.01	<0.01
Zinc, Total	0.05	0.20	0.80
Cyanide, Total	<0.04	<0.04	<0.04
Phenols, Total	1.78	<0.005	<0.005

"<" Indicates non-detected concentrations less than value shown

ACB000097

ATTACHMENTS TO
RESPONSE TO REQUEST FOR INFORMATION
HOECHST CELANESE CHEMICAL GROUP, LTD.
NEWARK TERMINAL
354 DOREMUS AVENUE, NEWARK, NEW JERSEY

VOLUME 6 OF 6

October 18, 1996

ACB001560

ATTACHMENT 12A

Soil Sampling Results

Comparison of Soil Data to Cleanup Levels
Hoechst Celanese Newark Terminal
Newark, New Jersey

AOC 11

ENVIRON SAMPLE ID	700A-1101-SB01	700A-1101-SB02	700A-1102-SB01	700A-1102-SB02	700A-1103-SB01	700A-1103-SB02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PHASE	Phase 1	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2
DEPTH (feet)	0.0-1.0	3.0-3.5	0.0-1.0	3.0-3.5	0.0-0.5	3.0-3.5
COLLECTION DATE					05/08/90	05/08/90
INORGANICS						
Antimony	ND	ND	ND	5.760		
Arsenic	ND	1.050	4.760	9.380		
Beryllium	ND	ND	ND	1.060*		
Cadmium	ND	ND	1.940*	2.560*		
Chromium	6.540	4.220	17.300	35.400		
Copper	8.720	4.220	92.400	330.000	104.000	232.000
Lead	8.920	6.540	207.000	846.000*		
Mercury	0.218	ND	0.100	1.680	0.170	0.860
Nickel	8.720	4.220	20.500	34.500		
Selenium	3.260	ND	ND	ND		
Zinc	17.200	8.440	58.300	541.000	223.000	482.000
Petroleum Hydrocarbons	1250.000	640.000	990.000	374.000	362.000	337.000
SVOCs						
2-Chloronaphthalene	ND	ND	0.067 J	ND	ND	ND
2-Methylnaphthalene					0.095	0.220
Acenaphthene	ND	ND	0.090	0.350 J	ND	0.270
Acenaphthylene	ND	ND	0.110	ND	ND	0.098
Anthracene	ND	ND	0.450	0.370	0.130 J	0.820
Benzo(a)anthracene	ND	ND	1.000*	0.390 J	0.450 J	3.100*
Benzo(a)pyrene	0.044 J	ND	1.100*	0.370 J	0.470	2.400*
Benzo(b)fluoranthene	0.083 J	ND	1.200*	0.370 J	0.480	2.100*
Benzo(g,h,i)perylene	ND	ND	1.300	ND	0.440	1.400
Benzo(k)fluoranthene	ND	ND	ND	ND	0.360	1.600*
Bis(2-ethylhexyl)phthalate	0.073 J	0.088 J	0.270	0.170 J	0.690	0.540
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND
Chrysene	0.044 J	ND	1.100	0.540 J	0.480	3.200
Di-n-butylphthalate	ND	ND	ND	ND	0.310 B	0.120 B
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	0.640
Dibenzofuran					0.085	0.130
Diethylphthalate	ND	ND	ND	ND	ND	0.081
Fluoranthene	0.058 J	ND	1.400	1.300	0.890	4.400
Fluorene	ND	ND	0.120	0.320 J	ND	0.390
Hexachlorobenzene	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND	1.100*	ND	0.400	1.300*
N-nitrosodiphenylamine (1)	ND	ND	0.100	ND	ND	ND
Naphthalene	ND	ND	0.210	1.300	0.190	0.300
Phenanthrene	ND	ND	0.970	1.500	0.630	2.700
Pyrene	0.036 J	ND	3.600	0.560	0.740	4.900
PEST/PCBs						
Aroclor 1254	ND	ND	1.300*	0.330		
CYANIDES						
Cyanide	ND	ND	ND	0.302		
PHENOLS	0.700	0.880	2.800	0.580		

ACE0015

Comparison of Soil Data to Cleanup Levels
Hoechst Celanese Newark Terminal
Newark, New Jersey

AOC 11

ENVIRON SAMPLE ID	700A-1104-SB01	700A-1104-SB02	700A-1105-SB01	700A-1105-SB02	700A-1106-SB01	700A-1106-SB02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PHASE	Phase 2	Phase 2	Phase 2	Phase 2	Phase 3	Phase 3
DEPTH (feet)	0.0-0.5	2.5-3.0	0.0-0.5	3.0-3.5	0.0-0.5	3.0-3.5
COLLECTION DATE	05/08/90	05/08/90	05/08/90	05/08/90	10/4/91	10/4/91
INORGANICS						
Aluminum						
Antimony						
Arsenic						
Beryllium						
Cadmium						
Calcium						
Chromium						
Chromium, hexavalent						
Copper	353.000	176.000	118.000	30.000	49.000	2.200
Lead						
Mercury	1.280	2.080	1.090	0.460	0.200	ND
Nickel						
Selenium						
Silver						
Thallium						
Zinc	1190.000	464.000	294.000	50.000	360.000	13.000
Petroleum Hydrocarbons	881.000	ND	1840.000	ND	1000.000	72.000
SVOCs						
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	0.260	0.130	0.097		0.004	
Acenaphthene	0.140 J	ND	0.098 J	0.054 J	0.130	ND
Acenaphthylene	0.740	0.380 J	0.140 J	ND	0.071 J	ND
Anthracene	1.000	0.490	0.360	0.190	0.460	ND
Benzo(a)anthracene	1.600*	2.300*	1.700*	0.730	0.950*	ND
Benzo(a)pyrene	2.000*	2.200*	1.600*	0.810*	0.710*	ND
Benzo(b)fluoranthene	4.100*	1.900*	1.800*	0.790	0.810	ND
Benzo(g,h,i)perylene	1.900	1.400	0.880	0.680	ND	ND
Benzo(k)fluoranthene	ND	1.400*	1.000*	0.580	0.670	ND
Bis(2-ethylhexyl)phthalate	0.170 J	ND	0.110 J	0.084 J	0.150	0.080 J
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND
Chrysene	1.800	2.400	1.700	0.910	0.880	ND
Di-n-butylphthalate	ND	ND	ND	0.023 JB	ND	ND
Dibenz(a,h)anthracene	0.560	0.140 J	ND	0.092	ND	ND
Dibenzofuran	0.290	0.160			0.005	
Diethylphthalate	ND	ND	ND	ND	ND	ND
Fluoranthene	2.600	4.400	2.700	1.700	1.200	ND
Fluorene	0.160	0.240	ND	0.065 J	0.190	ND
Hexachlorobenzene	ND	ND	16.000*	ND	ND	ND
Indeno(1,2,3-cd)pyrene	2.200*	1.600*	1.000*	0.680	0.600	ND
N-nitrosodiphenylamine (1)	ND	ND	ND	ND		
Naphthalene	0.390	0.190 J	0.150	ND	0.180	ND
Pentachlorophenol						
Phenanthrene	1.800	1.800	1.400	0.970	1.500	ND
Pyrene	1.600	3.500	1.500	1.900	2.300	ND
PEST/PCBs						
Aroclor 1254						
CYANIDES						
Cyanide						
PHENOLS						

Comparison of Soil Data to Cleanup Levels
Hoechst Celanese Newark Terminal
Newark, New Jersey

AOC 11

ENVIRON SAMPLE ID	700A-1107-SB01	700A-1107-SB02	700A-1108-SB01	700A-1108-SB02	700A-1109-SB01	700A-1109-SB02
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PHASE	Phase 3	Phase 3	Phase 3	Phase 3	Phase 3	Phase 3
DEPTH (feet)	0.0-0.5	3.0-3.5	0.0-0.5	2.5-3.0	0.0-0.5	3.0-3.5
COLLECTION DATE	10/4/91	10/4/91	10/4/91	10/4/91	10/4/91	10/4/91
INORGANICS						
Aluminum						
Antimony						
Arsenic						
Beryllium						
Cadmium						
Calcium						
Chromium						
Chromium, hexavalent						
Copper	86.000	17.000	190.000	120.000	240.000	330.000
Lead						
Mercury	0.400	0.100	0.100	1.100	1.100	1.500
Nickel						
Selenium						
Silver						
Thallium						
Zinc	200.000	45.000	620.000	240.000	1500.000	2000.000*
Petroleum Hydrocarbons	1400.000	130.000	510.000	100.000	530.000	190.000
SVOCs						
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	0.003		0.007	0.003	0.004	0.005
Acenaphthene	0.150	ND	0.079	0.170	0.072 J	0.110
Acenaphthylene	0.085 J	ND	0.190	0.230	0.170 J	0.100
Anthracene	0.480	ND	0.350	0.710	0.340	0.310
Benzo(a)anthracene	0.810	ND	1.100*	2.300*	1.200*	1.300*
Benzo(a)pyrene	0.810*	ND	1.200*	1.900*	1.100*	1.200*
Benzo(b)fluoranthene	0.840	ND	1.100*	1.700*	1.100*	1.300*
Benzo(g,h,i)perylene	0.360	ND	1.400	1.600	ND	1.300
Benzo(k)fluoranthene	0.770	ND	1.200*	1.700*	1.200*	1.100*
Bis(2-ethylhexyl)phthalate	0.330	0.210	0.300	0.070 J	0.150 J	0.130
Butylbenzylphthalate	ND	ND	0.140	ND	ND	ND
Chrysene	0.920	ND	1.200	2.500	1.400	1.600
Di-n-butylphthalate	0.088 J	ND	0.043 J	0.022 J	0.079 J	0.032 J
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND
Dibenzofuran	0.005		0.003	0.005	0.002	0.003
Diethylphthalate	ND	ND	ND	ND	ND	ND
Fluoranthene	1.200	0.066 J	1.300	3.100	1.500	1.500
Fluorene	0.240	ND	0.079	0.290	0.094 J	0.120
Hexachlorobenzene	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.180	ND	ND	1.300*	1.200*	0.990*
N-nitrosodiphenylamine (1)						
Naphthalene	0.280	ND	0.210	0.130	0.300	0.210
Phenanthrene	1.500	0.031 J	1.100	3.200	1.200	1.500
Pyrene	2.200	0.066 J	2.600	5.900	3.200	3.100
PEST/PCBs						
Aroclor 1254						
CYANIDES						
Cyanide						
PHENOLS						

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Comparison of Soil Data to Cleanup Levels
Hoechst Celanese Newark Terminal
Newark, New Jersey

AOC 11

ENVIRON SAMPLE ID	700A-1110-SB01	700A-1110-SB02
MATRIX	SOIL	SOIL
PHASE	Phase 3	Phase 3
DEPTH (feet)	0.0-0.5	2.5-3.0
COLLECTION DATE	10/4/91	10/4/91
INORGANICS		
Antimony		
Arsenic		
Beryllium		
Cadmium		
Chromium		
Copper	61.000	29.000
Lead		
Mercury	0.800	0.700
Nickel		
Selenium		
Silver		
Thallium		
Zinc	140.000	130.000
Petroleum Hydrocarbons	690.000	350.000
SVOCs		
2-Chloronaphthalene	ND	ND
2-Methylnaphthalene	0.007	0.009
Acenaphthene	0.093	0.089
Acenaphthylene	0.150	0.520
Anthracene	0.300	0.440
Benzo(a)anthracene	0.820	2.000*
Benzo(a)pyrene	0.710*	1.700*
Benzo(b)fluoranthene	0.710	1.400*
Benzo(g,h,i)perylene	0.670	2.000
Benzo(k)fluoranthene	0.640	1.400*
Bis(2-ethylhexyl)phthalate	0.180	0.100
Butylbenzylphthalate	ND	ND
Chrysene	0.900	2.200
Di-n-butylphthalate	0.030 J	0.020 J
Dibenz(a,h)anthracene	ND	ND
Dibenzofuran	0.005	0.004
Diethylphthalate	ND	ND
Fluoranthene	1.000	2.200
Fluorene	0.160	0.140
Hexachlorobenzene	ND	ND
Indeno(1,2,3-cd)pyrene	0.520	1.500*
N-nitrosodiphenylamine (1)		
Naphthalene	0.300	0.410
Phenanthrene	1.300	1.500
Pyrene	2.000	6.200
PEST/PCBs		
Aroclor 1254		
CYANIDES		
Cyanide		
PHENOLS		

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Comparison of Soil Data to Cleanup Levels
Hoechst Celanese Newark Terminal
Newark, New Jersey

AOC 40

ENVIRON SAMPLE ID	700A-4014-SB01	700A-4014-SB02	700A-4015-SB01	700A-4015-SB02
MATRIX	SOIL	SOIL	SOIL	SOIL
PHASE	Phase I	Phase I	Phase I	Phase I
DEPTH (feet)	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
COLLECTION DATE				
INORGANICS				
Aluminum	4770.000	4670.000	7030.000	6790.000
Antimony	4.890	9.580	4.750	5.010
Arsenic	22.500*	24.200*	24.900*	25.900*
Beryllium	ND	ND	ND	ND
Cadmium	5.490*	12.000*	8.320*	9.350*
Chromium	39.000	101.000	105.000	90.000
Copper	126.000	443.000	282.000	206.000
Lead	2580.000*	2020.000*	902.000*	747.000*
Mercury	0.780	2.440	1.130	1.460
Nickel	32.000	51.000	48.100	43.000
Selenium	0.978	8.710	2.180	5.010
Silver	ND	ND	ND	ND
Thallium	0.980	ND	0.990	ND
Zinc	387.000	1580.000*	846.000	742.000
Petroleum Hydrocarbons				
SVOCs				
2-Methylnaphthalene				
Acenaphthene				
Acenaphthylene				
Anthracene				
Benzo(a)anthracene				
Benzo(a)pyrene				
Benzo(b)fluoranthene				
Benzo(g,h,i)perylene				
Benzo(k)fluoranthene				
Bis(2-ethylhexyl)phthalate				
Chrysene				
Di-n-butylphthalate				
Dibenz(a,h)anthracene				
Dibenzofuran				
Fluoranthene				
Fluorene				
Indeno(1,2,3-cd)pyrene				
Naphthalene				
Phenanthrene				
Pyrene				
VOCs				
1,1-Dichloroethene				
Benzene				
Chlorobenzene				
Ethylbenzene				
Methylene chloride				
Toluene				
PEST/PCBs				
4,4-DDE				
Aroclor 1260				
Endosulfan Sulfate				
Heptachlor Epoxide				
FORMALDEHYDE				
CYANIDES				
Cyanide				
PHENOLS				
Biphenyl				
Phenyl ether				

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Comparison of Soil Data to Cleanup Levels
Hoechst Celanese Newark Terminal
Newark, New Jersey

MW Borings

ENVIRON SAMPLE ID	700A-MW08-SB02	700A-MW09-SB01	700A-MW09-SB02	700A-MW10-SB01	700A-MW10-SB02	700A-MW10-SB03
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PHASE	Phase I	Phase I	Phase I	Phase I	Phase I	Phase I
DEPTH (feet)	5.0-5.5	0.0-0.5	5.0-5.5	0.0-0.5	5.0-5.5	10.0-10.5
COLLECTION DATE						
INORGANICS						
Aluminum						
Antimony	4.900	ND	ND	ND	5.820	6.650
Arsenic	16.600	8.180	23.800*	22.900*	21.300*	10.600
Beryllium	ND	ND	ND	ND	ND	ND
Cadmium	4.660*	2.460*	3.030*	9.570*	10.700*	9.770*
Calcium						
Chromium	186.000	16.600	189.000	76.000	86.500	60.200
Copper	568.000	68.700	134.000	113.000	575.000	429.000
Lead	1540.000*	335.000	249.000	464.000*	969.000*	2180.000*
Mercury	1.350	0.560	0.830	1.060	1.480	1.410
Nickel	105.000	18.600	48.200	23.700	114.000	32.400
Selenium	3.180	ND	ND	ND	6.060	5.760
Silver	ND	ND	ND	ND	ND	ND
Thallium	ND	ND	ND	ND	ND	ND
Zinc	626.000	217.000	339.000	596.000	990.000	1580.000*
Petroleum Hydrocarbons						
SVOCs						
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene						
Acenaphthene	1.500	0.045 J	0.130	ND	0.230	0.190
Acenaphthylene	3.100	0.170	0.087 J	0.290	0.310	0.300
Anthracene	5.100	0.170	0.250	0.100	0.250	0.290
Benzo(a)anthracene	8.200*	0.900	0.950*	0.270 J	0.650	0.610
Benzo(a)pyrene	5.700*	1.300*	1.300*	0.390	0.860*	0.810*
Benzo(b)fluoranthene	6.200*	1.400*	1.400*	0.350	0.760	0.690
Benzo(g,h,i)perylene	4.100	0.760	0.380	0.110	0.670	0.220
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	1.400	0.140	0.320	0.052 J	0.290	0.073 J
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND
Chrysene	6.800	0.980	0.940	0.330	0.780	0.750
Di-n-butylphthalate	ND	0.030 J	ND	0.041 J	0.033 J	ND
Dibenz(a,h)anthracene	0.550	0.120	ND	ND	ND	ND
Dibenzofuran						
Diethylphthalate						
Fluoranthene	6.300	1.700	ND	0.440	1.600	1.300
Fluorene	1.200	ND	ND	ND	0.120	0.086
Indeno(1,2,3-cd)pyrene	4.500*	0.850	0.430	0.130	0.600	0.270
Isophorone						
N-nitrosodiphenylamine (1)						
Naphthalene	1.200	0.041 J	0.044 J	0.030 J	0.091	0.081
Pentachlorophenol	ND	ND	ND	ND	ND	ND
Phenanthrene	21.000	0.680	1.500	0.170 J	0.710	0.900
Phenol	ND	ND	ND	ND	ND	ND
Pyrene	20.000	1.100	0.700	0.160	1.100	0.520

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Comparison of Soil Data to Cleanup Levels
Hoechst Celanese Newark Terminal
Newark, New Jersey

MW Borings

ENVIRON SAMPLE ID	700A-MW21-SB01	700A-MW22-SB01	700A-MW22-SB02	700A-MW23-SB01	700A-MW23-SB02	700A-MW24-SB01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PHASE	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
DEPTH (feet)	0.5-1.0	1.0-1.5	2.5-3.0	0.5-1.0	5.0-5.5	0.5-1.0
COLLECTION DATE	05/02/90	05/02/90	05/02/90	05/02/90	05/02/90	05/02/90
INORGANICS						
Aluminum						
Antimony	1.960					
Arsenic	11.500					
Beryllium						
Cadmium	1.960*					
Calcium						
Chromium	61.200					
Copper	144.000					
Lead	409.000*					
Mercury	1.100					
Nickel	34.300					
Selenium	ND					
Silver						
Thallium						
Zinc	703.000					
Petroleum Hydrocarbons						
SVOCs						
1,2-Dichlorobenzene	ND					
1,4-Dichlorobenzene	ND					
2,4-Dinitrotoluene	ND					
2-Methylnaphthalene	0.110					
Acenaphthene	ND					
Acenaphthylene	0.160 J					
Anthracene	0.130 J					
Benzo(a)anthracene	0.530					
Benzo(a)pyrene	0.590					
Benzo(b)fluoranthene	0.500					
Benzo(g,h,i)perylene	0.640					
Benzo(k)fluoranthene	0.420					
Bis(2-ethylhexyl)phthalate	0.200 J					
Butylbenzylphthalate	ND					
Chrysene	0.580					
Di-n-butylphthalate	ND					
Dibenz(a,h)anthracene	0.097 J					
Dibenzofuran	0.056					
Fluoranthene	0.740					
Fluorene	ND					
Indeno(1,2,3-cd)pyrene	0.540					
Isophorone						
N-nitrosodiphenylamine (1)						
Naphthalene	0.170					
Pentachlorophenol						
Phenanthrene	0.490					
Phenol						
Pyrene	0.840					

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Comparison of Soil Data to Cleanup Levels
Hoechst Celanese Newark Terminal
Newark, New Jersey

TP Samples

ENVIRON SAMPLE ID	700A-TP01-SB01	700A-TP01-SB02	700A-TP01-SB03	700A-TP01-SB12	700A-TP02-SB01	700A-TP03-SB01
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PHASE	Phase I	Phase I	Phase I	Phase I	Phase I	Phase I
DEPTH (feet)	0.5	3.0	8.5	3.0	6.0-7.0	8.0
COLLECTION DATE						
INORGANICS						
Antimony	10.700	ND	11.200	5.490		
Arsenic	45.200*	33.800*	42.400*	32.300*		
Beryllium	1.500*	ND	ND	ND		
Cadmium	14.000*	17.700*	22.500*	25.500*		
Calcium					13500.000	
Chromium	131.000	217.000	114.000	192.000		
Copper	417.000	1600.000*	483.000	279.000		
Lead	1190.000*	1470.000*	1810.000*	1110.000*		
Mercury	ND	2.220	2.520	1.440		
Nickel	75.200	45.800	54.600	62.400		
Selenium	ND	ND	1.850	4.090		
Silver	ND	ND	6.890	ND		
Zinc	1400.000	1590.000*	2360.000*	1810.000*		
Petroleum Hydrocarbons						1300.000
SVOCs						
Acenaphthene	ND	ND	5.300	ND		ND
Acenaphthylene	0.330	0.540 J	0.620 J	0.410 J		0.890 J
Anthracene	0.300	0.320 J	7.800	0.240 J		1.400
Benzo(a)anthracene	1.100*	ND	9.500*	0.840 J		3.300*
Benzo(a)pyrene	0.990*	0.560 J	6.500*	0.570 J		1.600*
Benzo(b)fluoranthene	0.860	0.510 J	6.500*	0.600 J		1.800*
Benzo(g,h,i)perylene	0.670	0.320 J	3.400	0.450 J		0.780
Bis(2-ethylhexyl)phthalate	0.260	7.000	ND	6.800		7.000
Butylbenzylphthalate	ND	2.500	ND	1.000		ND
Chrysene	1.300	0.760	11.000*	1.100		3.800
Di-n-butylphthalate	0.049 J	1.200	ND	1.200		0.620 J
Dibenz(a,h)anthracene	0.190	ND	1.000*	ND		ND
Dibenzofuran			3.500			
Fluoranthene	2.000	1.100	22.000	1.300		5.800
Fluorene	0.057 J	ND	6.500	ND		0.670
Indeno(1,2,3-cd)pyrene	0.690	ND	3.500*	0.480 J		0.860 J
Isophorone	ND	0.640	ND	0.650		ND
Naphthalene	0.160	0.290 J	1.500	0.260 J		0.860
Phenanthrene	0.880	0.760 J	12.000	0.860 J		4.300
Phenol	ND	ND	ND	ND		
Pyrene	1.500	0.660	22.000	1.200		4.200
VOCs						
Benzene	ND	ND	0.004 J	ND		
Ethylbenzene	ND	ND	ND	ND		
Methylene chloride	ND	ND	0.033	ND		
PEST/PCBs						
4,4-DDD	1.300	ND	4.800*	ND		
4,4-DDE	0.460	ND	0.930 J	ND		
4,4-DDT	1.100	ND	10.000*	ND		
Aroclor 1254	ND	54.000*	ND	29.000*		
FORMALDEHYDE	ND	6.400	ND	8.700	ND	

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ATTACHMENT 12E

1989 Surface Water and Sediment Sampling Results

Hoechst Celanese Newark Terminal, Newark, NJ
ECRA Case No. 86973

Table II-2 - Summary of Analytical Results (Concentrations in ppb)

PLUM CREEK SEDIMENT SAMPLES

ENVIRON SAMPLE ID	700A-4001-SD01	700A-4002-SD01	700A-4003-SD01	700A-4004-SD01	700A-4005-SD01	700A-4006-SD01
MATRIX	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COLLECTION METHOD	Dredge	Dredge	Dredge	Dredge	Dredge	Dredge
DEPTH (feet)	NA	NA	NA	NA	NA	NA
COMMENTS						
Aluminum						
Antimony	9910	12100	ND	2100	2840	9100
Arsenic	16600	18000	28700	25200	8100	34200
Beryllium	ND	ND	ND	ND	ND	ND
Cadmium	3650	6860	3360	5930	ND	30000
Chromium	334000	82700	49100	42700	26500	116000
Copper	104000	117000	86000	173000	57600	660000
Lead	403000	415000	162000	559000	338000	1950000
Mercury	640	620	ND	1550	270	3200
Nickel	44200	46200	22800	33300	8380	63200
Selenium	1990	2160	3360	ND	ND	5230
Silver	ND	ND	ND	ND	ND	ND
Thallium	ND	ND	ND	ND	ND	ND
Zinc	410000	588000	235000	603000	328000	2680000
Petroleum Hydrocarbons						
Total[1] BN	56350	54151	7170	102470	2640	79140
Total[1] AE	ND	ND	ND	ND	ND	ND
Total[1] VOC	5	ND	529	9	10	16
Total[1] PCB	ND	ND	ND	3200	ND	9200
Total[1] Pesticides	1180	1330	1500	ND	ND	ND
Phenols	800	890	4300	1400	ND	2900
Cyanide	660	850	ND	1200	ND	1000
Formaldehyde	ND	ND	ND		ND	300
Methanol	ND	ND	ND	ND	ND	ND
N-butyl Acetate						
Methyl Acrylate						
Acetic Acid						
Propanoic Acid						
Formic Acid						
pH						

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Hoechst Celanese Newark Terminal, Newark, NJ
ECRA Case No. 86973

Table II-2 - Summary of Analytical Results (Concentrations in ppb)

ENVIRON SAMPLE ID	700A-4007-SD01	700A-4016-SD01	700A-4017-SD01	700A-4018-SD01	700A-4019-SD01	700A-4020-SD01
MATRIX	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COLLECTION METHOD	Dredge	Dredge	Dredge	Dredge	Dredge	Dredge
DEPTH (feet)	NA	NA	NA	NA	NA	NA
COMMENTS						
Aluminum		4860000	3560000	5570000	3430000	5280000
Antimony	ND	9670	1850	ND	ND	ND
Arsenic	31400	25400	15000	30900	18600	35900
Beryllium	ND	ND	ND	ND	ND	ND
Cadmium	5710	8100	4210	5680	3780	5610
Chromium	78900	97200	34000	99400	40300	75900
Copper	123000	208000	118000	227000	75600	148000
Lead	430000	688000	763000	679000	506000	1160000
Mercury	1190	1640	614	3460	1310	1220
Nickel	33600	37800	24300	48300	17600	33000
Selenium	ND	11600	1140	1700	ND	989
Silver	3170	ND	ND	ND	ND	ND
Thallium	ND	ND	ND	ND	ND	ND
Zinc	784000	796000	353000	713000	408000	587000
Petroleum Hydrocarbons						
Total[1] BN	7920					
Total[1] AE	ND					
Total[1] VOC	ND					
Total[1] PCB	1200					
Total[1] Pesticides	ND					
Phenols	790					
Cyanide	ND					
Formaldehyde	ND					
Methanol	ND					
N-butyl Acetate						
Methyl Acrylate						
Acetic Acid						
Propanoic Acid						
Formic Acid						
pH		7.4	7.3	6.8	7.1	6.9

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Hoechst Celanese Newark Terminal, Newark, NJ
ECRA Case No. 86973

Table II-2 - Summary of Analytical Results (Concentrations in ppb)

ENVIRON SAMPLE ID	700A-4021-SD01	700A-4022-SD01	700A-4023-SD01
MATRIX	Sediment	Sediment	Sediment
COLLECTION METHOD	Dredge	Dredge	Dredge
DEPTH (feet)	NA	NA	NA
COMMENTS			
Aluminum	4370000	4940000	4500000
Antimony	ND	ND	ND
Arsenic	11300	20100	18800
Beryllium	1180	ND	ND
Cadmium	2120	4810	3640
Chromium	26400	130000	71700
Copper	84500	141000	97800
Lead	454000	488000	414000
Mercury	200	1200	700
Nickel	34500	27200	19600
Selenium	ND	ND	ND
Silver	ND	ND	ND
Thallium	ND	ND	ND
Zinc	248000	561000	368000
Petroleum Hydrocarbons			
Total[1] BN			
Total[1] AE			
Total[1] VOC			
Total[1] PCB			
Total[1] Pesticides			
Phenols			
Cyanide			
Formaldehyde			
Methanol			
N-butyl Acetate			
Methyl Acrylate			
Acetic Acid			
Propanoic Acid			
Formic Acid			
pH	7.7	6.9	6.9

ACB001694

RESULTS OF PHASE III ECRA SAMPLING PLAN
HOECHST CELANESE NEWARK TERMINAL
CITY OF NEWARK, ESSEX COUNTY
NEW JERSEY

ECRA Case No. 86973

Prepared for

Hoechst Celanese Corporation
Somerville, New Jersey

Prepared by

ENVIRON Corporation
Princeton, New Jersey

February 1992

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The results from the TPHC analyses indicated that TPHCs were present in all of the samples at concentrations ranging from 72 to 1,400 ppm. These concentrations are all within the concentration range previously determined to be background for the site. Analyses for BNs in this AEC revealed that no BN was present at concentrations above the site-specific cleanup levels.

2. Conclusions and Recommendations

The concentrations of metals, BNs, and TPHCs detected in the Phase III investigation are similar to those observed in the previous investigations. These concentrations are consistent with those found to be associated with fill material in background areas of the site. Table 10 indicates the range of concentrations that were detected in background fill material collected in areas not associated with industrial activities or any AECs. The concentrations of metals, BNs, and TPHCs detected in AEC 11 are generally below the maximum concentrations of the background fill material. Furthermore, there is no information suggesting that Hoechst Celanese has utilized these compounds in the area. This is particularly true for copper, mercury, and zinc, which have no history of utilization at the site.

The sporadic and discontinuous distribution of these compounds throughout the area also suggests that the concentrations are the result of heterogenous fill material. A total of twenty samples have been collected from ten borings distributed across this area. Despite this extensive coverage, there are no areas where detected concentrations suggest the presence of a significant discharge. In particular, none of the BN compounds were detected at concentrations above the site-specific cleanup levels in any of the 20 samples collected during the three phases of this investigation.

The source of the constituents detected in soil samples from this AEC appears to be fill brought onto the site, and not industrial activities. Moreover, none of the constituents were detected above any of the site-specific cleanup levels, and copper, mercury, and zinc were only found in a few samples at concentrations above ECRA action levels. Therefore, no further action is proposed in this AEC.

TABLE 10
Summary of Background Concentrations

Constituent	Range of Concentrations in Background Fill Material (ppm)
TPHCs	199-1,300
Total BNs	11.4-119
Metals	
Chromium	114-217
Copper	279-1,600
Lead	1,110-2,180
Mercury	0-2.5
Zinc	1,400-2,360

Notes:

ppm = parts per million
TPHCs = Total petroleum hydrocarbons
BNs = Base/neutral extractable organic compounds

0700A:PAA01C9D.W51

Cellomer Corporation

Renewal Application

Y XXXXX

Applicant is:
Corporation XX
Partnership
Other

PASSAIC VALLEY SEWERAGE COMMISSIONERS

SEWER CONNECTION APPLICATION

PART I - SECTIONS A-C

SECTION A: GENERAL INFORMATION

1. Company Name: CELLOMER CORPORATION

2. Location: 46 Albert Avenue
Newark, New Jersey Zip Code: 07105

3. Mailing Address: As above
Zip Code:

Name, title, address and telephone number of person to contact concerning information provided in this application:

4. Name of Contact Official: Mr. Louis Kaplan
Title: Vice President Phone No.: (201) 589-3875

5. Address: As above

6. Number of Employees - Full Time: 30 Part Time: N/A

7. Number of Work Days Per Week: 5
Number of Shifts Per Day: 3
Is production seasonal? No If so, explain: N/A

8. New Users Only: Indicate date user desires to commence operations:
N/A

9. If property is owned, indicate Lot and Block Numbers: 29-2448
November 25, 1980 Assessed Value: $287,400.00

10. If property is rented, indicate name and address of Landlord:
N/A

SECTION B: PRODUCT OR SERVICE INFORMATION

11. Brief description of manufacturing or other activity performed:
This is a chemical plant manufacturing two main lines of products. Basically, the type of reactions carried out are those of esterification and polymerization.

12. Principal raw materials used: Phthalic anhydride, Glycerine, Pentaerythritol, Vegetable Oil, Ethylene Glycol, Mineral Spirits + Aromatic Solvents (xylol & toluol) sulfuric acid, chlorosulfonic acid acetone

13. Principal products or services: Manufacture of alkyd resins and polymerized photo sensitive chemicals.

REPORT TO THE NEAREST HUNDREDTH: 0.XX (EXCEPT WHERE INDICATED) (EXAMPLE: 0.36 mg/l)		
CODE	PARAMETER	VALUE
1097	Antimony (Sb)	
1002	Arsenic (As)	
1022	Boron (B)	
1027	Cadmium (Cd)	
1034	Chromium Total (Cr)	
1042	Copper (Cu)	
1045	Iron (Fe)	
1051	Lead (Pb)	

REPORT TO THE NEAREST HUNDREDTH: 0.XX (EXCEPT WHERE INDICATED) (EXAMPLE: 0.36 mg/l)		
CODE	PARAMETER	VALUE
* 1900	Mercury (Report to 0.XXX)	less than .0005 mg/L
1067	Nickel (Ni)	
1147	Selenium (Se)	
1077	Silver (Ag)	
1102	Tin (Sn)	
1092	Zinc (Zn)	
4053	Pesticides (Report to 0.XXX)	
2730	Phenol	

29. Samples collected by: *Client* Date: _____

30. Samples analyzed by: *Keegan Technology & Testing Associates, Inc.* Date: *2-19-81*

Products being manufactured when sample was collected: _____

_____

tification:

- information contained in Part II of this application is familiar to me and, to best of my knowledge and belief, such information is true, complete, and accurate.

the applicant is a corporation, a corporate resolution is attached granting me the thority to sign the application on behalf of the corporation.

31. Name of Signing Official: STANLEY P. EYSMANN

Title: President

_____ Date

_____ Signature

PASSAIC VALLEY SEWERAGE COMMISSIONERS

SEWER CONNECTION APPLICATION

PART I - SECTIONS A-C

SECTION A: GENERAL INFORMATION

Applicant is:
Corporation xx
Partnership
Other

1. Company Name: Cellomer Corporation

2. Location: 46 Albert Avenue

Newark, N.J. Zip Code: 07105

3. Mailing Address: As above

Zip Code:

Name, title, address and telephone number of person to contact concerning information provided in this application:

4. Name of Contact Official: Mr. Louis Kaplan

Title: Vice President Phone No.: (201)-589-3375

5. Address: As Above

6. Number of Employees - Full Time: 3 Part Time: N/A

7. Number of Work Days per Week: 5

Number of Shifts Per Day: 3

Is production seasonal? No If so, explain: N/A

SUPERSEDED

8. New Users Only: Indicate date user desires to commence operations:

N/A

9. If property is owned, indicate Lot and Block Numbers: 29-2448

November 25 19 80 Assessed Value: $287,400.00

10. If property is rented, indicate name and address of Landlord:

NA

SECTION B: PRODUCT OR SERVICE INFORMATION

11. Brief description of manufacturing or other activity performed:

This is a chemical plant manufacturing two main lines of products. Basically, the type of reactions carried out are those of esterification and polymerization.

12. Principal raw materials used: Phthalic anhydride, Glycerine, Pentaerythritol, Vegetable oil, Ethylene Glycol, Mineral Spirits + Aromatic Solvents (xylol and toluol) sulfuric acid, chlorosulfonic acid, acetone

13. Principal products or services: Manufacture of alkyd resins and polymerized photo sensitive chemicals.

REPORT TO THE NEAREST HUNDREDTH: 0.XX
(EXCEPT WHERE INDICATED)
(EXAMPLE: 0.36 mg/l)

CODE	PARAMETER	VALUE
1097	Antimony (Sb)	
1002	Arsenic (As)	
1022	Boron (B)	
1027	Cadmium (Cd)	
1034	Chromium Total (Cr)	
1042	Copper (Cu)	
1045	Iron (Fe)	
1051	Lead (Pb)	

REPORT TO THE NEAREST HUNDREDTH: 0.XX
(EXCEPT WHERE INDICATED)
(EXAMPLE: 0.36 mg/l)

CODE	PARAMETER	VALUE
* 1900	Mercury (Report to 0.XXX)	Less than 0.0005mg/L
1067	Nickel (Ni)	
1147	Selenium (Se)	
1077	Siver (Ag)	
1102	Tin (Sn)	
1092	Zinc (Zn)	
4053	Pesticides (Report to 0.XXX)	
2730	Phenol	

29. Samples collected by: CELLOMER CORPORATION Date: February 2, 1981

0. Samples analyzed by: Keegan Technology & Testing Associates & Townley Research & Consulting Date: 2/19/81 3/31/81

Products being manufactured when sample was collected: Alkyd Resins

Certification:

The information contained in Part II of this application is familiar to me and, to the best of my knowledge and belief, such information is true, complete, and accurate.

If the applicant is a corporation, a corporate resolution is attached granting me the authority to sign the application on behalf of the corporation.

31. Name of Signing Official: S. EISMANN

Title: President

Aug 20 1981
Date

Signature

FORM APPROVED
OMB No. 158-R0100

FOR AGENCY USE

STANDARD FORM A–MUNICIPAL

SECTION IV. INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM

Submit a description of each major industrial facility discharging to the municipal system, using a separate Section IV for each facility description. Indicate the 4 digit Standard Industrial Classification (SIC) Code for the industry, the major product or raw material, the flow (in thousand gallons per day), and the characteristics of the wastewater discharged from the industrial facility into the municipal system. Consult Table III for standard measures of products or raw materials. (see instructions)

1. Major Contributing Facility (see instructions)

Name	401a	CELLOMER CORP.
Number & Street	401b	46 ALBERT STREET
City	401c	NEWARK
County	401d	ESSEX
State	401e	NEW JERSEY
Zip Code	401f	07105

2. Primary Standard Industrial Classification Code (see instructions) — 402: 2821

3. Principal Product or Raw Material (see instructions)

			Quantity		Units (See Table III)
Product	403a	ALKYD RESINS AND PHOTO SENSITIVE CHEMICALS	403c		403e
Raw Material	403b	GLYCERINE, VEGETABLE OIL ETHYLENE GLYCOL, SOLVENTS ACIDS AND ACETONE	403d		403f

4. Flow Indicate the volume of water discharged into the municipal system in thousand gallons per day and whether this discharge is intermittent or continuous.
   - 404a: ~~.016~~ .6 thousand gallons per day
   - 404b: ☒ Intermittent (int) ☐ Continuous (con)

5. Pretreatment Provided Indicate if pretreatment is provided prior to entering the municipal system — 405: ☐ Yes ☒ No

6. Characteristics of Wastewater (see instructions)

	Parameter Name	COLOR	TS	TSS	TURB.	CHLOR.	SULPATES	BOD	COD	TOC
406a	Parameter Number	00100	00500	00530	00070	00940	00945	00310	00340	00680
406b	Value	25	12170	20.5	2.5	150	24	2630	22300	10590
	Hg									
	71900									
	.0005									

This section contains 1 page.

EPA Form 7550-22 (7-73)
GPO 865-706
9/81

Congoleum Corporation

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REPLY TO:
Cranford

January 15, 1998

SENT VIA FEDERAL EXPRESS

Amelia M. Wagner, Esq.
Assistant Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency
Region II
290 Broadway, 17th Floor
New York, New York 10007-1866

Re: Congoleum Corporation -- Diamond Alkali Superfund Site
Our File No.: 6378

Dear Ms. Wagner:

Enclosed please find two copies of the Response of Congoleum Corporation to the Request for Information regarding the Diamond Alkali Superfund Site and Passaic River Study Area, both containing original signature pages.

If you have any questions or require any additional information, please do not hesitate to call. Once again, I want to thank you for your courtesies in extending the time for Congoleum Corporation to submit the within Response to the Request for Information.

Sincerely yours,

DUGHI AND HEWIT

Russell L. Hewit

A113RLH
Enc.

JAN 20 1998

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

State of Pennsylvania :

County of Delaware :

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, 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, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that my company is under a continuing obligation to supplement its response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or the company's response thereto should become known or available to the company.

Robert G. Rucker
NAME (print or type)

Director of Environmental Affairs
TITLE (print or type)

Robert G. Rucker
SIGNATURE

Sworn to before me this 12th
day of January, 1998

Bonnie J. McCullough
Notary Public

Notarial Seal
Bonnie J. McCullough, Notary Public
Marcus Hook Boro, Delaware County
My Commission Expires May 15, 2000
Member, Pennsylvania Association of Notaries

RESPONSE OF CONGOLEUM CORPORATION
TO
REQUEST FOR INFORMATION
OF THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGARDING
DIAMOND ALKALI SUPERFUND SITE AND PASSAIC RIVER STUDY AREA

EPA INTRODUCTION

The United States Environmental Protection Agency ("EPA") is investigating the release of hazardous substances into the Passaic River. EPA has information indicating that hazardous substances from your facility formerly located at 195 Belgrove Drive in Kearny, New Jersey, may have been discharged into the Passaic River.

Please provide the information requested below, including copies of all available documentation that supports your answers.

CONGOLEUM INTRODUCTION

EPA has served a Request for Information concerning possible discharges of allegedly hazardous substances from a facility formerly owned and operated by Congoleum Corporation (or its predecessors)("Congoleum"), which facility was formerly located at 195 Belgrove Drive, Kearny, New Jersey ("Kearny Facility").

Congoleum has owned and operated, and continues to own and operate, multiple facilities in multiple, different states. Congoleum interprets EPA's Request for Information to be limited solely to Congoleum's former Kearny Facility and, accordingly, has so limited its responses to the Request for Information.

Predecessors of Congoleum owned and operated a flooring manufacturing facility in Kearny, New Jersey from the late 1880s to the early or mid 1970s, and maintained administrative offices and a small laboratory at the site into the mid 1980s. Congoleum has been purchased, sold and reorganized through mergers and/or acquisitions with different companies on several occasions. Unfortunately, there are no current Congoleum employees with personal knowledge concerning the manufacturing operations of the former Kearny Facility, and Congoleum's responses to the Request

6378RESP

Q6(c)(i). Did any storm sewers, catch basins or lagoons exist at any time at the facility and if so, during what years?

A6(c)(i). Upon information and belief, but no personal knowledge, current Congoleum employees believe that there were storm sewers that discharged to the Passaic River, and that there were two retention ponds for fire fighting purposes. There were no lagoons on site.

Q6(c)(ii). If catch basins or lagoons existed, were they lined or unlined?

A6(c)(ii). Not applicable.

Q6(c)(iii). What was stored in the lagoons?

A6(c)(iii). Not applicable.

Q6(c)(iv). Where was the discharge from any of these structures released and during what years? Was this discharge treated before its release and if so, how and during what years? What was the chemical composition of any waste released, and during what years?

A6(c)(iv). Contact cooling water was discharged into the Kearny sanitary sewer system and, during times of sewer system overflow, may have been discharged into the Passaic River. Contact cooling water from spraying of finished product may have been collected in open trenches in the floor of some buildings and discharged to the sewer system and/or Passaic River. This contact cooling water was used to cool finished product, was not used in the manufacturing process and should not have contained anything other than trace amounts of plasticizer, dirt and contaminants as a result of being washed over a finished flooring product. Non-contact cooling water would have been obtained from the Passaic River and on-site wells and discharged back into the Passaic River. Its composition should have been the same as what was obtained from the river and wells.

Q6(d). Please supply diagrams of any waste water collection, transport or disposal systems on the property.

A6(d). Congoleum has identified microfiche copies of engineering drawings for the Kearny Facility, including Cooling Water Surveys, Well Water Re-Use Diagrams Fire Protection and Sewer Line drawings and Storm and City Sewer Lines drawings, among others. See attached Exhibit 5, "Engineering Drawings" and enclosed drawings. These are not all such engineering drawings, but only some drawings which were identified as possibly responsive to this Request for Information. An exhaustive review of the microfiche has not been performed.

Q6(e). Please provide information on the installation, location and use of all outfalls, permitted or unpermitted, that are currently or were formerly used at the facility, including but not limited to the four inch outfall discharging from your facility to the Passaic River.

A6(e). Upon information and belief, but not personal knowledge, current Congoleum employees believe that there were outfalls discharging cooling water and storm run-off into the Passaic River.

Q6(e)(i). Please indicate which are currently in use and which, if any, have been removed or closed, and if so, how and when.

A6(e)(i). Congoleum does not currently own any portion of the Kearny Facility. Current Congoleum employees do not know if any outfalls are currently being used, and do not know when or if they were removed or closed.

Q6(e)(ii). Describe the constituents of the discharges from these outfalls and indicate the source of the discharge from each outflow.

A6(e)(ii). Upon information and belief, but no personal knowledge, current Congoleum employees believe that these outfalls discharged non-contact cooling water and storm run-off into the Passaic River, plus contact cooling water at those times as there was an overflow of the Kearny sanitary sewer system. See prior responses.

Q6(e)(iii). Provide copies of any diagrams, maps, drawings, plans or specifications that describe the outfall.

A6(e)(iii). See Exhibit 5, "Engineering Drawings," enclosed drawings and response to Q6(d).

Q7(a). For each hazardous substance, including but not limited to the substances listed in response to item (3) or identified in the responses to item (4) above, provide the total amount generated during the operation of the facility on an annual basis.

A7(a). Unknown. However, because raw materials were used almost in their entirety in making finished product, very little, if any, raw materials would have been included in any waste streams.

Q7(b). Were any hazardous substances, including but not limited to the substances listed in response to item (3) or identified in response to item (4) above, disposed of in the Passaic River or discharged to the Passaic River? If yes, identify the hazardous substances, estimate the amount of

RESPONSE OF CONGOLEUM CORPORATION
TO
REQUEST FOR INFORMATION
OF THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGARDING
DIAMOND ALKALI SUPERFUND SITE AND PASSAIC RIVER STUDY AREA

Exhibit 3, Answer to Question 3

Q3. Did your company receive, utilize, manufacture, discharge, release, store or dispose of any materials containing the following substances:

SUBSTANCE	YES	NO	DO NOT KNOW
2,3,7,8 tetrachlorodibenzo-p-dioxin or other dioxin compounds		X	
Benzene			X
Ethyl Benzene			X
Polyaromatic Hydrocarbons (If yes, please list specific compound)			
Benzine	X		
Diesel Fuel			X
Gasoline	X		
Fuel Oil	x		
luene	X		
Xylene	X		
PCBs		X**	
Arsenic			X
Cadmium	X		
Chromium			X
Copper			X
Lead	X		
Mercury	X		
Nickel			X
Silver		X	
Zinc	X		
Cyanide		X	

** Congoleum did not receive, utilize, manufacture, discharge, release, store or dispose of PCBs at the Kearney Facility. Upon information and belief, however, there were transformers at the facilty which may have contained PCBs and which, upon information and belief, still remain there.

ACH000115

Response to question 3 indicates the on site presence of Polyaromatic Hydrocarbons including benzene, gasoline and fuel oil. Additionally, toluene, xylene, cadmium, lead, mercury and zinc were utilized on site.

RESPONSE OF CONGOLEUM CORPORATION
TO
REQUEST FOR INFORMATION
OF THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGARDING
DIAMOND ALKALI SUPERFUND SITE AND PASSAIC RIVER STUDY AREA

EXHIBIT 4, DESCRIPTION OF MANUFACTURING PROCESSES AT KEARNY FACILITY

Over the years, the predecessors of Congoleum manufactured straight line (plain, printed and inlaid) linoleum flooring, vinyl asbestos tile, battleship linoleum, linoleum/vinyl wall coverings, vinyl desk tops, vinyl operating room flooring, pastes, waxes, adhesives and specific products for military use (tent cloth, aerial torpedo parts and grenades, mildew proof sandbags, battleship linoleum, camouflage netting and synthetic leather, all manufactured for the military during World War II) at the Kearny Facility. Raw materials used would have included vinyl resins, plasticizers, stabilizers, lime stone, pigments, oils, and fillers.

The manufacturer of six foot rolled/straight line linoleum flooring (including battleship linoleum, linoleum/vinyl wall coverings, vinyl desk tops and vinyl operating room flooring) was conducted at the Kearny Facility from approximately 1886/1888 into, possibly, the early 1970s, but with a substantial reduction in the manufacturer of rolled/straight line linoleum occurring in or about 1956 or 1957. The process for making linoleum would have been mixing a cement or binder, filler material, oils and pigments. Oils would have been soybean oil, linseed oil or toll oil. Filler materials would have included saw dust, wood flour, ground cork and/or ground lime stone.

The manufacturer of vinyl asbestos tile occurred at the Kearny Facility up until approximately 1973 or 1974. Current Congoleum employees do not know when the manufacturer of vinyl asbestos tile first began. The process for manufacturing vinyl asbestos tile would have included mixing a binder material (containing vinyl resins, plasticizers and stabilizers), a filler material (including asbestos, asphalt, lime stone and non-fibrous talc) and pigments. The plasticizer would have included, among others, S160 butyl benzyl phthalate and, possibly, benzaflex 988.

Adhesives would have included standard floor adhesives using lignin as an antifungicide filler and small amounts of mercury as an anti-bacteria agent. Waxes would have been carnauba based waxes. The manufacturer of adhesives and waxes ceased in or about the mid to late 1960s.

During World War II, the company manufactured tent cloth, aerial torpedo parts and granades, mildew proof sandbags, battleship linoleum, camouflage netting, which was coated with nitrocellulate, and synthetic leathers for military use.

As part of the support for the manufacturing operations, the following additional activities were conducted at the Kearny Facility:

1. Cork grinding mills were operated at the facility to grind corks and other materials for use as filler. Upon information and belief, the cork grinding mill operation ceased in or about the late 1950s or early 1960s.

2. Above ground storage tanks were maintained for the storage of raw material oils and fuel oils for operating of the heating plant. At one time, the number of above ground tanks numbered approximately between 10 and 20 tanks. Current Congoleum employees do not know when the tank farm was dismantled.

3. A research and development laboratory was maintained at the facility until approximately 1977, and a very small laboratory remained at the site until the early 1980s.

4. There was an auto maintenance support department at the site.

5. There was a power plant at the site, including a backup electrical generator, steam generator and oil fueled boilers. Current employees do not know when the power plant ceased primary operations.

6. There was a first aid station.

7. There was general administrative offices and warehousing facilities at the site.

In addition, manufacturing processes would have used both contact cooling water and non-contact cooling water to cool finished product. City supplied water, on-site wells and the Passaic River would have served as sources for the water. Contact cooling water would have been discharged into the city

sewer system pursuant to permit, except during episodes of heavy rainfall causing overflows. Non-contact cooling water would have been discharged into the Passaic River, which current employees believe would have been, at some point, pursuant to a water discharge permit.

B. Waste Processing/Collection

To the best of the knowledge, information and belief of the current Congoleum employees, there was never any water treatment facility at the Kearny Facility.

Waste materials from the linoleum processing would have included extruded, finished product not suitable for distribution and/or sale and scrap materials from cutting the finished product. Such extruded linoleum and scrap linoleum materials would have been collected and disposed of at off-site dumps.

Unused vinyl asbestos tile, scrap tile or tile not suitable for distribution and/or sale, would have been ground and reused in the manufacturing process.

Solvents used to clean machinery would have been received and stored in 55 gallon drums, and also placed into five gallon safety cans. Solvents would have been recycled and stored in 55 gallon drums to be picked up by a recycler, the identity of whom is unknown. Such 55 gallon drums would have been stored inside or under cover.

Asbestos was received in 50 pound or 100 pound pressure packed packages in burlap bags, and would have been stored in warehouses. The only asbestos not used in the manufacturing process would have been insignificant amounts of asbestos that fell to the floor, and would have been swept from the floor as part of the general plant refuge and garbage.

Pigments, including those containing heavy metals, would have been stored in bags, drums or other containers in which the pigments were supplied. There would not have been separate pigment waste.

Oils, both raw material oils and fuel oils, would have been stored in above-ground storage tanks. There may have been isolated oil spills, of which current employees have no personal knowledge, and there would have been used/dirty oil from oil changes and maintenance of automobiles and trucks and machinery crank cases. There would not have been any oil waste streams from the manufacturing process.

Filler materials would have been stored in 50 pound or 100 pound bags or 55 gallon drums, and would have been stored with inventory in the warehouse. Filler materials would have been used in the manufacturing process and there would not have been independent filler wastes, other than insignificant amounts which may have fallen onto the floor and been swept up as part of general plant refuge and garbage.

Upon information and belief, but no personal knowledge, current Congoleum employees have heard stories over the years that coal ash from the power plant may have been dumped and spread along the bank of the Passaic River, and that scrap vinyl may have been buried on some portions of the Kearny Facility.

Chemicals and pigments from the laboratory would have been packed into lab packs, then into 55 gallon drums and then properly disposed of at off-site dump sites.

Current Congoleum employees do not know the identity of any haulers, transporters or garbage collectors who may have served the Kearny Facility, do not know the identity of any off-site dump sites that may have received materials from the Kearny Facility and have been unable to locate any documents that would provide such information.

Crucible Steel/Charles Guyon Complex

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152 Route 10
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201-584-0330
MARCH 28, 1989

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Laboratory ID# 14116
US EPA Contract Laboratory

LABORATORY ANALYSIS

Lab Number: 99096
Client: FIRST ENVIRONMENT
Sample Source: FABCO - HARRISON, N.J.
Sample ID: S-1 0-6"
Sampled by: S.S./J.V.
Sample Date: 02/13/89
Lab Date: 02/13/89
Matrix: SOIL

Results in mg/kg dry weight basis.

Parameter	Sample Result	Dupl. Result	RPD	Dupl. Contr. Limits (RPD)	Spike Added	Spike Sample Result	Spike Recovery %	Spike Contr. Limits %	Min. Det. Limit	Meth. Blank Analysis
Antimony	3.29	2.81	16	+-43					1.32	U
Arsenic	24.5	22.9	7	+-20					1.05	U
Beryllium	U	U	NC	NC					0.773	U
Cadmium	7.98	10.6	28	+-33					3.09	U
Chromium	437	376	15	+-20					2.58	U
Copper	392	404	3	+-20					1.80	U
Lead	809	783	3	+-20					1.03	U
Mercury	0.511	0.490	4	+-23					0.116	U
Nickel	1530	1480	3	+-20					7.73	U
Selenium	2.37	2.06	14	+-47					1.05	U
Silver	U	U	NC	NC					1.80	U
Thallium	U	U	NC	NC					1.05	U
Zinc	1190	1130	5	+-20					5.15	U

U = Not Detected
NC= Non-calculable RPD due to value(s) less than detection limit
RPD= Relative percent difference

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LABORATORY ANALYSIS

Lab Number: 98098
Client: FIRST ENVIRONMENT
Sample Source: FABCO - HARRISON, N.J.
Sample ID: S-2 0-6"
Sampled by: S.S./J.V.
Sample Date: 02/13/89
At Lab Date: 02/13/89
Matrix: SOIL

Results in mg/kg dry weight basis.

Parameter	Sample Result	Dupl. Result	RPD	Dupl. Contr. Limits (RPD)	Spike Added	Spike Sample Result	Spike Recovery %	Spike Contr. Limits %	Min. Det. Limit	Metho Blank Analy
Antimony	2.74								1.25	U
Arsenic	24.2								1.00	U
Beryllium	U								0.782	U
Cadmium	8.35								3.13	U
Chromium	142								2.60	U
Copper	239								1.83	U
Lead	523								1.02	U
Mercury	0.980								10.119	U
Nickel	235								7.82	U
Selenium	2.49								1.00	U
Silver	U								1.63	U
Thallium	U.								1.00	U
Zinc	415								5.22	U

U = Not Detected
NC= Non-calculable RPD due to value(s) less than detection limit
RPD= Relative percent difference

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MARCH 28, 1989

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LABORATORY ANALYSIS

Lab Number: 99100
Client: FIRST ENVIRONMENT
Sample Source: FASCO - HARRISON, N.J.
Sample ID: S-3 0-6"
Sampled by: S.S./J.V.
Sample Date: 02/13/89
At Lab Date: 02/13/89
Matrix: SOIL

Results in mg/kg dry weight basis.

Parameter	Sample Result	Dupl. Result	RPD	Dupl. Contr. Limits (RPD)	Spike Added	Spike Sample Result	Spike Recovery %	Spike Contr. Limits %	Min. Det. Limit	Meth Elem Analy
Antimony	3.54								1.63	U
Arsenic	41.7								1.30	U
Beryllium	U								0.978	U
Cadmium	16.3								3.91	U
Chromium	166								3.26	U
Copper	324								2.28	U
Lead	901								1.25	U
Mercury	2.05								0.153	U
Nickel	264								9.78	U
Selenium	5.54								1.30	U
Silver	U								2.28	U
Thallium	U								1.30	U
Zinc	1110								6.52	U

U = Not Detected
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RPD= Relative percent difference

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ANALYTICAL DATA SUMMARY REPORT FOR: FIRST ENVIRONMENT:GUTCH PIPES-1

This summary lists parameters and concentrations found in the samples submitted.

PARAMETER (units)	SAMPLE ID							
	S-201	S-202	S-203	DUP	FIELD BLANK	TRIP BLANK		
Metals (ppb): Antimony	U	30.9	79.3	2.63	U	U		
Arsenic	35.2	40.1	33.0	26.4	U	U		
Beryllium	0.372	0.536	0.509	0.777	U	U		
Cadmium	U	1.66	1.75	0.837	U	U		
Chromium	28.0	35.5	31.6	90.6	U	U		
Copper	148	432	401	156	U	U		
Lead	277	3710	3330	326	U	U		
Mercury	0.595	9.13	10.2	7.77	U	U		
Nickel	66.9	40.1	39.7	161	U	U		
Selenium	2.62	2.99	2.69	1.16	U	U		
Silver	0.930	6.59	10.7	U	U	U		
Thallium	0.636	0.660	0.366	0.678	U	U		
Zinc	77.5	906	1020	316	U	U		

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.
NA: Not analyzed.

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LABORATORY ANALYSIS

Lab Number: 113623
Client: FIRST ENVIRONMENT
Sample Source: GUYON PIPES
Sample ID: S-201
Sampled by: CUSTOMER
Sample Date: 03/02/90
At Lab Date: 03/02/90
Matrix: SOIL

Results in mg/kg dry weight basis.

Parameter	Sample Result	Dupl. Result	RPD	Dupl. Contr. Limits (RPD)	Spike Added	Spike Sample Result	Spike Recovery %	Spike Contr. Limits %	Min. Det. Limit	Method Blank Anal.
Antimony	U								1.55	U
Arsenic	15.2								0.248	U
Beryllium	0.372								0.310	U
Cadmium	U								0.310	U
Chromium	28.0								0.620	U
Copper	148								1.55	U
Lead	277								3.10	U
Mercury	0.595								0.124	U
Nickel	46.9								1.55	U
Selenium	2.42								0.248	U
Silver	0.930								0.620	U
Thallium	0.434								0.248	U
Zinc	77.5								1.24	U

U = Not Detected
NC= Non-calculable RPD due to value(s) less than detection limit
RPD= Relative percent difference

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US EPA Contract Laboratory

LABORATORY ANALYSIS

Lab Number: 113624
Client: FIRST ENVIRONMENT
Sample Source: GUYON PIPES
Sample ID: S-202
Sampled by: CUSTOMER
Sample Date: 03/02/90
At Lab Date: 03/02/90
Matrix: SOIL

Results in mg/kg dry weight basis.

Parameter	Sample Result	Dupl. Result	RPD	Dupl. Contr. Limits (RPD)	Spike Added	Spike Sample Result	Spike Recovery %	Spike Contr. Limits %	Min. Det. Limit	Method Blank Anal.
Antimony	30.9								1.91	U
Arsenic	40.1								0.306	U
Beryllium	0.536								0.383	U
Cadmium	1.46								0.383	U
Chromium	35.5								0.766	U
Copper	432								1.91	U
Lead	3710								3.83	U
Mercury	9.13								0.153	U
Nickel	40.1								1.91	U
Selenium	2.99								0.306	U
Silver	6.59								0.766	U
Thallium	0.460								0.306	U
Zinc	904								1.53	U

U = Not Detected
NC= Non-calculable RPD due to value(s) less than detection limit
RPD= Relative percent difference

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LABORATORY ANALYSIS

Lab Number:	113625
Client:	FIRST ENVIRONMENT
Sample Source:	GUYON PIPES
Sample ID:	S-203
Sampled by:	CUSTOMER
Sample Date:	03/02/90
At Lab Date:	03/02/90
Matrix:	SOIL

Results in mg/kg dry weight basis.

Parameter	Sample Result	Dupl. Result	RPD	Dupl. Contr. Limits (RPD)	Spike Added	Spike Sample Result	Spike Recovery %	Spike Contr. Limits %	Min. Det. Limit	Method Blank Anal.
Antimony	79.3								1.82	U
Arsenic	33.8								0.291	U
Baryllium	0.509								0.364	U
Cadmium	1.75								0.364	U
Chromium	31.8								0.727	U
Copper	401								1.82	U
Lead	3330								3.64	U
Mercury	10.2								0.145	U
Nickel	39.7								1.82	U
Selenium	2.69								0.291	U
Silver	10.7								0.727	U
Thallium	0.364								0.291	U
Zinc	1020								1.45	U

U = Not Detected
NC= Non-calculable RPD due to value(s) less than detection limit
RPD= Relative percent difference

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MARCH 27, 1990

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Laboratory ID# 14116
US EPA Contract Laboratory

LABORATORY ANALYSIS

Lab Number: 113626
Client: FIRST ENVIRONMENT
Sample Source: GUYON PIPES
Sample ID: DUPLICATE
Sampled by: CUSTOMER
Sample Date: 03/02/90
At Lab Date: 03/02/90
Matrix: SOIL

Results in mg/kg dry weight basis.

Parameter	Sample Result	Dupl. Result	RPD	Dupl. Contr. Limits (RPD)	Spike Added	Spike Sample Result	Spike Recovery %	Spike Contr. Limits %	Min. Det. Limit	Method Blank Anal.
Antimony	2.63								1.49	U
Arsenic	26.4								0.239	U
Beryllium	0.777								0.299	U
Cadmium	0.837								0.299	U
Chromium	98.6								0.598	U
Copper	156								1.49	U
Lead	324								2.99	U
Mercury	7.77								0.120	U
Nickel	141								1.49	U
Selenium	1.14								0.239	U
Silver	U								0.598	U
Thallium	0.478								0.239	U
Zinc	314								1.20	U

U = Not Detected
NC= Non-calculable RPD due to value(s) less than detection limit
RPD= Relative percent difference

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FIRST ENVIRONMENT

90 Riverdale Road
Riverdale, New Jersey 07457
(201) 616-9700 • FAX (201) 616-1930

Telecopy

May 25, 1990

Ms. Heather Swartz
Case Manager
State of New Jersey Department of
Environmental Protection
Division of Hazardous Waste Management
CN028
401 East State Street
Trenton, New Jersey 08625-0028

Re: Remediation/Decommissioning Results
Fabco Piping, Inc.
1000 South Fourth Street
Harrison, New Jersey 07029
ECRA Case No. 88800

Dear Ms. Swartz:

Please find enclosed, three copies of our report entitled "Remediation/Decommissioning Results" for the above-referenced facility. The report responds to the items presented in your letter dated April 20, 1990, on the report of inspection of Fabco Piping, Inc. We have telecopied the text and soil sampling results on this date. At the same time we have forwarded to your office complete documents via Federal Express.

We note that shipment of the soils excavated from the railroad tanks and sediments from the concrete floor of the lean-to, as well as the small quantities of hazardous materials near the entrance to the former machine shop, is scheduled for the week of May 29, 1990. Upon receipt of the manifests, copies of the manifests will be forwarded to your office.

BBC000032

F:3182C/GUP001

We trust that this information adequately addresses the items mentioned in your letter. If you have any questions or require additional information, please do not hesitate to call.

Very truly yours,

FIRST ENVIRONMENT, INC.

Jake Nemergut

Jake Nemergut
Senior Enviromental Scientist

JN/bg

cc: C. Doyle, V.P. Guyon General Piping, Inc.
S. Garg, Esq., Counsel to Guyon
S. D. Caretsky

5/90

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Arsenic, cadmium, chromium, copper, mercury, nickel, selenium, and zinc were detected at one or more sample locations at concentrations above current ECRA guidelines. Arsenic was detected at S-1 (24.5 ppm), S-2 (24.2 ppm) and S-3 (41.7 ppm). Cadmium was detected at S-1 (7.98 ppm), S-2 (8.35 ppm) and S-3 (16.3 ppm). Chromium was detected at S-1 (437 ppm), S-2 (142 ppm) and S-3 (166 ppm). Copper was detected at S-1 (392 ppm), S-2 (239 ppm) and S-3 (324 ppm). Mercury was detected above ECRA guidelines only at S-3 at a concentration of 2.05 ppm. Nickel was detected at S-1, S-2, and S-3 at concentrations of 1,530 ppm, 235 ppm, and 264 ppm, respectively. Selenium was found above current ECRA guidelines only at S-3 at a concentration of 5.54 ppm. Zinc was detected at S-1 (1,190 ppm), S-2 (415 ppm) and S-3 (1,110 ppm). A summary of the analytical results is provided in Table 1. Complete laboratory reports including Tier II deliverables are provided in Appendix A.

Based on the analytical results from the site investigation activities, soil remediation activities were undertaken. On March 2, 1990, approximately 69.88 tons of contaminated soil were excavated and stockpiled on-site. At the completion of the excavation activities, post excavation samples were collected. The area was backfilled with certified clean fill. 2½" to 18" ave. 22".

POST EXCAVATION SAMPLE COLLECTION

To determine the environmental quality of the remaining soil, three post excavation samples, S-201, S-202, and S-203, were collected on March 2, 1990, as illustrated in Figure 2. The samples were taken at 0-6" below the excavation or at approximately 16-22" below the original ground surface. A duplicate sample was collected at location S-201. All soil samples were submitted to ICM for analysis for priority pollutant metals.

TABLE 1

SUMMARY OF ANALYTICAL RESULTS - SOIL SAMPLES
EXTERIOR OF PAINT SHOP

SAMPLE LOCATION	RCRA	S-1	S-1	S-2	S-2	S-3	S-3	DUP (S-3)	DUP (S-3)	FIELD	TRIP
SAMPLE DEPTH		0-6"	18-24"	0-6"	18-24"	0-6"	18-24"	0-6"	18-24"	BLANK	BLANK
SAMPLE DATE	SAMPLE LIMITS	12/13/89	12/13/89	12/13/89	12/13/89	12/13/89	12/13/89	12/13/89	12/13/89	12/13/89	12/13/89
Volatile Organics (ppb)	1,000										
Targeted Compounds (1)											
Chloroform		--	u	--	50	--	u	--	u	u	u
Trichloroethylene		--	u	--	3	--	u	--	u	u	u
Non-Targeted Peaks (2)		--	u	--	50	--	u	--	u	u	u
		--	u	--	u	--	u	--	u	u	u
Priority Pollutant Metals (ppm)											
Antimony	10	3.29	--	2.74	--	3.04	--	3.44	--	u	--
Arsenic	20	24.5	--	26.2	--	41.7	--	28.8	--	u	--
Beryllium	1	u	--	u	--	u	--	u	--	u	--
Cadmium	3	7.93	--	0.53	--	16.3	--	9.17	--	u	--
Chromium	100	437	--	142	--	165	--	135	--	u	--
Copper	170	392	--	239	--	326	--	364	--	u	--
Lead	250-1000	609	--	525	--	901	--	823	--	u	--
Mercury	1	0.511	--	0.920	--	2.65	--	0.820	--	u	--
Nickel	100	1519	--	235	--	264	--	237	--	u	--
Selenium	4	2.37	--	2.49	--	5.54	--	3.06	--	u	--
Silver	5	u	--	u	--	u	--	u	--	u	--
Thallium	5	u	--	u	--	u	--	u	--	u	--
Zinc	350	1190	--	415	--	1110	--	909	--	u	--

u = Undetected
= Estimated value, below detection limit
-- = Not analyzed
(1) = Does not include estimated values
(2) = Estimated concentration of tentatively identified compounds
NOTE: Analytes found in both the sample and laboratory blank indicate laboratory caused contamination and therefore are not included in this table.

F:3182A/GUP001

ANALYTICAL RESULTS - POST EXCAVATION SAMPLES

Laboratory analysis of samples S-201 through S-203 showed that beryllium, cadmium, chromium, selenium, and thallium were undetected or below ECRA guidelines at all sample locations. Antimony ranged from undetected at S-201 to 79.3 parts per million (ppm) at S-203. Arsenic levels ranged from 26.4 ppm in the duplicate of sample location S-201 to 40.1 ppm at S-202. Two of the copper values were below ECRA guidelines and two were above ECRA guidelines, 432 ppm and 401 ppm, at S-202 and S-203, respectively. Similarly two of the analysis for lead were below ECRA guidelines and two (S-202 and S-203) were above ECRA guidelines at 3710 ppm and 3330 ppm, respectively. The levels of mercury were 0.595 ppm at S-201, 9.13 ppm at S-202, 10.2 ppm at S-203 and 7.77 ppm in the duplicate of S-201. For nickel, 3 of the values were below ECRA guidelines and one, the duplicate of S-201 was 141 ppm. For silver, S-202 was 6.57 ppm and S-203 at 10.7 ppm. Silver content in the duplicate was undetected and 0.930 ppm in sample S-201. Zinc levels were 77.5 ppm at S-201, 904 ppm at S-202, 1020 ppm at S-203 and 314 ppm in the duplicate sample.

The post excavation soil sample results are summarized in Table 2 and illustrated on Figure 2. Complete laboratory reports including Tier II deliverables are provided in Appendix A.

The material was shipped to the Clean America facility in Baltimore, Maryland on May 14, 1990 as a non-hazardous waste. Waste classification analyses and disposal documentation for the excavated soil are presented in Appendix B. The Clean Fill Certification is presented in Appendix C.

Based on the historical use of the property, immobility of the metals detected, presence of "urban fill" throughout the site, and minimal risk of public exposure to these soils, no further investigation or remediation is recommended.

TABLE 2

SUMMARY OF ANALYTICAL RESULTS - POST EXCAVATION SOIL SAMPLES
EXTERIOR OF PAINT SHOP

SAMPLE LOCATION SAMPLE DEPTH SAMPLE DATE	SCDA PARAMETERS	S-201 0-6" BELOW EXCAVATION 03/02/90	S-202 0-6" BELOW EXCAVATION 03/02/90	S-203 0-6" BELOW EXCAVATION 03/02/90	DUPLICATE (S-201) 0-6" BELOW EXCAVATION 03/02/90	FIELD BLANK 03/02/90	TRIP BLANK 03/02/90
Volatile Organics (ppb)	1,000						
Targeted Compounds (1)							
Chloroform		--	--	--	--		
Trichloroethylene		--	--	--	--	--	--
Non-Targeted Peaks (2)		--	--	--	--		
		--	--	--	--		
Priority Pollutant Metals (ppm)							
Antimony	10	u	30.9	79.3	2.63	u	u
Arsenic	20	33.2	40.1	33.0	26.4	u	u
Beryllium	1	0.372	0.536	0.509	0.777	u	u
Cadmium	3	u	1.46	1.75	0.837	u	u
Chromium	100	28.0	35.5	31.0	93.6	u	u
Copper	170	148	492	401	155	u	u
Lead	250-1000	277	5700	5400	325	u	u
Mercury	1	0.595	9.13	10.2	7.77	u	u
Nickel	100	46.9	40.1	39.7	141	u	u
Selenium	6	2.42	2.57	2.69	1.14	u	u
Silver	5	0.930	6.50	10.7	u	u	u
Thallium	5	0.434	0.440	0.364	0.470	u	u
Zinc	350	77.5	984	1030	314	u	u

u = Undetected
* = Estimated value, below detection limit
-- = Not analyzed
(1) = Does not include estimated values
(2) = Estimated concentration of tentatively ident
NOTE: Analytes found in both the sample and laboratory contamination and therefore are not included in this table.

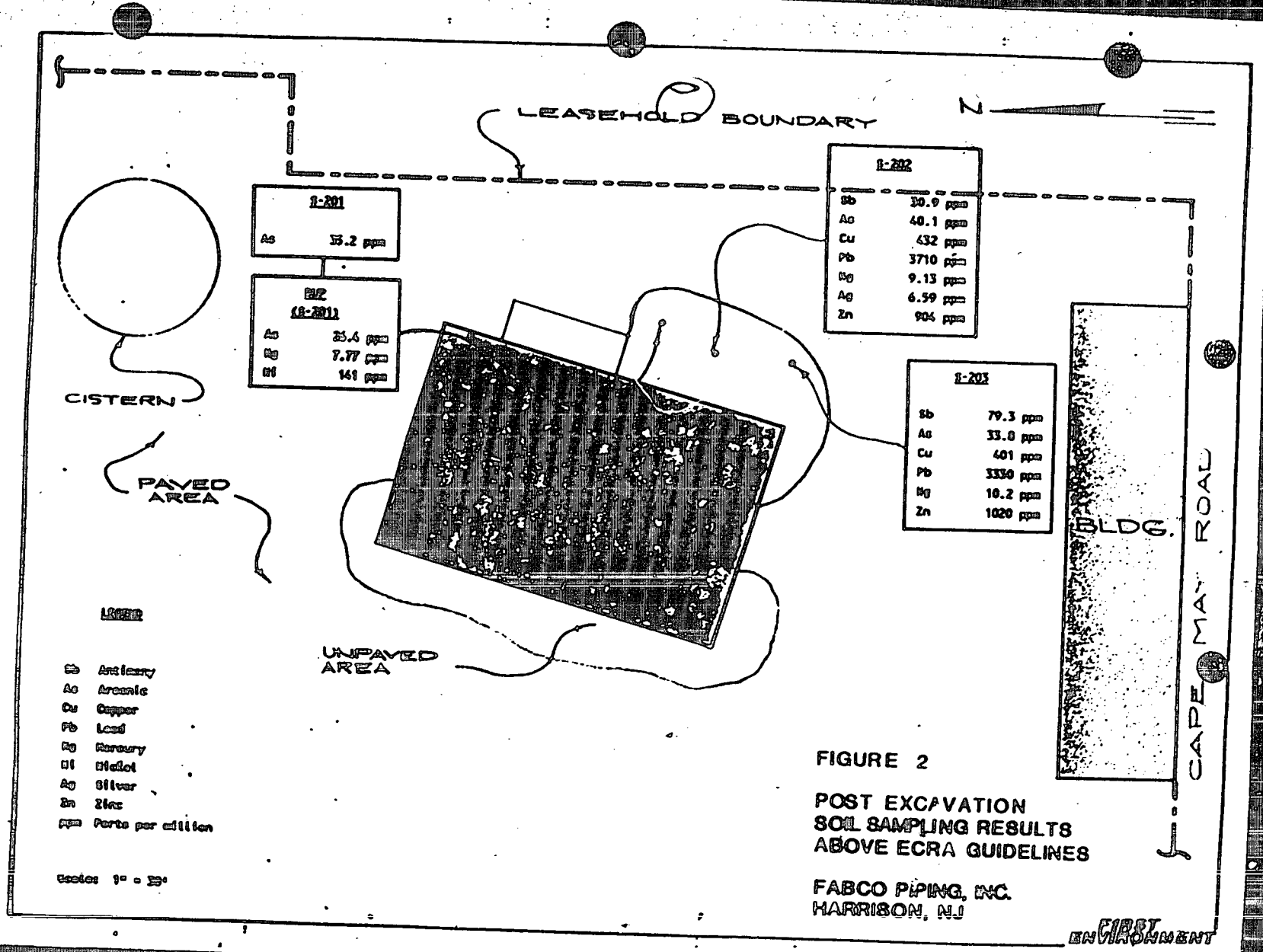

FIGURE 2

POST EXCAVATION
SOIL SAMPLING RESULTS
ABOVE ECRA GUIDELINES

FABCO PIPING, INC.
HARRISON, N.J

FIRST ENVIRONMENT

90 Riverdale Road
Riverdale, New Jersey 07457
(201) 616-9700 • FAX (201) 616-1930

December 14, 1990

Ms. Heather Swartz
Case Manager
New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
CN028
401 East State Street
Trenton, New Jersey 08625-0028

Re: Fabco Piping Incorporated
Harrison, New Jersey
1000 South Fourth Street
Harrison, New Jersey 07029
ECRA Case No. 88800

Dear Ms. Swartz:

Enclosed please find three (3) copies of our report entitled "Sampling Plan Results and Cleanup Plan Addendum" for the above-referenced facility. The report responds to the items presented in your letter of September 18, 1990 and the plan for additional soil sampling dated August 1990. Also enclosed is a check in the amount of $1,000.00 for the sampling data review.

If you have any questions, please do not hesitate to call.

Very truly yours,

FIRST ENVIRONMENT, INC.

John P. Nemergut

John P. Nemergut
Senior Environmental Scientist

JPN/bg

Enclosure

cc: Sunil Garg, Esq., Counsel to Guyon
Chris Doyle, V.P. Guyon General Piping
Steven D. Caretsky

f:4680b/GUP001

000000036

INDUSTRIAL CORROSION MANAGEMENT INC.
1152 Route 10
Randolph, NJ 07869
201-584-0338

NJ DEP Certified Drinking Water/Wastewater
Laboratory 180 14110
US EPA Contract Laboratory

NOVEMBER 8, 1990 Amended Report December 6, 1990

ANALYTICAL DATA SUMMARY REPORT FOR: FIRST ENVIRONMENT: FABCO/GWP001-2

This summary lists parameters and concentrations found in the samples submitted.

PARAMETER (units)	SAMPLE ID							
	0-7 0"-6"	8-7 24"-30"	8-6 0"-6"	8-6 30"-36"	8-5 0"-6"	8-5 36"-42"	8-4 18-26"	8-4 42"-48"
Base/Neutrals (ppb):continued Naphthalene	260	NA	480J	NA	170J	NA	NA	NA
Phenanthrene	1800	NA	6200	NA	2200	NA	NA	NA
Pyrene	13000	NA	11000	NA	4100	NA	NA	NA
Di-n-butyl phthalate	U	NA	U	NA	U	NA	NA	NA
Total non-targeted Compounds	20200	NA	53640	NA	17150	NA	NA	NA
Metals (ppm): Antimony	NA	NA	NA	NA	NA	NA	U	3.66
Arsenic	NA	NA	NA	NA	NA	NA	65.8	59.2
Cadmium	NA	NA	NA	NA	NA	NA	0.528	0.359
Chromium	NA	NA	NA	NA	NA	NA	11.1	19.5
Copper	NA	NA	NA	NA	NA	NA	76.3	170
Lead	NA	NA	NA	NA	NA	NA	157	427
Mercury	NA	NA	NA	NA	NA	NA	1.08	2.99
Nickel	NA	NA	NA	NA	NA	NA	20.1	42.0
Silver	NA	NA	NA	NA	NA	NA	U	0.862

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.
NA: Not analyzed.

SAMPLE COLLECTION

On October 2, 1990, First Environment personnel collected eight soil samples from four sampling locations, B-1 through B-4, along the perimeter of the exterior of the paint shop and at two depths, 18 to 24 inches below the bottom of the former excavation and 42 to 48 inches below the bottom of the former excavation or approximately 5 feet below the asphaltic surface. Samples collected at each depth were analyzed for antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc by Industrial Corrosion Management, Inc. (ICM), a NJDEP certified laboratory. A duplicate sample collected at sample location B-3, at 18 to 24 inches and was analyzed for the ten metals indicated. Sampling locations are shown on Figure 1.

ANALYTICAL RESULTS

Antimony, cadmium, chromium, copper, silver and zinc were undetected or detected at levels below or slightly above ECRA guidelines. Arsenic levels ranged from 2.84 ppm at a depth of 42 to 48 inches at sample location B-3 to 59.2 ppm at B-4, 42 to 48 inches below the surface. In six samples, arsenic levels were below ECRA guidelines or only slightly above them. Lead was detected at levels ranging from 11.8 ppm at B-1, 18 to 24 inches to 2,290 ppm at B-3, 18 to 24 inches. Five samples showed lead levels well below ECRA guidelines.

Five of eight samples indicated mercury levels below ECRA guidelines or only slightly above them. The mercury results ranged from 0.254 ppm at sample location B-2, 42 to 48 inches to 3.03 ppm at B-1, 42 to 48 inches. Nickel was detected at levels ranging from 6.95 ppm in the duplicate of B-3, 18 to 24 inches to 571 ppm at B-3, 18 to 24 inches. Six of the nickel analyses were well below ECRA guidelines.

A summary of the analytical results is provided in Table 1. Figure 1 presents the results of samples that may be of concern

TABLE 1

SUMMARY OF ANALYTICAL RESULTS - SOIL SAMPLES
EXTERIOR OF PAINT SHOP
OCTOBER 2, 1990

SAMPLE LOCATION	ECRA	B-1	B-1	B-2	B-2	B-3	B-3	B-6	B-4	DUP 2	FIELD
SAMPLE DEPTH (INCHES)	GUIDELINE	18-24"	42-48"	18-24"	42-48"	18-24"	42-48"	18-24"	42-48"	(B-3) 18-24"	BLANK
Selected Metals (ppm)											
Antimony	10	u	u	4.55	u	2.64	2.14	u	3.66	2.20	u
Arsenic	20	26.8	16.8	31.0	22.1	28.6	2.84	45.8	59.2	14.0	u
Cadmium	3	u	u	u	0.509	0.860	0.819	0.528	0.359	1.05	u
Chromium	100	20.6	49.5	17.6	6.36	131	201	11.1	19.5	167	u
Copper	170	64.9	165	65.5	30.0	224	180	76.3	178	242	u
Lead	250-1,000	11.8	156	188	49.1	2,390	490	157	477	1,170	u
Mercury	1	0.275	3.03	0.708	0.254	1.23	2.27	1.88	2.89	1.20	u
Nickel	100	0.23	15.3	13.0	17.9	571	348	28.1	42.0	6.95	u
Silver	5	u	u	u	u	u	u	u	0.862	u	u
Zinc	350	27.9	63.5	52.9	188	270	290	175	366	346	u

u = Undetected

2
1/100

INDUSTRIAL CORROSION MANAGEMENT, INC.
152 Route 10
Randolph, NJ 07869
201-584-0330

NJ DEP Certified Drinking Water/Wastewater
Laboratory ID# 14116
US EPA Contract Laboratory

November 8, 1990

ANALYTICAL DATA SUMMARY REPORT FOR: FIRST ENVIRONMENT: FARCO/GWP001-5

This summary lists parameters and concentrations found in the samples submitted.

PARAMETER (units)	SAMPLE ID							
	B-3 10'-24'	B-3 42'-48'	B-2 18'-24'	B-2 42'-48'	B-1 18'-24'	B-1 42'-48'	DUPLI-CATE 1	DUPLI-CATE-2
Base/Neutrals (ppb):continued Naphthalene	NA	NA	NA	NA	NA	NA	360J	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	3500	NA
Pyrene	NA	NA	NA	NA	NA	NA	3200	NA
Di-n-butyl phthalate	NA	NA	NA	NA	NA	NA	U	NA
Total non-targeted Compounds	NA	NA	NA	NA	NA	NA	38140	NA
Metals (ppm): Antimony	2.64	2.16	4.35	U	U	U	NA	2.20
Arsenic	28.4	2.84	31.0	22.1	20.0	16.0	NA	14.0
Cadmium	0.860	0.819	U	0.509	U	U	NA	1.05
Chromium	131	201	17.6	6.36	20.6	49.5	NA	167
Copper	224	180	65.5	30.0	64.9	165	NA	242
Lead	2290	490	100	49.1	11.0	136	NA	1170
Mercury	1.23	2.27	0.700	0.256	0.273	3.03	NA	1.20
Nickel	571	348	13.0	17.9	8.25	15.3	NA	695
Silver	U	U	U	U	U	U	NA	U

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.
NA: Not analyzed.

Client: ECRACOM

Address: PARK 80 WEST, PLAZA TWO, SUITE 200, SADDLE BROOK, NJ 07662

Project No.: GUYON GENERAL PIPING Contact: LISA KAPLAN

Veritech Lab No.: 5660

SAMPLE NO.		SAND BLASTING GRIT
LAB NO.	MDL	5660
TEST		
EP-TOX		
As	0.001	0.007
Ba	1.2	ND
Cd	0.03	0.03
Cr	0.1	ND
Pb	0.2	ND
Hg	0.0005	0.0007
Se	0.002	ND
Ag	0.04	ND
Ni	0.07	0.3
FLUORIDE	1.0	ND
CYANIDE (REACTIVE)	0.09	ND
SULFIDE (REACTIVE)	2	250
IGNITABILITY	NA	NOT IGNITABLE
TPH	10	104
CORROSIVITY (pH)	NA	5.5

All Concentrations Reported As: ppm
MDL = Method Detection Limit
ND = Not Detected Above MDL
NA = Not Applicable

D & J Trucking

02-9005-05-SI
REV. NO. 0

FINAL DRAFT
SITE INSPECTION REPORT
D. AND J. TRUCKING
NEWARK, NEW JERSEY

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-9005-05
CONTRACT NO. 68-01-7346

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

SEPTEMBER 26, 1990

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY

RICHARD L. FEINBERG
PROJECT MANAGER

DOROTHY PONTE
SITE MANAGER

REVIEWED/APPROVED BY:

RONALD M. NAMAN
FIT OFFICE MANAGER

03/2?/?0

TABLE 1

SITE NAME: D. & J. TRUCKING
IDD#: 02 9005 05
SAMPLING DATE: 6/26/90
EPA CASE NO.: 14407
LAB NAME: CHEMTECH

SITE INSPECTION SAMPLE RESULTS
D. AND J. TRUCKING
NEWARK, ESSEX COUNTY, NEW JERSEY

INORGANICS											
Sample ID No.	NJGG-SW1(MS/MSD)	NJGG-SW2	NJGG SW3(DUP)	NJGG SED1	NJGG SED2	NJGG-S1(MS/MSD)	NJGG S2	NJGG-S3	NJGG-S5	NJGG S6	NJGG S7(DUP)
Traffic Report No.	MBDDE1	MBDD82	MBDD83	MBDD84	MBDDP5	MBDD86	MBDD87	MBDD88	MBDD90	MBDD91	MBDD92
Matrix	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/L	ug/L	ug/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	275	427 E	3210 E	1380	6550 E	5590	8120	3120	10100	8440	8770
Antimony			J		55.7 E						J
Arsenic	15.5 E	21.6 E	36 E	12.1 E	61.2 E	12.5 E	14.8 E	8.9 E	12.9 E	36.4 E	111 E
Barium	284	J	350	392	304 E	111	287	61.2	235	157	181
Beryllium							J				12.4 E
Cadmium			15.6 E		8.8 E						
Calcium	134000	87100	119000	300000	76600 E	8270	3920	19700	21500	7160	10200
Chromium	R	R	112 E	37.8	236 E	15.7	54.3	163	42.2	47.4	81.6
Cobalt					J	J	J	J	J	J	13.2
Copper	55.1	53.4 E	302 E	43.7 E	613 E	225 E	52.2 E	130 E	104 E	125 E	166 E
Iron	3210	6830 E	25400 E	8750	46600 E	15300	17900	8910	22700	22200	22200
Lead		99 E	689 E	126	862 E	378	392	276	461	439	453
Magnesium	19200	18300	20600	4600	5490 E	1680	2010	5770	6650	3290	4280
Manganese	574	519	822	498	518 E	425	219	137	3.4	322	377
Mercury			0.57 E	0.51	1.1 E	0.39	0.81	0.84	2.5	1	1.2
Nickel	J	J	92.5 E	17.9 E	133 E	20 E	17.7 E	405	30.9 E	30 E	45.9
Potassium	55000	J	J		J	J	J		1280	J	J
Selenium				R	R	R	R	R	R	R	R
Silver											
Sodium	267000 E	161000 E	151000 E	J	2740 E	J	J	J	J	J	J
Thallium											
Vanadium	J	J	117 E	21.6	98.9 E	20.8	25.3	J	49.2	38.1	32.3
Zinc	138	244 E	1330 E	210	2920 E	438	265	165	373	380	642

NOTES:
Blank space - compound analyzed for but not detected
E - estimated value
J - estimated value, compound present below CRDL but above IDL
R - analysis did not pass EPA QA/QC
NR - analysis not required

02-9005-05-S1
Rev. No. 0

SITE NAME: D & J TRUCKING
IDD#: 02-9005-05
SAMPLING DATE: 6/26/90
EPA CASE NO: 14407
LAB NAME: CHEMTECH

TABLE 1 (Cont'd)

SITE INSPECTION SAMPLE RESULTS
D. AND J. TRUCKING
NEWARK, ESSEX COUNTY, NEW JERSEY

INORGANICS								
Sample ID No	NJGG S8	NJGG S9	NJGG S10	NJGG-RINS1	NJGG-RINS2	NJGG RINS3	NJGG-RINS4	NJGG TBLK1
Traffic Report No	MBDD92	MBDD94	MBDD95	MBDD97	MBDD98	MBDD99	MBCY64	N/A
Matrix	SOIL	SOIL	SOIL	WATER	WATER	WATER	WATER	N.A
Units	mg/kg	mg/kg	mg/kg	ug/l	ug/l	ug/l	ug/l	ug/l
Aluminum	7970	5850	11200	J				NR
Antimony	25.3 E	27.8 E	39.9 E					NR
Arsenic	13.4 E	21.5 E	27.3 E					NR
Barium	767	555	715					NR
Beryllium								NR
Cadmium	7.6	2.3	4.5					NR
Calcium	19900	23700	12000					NR
Chromium	167	74.6	259	11.2 E	J			NR
Cobalt	J	J	15.7					NR
Copper	222 E	125 E	364 E					NR
Iron	21230	15300	47200	156	J			NR
Lead	1270	619	1750	3.4 E		3.7 E	J	NR
Magnesium	2810	5280	3680					NR
Manganese	285	305	365					NR
Mercury	2.1	2	2.1					NR
Nickel	66.3	26.2 E	118					NR
Potassium	J	J	1700					NR
Selenium	R	R	R					NR
Silver		J						NR
Sodium	J	J	J					NR
Thallium								NR
Vanadium	37	28.5	90.8					NR
Zinc	934	561	1050				J	NR

NOTES:
Blank space - compound analyzed for but not detected
E - estimated value
J - estimated value, compound present below CRDL but above IDL
R - analysis did not pass EPA QA/QC
NR - analysis not required

02-9005-05-SI
Rev. No. 0

REFERENCE NO. 1

- COPY OF CLP DATA

(REDLINED AND MARKED)

- COMPUTER QA'd PRINTOUT

SITE NAME: D+J Trucking

CASE# AND/OR SAS#: 14407

BRICS#: ~~NJGG~~ 9/12/90 NJGG

TDD#: 02-9005-05

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDD92

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): SOIL Lab Sample ID: 00386-12S

Level (low/med): LOW Date Received: 6/27/90

% Solids: 86.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8770.00			P
7440-36-0	Antimony	10.40	B	N J	P
7440-38-2	Arsenic	111.00		J	F
7440-39-3	Barium	181.00			P
7440-41-7	Beryllium	12.40		J	P
7440-43-9	Cadmium	1.20	U		P
7440-70-2	Calcium	10200.00			P
7440-47-3	Chromium	81.60			P
7440-48-4	Cobalt	13.20			P
7440-50-8	Copper	166.00		N J	P
7439-89-6	Iron	22200.00			P
7439-92-1	Lead	453.00			P
7439-95-4	Magnesium	4280.00			P
7439-96-5	Manganese	397.00			P
7439-97-6	Mercury	1.20			CV
7440-02-0	Nickel	46.90			P
7440-09-7	Potassium	1040.00	B		A
7782-49-2	Selenium	11.50	~~U~~	~~N~~	F
7440-22-4	Silver	1.80	U		P
7440-23-5	Sodium	594.00	B		P
7440-28-0	Thallium	1.20	U		F
7440-62-2	Vanadium	32.30			P
7440-66-6	Zinc	642.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

MBDD90

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY6

Matrix (soil/water): SOIL Lab Sample ID: 00386-10S

Level (low/med): LOW Date Received: 6/27/90

% Solids: 85.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100.00			P
7440-36-0	Antimony	9.80	U	N	P
7440-38-2	Arsenic	12.90		J	F
7440-39-3	Barium	335.00			P
7440-41-7	Beryllium	.93			P
7440-43-9	Cadmium	1.20	U		P
7440-70-2	Calcium	21500.00			P
7440-47-3	Chromium	42.20			P
7440-48-4	Cobalt	8.80	B		P
7440-50-8	Copper	104.00		N J	P
7439-89-6	Iron	22700.00			P
7439-92-1	Lead	461.00			P
7439-95-4	Magnesium	6650.00			P
7439-96-5	Manganese	314.00			P
7439-97-6	Mercury	2.60			CV
7440-02-0	Nickel	30.90		J	P
7440-09-7	Potassium	1280.00			A
7782-49-2	Selenium	11.60	~~U~~	~~N~~	F
7440-22-4	Silver	1.90	U	J	P
7440-23-5	Sodium	959.00	B		P
7440-28-0	Thallium	1.20	U		F
7440-62-2	Vanadium	49.20			P
7440-66-6	Zinc	373.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

MBDD88

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): SOIL Lab Sample ID: 00386-09S

Level (low/med): LOW Date Received: 6/27/90

% Solids: 88.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3120.00			P
7440-36-0	Antimony	9.50	U	N	P
7440-38-2	Arsenic	8.90		J	F
7440-39-3	Barium	61.20			P
7440-41-7	Beryllium	.90			P
7440-43-9	Cadmium	1.10	U		P
7440-70-2	Calcium	19700.00			P
7440-47-3	Chromium	168.00			P
7440-48-4	Cobalt	5.30	B		P
7440-50-8	Copper	130.00		N J	P
7439-89-6	Iron	8910.00			P
7439-92-1	Lead	276.00			P
7439-95-4	Magnesium	5770.00			P
7439-96-5	Manganese	137.00			P
7439-97-6	Mercury	.90			CV
7440-02-0	Nickel	405.00			P
7440-09-7	Potassium	225.00	U		A
7782-49-2	Selenium	11.30	U	~~N~~	F
7440-22-4	Silver	1.80	U	J	P
7440-23-5	Sodium	396.00	B		P
7440-28-0	Thallium	1.10	U		F
7440-62-2	Vanadium	10.60	B		P
7440-66-6	Zinc	165.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDD87

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): SOIL Lab Sample ID: 00386-08S

Level (low/med): LOW Date Received: 6/27/90

% Solids: 89.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8120.00			P
7440-36-0	Antimony	9.40	U	N	P
7440-38-2	Arsenic	14.80		J	F
7440-39-3	Barium	287.00			P
7440-41-7	Beryllium	1.00			P
7440-43-9	Cadmium	1.10	U		P
7440-70-2	Calcium	3920.00			P
7440-47-3	Chromium	54.30			P
7440-48-4	Cobalt	5.30	B		P
7440-50-8	Copper	62.20		N	P
7439-89-6	Iron	17800.00			P
7439-92-1	Lead	392.00			P
7439-95-4	Magnesium	2010.00			P
7439-96-5	Manganese	219.00			P
7439-97-6	Mercury	.87			CV
7440-02-0	Nickel	17.70			P
7440-09-7	Potassium	785.00	B		A
7782-49-2	Selenium	11.20	U	N	F
7440-22-4	Silver	1.80	U		P
7440-23-5	Sodium	333.00	B		P
7440-28-0	Thallium	1.10	U		F
7440-62-2	Vanadium	25.30			P
7440-66-6	Zinc	265.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE N

MBDD86

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY(

Matrix (soil/water): SOIL Lab Sample ID: 00386-07S

Level (low/med): LOW Date Received: 6/27/90

% Solids: 83.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5590.00			P
7440-36-0	Antimony	10.10	U	N	P
7440-38-2	Arsenic	12.50		J	F
7440-39-3	Barium	111.00			P
7440-41-7	Beryllium	.96	U		P
7440-43-9	Cadmium	1.20	U		P
7440-70-2	Calcium	8270.00			P
7440-47-3	Chromium	15.70			P
7440-48-4	Cobalt	4.50	B		P
7440-50-8	Copper	223.00		N J	P
7439-89-6	Iron	15300.00			P
7439-92-1	Lead	378.00			P
7439-95-4	Magnesium	1680.00			P
7439-96-5	Manganese	425.00			P
7439-97-6	Mercury	0.39 ~~.46~~			CV
7440-02-0	Nickel	20.00		J	P
7440-09-7	Potassium	719.00	B		A
7782-49-2	Selenium	~~12.00~~	~~U~~	~~N~~	F
7440-22-4	Silver	1.90	U	J	P
7440-23-5	Sodium	538.00	B		P
7440-28-0	Thallium	1.20	U		F
7440-62-2	Vanadium	20.80			P
7440-66-6	Zinc	438.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDD85

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): SOIL Lab Sample ID: 00386-06S

Level (low/med): LOW Date Received: 6/27/90

% Solids: 40.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6550.00			P
7440-36-0	Antimony	55.90		N	P
7440-38-2	Arsenic	61.20			F
7440-39-3	Barium	304.00			P
7440-41-7	Beryllium	2.00			P
7440-43-9	Cadmium	8.80			P
7440-70-2	Calcium	76600.00			P
7440-47-3	Chromium	236.00			P
7440-48-4	Cobalt	16.50	B		P
7440-50-8	Copper	613.00		N	P
7439-89-6	Iron	46600.00			P
7439-92-1	Lead	863.00			P
7439-95-4	Magnesium	5490.00			P
7439-96-5	Manganese	518.00			P
7439-97-6	Mercury	1.1 ~~1.40~~			CV
7440-02-0	Nickel	130.00			P
7440-09-7	Potassium	950.00	B		A
7782-49-2	Selenium	~~25.00~~	~~U~~	~~NW~~	~~P~~
7440-22-4	Silver	4.00	U		P
7440-23-5	Sodium	2740.00			P
7440-28-0	Thallium	2.50	U		F
7440-62-2	Vanadium	98.90			P
7440-66-6	Zinc	2930.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE

MBDD84

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY

Matrix (soil/water): SOIL Lab Sample ID: 00386-05

Level (low/med): LOW Date Received: 6/27/90

% Solids: 61.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1380.00			P
7440-36-0	Antimony	13.70	U	N	P
7440-38-2	Arsenic	12.10		J	F
7440-39-3	Barium	392.00			P
7440-41-7	Beryllium	1.30	U		P
7440-43-9	Cadmium	1.60	U		P
7440-70-2	Calcium	300000.00			P
7440-47-3	Chromium	37.80			P
7440-48-4	Cobalt	4.20	U		P
7440-50-8	Copper	43.70		N J	P
7439-89-6	Iron	8750.00			P
7439-92-1	Lead	126.00			P
7439-95-4	Magnesium	4600.00			P
7439-96-5	Manganese	498.00			P
7439-97-6	Mercury	0.61 ~~0.69~~			CV
7440-02-0	Nickel	17.90		J	P
7440-09-7	Potassium	326.00	U		A
7782-49-2	Selenium	~~16.30~~	~~U~~	~~NW~~	~~F~~
7440-22-4	Silver	2.60	U	J	P
7440-23-5	Sodium	1390.00	B		P
7440-28-0	Thallium	1.60	U		F
7440-62-2	Vanadium	21.60			P
7440-66-6	Zinc	210.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: COLORLESS Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

MBDD83

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY6

Matrix (soil/water): WATER Lab Sample ID: 00386-04S

Level (low/med): LOW Date Received: 6/27/90

% 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	3210.00		J	P
7440-36-0	Antimony	42.90	B	N J	P
7440-38-2	Arsenic	36.00		J	F
7440-39-3	Barium	350.00			P
7440-41-7	Beryllium	4.00	U		P
7440-43-9	Cadmium	15.60		J	P
7440-70-2	Calcium	119000.00			P
7440-47-3	Chromium	112.00		J	P
7440-48-4	Cobalt	13.00	U		P
7440-50-8	Copper	302.00		J	P
7439-89-6	Iron	25400.00		J	P
7439-92-1	Lead	689.00		N J	F
7439-95-4	Magnesium	20600.00			P
7439-96-5	Manganese	822.00			P
7439-97-6	Mercury	0.57 ~~29~~		J	CV
7440-02-0	Nickel	82.50		J	P
7440-09-7	Potassium	35000.00	B		A
7782-49-2	Selenium	50.00	U	N J	F
7440-22-4	Silver	8.00	U	J	P
7440-23-5	Sodium	154000.00		E J	P
7440-28-0	Thallium	5.00	U	W	F
7440-62-2	Vanadium	117.00		J	P
7440-66-6	Zinc	1330.00		J	P
	Cyanide				NR

Color Before: GREY Clarity Before: OPAQUE Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDD82

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): WATER Lab Sample ID: 00386-03S

Level (low/med): LOW Date Received: 6/27/90

% 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	427.00			P
7440-36-0	Antimony	42.00	U	N	P
7440-38-2	Arsenic	21.60			F
7440-39-3	Barium	196.00	B		P
7440-41-7	Beryllium	4.00	~~B~~	U	P
7440-43-9	Cadmium	5.00	U		P
7440-70-2	Calcium	87100.00			P
7440-47-3	Chromium	~~30.00~~			P
7440-48-4	Cobalt	13.00	U		P
7440-50-8	Copper	53.40			P
7439-89-6	Iron	6830.00			P
7439-92-1	Lead	99.00		N	F
7439-95-4	Magnesium	18300.00			P
7439-96-5	Manganese	519.00			P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	34.50	B		P
7440-09-7	Potassium	37000.00	B		A
7782-49-2	Selenium	5.00	U	NW	F
7440-22-4	Silver	8.00	U		P
7440-23-5	Sodium	161000.00		E	P
7440-28-0	Thallium	5.00	U		F
7440-62-2	Vanadium	38.70	B		P
7440-66-6	Zinc	244.00			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE N

MBDD81

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY

Matrix (soil/water): WATER Lab Sample ID: 00386-02

Level (low/med): LOW Date Received: 6/27/90

% 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	275.00			P
7440-36-0	Antimony	42.00	U	N J	P
7440-38-2	Arsenic	15.50		J	F
7440-39-3	Barium	284.00			P
7440-41-7	Beryllium	4.00	U		P
7440-43-9	Cadmium	5.00	U		P
7440-70-2	Calcium	134000.00			P
7440-47-3	Chromium	~~44.30~~			P
7440-48-4	Cobalt	13.00	U		P
7440-50-8	Copper	53.70			P
7439-89-6	Iron	3210.00			P
7439-92-1	Lead	20.00	U	NW	F
7439-95-4	Magnesium	19200.00			P
7439-96-5	Manganese	574.00			P
7439-97-6	Mercury	0.2 ~~21~~	U		CV
7440-02-0	Nickel	27.30	B	J	P
7440-09-7	Potassium	55000.00			A
7782-49-2	Selenium	5.00	U	N J	F
7440-22-4	Silver	8.00	U	J	P
7440-23-5	Sodium	267000.00		E J	P
7440-28-0	Thallium	5.00	U		F
7440-62-2	Vanadium	28.80	B		P
7440-66-6	Zinc	138.00			P
	Cyanide				NR

Color Before: YELLOW Clarity Before: OPAQUE Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBCY64

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): WATER Lab Sample ID: 00386-015

Level (low/med): LOW Date Received: 6/27/90

% 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	44.00	U		P
7440-36-0	Antimony	42.00	U	N	P
7440-38-2	Arsenic	5.00	U		F
7440-39-3	Barium	14.00	U		P
7440-41-7	Beryllium	4.00	U		P
7440-43-9	Cadmium	5.00	U		P
7440-70-2	Calcium	570.00	U		P
7440-47-3	Chromium	7.00	U		P
7440-48-4	Cobalt	13.00	U		P
7440-50-8	Copper	17.00	U		P
7439-89-6	Iron	26.00	U		P
7439-92-1	Lead	2.90	B	N	F
7439-95-4	Magnesium	400.00	U		P
7439-96-5	Manganese	11.00	U		P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	24.00	U		P
7440-09-7	Potassium	1000.00	U		A
7782-49-2	Selenium	5.00	U	N	F
7440-22-4	Silver	8.00	U		P
7440-23-5	Sodium	580.00	U	E	P
7440-28-0	Thallium	5.00	U	W	F
7440-62-2	Vanadium	22.00	U		P
7440-66-6	Zinc	19.97	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

MBDD98

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY6

Matrix (soil/water): WATER Lab Sample ID: 0.0386-17S

Level (low/med): LOW Date Received: 6/27/90

% 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	44.00	U		P
7440-36-0	Antimony	42.00	U	NJ	P
7440-38-2	Arsenic	5.00	U		F
7440-39-3	Barium	14.00	U		P
7440-41-7	Beryllium	4.00	U		P
7440-43-9	Cadmium	5.00	U		P
7440-70-2	Calcium	570.00	U		P
7440-47-3	Chromium	7.80	B	J	P
7440-48-4	Cobalt	13.00	U		P
7440-50-8	Copper	17.00	U		P
7439-89-6	Iron	33.10	B		P
7439-92-1	Lead	2.00	U	NW	F
7439-95-4	Magnesium	400.00	U		P
7439-96-5	Manganese	11.00	U	J	P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	24.00	U	J	P
7440-09-7	Potassium	1000.00	U		A
7782-49-2	Selenium	5.00	U	NJ	F
7440-22-4	Silver	8.00	U	J	P
7440-23-5	Sodium	580.00	U	E	P
7440-28-0	Thallium	5.00	U		F
7440-62-2	Vanadium	22.00	U		P
7440-66-6	Zinc	14.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDD97

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): WATER Lab Sample ID: 00386-16S

Level (low/med): LOW Date Received: 6/27/90

% 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	95.40	B		P
7440-36-0	Antimony	42.00	U	N J	P
7440-38-2	Arsenic	5.00	U	J	F
7440-39-3	Barium	14.00	U		P
7440-41-7	Beryllium	4.00	U		P
7440-43-9	Cadmium	5.00	U		P
7440-70-2	Calcium	570.00	U		P
7440-47-3	Chromium	11.20		J	P
7440-48-4	Cobalt	13.00	U		P
7440-50-8	Copper	17.00	U		P
7439-89-6	Iron	136.00			P
7439-92-1	Lead	3.40		N J	F
7439-95-4	Magnesium	400.00	U		P
7439-96-5	Manganese	11.00	U	J	P
7439-97-6	Mercury	.20	U		CV
7440-02-0	Nickel	24.00	U	J	P
7440-09-7	Potassium	1000.00	U		A
7782-49-2	Selenium	5.00	U	N J	F
7440-22-4	Silver	8.00	U	J	P
7440-23-5	Sodium	580.00	U	E	P
7440-28-0	Thallium	5.00	U	W	F
7440-62-2	Vanadium	22.00	U		P
7440-66-6	Zinc	14.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDD95

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): SOIL Lab Sample ID: 00386-15S

Level (low/med): LOW Date Received: 6/27/90

% Solids: 76.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11200.00			P
7440-36-0	Antimony	39.90		NJ	P
7440-38-2	Arsenic	27.30		J	F
7440-39-3	Barium	715.00			P
7440-41-7	Beryllium	1.00			P
7440-43-9	Cadmium	4.90			P
7440-70-2	Calcium	12000.00			P
7440-47-3	Chromium	259.00			P
7440-48-4	Cobalt	15.70			P
7440-50-8	Copper	364.00		NJ	P
7439-89-6	Iron	47200.00			P
7439-92-1	Lead	1750.00			P
7439-95-4	Magnesium	3680.00			P
7439-96-5	Manganese	365.00			P
7439-97-6	Mercury	~~2.90~~			CV
7440-02-0	Nickel	118.00			P
7440-09-7	Potassium	1700.00			A
7782-49-2	Selenium	~~13.10~~	U	~~NW~~	F
7440-22-4	Silver	2.10	U	J	P
7440-23-5	Sodium	638.00	B		P
7440-28-0	Thallium	1.30	U		F
7440-62-2	Vanadium	90.80			P
7440-66-6	Zinc	1050.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDD94

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): SOIL Lab Sample ID: 00386-14S

Level (low/med): LOW Date Received: 6/27/90

% Solids: 63.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5850.00			P
7440-36-0	Antimony	27.80		N J	P
7440-38-2	Arsenic	21.50		J	F
7440-39-3	Barium	555.00			P
7440-41-7	Beryllium	1.30			P
7440-43-9	Cadmium	2.30			P
7440-70-2	Calcium	23200.00			P
7440-47-3	Chromium	74.60			P
7440-48-4	Cobalt	4.90	B		P
7440-50-8	Copper	125.00		N J	P
7439-89-6	Iron	15300.00			P
7439-92-1	Lead	619.00			P
7439-95-4	Magnesium	5280.00			P
7439-96-5	Manganese	305.00			P
7439-97-6	Mercury	~~2.10~~			CV
7440-02-0	Nickel	26.20		J	P
7440-09-7	Potassium	820.00	B		A
7782-49-2	Selenium	15.80	~~U~~	~~N~~	F
7440-22-4	Silver	3.00	B		P
7440-23-5	Sodium	742.00	B		P
7440-28-0	Thallium	1.60	U		F
7440-62-2	Vanadium	28.50			P
7440-66-6	Zinc	561.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDD93

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68-W8-0061

Lab Code: CHEM Case No.: 14407 SAS No.: SDG No.: MBCY64

Matrix (soil/water): SOIL Lab Sample ID: 00386-13S

Level (low/med): LOW Date Received: 6/27/90

% Solids: 87.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7970.00			P
7440-36-0	Antimony	25.30		N J	P
7440-38-2	Arsenic	13.40		J	F
7440-39-3	Barium	767.00			P
7440-41-7	Beryllium	.92			P
7440-43-9	Cadmium	7.60			P
7440-70-2	Calcium	19900.00			P
7440-47-3	Chromium	167.00			P
7440-48-4	Cobalt	9.50	B		P
7440-50-8	Copper	222.00		N J	P
7439-89-6	Iron	21200.00			P
7439-92-1	Lead	1270.00			P
7439-95-4	Magnesium	3810.00			P
7439-96-5	Manganese	285.00			P
7439-97-6	Mercury	2.20			CV
7440-02-0	Nickel	66.30			P
7440-09-7	Potassium	1080.00	B		A
7782-49-2	Selenium	11.50	U	N	F
7440-22-4	Silver	1.80	U	J	P
7440-23-5	Sodium	663.00	B		P
7440-28-0	Thallium	1.10	U		F
7440-62-2	Vanadium	37.00			P
7440-66-6	Zinc	934.00			P
	Cyanide				NR

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

CONTROL NO: 02-9005-05 DATE: 5/22/90 TIME: 1030

DISTRIBUTION:

D. and J. Trucking

BETWEEN: Paul Butler, Bill Strehle - consultant for the City of Newark OF: Dept. of Engineering City of Newark, Dresdner and Robin Asso. PHONE: 201 733-4300, (201) 432-980

AND:

Dorothy Ponte

DISCUSSION:

A threeway conversation was held between Paul, Bill and Dorothy. The following information was obtained: 310 Avenue P is bordered to the north by a site presently under investigation by the City of Newark. The site is referred to as the Police Academy Site. Prior to construction of a Police Academy Training building, an assessment of the site was conducted. No groundwater testing was done, however several surficial test pits were dug and analyzed. Results from the site analysis indicate the property is contaminated by a broad range of contaminants. The contamination at the site cannot be associated with one particular waste stream. However, there is a possibility that some of the contamination at the Police Academy site resulted from illegal dumping practices by D. and J. Trucking before a berm was erected by the Police in order to deter further illegal dumping on the property. Bill has conducted an extensive historical review of the area along Avenue P. The current lot number of 310-328 Avenue P is listed as block 5060 lot 149 at the City of Newark tax office. Lot 149 was previously known as lots 120, 122, 126 and 128. Later these lots became incorporated into a larger lot by the Newark Housing Authority. Lot 150, to the north of the D. and J. Trucking site was formerly known as lots 132 and 138. According to Bill, the D. and J. Trucking site was a very active junk yard up until

ACTION ITEMS:

TELECON NO:

CONTROL NO: 02-9005-05

DATE: 5/22/90

TIME: 1030

DISTRIBUTION:

D. and J. Trucking

BETWEEN:

OF:

PHONE: ( )

AND:

NUS

DISCUSSION: cont'd.

about one year ago. The site is mostly barren, and devoid of vegetation. A storm drainage ditch is located near the eastern edge of the property line. A creek also appears to run along the southwestern edge of the site according to Bill. D. and J. Trucking had a twelve year contract with paint manufacturers in the area, specifically Benjamin Moore and Sherwin Williams. A lot of material derived from these paint manufacturers was dumped on the site, as well as neighboring lots along Avenue P. The trucking company apparently did not respect property lines. According to Bill's historical review of the area, lot 150 to the north of the D. and J. Trucking site shows a likelihood of being one of the cleaner sites along Avenue P. This is due in part to the berm which was erected to separate the Police Academy range from surrounding properties. Bill provided data from typical samples taken from his site - the Police Academy Site. He cautioned that one should be aware that the soil forming the berm came in part from

ACTION ITEMS:

surface soil scrapped off his site (possibly up to 2 feet). Most of the soil forming the berm, however, was derived from other sources. He stated that results of soil samples taken of the berm indicated they were not as contaminated as surficial soil samples taken from lot 150. Site wide concentration ranges for the following priority pollutants at lot 150 were as follows: Base/neutrals ranged from 4-78 ppm, 38 ppm average; lead ranged from 21-590 ppm, 427 ppm average;

NUS 067 REVISED 0881

CONTROL NO: 02-9005-05 DATE: 5/22/90 TIME: 1030

DISTRIBUTION:

D. and J. Trucking

BETWEEN: OF: PHONE: ( )

AND:

NUS

DISCUSSION: cont'd.:

chromium ranged from 11-205 ppm, 107 ppm average; mercury ranged from .2 - 9.3 ppm, 4.4 ppm average; and volatile organics ranged from .0 - 35 ppm. The purpose of this data was to demonstrate to the NJDEP that the site was typical of the general area along Avenue P. Soil samples were sent to an outside lab for analysis, Enseco - Boston office, due to the presence of dioxin. Other priority pollutant results were as follows: priority pollutant pesticides ranged from .23 - 53 ppm, PCBs from non-detectable to 35 ppm and TCE from non-detectable to 71 ppb. Bill suggested that Bob Caledre (201) 344-4611, a contractor for the Newark Housing Authority, 309-465 Avenue P site, may be able to provide additional information relating to contamination in the area. He also suggested I contact Ed Ryg for further information concerning 310 Avenue P. Also, the city of Newark should have a comprehensive file on the D. and J. Trucking site, located at 309-465 Avenue P.

ACTION ITEMS:

One specific surficial sample, TP-60, had the following contaminant concentrations:

petroleum hydrocarbons	960 ppm total
base/neutral organics	39 ppm
lead	526 ppm
chromium	136 ppm
mercury	7 ppm
volatile organics	.03 ppm
pesticides	53 ppm
dioxin	.21 ppt

Bill will be sending a copy of their report in the next couple weeks.

Form VWX-015 A
4/83

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: D & J Trucking — SW ID NO.: 0714C

LAB NAME: ANALYTIKEM 28 SPRINGDALE Rd Cherry Hill N.J.

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM USE
R (1)	NJ 0057517 (2–8)	26-09665-1 (9–16)	870130 (17–22)	04012 (23–27)	(28)

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 01 87 (MO. YR.) TO 01 87 (MO. YR.)

SUBMIT WITH SIGNED T-VWX-014

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
X			X			X			X			Elevation of top of well casing with cap off (as specified in well completion report)	feet MSL: to nearest .01		8.20	
X			X			X			X			Elevation of original ground level (as specified in well completion report)	feet MSL: to nearest .01		6.65	
X			X			X			X			Depth to water table from top of casing prior to sampling with cap off	feet: to nearest .01	82546	3.42	
X			X			X			X			Depth to water table from original ground level prior to sampling	feet: to nearest .01	72019	1.87	
X												Arsenic, Dissolved	UG/L as As	01000		
X												Barium, Dissolved	UG/L as Ba	01005		
X			X			X			X			Biochemical Oxygen Demand - 5 Day	MG/L	00310	9.2	
X												Cadmium, Dissolved (total)	UG/L as Cd	01025	10	K
X			X			X			X			Chloride, Dissolved	UG/L as Cl	82295	1100	
												Chromium, Dissolved	UG/L as Cr	01030		
X												Chromium, Dissolved, Hexavalent	UG/L as Cr	01220	50	K
X			X			X			X			Chemical Oxygen Demand (COD), Dissolved	MG/L	00341	29	
X												Coliform Group	N/100 ML	74056	2	K
X			X			X			X			Color	Pt - Co	00080	3.0	
X			X			X			X			Copper, Dissolved	UG/L as Cu	01040	25	K
X												Cyanide, Total	MG/L as CN	00720	25	K
												Endrin, Total	UG/L	39390		
X												Fluoride, Dissolved (total)	MG/L as F	00950	500	K
												Gross Alpha, Dissolved	Pc/L	01503		
												Gross Beta, Dissolved	Pc/L	03503		
X												Hardness, Total as $CaCO_3$	MG/L	00900	210	
X			X			X			X			Iron, Dissolved (total)	UG/L as Fe	01046	5400	
X			X			X			X			Lead, Dissolved (total)	UG/L as Pb	01049	50	K
												Lindane, Total	UG/L	39782		
X												Manganese, Dissolved (total)	UG/L	01056	480	
X												Mercury, Dissolved	UG/L	71890	2.0	K
														29 42 55 68	33 34 46 47 59 60 72 73	40 4 53 5 66 6 79 8

VALUE CODING RULES AND
REMARK CODES ON REVERSE

Form VWX-015 A
4/83

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: D & J Trucking — SW ID NO.: 0714C

LAB NAME: Analytiken 28 Springdale Rd Cherry Hill NJ

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM US
R (1)	NJ 0057517 (2–8)	26-096666-2 (9–16)	870130 (17–22)	04012 (23–27)	☐ (28)

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 01/87 (MO. YR.) TO 01/87 (MO. YR.)

SUBMIT WITH SIGNED T-VWX-014

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE
X			X			X			X			Elevation of top of well casing with cap off (as specified in well completion report)	feet MSL: to nearest .01		22.09
X			X			X			X			Elevation of original ground level (as specified in well completion report)	feet MSL: to nearest .01		20.43
X			X			X			X			Depth to water table from top of casing prior to sampling with cap off	feet: to nearest .01	82546	17.22
X			X			X			X			Depth to water table from original ground level prior to sampling	feet: to nearest .01	72019	15.56
X												Arsenic, Dissolved (TOTAL)	UG/L as As	01000	50
X												Barium, Dissolved (TOTAL)	UG/L as Ba	01005	510 0
X			X			X			X			Biochemical Oxygen Demand - 5 Day	MG/L	00310	14
X												Cadmium, Dissolved	UG/L as Cd	01025	6
X			X			X			X			Chloride, Dissolved (TOTAL)	UG/L as Cl	82295	170000
												Chromium, Dissolved	UG/L as Cr	01030	
X												Chromium, Dissolved, Hexavalent	UG/L as Cr	01220	50
X			X			X			X			Chemical Oxygen Demand (COD), Dissolved	MG/L	00341	83
X												Coliform Group	N/100 ML	74056	2
X			X			X			X			Color	Pt - Co	00080	5
X			X			X			X			Copper, Dissolved (TOTAL)	UG/L as Cu	01040	14
X												Cyanide, Total	MG/L as CN	00720	.025
												Endrin, Total	UG/L	39390	
X												Fluoride, Dissolved (TOTAL)	MG/L as F	00950	.57
												Gross Alpha, Dissolved	Pc/L	01503	
												Gross Beta, Dissolved	Pc/L	03503	
X												Hardness, Total as $CaCO_3$	MG/L	00900	580
X			X			X			X			Iron, Dissolved (TOTAL)	UG/L as Fe	01046	14000
X			X			X			X			Lead, Dissolved (TOTAL)	UG/L as Pb	01049	50
												Lindane, Total	UG/L	39782	
X												Manganese, Dissolved (TOTAL)	UG/L	01056	4900
X												Mercury, Dissolved (TOTAL)	UG/L	71890	2.0

29 42 55 68 — 33 34 46 47 59 60 72 73

VALUE CODING RULES AND
REMARK CODES ON REVERSE

Form VWX-015 A
4/83

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: D & J Trucking — SW ID NO.: 0714C

LAB NAME: Analytikem - 28 Springdale Rd Cherry Hill N.J.

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM USE
R (1)	NJ 0057517 (2–8)	26-09667-3 (9–16)	870130 (17–22)	04012 (23–27)	(28)

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 01 87 (MO. YR.) TO 01 87 (MO. YR.)

SUBMIT WITH SIGNED T-VWX-014

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
X			X			X			X			Elevation of top of well casing with cap off (as specified in well completion report)	feet MSL: to nearest .01		25.47	
X			X			X			X			Elevation of original ground level (as specified in well completion report)	feet MSL: to nearest .01		23.57	
X			X			X			X			Depth to water table from top of casing prior to sampling with cap off	feet: to nearest .01	82546	20.61	
X			X			X			X			Depth to water table from original ground level prior to sampling	feet: to nearest .01	72019	18.71	
X												Arsenic, Dissolved (total)	UG/L as As	01000	50	K
X												Barium, Dissolved (total)	UG/L as Ba	01005	2400	
X			X			X			X			Biochemical Oxygen Demand - 5 Day	MG/L	00310	21	
X												Cadmium, Dissolved	UG/L as Cd	01025	10	K
X			X			X			X			Chloride, Dissolved (total)	UG/L as Cl	82295	14000	
												Chromium, Dissolved	UG/L as Cr	01030		
X												Chromium, Dissolved, Hexavalent	UG/L as Cr	01220	50	K
X			X			X			X			Chemical Oxygen Demand (COD), Dissolved	MG/L	00341	180	
X												Coliform Group	N/100 ML	74056	2	K
X			X			X			X			Color	Pt - Co	00080	25	
X			X			X			X			Copper, Dissolved (total)	UG/L as Cu	01040	14	K
X												Cyanide, Total	MG/L as CN	00720	.025	K
												Endrin, Total	UG/L	39390		
X												Fluoride, Dissolved	MG/L as F	00950	50	
												Gross Alpha, Dissolved	Pc/L	01503		
												Gross Beta, Dissolved	Pc/L	03503		
X												Hardness, Total as $CaCO_3$	MG/L	00900	590	
X			X			X			X			Iron, Dissolved (total)	UG/L as Fe	01046	15000	
X			X			X			X			Lead, Dissolved (total)	UG/L as Pb	01049	50	K
												Lindane, Total	UG/L	39782		
X												Manganese, Dissolved (total)	UG/L	01056	480	
X												Mercury, Dissolved (total)	UG/L	71890	2.0	K

VALUE CODING RULES AND REMARK CODES ON REVERSE

29 42 55 68 — 33 34 46 47 59 60 72 73 — 40 4 53 5 66 6 79 8

Form VWX-015 A
4/83

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: D & J Trucking — SW ID NO.: 0714C

LAB NAME: Analytiken 28 Springdale Rd Cherry Hill N.J.

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM USE
R (1)	NJ 0057517 (2–8)	26-09668-4 (9–16)	870130 (17–22)	64012 (23–27)	(28)

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 01 87 (MO. YR.) TO 01 87 (MO. YR.)

SUBMIT WITH SIGNED T-VWX-014

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE
X			X			X			X			Elevation of top of well casing with cap off (as specified in well completion report)	feet MSL: to nearest .01		7.22
X			X			X			X			Elevation of original ground level (as specified in well completion report)	feet MSL: to nearest .01		6.42
X			X			X			X			Depth to water table from top of casing prior to sampling with cap off	feet: to nearest .01	82546	2.98
X			X			X			X			Depth to water table from original ground level prior to sampling	feet: to nearest .01	72019	2.18
X												Arsenic, Dissolved	UG/L as As	01000	14
X												Barium, Dissolved	UG/L as Ba	01005	1300
X			X			X			X			Biochemical Oxygen Demand - 5 Day	MG/L	00310	0.4
X												Cadmium, Dissolved	UG/L as Cd	01025	
X			X			X			X			Chloride, Dissolved	UG/L as Cl	82295	32000
												Chromium, Dissolved	UG/L as Cr	01030	
X												Chromium, Dissolved, Hexavalent	UG/L as Cr	01220	50
X			X			X			X			Chemical Oxygen Demand (COD), Dissolved	MG/L	00341	26
X												Coliform Group	N/100 ML	74056	13
X			X			X			X			Color	Pt - Co	00080	5
X			X			X			X			Copper, Dissolved (total)	UG/L as Cu	01040	52
X												Cyanide, Total	MG/L as CN	00720	.025
												Endrin, Total	UG/L	39390	
X												Fluoride, Dissolved (total)	MG/L as F	00950	.005
												Gross Alpha, Dissolved	Pc/L	01503	
												Gross Beta, Dissolved	Pc/L	03503	
X												Hardness, Total as $CaCO_3$	MG/L	00900	150
X			X			X			X			Iron, Dissolved (total)	UG/L as Fe	01046	3900
X			X			X			X			Lead, Dissolved (total)	UG/L as Pb	01049	160
												Lindane, Total	UG/L	39782	
X												Manganese, Dissolved (total)	UG/L	01056	1300
X												Mercury, Dissolved (total)	UG/L	71890	6.0

VALUE CODING RULES AND
REMARK CODES ON REVERSE

Diamond Head Oil

WESTON

WESTON

REPORT
ON
INVESTIGATION
OF
OIL CONTAMINATION
IN
"OIL LAKE"
KEARNY , NEW JERSEY

W.O. 1964-01-02

APRIL 1980

Table 18

Analysis of Sample from "Oil Lake"

taken by

Chemfix Division of Carborundum Co., December 1976

Constituents	Raw Sludge (mg/L)
Cadmium (Cd)	5.0
Total Chromium (Cr)	110
Copper (Cu)	44
Iron (Fe)	1000
Lead (Pb)	15,000
Nickel (Ni)	1.0
Zinc (Zn)	1200
Phenol (Ø) and related	84
Cyanide (CN) and related	2.0
Sulfate (SO_4)	250
Mercury (Hg)*	2.0
Chemical Oxygen Demand(COD)	28,000
Suspended Solids	252,200

DEP-081
6/89

F.Y.I, Please File

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

CASE TRANSFER REPORT

The following case is being considered for possible reassignment of lead. See Instructions on back.

ORIGINATING PROGRAM REPORT

1. Bureau/Division HWM - Metro Name of Person Reporting Jane MacBlane Tele # 201 369-5960

2. SITE INFORMATION

A. Name of Site Former Diamond Head Oil Site

Operator vacant - Jeryl Turco Maglio Owner Hudson Meadows Urban Renewal Devel. Corp.

AKA(s) _____ EPA ID # NJD092226000

Address 1401 Harrison Turnpike Case ID # 87 12 30 0900

Municipality Kearny Lot 3, 14, 15 Block 285 County Hudson

Type of Business or Operation formerly oil recycling SIC Code _____ Approx. Acreage 15

B. Environmental Concerns (Check as many as apply, include number of units)

Asbestos		Dumpster		Surface Spill	X	UST (Reg.)	
AGST		Floor Drain		Roof Drain		UST (Nonreg.)	
Bldg. Decont.		Lagoon		Tank Farm		Waste Pile	
Discharge	X	Seepage Pit		Transformer		Unknown	
Drum Storage		Septic System		MVA			
Monitoring Well(s)	5	Potable Well(s)		Other (specify)	landfill / contamination from historical discharges		

If "B" is checked, complete and attach Form DEP-081A on contaminants or to detail other comments.

3. Case Level Determination: C-2 (A-D) A. Provide Priority Score (if available) _____ Ranking System Used: _____

B. Was an RP Search Done? No (Yes/No) C. Project Activity Code Used [redacted] AXU

4. Other NJDEP Programs Involved in this Case are: _____

5. Were Local Officials notified? ☑ Yes ☐ No Date historically Organization Health Dept

ORIGINATING PROGRAM APPROVALS

Janie A MacBlane 7/2/91 — Inspector/Date

[signature] 7/3/91 — Section Chief/Date

[signature] 07-05-91 — Bureau Chief/Date

SITE ASSESSMENT GROUP REVIEW

1. Case Received: (Date) _____ Project Activity Code: _____

Assigned to: _____ (Date) _____

2. Reviewer's Evaluation

A. Case Level Determination _____ (A-D) Public _____ Private _____ Transfer Sequence # _____

Reason for Determination _____

RECEIVING PROGRAM DESIGNATIONS

Per the Case Management Strategy, this case is being:

(1) Transferred to: _____ as the Lead Program

Contact _____ Tele # _____

(2) Referred to:

Bureau _____ Name _____ Action Required _____

Bureau _____ Name _____ Action Required _____

Bureau _____ Name _____ Action Required _____

5. ASSESSMENT APPROVALS

Reviewer/Date — Section Chief/Date — Bureau Chief/Date

COPIES: White - Receiving Program Green - Originating Program Yellow - Tracking

Diamondhead Oil
87 12 30 0900

DEP-081 A
6/89

W JERSEY DEPARTMENT OF ENVIRONMENT. _ PROTECTION

SUPPLEMENTAL CASE TRANSFER REPORT

KNOWN OR POTENTIAL SOURCES OF RELEASE

Page ____ of ____

LOCATION OF CONCERN AND MEDIA AFFECTED	POLLUTANTS		ACTIONS TAKEN
GROUND WATER petroleum hydrocarbons metals Base-neutral compounds volatile organics All found in the groundwater at the site. 5 Monitoring wells on site	SAMPLING FINDINGS MW's - petrol product arsenic, chromium mercury various VO's & BN	CONCENTRATION ACTION LEVEL + See attached data	ACTIONS TAKEN: monitoring wells installed and 2 rounds of samples taken 1-90, 11-90 OUTCOME: significant contam present NEXT STEP: Further investigation delineate petroleum product & recover it. Remediate GW as necessary
SURFACE WATER Samples taken from an on site pond showed low levels of contamination - VO's, acid extractable organics	SAMPLING FINDINGS	CONCENTRATION ACTION LEVEL	ACTIONS TAKEN: 2 samples taken from small pond. OUTCOME: low levels of VO's, AE organics NEXT STEP: - address source - soil & groundwater
SOILS Soil borings were performed with corresponding samples. Contaminants above DEP action levels include metals, semi volatile organics (BNs) Methane gas was detected through a soil gas survey in levels up to 8,000 ppm	SAMPLING FINDINGS chromium, lead, copper, nickel, zinc, arsenic, cadmium mercury. petroleum hydrocarbons various BN compounds	CONCENTRATION ACTION LEVEL	ACTIONS TAKEN: 5 soil borings samples taken OUTCOME: various contaminants found NEXT STEP: Further investigation to determine extent of contam. Possible excavation necessary.
AIR methane may be emitted through the soils	SAMPLING FINDINGS	CONCENTRATION ACTION LEVEL	ACTIONS TAKEN: OUTCOME: NEXT STEP:
OTHER Off site contamination potential should be investigated.	SAMPLING FINDINGS	CONCENTRATION ACTION LEVEL	ACTIONS TAKEN: OUTCOME: NEXT STEP:

BETZ ENVIRONMENTAL ENGINEERS, INC.

ONE PLYMOUTH MEETING MALL • PLYMOUTH MEETING, PENNA 19462 • TELEPHONE: 215 • 825-3800

3

December 2, 1975

Worthington Pump Corporation
401 Worthington Avenue
Harrison, New Jersey 07029

Attention: Mr. C. F. Riechers

Re: Wastewater Characterization

Gentlemen:

We are pleased to report the results of a wastewater characterization performed at your facility on November 17-18, 1975.

Worthington Pump discharges process and sanitary wastewaters to the Passaic Valley Sewerage System. Information obtained from Mr. Riechers established that there are three active lateral sewers conveying the plant wastewaters to the Passaic Valley System. These three sewers are labeled 001, 002 and 003, and are located on the plant print.

Flow measurement and sampling were performed during dry weather, and on a day when production was as close to normal conditions as was possible. An experimental scrubber, which has a wastewater flow during its operation, was not operating during the sampling survey. In all probability, this scrubber will not be in use at all in the future. However, in the event it is put into service on a permanent basis, its wastewater discharge can be sampled and measured for the appropriate reporting.

Specific information relative to flow measurement and sampling techniques are described below:

Flow Measurements

Temporary weirs were installed at sample points 001 (12" rectangular) and 002 (18" rectangular). Head over the weirs was continuously monitored for a twenty-four period (8:00 A.M. November 17 to 8:00 A.M. November 18, 1975) utilizing Bristol Level recording devices. The Francis Formula was used to calculate flow values.

BETZ ENVIRONMENTAL ENGINEERS, Inc.

For: Worthington Pump Corporation
401 Worthington Avenue
Harrison, New Jersey 07029

Date of Report: December 2, 1975

Samples Dated: 11/17-18/75
Received: 11-18-75

	24 Hour Composite 001	002	003	Total lbs per day	Calculated Mg/l based on total flow
Total Solids, mg/l	203 175	83 117	104 130	296.4	163
Total Volatile Solids, mg/l	69.6 60	31.2 44	2.6 33	34.8	19.1
Suspended Solids, mg/l	20.9 18	0.71 1	1.28 16	22.9	12.6
Suspended Volatile Solids, mg/l	7.0 6	0.71 <1	0.48 6	8.2	4.5
Oil & Grease (Freon) mg/l	2.3 2	2.1 3	0.6 7	5.0	2.7
Total Phosphorous as P, mg/l	0.8 0.69	0.18 0.26	0.04 0.52	1.0	0.5
Chloride as Cl, mg/l	24.4 21	10.7 15	1.12 14	36.2	19.9
Turbidity Units	6.7 5.8	2.0 2.8	0.55 6.9	9.3	5.1
COD, mg/l	52.2 45	28.4 40	3.2 40	83.8	46.0
BOD_5, mg/l	11.6 10	8.5 12	0.32 4	20.4	11.2
TOC, mg/l	45.2 39	11.4 16	1.2 15	57.8	31.8
Iron as Fe, mg/l	0.7 0.6	0.14 0.2	0.02 0.3	0.9	0.5
Copper as Cu, mg/l	0.06 0.05	0.03 0.04	0.0032 0.04	0.09	0.05
Hexavalent Chromium as Cr, mg/l	-	0.04 <0.05	0.004 <0.05	0.04	0.02
Total Chromium as Cr, mg/l	-	0.04 <0.05	0.004 <0.05	0.004	0.002
Antimony as Sb, mg/l	-	0.07 <0.1	0.01 <0.1	0.12	0.07
Lead as Pb, mg/l	-	0.06 0.09	0.01 0.10	0.07	0.04
Mercury as Hg, mg/l	-	0.0001 <0.0002	0.000046 <0.0002	0.000116	trace <.001
Vanadium as V, mg/l	-	0.14 <0.2	0.02 <0.2	0.16	0.09
Nickel as Ni, mg/l	-	0.04 0.05	0.0008 0.01	0.04	0.02
Cyanide as CN, mg/l	-	0.0036 <0.005	0.0004 <0.005	0.004	0.002

Renewal Application

Y or N

Applicant is:
Corporation X
Partnership
Other

PASSAIC VALLEY SEWERAGE COMMISSIONERS

SEWER CONNECTION APPLICATION

PART I - SECTIONS A-C

SECTION A: GENERAL INFORMATION

1. Company Name: Worthington Pump Corp. (USA)

2. Location: 401 Worthington Ave.
Harrison, N. J. Zip Code: 07029

3. Mailing Address: Same
Zip Code:

Name, title, address and telephone number of person to contact concerning information provided in this application:

4. Name of Contact Official: Charles F. Riechers CHARLES SLIFKO
Title: Plant Engineer MGR. Phone No.: 484-1234

5. Address: 401 Worthington Ave., Harrison, N. J.

6. Number of Employees - Full Time: 780 Part Time:

7. Number of Work Days Per Week: 5
Number of Shifts Per Day: 2
Is production seasonal? No If so, explain:

8. New Users Only: Indicate date user desires to commence operations:

9. If property is owned, indicate Lot and Block Numbers: 13, 199, 200, 227, 3[illegible]
See Attached Sheet 1979 Assessed Value: Attached

10. If property is rented, indicate name and address of Landlord:
L 1, 5, 9, 13, 23 - Kearny - 1 (2,597,275) + Kearny 9,400 2,607,175

SECTION B: PRODUCT OR SERVICE INFORMATION

11. Brief description of manufacturing or other activity performed:
Manufacture Pumps

12. Principal raw materials used: Iron - Steel - Brass & Alloys

13. Principal products or services: Pumps

E.T.K. #680

REPORT TO THE NEAREST HUNDREDTH: 0.XX (EXCEPT WHERE INDICATED) (EXAMPLE: 0.36 mg/l)		
CODE	PARAMETER	VALUE
1097	Antimony (Sb)	
1002	Arsenic (As)	0.001
1022	Boron (B)	
1027	Cadmium (Cd)	0.025
1034	Chromium Total (Cr)	0.031
1042	Copper (Cu)	0.222
1045	Iron (Fe)	
1051	Lead (Pb)	0.138

REPORT TO THE NEAREST HUNDREDTH: 0.XX (EXCEPT WHERE INDICATED) (EXAMPLE: 0.36 mg/l)		
CODE	PARAMETER	VALUE
1900	Mercury (Report to 0.XXX)	0.037
1067	Nickel (Ni)	0.042
1147	Selenium (Se)	
1077	Siver (Ag)	
1102	Tin (Sn)	
1092	Zinc (Zn)	0.157
4053	Pesticides (Report to 0.XXX)	
2730	Phenol	

29. Samples collected by: E.T. Killam Associates Date: 1/2-3/80

30. Samples analyzed by: E.T. Killam Associates Date: 1/3/80

Products being manufactured when sample was collected:

Pumps

Certification:

The information contained in Part II of this application is familiar to me and, to the best of my knowledge and belief, such information is true, complete, and accurate.

If the applicant is a corporation, a corporate resolution is attached granting me the authority to sign the application on behalf of the corporation.

31. Name of Signing Official: Kenneth M. Fenlon

Title: Vice President Engineering Design Division

Feb 1 1980
Date

Kenneth M. Fenlon
Signature

130-9150

PASSAIC VALLEY SEWERAGE COMMISSIONERS
APPLICATION FOR A SEWER CONNECTION PERMIT

SECTION A

1. Company Name: Worthington Pump Div., Dressser Industries Inc.
2. Permit number if applicable, 13402043
3. Location: 401 Worthington Ave.

   Harrison, N. J. Zip Code: 07029
4. Mailing Address: Same

   Zip Code:
5. Person to contact concerning information provided in this application:

   Name of Contact Official: James Edgar

   Title: Chief Engineer, Power House Phone No. 484-1234

   Address: 401 Worthington Ave., Harrison, N. J. Zip Code 07029
6. Number of Employees - Full Time: 551 Part Time: 0

   Number of Work Days Per Year: 312

   Number of Shifts Per Day: 2
7. If property is owned indicate block and lot numbers:

   See Attached Sheet

   Assessed Value: 19
8. If property is rented indicate name and address of owner:

   N/A

   Total square feet rented:
9. List NJPDES Permit number if applicable, F25 NJ0021016 and

   name of receiving body of water entered P.V.S.C.

SECTION E

ISIS OF INDUSTRIAL WASTE

Analysis for Industrial Waste must be a composite sample taken for each outlet.

OUTLET NO. 13402041

Report to the nearest unit: XX. except where indicated with (1) Example: 15 mg/l			Report to the nearest hundredth: 0.XX except where indicated Example: 0.36 mg/l		
Code	Parameter	Value	Code	Parameter	Value
0200*	Radioactivity (PL-1)		1097*	Antimony (Sb)	
0500	Total Solids	132	1002*	Arsenic (As)	
0510	Total Mineral Solids	121	1022*	Boron (B)	
0530	Total Suspended Solids	3	1027*	Cadmium (Cd)	
0552	Mineral Suspended Solids	0	1034*	Chromium Total (Cr)	
0550 (1)	Emulsified Oil or Grease	2.5	1042*	Copper (Cu)	
0310	Biochemical Oxygen Demand (BOD)	3	1045*	Iron (Fe)	
			1051*	Lead (Pb)	
0340	Chemical Oxygen Demand (COD)	Less than 10	0720	Cyanide (CN)	0.08
			1900	Mercury (Report to 0.XXXX)	Less than 0.001
0680	Total Organic Carbon (TOC)	3	1067*	Nickel (Ni)	
			1147*	Selenium (Se)	
0745* (1)	Sulfide		1077*	Silver (Ag)	
9000 (1)	pH (standard unit range)	7.2MG/L	1102*	Tin (Sn)	
0625* (1)	Kjeldahl N as N		1092*	Zinc (Zn)	
0610* (1)	Ammonia as N		2730*	Phenol	
0507* (1)	Ortho Phosphates as P		4053*	Pesticides (Report to 0.XXX)	
9998* (2)	TTO (Report to 0.XXX)				
			9999 (2)	TTVO (Report to 0.XXX)	

The Parameters marked with a (1) must be reported to the nearesth tenth, i.e., 1.6 mg/l. Those Parameters marked with an asterisk (*) need only be analyzed for if reasonably expected to be present in the discharge. (2) See instructions.

SECTION E

SIS OF INDUSTRIAL WASTE

Analysis for Industrial Waste must be a composite sample taken for each outlet.

OUTLET NO. 13402042

Report to the nearest unit: XX. except where indicated with (1) Example: 15 mg/l			Report to the nearest hundredth: 0.XX except where indicated Example: 0.36 mg/l		
Code	Parameter	Value	Code	Parameter	Value
0200*	Radioactivity (PL-1)		1097*	Antimony (Sb)	
0500	Total Solids	164	1002*	Arsenic (As)	
0510	Total Mineral Solids	99	1022*	Boron (B)	
0530	Total Suspended Solids	4	1027*	Cadmium (Cd)	
0552	Mineral Suspended Solids	0	1034*	Chromium Total (Cr)	
0550 (1)	Emulsified Oil or Grease	0.8	1042*	Copper (Cu)	
0310	Biochemical Oxygen Demand (BOD)	3	1045*	Iron (Fe)	
			1051*	Lead (Pb)	
0340	Chemical Oxygen Demand (COD)	29	0720	Cyanide (CN)	0.01
			1900	Mercury (Report to 0.XXXX)	Less than 0.001
0680	Total Organic Carbon (TOC)	3	1067*	Nickel (Ni)	
			1147*	Selenium (Se)	
0745* (1)	Sulfide		1077*	Silver (Ag)	
9000 (1)	pH (standard unit range)	7.26MG/L	1102*	Tin (Sn)	
0625* (1)	Kjeldahl N as N		1092*	Zinc (Zn)	
0610* (1)	Ammonia as N		2730*	Phenol	
0507* (1)	Ortho Phosphates as P		4053*	Pesticides (Report to 0.XXX)	
9998* (2)	TTO (Report to 0.XXX)		9999(2)	TTVO (Report to 0.XXX)	

The Parameters marked with a (1) must be reported to the nearesth tenth, i.e., 1.6 mg/l. Those Parameters marked with an asterisk (*) need only be analyzed for if reasonably expected to be present in the discharge. (2) See instructions.

SECTION E

SIS OF INDUSTRIAL WASTE

Analysis for Industrial Waste must be a composite sample taken for each outlet.

OUTLET NO. 13402043

Report to the nearest unit: XX. except where indicated with (1) Example: 15 mg/l			Report to the nearest hundredth: 0.XX except where indicated Example: 0.36 mg/l		
Code	Parameter	Value	Code	Parameter	Value
0200*	Radioactivity (PL-1)		1097*	Antimony (Sb)	
0500	Total Solids	216	1002*	Arsenic (As)	
0510	Total Mineral Solids	152	1022*	Boron (B)	
0530	Total Suspended Solids	7	1027*	Cadmium (Cd)	
0552	Mineral Suspended Solids	1	1034*	Chromium Total (Cr)	
0550 (1)	Emulsified Oil or Grease	2.3	1042*	Copper (Cu)	
0310	Biochemical Oxygen Demand (BOD)	12	1045*	Iron (Fe)	
			1051*	Lead (Pb)	
0340	Chemical Oxygen Demand (COD)	68	0720	Cyanide (CN)	0.11
			1900	Mercury (Report to 0.XXXX)	Less Than 0.001
0680	Total Organic Carbon (T.O.C)	11	1067*	Nickel (Ni)	
			1147*	Selenium (Se)	
0745* (1)	Sulfide		1077*	Silver (Ag)	
9000 (1)	pH (standard unit range)	7.76MG/L	1102*	Tin (Sn)	
0625* (1)	Kjeldahl N as N		1092*	Zinc (Zn)	
0610* (1)	Ammonia as N		2730*	Phenol	
0507* (1)	Ortho Phosphates as P		4053*	Pesticides (Report to 0.XXX)	
9998* (2)	TTO (Report to 0.XXX)				
			9999 (2)	TTVO (Report to 0.XXX)	

The Parameters marked with a (1) must be reported to the nearesth tenth, i.e., 1.6 mg/l. Those Parameters marked with an asterisk (*) need only be analyzed for if reasonably expected to be present in the discharge. (2) See instructions.

120-7150

UISCE
AN ENVIRONMENTAL LABORATORY
A SUBSIDIARY OF CFM INCORPORATED
628 ROUTE 10 - WHIPPANY, NEW JERSEY 07981 - (201) 884 2111

January 9, 1986

STATE CERTIFIED WATER LABORATORY
ID. No. 14367

For: Worthington Pump Division
McGraw-Edison Company
401 Worthington Avenue
Harrison, New Jersey 07209

Attention: Mr. James Edgar, Jr.

- [x] CHEMICAL
- [x] PHYSICAL
- [ ] BACTERIOLOGICAL
- [ ] WATER
- [x] WASTEWATER
- [ ] SLUDGE
- [ ] OTHER

Sample Number L-12-19
Page 1 of 1

Sample Description: Wastewater - Composite

Location: #1

Date 12/11/85 Time

We certify that all tests were conducted in accordance with EPA approved methods, and this report is a true representation of the results obtained from our analysis of this material

Laboratory Supervisor

Laboratory Manager

ANALYSIS

PARAMETER	RESULTS
Biochemical Oxygen Demand (5-day), mg/L	3
Total Suspended Solids, mg/L	3
pH, Units	7.20
Total Organic Carbon, mg/L	3
Chemical Oxygen Demand, mg/L	< 10
Cyanide, mg/L	0.08
Mercury, mg/L	< 0.001
Total Solids, mg/L	132
Total Mineral Solids, mg/L	121
Mineral Suspended Solids, mg/L	0
Oil & Grease, mg/L	2.5

< - Less Than

120-7150

UISCE
AN ENVIRONMENTAL LABORATORY
A SUBSIDIARY OF CFM INCORPORATED
638 ROUTE 10 - WHIPPANY, NEW JERSEY 07981 - (201) 884 2111

January 9, 1986

STATE CERTIFIED WATER LABORATORY
ID. No. 14367

For: Worthington Pump Division
McGraw-Edison Company
401 Worthington Avenue
Harrison, New Jersey 07209

Attention: Mr. James Edgar, Jr.

☒ CHEMICAL ☐ WATER
☒ PHYSICAL ☒ WASTEWATER
☐ BACTERIOLOGICAL ☐ SLUDGE
☐ OTHER

Sample Number L-12-20
Page 1 of 1

Sample Description: Wastewater - Composite

Location: #2

Date 12/11/85 Time

We certify that all tests were conducted in accordance with EPA approved methods, and this report is a true representation of the results obtained from our analysis of this material

Laboratory Supervisor

Laboratory Manager

ANALYSIS

PARAMETER	RESULTS
Biochemical Oxygen Demand (5-day), mg/L	3
Total Suspended Solids, mg/L	4
pH, Units	7.26
Total Organic Carbon, mg/L	3
Chemical Oxygen Demand, mg/L	29
Cyanide, mg/L	0.01
Mercury, mg/L	< 0.001
Total Solids, mg/L	164
Total Mineral Solids, mg/L	99
Mineral Suspended Solids, mg/L	0
Oil & Grease, mg/L	0.8

< - Less Than

170-7150

UISCE
AN ENVIRONMENTAL LABORATORY
A SUBSIDIARY OF CFM INCORPORATED
628 ROUTE 10 - WHIPPANY, NEW JERSEY 07981 - (201) 884 2111

January 9, 1986

STATE CERTIFIED WATER LABORATORY
ID. No. 14367

For: Worthington Pump Division
McGraw-Edison Company
401 Worthington Avenue
Harrison, New Jersey 07209

Attention: Mr. James Edgar, Jr.

☒ CHEMICAL ☐ WATER
☒ PHYSICAL ☒ WASTEWATER
☐ BACTERIOLOGICAL ☐ SLUDGE
☐ OTHER

Sample Number L-12-21
Page 1 of 1

Sample Description: Wastewater - Composite

Location: #3

Date 12/11/85 Time

We certify that all tests were conducted in accordance with EPA approved methods, and this report is a true representation of the results obtained from our analysis of this material

Laboratory Supervisor

Laboratory Manager

ANALYSIS

PARAMETER	RESULTS
Biochemical Oxygen Demand (5-day), mg/L	12
Total Suspended Solids, mg/L	7
pH, Units	7.67
Total Organic Carbon, mg/L	11
Chemical Oxygen Demand, mg/L	68
Cyanide, mg/L	0.11
Mercury, mg/L	< 0.001
Total Solids, mg/L	216
Total Mineral Solids, mg/L	152
Mineral Suspended Solids, mg/L	1
Oil & Grease, mg/L	2.3

< - Less Than

JOSEPH M. KEEGAN
CHAIRMAN

THOMAS J. CIFELLI
VICE CHAIRMAN

VCENT CORRADO
ROBERT J. DAVENPORT
RICHARD M. GIACOMARRO
BEN W. GORDON
CHARLES A. LAGOS
COMMISSIONERS

PASSAIC VALLEY SEWERAGE COMMISSIONERS
600 WILSON AVENUE
NEWARK, N. J. 07105
(201) 344-1800

CARMINE T. PERRAPATO
EXECUTIVE DIRECTOR

ROCCO D. RICCI
CHIEF ENGINEER

CHARLES C. CARELLA
CHIEF COUNSEL

NORMAN E. DARMSTATTER
CLERK

October 2, 1980

Worthington Pump Corp. USA
401 Worthington Avenue
Harrison, New Jersey 07029

ATTENTION: Charles Riechers

Re: Pretreatment Limitations-Mercury

Gentlemen:

A PVSC consultant recently completed an extensive study to determine the quantity and sources of various heavy metals which are present in the PVSC influent. The results of this study provided important information to aid PVSC in the design of a process for disposing of the sludge which will be produced when our new secondary treatment plant comes on stream. The quantity of mercury discharged to PVSC is excessive and must be reduced substantially if we are to meet Federal and State air quality standards when the sludge is incinerated. As a result, PVSC will be establishing a stringent pretreatment limitation for mercury in the near future. You will receive a copy of the proposed regulation and notification of the Public Hearing which will be held prior to any action by the Commissioners to adopt a limitation.

We wish to inform you that our consultant detected mercury in the discharge from your facility. Your discharge may or may not exceed the limitations which will be established by PVSC. You are further advised that it will be your responsibility to determine if you meet these pretreatment limitations and if not, to take the necessary action to meet them in the shortest possible time frame.

The pretreatment limitations and any schedule necessary to achieve compliance will be included in the sewer connection permit which will be issued to your company. Since most industrial users affected by the limits on mercury discharged relatively small quantities, a thorough examination of processes, products and especially raw

materials will be necessary to locate the source within your facility. PVSC intends to sample your discharge in the near future, if it has not already been done, and it is absolutely essential that we continue to receive your full cooperation in this important matter.

Very truly yours,

PASSAIC VALLEY SEWERAGE COMMISSIONERS

RDR/ipg

ROCCO D. RICCI, P.E.,
Chief Engineer

000014

McGRAW-EDISON

Worthington

Worthington Group
McGraw-Edison Company
401 Worthington Avenue
Harrison, NJ 07029

201 484 1234

RECEIVED
JAN 23 1982
PASSAIC VALLEY SEWERAGE COMMISSIONERS

January 22, 1982

Mr. Vincent Oliver
Passaic Valley Sewerage Commission
600 Wilson Ave.
Newark, N. J. 07105

131-4244

Dear Mr. Oliver:

Attached is our sewerage monitoring report on BOS and TSS for the period of 9/28/81 to 12/30/81.

If you have any questions, please feel free to call me.

Very truly yours,

Fred Alfano

Fred Alfano

cc: R. Davis
C. J. Slifko

FORM APPROVED
OMB No. 158-R0100

FOR AGENCY USE

STANDARD FORM A–MUNICIPAL

SECTION IV. INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM

Submit a description of each major industrial facility discharging to the municipal system, using a separate Section IV for each facility description. Indicate the 4 digit Standard Industrial Classification (SIC) Code for the industry, the major product or raw material, the flow (in thousand gallons per day), and the characteristics of the wastewater discharged from the industrial facility into the municipal system. Consult Table III for standard measures of products or raw materials. (see instructions)

1. Major Contributing Facility (see instructions)

Name	401a	Worthington Pump Corp., U.S.A.
Number & Street	401b	401 Worthington Ave.
City	401c	Harrison
County	401d	Hudson
State	401e	New Jersey
Zip Code	401f	07029

Superceded 9/81

2. Primary Standard Industrial Classification Code (see instructions) — 402: 3561

3. Principal Product or Raw Material (see instructions)

			Quantity	Units (See Table III)
Product	403a	Pumps & Machinery	50 pumps per week	
Raw Material	403b	ferrous & Non ferrous Metals		

4. Flow: Indicate the volume of water discharged into the municipal system in thousand gallons per day and whether this discharge is intermittent or continuous.
   - 404a: 218.6 thousand gallons per day
   - 404b: ☐ Intermittent (int) ☒ Continuous (con)

5. Pretreatment Provided: Indicate if pretreatment is provided prior to entering the municipal system — 405: ☐ Yes ☒ No

A

6. Characteristics of Wastewater (see instructions)

VALUES CALCULATED FROM 3 SEPARATE OUTFALLS

406a	Parameter Name	TS	TSS	OIL & GREASE	PHOS.	CHLOR.	TURB.	COD	BOD
	Parameter Number	00500	00530	00550	–	00940	00070	00340	00310
406b	Value	163	19.1	2.7	0.5	19.9	5.1	46.0	11.2

TOC	Fe	Cu	Cr(Hex)	Cr(Tot)	Sb	Pb	Hg	V
00680	01045	01042	–	01034	01105	01051	71900	----
31.8	0.5	0.05	0.02	0.002	0.07	0.04	<0.001	0.09

Ni	Cn
01067	10720
0.02	0.002

This section contains 1 page.

EPA Form 7550-22 (7-73)
GPO 665-706

2/16

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WASTE MANAGEMENT
HAZARDOUS SITE MITIGATION ADMINISTRATION
BUREAU OF INDUSTRIAL SITE EVALUATION

ENVIRONMENTAL CLEANUP RESPONSIBILITY ACT (ECRA)

APPLICATION FOR ECRA REVIEW

SITE EVALUATION SUBMISSION

This is the second part of a two part application submittal and must be submitted within 30 days following public release of the decision to close operations or execution of an agreement of sale or option to purchase.

DATE January 18, 1985

NAME OF APPLICANT McGraw-Edison

ADDRESS 401 Worthington Avenue

CITY OR TOWN Harrison ZIP CODE 07029

MUNICIPALITY Harrison COUNTY Hudson

SUBMIT THE FOLLOWING:

9. A scaled site map identifying all areas where hazardous substances or wastes have been or currently are generated, manufactured, refined, transported, treated, stored, handled or disposed, above or below ground.

   IS THIS MAP ENCLOSED? X YES, (See Appendix # 1) ___ NO

10. A detailed description of the current operations and process at the industrial establishment organized in the form of a narrative report designed to guide the Department step-by-step through a plant evaluation, with particular emphasis on areas of the process stream where hazardous substances and wastes are generated, manufactured, refined, transported, treated, stored, handled or disposed on site, above or below ground. Please note that establishments which ceased production prior to December 31, 1983, but are subject to ECRA because of on-going storage beyond that date, must provide details on past operations.

    IS THIS REPORT ENCLOSED? X YES, (See Appendix # 2) ___ NO

    IF YOU HAVE CHECKED "NO," STATE THE REASON(S): _____

FOR DEP USE ONLY

DATE RECEIVED _____

NOTICE NUMBER

APPENDIX 2

CURRENT OPERATIONS

The Worthington Pump Division of the McGraw-Edison Company at the Harrison, New Jersey facility manufactures specialized pumps and steel castings. Its major role is to assemble pumps and distribute parts.

The plant receives raw castings and finished parts from outside vendors. The raw castings are sent to the machine shop where they are cut, drilled, etc., to specifications and are then washed in a kerosene or methylene chloride solution for cleaning purposes. After washing, the products are sent to the storeroom to await assembly. Finished parts, are removed from the storeroom prior to use, washed in the cleaning solution and dispersed to the assemblers. The assemblers take the cleaned parts and assemble the pumps. The pumps are then hydrotested with city water. After testing, the water is dumped into a holding tank and is recycled. The assembled pumps are sent next to the assembly line-up area. There, the pumps are attached with either a motor, or a base plate, or left unmodified. The assembled pumps, with or without attachments, are sent to the paint booth where they are painted. Finally the pumps are shipped out of the plant.

The hazardous substances employed in the plant are used in the following manner:

SUBSTANCE	USE
Gasoline, propane, petroleum oils	Motor fuel/heating throughout the plant
Batteries, Brake Fluid, Bromates	Mobile vehicles/antifreeze throughout the plant
Mercury compounts, Mercury	Used in pressure testing gauges in Building 4
Asbestos	In insulation throughout the plant
Refrigerant gases	HVAC system throughout the plant
Paint, thinners	Applied to finished products in paint booth

APPENDIX 3

STORAGE FACILITIES

TYPE	AGE	CONSTRUCTION MATERIAL	CAPACITY	CONTENT	LOCATION
Above Ground	-	Steel	10,000 gal	Liquid Oxygen	Yard
Under Ground (2)	-	Concrete	10,000 gal	No. 2 Fuel Oil	Yard
Above Ground	-	Steel	200,000 gal	No. 6 Fuel Oil	Yard
Under Ground	-	Concrete	30,000 gal	No. 2 Fuel Oil	Yard
Under Ground	-	Fiberglass	5,000 gal	Gasoline	Yard
Above Ground	-	Steel	10,000 gal	Propane	Yard
Drums (30-55 gal)	New	Steel	---	Kerosen Isopropal Alcohol Methylene Chloride	Storage
Can (1-5 gal)	New	---	---	Paint Thinners Brake Fluid Xylenes Naphtha	Paint Locker/ Foundry Storage
Cylinder	-	Steel	---	Ammonia Refrigerant Gases	Storage
Bottles	New	Plastic	---	Mercury Comp.	Storage
Transformer (14)	-	---	---	PCB oil	Yard
Bottles	New	Glass	---	Bromates	Storage
Box	New	---	---	Batteries	Storage

120-7150 000024

Worthington DRESSER

WORTHINGTON PUMP DIVISION, DRESSER INDUSTRIES, INC.
401 WORTHINGTON AVENUE - HARRISON, NJ 07029 - 201/484-1234

Jan. 13, 1986

Mr. Harry Carscadden
Passaic Valley Sewerage Commission
600 Wilson Ave.
Newark, N. J. 07105

Dear Mar. Carscadden:

Enclosed are water test results required to complete our application for renewal of our Sewer Connection Permit #13402043.

If there are any further questions, feel free to contact me.

Very truly yours,

James Edgar

James Edgar
Chief Engineer
Power House

120-7150

UISCÉ
AN ENVIRONMENTAL LABORATORY
A SUBSIDIARY OF CFM INCORPORATED
628 ROUTE 10 - WHIPPANY, NEW JERSEY 07981 - (201) 884-2111

January 9, 1986

STATE CERTIFIED WATER LABORATORY
ID. No. 14367

For: Worthington Pump Division
McGraw-Edison Company
401 Worthington Avenue
Harrison, New Jersey 07209

Attention: Mr. James Edgar, Jr.

☒ CHEMICAL ☐ WATER
☒ PHYSICAL ☒ WASTEWATER
☐ BACTERIOLOGICAL ☐ SLUDGE
☐ OTHER

Sample Number L-12-19
Page 1 of 1

Sample Description: Wastewater - Composite

Location: #1

Date 12/11/85 Time

We certify that all tests were conducted in accordance with EPA approved methods, and this report is a true representation of the results obtained from our analysis of this material

Laboratory Supervisor

Laboratory Manager

ANALYSIS

PARAMETER	RESULTS
Biochemical Oxygen Demand (5-day), mg/L	3
Total Suspended Solids, mg/L	3
pH, Units	7.20
Total Organic Carbon, mg/L	3
Chemical Oxygen Demand, mg/L	< 10
Cyanide, mg/L	0.08
Mercury, mg/L	< 0.001
Total Solids, mg/L	132
Total Mineral Solids, mg/L	121
Mineral Suspended Solids, mg/L	0
Oil & Grease, mg/L	2.5

< - Less Than

120-7150

UISCÉ
AN ENVIRONMENTAL LABORATORY
A SUBSIDIARY OF CFM INCORPORATED
628 ROUTE 10 - WHIPPANY, NEW JERSEY 07981 - (201) 884-2111

January 9, 1986

STATE CERTIFIED WATER LABORATORY
ID. No. 14367

For: Worthington Pump Division
McGraw-Edison Company
401 Worthington Avenue
Harrison, New Jersey 07209

Attention: Mr. James Edgar, Jr.

☒ CHEMICAL
☒ PHYSICAL
☐ BACTERIOLOGICAL

☐ WATER
☒ WASTEWATER
☐ SLUDGE
☐ OTHER

Sample Number L-12-20
Page 1 of 1

Sample Description: Wastewater - Composite

Location: #2

Date 12/11/85 Time

We certify that all tests were conducted in accordance with EPA approved methods, and this report is a true representation of the results obtained from our analysis of this material

Laboratory Supervisor

Laboratory Manager

ANALYSIS

PARAMETER	RESULTS
Biochemical Oxygen Demand (5-day), mg/L	3
Total Suspended Solids, mg/L	4
pH, Units	7.26
Total Organic Carbon, mg/L	3
Chemical Oxygen Demand, mg/L	29
Cyanide, mg/L	0.01
Mercury, mg/L	< 0.001
Total Solids, mg/L	164
Total Mineral Solids, mg/L	99
Mineral Suspended Solids, mg/L	0
Oil & Grease, mg/L	0.8

< - Less Than

120-7150

UISCÉ
AN ENVIRONMENTAL LABORATORY
A SUBSIDIARY OF CFM INCORPORATED
628 ROUTE 10 - WHIPPANY, NEW JERSEY 07981 - (201) 884-2111

January 9, 1986

STATE CERTIFIED WATER LABORATORY
ID. No. 14367

For: Worthington Pump Division
McGraw-Edison Company
401 Worthington Avenue
Harrison, New Jersey 07209

Attention: Mr. James Edgar, Jr.

☒ CHEMICAL ☐ WATER
☒ PHYSICAL ☒ WASTEWATER
☐ BACTERIOLOGICAL ☐ SLUDGE
☐ OTHER

Sample Number L-12-21
Page 1 of 1

Sample Description: Wastewater - Composite

Location: #3

Date 12/11/85 Time

We certify that all tests were conducted in accordance with EPA approved methods, and this report is a true representation of the results obtained from our analysis of this material

Laboratory Supervisor

Laboratory Manager

ANALYSIS

PARAMETER	RESULTS
Biochemical Oxygen Demand (5-day), mg/L	12
Total Suspended Solids, mg/L	7
pH, Units	7.67
Total Organic Carbon, mg/L	11
Chemical Oxygen Demand, mg/L	68
Cyanide, mg/L	0.11
Mercury, mg/L	< 0.001
Total Solids, mg/L	216
Total Mineral Solids, mg/L	152
Mineral Suspended Solids, mg/L	1
Oil & Grease, mg/L	2.3

< - Less Than

DRESSER PUMP DIVISION DRESSER

Dresser Pump Division, Dresser Industries, Inc.
401 Worthington Avenue • Harrison, NJ 07029-2097 • 201/484-1234

June 9, 1988

NJDEP-RTK SURVEY
CN 405
Trenton, N.J. 08625-0105

COPY

Dear Sirs:

Enclosed please find your copy of the "The New Jersey Right To Know Survey" for the following Manufacturing Facility located in Harrison, New Jersey:

Dresser Pump Division, Dresser Industries, Inc.
Worthington Division - Worthington & Pacific Pumps
401 Worthington Avenue
Harrison, New Jersey 07029

Copies of the "NJDEP-RTK Survey" have been sent to the following local and county agencies or departments.

Harrison Fire Dept.
7th & Sussex St.
Harrison, N.J. 07029

Hudson Regional Health Commission
215 Harrison Avenue
Harrison, N.J. 07029

Harrison Police Dept.
321 Cleveland Ave.
Harrison, N.J. 07029

Mr. Edward Doran
Harrison Town O.E.M.
Fire House
7th & Sussex Street
Harrison, N.J. 07029

Respectfully submitted,

John A. Rapetsky

John A. Rapetsky
Manager, Maintenance
Dresser Industries
401 Worthington Ave.
Harrison, N.J. 07029

[illegible] read all instructions before completing.
Photocopy this sheet, if you need additional forms.
Please print or type all responses.

COPY

Page [illegible]

Reporting Period: January 1 - December 31, _____

FACILITY IDENTIFICATION AND SITE LOCATION

NJEIN NJD 980786222

Street Address 401 Worthington Ave

Facility Name Worthington Division

City Harrison State NJ Zip 07029

CHEMICAL DESCRIPTION	HAZARDS	Inventory (Ranges)	STORAGE CODES AND LOCATIONS
Substance Name Isopropyl Alchohol CAS No. 67-63-0 DOT No. 1219 Substance No. (if available) 1076 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if Claiming)	(Enter for all that apply.) 70, 67, ___, ___, ___, ___	(Enter Code) Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	(Enter Codes, except Location(s); supply narrative.) Container 47 Conditions 01 04 Location(s) Bldg 3 - Center, Garage
Substance Name Lead CAS No. 7439-92-1 DOT No. ___ Substance No. (if available) 1096 Percent 51 (Code) State S (Code) Trade Secret ☐ (Check if Claiming)	66, ___, ___, ___, ___	Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 37 Conditions 01 04 Location(s) Bldg 1, Bldg 3 - various castings
Substance Name Liquified Petroleum Gas CAS No. 68476-85-7 DOT No. 1075 Substance No. (if available) 1118 Percent 60 (Code) State G (Code) Trade Secret ☐ (Check if Claiming)	70, 69, 67, ___, ___	Max. Daily 14 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 50 Conditions 02 04 Location(s) Outside Garage
Substance Name Mercury CAS No. 7439-97-6 DOT No. 2025 Substance No. (if available) 1183 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if Claiming)	66, ___, ___, ___, ___	Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 38 Conditions 01 04 Location(s) Bldg 55, Bldg 3 "south end"
Substance Name 111 Trichloroethane CAS No. 71-55-6 DOT No. 2831 Substance No. (if available) 1237 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if Claiming)	68, 67, 66, ___, ___	Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01 04 Location(s) Bldg 2 "Paint area", Bldg 2a "Hi shop"
Substance Name Naptha CAS No. 8030-30-6 DOT No. 1115 Substance No. (if available) 0206 Percent 57 (Code) State L (Code) Trade Secret ☐ (Check if Claiming)	70, 69, 67, 66, ___	Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01 04 Location(s) Bldg 2 - "Parts Washer Paint Areas"
Substance Name Nickel CAS No. 7440-02-0 DOT No. ___ Substance No. (if available) 1341 Percent 52 (Code) State S (Code) Trade Secret ☐ (Check if Claiming)	66, ___, ___, ___, ___	Max. Daily 10 Avg. Daily 10 Days Onsite ___ (Actual Number)	Container 37 Conditions 01 04 Location(s) Bldg 1, Bldg 3 "various castings"

See instruction Booklet for codes.

DRESSER PUMP DIVISION DRESSER

Dresser Pump Division, Dresser Industries, Inc.
401 Worthington Avenue • Harrison, NJ 07029-2097 • 201/484-1234

September 19, 1989

COPY

NJDEP-RTK SURVEY
CN 405
Trenton, N.J. 08625-0405

Dear Sirs:

Enclosed please find your copy of the "The New Jersey Right To Know Survey" for the following Manufacturing Facility located in Harrison, New Jersey:

Dresser Pump Division, Dresser Industries, Inc.
Worthington Division - Worthington & Pacific Pumps
401 Worthington Avenue
Harrison, New Jersey 07029

Copies of the "NJDEP-RTK Survey" have been sent to the following local and county agencies or departments.

Harrison Fire Dept.
7th & Sussex St.
Harrison, N.J. 07029

Harrison Police Dept.
321 Cleveland Ave.
Harrison, N.J. 07029

Hudson Regional Health Commission
215 Harrison Avenue
Harrison, N.J. 07029

Mr. Edward Doran
Harrison Town O.E.M.
Fire House
7th & Sussex Street
Harrison, N.J. 07029

Respectfully submitted,

John A. Rapetsky

John A.Rapetsky
Manager, Maintenance
Dresser Industries
401 Worthington Ave.
Harrison, N.J. 07029

Reporting Period: January 1 - December 31, 1988

FACILITY IDENTIFICATION AND SITE LOCATION

NJEIN N-J D 980786222

Facility Name DRESSER PUMP/WORTHINGTON

Street Address 401 WORTHINGTON AVENUE

City HARRISON State N.J. Zip 07029

CHEMICAL DESCRIPTION	HAZARDS	Inventory (Ranges)	STORAGE CODES AND LOCATIONS
Substance Name Isopropyl Alcohol CAS No 67-63-0 DOT No. 1219 Substance No. (if available) 1076 Percent 60 State L Trade Secret ☐ (Code) (Code) (Check if Claiming)	(Enter for all that apply) 70.67	(Enter Code) Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	(Enter Codes, except Location(s), supply narrative) Container 47 Conditions 01 04 Location(s) Bldg #3 & GARAGE
Substance Name Lead CAS No. 7439-92-1 DOT No. Substance No. (if available) 1096 Percent 51 State S Trade Secret ☐ (Code) (Code) (Check if Claiming)	66	Max. Daily 12 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 37 Conditions 01 04 Location(s) Bldgs #1, 2 & 3 CASTING Content
Substance Name Liquified Petroleum Gas CAS No. 68476-85-7 DOT No. 1075 Substance No. (if available) 1118 Percent 60 State G(L) Trade Secret ☐ (Code) (Code) (Check if Claiming)	70 69 67	Max. Daily 13 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 50 Conditions 02 04 Location(s) at GARAGE
Substance Name Mercury CAS No. 7439-97-6 DOT No. 2025 Substance No. (if available) 1237 Percent 60 State L Trade Secret ☐ (Code) (Code) (Check if Claiming)	66	Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 38 Conditions 01 04 Location(s) Bldg #3 & 55
Substance Name 1,1,1 Trichloroethane CAS No. 71-55-6 DOT No. 2831 Substance No. (if available) 1237 Percent 60 State Trade Secret ☐ (Code) (Code) (Check if Claiming)	66 67 66	Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01 04 Location(s) Bldg #2, 24 & Paint Shop
Substance Name Naptha CAS No. 8030-30-6 DOT No. 1115 Substance No. (if available) 0206 Percent 57 State L Trade Secret ☐ (Code) (Code) (Check if Claiming)	70 64 67 66	Max. Daily 13 Avg. Daily 13 Days Onsite (Actual Number)	Container 47 Conditions 01 04 Location(s) Bldgs #1, 2, 3 & Garage Parts washers
Substance Name Nickel CAS No. 7440-02-0 DOT No. Substance No. (if available) 1341 Percent 52 State S Trade Secret ☐ (Code) (Code) (Check if Claiming)	66	Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 37 Conditions 01 04 Location(s) Bldgs #1, 2, 3, 4 & 55 CASTINGS

SUPPLEMENTAL SAMPLING PLAN RESULTS
WORTHINGTON/DRESSER PUMP
HARRISON, NEW JERSEY

ACO ECRA CASE NUMBER 85034

VOLUME I

SUMMARY OF FINDINGS AND
PROPOSED REMEDIAL ACTIVITIES

Prepared for:

Cooper Industries
Houston, Texas

Prepared by:

Caswell, Eichler and Hill, Inc.
Portsmouth, New Hampshire

and

Columbia, Maryland

May 31, 1990

TABLE 6. NJDEP CLEAN-UP LEVELS

Constituent	Soil Concentration (ug/g)	Ground Water Concentration (mg/L)
Priority Pollutant Metals		
Antimony	---	---
Arsenic	20	0.05
Barium	400	1.0
Beryllium	---	---
Cadmium	3	0.01
Chromium	100	0.05
Copper	170	---
Lead	100 (500*)	0.05
Mercury	1	0.002
Nickel	100	---
Silver	5	0.05
Selenium	4	0.01
Thallium	---	---
Zinc	350	5.0
Total Volatile Organics	1	0.01
Total Base/Neutral Organics	10	0.05
Total Petroleum Hydrocarbons	100 (200*)	1.0
Total Polychlorinated Biphenyls	1	0.001
Total Cyanides	12	0.2

--- Denotes information not listed in N.J.A.C. 7:9-6.6 (New Jersey Water Pollution Control Act)

* Background levels determined during initial sampling, 1989

Method Blanks and Field Trip Blanks - It should be noted that a few constituents were repeatedly detected in field and trip blanks for soil samples. With respect to volatile organic compounds, methylene chloride was found in nearly all samples analyzed. Typically, the concentrations detected were between 0.002 mg/L and 0.006 mg/L, although 0.02 mg/L was detected in a few instances. In some samples, the data sheets label the concentration with a "B" modifier signifying that methylene chloride was also found in the laboratory method blank. Concentrations labelled "B" were added into total concentrations. However, sufficient contamination was usually present to render the samples above the CUL regardless of these "B" concentrations. This was the case in 32.6% of those samples in which methylene chloride was detected. Toluene was also present in some of the field and trip blanks at low levels of 0.001 mg/L to 0.002 mg/L. Acetone occurred as a contaminant in 31% of the field and trip blanks at concentrations ranging from 0.037 mg/L to 0.601 mg/L. Neither methylene chloride or toluene was used for any purpose during supplemental sampling. Acetone was used as a part of the decontamination procedure for the small sampling tools (trowels, spoons, etc.), but these tools were used to collect only a small number of samples. The most ubiquitous semi-volatile compound was bis-2-ethylhexyl phthalate which was found in 61% of the field blanks. Also, 46% of the samples analyzed for semi-volatiles indicated that this constituent was detected in the method blanks associated with these samples.

TABLE 7. ANALYSES PERFORMED ON SAMPLES COLLECTED IN FOUNDRY-INTERNAL AREA

Sample Designation	Sample Interval (feet)	MATRIX	PHC'S(1)	BN+15(2)	ABN+25(3)	VO+15(4)	PCB'S(5)	Cu	Cr	Ni	Hg
FI-MP-1A	(0.5-1.0)	soil/sediment	X	X			X	X	X	X	X
FI-MP-2A	(0.5-1.0)	soil/sediment	X	X			X	X	X	X	X
FI-MP-2C	(4.5-5.0)	soil/sediment	X	X			X	X	X	X	X
* FI-MP-3A	(0.5-1.0)	soil/sediment	X	X			X	X	X	X	X
* FI-MP-3A(dup)	(0.5-1.0)	soil/sediment	X	X			X	X	X	X	X
* FI-MP-3C	(4.5-5.0)	soil/sediment	X	X			X	X	X	X	X
* FI-MP-4A	(0.5-1.0)	soil/sediment	X	X			X	X	X	X	X
FI-MP-5A	(0.5-1.0)	soil/sediment	X	X			X	X	X	X	X
FI-MP-6C	(4.5-5.0)	soil/sediment	X	X			X	X	X	X	X
FI-MP-7B	(2.5-3.0)	soil/sediment	X	X			X	X	X	X	X
FI-MP-7B(dup)	(2.5-3.0)	soil/sediment	X	X			X	X	X	X	X
FI-MP-8A	(0.5-1.0)	soil/sediment	X	X			X	X	X	X	X
OPEN SUMP - 1	grab	soil/sediment	X		X	X					
OPEN SUMP - 2	grab	soil/sediment	X		X	X					
OPEN SUMP - 3	grab	soil/sediment	X		X	X					
OPEN SUMP - 4	grab	soil/sediment	X		X	X					
OPEN SUMP - 5	grab	soil/sediment	X		X	X					
OPEN SUMP - 6	grab	soil/sediment	X		X	X					
OPEN SUMP - 7	grab	soil/sediment	X		X	X					
OPEN SUMP - 7(bottom)	(1.5-2.0)	soil/sediment	X		X	X					
OPEN SUMP - 8	grab	soil/sediment	X		X	X					
OPEN SUMP - 9	grab	soil/sediment	X		X	X					
OPEN SUMP - 10	grab	soil/sediment	X		X	X					
OPEN SUMP - 11	grab	soil/sediment	X		X	X					
OPEN SUMP - 11(dup)	grab	soil/sediment	X		X	X					
OPEN SUMP - 12	grab	soil/sediment	X		X	X					
OPEN SUMP - 13	grab	soil/sediment	X		X	X					
OPEN SUMP - 14	grab	soil/sediment	X		X	X					
SAND PILE - 1	grab	soil/sediment	X	X							
SAND PILE -1(dup)	grab	soil/sediment	X	X							
PB-2B	(13.5-14.0)	soil/sediment	X								
PB-4E	(14.5-15.0)	soil/sediment	X								
PB-10C	(12.5-13.0)	soil/sediment	X								
PB-11E	(21.0-21.5)	soil/sediment	X								
PB-11E(dup)	(21.0-21.5)	soil/sediment	X								
PB-12E	(16.5-17.0)	soil/sediment	X								
PB-12(dup)	(16.5-17.0)	soil/sediment	X								

(1) Petroleum Hydrocarbons
(2) Base Neutral Extractable Compounds plus 15 Unknowns
(3) Acid/Base Neutral Extractable Compounds plus 25 Unknowns
(4) Volatile Organics Plus 15 Unknowns
(5) Polychlorinated Biphenyls
* - Sample submittal criteria was highest MicroTIP reading from area

TABLE 17. METALS IN SOIL

FOUNDRY-EXTERNAL (NORTH)

Sample Designation	Sample Interval (feet)	Sample Date	Field Blank	Method Blank	Metals (ug/g) Antimony	Arsenic	Beryllium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
FEN-CW-1A	(3.5-4.0)	2/23/90	2/23/90	P	1.95	0.843	0.466	11.5	9.01	5.68	ND	15.0	33.6
FEN-CW-2A	(3.5-4.0)	2/26/90	2/26/90	Q	0.607	2.54	0.67	14.5	8.32	9.12	0.138	19.6	56.8
FEN-CW-3A	(3.5-4.0)	3/2/90	3/2/90	V	0.395	3.99	0.545	11.2	19.0	37.9	0.907	ND	48.3
FEN-CW-4A	(3.5-4.0)	3/2/90	3/2/90	V	ND	1.15	0.325	12.3	7.06	3.98	ND	ND	21.9

ND - Not detected
* - Detected at concentration above NJDEP CUL

TABLE 28. METALS IN SOIL AND SEDIMENT

EASTERN PROPERTY LINE

Sample Designation	Sample Interval (feet)	Sample Date	Field Blank	Method Blank	METALS (ug/g) Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Thallium	Zinc
EPL-4h3-1B	(4.5-5.0)	3/07/90	3/07/90	X	ND	0.606	0.560	ND	9.68	15.8	3.4	ND	20.0	ND	ND	41.1
EPL-4h3-1A	(4.5-5.0)	3/07/90	3/07/90	X	ND	0.855	0.631	ND	12.2	24.0	5.56	ND	26.3	ND	ND	61.1
EPL-AD-1A	(0.5-1.0)	2/12/90	2/12/90	F	NA	NA	NA	NA	146 *	368 *	NA	0.160	173 *	NA	NA	NA
EPL-AD-1B	(5.0-5.5)	2/23/90	2/23/90	O	NA	NA	NA	NA	11.1	11.4	NA	ND	23.2	NA	NA	NA
EPL-AD-1C	(9.5-10.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	10.3	7.76	NA	ND	14.1	NA	NA	NA
EPL-AD-2A	(0.5-1.0)	2/12/90	2/12/90	F	NA	NA	NA	NA	34.1	92.6	NA	1.23 *	35.7	NA	NA	NA
EPL-AD-2B	(5.0-5.5)	2/23/90	2/23/90	O	NA	NA	NA	NA	3.8	8.69	NA	ND	6.53	NA	NA	NA
EPL-AD-2C	(9.5-10.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	5.66	6.95	NA	ND	8.16	NA	NA	NA
EPL-AD-3A	(0.5-1.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	18.6	235 *	NA	1.18 *	22.4	NA	NA	NA
EPL-AD-3B	(5.0-5.5)	2/23/90	2/23/90	O	NA	NA	NA	NA	3.62	5.17	NA	ND	6.07	NA	NA	NA
EPL-AD-3C	(9.5-10.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	3.32	5.30	NA	ND	4.8	NA	NA	NA
EPL-AD-4A	(0.5-1.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	8.89	84.9	NA	0.774	8.17	NA	NA	NA
EPL-AD-4B	(5.0-5.5)	2/23/90	2/23/90	O	NA	NA	NA	NA	4.15	6.11	NA	ND	6.84	NA	NA	NA
EPL-AD-4C	(9.5-10.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	2.39	3.56	NA	ND	4.63	NA	NA	NA
EPL-AD-5A	(0.5-1.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	8.71	62.0	NA	0.359	10.0	NA	NA	NA
EPL-AD-5B	(5.0-5.5)	2/23/90	2/23/90	O	NA	NA	NA	NA	7.54	13.4	NA	ND	12.4	NA	NA	NA
EPL-AD-5C	(9.5-10.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	2.96	5.03	NA	0.137	4.68	NA	NA	NA
EPL-AD-6A	(0.5-1.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	23.2	72.8	NA	0.572	22.1	NA	NA	NA
EPL-AD-6B	(5.0-5.5)	2/23/90	2/23/90	O	NA	NA	NA	NA	5.90	18.0	NA	ND	10.0	NA	NA	NA
EPL-AD-6C	(9.5-10.0)	2/23/90	2/23/90	O	NA	NA	NA	NA	4.46	8.31	NA	0.945	8.53	NA	NA	NA
EPL-AD-7A	(0.5-1.0)	2/26/90	2/26/90	O	NA	NA	NA	NA	35.5	135	NA	0.691	48.8	NA	NA	NA
EPL-AD-7B	(5.0-5.5)	2/26/90	2/26/90	Q	NA	NA	NA	NA	12.3	21.8	NA	0.134	23.5	NA	NA	9
EPL-AD-7C	(9.5-10.0)	2/26/90	2/26/90	Q	NA	NA	NA	NA	15.7	12.1	NA	ND	24.6	NA	NA	NA
EPL-AD-8A	(0.5-1.0)	2/26/90	2/26/90	Q	NA	NA	NA	NA	93.4	149	NA	0.103	77.0	NA	NA	NA
EPL-AD-8B	(5.0-5.5)	2/26/90	2/26/90	Q	NA	NA	NA	NA	14.7	23.4	NA	ND	23.0	NA	NA	NA
EPL-AD-8C	(9.5-10.0)	2/26/90	2/26/90	Q	NA	NA	NA	NA	17.3	22.2	NA	ND	26.2	NA	NA	NA
EPL-PS-1C	(4.5-5.0)	2/21/90	2/21/90	Q	ND	1.28	0.534	ND	11.2	16.4	16.7	ND	16.6	ND	ND	37.3
EPL-PS-2A	(0.5-1.0)	2/21/90	2/21/90	M	0.661	5.31	0.629	ND	84.0	239 *	77.8	0.120	34.8	0.515	0.267	128

ND - Not detected
NA - Not analyzed
* - Concentration exceeds NJDEP DUL

(41)

TABLE 28. METALS IN SOIL AND SEDIMENT

EASTERN PROPERTY LINE

Sample Designation	Sample Interval (feet)	Sample Date	Field Blank	Method Blank	METALS (ug/g) Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Thallium	Zinc
EPL-PS-2B	(2.5-3.0)	2/21/90	2/21/90	M	ND	2.29	0.455	ND	9.82	12.8	11.2	0.140	13.7	ND	ND	30.4
EPL-PS-2C	(4.5-5.0)	2/21/90	2/21/90	M	1.12	2.96	0.483	ND	12.5	10.5	27.4	0.174	14.2	ND	ND	35.2
EPL-PS-2D	(11.5-12.0)	2/21/90	2/21/90	M	ND	0.955	0.408	ND	7.08	10.1	2.64	0.104	11.7	ND	ND	21.9
EPL-PS-3C	(4.5-5.0)	2/21/90	2/21/90	M	0.467	0.962	0.455	ND	10.1	20.6	4.23	0.0848	14.6	ND	ND	32.3
EPL-PS-4C	(4.5-5.0)	2/21/90	2/21/90	M	ND	0.560	0.553	ND	11.9	20.5	5.20	0.123	22.5	ND	ND	47.3
EPL-PS-5A	(0.5-1.0)	2/22/90	2/22/90	N	ND	8.30	0.310	ND	10.8	531 *	195	0.131	12.2	0.555	ND	586 *
EPL-PS-5D	(9.5-10.0)	2/22/90	2/22/90	N	ND	0.758	0.355	ND	6.52	9.10	4.13	ND	12.6	ND	ND	9
EPL-PS-6C	(4.5-5.0)	2/22/90	2/22/90	N	ND	1.58	0.330	ND	9.43	7.73	5.38	ND	9.86	ND	ND	22.6
EPL-PS-6C (dup)	(4.5-5.0)	2/22/90	2/22/90	N	ND	1.87	0.369	ND	11.7	8.27	5.79	ND	11.9	ND	ND	28.9
EPL-PS-7D	(12.0-12.5)	2/22/90	2/22/90	N	ND	1.37	0.375	ND	7.44	8.87	3.93	ND	13.8	ND	ND	24.1
EPL-PS-8C	(5.0-5.5)	2/22/90	2/22/90	N	ND	0.996	8.07	6.64 *	39.9	34.2	4.72	ND	85.3	ND	ND	101
EPL-PS-9A	(0.5-1.0)	3/9/90	3/9/90	Z	0.442	2.36	0.413	ND	8.89	225 *	71.9	0.134	12.5	ND	ND	179
EPL-SP-1A	(0.5-1.0)	2/26/90	2/26/90	Q	NA	NA	NA	NA	14.7	40.0	NA	0.283	22.7	NA	NA	NA
EPL-SP-1B	(5.0-5.5)	2/26/90	2/26/90	Q	NA	NA	NA	NA	12.8	25.0	NA	ND	14.6	NA	NA	NA
EPL-SP-1C	(9.5-10.0)	2/26/90	2/26/90	Q	NA	NA	NA	NA	14.3	12.2	NA	ND	27.5	NA	NA	NA
EPL-SP-2A	(0.5-1.0)	2/26/90	2/26/90	Q	NA	NA	NA	NA	12.9	116	NA	35.4 *	23.9	NA	NA	NA
EPL-SP-2B	(5.0-5.5)	2/26/90	2/26/90	Q	NA	NA	NA	NA	12.1	15.5	NA	ND	16.2	NA	NA	NA
EPL-SP-2C	(9.5-10.0)	2/26/90	2/26/90	Q	NA	NA	NA	NA	7.68	12.3	NA	ND	12.1	NA	NA	NA
Cooling Tower Sump	(grab)	3/13/90	3/13/90	GG	1.89	12.4	1.48	ND	101 *	1940 *	884 *	4.19 *	116 *	2.54	ND	2950 *
Spray Pond Sump-1	(grab)	3/13/90	3/13/90	GG	11.0	18.9	3.6	5.07 *	283 *	4130 *	2190 *	10 *	224 *	1.12	1.09	2920 *
Spray Pond Sump-2	(grab)	3/13/90	3/13/90	GG	3.78	14.6	ND	ND	93.6	1640 *	583 *	8.65 *	147 *	ND	ND	[illegible] *
Spray Pond Sump-3	(grab)	3/13/90	3/13/90	GG	8.29	395 *	0.851	ND	80.4	443 *	1550 *	3.09 *	74.9	5.53 *	ND	[illegible] *

ND - Not detected
NA - Not analyzed
* - Concentration exceeds NJDEP CUL

(41)

TABLE 33. METALS AND CYANIDE IN SOIL, SEDIMENT, AND LIQUIDS

HEAT-TREAT AREA

Sample Designation	Sample Interval (feet)	Sample Date	Field Blank	Method Blank	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	CN
HT-NP-1A	(0.5-1.0)	2/9/90	2/9/90	D	5.49	7.41	0.733	ND	1190 +	5910 +	2990 +	3.33 +	1990 +	ND	ND	ND	2140 +	NA
HT-NP-1D	(16.5-17.0)	2/9/90	2/9/90	D	0.545	0.794	0.679	ND	21.4	47.4	21.3	ND	25.0	ND	ND	ND	47.5	NA
HT-NP-2C	(11.5-12.0)	2/9/90	2/9/90	D	0.556	2.21	0.549	ND	32.5	348 +	16.0	ND	32.6	ND	ND	ND	113	NA
HT-NP-3C	(11.5-12.0)	2/9/90	2/9/90	D	0.297	0.766	0.791	ND	15.4	12.8	6.52	ND	26.7	ND	ND	ND	50.1	NA
HT-NP-4C	(12.5-13.0)	2/9/90	2/9/90	E	0.315	0.978	0.616	ND	17.5	15.5	7.55	ND	21.3	ND	ND	ND	47.6	NA
HT-NP-5A	(0.5-1.0)	2/9/90	2/9/90	E	0.310	0.343	0.351	ND	8.93	11.5	4.20	ND	12.6	ND	ND	ND	91.5	NA
HT-NP-5D	(16.5-17.0)	2/9/90	2/9/90	E	ND	0.909	0.590	ND	25.0	13.5	6.33	ND	19.2	ND	ND	ND	36.9	NA
HT-NP-6A	(1.5-2.0)	2/12/90	2/12/90	G	0.249	1.62	0.480	ND	17.6	11.3	5.92	0.094	16.8	ND	2.24	ND	30.4	NA
HT-NP-6C	(11.5-12.0)	2/12/90	2/12/90	G	ND	0.999	0.636	ND	12.0	9.5	5.84	0.129	13.9	ND	ND	ND	37.3	NA
HT-NP-7B	(6.5-7.0)	2/12/90	2/12/90	G	ND	0.457	0.207	ND	7.50	5.84	3.05	ND	7.54	ND	ND	ND	14.9	NA
HT-NP-8A	(1.5-2.0)	2/12/90	2/12/90	F	2.42	8.36	0.614	ND	18.1	378 +	69.0	0.397	33.2	0.237	ND	0.298	127	NA
HT-NP-8C	(11.5-12.0)	2/12/90	2/12/90	F	ND	0.752	1.53	ND	26.3	15.7	10.0	ND	44.5	ND	ND	ND	121	NA
HT-NP-9A	(1.5-2.0)	2/12/90	2/12/90	G	3.93	8.92	0.583	3.12 +	218 +	320 +	107	0.424	863 +	ND	ND	0.296	244	NA
HT-NP-9C	(11.5-12.0)	2/12/90	2/12/90	G	0.244	0.992	1.14	ND	22.7	11.3	8.36	0.148	33.6	ND	ND	0.229	103	NA
HT-PFT-1B	(5.0-5.5)	2/12/90	2/12/90	G	1.65	4.01	0.576	2.96	156 +	3860 +	567 +	0.218	427 +	ND	ND	ND	229	NA
HT-PFT-1C	(11.5-12.0)	2/12/90	2/12/90	G	ND	0.701	0.493	ND	11.4	10.5	6.14	ND	14.6	ND	ND	ND	43.9	NA
HT-PFT-2A	(5.0-5.5)	2/12/90	2/12/90	G	3.77	19.2	1.11	1.17	73.0	419 +	81.2	0.435	199 +	ND	5.33 +	ND	138	ND
HT-PFT-2B	(11.5-12.0)	2/12/90	2/12/90	G	0.29	0.724	0.913	ND	18.5	11.6	6.77	ND	27.1	ND	ND	ND	70.3	ND
HT-PFT-3A	(5.0-5.5)	2/12/90	2/12/90	G	ND	0.517	0.531	ND	11.2	10.3	7.3	ND	17.1	ND	ND	ND	44.1	ND
HT-PFT-3B	(11.5-12.0)	2/12/90	2/12/90	G	ND	0.659	0.753	ND	20.6	10.1	6.59	ND	24.3	ND	ND	ND	48.8	ND
HT-PFT-4A	(5.0-5.5)	2/12/90	2/12/90	G	0.724	1.64	0.494	ND	15.9	9.54	9.53	ND	13.7	ND	65.6 +	ND	22.5	ND
HT-PFT-4B	(11.5-12.0)	2/12/90	2/12/90	G	ND	0.591	0.413	ND	8.95	6.93	3.47	ND	9.77	ND	ND	ND	19.5	ND
HTX-1A	(1.5-2.0)	3/1/90	3/1/90	U	0.498	1.53	0.382	ND	11.2	306 +	107	ND	10.1	ND	ND	ND	359 +	NA
HTX-2A	(1.5-2.0)	3/1/90	3/1/90	U	0.322	0.966	0.587	ND	14.0	10.3	8.9	ND	12.0	ND	ND	ND	47.2	NA
HTX-3A	(1.5-2.0)	3/1/90	3/1/90	U	ND	1.25	0.601	ND	10.3	66.5	13.6	ND	12.7	ND	ND	ND	179	
HTX-4B	(6.5-7.0)	3/5/90	3/5/90	W	ND	1.08	0.347	ND	8.67	15.6	5.77	ND	10.3	ND	ND	ND	24.2	NA
HTX-6A	(1.5-2.0)	3/5/90	3/5/90	W	ND	1.56	0.474	ND	11.3	11.5	15.2	0.0967	16.2	ND	ND	ND	41.1	NA
HTX-7B	(6.5-7.0)	3/6/90	3/6/90	W	ND	0.791	0.433	ND	10.1	16.9	4.72	0.101	15.7	ND	ND	ND	25.3	NA

NA - Not analyzed
ND - Not detected
\+ - Concentration above NJDEP CUL

(52)

TABLE 23. METALS AND CYANIDE IN SOIL, SEDIMENT, AND LIQUIDS

HEAT-TREAT AREA

Sample Designation	Sample Interval (feet)	Sample Date	Field Blank	Method Blank	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	CN
HTX-6A	(1.5-2.0)	3/6/90	3/6/90	W	ND	4.38	0.594	ND	11.5	99.5	69.8	0.163	25.1	ND	ND	ND	170	NA
HT-ET-1A	(5.0-5.5)	2/15/90	2/15/90	J	1.37	1.39	0.418	ND	11.3	9.9	11.9	ND	16.6	ND	ND	ND	29.2	ND
HT-ET-1B	(11.5-12.0	2/15/90	2/15/90	J	3.02	0.836	0.284	ND	6.47	6.95	9.54	ND	8.4	ND	ND	ND	20.3	ND
HT-ET-2A	(5.0-5.5)	2/15/90	2/15/90	J	ND	0.548	0.499	ND	12.2	10.5	5.1	0.108	18.3	ND	ND	ND	43.1	ND
HT-ET-2B	(11.5-12.0	2/15/90	2/15/90	J	ND	0.947	0.615	ND	15.5	11.2	5.09	ND	23.8	ND	ND	ND	44.0	ND
HT-ET-3A	(5.0-5.5)	2/15/90	2/15/90	J	0.385	0.450	0.299	ND	10.4	26.3	3.23	ND	20.3	ND	ND	ND	33.4	ND
HT-ET-3B	(11.5-12.0	2/15/90	2/15/90	J	2.63	0.793	0.593	ND	14.6	30.9	4.09	ND	24.1	ND	ND	ND	58.2	ND
Heat-Treat Slag. Oil/Water Bath-1	(grab)	3/12/90	3/12/90	EE	5.74	65.8 *	0.261	ND	111 *	257 *	19	0.265	276 *	ND	ND	ND	407 *	0.5
Oil/Water Bath-2	(grab)	3/12/90	3/12/90	EE	1.85	14.7	0.302	ND	9.53	113	24.8	0.0618	ND	ND	ND	ND	464 *	ND
Oil/Water Bath-4	(grab)	3/13/90	3/13/90	GG	0.995	12.8	4.90	ND	2920 *	1060 *	223	1.33 *	335 *	0.540	ND	ND	1170 *	0.61
Oil/Water Bath-5	(grab)	3/13/90	3/13/90	GG	2.0	10.2	ND	ND	111 *	2000 *	2410 *	0.160	116 *	1.34	ND	ND	1070 *	0.62
Water-Filled Sump	(grab)	3/12/90	3/12/90	FF	ND	ND	ND	ND	ND	0.0813	0.0160	ND	0.0215	ND	ND	ND	0.102	ND
Dry Sump	(grab)	3/12/90	3/12/90	EE	2.97	12.5	0.558	ND	502 *	5060 *	1210 *	1.02 *	552 *	ND	ND	ND	2450 *	1.02
Floor	(grab)	3/12/90	3/12/90	EE	ND	9.68	1.26	ND	36.2	294 *	775 *	0.602	138 *	ND	ND	ND	578 *	1.42
Metal Plating Slag. Sump(Liquid)	(grab)	3/12/90	3/12/90	FF	0.0172	ND	ND	0.0077	ND	0.117	0.0392	ND	0.0450	ND	ND	ND	0.150	ND
Sump(Sediment)	(grab)	3/12/90	3/12/90	EE	8.38	6.13	ND	ND	205 *	1440 *	911 *	5.28 *	599 *	ND	ND	ND	1050 *	1.35
Sink	(grab)	3/12/90	3/12/90	EE	5.9	34.9 *	0.45	ND	228 *	670 *	8330 *	1.36 *	314 *	0.278	ND	ND	2450 *	NA
Floor	(grab)	3/12/90	3/12/90	EE	8.74	16.5	0.776	ND	436 *	9100 *	4600 *	3.46 *	2540 *	0.625	ND	ND	3800 *	NA
Floor(dup)	(grab)	3/12/90	3/12/90	EE	8.53	11.5	0.636	ND	406 *	9230 *	4230 *	2.78 *	2930 *	ND	ND	ND	3250 *	NA

NA - Not analyzed
ND - Not detected
* - Concentration above NJDEP CUL

(52)

DRESSER PUMP DIVISION DRESSER

Dresser Pump Division, Dresser Industries, Inc.
401 Worthington Avenue • Harrison, NJ 07029-2097 • 201/484-1234 • Fax 485-8724

COPY

Ms. Mary Deidrich
Director of Infection Control
West Hudson Hospital
Kearny, New Jersey 07032

December 26, 1990

Dear Ms. Deidrich,

As required by the New Jersey Department of Environmental Protection ,Dresser Pump Division in Harriosn, N.J is to inform the local hospital, West Hudson, of the following hazardous products located at our manufacturing facility.

1. Petroleum/Naptha products
2. Welding gases - Argon
   Nitrogen
   Oxygen
   Acetylene
3. Various oils , lubricants and solvents

These products are properly labelled, contained and disposed of according to State regulations.

Sincerely,

Carole Cossman

Industrial Nurse

cc: Dr. J.Kirtani Emergency room physician, West Hudson Hospital
First Aid Squad - Harrison, N.J
Fire Department - Harrison, N.J
J.Rapetsky -Facilities Engineer Dresser Pump

IMPORTANT! Read all instructions before completing. Photocopy this sheet, if you need additional forms. Please print or type all responses. Complete sections A-F before making photocopies of this page.

Reporting Period: January 1 - December 31, 1989

FACILITY IDENTIFICATION AND SITE LOCATION

A. NJEIN NJD 980786222

B. Facility Name DRESSER PUMP DIVISION

C. Location Address 401 WORTHINGTON AVE.

D. City HARRISON E. State N.J. F. Zip 07029

CHEMICAL DESCRIPTION	HAZARDS	Inventory (Ranges)	STORAGE CODES AND LOCATIONS
Substance Fuel Oil #6 CAS No. - - DOT No. 1993 Substance No. (if available) 2444 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	(Codes for all that apply.) 70, 67, 66,	(Enter Code) Max. Daily 16 Avg. Daily 15 Days Onsite 365 (Actual Number)	(Enter Codes, except Location(s); supply narrative.) Container 50 Conditions 01, 04 Location(s) BACK OF Bldg #6
Substance GASOLINE CAS No. 8006-61-9 DOT No. 1203 Substance No. (if available) 0457 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 69, 67, 66,	Max. Daily 14 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 49 Conditions 01, 04 Location(s) GARAGE
Substance Hydrochloric Acid CAS No. 7647-01-0 DOT No. 1050 Substance No. (if available) 1012 Percent 52 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	68, 67,	Max. Daily 10 Avg. Daily 10 Days Onsite 365 (Actual Number)	Container 38 Conditions 01, 04 Location(s) Bldg #6
Substance Isopropyl Alcohol CAS No. 67-63-0 DOT No. 1219 Substance No. (if available) 1076 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 67,	Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg #3 & GARAGE
Substance LEAD CAS No. 7439-92-1 DOT No. Substance No. (if available) 1096 Percent 51 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	66,	Max. Daily 12 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 37 Conditions 01, 04 Location(s) IN CASTINGS - Bldgs #1 2, 3, 4
Substance Liquified Petroleum Gas CAS No. 68476-85-7 DOT No. 1075 Substance No. (if available) 1118 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 69, 67,	Max. Daily 13 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 50 Conditions 02, 04 Location(s) AT GARAGE
Substance MERCURY CAS No. 7439-97-6 DOT No. 2025 Substance No. (if available) 1237 Percent [illegible] State L (Code) Trade Secret ☐ (Check if claiming)	66,	Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 38 Conditions 9, 04 Location(s) Bldg #3 SS

See Instructions for codes

DRESSER PUMP DIVISION DRESSER

Dresser Pump Division, Dresser Industries, Inc.
401 Worthington Avenue • Harrison, NJ 07029-2097 • 201/484-1234

February 21, 1991

COPY

NJDEP-RTK SURVEY
CN 405
Trenton, N.J. 08625-0405

Dear Sirs:

Enclosed please find your copy of "The New Jersey Right To Know Survey" for the following manufacturing facility located in Harrison, New Jersey:

Dresser Pump Division, Dresser Industries, Inc.
Worthington Division - Worthington & Pacific Pumps
401 Worthington Avenue
Harrison, New Jersey 07029

Copies of the "NJDEP-RTK Survey" have been sent to the following local and county agencies or departments.

Harrison Fire Dept.
7th and Sussex St.
Harrison, N.J. 07029

Hudson Regional Health Commission
215 Harrison Avenue
Harrison, N.J. 07029

Harrison Police Dept.
321 Cleveland Ave.
Harrison, N.J. 07029

Mr.Edward Doran
Harrison Town O.E.M.
Fire House
7th & Sussex Street
Harrison, N.J. 07029

Respectfully submitted,

John A. Rapetsky

John A. Rapetsky
Facilities Engineer
Dresser Industries
401 Worthington Ave.
Harrison, N.J. 07029

IMPORTANT! Read all instructions before completing. Photocopy this sheet. You need additional forms. Please print or type all responses. Complete sections A-F before making photocopies of this page.

Reporting Period: January 1 - December 31, 1990

FACILITY IDENTIFICATION AND SITE LOCATION

A. NJEIN 185218000000

B. Facility Name DRESSER INDUSTRIES INC.

C. Location Address 401 WORTHINGTON AVE.

D. City HARRISON E. State N.J. F. Zip 07029

CHEMICAL DESCRIPTION	HAZARDS	Inventory (Ranges)	STORAGE CODES AND LOCATIONS
Substance Hydrochloric Acid CAS No. 7647-01-0 DOT No. 1050 Substance No. (if available) 1012 Percent 52 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	(Codes for all that apply.) 08, 67, ___, ___, ___	(Enter Code) Max. Daily 09 Avg. Daily 09 Days Onsite 365 (Actual Number)	(Enter Codes, except Location(s); supply narrative.) Container 38 Conditions 01, 04 Location(s) Bldg #6
Substance Isopropyl Alchohol CAS No. 67-63-0 DOT No. 1219 Substance No. (if available) 1076 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 67, ___, ___, ___	Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg #3 & Garage
Substance Lead CAS No. 7439-92-1 DOT No. ___ Substance No. (if available) 1096 Percent 51 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	66, ___, ___, ___, ___	Max. Daily 12 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 37 Conditions 01, 04 Location(s) Bldg # 1, 2 & 3 Casting Content
Substance Liquified Petroleum Gas CAS No. 68476-85-7 DOT No. 1075 Substance No. (if available) 1118 Percent 60 (Code) State G (L) (Code) Trade Secret ☐ (Check if claiming)	70, 69, 67, ___, ___	Max. Daily 13 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 50 Conditions 02, 04 Location(s) At Garage
Substance Mercury CAS No. 7439-97-6 DOT No. 2025 Substance No. (if available) 1237 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	66, ___, ___, ___, ___	Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 38 Conditions 01, 04 Location(s) Bldg #3 & 55
Substance 111 Trichloroethane CAS No. 71-55-6 DOT No. 2831 Substance No. (if available) 1237 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	68, 67, 66, ___, ___	Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg #2, 2a & Paint Shed
Substance Naptha CAS No. 8030-30-6 DOT No. 1115 Substance No. (if available) 0206 Percent 57 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 64, 67, 66, ___	Max. Daily 13 Avg. Daily 13 Days Onsite ___ (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg #1, 2, 3 + Garage Parts Washers

See instructions for codes.

ECRA-002
12/87

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
INDUSTRIAL SITE EVALUATION ELEMENT
CN 028, TRENTON, N.J. 08625

ENVIRONMENTAL CLEANUP RESPONSIBILITY ACT (ECRA)

INITIAL NOTICE

SITE EVALUATION SUBMISSION (SES)

This is the second part of a two-part application form. This information must be submitted within 45 days following any applicable situation as specified at N.J.A.C. 7:26B-1.5 or any triggering event as specified at N.J.A.C. 7:26B-1.6. Please refer to the instructions and N.J.A.C. 7:26B-3.2 before filling out this form. Answer all questions. Should you encounter any problems in completing this form, we recommend that you discuss the matter with a representative from the Element. Submitting incorrect or insufficient data may cause processing delays and possible postponement of your transaction. Please call (609) 633-7141 between the hours of 8:30 a.m. and 4:30 p.m. to request assistance.

PLEASE PRINT OR TYPE

Date September 6, 1991
(Revision of May 31, 1991 Filing)

1. Industrial Establishment

Name Dresser Industries, Inc., Former Worthington Pump Division

Address 14 Fourth Avenue

City or Town East Orange Zip Code 07019

Municipality East Orange/Newark County Essex

A. Operational and Ownership History: *(Attach additional sheets if necessary)*

Name	Owner/ Operator	From	To	Current Address
Dresser Industries, Inc.	" *	2/85	12/85	P. O. Box 718 Dallas, TX 75221
McGraw-Edison Co. Worthington Pump Div.	"	1979	2/85	c/o Cooper Industries, Inc. 1001 Fannin City Houston, TX 77002
Studebaker/ Worthington Inc.	"	Approx. 1964	1979	Acquired by McGraw-Edison
Worthington Corp.	"	1930's/ 40's (?)	1964	Acquired by Studebaker/ Worthington Corp.

B. Brief description of past operation(s) conducted on site *(Attach additional sheets if necessary)*

From February 1985 to December 1985 conducted limited operations assembling pumps. During this period, operations went through windup phase and inventory was depleted.

* Dresser has owned the property since 2/85; operations ceased 12/85.

INDUSTRIAL CORROSION MANAGEMEN .NC.
1152 Route 10
Randolph, NJ 07869
201-584-0330
MAY 25, 1990

NJ DEP C ;fied Drinking Water/Wastewater
Laboratoi ID# 14116
US EPA Contract Laboratory

ANALYTICAL DATA SUMMARY REPORT FOR: VECTRE CORPORATION: CO-V3

This summary lists parameters and concentrations found in the samples submitted.

PARAMETER (units)	SAMPLE ID							
	BH-1 (0-6")	BH-1 (18-24")	BH-2 (0-6")	BH-2 (18-24")	BH-3 (0-6")	BH-3 (18-24")	BH-3 (4-6")	BH-4 (0-6")
Volatiles (ppb): Methylene Chloride	NA	11B	NA	5JB	NA	8B	6JB	NA
Trichloroethene	NA	U	NA	U	NA	U	U	NA
Tetrachloroethene	NA	U	NA	U	NA	U	U	NA
Total Non-targeted Compounds	NA	U	NA	260	NA	U	85	NA
Semivolatiles (ppb): Acenaphthene	99J	NA	U	NA	U	NA	45J	71J
Acenaphthylene	U	NA	120J	NA	60J	NA	U	54J
Anthracene	130J	NA	110J	NA	130J	NA	180J	160J
Benzo(a)anthracene	360	NA	430	NA	440	NA	390	580
Benzo(a)pyrene	340	NA	580	NA	470	NA	350	590
Benzo(b)fluoranthene	300	NA	1400	NA	1400	NA	400	1400
Benzo(g,h,i)perylene	120J	NA	810	NA	270	NA	120J	270
Bis(2-ethylhexyl)phthalate	51J	NA	U	NA	200	NA	430	590
Chrysene	390	NA	560	NA	660	NA	430	700
Dibenzo(a,h)anthracene	U	NA	U	NA	130J	NA	U	U

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.
NA: Not analyzed.

INDUSTRIAL CORROSION MANAGEMEN INC.
1152 Route 10
Randolph, NJ 07869
201-584-0330
MAY 25, 1990

NJ DEP C ified Drinking Water/Wastewater
Laborato ID# 14116
US EPA Co..cract Laboratory

ANALYTICAL DATA SUMMARY REPORT FOR: VECTRE CORPORATION:CO-V3

This summary lists parameters and concentrations found in the samples submitted.

PARAMETER (units)	SAMPLE ID							
	BH-1 (0-6")	BH-1 (18-24")	BH-2 (0-6")	BH-2 (18-24")	BH-3 (0-6")	BH-3 18-24")	BH-3 (4-6")	BH-4 (0-6")
Metals (ppm)con't: Chromium	25.5	NA	169	NA	35.3	NA	13.3	117
Copper	139	NA	1950	NA	967	NA	941	794
Lead	66.0	NA	1670	NA	501	NA	381	393
Mercury	0.134	NA	9.65	NA	0.522	NA	0.168	0.722
Nickel	29.5	NA	244	NA	50.7	NA	10.2	248
Selenium	U	NA	U	NA	1.66	NA	U	1.56
Silver	0.671	NA	21.1	NA	0.653	NA	U	6.32
Thallium	U	NA	U	NA	0.297	NA	U	0.421
Zinc	93.4	NA	2220	NA	145	NA	294	406
General Analytical (ppm): Petroleum Hydrocarbons	460	NA	7200	NA	1800	NA	U	800
x								
x								
x								
x								

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.
NA: Not analyzed.

INDUSTRIAL CORROSION MANAGEMEN NC.
1152 Route 10
Randolph, NJ 07869
201-584-0330
MAY 25, 1990

NJ DEP C. fied Drinking Water/Wastewater
Laboratory, ID# 14116
US EPA Contract Laboratory

ANALYTICAL DATA SUMMARY REPORT FOR: VECTRE CORPORATION:CO-V3

This summary lists parameters and concentrations found in the samples submitted.

PARAMETER (units)	SAMPLE ID							
	BH-4 (18-24")	BH-4 (4-6")	TRIP BLANK	FIELD BLANK				
Metals (ppm)con't: Chromium	NA	21.5	U	NA				
Copper	NA	56.4	6.25	NA				
Lead	NA	59.6	0.064	NA				
Mercury	NA	0.181	U	NA				
Nickel	NA	40.1	U	NA				
Selenium	NA	0.517	U	NA				
Silver	NA	U	U	NA				
Thallium	NA	0.711	U	NA				
Zinc	NA	67.9	0.042	NA				
General Analytical (ppm): Petroleum Hydrocarbons	NA	U	U	NA				

U: Indicates a compound was analyzed for but not detected.
J: Indicates an estimated value. It is utilized when a reported value meets the identification criteria but the result is less than the specified detection limit but greater than zero.
B: Indicates that the analyte was found in the blank as well as the sample. It indicates possible/probable blank contamination.
NA: Not analyzed.

Table 3

McGraw-Edison Company-Dresser Pump Facility-East Orange,NJ-ECRA Case No. 85035

Summary of Analytical Results for Catch Basin & Floor Pit Sampling

Professional Associates in Regulatory Services, Inc.(PARS) Project No.(145-02)

SAMPLE ID:	PE-2-2	PE-2-7	PE-2-11	PE-2-20	PE-2-29	PE-2-31	PE2-32(A)	PE2-32(B)	PE-12A	PE-12B	PE-12C	PE-17B
SAMPLE DATE:	900907	900912	900912	900912	900912	900912	900912	900912	900912	900912	900912	900912
TIME OF COLLECTION:	1330	1320	1305	1150	1205	1135	1125	1130	1335	1350	1355	1405
DEPTH:	4.1'-4.7'	3.3'-3.8'	5.0'-5.5'	-----	5.5'-6.0'	4.3'-4.8'	4.3'-4.8'	4.3'-4.8'	1.0'-1.5'	1.5'-2.0'	1.5'-2.0'	3.3'-3.8'
MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PCB'S (PPB)												
AROCHLOR 1260	NA	45J	U	U	130	U	610	38000	84	1400	1400	U
METALS (PPM)												
ANTIMONY	NA	U	U	U	3	U	4	9	U	U	U	U
ARSENIC	1	1	4	1	6	1	8	23	2	2	2	1
BERYLLIUM	NA	0	0	1	0	U	0	0	0	0	0	U
CADMIUM	NA	U	2	U	1	U	1	2	1	1	2	U
CHROMIUM	8	8	18	11	12	17	23	24	11	12	11	7
COPPER	6	54	133	16	345	10	453	6730	77	109	106	10
LEAD	5	165	144	14	244	12	285	1170	109	118	127	U
MERCURY	NA	U	0	U	1	U	0	12	26	678	1490	U
NICKEL	5	8	14	9	14	9	19	40	12	13	11	18
SELENIUM	3	U	0	U	1	0	0	2	U	0	U	U
SILVER	NA	U	U	U	U	U	U	4	U	U	U	[illegible]
THALLIUM	NA	U	U	U	U	U	U	1	U	U	U	[illegible]
ZINC	12	36	906	34	525	19	203	998	145	181	172	31
TOTAL METALS (PPM)	39	272	1221	85	1152	68	995	9015	382	1115	1921	66
GENERAL ANALYTICAL (PPM)												
PETROLEUM HYDROCARBONS	2700	580	670	91	100	51	18000	22000	200	880	890	76000

CATCHFP.cal,9, 3/12/1991

ETC

DATA MANAGEMENT SUMMARY REPORT
(DM-1C) - All Parameters Present, Selected Samples

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	COOPER INDUSTRIES, INC.	CPDWPECRA	See Below
ETC Sample No.	Company	Facility	Sample Point Date

Parameters	Units	S 09CP910409 910409 GC1039	S 10CP910409 910409 GC1040	S 11CP910409 910409 GC1041	S 12CP910409 910409 GC1042	S 13CP910409 910409 GC1043	S 14CP910409 910409 GC1044	S 1CP910320 910320 HA4646	S 2CP910320 910320 HA4647
Priority Poll. B/Ns GC/MS									
Acenaphthene	ug/kg	-	-	255	< 200	< 200	< 200		
Anthracene	ug/kg	-	-	621	< 200	< 200	< 200		
Benzo(a)anthracene	ug/kg	-	-	3170	< 840	< 840	< 820		
Benzo(a)pyrene	ug/kg	-	-	2210	< 270	< 270	< 260		
Benzo(b)fluoranthene	ug/kg	-	-	2530	< 520	< 520	< 510		
Benzo(ghi)perylene	ug/kg	-	-	1790	< 440	< 440	< 430		
Benzo(k)fluoranthene	ug/kg	-	-	< 270	< 270	< 270	< 260		
bis(2-Ethylhexyl)phthalate	ug/kg	-	-	< 1100	< 1100	< 1100	< 1100		
Chrysene	ug/kg	-	-	3110	< 270	< 270	< 260		
Dibenzo(a,h)anthracene	ug/kg	-	-	687	< 270	< 270	< 260		
Di-n-butyl phthalate	ug/kg	-	-	7510	< 1100	7620	< 1100		
Di-n-octyl phthalate	ug/kg	-	-	< 1100	< 1100	< 1100	< 1100		
Fluoranthene	ug/kg	-	-	5750	< 240	< 240	< 230		
Fluorene	ug/kg	-	-	221	< 200	< 200	< 200		
Indeno(1,2,3-c,d)pyrene	ug/kg	-	-	1580	< 400	< 400	< 390		
Phenanthrene	ug/kg	-	-	3670	< 580	< 580	< 570		
Pyrene	ug/kg	-	-	6530	< 200	< 200	< 200		
Metals Analysis Data									
Antimony	ug/kg	-	-	< 2000	< 2000	2220	< 2000		
Arsenic	ug/kg	-	-	< 5000	< 5000	11600	< 5000		
Beryllium	ug/kg	-	-	< 1000	< 1000	< 1000	< 1000		
Cadmium	ug/kg	-	-	< 1000	< 1000	1030	< 1000		
Chromium	ug/kg	-	-	6180	6550	4470	1890		
Copper	ug/kg	-	-	10900	12000	280000	6700		
Lead	ug/kg	-	-	4050	4330	105000	4850		
Mercury	ug/kg	-	-	< 100	< 100	286	< 100		
Nickel	ug/kg	-	-	7880	8920	15100	3930		
Selenium	ug/kg	-	-	< 5000	< 5000	< 5000	< 5000		
Zinc	ug/kg	-	-	14000	15100	102000	11600		

Footnotes: BMDL=Below Method Detection Limit ND=Parameter not detected "-"=Parameter not tested

Table 3

McGraw-Edison Company-Dresser Pump Facility-East Orange,NJ-ECRA Case No. 85035

Summary of Analytical Results for Catch Basin & Floor Pit Sampling

Professional Associates in Regulatory Services, Inc.(PARS) Project No.(145-02)

SAMPLE ID:	PE-2-2	PE-2-7	PE-2-11	PE-2-20	PE-2-29	PE-2-31	PE2-32(A)	PE2-32(B)	PE-12A	PE-12B	PE-12C	PE-17B
SAMPLE DATE:	900907	900912	900912	900912	900912	900912	900912	900912	900912	900912	900912	900912
TIME OF COLLECTION:	1330	1320	1305	1150	1205	1135	1125	1130	1335	1350	1355	1405
DEPTH:	4.1'-4.7'	3.3'-3.8'	5.0'-5.5'	-----	5.5'-6.0'	4.3'-4.8'	4.3'-4.8'	4.3'-4.8'	1.0'-1.5'	1.5'-2.0'	1.5'-2.0'	3.3'-3.8'
MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PCB'S (PPB)												
AROCHLOR 1260	NA	45J	U	U	130	U	610	38000	84	1400	1400	U
METALS (PPM)												
ANTIMONY	NA	U	U	U	3	U	4	9	U	U	U	U
ARSENIC	1	1	4	1	6	1	8	23	2	2	2	1
BERYLLIUM	NA	0	0	1	0	U	0	0	0	0	0	U
CADMIUM	NA	U	2	U	1	U	1	2	1	1	2	U
CHROMIUM	8	8	18	11	12	17	23	24	11	12	11	7
COPPER	6	54	133	16	345	10	453	6730	77	109	106	10
LEAD	5	165	144	14	244	12	285	1170	109	118	127	U
MERCURY	NA	U	0	U	1	U	0	12	26	678	1490	U
NICKEL	5	8	14	9	14	9	19	40	12	13	11	18
SELENIUM	3	U	0	U	1	0	0	2	U	0	U	U
SILVER	NA	U	U	U	U	U	U	4	U	U	U	[illegible]
THALLIUM	NA	U	U	U	U	U	U	1	U	U	U	[illegible]
ZINC	12	36	906	34	525	19	203	998	145	181	172	31
TOTAL METALS (PPM)	39	272	1221	85	1152	68	995	9015	382	1115	1921	66
GENERAL ANALYTICAL (PPM)												
PETROLEUM HYDROCARBONS	2700	580	670	91	100	51	18000	22000	200	880	890	76000

Table 1
Summary of Groundwater Analytical Results
McGraw-Edison Worthington Pump Facility-East Orange, NJ 07017
Priority Pollutant Metals

WELL NUMBER	MW-9	MW-9A	MW-9A
SAMPLE DATE	8-11-89	5-8-91	11-19-91
LAB ID #	105472	11321001	GD1406
SAMPLE ID	MW-9	01CP910508	03CP911119
SAMPLE MATRIX	AQUEOUS	AQUEOUS	AQUEOUS
LAB NAME	ICM	IEA	ETC
SAMPLED BY	VECTRE	PARS	PARS
TIME			
ANTIMONY	U	U	ND
ARSENIC	107	12.2	51
BERYLLIUM	1	U	BMDL
CADMIUM	2	U	BMDL
CHROMIUM	19	U	ND
COPPER	55	U	BMDL
LEAD	31	U	ND
MERCURY	.7	U	ND
NICKEL	U	U	ND
SELENIUM	U	U	ND
SILVER	U	U	ND
THALLIUM	U	U	ND
ZINC	U	U	BMDL
TOTAL METALS (PPB)	215.7	12.2	51
IRON	NA	1230	NA
PH STANDARD UNITS	7.24	NA	NA
TDS (PPM)	415	NA	NA

J & BMDL = Compound detected below mean detection limits.
B = Compound present in method blank; E = Estimated value;
U = Not detected; NA = Not analyzed;

DRESSER PUMP DIVISION DRESSER

Dresser Pump Division, Dresser Industries, Inc.
401 Worthington Avenue • Harrison, NJ 07029-2097 • 201/484-1234

February 27, 1992

COPY

NJDEP-RTK SURVEY
CN 405
Trenton, N.J. 08625-0405

Dear Sirs:

Enclosed please find your copy of "The New Jersey Right To Know Survey" for the following manufacturing facility located in Harrison, New Jersey:

Dresser Pump Division, Dresser Industries, Inc.
Worthington Division - Worthington & Pacific Pumps
401 Worthington Avenue
Harrison, New Jersey 07029

Copies of the "NJDEP-RTK Survey" have been sent to the following local and county agencies or departments.

Harrison Fire Dept.
7th and Sussex St.
Harrison, N.J. 07029

Hudson Regional Health Commission
215 Harrison Avenue
Harrison, N.J. 07029

Harrison Police Dept.
321 Cleveland Ave.
Harrison, N.J. 07029

Mr.Edward Doran
Harrison Town O.E.M.
Fire House
7th & Sussex Street
Harrison, N.J. 07029

Respectfully submitted,

John A. Rapetsky

John A. Rapetsky
Facilities Engineer

FACILITY IDENTIFICATION AND SITE LOCATION

1 8 5 2 1 8 0 0 0 0 0

DRESSER INDUSTRIES INC. (HARRISON)

401 WORTHINGTON AVE., HARRISON

PART 2

CHEMICAL INVENTORY PAGE

LEQ-094

Page ____ of ____

IMPORTANT!

Read all instructions before completing.

Please type all responses.

Reporting Period: January 1 - December 31, 1991

CHEMICAL DESCRIPTION	HAZARDS	Inventory (Ranges)	STORAGE CODES AND LOCATIONS
Substance Mercury CAS No. 7439-97-6 DOT No. 2025 Substance No. (if available) 1237 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	(Codes for all that apply.) 66	(Enter Code) Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	(Enter Codes, except Location(s); supply narrative.) Container 38 Conditions 01, 04 Location(s) Bldg #3 & 55
Substance 111 TrichloroeThANE CAS No. 71-55-6 DOT No. 2831 Substance No. (if available) 1237 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	68, 67, 66	Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg #2, 2A & Paint Shed
Substance NAPTHA CAS No. 8030-30-6 DOT No. 1115 Substance No. (if available) 0206 Percent 57 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 64, 67, 66	Max. Daily 13 Avg. Daily 13 Days Onsite ____ (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg #1, 2, 3 & Garage Parts WASHers
Substance Nickel CAS No. 7440-02-0 DOT No. ____ Substance No. (if available) 1341 Percent 52 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	66	Max. Daily 13 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 37 Conditions 01, 04 Location(s) Bldg #1, 2, 3, 4 & 55 "Castings"
Substance Nitric Acid CAS No. 7697-31-2 DOT No. 2031 Substance No. (if available) 1356 Percent 52 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	68, 67, 66	Max. Daily 10 Avg. Daily 9 Days Onsite 365 (Actual Number)	Container 38 Conditions 01, 04 Location(s) Bldg #6
Substance Nitrogen CAS No. 7727-37-9 DOT No. 1066 Substance No. (if available) 1375 Percent 60 (Code) State G (Code) Trade Secret ☐ (Check if claiming)	69, 67	Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 40 Conditions 02, 04 Location(s) Bldg #3
Substance Oxygen CAS No. 7782-44-7 DOT No. 1072 Substance No. (if available) 1448 Percent 60 (Code) State G (Code) Trade Secret ☐ (Check if claiming)	70, 69, 68, 67	Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 40 Conditions 02, 04 Location(s) Bldg #2, 3, 6 & Garage

COPY

Ingersoll-Dresser Pump Company

Engineered Pump Group

401 Worthington Avenue
Harrison, NJ 07029-2097

201-484-1234

February 25, 1993

NJDEP-RTK SURVEY
CN 405
Trenton, N.J. 08625-0405

COPY

Dear Sirs:

Enclosed please find your copy of "The New Jersey Right To Know Survey" for the following manufacturing facility located in Harrison, New Jersey:

Ingersoll Dresser Pump Co.
401 Worthington Avenue
Harrison, New Jersey 07029

Copies of the "NJDEP-RTK Survey" have been sent to the following local and county agencies or departments.

Harrison Fire Dept.
7th and Sussex St.
Harrison, N.J. 07029

Hudson Regional Health Commission
215 Harrison Avenue
Harrison, N.J. 07029

Harrison Police Dept.
321 Cleveland Ave.
Harrison, N.J. 07029

Harrison Town O.E.M.
Fire House
7th & Sussex Street
Harrison, N.J. 07029

Respectfully submitted,

John A. Rapetsky

John A. Rapetsky
Facilities Engineer

FACILITY IDENTIFICATION SITE LOCATION

1 3 5 2 1 8 0 0 0 0 0

DRESSER INDUSTRIES INC. (HARRISON)
401 WORTHINGTON AVE., HARRISON
Street Address
City _____ Zip _____

PART 2
CHEMICAL INVENTORY PAGE

IMPORTANT! *Read instructions. Photocopy this page if you need additional forms.* ***Please type all responses.***

Reporting Period: January 1 - December 31, 1992

CHEMICAL DESCRIPTION	HAZARDS (Codes for all that apply.)	Inventory (Ranges) (Enter Code)	STORAGE CODES AND LOCATIONS (Enter Codes, except Location(s); supply narrative.)
Substance Isopropyl Alchohol CAS No. 67 - 63 - 0 DOT No. 1219 Substance No. (if available) 1076 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 67, ____, ____, ____	Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg #3 & Garage
Substance Lead CAS No. 7439 - 92 - 1 DOT No. ____ Substance No. (if available) 1096 Percent 51 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	66, ____, ____, ____, ____	Max. Daily 12 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 37 Conditions 01, 04 Location(s) Bldg. #1,2,3 Casting Content
Substance Liquified Petroleum Gas CAS No. 68476 - 85 - 7 DOT No. 1075 Substance No. (if available) 1118 Percent 60 (Code) State G(L) (Code) Trade Secret ☐ (Check if claiming)	70, 69, 67, ____, ____	Max. Daily 13 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 50 Conditions 02, 04 Location(s) At Garage
Substance Mercury CAS No. 7439 - 97 - 6 DOT No. 2025 Substance No. (if available) 1237 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	66, ____, ____, ____, ____	Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 38 Conditions 01, 04 Location(s) Bldg. #3 & 55
Substance 111 Trichloroethane CAS No. 71 - 55 - 6 DOT No. 2831 Substance No. (if available) 1237 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	68, 67, 66, ____, ____	Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg. #2, 2A & Paint Shed

PERCENTAGE CODES

61	Unknown
60	100%
59	90 - 99%
58	80 - 89%
57	70 - 79%
56	60 - 69%
55	50 - 59%
54	25 - 49%
53	10 - 24%
52	1 - 9%
51	0 - 0.9%

PHYSICAL STATE CODES

S	Solid
L	Liquid
G	Gas

HAZARD CATEGORY CODES

70	Fire hazard
69	Sudden release of pressure
68	Reactive
67	Immediate (acute) health hazard
66	Delayed (chronic) health hazard

INVENTORY RANGE CODES (In lbs.)

20	Greater than 10 million lbs.
19	1,000,001 - 10 million
18	500,001 - 1 million
17	250,001 - 500,000
16	100,001 - 250,000
15	50,001 - 100,000
14	10,001 - 50,000
13	1,001 - 10,000
12	101 - 1,000
11	11 - 100
10	1 - 10
09	Less than 1 lb.

CONTAINER CODES

50	Above ground tank	40	Cylinder
49	Below ground tank (steel)	39	Bottles or jugs (glass)
48	Tank inside building	38	Bottles or jugs (plastic)
47	Steel drum	37	Tote bin
46	Can	36	Tank wagon
45	Carboy	35	Railcar
44	Silo	34	Other (Describe)
43	Fiber drum	33	Below ground tank (fiberglass)
42	Bag		
41	Box	32	Plastic drums

STORAGE CONDITION CODES

Pressure

01 Ambient* pressure 02 Greater than ambient pressure
03 Less than ambient pressure

Temperature

04 Ambient temperature
05 Greater than ambient temperature
06 Less than ambient temperatures but not cryogenic (freezing conditions)
07 Cryogenic conditions (less than -200 degrees C)

*Ambient means "normal", "surrounding" or "room" conditions

COPY

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

000042

COMMUNITY RIGHT TO KNOW SURVEY FOR 1991

PART 1

to satisfy requirements under SARA, Title III, Section 312
and New Jersey Community Right to Know

Please type this form.

1 8 5 2 1 8 0 0 0 0 0--3 5 6 1--0 9 0 4

DRESSER INDUSTRIES INC. (HARRISON)

DRESSER PUMP DIV. ATTN: CAROL CROSSMAN
401 WORTHINGTON AVE.
HARRISON, NJ 07029

Indicate changes to mailing address on the mailing label.

(A) FACILITY LOCATION

If the facility location is different than the address on the facility identification label on Part 2 or is not shown, enter the correct facility address below and correct the facility identification label.

(B) Does this facility use, store or produce any compressed gases, or any flammable, combustible, reactive, corrosive or toxic substances?

(See Reportable Substances and Thresholds) [XX] Yes [ ] No

(C) Briefly describe the nature of the operations or business conducted by your company at this facility:
PUMP MANUFACTURING AND TESTING

(D) Number of employees at facility: 350

(E) *Number of facilities in New Jersey* 2

(F) *Dun and Bradstreet No.* 99-134-3088

(G) Check the box if you have a R&D laboratory exemption or if you have attached a R&D exemption application. [ ]

(H) CERTIFICATION OF OWNER/OPERATOR OR AUTHORIZED REPRESENTATIVE — I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Signature Joseph F. Bello Date 2/28/92 Fax # (201) 484-1658
Phone # (201) 484-1234
Name (Type) JOSEPH F. BELLO Title GENERAL MANAGER

(I) POLICE AND FIRE DEPARTMENT — Enter the respective phone numbers, names and addresses (including Zip Code) of your local police and fire departments in the spaces below.

POLICE DEPT. Phone Number (201) 483-4100
Name Harrison Police Department
Address 321 Cleveland Ave.
Municipality Harrison, NJ Zip 07029

FIRE DEPT. Phone Number (201) 483-0611
Name Harrison Fire Department
Address 7th & Sussex Street
Municipality Harrison, NJ Zip 07029

(J) FACILITY EMERGENCY CONTACT
Name John A. Rapetsky Title Facilities Engineer
Facility Phone Number (201) 484-1234 Emergency Contact Phone Number (201) 484-1234

NOTE: Make copies of this survey! The law requires that you send a copy to your COUNTY LEAD AGENCY, LOCAL EMERGENCY PLANNING COMMITTEE AND YOUR LOCAL POLICE AND FIRE DEPARTMENTS.
(County agency and local committee addresses in Instructions)

Return original to: NJDEPE
COMMUNITY RIGHT TO KNOW
CN 405
Trenton, NJ 08625-0405

FOR INTERNAL USE ONLY U STAT [ ] F STAT [ ]

FACIL IDENTIFICATION AND SITE LOCATION

1 8 5 2 1 8 0 0 0 0 0

DRESSER INDUSTRIES INC. (HARRISON)

401 WORTHINGTON AVE., HARRISON

PART 2
CHEMICAL INVENTORY PAGE

DEQ-094

Page ____ of ____

IMPORTANT!
Read all instructions before completing.
Please type all responses.

Reporting Period: January 1 - December 31, 1991

CHEMICAL DESCRIPTION	HAZARDS	Inventory (Ranges)	STORAGE CODES AND LOCATIONS
Substance ACETONE CAS No. 67-64-1 DOT No. 1090 Substance No. (if available) 0006 Percent 58 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	(Codes for all that apply.) 70, 68, 67, 66,	(Enter Code) Max. Daily 11 Avg. Daily 10 Days Onsite 365 (Actual Number)	(Enter Codes, except Location(s); supply narrative.) Container 39 Conditions 01, 04 Location(s) Bldg #2 Maintenance
Substance ACETYLENE CAS No. 74-86-2 DOT No. 1001 Substance No. (if available) 0015 Percent 60 (Code) State G (Code) Trade Secret ☐ (Check if claiming)	70, 68, 67, 66,	Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 40 Conditions 02, 04 Location(s) Bldg #2, 3, 4, 6 & 58
Substance ACETYLENE TETRABROMIDE CAS No. 79-27-6 DOT No. 2504 Substance No. (if available) 0016 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 68, 67, 66,	Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 38 Conditions 01, 04 Location(s) Bldg #3 & 55 (test)
Substance ACIDS, LIQUID N.O.S. CAS No. - - DOT No. 1760 Substance No. (if available) 2282 Percent 61 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	68, 67, 66, ,	Max. Daily 12 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 39 Conditions 01, 04 Location(s) Bldg #3 North End X-RAY
Substance ADHESIVES CAS No. - - DOT No. 2067 Substance No. (if available) 3072 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 69, 67, 66,	Max. Daily 11 Avg. Daily 10 Days Onsite 365 (Actual Number)	Container 46 Conditions 01, 04 Location(s) Bldg #2 Shipping
Substance AEROSOL DISPENSERS CAS No. - - DOT No. 1950 Substance No. (if available) 2068 Percent 61 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 69 68, 67, 66	Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 40 Conditions 02, 04 Location(s) Various
Substance AIR, COMPRESSED CAS No. - - DOT No. 1002 Substance No. (if available) 2070 Percent 60 (Code) State G (Code) Trade Secret ☐ (Check if claiming)	69, 67, 66, ,	Max. Daily Avg. Daily Days Onsite 365 (Actual Number)	Container 34 Conditions 02, 04 Location(s) Produced in Bldg #55 Plant wide use

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See instructions for codes.

Photocopy this sheet, if you need additional forms.

FACILITY IDENTIFICATION AND SITE LOCATION

1 8 5 2 1 8 0 0 0 0 0

DRESSER INDUSTRIES INC. (HARRISON)

401 WORTHINGTON AVE., HARRISON

PART 2
CHEMICAL INVENTORY PAGE

DEQ-094

Page ____ of ____

IMPORTANT!
Read all instructions before completing.
Please type all responses.

Reporting Period: January 1 - December 31, 1991

CHEMICAL DESCRIPTION	HAZARDS	Inventory (Ranges)	STORAGE CODES AND LOCATIONS
Substance Mercury CAS No. 7439-97-6 DOT No. 2025 Substance No. (if available) 1237 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	(Codes for all that apply.) 66	(Enter Code) Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	(Enter Codes, except Location(s); supply narrative.) Container 38 Conditions 01, 04 Location(s) Bldg #3 & 55
Substance 1,1,1 TrichloroEthane CAS No. 71-55-6 DOT No. 2831 Substance No. (if available) 1237 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	68, 67, 66	Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg #2, 2A & Paint Shed
Substance NAPTHA CAS No. 8030-30-6 DOT No. 1115 Substance No. (if available) 0206 Percent 57 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	70, 64, 67, 66	Max. Daily 13 Avg. Daily 13 Days Onsite ____ (Actual Number)	Container 47 Conditions 01, 04 Location(s) Bldg #1, 2, 3 & Garage Parts washers
Substance Nickel CAS No. 7440-02-0 DOT No. ____ Substance No. (if available) 1341 Percent 52 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	66	Max. Daily 13 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 37 Conditions 01, 04 Location(s) Bldg #1, 2, 3, 4 & 55 "Castings"
Substance Nitric Acid CAS No. 7697-31-2 DOT No. 2031 Substance No. (if available) 1356 Percent 52 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	68, 67, 66	Max. Daily 10 Avg. Daily 9 Days Onsite 365 (Actual Number)	Container 38 Conditions 01, 04 Location(s) Bldg #6
Substance Nitrogen CAS No. 7727-37-9 DOT No. 1066 Substance No. (if available) 1375 Percent 60 (Code) State G (Code) Trade Secret ☐ (Check if claiming)	69, 67	Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 40 Conditions 02, 04 Location(s) Bldg #3
Substance Oxygen CAS No. 7782-44-7 DOT No. 1072 Substance No. (if available) 1448 Percent 60 (Code) State G (Code) Trade Secret ☐ (Check if claiming)	70, 69, 68, 67	Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 40 Conditions 02, 04 Location(s) Bldg #2, 3, 6 & Garage

See Instructions for codes.

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TABLE 1 (continued)

INORGANIC MERCURY

SAMPLE	LOCATION	DEPTH	PARAMETERS	METHODS	REMARKS
4a-1 4a-2 4a-3 4a-4	Building #3, Erection and Test	N/A	Mercury	SW-7471	Used in manometers for measuring pressure, Hydrostatic pressure testing on pump casing Sediments
4b-1 4b-2	Bulding #4 Test	N/A	Mercury	SW-7471	Used in manometers for measuring pressure Sediments

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TABLE II-14. PP - METALS DETECTED IN SOIL SAMPLES COLLECTED OUTSIDE THE FOUNDRY BUILDING.

SAMPLE I.D. No.	Date Collected	pH	METALS (ug/g)										
			Silver	Arsenic	Beryllium	Cadmium	Chromium	Copper	Mercury	Nickel	Lead	Selenium	Zinc
4b-1 (0-6")	4/29/89	7.45	ND(1)	15	ND	3.6	450(2)	470	ND	430	16	ND	37
4b-1 (12-18")	4/29/89	7.20	ND	10	ND	1.6	190	520	1.3	250	230	ND	340
4b-3 (0-6")	4/29/89	7.63	ND	3.3	ND	0.8	600	1100	0.13	1100	130	ND	250
4b-3 (12-18")	4/29/89	7.67	ND	23	ND	2.5	260	730	0.42	590	190	0.5	380
4b-2 (0-6")	5/1/89	8.29	9.8	5.8	ND	3.7	700	61000	1.3	3100	7900	ND	630
4b-4 (0-6")	5/1/89	8.39	ND	6.6	ND	5.2	400	2900	3.9	780	630	ND	620
4b-4 (12-18")	5/1/89	8.01	ND	16	ND	3.0	470	800	0.5	470	170	ND	250
4b-5 (0-6")	5/1/89	7.50	ND	16	ND	7.2	180	1800	1.4	630	370	ND	570
4b-5 (12-18")	5/1/89	8.00	ND	6.6	ND	2.3	250	420	0.94	190	210	1.0	620
4b-6 (0-6")	5/1/89	5.64	ND	3.9	ND	2.4	140	420	0.39	150	230	ND	140
4b-6 (12-18")	5/1/89	7.03	ND	2.1	ND	0.7	93	110	0.28	120	57	ND	140
4b-7 (0-6")	5/1/89	8.34	ND	2.4	ND	1.5	180	950	0.29	210	110	ND	680
4b-7 (12-18")	5/1/89	8.73	ND	3.1	1.1	1.1	130	100	0.54	32	85	ND	110
4c-1	5/2/89	4.83	1	14	ND	8.8	150	490	0.16	190	69	ND	140
4c-1 (DUP)	5/2/89	4.89	1	22	ND	6.1	230	640	0.18	270	64	ND	130
4c-2	5/2/89	6.96	ND	5.5	ND	1.4	57	190	0.13	64	66	ND	81
4c-3	5/2/89	6.67	ND	11	ND	0.5	21	170	0.24	32	99	ND	100
4c-4	5/2/89	6.47	ND	17	ND	1.7	33	310	0.34	43	240	0.5	290
4c-5	5/2/89	7.77	ND	3.9	ND	2.2	220	410	0.08	330	78	ND	110
4c-6	5/2/89	7.09	ND	1.2	ND	ND	21	72	0.04	28	50	ND	47
NJDEP CUL (ug/g)			5	20	-	3	100	170	1	100	250-500	4	350

(1) Denotes None Detected

(2) Bold Face Denotes Sample Exceeds NJDEP CUL's

TABLE II-20. PP - METALS DETECTED IN SAMPLE 4g-2

Sample I.D. No.	Date Collected	METALS (ug/g)									
		pH	Arsenic	Beryllium	Cadmium	Chromium	Copper	Mercury	Nickel	Lead	Zinc
4g-2	5/1	7.75	7.5	8.7	1.6	110(1)	410	1.7	120	160	280
NJDEP CUL (ug/g)			20	-	3	100	170	1	100	250-500	350

(1) Boldface denotes compound exceeds NJDEP CUL.

c. Discussion of Analyses

Samples that significantly exceeded the CUL for petroleum hydrocarbons (100 ug/g) were 4d-2, 4e-1, 43-2, 4f-1, and 4g-2. These samples had concentrations of petroleum hydrocarbons that ranged between 800 ug/g to 4,000 ug/g (Table II-18). Other samples that exceeded the CUL were 4d-1, 4d-3, 4d-4, 4f-2, 4f-3, 4h-1, 4h-2, and 4h-8. These concentrations ranged between 110 ug/g to 400 ug/g. Apparently, an oil leak occurred at the adjacent Capitol City Products Co in the past. This oil leak may have migrated to the Worthington property.

Aroclors that were detected over the CUL were found in 4h-2 (35 ug/g) and 4d-2 (6.9 ug/g). The CUL for PCBs ranges between 1 ug/g and 5 ug/g. Sample 4h-4 had a concentration of 3.86 ug/g. All other samples analyzed for PCBs had concentrations below 1 ug/g (Table II-19).

The only sample analyzed for PP-Metals was sample 4g-2. Silver, arsenic, beryllium, antimony, selenium, lead, zinc, thallium, and cadmium were detected:

* Chromium (110 ug/g) was found to exceed the CUL of 100 ug/g.
* Copper (410 ug/g) was found to exceed the CUL of 170 ug/g.
* Nickel (120 ug/g) exceeded the CUL of 100 ug/g.
* Mercury (1.7 ug/g) exceeded the CUL of 1 ug/g.

The pH of sample 4g-2 was 7.75. This slightly basic pH indicates that leaching of metals into the subsurface is unlikely to occur.

4. HEAT TREAT BUILDING AREA : SOILS

A total of four sampling points are located north of the heat-treat building area. These ground surface in these sample areas, 4i-(1-4), was found to be discolored. The locations here are known to have been used for drum storage in the past.

a. Organic Analyses

(1) Volatile Organic Compounds

Again, methylene chloride was detected in the field blank and was probably introduced at the laboratory. However, sample 4i-4 also contained elevated levels of

TABLE II-23. PP - METALS DETECTED IN SOIL SAMPLES COLLECTED FROM THE PATTERN STORAGE AREA

SAMPLE	DATE	pH	METALS (ug/g)								
			Arsenic	Beryllium	Cadmium	Chromium	Copper	Mercury	Nickel	Lead	Zinc
4a-1	4/29	6.01	3.0	ND(1)	1.1	18	62(3)	0.07	16	250	**390**(2)(3)
4a-2	4/29	6.7	10	0.4	2.6	23	**390**(3)	0.04	39	480	**880**(2)(3)
4a-3	4/29	7.46	4.9	.5	2.5	26	**170**B	0.58	34	**700**(3)	**930**(2)(3)
4a-4	4/29	7.46	3.2	ND	2.1	32	**210**B	0.25	33	380	**530**(2)(3)
NJDEP CULs			20		3	100	170	1	400	250-500	350

(1) Denotes none detected

(2) Boldface denotes sample exceeds NJDEP CUL'S

(3) B Denotes compound was found in associated blank

TABLE II - 32 PP METALS DETECTED IN SEDIMENT SAMPLES COLLECTED FROM SELECTED CATCH BASINS

Sample I.D. No.	Date Collected	pH	Metal (ug/g)										
			Silver	Arsenic	Beryllium	Cadmium	Chromium	Copper	Mercury	Nickel	Lead	Antimony	Zinc
228(sed)	5/5	6.90	ND(1)	5.0	ND	6.0(2)	390	1300	1	530	620	ND	1200
233	4/28	7.19	ND	4.0	ND	1.4	120	370	0.28	230	160	ND	230
234	5/5	7.42	2	11	0.3	5.2	54	480	11	86	1400	ND	1600
250	5/5	7.16	11	11	0.2	ND	15000	68000	3.3	43000	4900	40	8900
250(dup)	5/5	7.17	9	7	0.2	8.4	1200	50000	3.4	11000	4800	16	2100
251	5/5	6.84	8	13	ND	10	690	30000	9.2	2500	3400	23	2000
NJDEP CULs			5	20	-	3	100	170	1	100	250-50	-	350

(1) Denotes metal was not detected

(2) Boldface denotes concentration exceed CUL's

TABLE II-20. PP - METALS DETECTED IN SAMPLE 4g-2

Sample I.D. No.	Date Collected	METALS (ug/g)									
		pH	Arsenic	Beryllium	Cadmium	Chromium	Copper	Mercury	Nickel	Lead	Zinc
4g-2	5/1	7.75	7.5	8.7	1.6	110(1)	410	1.7	120	160	280
NJDEP CUL (ug/g)			20	-	3	100	170	1	100	250-500	350

(1) Boldface denotes compound exceeds NJDEP CUL.

TABLE II-36. PP METALS DETECTED IN SOILS COLLECTED ADJACENT TO CRACKED CATCH BASINS

SAMPLE	DATE	pH	METALS (ug/g)								
			Arsenic	Beryllium	Cadmium	Chromium	Copper	Mercury	Nickel	Lead	Zinc
SB-C1 (2-4')	5/23	7.30	ND(1)	ND	ND	12.0	25.0	0.39	10.0	34.0	69.0
SB-C1 (DUP.)		7.31	ND	ND	ND	10.00	23.0	0.08	10.0	23.0	50.0
SB-C2A (5-7')	5/23	6.76	4.0	ND	0.6	15.0	10.0	0.09	10.0	42.0	72.0
SB-C5 (4-6')	5/23	6.92	3.0	ND	0.7	22.0	15.0	0.50	22.0	16.0	ND
SB-C5 (DUP.)		8.26	ND	0.4	1.0	17.0	14.0	0.07	20.0	13.0	53.0
SB-C9 (4-6')	5/23	8.06	ND	ND	0.4	9.2	13.0	ND	9.0	ND	27.0
C-4 (4-8')	6/15	8.53	3.0	0.4	0.5	12.0	22.0	0.27	12.0	34.0	62.0
C-8 (1-4')	6/15	7.40	5.0	ND	ND	11.0	53.0	0.53	9.0	51.0	67.0
C-11 (4-6')	6/15	11.13	ND	ND	0.6	13.0	33.0	0.09	18.0	14.0	45.0
C-13 (4-6')	6/15	8.73	ND	ND	0.3	13.0	30.0	0.06	15.0	9.0	30.0
C-14 (4-6')	6/15	10.15	2.0	ND	ND	13.0	13.0	ND	15.0	5.0	42.0
C-14 (DUP.)	6/15	7.76	ND	ND	0.5	17.0	11.0	ND	17.0	8.0	43.0
C-15 (3-5')	6/15	8.51	2.0	ND	0.5	15.0	68.0	0.08	69.0	27.0	63.0
C-19 (4-6')	6/15	8.16	ND	ND	ND	8.0	7.0	ND	7.0	ND	20.0
C-28 (1-3')	6/15	7.98	ND	ND	ND	18.0	18.0	ND	11.0	12.0	37.0
C-32 (3-5')	6/16	8.20	5.0	0.4	ND	13.0	19.0	0.40	10.0	49.0	63.0
C-35 (1-4')	6/16	8.16	2.0	ND	0.4	12.0	32.0	0.11	11.0	27.0	170.0
C-37 (1-3')	6/16	7.91	2.0	ND	ND	13.0	8.0	0.10	9.0	13.0	37.0
C-39 (4-6')	6/16	7.26	3.0	ND	0.3	10.0	18.0	0.35	7.7	56.0	42.0
C-39 (DUP.)		7.33	6.0	ND	ND	12.0	40.0	0.90	9.0	73.0	93.0
C-40 (1-3')	6/16	11.68	20.0	ND	0.7	21.0	270.0	6.20	48.0	140.0	170.0
C-43 (2-4')	6/16	9.19	ND	ND	0.6	23.0	18.0	ND	24.0	8.0	57.0
C-44 (4-5')	6/16	7.90	ND	0.5	0.6	17.0	17.0	ND	19.0	8.0	51.0
C-47 (3-5')	6/16	7.54	4.0	0.4	ND	12.0	21.0	0.25	9.0	57.0	75.0
C-48 (4-6')	6/16	8.41	2.0	ND	0.8	26.0	940.0	0.23	34.0	100.0	570.0
NJDEP Guidelines			20	-	3	100	170	1	100	250-500	350

(1) Denotes Not Detected
(2) Boldface Denotes Concentrations Exceed CULs

TABLE II-43. PP - METALS DETECTED IN SEDIMENT SAMPLES COLLECTED FROM THE SPRAY POND.

Sample I.D. No.	Matrix	Date Collected	pH	METALS (ug/g)						
				Cadmium	Chromium	Copper	Mercury	Nickel	Zinc	Lead
Sediment N. side	sed	4/30	6.89	16	50	1900	1.8	170	6000(2)	570
Sediment S. South	sed	4/30	6.79	13(1)	94	2300	13	120	4900(2)	750
NJDEP CUL'S				3	100	170	1	100	350	250-500

(1) Boldface denotes sample exceeds NJDEP CULs

(2) Denotes detected in associated blank

KELLEY DRYE & WARREN LLP
A LIMITED LIABILITY PARTNERSHIP
1200 19TH STREET, N.W.
SUITE 500
WASHINGTON, D.C. 20036
(202) 955-9600

NEW YORK, NY
LOS ANGELES, CA
CHICAGO, IL
STAMFORD, CT
PARSIPPANY, NJ

BRUSSELS, BELGIUM
HONG KONG

AFFILIATE OFFICES
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JAKARTA, INDONESIA
MANILA, THE PHILIPPINES
MUMBAI, INDIA
TOKYO, JAPAN

FACSIMILE
(202) 955-9792
www.kelleydrye.com

DIRECT LINE (202) 955-9867
E-MAIL dsteinway@kelleydrye.com

December 11, 2000

VIA OVERNIGHT DELIVERY

Matthew Fox, Remedial Project Manager
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
290 Broadway, Floor 19
New York, New York 10007-1866

Re: Response to CERCLA Section 104(e) Request
Diamond Alkali Superfund Site, Passaic River Study Area

Dear Mr. Fox:

On behalf of Dresser Industries, Inc. ("Dresser"), this letter responds in a timely manner to the U.S. Environmental Protection Agency's ("EPA" or "Agency") Request for Information regarding the Diamond Alkali Superfund Site (the "Site"), which was dated July 20, 2000, addressed to Dresser in Harrison, New Jersey and received by Dresser on September 12, 2000. As confirmed previously by Pat Hick of your offices, EPA granted Dresser an extension of time until December 12, 2000 to respond to EPA's Request for Information.

As an initial matter, Dresser objects to several of the requests contained in EPA's Request for Information to the extent that the information sought: (1) is subject to the attorney-client privilege; (2) is overbroad, irrelevant and/or unduly burdensome; and/or (3) is not available to, or within Dresser's control, or is beyond the grant of authority to EPA under the federal Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. § 9601 *et seq.* However, without waiving its privileges, Dresser wishes to cooperate fully with the EPA in this matter and therefore submits the following information in response to EPA's Request for Information to the extent that it pertains to such request. For your convenience, EPA's questions are provided along with Dresser's responses.

utilize, store or properly dispose of certain materials containing the substances listed below which have an "X" under the "Yes" column. For supporting documents, please see the supporting documents for Question No. 5.

	YES	NO
2,3,7,8 tetrachlorodibenzo-p-dioxin or other dioxin compounds		X
Benzene	X	
Ethyl benzene		X
Polyaromatic Hydrocarbons		X
If "yes," please list specific compounds.		X
Toluene	X	
Xylene	X	
PCBs	X	
Antimony	X	
Argon	X	
Arsenic	X	
Cadmium		X
Chlorine	X	
Chromium	X	
Copper	X	
Iron	X	
Lead	X	
Mercury	X	
Nickel	X	
Silver		X
Sulfur	X	
Titanium	X	
Vanadium		X
Zinc		X
Cyanide		X
Acetone	X	

AMF000064

Nothing in this letter should be construed as an admission of liability on the part of Dresser or any of its representatives, agents, or affiliates.

In regard to any further correspondence concerning this matter directed to Dresser, please forward directly to Susan Ponce, Esq., Assistant General Counsel, Halliburton, 4100 Clinton Drive, Building 01-512A, Houston, Texas 77020, with a copy to Thomas C. Jackson, Esq., Kelley, Drye & Warren LLP, 1200 19th Street, N.W., Washington, D.C. 20036. If you have any additional questions concerning this matter, please feel free to contact me at (202) 955-9867 or Mr. Jackson at (202) 955-9662.

Very truly yours,

KELLEY DRYE & WARREN LLP

By _____
Daniel M. Steinway

DMS/lt
Enclosures

Exhibit 1

AMFC000095

BEFORE COPYING FORM, ENTER:

SITE NAME: INGERSOLL-DRESSER PUMP CO.
401 Worthington Avenue
Harrison, N.J. 07029-2097

EPA ID NO. NJD980786222

1992 Hazardous Waste Report

FORM **GM**

WASTE GENERATION AND MANAGEMENT

INSTRUCTIONS: Read the detailed instructions beginning on page 13 of the 1992 Hazardous Waste Report booklet before completing this form.

Sec. I

A. Waste description (Instruction Page 15): COMBINATION OF APPROXIMATELY 40 DIFFERENT WASTE ITEMS REMOVED FROM METAL LABORATORY. A TABULATED LIST IS ATTACHED.

B. EPA hazardous waste code (Page 16): D001, D003, D007, D009, D011, D008

C. State hazardous waste code (Page 16):

D. SIC code (Page 16): 3561

E. Origin code (Page 16): System type M N A

F. Source code (Page 17): A05

G. Point of measurement (Page 17): 3

H. Form code (Page 17): B2013

I. RCRA-radioactive mixed (Page 17): 2

J. Reported TRI constituent (Page 18): 1

K. CAS numbers (Page 18): 1. 2. 3. 4. 5.

Sec. II

A. Quantity generated in 1991 (Instruction Page 18):

B. Quantity generated in 1992 (Page 18): 5858.0

C. UOM (Page 18): P Density: ☐ 1 lbs/gal ☐ 2 sg

D. Did this site do any of the following to this waste: treat on site, dispose on site, recycle on site, or discharge to a sewer/POTW? (Page 18)
☐ 1 Yes (CONTINUE TO SYSTEM 1)
☐ 2 No (SKIP TO SEC. III)

ON-SITE SYSTEM 1
On-site system type (Page 19): M
Quantity treated, disposed or recycled on site in 1992:

ON-SITE SYSTEM 2
On-site system type (Page 19): M
Quantity treated, disposed or recycled on site in 1992:

Sec. III

A. Was any of this waste shipped off site in 1992? (Instruction Page 20)
☐ 1 Yes (CONTINUE TO BOX B)
☐ 2 No (SKIP TO SEC. IV)

Site	B. EPA ID No. of facility waste was shipped to (Page 20)	C. System type shipped to (Page 20)	D. Off-site availability code (Page 21)	E. Total quantity shipped in 1992 (Page 21)
1	PAD085690592	M024	1	5858.0
2		M		

Sec. IV

A. Did new activities in 1992 result in minimization of this waste? (Instruction Page 22)
☐ 1 Yes (CONTINUE TO BOX B)
☐ 2 No (THIS FORM IS COMPLETE)

B. Activity (Page 22): W / W

C. Other effects (Page 22): ☐ 1 Yes ☐ 2 No

D. Quantity recycled in 1992 due to new activities (Page 23):

E. Activity/production index (Page 23):

F. 1992 Source reduction quantity (Page 24):

Comments: LABORATORY CONTENTS OF DESCRIBED WASTE WAS HAULED AND DISPOSED OF BY WASTE CONVERSION INC., HATFIELD, PA 19440.

PENNSYLVANIA

DATE	MANIFEST #	WASTE	U/M AMT
5-12-92	PAC 5767016	Waste Nitric Acid Oxidizer UN2031	P. 73
		Waste Oxidizer, Corrosive, Liquid, N.O.S. Oxidizer NA9193 (samples	P. 12
		Waste Acid Liquid, N.O.S. Corrosive Material NA1760 (Fluoboric Acid, Hydro-flouric Acid)	P. 7
		RQ Waste Acid Liquid, N.O.S. Corrosive Material NA1760 (Hydrochloric Acid, Phosphoric Acid)	P. 128
		Waste Formic Acid Corrosive Material UN1779	P. 16
		Waste Acid Liquid, N.O.S. Corrosive Material NA1760 (Sulfuric Acid, Hydrochloric Acid)	P. 115
		Waste Alkaline Liquid, N.O.S. RQ Corrosive Material NA1719 (Ammonium Hydroxide, Potassium Hydroxide)	P. 93
		Waste Alkaline Liquid, N.O.S. Corrosive Material NA1719 (samples)	P. 10
		RQ Waste Poison B Solid, N.O.S. Poison B UN2811 (Mercurous Chloride, Mercury Oxide)	P. 3
		Waste Phosphoric Anhydride Corrosive Material NA1807	P. 2
		Waste Corrosive Solid, N.O.S. Corrosive Material UN1759 (N/A) (Hydrazine Sulfate, Sodium Hypophosphite)	P. 3
		RQ Waste Corrosive Solid, N.O.S. Corrosive Material UN1759 (Barium Hydroxide, Sodium Hydroxide)	P. 329
		Non Hazardous Waste Solid DOT Non Regulated N/A	P. 60

PASSAIC VALLEY SEWERAGE COMMISSION
NEWARK NEW JERSEY

HEAVY METALS SOURCE DETERMINATION STUDY

IN COMPLIANCE WITH OCEAN DUMPING PERMIT
NO. II NJ003 INTERIM SECTION 3(c)

Passaic Valley Sewerage Commissioners

JOSEPH M. KEEGAN	- Chairman
BEN W. GORDON	- Vice Chairman
THOMAS J. CIFELLI	- Commissioner
VINCENT CORRADO	- Commissioner
ROBERT J. DAVENPORT	- Commissioner
RICHARD M. GIACOMARRO	- Commissioner
CHARLES A. LAGOS	- Commissioner
CARMINE T. PERRAPATO	- Executive Director
ROCCO D. RICCI	- Chief Engineer

PHASE II

APRIL 1980

DRAFT

Elson T. Killam Associates, Inc.

Environmental and Hydraulic Engineers

KLL013740

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA 2

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
380	HAKOVIA LIQUID GOLD 1 WEST CENTRAL AVE. EAST NEWARK	0.0220	0.001 < (0.008)	0.001 (0.005)	0.012 (0.066)	0.033 < (0.179)	0.001 (0.005)	0.058 < (0.314)	0.000 (0.001)	0.0081 (0.044)
630	DRIVER HARRIS CO. 201 MIDDLESEX ST. HARRISON	0.2020	0.027 (0.016)	2.022 (1.200)	0.901 (0.535)	0.136 (0.081)	7.396 (4.390)	0.099 < (0.059)	0.002 (0.001)	< 0.0002 (0.000)
640	EAGLE AFFILIATES INC. 505 MANOR AVE. HARRISON	0.1150	0.024 (0.025)	0.014 (0.015)	0.181 (0.189)	0.090 (0.094)	0.093 (0.097)	0.132 < (0.138)	0.001 (0.001)	0.0034 (0.003)
650	MARVEL PHOTO CO. INC. 111 SOUTH 4TH ST. HARRISON	0.0040 <	0.000 (0.005)	0.001 (0.031)	0.006 (0.178)	0.002 (0.059)	0.003 (0.095)	0.018 (0.454)	0.000 (0.001)	0.0001 (0.002)
660	C. S. OSBORNE & CO. 125 JERSEY ST. HARRISON	0.0001	0.000 (0.022)	0.001 (0.778)	0.009 (11.100)	0.000 (0.479)	0.001 (0.642)	0.004 < (7.130)	0.000 (0.001)	< 0.0000 (0.000)
670	OTIS ELEVATOR CO. 1000 1ST ST. HARRISON	0.0960	0.006 (0.008)	0.418 (0.522)	0.159 (0.199)	0.113 (0.141)	0.032 (0.040)	5.268 (6.580)	0.002 (0.003)	0.0046 (0.006)
680	WORTHINGTON PUMP CORP. 401 WORTHINGTON AVE. HARRISON	0.2490	0.052 (0.025)	0.064 (0.031)	0.461 (0.222)	0.287 (0.138)	0.087 (0.042)	0.326 < (0.157)	0.002 (0.001)	0.0768 (0.037)
780	DREW CHEMICAL 1104 HARRISON AVE. KEARNY	0.0440	0.006 (0.016)	0.062 (0.169)	0.090 (0.245)	0.281 (0.767)	0.021 (0.058)	0.778 < (2.120)	0.000 (0.001)	< 0.0000 (0.000)
	SUB-AREA 2 TOTAL INDUSTRIAL HEAVY METALS LOCATED-PHASE II		0.117	2.583	1.820	0.943	7.634	6.683	0.008	0.0931

PASSAIC VALLEY SEWERAGE COMMISSIONERS
790 Broad Street
Newark, N. J. 07102

Date: May 22, 1972

Plant Ref. No. 1RE0494-A

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name: Engelhard Industries Division

Address: 429 Delancy Street, Newark, New Jersey Zip 07105

Person and Title to whom any further inquiries should be directed: Paul N. Cheremisinoff, P. Environmental Control Engineer

Phone No.: 589-5000 Ext. 2882

Number of Employees: 650

Number of Working Days Per Week: 5

Number of Shifts Per Day: 2

Area of Property: 41.5 Acres, or ..... Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.: SIC281

Finished Product(s): Precious Metals (Platinum, Silver), Catalysts

Average Production: 52,950 pounds/day gross porduction (estimated)

Raw Materials Used: Precious metals, acids, bases

Brief Description of Operations: Dissolving of metals to solution, drying, crystallization of metallic salts, plating, incineration of spent metal catalysts on carbon bases, refining and recovery of precious metals from spent catalysts, residues, alloys.

Quantitative analysis of: All elements

Discharge Point Sample [illegible]

Silver	243 ug/l
Aluminum	42000 ug/l
Gold	<100 ug/l ND
Cobalt	250 ug/l
Cadmium	220 ug/l
Calcium	<.1 mg/l
Copper	790 ug/l
Iron	3080 ug/l
Potassium	16.00 mg/l
Mercury	<250 ug/l ND
Palladium	170 ug/l
Magnesium	4 mg/l
Manganese	70 ug/l
Nickel	14400 ug/l
Lead	480 ug/l
Platinum	348 ug/l
Titanium	<100 ug/l ND
Zinc	<1000 ug/l ND
Tin	474 ug/l
Zinc	9280 ug/l
Chromium-Total	68 ug/l
Sodium	550 mg/l

CLEANUP PLAN FOR
THE ENGELHARD CORPORATION
FACILITY AT
429 DELANCY STREET
NEWARK, NEW JERSEY
Attachment 4 of 4

ECRA Case No. 85689

March 1989

Prepared for
Engelhard Corporation
Menlo Park, CN28
Edison, New Jersey 08818

Prepared by

ENVIRON Corporation
210 Carnegie Center
Princeton, New Jersey 08540

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 882565
Sample No: 13923

Client Sample ID: 644G-MW13-GW04

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	68	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	310	ug/l
Silver	< 10	ug/l
Zinc	1,650	ug/l
Antimony	< 5	ug/l
Arsenic	< 4	ug/l
Lead	< 2	ug/l
Selenium	< 5	ug/l
Thallium	< 4	ug/l
Mercury	< 0.2	ug/l
Aluminum	1,500	ug/l

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 882565
Sample No: 13924

Client Sample ID: 644G-MW20-GW04

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	11	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	170	ug/l
Silver	< 10	ug/l
Zinc	15	ug/l
Antimony	< 5	ug/l
Arsenic	< 4	ug/l
Lead	< 2	ug/l
Selenium	22	ug/l
Thallium	< 4	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 882565
Sample No: 13933

Client Sample ID: 644G-MW14-GW04

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	10	ug/l
Chromium	820	ug/l
Copper	150	ug/l
Nickel	120	ug/l
Silver	13	ug/l
Zinc	740	ug/l
Antimony	< 5	ug/l
Arsenic	19	ug/l
Lead	1,200	ug/l
Selenium	18	ug/l
Thallium	< 4	ug/l
Mercury	4.7	ug/l
Aluminum	1,400	ug/l

< - Less Than

NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Atlantic Inc
Thorofare Division
100 Grove Road P.O. Box 248
Thorofare NJ 08086
Tel (609) 848-3939
Fax (609) 848-9195

Formerly NET Mid-Atlantic Inc

FOR:

ENVIRON CORPORATION

210 Carnegie Center
Suite 201
Princeton, NJ 08540

Attention: William Kraft
Project: Engelhard

Report #: 89-3622
Date: January 29, 1990

NET Atlantic, Inc.

Approved and released by:

Kenneth Bond
Laboratory Manager

Review and approval of
technical data by:

Elinor J. Scholz
Project Manager

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NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32613

Client Sample ID: 644G-004A-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	27	ug/l
Chromium	20	ug/l
Copper	<10	ug/l
Nickel	<20	ug/l
Silver	<10	ug/l
Zinc	49	ug/l
Antimony	<5	ug/l
Arsenic	2	ug/l
Lead	<2	ug/l
Selenium	<30	ug/l
Thallium	<5	ug/l
Mercury	<.2	ug/l
Aluminum	2,400	ug/l

< = Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32614

Client Sample ID: 644G-0016-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	10	ug/l
Chromium	<10	ug/l
Copper	<10	ug/l
Nickel	<20	ug/l
Silver	<10	ug/l
Zinc	10	ug/l
Antimony	<5	ug/l
Arsenic	4	ug/l
Lead	<2	ug/l
Selenium	<3	ug/l
Thallium	<5	ug/l
Mercury	<.2	ug/l
Aluminum	520	ug/l

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32615

Client Sample ID: 644G-005A-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	11	ug/l
Chromium	21	ug/l
Copper	17	ug/l
Nickel	77	ug/l
Silver	16	ug/l
Zinc	60	ug/l
Antimony	<5	ug/l
Arsenic	24	ug/l
Lead	<5	ug/l
Selenium	<3	ug/l
Thallium	<5	ug/l
Mercury	1.1	ug/l
Aluminum	<100	ug/l

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32616

Client Sample ID: 644G-007S-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	41	ug/l
Chromium	33	ug/l
Copper	11	ug/l
Nickel	1,010	ug/l
Silver	14	ug/l
Zinc	1,650	ug/l
Antimony	<5	ug/l
Arsenic	3	ug/l
Lead	54	ug/l
Selenium	<3	ug/l
Thallium	<5	ug/l
Mercury	<0.2	ug/l
Aluminum	140	ug/l

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32617

Client Sample ID: 644G-0021-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	23	ug/l
Chromium	23	ug/l
Copper	16	ug/l
Nickel	1,090	ug/l
Silver	10	ug/l
Zinc	560	ug/l
Antimony	<5	ug/l
Arsenic	8	ug/l
Lead	1,340	ug/l
Selenium	<3	ug/l
Thallium	<5	ug/l
Mercury	<0.2	ug/l
Aluminum	310	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32618

Client Sample ID: 644G-0020-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	16	ug/l
Chromium	20	ug/l
Copper	<10	ug/l
Nickel	130	ug/l
Silver	<10	ug/l
Zinc	29	ug/l
Antimony	<5	ug/l
Arsenic	11	ug/l
Lead	<5	ug/l
Selenium	<3	ug/l
Thallium	<5	ug/l
Mercury	<0.2	ug/l
Aluminum	<100	ug/l

< = Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32619

Client Sample ID: 644G-0025-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	<5	ug/l
Chromium	<10	ug/l
Copper	<10	ug/l
Nickel	<20	ug/l
Silver	<10	ug/l
Zinc	<10	ug/l
Antimony	<5	ug/l
Arsenic	16	ug/l
Lead	<2	ug/l
Selenium	<3	ug/l
Thallium	<5	ug/l
Mercury	<.2	ug/l
Aluminum	<100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32620

Client Sample ID: 644G-1128-WB01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	<5	ug/l
Chromium	<10	ug/l
Copper	<10	ug/l
Nickel	<20	ug/l
Silver	<10	ug/l
Zinc	<10	ug/l
Antimony	<5	ug/l
Arsenic	<2	ug/l
Lead	<2	ug/l
Selenium	<3	ug/l
Thallium	<5	ug/l
Mercury	<.2	ug/l
Aluminum	<100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32621

Client Sample ID: 644G-004B-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	18	ug/l
Chromium	42	ug/l
Copper	21	ug/l
Nickel	81	ug/l
Silver	45	ug/l
Zinc	<10	ug/l
Antimony	170	ug/l
Arsenic	3	ug/l
Lead	240	ug/l
Selenium	88	ug/l
Thallium	<5	ug/l
Mercury	1.8	ug/l
Aluminum	<100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32622

Client Sample ID: 644G-005B-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	12	ug/l
Chromium	27	ug/l
Copper	18	ug/l
Nickel	35	ug/l
Silver	24	ug/l
Zinc	<10	ug/l
Antimony	120	ug/l
Arsenic	3	ug/l
Lead	150	ug/l
Selenium	82	ug/l
Thallium	<5	ug/l
Mercury	3.3	ug/l
Aluminum	180	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893622
Sample No: 32623

Client Sample ID: 644G-007D-GW01

Priority Pollutant Metals Aqueous

Parameter	Results	Units
Beryllium	<5	ug/l
Cadmium	27	ug/l
Chromium	58	ug/l
Copper	67	ug/l
Nickel	150	ug/l
Silver	36	ug/l
Zinc	300	ug/l
Antimony	<5	ug/l
Arsenic	<2	ug/l
Lead	230	ug/l
Selenium	<3	ug/l
Thallium	<5	ug/l
Mercury	0.6	ug/l
Aluminum	200	ug/l

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32763
Client Sample ID: 644G-023D-GW01

Parameter	Results	Units
Field Conductance	12512	umhos/cm
Field pH	6.64	pH Units
Total Dissolved Solids	6,450,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	44	ug/l
Chromium	39	ug/l
Copper	19	ug/l
Nickel	45	ug/l
Silver	23	ug/l
Zinc	15	ug/l
Antimony	< 5	ug/l
Arsenic	< 2	ug/l
Lead	200	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32764
Client Sample ID: 644G-023S-GW01

Parameter	Results	Units
Field Conductance	2287	umhos/cm
Field pH	7.19	pH Units
Total Dissolved Solids	1,220,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	14	ug/l
Antimony	< 5	ug/l
Arsenic	< 2	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	1	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32765
Client Sample ID: 644G-002S-GW01

Parameter	Results	Units
Field Conductance	1169	umhos/cm
Field pH	7.23	pH Units
Total Dissolved Solids	452,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	48	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	240	ug/l
Antimony	< 5	ug/l
Arsenic	6	ug/l
Lead	23	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32766
Client Sample ID: 644G-002D-GW01

Parameter	Results	Units
Field Conductance	14780	umhos/cm
Field pH	6.56	pH Units
Total Dissolved Solids	7,320,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	52	ug/l
Chromium	45	ug/l
Copper	22	ug/l
Nickel	58	ug/l
Silver	25	ug/l
Zinc	14	ug/l
Antimony	< 5	ug/l
Arsenic	18	ug/l
Lead	240	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32767
Client Sample ID: 644G-012B-GW01

Parameter	Results	Units
Field Conductance	1544	umhos/cm
Field pH	7.10	pH Units
Total Dissolved Solids	632,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	26	ug/l
Antimony	< 5	ug/l
Arsenic	21	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32768
Client Sample ID: 644G-012A-GW01

Parameter	Results	Units
Field Conductance	6400	umhos/cm
Field pH	7.13	pH Units
Total Dissolved Solids	2,810,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	10	ug/l
Chromium	28	ug/l
Copper	23	ug/l
Nickel	36	ug/l
Silver	19	ug/l
Zinc	71	ug/l
Antimony	< 5	ug/l
Arsenic	10	ug/l
Lead	130	ug/l
Selenium	3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32769
Client Sample ID: 644G-0011-GW01

Parameter	Results	Units
Field Conductance	2637	umhos/cm
Field pH	7.56	pH Units
Total Dissolved Solids	1,110,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	< 10	ug/l
Antimony	< 5	ug/l
Arsenic	73	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32770
Client Sample ID: 644G-001A-GW01

Parameter	Results	Units
Field Conductance	2362	umhos/cm
Field pH	7.56	pH Units
Total Dissolved Solids	946,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	< 10	ug/l
Antimony	< 5	ug/l
Arsenic	< 2	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32771
Client Sample ID: 644G-0003-GW01

Parameter	Results	Units
Field Conductance	4150	umhos/cm
Field pH	7.38	pH Units
Total Dissolved Solids	1,290,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	31	ug/l
Nickel	92	ug/l
Silver	< 10	ug/l
Zinc	4,130	ug/l
Antimony	< 5	ug/l
Arsenic	3	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32772
Client Sample ID: 644G-001B-GW01

Parameter	Results	Units
Field Conductance	2550	umhos/cm
Field pH	8.02	pH Units
Total Dissolved Solids	1,560,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	10	ug/l
Copper	49	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	320	ug/l
Antimony	< 5	ug/l
Arsenic	5	ug/l
Lead	19	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32773
Client Sample ID: 644G-027S-GW01

Parameter	Results	Units
Field Conductance	2780	umhos/cm
Field pH	7.35	pH Units
Total Dissolved Solids	1,850,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	23	ug/l
Copper	36	ug/l
Nickel	64	ug/l
Silver	13	ug/l
Zinc	160	ug/l
Antimony	< 5	ug/l
Arsenic	300	ug/l
Lead	13	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32774
Client Sample ID: 644G-0008-GW01

Parameter	Results	Units
Field Conductance	1451	umhos/cm
Field pH	7.92	pH Units
Total Dissolved Solids	863,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	11	ug/l
Copper	29	ug/l
Nickel	23	ug/l
Silver	< 10	ug/l
Zinc	1,480	ug/l
Antimony	< 5	ug/l
Arsenic	< 2	ug/l
Lead	12	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32775
Client Sample ID: 644G-027D-GW01

Parameter	Results	Units
Field Conductance	4975	umhos/cm
Field pH	7.24	pH Units
Total Dissolved Solids	3,440,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	12	ug/l
Chromium	27	ug/l
Copper	19	ug/l
Nickel	37	ug/l
Silver	18	ug/l
Zinc	45	ug/l
Antimony	< 5	ug/l
Arsenic	< 2	ug/l
Lead	110	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	0.4	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32776
Client Sample ID: 644G-0006-GW01

Parameter	Results	Units
Field Conductance	1663	umhos/cm
Field pH	6.83	pH Units
Total Dissolved Solids	1,100,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	10	ug/l
Copper	12	ug/l
Nickel	200	ug/l
Silver	< 10	ug/l
Zinc	2,050	ug/l
Antimony	< 5	ug/l
Arsenic	< 2	ug/l
Lead	< 2	ug/l
Selenium	3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32777
Client Sample ID: 644G-0009-GW01

Parameter	Results	Units
Field Conductance	1057	umhos/cm
Field pH	6.77	pH Units
Total Dissolved Solids	427,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	< 10	ug/l
Antimony	< 5	ug/l
Arsenic	< 2	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32778
Client Sample ID: 644G-010A-GW01

Parameter	Results	Units
Field Conductance	1352	umhos/cm
Field pH	7.06	pH Units
Total Dissolved Solids	667,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	11	ug/l
Copper	< 10	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	14	ug/l
Antimony	< 5	ug/l
Arsenic	11	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32779
Client Sample ID: 644G-010B-GW01

Parameter	Results	Units
Field Conductance	6725	umhos/cm
Field pH	7.21	pH Units
Total Dissolved Solids	3,710,000	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	6	ug/l
Chromium	23	ug/l
Copper	11	ug/l
Nickel	27	ug/l
Silver	15	ug/l
Zinc	< 10	ug/l
Antimony	< 5	ug/l
Arsenic	6	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	1.3	ug/l
Aluminum	< 100	ug/l

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32780
Client Sample ID: 644G-1130-WB01

Parameter	Results	Units
Field Conductance	DNA	umhos/cm
Field pH	DNA	pH Units

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	< 10	ug/l
Antimony	< 5	ug/l
Arsenic	< 2	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than
DNA - Does Not Apply

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893667
Sample No: 32781
Client Sample ID: 644G-1201-WB01

Parameter	Results	Units
Field Conductance	DNA	umhos/cm
Field pH	DNA	pH Units

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	< 10	ug/l
Antimony	< 5	ug/l
Arsenic	< 2	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	< 0.2	ug/l
Aluminum	< 100	ug/l

< - Less Than
DNA - Does Not Apply

Tier II Analytical Data Package
for Ground Water Sampling
April 1990

Engelhard Corporation
429 Delancy Street
Newark, New Jersey
ECRA Case No. 85689

Prepared by:

ENVIRON Corporation
Princeton, New Jersey

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32481
Client Sample ID: 644G-DD01-SS01

Parameter	Results	Units
Petroleum Hydrocarbons	208,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,240	ug/kg
Cadmium	3,210	ug/kg
Chromium	48,900	ug/kg
Copper	144,000	ug/kg
Nickel	43,000	ug/kg
Silver	7,900	ug/kg
Zinc	413,000	ug/kg
Antimony	<1,240	ug/kg
Arsenic	9,400	ug/kg
Lead	376,000	ug/kg
Selenium	< 740	ug/kg
Thallium	<1,240	ug/kg
Mercury	700	ug/kg

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32482
Client Sample ID: 644G-DD01-SS02

Parameter	Results	Units
Petroleum Hydrocarbons	126,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,200	ug/kg
Cadmium	1,200	ug/kg
Chromium	29,500	ug/kg
Copper	300,000	ug/kg
Nickel	373,000	ug/kg
Silver	14,200	ug/kg
Zinc	240,000	ug/kg
Antimony	<1,200	ug/kg
Arsenic	3,120	ug/kg
Lead	142,000	ug/kg
Selenium	< 720	ug/kg
Thallium	<1,200	ug/kg
Mercury	240	ug/kg

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32483
Client Sample ID: 644G-DD01-SS03

Parameter	Results	Units
Petroleum Hydrocarbons	229,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,350	ug/kg
Cadmium	3,240	ug/kg
Chromium	195,000	ug/kg
Copper	235,000	ug/kg
Nickel	1,030,000	ug/kg
Silver	<2,700	ug/kg
Zinc	1,200,000	ug/kg
Antimony	<1,350	ug/kg
Arsenic	10,800	ug/kg
Lead	943,000	ug/kg
Selenium	2,430	ug/kg
Thallium	<1,350	ug/kg
Mercury	1,720	ug/kg

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32484
Client Sample ID: 644G-DD02-SS01

Parameter	Results	Units
Petroleum Hydrocarbons	196,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,360	ug/kg
Cadmium	<1,360	ug/kg
Chromium	80,000	ug/kg
Copper	1,280,000	ug/kg
Nickel	31,700	ug/kg
Silver	12,000	ug/kg
Zinc	119,000	ug/kg
Antimony	2,460	ug/kg
Arsenic	10,400	ug/kg
Lead	681,000	ug/kg
Selenium	4,910	ug/kg
Thallium	<1,360	ug/kg
Mercury	180	ug/kg

< - Less Than

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REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32485
Client Sample ID: 644G-DD02-SS02

Parameter	Results	Units
Petroleum Hydrocarbons	290,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,580	ug/kg
Cadmium	3,460	ug/kg
Chromium	76,200	ug/kg
Copper	2,100,000	ug/kg
Nickel	69,300	ug/kg
Silver	21,700	ug/kg
Zinc	414,000	ug/kg
Antimony	5,030	ug/kg
Arsenic	20,400	ug/kg
Lead	413,000	ug/kg
Selenium	1,260	ug/kg
Thallium	<1,570	ug/kg
Mercury	350	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32486
Client Sample ID: 644G-DD02-SS03

Parameter	Results	Units
Petroleum Hydrocarbons	427,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,400	ug/kg
Cadmium	25,300	ug/kg
Chromium	293,000	ug/kg
Copper	1,740,000	ug/kg
Nickel	525,000	ug/kg
Silver	28,400	ug/kg
Zinc	2,140,000	ug/kg
Antimony	2,810	ug/kg
Arsenic	27,000	ug/kg
Lead	1,640,000	ug/kg
Selenium	2,250	ug/kg
Thallium	<1,410	ug/kg
Mercury	1,940	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32487
Client Sample ID: 644G-DD03-SS01

Parameter	Results	Units
Petroleum Hydrocarbons	1,840,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,460	ug/kg
Cadmium	19,600	ug/kg
Chromium	152,000	ug/kg
Copper	1,760,000	ug/kg
Nickel	679,000	ug/kg
Silver	27,200	ug/kg
Zinc	632,000	ug/kg
Antimony	<1,460	ug/kg
Arsenic	6,730	ug/kg
Lead	1,290,000	ug/kg
Selenium	4,680	ug/kg
Thallium	<1,46	ug/kg
Mercury	1,040	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32488
Client Sample ID: 644G-DD03-SS02

Parameter	Results	Units
Petroleum Hydrocarbons	12,100,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,620	ug/kg
Cadmium	6,140	ug/kg
Chromium	347,000	ug/kg
Copper	3,950,000	ug/kg
Nickel	2,520,000	ug/kg
Silver	13,900	ug/kg
Zinc	704,000	ug/kg
Antimony	<1,610	ug/kg
Arsenic	9,680	ug/kg
Lead	455,000	ug/kg
Selenium	40,700	ug/kg
Thallium	<1,610	ug/kg
Mercury	2,140	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32489
Client Sample ID: 644G-DD03-SS03

Parameter	Results	Units
Petroleum Hydrocarbons	49,100	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,140	ug/kg
Cadmium	4,100	ug/kg
Chromium	27,000	ug/kg
Copper	129,000	ug/kg
Nickel	532,000	ug/kg
Silver	18,900	ug/kg
Zinc	175,000	ug/kg
Antimony	<1,140	ug/kg
Arsenic	680	ug/kg
Lead	102,000	ug/kg
Selenium	< 730	ug/kg
Thallium	<1,310	ug/kg
Mercury	330	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32490
Client Sample ID: 644G-DD04-SS01

Parameter	Results	Units
Petroleum Hydrocarbons	4,900,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,200	ug/kg
Cadmium	13,700	ug/kg
Chromium	119,000	ug/kg
Copper	2,100,000	ug/kg
Nickel	472,000	ug/kg
Silver	18,500	ug/kg
Zinc	1,200,000	ug/kg
Antimony	<1,200	ug/kg
Arsenic	10,600	ug/kg
Lead	351,000	ug/kg
Selenium	960	ug/kg
Thallium	<1,200	ug/kg
Mercury	520	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32491
Client Sample ID: 644G-DD04-SS02

Parameter	Results	Units
Petroleum Hydrocarbons	3,090,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,540	ug/kg
Cadmium	11,700	ug/kg
Chromium	83,100	ug/kg
Copper	722,000	ug/kg
Nickel	434,000	ug/kg
Silver	22,200	ug/kg
Zinc	1,540,000	ug/kg
Antimony	<1,540	ug/kg
Arsenic	19,800	ug/kg
Lead	3,210,000	ug/kg
Selenium	1,540	ug/kg
Thallium	<1,540	ug/kg
Mercury	2,910	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32492
Client Sample ID: 644G-DD04-SS03

Parameter	Results	Units
Petroleum Hydrocarbons	1,350,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	6,080	ug/kg
Cadmium	14,500	ug/kg
Chromium	167,000	ug/kg
Copper	1,660,000	ug/kg
Nickel	676,000	ug/kg
Silver	8,420	ug/kg
Zinc	4,010,000	ug/kg
Antimony	<1,170	ug/kg
Arsenic	7,010	ug/kg
Lead	1,180,000	ug/kg
Selenium	2,810	ug/kg
Thallium	<1,170	ug/kg
Mercury	1,410	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32493
Client Sample ID: 644G-DD05-SS01

Parameter	Results	Units
Petroleum Hydrocarbons	1,480,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,620	ug/kg
Cadmium	78,400	ug/kg
Chromium	56,700	ug/kg
Copper	8,610,000	ug/kg
Nickel	3,540,000	ug/kg
Silver	574,000	ug/kg
Zinc	3,770,000	ug/kg
Antimony	<1,620	ug/kg
Arsenic	14,600	ug/kg
Lead	2,530,000	ug/kg
Selenium	20,100	ug/kg
Thallium	<1,620	ug/kg
Mercury	2,730	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32494
Client Sample ID: 644G-DD05-SS02

Parameter	Results	Units
Petroleum Hydrocarbons	3,760,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<2,030	ug/kg
Cadmium	58,500	ug/kg
Chromium	62,500	ug/kg
Copper	5,000,000	ug/kg
Nickel	2,790,000	ug/kg
Silver	1,110,000	ug/kg
Zinc	8,540,000	ug/kg
Antimony	<2,030	ug/kg
Arsenic	21,100	ug/kg
Lead	2,260,000	ug/kg
Selenium	29,600	ug/kg
Thallium	<2,030	ug/kg
Mercury	1,880	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32495
Client Sample ID: 644G-DD06-SS01

Parameter	Results	Units
Petroleum Hydrocarbons	165,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,700	ug/kg
Cadmium	158,000	ug/kg
Chromium	122,000	ug/kg
Copper	968,000	ug/kg
Nickel	261,000	ug/kg
Silver	12,000	ug/kg
Zinc	446,000	ug/kg
Antimony	<1,700	ug/kg
Arsenic	21,100	ug/kg
Lead	1,230,000	ug/kg
Selenium	4,420	ug/kg
Thallium	<1,700	ug/kg
Mercury	2,630	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32496
Client Sample ID: 644G-DD06-SS02

Parameter	Results	Units
Petroleum Hydrocarbons	<16,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,490	ug/kg
Cadmium	5,360	ug/kg
Chromium	59,000	ug/kg
Copper	857,000	ug/kg
Nickel	35,500	ug/kg
Silver	5,360	ug/kg
Zinc	550,000	ug/kg
Antimony	<1,490	ug/kg
Arsenic	27,400	ug/kg
Lead	1,530,000	ug/kg
Selenium	1,190	ug/kg
Thallium	<1,490	ug/kg
Mercury	1,610	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32497
Client Sample ID: 644G-DD06-SS03

Parameter	Results	Units
Petroleum Hydrocarbons	263,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,750	ug/kg
Cadmium	8,400	ug/kg
Chromium	57,400	ug/kg
Copper	1,350,000	ug/kg
Nickel	36,000	ug/kg
Silver	8,750	ug/kg
Zinc	998,000	ug/kg
Antimony	<1,750	ug/kg
Arsenic	24,800	ug/kg
Lead	2,350,000	ug/kg
Selenium	1,050	ug/kg
Thallium	<1,750	ug/kg
Mercury	370	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32498
Client Sample ID: 644G-DD07-SS01

Parameter	Results	Units
Petroleum Hydrocarbons	6,040,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,900	ug/kg
Cadmium	12,600	ug/kg
Chromium	133,000	ug/kg
Copper	644,000	ug/kg
Nickel	312,000	ug/kg
Silver	248,000	ug/kg
Zinc	655,000	ug/kg
Antimony	<1,900	ug/kg
Arsenic	27,400	ug/kg
Lead	721,000	ug/kg
Selenium	22,900	ug/kg
Thallium	<1,900	ug/kg
Mercury	3,630	ug/kg

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32499
Client Sample ID: 644G-DD07-SS02

Parameter	Results	Units
Petroleum Hydrocarbons	356,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,370	ug/kg
Cadmium	2,190	ug/kg
Chromium	26,800	ug/kg
Copper	191,000	ug/kg
Nickel	53,700	ug/kg
Silver	42,500	ug/kg
Zinc	92,300	ug/kg
Antimony	<1,370	ug/kg
Arsenic	1,640	ug/kg
Lead	61,900	ug/kg
Selenium	< 820	ug/kg
Thallium	<1,370	ug/kg
Mercury	440	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32500
Client Sample ID: 644G-DD07-SS03

Parameter	Results	Units
Petroleum Hydrocarbons	3,290,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<2,100	ug/kg
Cadmium	13,500	ug/kg
Chromium	706,000	ug/kg
Copper	1,140,000	ug/kg
Nickel	1,140,000	ug/kg
Silver	112,000	ug/kg
Zinc	409,000	ug/kg
Antimony	<2,100	ug/kg
Arsenic	55,600	ug/kg
Lead	1,570,000	ug/kg
Selenium	8,850	ug/kg
Thallium	<2,110	ug/kg
Mercury	71,000	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32501
Client Sample ID: 644G-DD08-SS01

Parameter	Results	Units
Petroleum Hydrocarbons	12,400,000	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<3,260	ug/kg
Cadmium	19,500	ug/kg
Chromium	143,000	ug/kg
Copper	1,120,000	ug/kg
Nickel	587,000	ug/kg
Silver	393,000	ug/kg
Zinc	1,330,000	ug/kg
Antimony	<3,260	ug/kg
Arsenic	28,000	ug/kg
Lead	658,000	ug/kg
Selenium	5,860	ug/kg
Thallium	<3,260	ug/kg
Mercury	9,300	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32502
Client Sample ID: 644G-DD08-SS02

Parameter	Results	Units
Petroleum Hydrocarbons	25,400	ug/kg

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	<1,180	ug/kg
Cadmium	1,420	ug/kg
Chromium	15,600	ug/kg
Copper	174,000	ug/kg
Nickel	36,000	ug/kg
Silver	39,800	ug/kg
Zinc	35,100	ug/kg
Antimony	<1,180	ug/kg
Arsenic	3,320	ug/kg
Lead	61,400	ug/kg
Selenium	710	ug/kg
Thallium	<1,190	ug/kg
Mercury	1,500	ug/kg

< - Less Than

NET Mid-Atlantic, Inc.

REPORT OF ANALYSIS

Client: ENVIRON CORPORATION
Job No: 893591
Sample No: 32503
Client Sample ID: 644G-DD08-WB01

Parameter	Results	Units
Petroleum Hydrocarbons	< 100	ug/l

Priority Pollutant Metals

Parameter	Results	Units
Beryllium	< 5	ug/l
Cadmium	< 5	ug/l
Chromium	< 10	ug/l
Copper	< 10	ug/l
Nickel	< 20	ug/l
Silver	< 10	ug/l
Zinc	< 10	ug/l
Antimony	< 5	ug/l
Arsenic	2	ug/l
Lead	< 2	ug/l
Selenium	< 3	ug/l
Thallium	< 5	ug/l
Mercury	0.2	ug/l

< - Less Than

Engelhard Corporation / Delancy Street Site

Waste Manifested During Demolition

Date	Waste Description	Amount	Shipped to
4/2/96	Fluorescent Lamps w/mercury	1760 lbs	Amer. Lamp Recycling Wappingers Fall, NY
4/11/96	Transformer Oil w/ 23 ppm PCB	30 gals	Cycle Chem Inc. Eliz., NJ
4/25/96	Transformer Oil	9829 kg	USPCI / PPM, Inc Phil, PA
6/19/96	Used Batteries	36 units	Exide Corp., PA (Via A&M Automotive Eliz., NJ)
8/5/96	Battery Fluid	30 gal	Cycle Chem Eliz., NJ
	Nickel / cadmium batteries	804 lbs	
8/15/96	Flourescent Lamps w/ mercury	2500 lbs	Amer. Lamp Recycling Wappingers Fall, NY
9/5/96	Transformer Oil	10788 kgs	USPCI / PPM, Inc. [illegible]

Engelhard Corporation / Delancy Street Site

Waste Manifested During Demolition

Date	Waste Description	Amount	Shipped to
10/24/96	Electrical Devices w/mercury	10 lbs	Laudlaw Env. Service Laurel, MD
10/22/96	Oil Contaminated debris	1635 lbs	Cycle Chem Eliz., NJ

DRAFT

Engelhard Miner. .nd Chemical
Sample 85 and RCHA-NW2
Inorganics

Contaminant	Site Use	Drainage Ditch On-site	Pierson's Creek On-site	Pierson's Creek Downstream	Core 85	Depth	RCHA-NW2	Depth
Arsenic (mg/Kg)	raw material	28 (E)	598 (L)	529 (K)	35.7	1"	8	0-6"
					75.3	12"	13.8	6-22"
					51.4	24"	14.7	22-38"
Antimony (mg/Kg)	suspected	5 03 (E)	15.9 (L)	2 2 (L)	ND	1"	ND	0-6"
					ND	12"	ND	6-22"
					ND	24"	ND	22-38"
Cadmium (mg/Kg)	suspected	158 (E)	187 (K)	1.4 (L)	18.5	1"	4.4	0-6"
					26.2	12"	8.7	6-22"
					18.7	24"	16.4	22-38"
Chromium (mg/Kg)	suspected	706 (E)	381 (L)	11.9 (L)	397	1"	128	0-6"
					517	12"	214	6-22"
					500	24"	958	22-38"
Copper (mg/Kg)	raw material	8,610 (E)	6,440 (K)	1,200 (K)	1,330	1"	145	0-6"
					1,340	12"	260	6-22"
					982	24"	531	22-38"
Lead (mg/Kg)	raw material	3,210 (E)	14,400 (K)	4,950 (K)	777	1"	5.3	0-6"
					981	12"	7.3	6-22"
					580	24"	17.3	22-38"
Mercury (mg/Kg)	raw material	71 (E)	5,020 (K)	426 (K)	2.7	1"	5.3	0-6"
					4.5	12"	12.4	6-22"
					2	24"	9	22-38"
Nickel (mg/Kg)	raw material	3,540 (E)	2,890 (K)	33 (L)	152	1"	28.5	0-6"
					157	12"	41.9	6-22"
					113	24"	50.1	22-38"
Selenium (mg/Kg)	suspected	40.7 (E)	5 (L)	0.72 (L)	8.3	1"	ND	0-6"
					ND	12"	ND	6-22"
					2.2	24"	1.7	22-38"

(E) = 1987 Environ Report
(L) = 1996 Langan Report
(K) = 1996 Kimball Report

ND = not detected

PASSAIC VALLEY SEWERAGE COMMISSION
NEWARK NEW JERSEY

HEAVY METALS SOURCE DETERMINATION STUDY

IN COMPLIANCE WITH OCEAN DUMPING PERMIT
NO. II NJ003 INTERIM SECTION 301

Passaic Valley Sewerage Commissioners

JOSEPH M. KEEGAN	- Chairman
BEN W. GORDON	- Vice Chairman
THOMAS J. CIFELLI	- Commissioner
VINCENT CORRADO	- Commissioner
ROBERT J. DAVENPORT	- Commissioner
RICHARD M. GIACOMARRO	- Commissioner
CHARLES A. LAGOS	- Commissioner
CARMINE T. PERRAPATO	- Executive Director
ROCCO D. RICCI	- Chief Engineer

PHASE II

APRIL 1980

DRAFT

Elson T. Killam Associates, Inc.

Environmental and Hydraulic Engineers

KLLC13740

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
1220	ENGLEHARD INDUSTRIES INC. 429 DELANCEY ST. NEWARK	0.4710	1.787 (0.455)	2.632 (0.670)	169.303 (43.100)	12.020 (3.060)	62.850 (16.000)	43.995 (11.200)	0.090 (0.023)	0.0196 (0.005)
1230	EXPRESS CONTAINER CORP. 105 AVE. C NEWARK	0.0120	< 0.001 (0.005)	0.009 (0.091)	0.007 (0.070)	0.002 (0.022)	0.003 (0.025)	0.008 (0.082)	0.000 (0.001)	0.0001 (0.001)
1240	FAIRMOUNT CHEMICAL CO. 117 BLANCHARD ST. NEWARK	0.7390	0.055 (0.009)	3.285 (0.533)	2.533 (0.411)	5.491 (0.891)	0.290 (0.047)	265.020 (43.000)	0.009 (0.001)	0.0068 (0.0011
1250	FEDERATED METALS CORP. 150 ST. CHARLES ST. NEWARK	0.0100	0.006 (0.074)	0.009 (0.109)	0.098 (1.170)	0.015 (0.178)	0.007 (0.078)	0.014 (0.167)	0.000 (0.001)	0.0001 (0.002)
1260	FEDERATED PACIFIC ELECTRIC CO. 150 AVE. L & HERBERT NEWARK	0.1510	0.013 (0.010)	0.481 (0.382)	0.879 (0.698)	0.084 (0.067)	0.042 (0.033)	1.952 (1.550)	0.003 (0.002)	0.0009 (0.001)
1270	GENERAL COLOR CO. 24 AVE B NEWARK	0.0160	40.165 (301.000)	0.005 (0.036)	0.025 (0.185)	< 0.001 (0.005)	0.001 (0.005)	3.910 (29.300)	0.001 (0.005)	0.0010 (0.007)
1285	HUMMEL LANOLIN CORP. 185 FOUNDRY ST. NEWARK	0.0280	< 0.001 (0.005)	0.014 (0.059)	0.010 (0.043)	0.163 (0.698)	< 0.001 (0.005)	0.021 (0.092)	0.064 (0.275)	0.0003 (0.001)
1290	HY-GRADE ELECTROPLATING CO. 35 FOURTH ST. NEWARK	0.0090	0.040 (0.536)	0.494 (6.580)	9.007 (120.000)	0.072 (0.958)	0.212 (2.830)	0.469 (6.250)	0.000 (0.004)	0.0000 (0.000)
1300	INDUSTRIAL HARD CHROMIUM CO. 7 ROME ST. NEWARK	0.0100	0.010 (0.116)	57.046 (684.000)	0.799 (9.580)	1.985 (23.800)	0.056 (0.667)	0.188 (2.250)	0.001 (0.014)	0.0000 (0.000)
1310	THE KENNY PRESS INC. 110 EDISON PLACE NEWARK	0.0010	< 0.000 (0.005)	0.000 (0.050)	0.001 (0.142)	0.006 (0.696)	0.0 (0.0	0.001 (0.083)	< 0.000 (0.001)	0.0000 (0.001)

KL10 6 8 1 4

Engelhard Industries, Inc.
(Hanovia Liquid Gold)

PASSAIC VALLEY SEWERAGE COMMISSIONERS
700 Broad Street
Newark, N. J. 07102

000001

Date: April 25, 1972

Plant Ref. No. IDED494

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name: Hanovia Liquid Gold-Department of Engelhard Industries Division

Address: 1 West Central Ave., East Newark, New Jersey Zip 07029

Person and Title to whom any further inquiries should be directed: Paul N. Cheremisinoff, Environmental Control Engineer

Phone No.: 589-5000 X 2882

Number of Employees: 75

Number of Working Days Per Week: 5

Number of Shifts Per Day: 1

Area of Property: 2.2 Acres, or ..... Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.: 281

Finished Product(s): Metallo-Organic Precious Metal Coatings

Average Production: 290 pounds/day

Raw Materials Used: Prec. Metals, Org. Solvents, Essential Oils, Balsams & Resin Sundry Chemicals, Acids

Brief Description of Operations: The batch manufacturing process is primarily operate for the mfr. of 1500 metallo-org. prec. metal costings. Raw mats. for mfg. are manually charged into steam, oil &/or electrically heated reactors. The entire batch is heated to varying temps. & the reacs. are allowed to proceed to completion in varying time periods. Products from reactors are either filtered, centrifuged, dried or transported directly to storage for subsequent blending and sale. Wastes from process reacs. go to recovery tanks. Sm. amts., a few lbs, of misc. prods. are prepared in sm. containers on steam, gas or electrically heated tables or simply blended at room tempera-

ANSWER THE FOLLOWING QUESTIONS ONLY IF THE
PLANT WASTE INCLUDES WASTE ATTRIBUTABLE TO INDUSTRIAL OPERATIONS
(Note: Analyses should be based on a 24-hour composite sample)

Characteristics of Plant Waste discharged to sanitary or combined sewer, after treatment if any. Indicate units of measure where applicable (e.g. Mg/l).

a) pH: 4.80 b) Turbidity: 48 (Jackson Units)

c) Temperature: 72°F d) Radioactive? Yes ..... No x

e) Solids Concentration: mg/liter

1) Total Solids 302 Volatile 200 Mineral 102

2) Suspended Solids 46 Volatile 44 Mineral 2

f) Oil and Grease Concentration: mg/liter

1) Floatable Oils zero

2) Emulsified Oils 31.9

g) Chlorides 50 mg/liter

h) Chemical Oxygen Demand (C.O.D.): 564 mg/liter

i) 5-day Bio-chemical Oxygen Demand (B.O.D.): 320 mg/liter

j) Total organic carbon (T.O.C.): 94 mg/liter

k) Metallic Ions—Name and concentration (Important—list each metal in waste, e.g., chromium hex. and triv. Antimony, Lead, Mercury, Copper, Vanadium, Nickel; give concentration and total daily discharge of each metal.)

(mg/liter) Ca: 12.5, Na: 26.9, (~~μ~~g/liter) Al: 360, As: <10, Cd: <5, Cr: <10, Fe: 36.4 x 10, Pb: <10, Hg: 4, Ti: 10, Zn: 250, Ag: 58, Sb: <10, Cu: 182, Au: 45

l) Toxic Material—Name and concentration e.g., cyanide salts, etc.):

Cyanides: 0.33 mg/liter

m) Solvents—Name and concentration:

Phenols 0.07 mg/liter

n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics):

NONE

o) Date and time span of sample 4-5-72 to 4-13-72

Explain hours, method of discharge of waste to Sanitary Sewer and peak rate of flow, e.g., (continuing for 8 hours per day, 5 days per week at 100 gal./day rate) (batch twice a day for 20 minutes at 100 gal./min.) (Continuous 24 hours steady or with peaks at 2 P.M., peak rate 3 M.G.D.) etc.

8 hr/day, 5 days/week, 14,560 gpd

NEW YORK TESTING LABORATORIES, INC.

L-41,007

RESULTS - SIC 281 (In accordance with the Corps of Engineers' requirements)

Parameters & Units	Analysis Method	Found
Chloride, mg/liter	Mercuric Nitrate	50
Cyanide, mg/liter	Silver Nitrate	0.33
Fluoride, mg/liter	SPADNS With Distillation	0.84
Phenols, µg/liter	Colorimetric	70
Sulfate (as S), mg/liter	Turbidimetric	25
Sulfide (as S), mg/liter	Methylene Blue Color Matching	< 0.10
Aluminum-Total, µg/liter	Atomic Absorption Spectrophotometer	360 0.360 mg/l
Arsenic-Total, µg/liter	" " "	<10 <0.010 mg/l
Cadmium-Total, µg/liter	" " "	< 5 <.005 mg/l
Calcium-Total, mg/liter	" " "	12.5 0.0125 mg/l
Chromium-Total, µg/liter	" " "	<10 <0.010 mg/l
Iron-Total, µg/liter	" " "	36.39×10^3 36.39 mg/l
Lead-Total, µg/liter	" " "	<10 <0.010 mg/l
Mercury-Total, µg/liter	" " "	~~4~~ .004 mg/l
Sodium-Total, mg/liter	" " "	26.9
Titanium-Total, µg/liter	" " "	10 0.010 mg/l
Zinc-Total, µg/liter	" " "	250 0.25 mg/l
Silver-Total, µg/liter	" " "	58 0.058 mg/l

< Less Than

ENGELHARD MINERALS & CHEMICALS
CALCULATIONS

SHEET NO. 5 OF 5
FILE
DATE
BY

SUBJECT HANOVIA
City Water Analysis

	mg/l	Lbs/Day
Mercury - Total 71900	0.004	0.0009
Molybedenum - Total 01062	ND	---
Nickel - Total 01067	0.1095	0.025
Potassium - Total 00937	1.3	0.3
Selenium - Total 01147	ND	---
Silver - Total 01077	0.06	0.108
Sodium - Total 00929	33.4	7.84
Thallium - Total 01059	ND	---
Tin - Total 01102	ND	---
Titanium - Total 01152	ND	---
Zinc - Total 01092	0.142	0.032

Return to:
PASSAIC VALLEY SEWERAGE COMMISSIONERS
600 Wilson Avenue
Newark, N. J. 07105
(201) 344-1800

Date: April 24, 1975

Plant Ref. No. IDE 0494

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name: Hanovia Liquid Gold Department of Engelhard Ind. Division

Address: 1 West Central Ave., East Newark, New Jersey Zip 07029

Person and Title to whom any further inquiries should be directed: Romuald Michalek

Manager, Environmental Engineering, Engelhard Ind. Div., 113 Astor St. Newark, N.J.

Phone No.: (201) 589-5000 Ext. 4342

Number of Employees: 86 Current 3/75

Number of Working Days Per Week: 5

Number of Shifts Per Day: 1

Area of Property: 2.2 Acres, or ..... Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.: 281

Finished Product(s): Metallo-Organic Precious Metal Coatings

Average Production: 300 Lbs-Day. This value can vary and increase due to diversified produc lines and recovery from present economy slow-down.

Raw Materials Used: Precious Metals, Organic Solvents, Essential Oils, Balsams & Resins, Sundry Chemicals, Acids.

Brief Description of Operations: Batch manufacturing processes, large variety of products. Batch reactions, from bench scale to commercial - sized equipment. Filtration, centrifuging, drying. Compounding & blending. Reactor wastes to recovery tank.

ENGELHARD MINERALS & CHEMICALS
CALCULATIONS

SHEET NO. 3 OF 5
FILE
DATE
BY

SUBJECT HANOVIA
Total Sanitary Sewer Discharge, (Reference Table A)

PARAMETER	mg/lit	Lbs/Day
Mercury - Total 71900	0.011	0.0025
Molybedenum - Total 01062	ND	---
Nickel - Total 01067	0.082	0.018
Potassium - Total 00937	333.63	75.4
Selenium - Total 01147	ND	ND
Silver - Total 01077	0.343	0.0775
Sodium - Total 00929	51.0	11.54
Thallium - Total 01059	ND	---
*Tin - Total 01102	ND	---
Titanium - Total 01152	ND	---
Zinc - Total 01092	0.66	0.15

* Engelhard's Analytical Lab. Procedure.

ENGELHARD MINERALS & CHEMICALS
CALCULATIONS

SHEET NO. 3 OF 5
FILE
DATE
BY

SUBJECT HANOVIA
City Water Analysis

	mg/l	Lbs/Day
Mercury - Total 71900	0.004	0.0009
Molybedenum - Total 01062	ND	---
Nickel - Total 01067	0.1095	0.025
Potassium - Total 00937	1.3	0.3
Selenium - Total 01147	ND	---
Silver - Total 01077	0.06	0.108
Sodium - Total 00929	33.4	7.84
Thallium - Total 01059	ND	---
Tin - Total 01102	ND	---
Titanium - Total 01152	ND	---
Zinc - Total 01092	0.142	0.032

PASSAIC VALLEY SEWERAGE COMMISSIONERS

SEWER CONNECTION APPLICATION

PART I - SECTIONS A-C

Applicant is:
Corporation X
Partnership
Other

SECTION A: GENERAL INFORMATION

1. Company Name: Engelhard Industries Division of Engelhard Minerals & Chemicals Corporation

2. Location: 1 West Central Ave
East Newark N.J. Zip Code: 07029

3. Mailing Address: 1 West Central Ave
East Newark, N.J. Zip Code: 07029

Name, title, address and telephone number of person to contact concerning information provided in this application:

4. Name of Contact Official: Romuald Michalek
Title: Manager, Env. Eng'g Dept. Phone No. (201) 589-5000 Ext. 3406

5. Address: 2655 Rt. 22, Union, N.J. 07083

6. Number of Employees - Full Time: 124 Part Time: N/A

7. Number of Work Days Per Week: 5
Number of Shifts Per Day: 1
Is production seasonal? No If so, explain: N/A

8. New Users Only: Indicate date user desires to commence operations:
N/A

9. If property is owned, indicate Lot and Block Numbers: Lot # 2 & 3
Block # 1571 19 79 Assessed Value: $704,000

10. If property is rented, indicate name and address of Landlord:
N/A

SECTION B: PRODUCT OR SERVICE INFORMATION

11. Brief description of manufacturing or other activity performed:
Batch chemical reactions, solids separation, drying, recovery from wastes.

12. Principal raw materials used: Precious metals, solvents, oils, resins, miscellaneous reagents, acids.

13. Principal products or services: Refractory coating formulations, metals, specialty chemicals.

REPORT TO THE NEAREST HUNDREDTH: 0.XX
(EXCEPT WHERE INDICATED)
(EXAMPLE: 0.36 mg/l)

CODE	PARAMETER	VALUE
1097	Antimony (Sb)	< 0.10
1002	Arsenic (As)	0.00
1022	Boron (B)	< 1.0
1027	Cadmium (Cd)	0.01
1034	Chromium Total (Cr)	0.02
1042	Copper (Cu)	0.05
1045	Iron (Fe)	0.22
1051	Lead (Pb)	0.14

REPORT TO THE NEAREST HUNDREDTH: 0.XX
(EXCEPT WHERE INDICATED)
(EXAMPLE: 0.36 mg/l)

CODE	PARAMETER	VALUE
1900	Mercury (Report to 0.XXX)	0.001
1067	Nickel (Ni)	0.02
1147	Selenium (Se)	0.00
1077	Siver (Ag)	0.01
1102	Tin (Sn)	< 0.74
1092	Zinc (Zn)	0.12
4053	Pesticides (Report to 0.XXX)	N/A
2730	Phenol	0.12

Engelhard Industries Division

29. Samples collected by: Environmental Engineering Dept. Date: 12/6/79 - 12/7/79

30. Samples analyzed by: New York Testing Labs Date: 12/10/79

Products being manufactured when sample was collected: Refractory coatings, specialty chemicals

Certification:

The information contained in Part II of this application is familiar to me and, to the best of my knowledge and belief, such information is true, complete, and accurate.

If the applicant is a corporation, a corporate resolution is attached granting me the authority to sign the application on behalf of the corporation.

31. Name of Signing Official: Carl D. Keith

Title: President, Engelhard Industries Division, Engelhard Minerals & Chemicals Corporation

January 14, 1980
Date

Carl D. Keith
Signature

000007
131-3299

ENGELHARD

ENGELHARD INDUSTRIES DIVISION

2655 U.S. ROUTE 22 • UNION, NEW JERSEY 07083 • (201) 589-5000 • TELEX: 83-3147

ENGELHARD/UNION
Environmental Engineering Dept. August 4, 1981

Chief Engineer
Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey 07105

Dear Sir:

Enclosed please find the discharge monitoring report for our East Newark facility in compliance with the Interim Mercury Pretreatment Regulations.

The mercury concentration reported by the outside laboratory on June 23 is not a representative sample of our activities. An investigation of this matter disclosed that an operator error caused a batch of in-process material to be sewered. Operating procedures have been reviewed with the affected operators and stricter controls instituted to prevent future instances.

Very truly yours,

ENGELHARD INDUSTRIES DIVISION

Thomas S. Brown
Manager,
Environmental Engineering Dept.

TB/mm

Enclosure

cc: A. Papazian, General Manager

bcc: W. Stimpfel
E. C. Fredericks/C. Hoffman

INDIVIDUAL DISCHARGE MONITORING REPORT

131-3c 19 (2)

Hanovia Liquid Gold-

NAME Engelhard Industries Corporation

ADDRESS 1 West Central Avenue

East Newark, New Jersey 07029

FACILITY LOCATION 1 West Central Avenue

East Newark, New Jersey

(CU. FT. X 7.48= Gals)

2,037,560 GALS.

VOLUME DISCHARGED THIS PERIOD

DAYS WORKED THIS PERIOD 63

04402 860

PERMIT NUMBER

MONITORING PERIOD

FROM			TO		
27	4	81	24	7	81
DATE	MO	YEAR	DATE	MO	YEAR

DATE	#	5/70	5/29	6/10	6/23	7/9	7/20											
BOD (mg/l)	0310																	
TSS (mg/l)	0530																	
MERCURY	1900	.009	.005	<.001	3.200	.009	.032											
DATE																		
BOD (mg/l)	0310																	
TSS (mg/l)	0530																	
MERCURY	1900																	

SIGNATURE OF PRINCIPAL EXECUTIVE OR AUTHORIZED AGENT	TYPE NAME AND TITLE	TELEPHONE NO.	DATE
	Aram Papazian, General Manager	589-5000	7/27/81

NR-2

FORM APPROVED
OMB No. 158-R0100

FOR AGENCY USE

STANDARD FORM A–MUNICIPAL

SECTION IV. INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM

Submit a description of each major industrial facility discharging to the municipal system, using a separate Section IV for each facility description. Indicate the 4 digit Standard Industrial Classification (SIC) Code for the industry, the major product or raw material, the flow (in thousand gallons per day), and the characteristics of the wastewater discharged from the industrial facility into the municipal system. Consult Table III for standard measures of products or raw materials. (see instructions)

1. Major Contributing Facility (see instructions)

Name	401a	ENGELHARD INDUSTRIES
Number & Street	401b	1 WEST CENTRAL AVENUE
City	401c	EAST NEWARK
County	401d	HUDSON
State	401e	NEW JERSEY
Zip Code	401f	07029

2. Primary Standard Industrial Classification Code (see instructions) — 402: 3952

3. Principal Product or Raw Material (see instructions)

			Quantity		Units (See Table III)
Product	403a	Refractory coating formulation metals, specialty chemicals	403c	403e	
Raw Material	403b	Precions metals, solvent oils & resins	403d	403f	

4. Flow Indicate the volume of water discharged into the municipal system in thousand gallons per day and whether this discharge is intermittent or continuous.
   - 404a: .037 thousand gallons per day
   - 404b: ☑ Intermittent (int) ☐ Continuous (con)

5. Pretreatment Provided Indicate if pretreatment is provided prior to entering the municipal system — 405: ☐ Yes ☑ No

6. Characteristics of Wastewater (see instructions)

406a	Parameter Name	COLOR	TS	TSS	TURBIDITY	OIL & GREASE	CHLORIDES	SULFATES	BOD	COD
	Parameter Number	00100	00500	00530	00070	00550	00940	00945	00310	0034
406b	Value	50.0	348	34.0	8.0	2.0	28.0	10.0	12.0	94.0
	TOC	SULFIDE	SULFITE	SURFACT-ANTS	TKN	AMMONIA	NITRITE	Sb	B	Cd
	00680	00745	00740	38260	00625	00610	00615	01097	01022	0102
	48.0	0.8	<1.0	0.2	11.3	1.5	1.1	<0.1	<1.0	.01
	Cr(tot)	Cu	Pb	Hg	Ni	Ag	Sn	Zn	PHENOLS	
	01034	01042	01051	71900	01067	01077	01102	01092	32730	
	.02	.05	.14	.001	.02	.01	<.74	.12	.12	

PASSAIC VALLEY SEWERAGE COMMISSIONERS
APPLICATION FOR A SEWER CONNECTION PERMIT

SECTION A

120-6335

1. Company Name: ENGELHARD CORPORATION
2. Permit number if applicable, 04402500
3. Location: 1 West Central Avenue

   East Newark Zip Code: 07029
4. Mailing Address: Same

   Zip Code:
5. Person to contact concerning information provided in this application:

   Name of Contact Official: Walter Stimpfel

   Title: Manager, Regulatory affairs Phone No. (201) 268-7844

   Address: 1 West Central Avenue, East Newark Zip Code 07029
6. Number of Employees - Full Time: 195 Part Time:

   Number of Work Days Per Year: 286

   Number of Shifts Per Day: 1
7. If property is owned indicate block and lot numbers:

   Block 1571 Lot 2

   Assessed Value: 1.8 million 19 84
8. If property is rented indicate name and address of owner:

   N/A

   Total square feet rented: N/A
9. List NJPDES Permit number if applicable, N/A and name of receiving body of water entered N/A

TABLE 1 EPA PRIORITY POLLUTANTS (CONTINUED)

CHECK APPROPRIATE BOX

NAME	A	B	C	D		A	B	C	D
bis(2-ethlhexyl) phthalate			X		endrin			X	
butylbenzylphthalate			X		endrin aldahyde			X	
di-n-butylphthalate			X		heptachlor			X	
di-n-octylphthalate			X		heptachlor (epoxide)			X	
diethylphthalate			X		BHC Alpha			X	
dimethylphthalate			X		BHC Beta			X	
benzo(a)anthracene			X		BHC Gamma			X	
benzo(a)pyrene			X		BHC Delta			X	
3,4 benzofluoranthene			X		PCB-1242			X	
benzo(k)fluoranthane			X		PCB-1254			X	
chrysene			X		PCB-1221			X	
acenaphthylene			X		PCB-1232			X	
anthracene			X		PCB-1248			X	
benzo(ghi)perylene			X		PCB-1260			X	
fluorene			X		PCB-1016			X	
phenanthrene			X		toxaphene			X	
dibenzo(a,h)anthracene			X		antimony (total)		X		
indeno(1,2,3-c,d)pyrene			X		arsenic (total)		X		
pyrene			X		asbestos (fibrous)			X	
tetrachloroethylene			X		beryllium (total)			X	
toluene		X			cadmium (total)		X		
trichloroethylene			X		chromium (total)		X		
vinyl chloride			X		copper (total)		X		
aldrin			X		cyanide (total)		X		
dieldrin			X		lead (total)		X		
chlordane			X		mercury (total)		X		
4,4 DDT			X		nickel (total)		X		
4,4 DDE			X		selenium (total)		X		
4,4 DDD			X		silver (total)		X		
endosulfan 1			X		thallium (total)		X		
endosulfan 11			X		zinc (total)		X		
endosulfan sulfate			X		2,3,7,8, tetrachlorodibenzo			X	
					p-dioxin			X	

A. KNOWN TO BE PRESENT
B. SUSPECTED TO BE PRESENT
C. KNOWN TO BE ABSENT
D. SUSPECTED TO BE ABSENT

120-4269
000035

PASSAIC VALLEY SEWERAGE COMMISSIONERS
APPLICATION FOR A SEWER CONNECTION PERMIT

SECTION A

1. Company Name: ENGELHARD CORPORATION
2. Permit number if applicable, 04402500
3. Location: 1 West Central Avenue
   East Newark Zip Code: 07029
4. Mailing Address: 1 West Central Avenue
   East Newark , NJ Zip Code: 07029
5. Person to contact concerning information provided in this application:
   Name of Contact Official: Derrick Boom
   Title: Manager, Environmental Affairs Phone No. (201) 268-7844
   Address: 1 West Central Avenue East Newark, NJ Zip Code 07029
6. Number of Employees - Full Time: 140 Part Time: —
   Number of Work Days Per Year: 286
   Number of Shifts Per Day: 1
7. If property is owned indicate block and lot numbers:
   Block 1571 Lot 2
   Assessed Value: 1.8 Million 19 84
8. If property is rented indicate name and address of owner:
   N/A
   Total square feet rented: _____
9. List NJPDES Permit number if applicable, N/A and
   name of receiving body of water entered _____

ANALYSIS OF INDUSTRIAL WASTE

26. Analysis for Industrial Waste must be a proper sample taken for each outlet.

OUTLET NO. 04402500

Report to the nearest unit: XX.
except where indicated with (1)
Example: 15 mg/l

Report to the nearest hundredth: 0.XX
except where indicated
Example: 0.36 mg/l

Code		Parameter	Value	Code	Parameter	Valu
0200*		Radioactivity (PL-1)		1097*	Antimony (Sb)	.34mg
0500		Total Solids	914mg/L	1002*	Arsenic (As)	.0035
0510		Total Mineral Solids	794 mg/L	1022*	Boron (B)	.37mg/
0530		Total Suspended Solids	8 mg/L	1027*	Cadmium (Cd)	<.005m
0552		Mineral Suspended Solids	2 mg/L	1034*	Chromium Total (Cr)	<.05mg
0555	(1)(3)	Petroleum Hydrocarbons	<.6mg/L	1042*	Copper (Cu)	.046m
0310		Biochemical Oxygen Demand (BOD)	24mg/L	1045*	Iron (Fe)	.61mg/
				1051*	Lead (Pb)	<.01mg
0340		Chemical Oxygen Demand (COD)	170mg/L	0720*(3)	Cyanide (CN)	1.02m
				1900*	Mercury(Report to 0.XXX)	.015mg
0680		Total Organic Carbon (TOC)	29mg/L	1067*	Nickel (Ni)	.58mg
				1147*	Selenium (Se)	.001mg
0745*	(1)	Sulfide	.26mg/L	1077*	Silver (Ag)	.047mg
9000	(1)(3)	pH (standard unit range)	8.85	1102*	Tin (Sn)	.18mg/
0625*	(1)	Kjeldahl N as N	6.25mg/L	1092*	Zinc (Zn)	.38mg/
0610	(1)	Ammonia as N	2.82mg/L	2730	Phenol	.083mg
0507*	(1)	Ortho Phosphates as P		4053*	Pesticides (Report to 0.XXX)	
9998*	(2)(3)	TTO (Report to 0.XXX)	1.709mg/L			
0550	(1) (3)	EMULSIFIED OIL & GREASE	<6.02mg/L	9999* (3)	TTVO(Report to 0.XXX)	1.684mg/

FOOTNOTES:

(1) Report results to the nearesth tenth, i.e., 1.6 mg/L

(*) Analyze for this if reasonably expected to be present in the discharge.

(2) See instructions.

(3) Grab sample required.

REVISED 1/87
REVISED 8/89
REVISED 5/ 90

RECEIVED 1990 NOV

TABLE 1 EPA PRIORITY POLLUTANTS (CONTINUED)

CHECK APPROPRIATE BOX

NAME	A	B	C	D		A	B	C	D
bis(2-ethlhexyl) phthalate			X		endrin			X	
butylbenzylphthalate			X		endrin aldahyde			X	
di-n-butylphthalate			X		heptachlor			X	
di-n-octylphthalate			X		heptachlor (epoxide)			X	
diethylphthalate			X		BHC Alpha			X	
dimethylphthalate			X		BHC Beta			X	
benzo(a)anthracene			X		BHC Gamma			X	
benzo(a)pyrene			X		BHC Delta			X	
3,4 benzofluoranthene			X		PCB-1242			X	
benzo(k)fluoranthane			X		PCB-1254			X	
chrysene			X		PCB-1221			X	
acenaphthylene			X		PCB-1232			X	
anthracene			X		PCB-1248			X	
benzo(ghi)perylene			X		PCB-1260			X	
fluorene			X		PCB-1016			X	
phenanthrene			X		toxaphene			X	
dibenzo(a,h)anthracene			X		antimony (total)		X		
indeno(1,2,3-c,d)pyrene			X		arsenic (total)		X		
pyrene			X		asbestos (fibrous)			X	
tetrachloroethylene			X		beryllium (total)			X	
toluene		X			cadmium (total)		X		
trichloroethylene			X		chromium (total)		X		
vinyl chloride			X		copper (total)		X		
aldrin			X		cyanide (total)		X		
dieldrin			X		lead (total)		X		
chlordane			X		mercury (total)		X		
4,4 DDT			X		nickel (total)		X		
4,4 DDE			X		selenium (total)		X		
4,4 DDD			X		silver (total)		X		
endosulfan 1			X		thallium (total)		X		
endosulfan 11			X		zinc (total)		X		
endosulfan sulfate			X		2,3,7,8, tetrachlorodibenzo			X	
					p-dioxin			X	

A. KNOWN TO BE PRESENT
B. SUSPECTED TO BE PRESENT
C. KNOWN TO BE ABSENT
D. SUSPECTED TO BE ABSENT

ANALYSIS OF INDUSTRIAL WASTE

26. Analysis for Industrial Waste must be a proper sample taken for each outlet.

OUTLET NO. 04402500

Report to the nearest unit: XX. except where indicated with (1) Example: 15 mg/l				Report to the nearest hundredth: 0.XX except where indicated Example: 0.36 mg/l		
Code		Parameter	Value	Code	Parameter	Value
0200*		Radioactivity (PL-1)		1097*	Antimony (Sb)	.34mg/l
0500		Total Solids	914mg/L	1002*	Arsenic (As)	.0035mg
0510		Total Mineral Solids	794 mg/L	1022*	Boron (B)	
0530		Total Suspended Solids	8 mg/L	1027*	Cadmium (Cd)	<.005mg
0552		Mineral Suspended Solids	2 mg/L	1034*	Chromium Total (Cr)	<.05mg/l
0555	(1)(3)	Petroleum Hydrocarbons	<.6mg/L	1042*	Copper (Cu)	.046mg
0310		Biochemical Oxygen Demand (BOD)	24mg/L	1045*	Iron (Fe)	
				1051*	Lead (Pb)	<.01mg/l
0340		Chemical Oxygen Demand (COD)	70mg/L	0720*(3)	Cyanide (CN)	1.02mg
				1900*	Mercury(Report to 0.XXX)	.015mg/l
0680		Total Organic Carbon (TOC)	29mg/L	1067*	Nickel (Ni)	.58mg/l
				1147*	Selenium (Se)	.001mg/l
0745*	(1)	Sulfide	.26mg/L	1077*	Silver (Ag)	.047mg/l
9000	(1)(3)	pH (standard unit range)	8.85	1102*	Tin (Sn)	
0625*	(1)	Kjeldahl N as N	6.25mg/L	1092*	Zinc (Zn)	.38mg/l
0610	(1)	Ammonia as N	2.82mg/L	2730	Phenol	.083mg/l
0507*	(1)	Ortho Phosphates as P		4053*	Pesticides (Report to 0.XXX)	
9998*	(2)(3)	TTO (Report to 0.XXX)	1.709mg/L			
0550	(1) (3)	EMULSIFIED OIL & GREASE		9999*	(3) TTVO(Report to 0.XXX)	1.684mg/l

FOOTNOTES:

(1) Report results to the nearesth tenth, i.e., 1.6 mg/L

(*) Analyze for this if reasonably expected to be present in the discharge.

(2) See instructions.

(3) Grab sample required.

REVISED 1/87
REVISED 8/89
REVISED 5/ 90

RECEIVED 1990 NOV 1

CFM Environmental Services

3434 ROUTE 22 WEST • SOMERVILLE, NEW JERSEY 08876 • (908) 707-4545 • FAX (908) 707-8887

State Certified
Laboratory No. 18367

Report Date: November 5, 1990

For: Englehard
One West Central Avenue
East Newark, New Jersey 07029

Attn: Mr. Derrick Boom

Sample Data
Number: I-12-38/Revised Report
Date: 9/12/90
Description: Wastewater Effluent (Composite)

ALL ANALYSES ARE PERFORMED IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY APPROVED METHODS AND PROTOCOL.

Bernadette Jacobs/[illegible]
Laboratory Manager

PARAMETER	RESULTS
Total Solids, mg/L	914
Total Mineral Solids, mg/L	794
Total Suspended Solids, mg/L	8
Total Mineral Suspended Solids, mg/L	2
pH, Units	8.85
Biochemical Oxygen Demand (5-day), mg/L	24
Chemical Oxygen Demand, mg/L	170
Total Organic Carbon, mg/L	29.0
Total Kjeldahl Nitrogen, mg/L	6.25
Sulfide, mg/L	0.26
Ammonia-Nitrogen, mg/L	2.82
Antimony, mg/L	0.34
Arsenic, mg/L	0.0035
Beryllium, mg/L	< 0.0050
Boron, mg/L	0.37
Cadmium, mg/L	< 0.0050
Chromium, mg/L	< 0.050
Copper, mg/L	0.046
Iron, mg/L	0.61
Lead, mg/L	< 0.010
Nickel, mg/L	0.58
Mercury, mg/L	0.015
Silver, mg/L	0.047
Selenium, mg/L	< 0.0010
Thallium, mg/L	< 0.10
Tin, mg/L	0.18
Zinc, mg/L	0.38

< - Less Than

PASSAIC VALLEY SEWERAGE COMMISSION
NEWARK, NEW JERSEY

HEAVY METALS SOURCE DETERMINATION STUDY

IN COMPLIANCE WITH OCEAN DUMPING PERMIT
NO. II NJ003 INTERIM SECTION 301

Passaic Valley Sewerage Commissioners

JOSEPH M. KEEGAN	- Chairman
BEN W. GORDON	- Vice Chairman
THOMAS J. CIFELLI	- Commissioner
VINCENT CORRADO	- Commissioner
ROBERT J. DAVENPORT	- Commissioner
RICHARD M. GIACOMARRO	- Commissioner
CHARLES A. LAGOS	- Commissioner
CARMINE T. PERRAPATO	- Executive Director
ROCCO D. RICCI	- Chief Engineer

PHASE II

APRIL 1980

DRAFT

Elson T. Killam Associates, Inc.

Environmental and Hydraulic Engineers

KLLC13741

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
AFTER PRETREATMENT
SUB-AREA 2

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
380	MANOVIA LIQUID GOLD [redacted] AVE. EAST NEWARK	0.0220	0.001 < (0.008)	0.001 (0.005)	0.012 (0.066)	0.033 < (0.179)	0.001 (0.005)	0.058 < (0.314)	0.000 (0.001)	0.0081 (0.044)
630	DRIVER HARRIS CO. [redacted] ST. HARRISON	0.2020	0.027 (0.016)	2.022 (1.200)	0.901 (0.535)	0.136 (0.081)	3.032 (1.800)	0.099 < (0.059)	0.002 (0.001)	< 0.0002 (0.000)
640	[redacted] 505 MANOR AVE. HARRISON	0.1150	0.024 (0.025)	0.014 (0.015)	0.181 (0.189)	0.090 (0.094)	0.093 (0.097)	0.132 < (0.138)	0.001 (0.001)	0.0034 (0.003)
650	MARVEL PHOTO CO. INC. [redacted] ST. HARRISON	0.0040 <	0.000 (0.005)	0.001 (0.031)	0.006 (0.178)	0.002 (0.059)	0.003 (0.095)	0.015 (0.454)	0.000 (0.001)	0.0001 (0.002)
660	C. S. OSBORNE & CO. 125 JERSEY ST. [redacted]	0.0000	0.000 (0.022)	0.000 (0.778)	0.000 (1.800)	0.000 (0.300)	0.000 (0.642)	0.000 < (1.800)	0.000 (0.001)	< 0.0000 (0.000)
670	OTIS ELEVATOR CO. 1000 1ST ST. HARRISON	0.0960	0.006 (0.008)	0.418 (0.522)	0.159 (0.199)	0.113 (0.141)	0.032 (0.040)	1.441 (1.800)	0.002 (0.003)	0.0046 (0.006)
680	WORTHINGTON PUMP CORP. [redacted] HARRISON	0.2490	0.052 (0.025)	0.064 (0.031)	0.461 (0.222)	0.287 (0.138)	0.087 (0.042)	0.326 < (0.157)	0.002 (0.001)	0.0768 (0.037)
780	DREW CHEMICAL [redacted] AVE. KEARNY	0.0440	0.006 (0.016)	0.062 (0.169)	0.090 (0.245)	0.110 (0.300)	0.021 (0.058)	0.661 < (1.800)	0.000 (0.001)	< 0.0000 (0.000)
	SUB-AREA 2									
	TOTAL INDUSTRIAL HEAVY METALS LOCATED-PHASE II AFTER PRETREATMENT		0.117	2.582	1.811	0.771	3.270	2.732	0.008	0.0931

000078

Essex County Resource Recovery Facility (American Ref-Fuel)

Engineering Design Division
Environmental Unit

99.

Essex County Resource Recovery Project

Subsurface Investigation

February 1983

Prepared for
Economic Development
Department

Appendices

BBA000161

Engineering Department

THE PORT AUTHORITY OF NY & NJ

K 383043

F133240

TABLE 1: QUANTITATIVE DATA ON COMPOUNDS OF INTEREST

ETC Sample No. B3619 Customer Sample ID. W018-RR-1080682102035

METALS, CYANIDE, AND TOTAL PHENOLS

NPDES NUMBER	METAL OR COMPOUND	CAS NUMBER	SAMPLE CONCENTRATION ug/l	METHOD DETECTION LIMIT ug/l
1M	Antimony, Total	7440-36-0	ND	30
2M	Arsenic, Total	7440-38-2	91	5
3M	Beryllium, Total	7440-41-7	ND	10
4M	Cadmium, Total	7440-43-9	ND	20
5M	Chromium, Total	7440-47-3	BMDL	30
6M	Copper, Total	7550-50-8	14	10
7M	Lead, Total	7439-92-1	ND	200
8M	Mercury, Total	7439-97-6	0.4	0.2
9M	Nickel, Total	7440-02-0	BMDL	40
10M	Selenium, Total	7782-49-2	ND	5
11M	Silver, Total	7440-22-4	BMDL	10
12M	Thallium, Total	7440-28-0	ND	5
13M	Zinc, Total	7440-66-6	BMDL	20
14M	Cyanide, Total	57-12-5	<100	100
15M	Phenols, Total		<10	10

K 383069

Engineering Design Division
Environmental Unit

ESSEX COUNTY RESOURCE RECOVERY PROJECT

Subsurface Investigation

July 1984

Prepared for
Economic Development
Department

Appendices
1 of 3
Parts A thru E

Engineering Department

THE PORT AUTHORITY

BB3000013

ETC ENVIRONMENTAL TESTING and CERTIFICATION

JUN 8, 1984

TABLE 1: QUANTITATIVE RESULTS

Metals, Cyanide and Phenols - Analysis Data (QR05)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No	Company	Facility	Sample Point	Date	Time	Elapsed Hours
E1620	PORT AUTHORITY OF NY & NJ	PTARR	WRR-11	840518	1215	

Meter	Results: Measure.	Results: MDL	Results: Units					
Antimony	ND	60	ug/l					
Arsenic	BMDL	5	ug/l					
Beryllium	ND	5	ug/l					
Cadmium	ND	5	ug/l					
Chromium	BMDL	20	ug/l					
Copper	25	6	ug/l					
Lead	BMDL	60	ug/l					
Mercury	.30	.30	ug/l					
Nickel	BMDL	10	ug/l					
Selenium	ND	5	ug/l					
Silver	ND	6	ug/l					
Thallium	ND	5	ug/l					
Zinc	250	6	ug/l					
Cyanide, Total	<25	25	ug/l					
Phenolics, Total	<100	100	ug/l					

* [illegible]

Fairmount Chemical Co.

QUESTION 2a

Fairmount
Chemical Co., Inc.

(201) 344-5790

March 22, 1991

Thomas Sherman, Chief
Bureau of Hazardous Waste Engineering
Division of Hazardous Waste Management
CN028
Trenton, N.J. 08625-0028

Re: Approval of closure of Fairmount Chemical Company, Inc. (FCC) Newark, Essex County EPA ID No. NJD002131322, NJ Facility No. 0714L2- July 24, 1990

Dear Sir:

Enclosed is a certified copy of the test results from New Jersey Laboratories analysis of the rinse water and tap water as required by your office.

Very truly yours,

B.L. Newcomb
Manager Safety &
Regulatory Affairs

bcc: ZA
JM

AED000060

117 Blanchard Street • Newark, N.J. 07105
(800) USA-9999 • Telex No. 138905 • Fax No. (201) 690-5293

NEW JERSEY LABORATORIES
222 EASTON AVENUE
NEW BRUNSWICK, N.J. 08901
TELEPHONE: (908) 249-0148
TELEFAX: (908) 249-0243

Registered with the FDA, USDA, EPA, NJ DEP, and the N.J. Dept. of Health

March 19, 1991

Fairmont Chemical Company, Inc.
117 Blanchard Street
Newark, New Jersey 07105
Attn: B.L. Newcomb

Assay No.: 3494
Sample Received: 02/15/91

Sample Identifications: (1) Rinse Water
(2) Tap Water

RESULTS

	Sample 1.	Sample 2.
Arsenic, ppm	<0.010	<0.010
Cadmium, ppm	0.0006	0.0011
Chromium, ppm	<0.005	<0.005
Lead, ppm	0.017	0.047
Mercury, ppm	<0.0002	<0.0002
Selenium, ppm	<0.010	<0.010
Silver, ppm	<0.005	<0.005
Barium, ppm	11	11
Petroleum Hydrocarbons, ppm	0.69	0.51

< = Less Than

Michael Johnson
Chemistry Laboratory Manager

ANALYTICAL EXPERTISE: Chemical & Microbiological; Environmental; Foods and Nutritional Supplements; Pharmaceuticals & Cosmetics; Sanitation Inspections (Licensed); Pool Operations (Certified).

Question 126

NEW JERSEY LABORATORIES
A FULL SERVICE ANALYTICAL LABORATORY
222 EASTON AVENUE
NEW BRUNSWICK, NEW JERSEY 08901
TELEPHONE: (908) 249-0148
TELEFAX: (908) 249-0243

ANALYTICAL TESTING
SINCE 1939

Division:
PHARMETICS LABORATORY

REPORT TO: Fairmont Chemical
117 Blanchard Street
Newark, NJ 07105
Attn: Mr. Jim Capo

DATE SAMPLED:
SAMPLED BY: Client
DATE SUBMITTED: 9/11/92
DATE EXTRACTED: 9/21-9/29
DATE ANALYZED: 9/24-9/29

REPORT DATE: Oct. 6, 1992

ASSAY NO: 5763-1

CUSTOMER SAMPLE ID: Soil from Yard

units: mg/L

PARAMETERS	RESULTS	DETECTION LIMITS
TCLP METALS:		
Arsenic	0.057	0.002
Barium	3.97	0.2
Cadmium	0.015	0.005
Chromium	0.020	0.010
Lead	0.067	0.002
Mercury	<0.0009	0.0009
Selenium	0.003	0.002
Silver	0.030	0.01
ADDITIONAL ANALYSIS:		
Petroleum Hydrocarbons, mg/kg (Dry Weight Basis)	104	1.8

B/NA (See Attached Report)

< = Less Than

Raymond J. Feldt
Raymond J. Feldt, Ph.D.
Chemistry Laboratory Manager

AFD001648

126

NEW JERSEY LABORATORIES
A FULL SERVICE ANALYTICAL LABORATORY
222 EASTON AVENUE
NEW BRUNSWICK, NEW JERSEY 08901
TELEPHONE: (908) 249-0148
TELEFAX: (908) 249-0243

ANALYTICAL TESTING
SINCE 1939

Division:
PHARMETICS LABORATORY

REPORT TO: Fairmont Chemical
117 Blanchard Street
Newark, NJ 07105
Attn: Mr. Jim Capo

DATE SAMPLED:
SAMPLED BY: Client
DATE SUBMITTED: 9/11/92
DATE EXTRACTED: 9/21-9/29
DATE ANALYZED: 9/24-9/29

REPORT DATE: Oct. 6, 1992

ASSAY NO: 5763-2

CUSTOMER SAMPLE ID: Soil from Bldg. 20 (Scrubber Vicinity)

units: mg/L

PARAMETERS	RESULTS	DETECTION LIMITS
TCLP METALS:		
Arsenic	0.003	0.002
Barium	1.13	0.2
Cadmium	0.015	0.005
Chromium	0.030	0.010
Lead	0.062	0.002
Mercury	<0.0009	0.0009
Selenium	<0.002	0.002
Silver	0.030	0.01
ADDITIONAL ANALYSIS:		
Petroleum Hydrocarbons, mg/kg (Dry Weight Basis)	1,365	1.44
B/NA (See Attached Report)		

< = Less Than

Raymond J. Feldt

Raymond J. Feldt, Ph.D.
Chemistry laboratory Manager

AEDC01650

Rev. 8/9/93

LAND DISPOSAL RESTRICTIONS NOTIFICATION FORM

MANIFEST # NJA1399060

HAZARDOUS WASTE CODES D001, D002, F001

This form is submitted to Research Oil Company in accordance with 40 CFR Part 268, which restricts the land disposal of hazardous wastes. I have marked the appropriate box to indicate how this waste must be managed to conform to the land disposal restrictions.

[X] A. WASTE RESTRICTED: DOES NOT MEET TREATMENT STANDARDS*

I am the generator of a restricted waste which must be treated to the applicable treatment standards set forth in 40 CFR Part 268 Subpart D prior to land disposal.

[ ] B. WASTE RESTRICTED: SUBJECT TO A NATIONWIDE VARIANCE, EXEMPTION, OR EXTENSION*

The waste identified above is subject to a national capacity variance, a treatability variance, or a case-by-case extension which expires on_____. This variance applies to EPA hazardous waste code(s)_____. If disposal occurs in a landfill or surface impoundment, the unit must meet the minimum technological requirements specified in 268.5(h)(2). (Note: Wastes destined for deep well injection are subject to a separate set of variances. See 40 CFR Part 148.)

* * * * * * * * * * * *

Please attach available waste analysis data.

I herby certify that this form is accurately completed to the best of my knowledge and/or waste analysis data.

Generator: Fairmount Chemical Co., Inc.

Signature: Jim Capo (Jim Capo)

Date: 10/20/93

AED000316

GENERATOR: AFTER COMPLETION, PLEASE COPY ENTIRE DOCUMENT AND RETAIN ON-SITE IN YOUR FILES FOR FIVE YEARS.

Rev. 8/9/

268.41 TABLE CCWE - Constituent Concentrations in Waste Extract

Code	See Also	Regulated Hazardous Constituent	Wastewaters Concentration (mg/l)	Nonwastewaters Concentration (mg/l)
D004	Table CCW in 268.43	Arsenic	na	5
D005	Table CCW in 268.43	Barium	na	100
D006	Table CCW in 268.43	Cadmium	na	1
D007	Table CCW in 268.43	Chromium (Total)	na	5
D008	Table CCW in 268.43	Lead	na	5
D009*	Table CCW in 268.43 & Table 2 in 268.42	Mercury	na	0.2
D010	Table CCW in 268.43	Selenium	na	5.7
D011	Table CCW in 268.43	Silver		5
F001-F005 spent solvents		Carbon disulfide	na	4.8
		Cyclohexanone	na	0.75
		Methanol	na	0.75
F006	Table CCW in 268.43	Cadmium	na	0.066
		Chromium (Total)	na	5.2
		Lead	na	0.51
		Nickel	na	0.32
		Silver	na	0.072
F037	Table CCW in 268.43	Chromium (Total)	na	1.7
		Nickel	na	0.2
F038	Table CCW in 268.43	Chromium (Total)	na	1.7
		Nickel	na	0.2
K022	Table CCW in 268.43	Chromium (Total)	na	5.2
		Nickel	na	0.32
K048	Table CCW in 268.43	Chromium (Total)	na	1.7
		Nickel	na	0.2
K049	Table CCW in 268.43	Chromium (Total)	na	1.7
		Nickel	na	0.2
K050	Table CCW in 268.43	Chromium (Total)	na	1.7
		Nickel	na	0.2
K051	Table CCW in 268.43	Chromium (Total)	na	1.7
		Nickel	na	0.2
K052	Table CCW in 268.43	Chromium (Total)	na	1.7
		Nickel	na	0.2
K083	Table CCW in 268.43	Nickel	na	0.088
U051	Table CCW in 268.43	Lead	na	0.51

*Mercury subcategory - <260 mg/kg mercury

268.42 TABLE 2 - Technology-Based Standards by RCRA Code

Waste Code	See Also	Waste Descriptions and/or Treatment Subcategory	Technology Wastewaters	Code Nonwastewaters
D001	Table CCWE in 268.41 and Table CCW in 268.43.	All descriptions based on 40 CFR 261.21, except for the 261.21(a)(1) High TOC subcategory managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.	DEACT, and meet F039 or FSUBS; RORGS; or INCIN.	DEACT, and meet F039; or FSUBS; RORGS; or INCIN.
D001		All descriptions based on 40 CFR 261.21, except for the 261.21(a)(1) High TOC subcategory, managed in CWA, CWA-equivalent, or Class I SDWA systems.	DEACT	DEACT
D001		All descriptions based on 40 CFR 261.21(a)(1)-High TOC Ignitable Liquids Subcategory-Greater than or equal to 10% total organic carbon.	na	FSUBS;RORGS; or INCIN

AD00031Z

Table 2 cont. Waste Code	See Also	Waste Descriptions and/or Treatment Subcategory	Technology Code Wastewaters	Nonwastewaters
02	Table CCWE in 268.41 and Table CCW in 268.43.	Acid, alkaline, and other subcategory based on 261.22 managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.	DEACT and meet F039.	DEACT and meet F039
D002		Acid, alkaline, and other subcatergory based on 261.22 managed in CWA, CWA-equivalent, or Class I SDWA systems.	DEACT	DEACT
D003		Reactive Sulfides based on 261.23(a)(5)	DEACT (no dilution)	DEACT (no dilution)
F005	Table CCW in 268.43 & Table CCWE in 268.41	2-Ethoxyethanol	BIODG; or INCIN	INCIN
F005	Table CCW in 268.43 & Table CCWE in 268.41	2-Nitropropane	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN
U001		Acetaldehyde	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN
U053		Crotonaldehyde	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN
U055		Cumene	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN
U056		Cyclohexane	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN
U057	Table CCW in 268.43	Cyclohexanone	na	FSUBS; or INCIN
U096		a,a-Dimethyl benzyl hydroperoxide	CHOXD; CHRED; CARB BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN
U154		Methanol	(WETOX or CHOXD)	FSUBS; or INCIN

268.43 TABLE CCW - Constituent Concentrations in Wastes

Waste Code	See Also	Regulated Hazardous Constituent	Wastewaters Concentration (mg/l)	Nonwastewaters Concentration (mg/kg)
D004	Table CCWE in 268.41	Arsenic	5	na
D005	Table CCWE in 268.41	Barium	100	na
D006	Table CCWE in 268.41	Cadmium	1	na
D007	Table CCWE in 268.41	Chromium (Total)	5	na
D008	Table CCWE in 268.41	Lead	5	na
D009	Table CCWE in 268.41	Mercury	0.2	na
D010	Table CCWE in 268.41	Selenium	1	na
D011	Table CCWE in 268.41	Silver	5	na
F001-F005 spent solvents		Acetone	0.28	160
		Benzene	0.07	3.7
		n-Butyl alcohol	5.6	2.6
		Carbon tetrachloride	0.057	5.6
		Chlorobenzene	0.057	5.7
		Cresol (m- and p-isomrs)	0.77	3.2
		o-Cresol	0.11	5.6
		o-Dichlorobenzene	0.088	6.2
		Ethyl acetate	0.34	33
		Ethyl benzene	0.057	6
		Ethyl ether	0.12	160
		Isobutyl alcohol	5.6	170
		Methylene chloride	0.089	33
		Methyl ethyl ketone	0.28	36
		Methyl isobutyl ketone	0.14	33
		Nitrobenzene	0.068	14
		Pyridine	0.014	16
		Tetrachloroethylene	0.056	5.6

AED000318

268.43 TABLE CCW - CONSTITUENT CONCENTRATIONS IN WASTES

WASTE CODE	SEE ALSO	REGULATED HAZARDOUS CONSTITUENT	WASTEWATERS CONCENTRATION (mg/L)	NONWASTEWATERS CONCENTRATION (mg/kg)
F039 cont.		Naphthalene	0.059	3.1
		2-Naphthylamine	0.52	N/A
		p-Nitroaniline	0.028	28
		Nitrobenzene	0.068	14
		5-Nitro-o-toluidine	0.32	28
		4-Nitrophenol	0.12	29
		N-Nitrosodiethylamine	0.40	28
		N-Nitrosodimethylamine	0.40	N/A
		N-Nitroso-di-n-butylamine	0.40	17
		N-Nitrosomethylethylamine	0.40	2.3
		N-Nitrosomorpholine	0.40	2.3
		N-Nitrosopiperidine	0.013	35
		N-Nitrosopyrrolidine	0.013	35
		Parathion	0.014	4.6
		Pentachlorobenzene	0.055	37
		Pentachlorodibenzo-furans	0.000063	0.001
		Pentachlorodibenzo-p-dioxins	0.000063	0.001
		Pentachloronitrobenzene	0.055	4.8
		Pentachlorophenol	0.089	7.4
		Phenacetin	0.081	16
		Phenanthrene	0.059	3.1
		Phenol	0.039	6.2
		Phorate	0.021	4.6
		Phthalic anhydride	0.069	N/A
		Pronamide	0.093	1.5
		Pyrene	0.067	8.2
		Pyridine	0.014	16
		Safrole	0.081	22
		Silvex (2,4,5-TP)	0.72	7.9
		2,4,5-T	0.72	7.9
		1,2,4,5-Tetrachlorobenzene	0.055	19
		Tetrachlorodibenzo-furans	0.000063	0.001
		Tetrachlorodibenzo-p-dioxins	0.000063	0.001
		1,1,1,2-Tetrachloroethane	0.057	42
		1,1,2,2-Tetrachloroethane	0.057	42
		Tetrachloroethylene	0.056	5.6
		2,3,4,6-Tetrachlorophenol	0.030	37
		Toluene	0.080	28
		Toxaphene	0.0095	1.3
		1,2,4-Trichlorobenzene	0.055	19
		1,1,1-Trichloroethane	0.054	5.6
		1,1,2-Trichloroethane	0.054	5.6
		Trichloroethylene	0.054	5.6
		2,4,5-Trichlorophenol	0.18	37
		2,4,6-Trichlorophenol	0.035	37
		1,2,3-Trichloropropane	0.85	28
		1,1,2-Trichloro-1,2,2-trifluoro-ethane	0.057	28
		Tris(2,3-dibromopropyl) phosphate	0.11	N/A
		Vinyl chloride	0.27	33
		Xylene(s)	0.32	28
		Cyanides (Total)	1.2	1.8
		Fluoride	35	N/A
		Sulfide	14	N/A
		Antimony	1.9	N/A
		Arsenic	1.4	N/A
		Barium	1.2	N/A
		Beryllium	0.82	N/A
		Cadmium	0.2	N/A
		Chromium (Total)	0.37	N/A
		Copper	1.3	N/A
		Lead	0.28	N/A
		Mercury	0.15	N/A
		Nickel	0.55	N/A
		Selenium	0.82	N/A
		Silver	0.29	N/A
		Thallium	1.4	N/A
		Vanadium	0.042	N/A
		Zinc	1.0	N/A

68.41 TABLE CCWE - CONSTITUENT CONCENTRATIONS IN WASTE EXTRAC

WASTE CODE	SEE ALSO	REGULATED HAZARDOUS CONSTITUENT	WASTEWATERS CONCENTRATION (mg/L)	NONWASTEWATERS CONCENTRATION (mg/L)
F039 (and D001 and D002 wastes prohibited under §268.37).	Table 2 in 268.42, and Table CCW in 268.43.	Antimony	N/A	0.23
		Arsenic	N/A	5.0
		Barium	N/A	52
		Cadmium	N/A	0.066
		Cadmium (Total)	N/A	5.2
		Lead	N/A	0.51
		Mercury	N/A	0.025
		Nickel	N/A	0.32
		Selenium	N/A	5.7
		Silver	N/A	0.072

PRETREATMENT MONITORING REPORT

Name Fairmount Chemical Co., Inc.

Mailing Address 117 Blanchard Street, Newark, NJ 07105

Facility Location Same

Category & Subpart 40 CFR 414.85H Outlet # 20402520-43900-0201

Contact Offical Jim Capo Telephone # 201-340-5790

Monitoring Period					
02	01	96	02	29	96
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

(2,083,400 gal / 20 days)

For Reporting Period

	AVG	MAX
Regulated flow-gal/day	104,170	202,600
Total Flow-gal/day	104,170	202,600

Method used Flow Meter

Production rate (if applicable)

20 Working Days

Parameter		Mass Limit or Concentration Average	Maximum	Units	No. of Samples	Sample type Comp./grab
Benzene	Sample measurement	25.57816	106.49478	g	5	Grab
	Permit requirement	22.47866	52.84738	grams		
Carbon Tetrachloride	Sample measurement	<0.15777	<0.15777	g	1	Grab
	Permit requirement	56.00245	149.86572	grams		
Chlorobenzene	Sample measurement	6.70522	6.70552	g	1	Grab
	Permit requirement	56.00245	149.86572	grams		
1,2,4-Tri Chlorobenzene	Sample measurement	<0.39442	<0.39442	g	1	Composite
	Permit requirement	77.29916	313.14048	grams		
Hexa Chlorobenzene	Sample measurement	<0.39442	<0.39442	g	1	Composite
	Permit requirement	77.29916	313.14048	grams		
1,2-Dichloro Ethane	Sample measurement	<0.19721	<0.19721	g	1	Grab
	Permit requirement	70.96902	226.37611	grams		
1,1,1-Trichloro Ethane	Sample measurement	<0.19721	<0.19721	g	1	Grab
	Permit requirement	8.67644	23.26862	grams		
Hexa Chloroethane	Sample measurement	<0.39442	<0.39442	g	1	Composite
	Permit requirement	77.29916	313.14048	grams		
1,1-Dichloro Ethane	Sample measurement	<0.27610	<0.27610	g	1	Grab
	Permit requirement	8.67644	23.26862	grams		

PVSC Form MR-1 Rev. 4 6/87 P1

AEDC01184

CHEMTECH
CONSULTING GROUP, INC.

LABORATORY REPORT

REPORT OF ANALYSES

FAIRMOUNT CHEMICAL
117 BLANCHARD STREET
NEWARK, NJ 07105-
Attn: JIM CAPO

DATE: 02/22/96

(Page 1 of 2)

SAMPLE				DELIVERY TO LAB		
LAB No.	DATE	TIME	SAMPLER	DATE	TIME	MATRIX
1548	02/07/96	COMP	CHEMTECE	02/07/96	1200	WW

CLIENT STATION ID: WW COMP
LAB #: 1548

SVOA 625		
BNA 625	ug/L	R.A.
ARSENIC	mg/L	<0.006
CADMIUM	mg/L	<0.001
CHROMIUM	mg/L	0.004
COPPER	mg/L	0.005
LEAD	mg/L	<0.002
NICKEL	mg/L	0.004
ZINC	mg/L	0.13
MERCURY	mg/L	<0.0002
PH, LAB	STD. UNITS	6.55
TOTAL ORGANIC CARBON	mg/L	1613
BIOCHEMICAL OXYGEN DEMAND	mg/L	116
CHEMICAL OXYGEN DEMAND	mg/L	2597
NITROGEN, AMMONIA	mg/L	<0.1
OIL & GREASE	mg/L	12.8
PHENOLICS, TOTAL RECOVERABLE	ug/L	2482.0
TOTAL SUSPENDED SOLIDS	mg/L	49
SOLIDS, TOTAL	mg/L	2754

LABORATORY DIRECTOR

110 Route 4 ● Englewood, New Jersey 07631 Phone: (201) 567-6868 Fax: (201) 567-1333

NYSDOH Certification No. 10624 NJDEPE Certification No. 02548

PASSAIC VALLEY SEWERAGE COMMISSION
NEWARK, NEW JERSEY

HEAVY METALS SOURCE DETERMINATION STUDY

IN COMPLIANCE WITH OCEAN DUMPING PERMIT
NO. II NJ003 INTERIM, SECTION 9(c)

Passaic Valley Sewerage Commissioners

JOSEPH M. KEEGAN - Chairman
BEN W. GORDON - Vice Chairman
THOMAS J. CIFELLI - Commissioner
VINCENT CORRADO - Commissioner
ROBERT J. DAVENPORT - Commissioner
RICHARD M. GIACOMARRO - Commissioner
CHARLES A. LAGOS - Commissioner

CARMINE T. PERRAPATO - Executive Director
ROCCO D. RICCI - Chief Engineer

PHASE II

APRIL 1980

AED001686

Elson T. Killam Associates, Inc.
Environmental and Hydraulic Engineers

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
1220	ENGLEHARD INDUSTRIES INC. 429 DELANCEY ST. NEWARK	0.4710	1.787 (0.455)	2.632 (0.670)	169.303 (43.100)	12.020 (3.060)	62.850 (16.000)	43.995 (11.200)	0.090 (0.023)	0.0196 (0.005)
1230	EXPRESS CONTAINER CORP. 105 AVE. L NEWARK	0.0120	< 0.001 (0.005)	0.009 (0.091)	0.007 (0.070)	0.002 (0.022)	0.003 (0.025)	0.008 (0.082)	0.000 (0.001)	0.0001 (0.001)
1240	FAIRMOUNT CHEMICAL CO. 117 BLANCHARD ST. NEWARK	0.7390	0.055 (0.009)	3.285 (0.533)	2.533 (0.411)	5.491 (0.891)	0.290 (0.047)	265.020 (43.000)	0.009 (0.001)	0.0068 (0.001)
1250	FEDERATED METALS CORP. 150 ST. CHARLES ST. NEWARK	0.0100	0.006 (0.074)	0.009 (0.109)	0.098 (1.170)	0.015 (0.178)	0.007 (0.078)	0.014 (0.167)	< 0.000 (0.001)	0.0001 (0.002)
1260	FEDERATED PACIFIC ELECTRIC CO. 150 AVE. L & HERBERT NEWARK	0.1510	0.013 (0.010)	0.481 (0.382)	0.879 (0.698)	0.084 (0.067)	0.042 (0.033)	1.952 (1.550)	0.003 (0.002)	0.0009 (0.001)
1270	GENERAL COLOR CO. 24 AVE B NEWARK	0.0160	40.165 (301.000)	0.005 (0.036)	0.025 (0.185)	< 0.001 (0.005)	0.001 (0.005)	3.910 (29.300)	0.001 (0.005)	0.0010 (0.007)
1285	HUMMEL LANOLIN CORP. 185 FOUNDRY ST. NEWARK	0.0280	< 0.001 (0.005)	0.014 (0.059)	0.010 (0.043)	0.163 (0.698)	< 0.001 (0.005)	0.021 (0.092)	0.064 (0.275)	0.0003 (0.001)
1290	HY-GRADE ELECTROPLATING CO. 35 FOURTH ST. NEWARK	0.0090	0.040 (0.536)	0.494 (6.580)	9.007 (120.000)	0.072 (0.958)	0.212 (2.830)	0.469 (6.250)	0.000 (0.004)	0.0000 (0.000)
1300	INDUSTRIAL HARD CHROMIUM CO. 7 ROME ST. NEWARK	0.0100	0.010 (0.116)	57.046 (684.000)	0.799 (9.580)	1.985 (23.800)	0.056 (0.667)	0.188 (2.250)	0.001 (0.014)	0.0000 (0.000)
1310	THE KENNY PRESS INC. 110 EDISON PLACE NEWARK	0.0010	< 0.000 (0.005)	0.000 (0.050)	0.001 (0.142)	0.006 (0.696)	0.0 (0.[illegible]	0.001 (0.083)	< 0.000 (0.001)	0.0000 (0.001)

KLL013814

Federated Metals

FACILITY REPORT (BRS DATA)

```
search used- Facility       : FEDERATED METALS*
             City           : NEWARK
             State          : NJ
             EPA ID         : ALL
             Year           : ALL
             Level of Detail: HIGH
Results:
```

This search was taken from RTK NET's (the Right-To-Know Network)'s copy of EPA's BRS database. RTK NET is run by OMB Watch at 1742 Connecticut Ave. NW, Washington DC 20009 Phone: 202-234-8494
The search was done on 09/26/2002.
This copy of the database was last updated on 05/29/2002.

Note: "Federal" waste is waste with at least one Federal EPA waste code. Non-Federal waste is regulated by the state only. "RCRA" waste is Federal waste that is managed (treated, disposed, or recycled) in a RCRA-permitted TSD unit. The waste is classified according to assumptions made about where it ends up.

If you don't see the words *END OF REPORT* at the end of this search, then this Web search didn't complete -- back up and try it again.

Reporting Year: 1989

```
Facility Name: FEDERATED METALS CORP   Reporting Year: 1989
Street       : 150 SAINT CHARLES ST
City         : NEWARK                      State: NJ   Zip: 07105
County       : ESSEX   EPA ID: NJD079320495
Mailing Address: 150 SAINT CHARLES ST
Mailing City   : NEWARK                      State: NJ   Zip: 07105
Year: 1989           Total Waste   Federal Wst.  RCRA Waste
Tons Generated  :        103.94        103.94        103.94
Tons Shipped    :        103.94        103.94        103.94
SIC Code(s):
Contact: BARRY HARRIS   Phone: 2015890500
Generator Status : Large Quantity Generator (LQG)
Storage Status   : No RCRA-permitted or interim status storage
RCRA TDR Status  : No on-site TDR; site has no plans to develop system
Exempt TDR Status: No on-site TDR; site has no plans to develop system
```

List of wastes generated by this facility:

Waste Desc.:
EPA Waste Code(s) for this generated waste-
D006 Cadmium
Tons Generated: 97.19
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CHEMICAL WASTE MANAGEMENT INC
EMELLE, AL
System type: M999
Tons sent: 97.19 EPA ID: ALD000622464

Waste Desc.:
EPA Waste Code(s) for this generated waste-

D008 Lead
Tons Generated: 6.75
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CWM CHEMICAL SERVICES INC.
MODEL CITY, NY
System type: M999
Tons sent: 6.75 EPA ID: NYD049836679

Reporting Year: 1991

Facility Name: FEDERATED METALS CORP Reporting Year: 1991
Street : 150 ST CHARLES ST
City : NEWARK State: NJ Zip: 071010000
County : ESSEX EPA ID: NJD079320495
Mailing Address: 150 ST CHARLES STREET
Mailing City : NEWARK State: NJ Zip: 071050000

Year: 1991	Total Waste	Federal Wst.	RCRA Waste
Tons Generated :	187.00	187.00	187.00
Tons Shipped :	187.00	187.00	187.00

SIC Code(s): 3341
Contact: BARRY C HARRIS Phone: 9088261800
Generator Status : Large Quantity Generator (LQG)
Storage Status : No RCRA-permitted or interim status storage
RCRA TDR Status : Yes, haz. waste TDR in current year
Exempt TDR Status: No on-site TDR; site has no plans to develop system

---

List of wastes generated by this facility:

Waste Desc.: EXCAUATED SOILS CONTAINING TRACES OF LEAD AND PETROLUEM HYDO CARBON
EPA Waste Code(s) for this generated waste-
D008 Lead
Tons Generated: 187.00
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
GSX SERVICES OF SC INC.
PINEWOOD, SC
System type: M111
Tons sent: 187.00 EPA ID: SCD070375985

Reporting Year: 1993

Facility Name: FEDERATED METALS C/O BRIDGEVIEW MGMT CO Reporting Year: 1993
Street : 150 ST CHARLES ST
City : NEWARK State: NJ Zip: 071050000
County : ESSEX EPA ID: NJD079320495
Mailing Address: 1160 STATE ST
Mailing City : PERTH AMBOY State: NJ Zip: 088610000

Year: 1993	Total Waste	Federal Wst.	RCRA Waste
Tons Generated :	59.86	57.98	57.96
Tons Shipped :	59.86	57.98	57.96

SIC Code(s):
Contact: BARRY C HARRIS Phone: 9088261800
Generator Status : Large Quantity Generator (LQG)

Storage Status : No RCRA-permitted or interim status storage
RCRA TDR Status : No on-site TDR; site has no plans to develop system
Exempt TDR Status: No on-site TDR; site has no plans to develop system
---

List of wastes generated by this facility:

Waste Desc.: WASTE MERCURY
EPA Waste Code(s) for this generated waste-
D009 Mercury
Tons Generated: 0.02
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
BETHLEHEM APPARATUS CO INC
HELLERTOWN, PA
System type: M019
Tons sent: 0.02 EPA ID: PAD002390961

Waste Desc.: DUST CONTAMINATED WITH LEAD AND CADMIUM
EPA Waste Code(s) for this generated waste-
D008 Lead
D006 Cadmium
Tons Generated: 0.15
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
REPUBLIC ENVIRONMENTAL SYSTEMS, INC.
HATFIELD, PA
System type: M132
Tons sent: 0.15 EPA ID: PAD085690592

Waste Desc.: FLOOR SWEEPS W/LEAD AND OIL AND CADMIUM
EPA Waste Code(s) for this generated waste-
D008 Lead
D006 Cadmium
Tons Generated: 0.10
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
REPUBLIC ENVIRONMENTAL SYSTEMS, INC.
HATFIELD, PA
System type: M132
Tons sent: 0.10 EPA ID: PAD085690592

Waste Desc.: LEAD CONTAMINATED GREASE
EPA Waste Code(s) for this generated waste-
D008 Lead
Tons Generated: 0.08
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
REPUBLIC ENVIRONMENTAL SYSTEMS, INC.
HATFIELD, PA
System type: M132
Tons sent: 0.08 EPA ID: PAD085690592

Waste Desc.: CONCRETE, RUBBLE, BRICK CONTAMINATED WITH LEAD
EPA Waste Code(s) for this generated waste-
D008 Lead

Tons Generated: 42.53
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENVIROSAFE SERVICES OF OHIO INC
OREGON, OH
System type: M132
Tons sent: 42.53 EPA ID: OHD045243706

Waste Desc.: LAB PACKS, XYLENE, TOLUENE, SELENIUM, CADMIUM,
EPA Waste Code(s) for this generated waste-
D008 Lead
D006 Cadmium
D010 Selenium
F005 Spent non-halogenated solvents (see 1991 Form)
F001 Spent halogenated solvents used in degreasing (see 1991 Form)
Tons Generated: 0.26
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
Tons sent: 0.26 EPA ID: ARD069748192

Waste Desc.: WASTE SOLID NOS 9 NA 3077 PG 111 LEAD COMPRESSOR OIL
EPA Waste Code(s) for this generated waste-
D008 Lead
Tons Generated: 7.30
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CWM CHEMICAL SERVICES, INC.
MODEL CITY, NY
System type: M132
Tons sent: 7.30 EPA ID: NYD049836679

Waste Desc.: OIL CLEANUP FLOOR SWEEPS W/OIL
This is state-only waste (no Federal waste codes).
State waste code(s): X725 X726
Tons Generated: 1.73
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
REPUBLIC ENVIRONMENTAL SYSTEMS, INC.
HATFIELD, PA
System type: M039
Tons sent: 1.73 EPA ID: PAD085690592

Waste Desc.: LAB PACKS (XYLENE, TOLUENE, THIOACETAMIDE, CHROMIUM METAL FI
NES, ETHANOL)
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
D001 Ignitable waste
D007 Chromium
U218 Ethanethioamide or Thioacetamide
D008 Lead
F005 Spent non-halogenated solvents (see 1991 Form)
D018 Benzene
F003 Spent non-halogenated solvents (see 1991 Form)
Tons Generated: 0.82

Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: M039
Tons sent: 0.82 EPA ID: ARD069748192

Waste Desc.: PCB DEBRIS
This is state-only waste (no Federal waste codes).
State waste code(s): X751
Tons Generated: 0.15
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
APTUS INCINERATION, CHEMICAL TREATMENT
COFFEYVILLE, KS
System type: M039
Tons sent: 0.15 EPA ID: KSD981506025

Waste Desc.: WOOD CONTAMINATED WITH LEAD AND CADMIUM
EPA Waste Code(s) for this generated waste-
D008 Lead
Tons Generated: 6.72
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: M039
Tons sent: 6.72 EPA ID: ARD069748192

Reporting Year: 1995

Facility Name: FEDERATED METALS CORP (BRIDGEVIEW MANAGE Reporting Year: 1995
Street : 150 ST CHARLES STREET
City : NEWARK State: NJ Zip: 071050000
County : ESSEX EPA ID: NJD079320495
Mailing Address: 1160 STATE STREET
Mailing City : PERTH AMBOY State: NJ Zip: 088610000

Year: 1995	Total Waste	Federal Wst.	RCRA Waste
Tons Generated :	660.39	658.30	658.30
Tons Shipped :	660.39	658.30	658.30

SIC Code(s):
Contact: BARRY C HARRIS Phone: 9088261800
Generator Status : Large Quantity Generator (LQG)
Storage Status : No RCRA-permitted or interim status storage
RCRA TDR Status : No on-site TDR; site has no plans to develop system
Exempt TDR Status: No on-site TDR; site has no plans to develop system

---

List of wastes generated by this facility:

Waste Desc.: PETROLEUM OIL, COMBUSTIBLE LIQUID, UN 1270, PG III
This is state-only waste (no Federal waste codes).
State waste code(s): X721 X722
Tons Generated: 2.09
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-

LIONETTI OIL RECOVERY INC
OLD BRIDGE, NJ
System type: Other Recovery - type unknown
Tons sent: 0.42 EPA ID: NJD084044064

REMTECH ENVIRONMENTAL
CAMDEN, NJ
System type: Other Recovery - type unknown
Tons sent: 1.67 EPA ID: NJD980536577

Waste Desc.: RQ, HAZARDOUS WASTE SOLID, N.O.S. (LEAD), 9, NA3077, PG III (D008)
EPA Waste Code(s) for this generated waste-
D008 Lead
Tons Generated: 186.50
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENVIROSAFE SERVICES OF OHIO INC
OREGON, OH
System type: Other Recovery - type unknown
Tons sent: 186.50 EPA ID: OHD045243706

Waste Desc.: RQ, HARZARDOUS WASTE SOLID, N.O.S., ORM-E, (CLASS 9 PKG GROUP III, NA3077
EPA Waste Code(s) for this generated waste-
D006 Cadmium
D008 Lead
Tons Generated: 471.80
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENVIROSAFE SERVICES OF OHIO INC
OREGON, OH
System type: Other Recovery - type unknown
Tons sent: 471.80 EPA ID: OHD045243706

END OF REPORT

PASSAIC VALLEY SEWERAGE COMMISSION
NEWARK, NEW JERSEY

HEAVY METALS SOURCE DETERMINATION STUDY

IN COMPLIANCE WITH OCEAN DUMPING PERMIT
NO. II NJ003 INTERIM SECTION 301

Passaic Valley Sewerage Commissioners

JOSEPH M. KEEGAN	- Chairman
BEN W. GORDON	- Vice Chairman
THOMAS J. CIFELLI	- Commissioner
VINCENT CORRADO	- Commissioner
ROBERT J. DAVENPORT	- Commissioner
RICHARD M. GIACOMARRO	- Commissioner
CHARLES A. LAGOS	- Commissioner
CARMINE T. PERRAPATO	- Executive Director
ROCCO D. RICCI	- Chief Engineer

PHASE II

APRIL 1980

DRAFT

Elson T. Killam Associates, Inc.

Environmental and Hydraulic Engineers

KLLC13740

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA 0

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
1220	ENGLEHARD INDUSTRIES INC. 429 DELANCEY ST. NEWARK	0.4710	1.787 (0.455)	2.632 (0.670)	169.303 (43.100)	12.020 (3.060)	62.850 (16.000)	43.995 (11.200)	0.090 (0.023)	0.0196 (0.005)
1230	EXPRESS CONTAINER CORP. 105 AVE. I NEWARK	0.0120	< 0.001 (0.005)	0.009 (0.091)	0.007 (0.070)	0.002 (0.022)	0.003 (0.025)	0.008 (0.082)	0.000 (0.001)	0.0001 (0.001)
1240	FAIRMOUNT CHEMICAL CO. 117 BLANCHARD ST. NEWARK	0.7390	0.055 (0.009)	3.285 (0.533)	2.533 (0.411)	5.491 (0.891)	0.290 (0.047)	265.020 (43.000)	0.009 (0.001)	0.0068 (0.001)
1250	FEDERATED METALS CORP. 150 ST. CHARLES ST. NEWARK	0.0100	0.006 (0.074)	0.009 (0.109)	0.098 (1.170)	0.015 (0.178)	0.007 (0.078)	0.014 (0.167)	0.000 (0.001)	0.0001 (0.002)
1260	FEDERATED PACIFIC ELECTRIC CO. 150 AVE. L & HERBERT NEWARK	0.1510	0.013 (0.010)	0.481 (0.382)	0.879 (0.698)	0.084 (0.067)	0.042 (0.033)	1.952 (1.550)	0.003 (0.002)	0.0009 (0.001)
1270	GENERAL COLOR CO. 24 AVE B NEWARK	0.0160	40.165 (301.000)	0.005 (0.036)	0.025 (0.185)	< 0.001 (0.005)	0.001 (0.005)	3.910 (29.300)	0.001 (0.005)	0.0010 (0.007)
1285	HUMMEL LANOLIN CORP. 185 FOUNDRY ST. NEWARK	0.0280	< 0.001 (0.005)	0.014 (0.059)	0.010 (0.043)	0.163 (0.698)	< 0.001 (0.005)	0.021 (0.092)	0.064 (0.275)	0.0003 (0.001)
1290	HY-GRADE ELECTROPLATING CO. 35 FOURTH ST. NEWARK	0.0090	0.040 (0.536)	0.494 (6.580)	9.007 (120.000)	0.072 (0.958)	0.212 (2.830)	0.469 (6.250)	0.000 (0.004)	0.0000 (0.000)
1300	INDUSTRIAL HARD CHROMIUM CO. 7 ROME ST. NEWARK	0.0100	0.010 (0.116)	57.046 (684.000)	0.799 (9.580)	1.985 (23.800)	0.056 (0.667)	0.188 (2.250)	0.001 (0.014)	0.0000 (0.000)
1310	THE KENNY PRESS INC. 110 EDISON PLACE NEWARK	0.0010	< 0.000 (0.005)	0.000 (0.050)	0.001 (0.142)	0.006 (0.698)	0.0 ([illegible]	0.001 (0.083)	< 0.000 (0.001)	0.0000 (0.001)

KLLC13814

Franklin-Burlington
Plastics

RECON SYSTEMS INC.
ROUTE 202N, P.O. BOX 460, THREE BRIDGES, N.J. 08887
201-782-5900
NEW ENGLAND 617-752-4217 PENNSYLVANIA 215-433-5511

SAMPLING AND ANALYSES PLAN RESULTS

for

FRANKLIN PLASTICS CORPORATION
Kearny, New Jersey

ECRA Case No. 86206

RECON Project No. 1126

Prepared by:

William A. Moody
Senior Environmental Specialist
RECON SYSTEMS, INC.
Route 202 North
Three Bridges, New Jersey

October 1, 1987

1126.SR 9.30.87

RECON SYSTEMS, INC.

Route 202 North, P.O. Box 460
Three Bridges, N.J. 08887
201-782-5900

New England 617-752-4217 Pennsylvania 215-433-5511

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1126.SR 9.28.87

TABLE B

Tank Farm Area - Parameters and Sampling Locations Which Exceed Known Guidelines

	ECRA Cleanup Guidelines*	B-3+	B-2+	B7/1	B7/1 (DUP.)	B-7/A	B-7/2
Priority Pollutant Metals							
Arsenic	20					NA	1300
Cadmium	3	3.27				NA	287
Copper	170					NA	232
Lead	100		185			NA	1040
Mercury	1					NA	1.7
Silver	5					NA	7.3
Zinc	350					NA	3020
Volatile Organic Compounds	1				NA	NA	
Base Neutrals							
Bis (2-Ethylhexyl) Phthalate**		1583++	801++	2300		54	420
Di-N-Butyl Phthalate**		301++	87.1++				
Di-N-Octyl Phthalate**		0.859	108				
Petroleum Hydrocarbons	100		2710	188	NA	NA	

*Unpublished
**Three most abundant.
+Previous sampling event
++Analyte also found in method blank.

NOTES

1. NA = Not Applicable - Not analyzed for this parameters.
2. Blanks indicate that sample was analyzed for this parameter, but level found was below ECRA cleanup guideline.
3. AE = Acid Extractable

TABLE D

Loading Area Parameters and Results Which Exceed ECRA Cleanup Guidelines

Results in ppm

	ECRA CLEANUP GUIDELINES*	B8/1	B8/2	B9/1	B9/2	B10/1	B10/2	B18/1	B18/2	B-1+	MW4/1	MW4/2	MW5/1	MW5/2
Priority Pollutant Metals														
Antimony	2							NA	NA		38	29	20	25
Cadmium	3	185	59.8			10.5		NA	NA		44		85	4
Copper	170					2.91		NA	NA		174			
Lead	100	1740	523		126	283	2150	NA	NA		218	217		
Mercury	1						4.8	NA	NA					
Thallium	5	17	11					NA	NA					
Zinc	350		487					NA	NA					
Volatile Organic Compounds**	1							NA	NA					
Toluene		0.290			0.120						0.110		0.072	
Benzene					0.058						0.052		0.086	
1,1,1-Trichloroethane			0.074		0.110							0.450		
Xylenes		0.230									0.550		0.084	
Tetrachloroethane					0.075								0.160	
Base Neutrals	10							NA	NA					
Butyl Benzyl Phthalate**		120	72			8.9					28			
Bis (2-Ethylhexyl) Phthalate**		6000	3400		4.5	52	26000	B		1582	890	0.56	9800	32
Di-N-Octyl Phthalate**		1000	470		0.530	8.8	460				73			
Fluoranthene**				8.1		21		NA	NA					29
Phenanthrene**				6.9		19								12
TOTAL BASE NEUTRALS	10	7010	3942	15	5.030	91.7	26460	NA	NA	1582	991		9800	73
Petroleum Hydrocarbons	100	20100	2910	105	222	7830	1120	6030	3590	15966	20100	11600	6040	

*Unpublished
**Five most abundant
+Previous sampling event
B = Analyte also found in method blank.

NOTES

1. NA = Not Applicable - Not analyzed for this parameter.
2. Blanks indicate that sample was analyzed for this parameter but level was below ECRA cleanup guideline.

TABLE F

Random Soil Samples - Parameters and Sampling Which Exceeds Known Guidelines

Results are in ppm

Priority Pollutant Metals

	ECRA Cleanup Guidelines*	B31/1	B31/2	B31/3	B32/1	B32/2	B32/3	B33/1	B33/2	B33/3
Antimony	2	38	29	25	33	34	34	42	21	2350
Beryllium	1						1.7	1.7	1.6	
Cadmium	3	130	250	18	9		7	9	510	510
Chromium	100									145
Copper	170									2070
Lead	100	360	265	225	229	123	221	161		802
Mercury	1				1.4					
Zinc	350				470					1180
Volatile Organic Compounds	1	NA			NA			NA		
Methylene Chloride**			1.113	1.413		2.2B	2.0B		1.1B	1.4B
Acetone**			0.260							
Tetrachloroethene**			0.140	0.180		0.230	0.260			
1,1-Dichloroethene**			0.120			0.140	0.120			
Benzene*			0.098	0.076		0.078				
Base Neutrals		NA			NA			NA		
Butyl Benzyl Phthalate**			160			29	1.4		110	91
Bis (2-Ethylhexyl) Phthalate**			81			3.7	5.9		34	27
Fluoranthene**			1.2			2.7	2.0			3.8
Phenanthrene**			0.870			2.0	1.6			3.1
Benzo Fluoranthene**			0.990			1.8	1.2			3.0
Petroleum Hydrocarbons	100	NA	1330		NA	299	182	NA	153	6240

*Unpublished
**Five most abundant
B Analyte found in method blank
++Were sampled but none detected.

NOTES

1. NA = Not Applicable - Not analyzed for this parameter.
2. Blanks indicate that sample was analyzed for this parameter but found below ECRA cleanup guidelines.

APPENDIX II

Let's protect our earth

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
CN 402
Trenton, N.J. 08625

PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachment accompanying same application, and applicable laws and regulations. This permit is also subject to the further condition and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Permit No.	Issuance Date	Effective Date	Expiration Date
NJ0002194	June 28, 1985	August 1, 1985	July 31, 1990

Name and Address of Applicant	Location of Activity/Facility	Name and Address of Owner
Franklin Plastics Corp. 113 Plastics Avenue Kearny, N.J. 07032	Same as Applicant	Same as Applicant

Issuing Division	Type of Permit	Statute(s)	Application No.
Water Resources	NJPDES/DSW	N.J.S.A. 58:10A-1 et seq.	NJ0002194

This permit grants permission to:

Discharge to the Passaic River classified as TW-3 waters, in accordance with effluent limitations, monitoring requirements and other conditions as set forth in Parts I, II, and III hereof.

Approved by the Department of Environmental Protection
By the Authority of:
John W. Gaston Jr., P.E.
Director
Division of Water Resources

Arnold Schiffman, Administrator
Water Quality Management

6/28/85
DATE

* *The word permit means "approval, certification, registration, etc."*

(GENERAL CONDITIONS ARE ON THE REVERSE SIDE)

02-9002-24-SI
REV. NO. 0

FINAL DRAFT
SITE INSPECTION REPORT
FRANKLIN PLASTICS CORP.
VOLUME 1 OF 2

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-9002-24
CONTRACT NO. 68-01-7346

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

SEPTEMBER 17, 1990

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY:

DAVE GRUPP
PROJECT MANAGER

KATHY CAMPBELL
SITE MANAGER

REVIEWED/APPROVED BY:

RONALD M. NAMAN
FIT OFFICE MANAGER

The tank farm area is located along the southern face of the manufacturing building. Two of the five plasticizer tanks are currently being utilized; each has a capacity of approximately 20,000 gallons. Tank No. 12 contains di-n-octyl phthalate; Tank No. 13 contains Jayflex 251. Both compounds are used as plasticizers as part of the manufacturing process. The storage tanks being used appear to be in fair condition; the three tanks not being used appear to be in poor condition. It is unknown whether they are completely empty (Ref. No. 24). Analytical results indicate soil contamination within the tank farm area (Ref. No. 13). The tank farm is surrounded by a concrete block wall and is unlined (Ref. No 24).

A Preliminary Assessment performed by the U.S. Environmental Protection Agency in January 1980 noted the presence of leaking and/or overflowing drums, the location of which was unspecified (Ref. No. 7). An NUS Corp. Region 2 FIT on-site reconnaissance in April 1990 discovered three areas of abandoned drums along the Passaic River, or western portion of the property. The drums were in poor condition; some drums were partially buried. Their contents appeared to be crumbled pieces of tile. The former operator of the property, Congoleum Corporation/Floor Covering Division, manufactured asphalt and/or vinyl tile on site from 1946 to 1974. Solidified sludge from the vinyl tile manufacturing process was found approximately 200 feet south of Drum Area No. 3 (Ref. No. 24).

PART III: PRE-EXISTENT ANALYTICAL DATA

Hart Associates collected four surface soil samples at Franklin Plastics Corp. on June 27, 1984, including one composite sample from the dust collector area and three discrete samples from the tank farm area. Samples were analyzed by Environmental Testing and Certification (ETC); each sample was found to contain very high levels of plasticizers, metals, and coal tar derivatives. Plasticizers, or phthalates, found include: bis(2-ethylhexyl) phthalate, butylbenzyl phthalate, dimethyl phthalate, and di-n-octyl phthalate. Priority Pollutant metals detected include: antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, anc zinc. Certain coal tar derivatives, such as fluoranthene, phenanthrene, pyrene, and cyanide, were alsc reported at high concentrations in the four samples (Ref. No. 21, Table 1).

To allow Franklin to sell all capital stock to Spartech-Franklin, Inc., before completion of ai Enviroment Clean-up Resposibility Act (ECRA) investigation, Franklin Plastics Corp. entered into a Administrative Consent Order (ACO) with the ECRA Enforcement Branch of the New Jersey Department of Environmental Protection (NJDEP) on February 14, 1986 (Ref. Nos. 13, 30). The ACO specified a timetable for completion of all ECRA requirements and provided for financial assurances prior to completion of the transaction. As part of the ECRA investigation, seven monitoring wells

TABLE 1: COMPOUNDS DETECTED IN GROUNDWATER - JUNE 1987

Compounds	MW1	MW2	MW3	MW4	MW5	MW6	MW7
Acenaphthene	---	---	---	BLRL	---	---	---
Aroclor-1242	---	---	15	---	---	---	---
Bis(2-ethylhexyl) phthalate	21	BLRL	20	130	32	BLRL	BLRL
BenzoFluoranthene	BLRL	---	---	---	---	---	---
Chloroethane	---	---	---	---	13	---	---
Chrysene	BLRL	---	---	---	---	---	---
Di-n-butyl phthalate	---	---	---	---	BLRL	---	---
Fluorene	---	---	---	BLRL	---	---	---
2-Methylnaphthalene	BLRL	---	---	---	---	---	---
Naphthalene	BLRL	---	---	---	---	---	---
Pentachlorophenol	---	---	BLRL	BLRL	---	---	---
Arsenic	---	---	---	---	12	---	5.3
Copper	---	---	---	---	360	---	---
Lead	21	13	34	---	83	---	16
Mercury	---	---	0.3	---	---	---	---
Zinc	120	---	---	---	280	---	---

Note:

All data are reported in micrograms per liter (ug/L).
--- - Denotes not detected.
MW - Monitoring Well
BLRL - Detected below laboratory reporting limit.

(Ref. No 13)

Table 3: INORGANIC SUBSTANCES DETECTED IN SOILS - JULY 1987

Substances	Sample Location(s) Where Substances Detected	Sample(s) With Highest Concentration	Highest Concentration (ug/kg)
Antimony	MW1, MW3, MW4, MW5, MW6 B6, B12, B31, B32, B33	B31	2,350,000
Arsenic	B6, B7	B7	1,300,000
Beryllium	MW6, B6, B32, B33	B32, B33	1,700
Cadmium	MW1, MW3, MW4, MW5, MW6, MW7, B3, B5, B6, B7, B8, B10, B11, B12, B31, B32, B33	B12	563,000
Chromium	B7, B33	B33	145,000
Copper	MW1, MW4, MW7, B10, B33	B33	2,070,000
Lead	MW1, MW4, MW6, MW7, B2 B5,B6, B7, B8, B9, B10, B31, B32, B33	B10	2,150,000
Mercury	B7, B10, B32	B10	4,800
Silver	B7	B7	7,300
Ilium	B5, B8, B12	B5	27,000
Zinc	MW1, MW7, B5, B7, B8, B12, B32, B33	B7	3,020,000

Notes:

All data are reported in micrograms per kilogram (ug/kg).
B - Soil boring
MW - Core soil sample collected during installation of monitoring well.

(Ref. No. 13)

SITE NAME: FRANKLIN PLASTICS CORPORATION
TIDI: 02-9002-24
SAMPLING DATE: 6/5/90
EPA CASE NO.: 14204
LAB NAME: VEGAS ANALYTICAL

TABLE 4
SUMMARY OF SITE INSPECTION ANALYTICAL DATA
(cont'd)

INORGANICS Sample ID No. Traffic Report No. Matrix Units	NJEP-SW1(MS/MSD) MBCN75 WATER ug/L	NJEP-SW2 MBCN76 WATER ug/L	NJEP-SW3(DUP) MBCN77 WATER ug/L	NJEP-SED1 MBCN78 SEDIMENT mg/kg	NJEP-SED2 MBCN79 SEDIMENT mg/kg	NJEP-SED3 MBCN80 SEDIMENT mg/kg	NJEP-SED4 MBCN81 SEDIMENT mg/kg	NJEP-S1 MBCN82 SOIL mg/kg	NJEP-S2 MBCN83 SOIL mg/kg	NJEP-S3 MBCNP4 SOIL mg/kg	NJEP-S4 MBCN85 SOIL mg/kg
Aluminum				3610	4040 E	5180	4640	9690	624	5970	1150
Antimony				27.2 E	49 E	J	J				J
Arsenic	J	J		J	68 E	8	26.7 E	12.5	J	3.2	J
Barium	J	J	J	338	1010 E	143	130	108	133	358	59.3
Beryllium					17.5 E						
Cadmium	12.2	12	13.1	29.2	202 E	5	5.7	1.8	29.2	2.5	2.9
Calcium	15500	15100	15000	9090	22600 E	14200	20500	4080	201000	59500	187000
Chromium				79.1	55.6 E	71.3	48.9	41.3	76.5	51.2	44
Cobalt			J	J	J	J	J	27.3	J	J	J
Copper	28.8	38.7	41.9	321	3280 E	227	103	162	23.5	81.8	21.8
Iron	171	176	175	9060	217000 E	41000	17400	140000	15200	15000	5080
Lead	3.4	4.4 E	18.7 E	280	818 E	596	644 E	70	299	191	133
Magnesium	J	J	J	2350	4890 E	6190	6430	6320	15100	9910	32500
Manganese	23.9	29.2	25	76.8	3980 E	273	160	798	158	244	85.6
Mercury				0.31	0.25 E	0.44	0.33	0.17	0.16	0.25	0.1
Nickel				36 E	39.8 E	38.9 E	33.6 E	58.7	45.7	92.5	40.5
Potassium	J	J	J	J	J	J	J	3090	J	J	J
Selenium					5.1 E	J	J				
Silver						J			36.3		
Sodium	9670	9490	9510	R	R	R	R	R	R	R	R
Thallium											
Vanadium				20.3	2800 E	33.7 E	30.6 E	36.4 E	21.3	37.3 E	J
Zinc	22.5	24.2	35	747	759 E	731	313	123	78 B	185	46.3

NOTES:
Blank space - compound analyzed for but not detected
E - estimated value
E - estimated value, compound present below CRDL but above IDL
R - analysis did not pass EPA QA/QC
J - analysis not required

SITE NAME: FRANKLIN [illegible] CS CORPORATION
TDD#: 02-9002-24
SAMPLING DATE: 6/5/90
EPA CASE NO.: 14204
LAB NAME: VEGAS ANALYTICAL

TABLE 4
SUMMARY OF SITE INSPECTION ANALYTICAL DATA
(cont'd)

INORGANICS											
Sample ID No.	NJEP-S5	NJEP-S6(MS/MSD)	NJEP-S7	NJEP-S8	NJEP-S9(DUP)	NJEP-RIN1	NJEP-RIN2	NJEP-RIN3	NJEP-RIN4	NJEP-RIN5	NJEP-TBLK1
Traffic Report No.	MBCN86	MBCN87	MBCN88	MBCN89	MBCN90	MBCN91	MBCN92	MBCN93	MBCN94	MBCN95	N/A
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	WATER	WATER	WATER	WATER	N/A
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Aluminum	1070	7450	1710	7410	6280						NR
Antimony	J	87.7 E	J								NR
Arsenic	2.6	14	5.8	6.6	12						NR
Barium	144	1990	106	140	116						NR
Beryllium											NR
Cadmium	55.5	78.2	5.3	1.4	1.1						NR
Calcium	189000	39400	140000	2550	3830	J	J			J	NR
Chromium	55.9	38.4	279	15.8	14.5			19.5			NR
Cobalt	J	J	J	J	J						NR
Copper	23.4	112	103	56.3	54.4						NR
Iron	4960	14700	8210	12900	10800			J		J	NR
Lead	348	2520 E	1430 E	204	90.8						NR
Magnesium	9080	3970	27300	2340	2250			J		J	NR
Manganese	103	292	140	337	340						NR
Mercury	0.2	0.12		0.16	0.11					0.2	NR
Nickel	16.3 E	28.4 E	134	13.4 E	12 E						NR
Potassium	J	J	J	J	J						NR
Selenium			J								NR
Silver											NR
Sodium	R	R	R	R	R	J	J	J	J	R	NR
Thallium											NR
Vanadium	13.3	41.4 E	31.3 E	23.8 E	21.3 E						NR
Zinc	115	878	1010	259	301	J			J	J	NR

NOTES:
- blank space - compound analyzed for but not detected
- J - estimated value
- E - estimated value, compound present below CRDL but above IDL
- R - analysis did not pass EPA QA/QC
- NR - analysis not required

Frederick Gumm Chemical Co./
Canning-Gumm

FACILITY REPORT (BRS DATA)*

```
search used- Facility       : ALL
             City           : ALL
             State          : ALL
             EPA ID         : NJD002175636
             Year           : 1999
             Level of Detail: HIGH
Results:
```

This search was taken from RTK NET's (the Right-To-Know Network)'s copy of EPA's BRS database. RTK NET is run by OMB Watch at 1742 Connecticut Ave. NW, Washington DC 20009 Phone: 202-234-8494
The search was done on 09/17/2002.
This copy of the database was last updated on 05/29/2002.

Note: "Federal" waste is waste with at least one Federal EPA waste code. Non-Federal waste is regulated by the state only.
"RCRA" waste is Federal waste that is managed (treated, disposed, or recycled) in a RCRA-permitted TSD unit. The waste is classified according to assumptions made about where it ends up.

If you don't see the words *END OF REPORT* at the end of this search, then this Web search didn't complete -- back up and try it again.

```
Facility Name: CANNING-GUMM   Reporting Year: 1999
Street       : 538 FOREST STREETQ
City         : KEARNY                        State: NJ   Zip: 07032
County       : HUDSON   EPA ID: NJD002175636
Mailing Address: 245 FREIGHT STREET
Mailing City   : WATERBURY                     State: CT   Zip: 06702
Year: 1999           Total Waste   Federal Wst.
Tons Generated  :         29.16         29.16
Tons Shipped    :         29.16         29.16
SIC Code(s):
Contact: GREGORY STRONG   Phone: 2035755703
Generator Status : Large Quantity Generator (LQG)
Storage Status   : No RCRA-permitted or interim status storage
RCRA TDR Status  :
Exempt TDR Status: No on-site TDR; site has no plans to develop system
```

List of wastes generated by this facility:

```
Waste Desc.: MIXED ACIDS
EPA Waste Code(s) for this generated waste-
  D002  Corrosive waste
Tons Generated: 2.48
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration - liquids
Tons sent: 2.48    EPA ID: ARD069748192


Waste Desc.: MIXED FLAMMABLE LIQUIDS
EPA Waste Code(s) for this generated waste-
  D001  Ignitable waste
Tons Generated: 2.20
```

Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration - liquids
Tons sent: 2.20 EPA ID: ARD069748192

Waste Desc.: FLAMMABLE LIQUID
EPA Waste Code(s) for this generated waste-
D001 Ignitable waste
Tons Generated: 0.28
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration - liquids
Tons sent: 0.28 EPA ID: ARD069748192

Waste Desc.: OXIDIZER LAB PACK
EPA Waste Code(s) for this generated waste-
D001 Ignitable waste
Tons Generated: 0.55
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration - liquids
Tons sent: 0.55 EPA ID: ARD069748192

Waste Desc.: CYANIDE DEBRIS
EPA Waste Code(s) for this generated waste-
P030 Cyanides (soluble cyanide salts), not otherwise specified
Tons Generated: 0.25
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration- solids
Tons sent: 0.25 EPA ID: ARD069748192

Waste Desc.: SODIUM CYANIDE
EPA Waste Code(s) for this generated waste-
P030 Cyanides (soluble cyanide salts), not otherwise specified
Tons Generated: 0.55
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration - liquids
Tons sent: 0.55 EPA ID: ARD069748192

Waste Desc.: METHYLENE CHLORIDE
EPA Waste Code(s) for this generated waste-
F001 Spent halogenated solvents used in degreasing (see 1991 Form)
Tons Generated: 0.28

Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration - liquids
Tons sent: 0.28 EPA ID: ARD069748192

Waste Desc.: CARBON FILTERS
EPA Waste Code(s) for this generated waste-
F001 Spent halogenated solvents used in degreasing (see 1991 Form)
Tons Generated: 0.55
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration- solids
Tons sent: 0.55 EPA ID: ARD069748192

Waste Desc.: ALKALINE LAB PACK
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
Tons Generated: 2.48
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration - liquids
Tons sent: 2.48 EPA ID: ARD069748192

Waste Desc.: STRIPPER LIQUID
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
F002 Spent halogenated solvents (see 1991 Form)
Tons Generated: 0.08
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
ENSCO INC
EL DORADO, AR
System type: Incineration - liquids
Tons sent: 0.08 EPA ID: ARD069748192

Waste Desc.: CHROME SOLUTION
EPA Waste Code(s) for this generated waste-
D001 Ignitable waste
D002 Corrosive waste
D007 Chromium
Tons Generated: 0.58
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
USL CITY ENVIRONMENTAL INC
DETROIT, MI
System type: Chrome reduc followed by chem precip - Aqueous Inorg Trtmnt
Tons sent: 0.58 EPA ID: MID980991566

Waste Desc.: MIXED ACIDS

EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
Tons Generated: 1.43
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
USL CITY ENVIRONMENTAL INC
DETROIT, MI
System type: Chemicl precipitation - Aqueous Inorg Trtmnt
Tons sent: 1.43 EPA ID: MID980991566

Waste Desc.: BARIUM/LEAD SALTS
EPA Waste Code(s) for this generated waste-
D005 Barium
D008 Lead
Tons Generated: 0.28
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
USL CITY ENVIRONMENTAL INC
DETROIT, MI
System type: Chem fixtn using cement/pozzolanic materials - Stabilization
Tons sent: 0.28 EPA ID: MID980991566

Waste Desc.: SODIUM NITRATE
EPA Waste Code(s) for this generated waste-
D001 Ignitable waste
Tons Generated: 0.43
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
USL CITY ENVIRONMENTAL INC
DETROIT, MI
System type: Chemicl precipitation - Aqueous Inorg Trtmnt
Tons sent: 0.43 EPA ID: MID980991566

Waste Desc.: MIXED ALKALINES
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
Tons Generated: 4.73
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
USL CITY ENVIRONMENTAL INC
DETROIT, MI
System type: Neutralization only - Other Treatment
Tons sent: 4.73 EPA ID: MID980991566

Waste Desc.: LEAD/CHROME DEBRIS
EPA Waste Code(s) for this generated waste-
D007 Chromium
D008 Lead
Tons Generated: 1.01
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
USL CITY ENVIRONMENTAL INC
DETROIT, MI
System type: Chem fixtn using cement/pozzolanic materials - Stabilization
Tons sent: 1.01 EPA ID: MID980991566

Waste Desc.: CYANIDE WASTE
EPA Waste Code(s) for this generated waste-
P030 Cyanides (soluble cyanide salts), not otherwise specified
Tons Generated: 0.98
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS OF CONNECTICUT, INC.
BRISTOL, CT
System type: Chem fixtn using cement/pozzolanic materials - Stabilization
Tons sent: 0.98 EPA ID: CTD000604488

Waste Desc.: NICKEL SOLUTION
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
Tons Generated: 4.13
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS OF CONNECTICUT, INC.
BRISTOL, CT
System type: Chem fixtn using cement/pozzolanic materials - Stabilization
Tons sent: 4.13 EPA ID: CTD000604488

Waste Desc.: CHROME SOLUTION
EPA Waste Code(s) for this generated waste-
D001 Ignitable waste
D002 Corrosive waste
D007 Chromium
Tons Generated: 0.83
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS OF CONNECTICUT, INC.
BRISTOL, CT
System type: Chem fixtn using cement/pozzolanic materials - Stabilization
Tons sent: 0.83 EPA ID: CTD000604488

Waste Desc.: WASTE NITRIC ACID
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
Tons Generated: 0.83
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS OF CONNECTICUT, INC.
BRISTOL, CT
System type: Chem fixtn using cement/pozzolanic materials - Stabilization
Tons sent: 0.83 EPA ID: CTD000604488

Waste Desc.: ACID COPPER
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
Tons Generated: 0.83
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS OF CONNECTICUT, INC.
BRISTOL, CT
System type: Chem fixtn using cement/pozzolanic materials - Stabilization

Tons sent: 0.83 EPA ID: CTD000604488

Waste Desc.: WELL CUTTINGS (SOIL)
EPA Waste Code(s) for this generated waste-
U080 Methane, dichloro- or Methylene chloride
Tons Generated: 0.58
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS SVCS INC
CHICAGO, IL
System type: Incineration- solids
Tons sent: 0.58 EPA ID: ILD000608471

Waste Desc.: FLAMMABLE LAB PACK
EPA Waste Code(s) for this generated waste-
D001 Ignitable waste
Tons Generated: 1.65
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS SVCS INC
CHICAGO, IL
System type: Incineration- solids
Tons sent: 1.65 EPA ID: ILD000608471

Waste Desc.: LAB PACK (OXIDIZERS)
EPA Waste Code(s) for this generated waste-
D001 Ignitable waste
Tons Generated: 0.03
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS SVCS INC
CHICAGO, IL
System type: Incineration- solids
Tons sent: 0.03 EPA ID: ILD000608471

Waste Desc.: LAB PACK (MERCURY)
EPA Waste Code(s) for this generated waste-
D009 Mercury
Tons Generated: 0.08
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS SVCS INC
CHICAGO, IL
System type: Chem fixtn using cement/pozzolanic materials - Stabilization
Tons sent: 0.08 EPA ID: ILD000608471

Waste Desc.: LAB PACK (REACTIVE)
EPA Waste Code(s) for this generated waste-
D001 Ignitable waste
Tons Generated: 0.03
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS SVCS INC
CHICAGO, IL
System type: Landfill - Disposal

Tons sent: 0.03 EPA ID: ILD000608471

Waste Desc.: LAB PACK (ACIDS)
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
Tons Generated: 0.75
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS SVCS INC
CHICAGO, IL
System type: Incineration- solids
Tons sent: 0.75 EPA ID: ILD000608471

Waste Desc.: LAB PACK (ALKALINES)
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
Tons Generated: 0.20
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS SVCS INC
CHICAGO, IL
System type: Incineration- solids
Tons sent: 0.20 EPA ID: ILD000608471

Waste Desc.: FLAMMABLE LAB PACK
EPA Waste Code(s) for this generated waste-
D001 Ignitable waste
Tons Generated: 0.00
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS OF BALTIMORE
BALTIMORE, MD
System type: Incineration- solids
Tons sent: 0.00 EPA ID: MDD980555189

Waste Desc.: ALKALINE LAB PACK
EPA Waste Code(s) for this generated waste-
D002 Corrosive waste
Tons Generated: 0.08
Tons Generated & Managed On-site: 0.00
This waste was sent off-site to-
CLEAN HARBORS OF BALTIMORE
BALTIMORE, MD
System type: Incineration- solids
Tons sent: 0.08 EPA ID: MDD980555189

END OF REPORT

0 1 0 6 2 5 0 0 0 0 0

FREDERICK GUMM CHEMICAL CO., INC.
538 FOREST STREET, KEARNY

PART 2
CHEMICAL INVENTORY PAGE

DEQ-094

IMPORTANT! *Read instructions. Photocopy this page if you need additional forms.* ***Please type all responses.***

Reporting Period: January 1 - December 31, **1992**

CHEMICAL DESCRIPTION	HAZARDS	Inventory (Ranges)	STORAGE CODES AND LOCATIONS
Substance Acetic Acid CAS No. 64 - 19 - 7 DOT No. 2789 Substance No. (if available) 0004 Percent 54 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	(Codes for all that apply.) 67 , ___ , ___ , ___ , ___	(Enter Code) Max. Daily 13 Avg. Daily 12 Days Onsite 365 (Actual Number)	(Enter Codes, except Location(s); supply narrative.) Container 32 Conditions 01 , 04 Location(s) Loading Dock Area
Substance Acetic Acid CAS No. 64 - 19 - 7 DOT No. 2789 Substance No. (if available) 0004 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	67 67 , ___ , ___ , ___ , ___	Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 32 Conditions 01 , 04 Location(s) Liquid Mixing Area
Substance Activated Carbon CAS No. 7440 - 44 - 0 DOT No. 1362 Substance No. (if available) 2066 Percent 60 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	70 , ___ , ___ , ___ , ___	Max. Daily 12 Avg. Daily 12 Days Onsite 365 (Actual Number)	Container 42 Conditions 01 , 04 Location(s) Powder Mixing Area
Substance Aluminum Oxide CAS No. 1344 - 28 - 1 DOT No. ___ Substance No. (if available) 2891 Percent 58 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	67 , ___ , ___ , ___ , ___	Max. Daily 13 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 42 Conditions 01 , 04 Location(s) Powder Mixing Area
Substance Aluminum Oxide CAS No. 1344 - 28 - 1 DOT No. ___ Substance No. (if available) 2891 Percent 57 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	67 , ___ , ___ , ___ , ___	Max. Daily 13 Avg. Daily 13 Days Onsite 365 (Actual Number)	Container 42 Conditions 01 , 04 Location(s) Powder Mixing Area

PERCENTAGE CODES

61	Unknown
60	100%
59	90 - 99%
58	80 - 89%
57	70 - 79%
56	60 - 69%
55	50 - 59%
54	25 - 49%
53	10 - 24%
52	1 - 9%
51	0 - 0.9%

PHYSICAL STATE CODES

S - Solid
L - Liquid
G - Gas

HAZARD CATEGORY CODES

70	Fire hazard
69	Sudden release of pressure
68	Reactive
67	Immediate (acute) health hazard
66	Delayed (chronic) health hazard

INVENTORY RANGE CODES (in lbs.)

20	Greater than 10 million lbs.
19	1,000,001 - 10 million
18	500,001 - 1 million
17	250,001 - 500,000
16	100,001 - 250,000
15	50,001 - 100,000
14	10,001 - 50,000
13	1,001 - 10,000
12	101 - 1,000
11	11 - 100
10	1 - 10
09	Less than 1 lb.

CONTAINER CODES

50	Above ground tank	40	Cylinder
49	Below ground tank (steel)	39	Bottles or jugs (glass)
48	Tank inside building	38	Bottles or jugs (plastic)
47	Steel drum	37	Tote bin
46	Can	36	Tank wagon
45	Carboy	35	Railcar
44	Silo	34	Other (Describe)
43	Fiber drum	33	Below ground tank (fiberglass)
42	Bag		
41	Box	32	Plastic drums

STORAGE CONDITION CODES

Pressure

01 Ambient* pressure 02 Greater than ambient pressure
03 Less than ambient pressure

Temperature

04 Ambient temperature
05 Greater than ambient temperature
06 Less than ambient temperatures but not cryogenic (freezing conditions)
07 Cryogenic conditions (less than -200 degrees C)

*Ambient means "normal", "surrounding" or " conditions

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0 1 0 6 - 5 0 0 0 0 0

FREDERICK GUMM CHEMICAL CO., INC.
538 FOREST STREET, KEARNY

PART 2
CHEMICAL INVENTORY PAGE

IMPORTANT! *Read instructions. Photocopy this page if you need additional forms.* ***Please type all responses.***

Reporting Period: January 1 - December 31, 1992

CHEMICAL DESCRIPTION	HAZARDS	Inventory (Ranges)	STORAGE CODES AND LOCATIONS
Substance Helium CAS No. 7440-59-7 DOT No. 1046 Substance No. (if available) 0972 Percent 60 (Code) State G (Code) Trade Secret ☐ (Check if claiming)	(Codes for all that apply.) 69 , , , ,	(Enter Code) Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	(Enter Codes, except Location(s); supply narrative.) Container 40 Conditions 02 , 04 Location(s) Laboratory
Substance Mercuric Chloride CAS No. 7487-94-7 DOT No. 1624 Substance No. (if available) 1624 Percent 60 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	66 , 67 , , ,	Max. Daily 10 Avg. Daily 9 Days Onsite 365 (Actual Number)	Container 39 Conditions 01 , 04 Location(s) Laboratory
Substance Mercuric Sulfate CAS No. 7783-35-9 DOT No. 1645 Substance No. (if available) 1177 Percent 60 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	66 , 67 , , ,	Max. Daily 10 Avg. Daily 9 Days Onsite 365 (Actual Number)	Container 39 Conditions 01 , 04 Location(s) Laboratory
Substance Mercury CAS No. 7439-97-6 DOT No. 2809 Substance No. (if available) 1183 Percent 60 (Code) State S (Code) Trade Secret ☐ (Check if claiming)	67 , 66 , , ,	Max. Daily 10 Avg. Daily 9 Days Onsite 365 (Actual Number)	Container 39 Conditions 01 , 04 Location(s) Laboratory
Substance Methyl Alcohol CAS No. 67-56-1 DOT No. ____ Substance No. (if available) 1222 Percent 60 (Code) State L (Code) Trade Secret ☐ (Check if claiming)	66 , 67 , 70 , , ,	Max. Daily 11 Avg. Daily 11 Days Onsite 365 (Actual Number)	Container 39 Conditions 01 , 04 Location(s) Laboratory

PERCENTAGE CODES

61	Unknown
60	100%
59	90 - 99%
58	80 - 89%
57	70 - 79%
56	60 - 69%
55	50 - 59%
54	25 - 49%
53	10 - 24%
52	1 - 9%
51	0 - 0.9%

PHYSICAL STATE CODES

S	Solid
L	Liquid
G	Gas

HAZARD CATEGORY CODES

70	Fire hazard
69	Sudden release of pressure
68	Reactive
67	Immediate (acute) health hazard
66	Delayed (chronic) health hazard

INVENTORY RANGE CODES (in lbs.)

20	Greater than 10 million lbs.
19	1,000,001 - 10 million
18	500,001 - 1 million
17	250,001 - 500,000
16	100,001 - 250,000
15	50,001 - 100,000
14	10,001 - 50,000
13	1,001 - 10,000
12	101 - 1,000
11	11 - 100
10	1 - 10
09	Less than 1 lb.

CONTAINER CODES

50	Above ground tank	40	Cylinder
49	Below ground tank (steel)	39	Bottles or jugs (glass)
48	Tank inside building	38	Bottles or jugs (plastic)
47	Steel drum	37	Tote bin
46	Can	36	Tank wagon
45	Carboy	35	Railcar
44	Silo	34	Other (Describe)
43	Fiber drum	33	Below ground tank (fiberglass)
42	Bag		
41	Box	32	Plastic drums

STORAGE CONDITION CODES

Pressure

01 Ambient* pressure 02 Greater than ambient pressure
03 Less than ambient pressure

Temperature

04 Ambient temperature
05 Greater than ambient temperature
06 Less than ambient temperatures but not cryogenic (freezing conditions)
07 Cryogenic conditions (less than -200 degrees C)

*Ambient means "normal", "surrounding" or "room" conditions

MR-1 REPORT CHECK OFF LIST

Frenerick Gumm Chemical Co. SCP #: 15404093

s: 538 Forest Street Kearny, NJ 07032

ontact: Keith Frey 991-4171

1. Category 40 CFR 413.14 (b) Subcategory A

2. Month of [illegible]

3.	Is Outlet # (17 digit) correct?	Y	N	N/A
4.	Is regulated flow stated in space provided?	Y	N	N/A
5.	Total flow provided in proper space?	Y	N	N/A
6.	Is method used to calculate water stated?	Y	N	N/A
7.	Are number of working days stated?	Y	N	N/A
8.	Are there any parameters which have exceeded a daily maximum limit or could cause the company to be out of compliacne with a monthly or 4-day average?	Y	N	N/A
8a	Are any non-detectable results higher than the permits limits?	Y	N	N/A
8b	If the answer to 8a was yes, did the company submit any documentation in support of compliance?	Y	N	N/A
9.	Is proper compliance/non-compliance statement provided?	Y	N	N/A
10.	If applicable is compliance schedule submitted?	Y	N	N/A
11.	Is combined waste stream formula required?	Y	N	N/A
12.	If combined waste stream formula was used, have calculations been submitted correctly?	Y	N	N/A
13.	Have correct number of samples been submitted?	Y	N	N/A
14.	Has sample number been reported in space provided?	Y	N	N/A
15.	Have all regulated parameters been listed on MR-1?	Y	N	N/A
16.	Has sample type been stated on MR-1?	Y	N	N/A
17.	Have all samples been taken during this reporting period?	Y	N	N/A
18.	Has NJDEPE certified lab been used?	Y	N	N/A
19.	Have anaylical results been submitted on copies of laboratory stationery?	Y	N	N/A

ENVIRONMENTAL TESTING, INC.
Thorofare Division

REPORT OF ANALYSIS

nt: FREDERICK GUMM CHEMICAL
No: 94.04140

NET SAMPLE NUMBER: 156153
CLIENT SAMPLE ID: OUTLET #1

PARAMETER		RESULT	FLAG	UNITS	MDL	DATE ANALYZED	ANALYST	PREP BATCH	RUN BATCH
BOD Biochemical Ox. Demand		21		mg/L	1.0	11/11/1994	jhh		312
Cyanide, Amenable		<0.01		mg/L	0.01				
Solids, suspended (TSS)		<1		mg/L	1.0	11/11/1994	jhw		713
Arsenic (As)	200 GFAA A	<0.010		mg/L	0.010	11/15/1994	jvs	772	379
Cadmium (Cd)	200 ICP A	<0.005		mg/L	0.005	11/15/1994	jvs	772	624
Chromium (Cr)	200 ICP A	0.022		mg/L	0.010	11/15/1994	jvs	772	621
Copper (Cu)	200 ICP A	0.124		mg/L	0.010	11/15/1994	jvs	772	622
Lead (Pb)	200 GFAA A	0.004		mg/L	0.003	11/15/1994	jvs	772	473
Mercury (Hg)	200 CVAA A	<0.0002		mg/L	0.0002	11/17/1994	jad		480
Molybdenum (Mo)	200 ICP A	<0.010		mg/L	0.010	11/15/1994	jvs	772	620
Nickel (Ni)	200 ICP A	0.306		mg/L	0.020	11/15/1994	jvs	772	620
Zinc (Zn)	200 ICP A	0.147		mg/L	0.010	11/15/1994	jvs	772	620

NET SAMPLE NUMBER: 156154
CLIENT SAMPLE ID: OUTLET #2

PARAMETER		RESULT	FLAG	UNITS	MDL	DATE ANALYZED	ANALYST	PREP BATCH	RUN BATCH
BOD Biochemical Ox. Demand		36		mg/L	1.0	11/11/1994	jhh		312
Solids, suspended (TSS)		5		mg/L	1.0	11/11/1994	jhw		713
Arsenic (As)	200 GFAA A	0.054		mg/L	0.010	11/15/1994	jvs	772	379
Cadmium (Cd)	200 ICP A	<0.005		mg/L	0.005	11/15/1994	jvs	772	624
Chromium (Cr)	200 ICP A	0.283		mg/L	0.010	11/15/1994	jvs	772	621
Copper (Cu)	200 ICP A	0.022		mg/L	0.010	11/15/1994	jvs	772	622
Lead (Pb)	200 GFAA A	0.015		mg/L	0.003	11/15/1994	jvs	772	473
Mercury (Hg)	200 CVAA A	<0.0002		mg/L	0.0002	11/17/1994	jad		480
Molybdenum (Mo)	200 ICP A	0.048		mg/L	0.010	11/15/1994	jvs	772	620
Nickel (Ni)	200 ICP A	0.049		mg/L	0.020	11/15/1994	jvs	772	620
Zinc (Zn)	200 ICP A	0.013		mg/L	0.010	11/15/1994	jvs	772	620

.TAL TESTING, INC.
are Division

REPORT OF ANALYSIS

.ICK GUMM CHEMICAL
..04267

NET SAMPLE NUMBER: 156777
CLIENT SAMPLE ID: OUTLET #2 11/11

PARAMETER		RESULT	FLAG	UNITS	MDL	DATE ANALYZED	ANALYST	PREP BATCH	RUN BATCH
Arsenic (As)	200 GFAA A	0.022		mg/L	0.010	11/29/1994	mps	776	382
Cadmium (Cd)	200 ICP A	<0.005		mg/L	0.005	11/23/1994	jvs	776	632
Chromium (Cr)	200 ICP A	0.299		mg/L	0.010	11/23/1994	jvs	776	629
Copper (Cu)	200 ICP A	0.019		mg/L	0.010	11/23/1994	jvs	776	630
Lead (Pb)	200 GFAA A	0.042		mg/L	0.003	11/29/1994	mps	776	477
Mercury (Hg)	200 CVAA A	<0.0002		mg/L	0.0002	11/23/1994	jad		481
Molybdenum (Mo)	200 ICP A	0.011		mg/L	0.010	11/23/1994	jvs	776	628
Nickel (Ni)	200 ICP A	<0.020		mg/L	0.020	11/23/1994	jvs	776	628
Zinc (Zn)	200 ICP A	0.035		mg/L	0.010	11/23/1994	jvs	776	628

NET SAMPLE NUMBER: 156778
CLIENT SAMPLE ID: OUTLET #1 11/15

PARAMETER		RESULT	FLAG	UNITS	MDL	DATE ANALYZED	ANALYST	PREP BATCH	RUN BATCH
Arsenic (As)	200 GFAA A	<0.010		mg/L	0.010	11/29/1994	mps	776	382
Cadmium (Cd)	200 ICP A	<0.005		mg/L	0.005	11/23/1994	jvs	776	632
Chromium (Cr)	200 ICP A	0.033		mg/L	0.010	11/23/1994	jvs	776	629
Copper (Cu)	200 ICP A	0.085		mg/L	0.010	11/23/1994	jvs	776	630
Lead (Pb)	200 GFAA A	0.005		mg/L	0.003	11/29/1994	mps	776	477
Mercury (Hg)	200 CVAA A	<0.0002		mg/L	0.0002	11/23/1994	jad		481
Molybdenum (Mo)	200 ICP A	<0.010		mg/L	0.010	11/23/1994	jvs	776	628
Nickel (Ni)	200 ICP A	0.962		mg/L	0.020	11/23/1994	jvs	776	628
Zinc (Zn)	200 ICP A	0.479		mg/L	0.010	11/23/1994	jvs	776	628

NET SAMPLE NUMBER: 156779
CLIENT SAMPLE ID: OUTLET #2 11/16

PARAMETER		RESULT	FLAG	UNITS	MDL	DATE ANALYZED	ANALYST	PREP BATCH	RUN BATCH
Arsenic (As)	200 GFAA A	0.021		mg/L	0.010	11/29/1994	mps	776	382

ENTAL TESTING, INC.
ofare Division

REPORT OF ANALYSIS

RICK GUMM CHEMICAL
.04267

NET SAMPLE NUMBER: 156779
CLIENT SAMPLE ID: OUTLET #2 11/16

PARAMETER		RESULT	FLAG	UNITS	MDL	DATE ANALYZED	ANALYST	PREP BATCH	RUN BATCH
Cadmium (Cd)	200 ICP A	<0.005		mg/L	0.005	11/23/1994	jvs	776	632
Chromium (Cr)	200 ICP A	0.426		mg/L	0.010	11/23/1994	jvs	776	629
Copper (Cu)	200 ICP A	0.029		mg/L	0.010	11/23/1994	jvs	776	630
Lead (Pb)	200 GFAA A	0.054		mg/L	0.003	11/29/1994	mps	776	477
Mercury (Hg)	200 CVAA A	<0.0002		mg/L	0.0002	11/23/1994	jad		481
Molybdenum (Mo)	200 ICP A	0.014		mg/L	0.010	11/23/1994	jvs	776	628
Nickel (Ni)	200 ICP A	<0.020		mg/L	0.020	11/23/1994	jvs	776	628
Zinc (Zn)	200 ICP A	0.056		mg/L	0.010	11/23/1994	jvs	776	628

NET SAMPLE NUMBER: 156780
CLIENT SAMPLE ID: OUTLET #1 11/17

PARAMETER		RESULT	FLAG	UNITS	MDL	DATE ANALYZED	ANALYST	PREP BATCH	RUN BATCH
Arsenic (As)	200 GFAA A	<0.010		mg/L	0.010	11/29/1994	mps	776	382
Cadmium (Cd)	200 ICP A	<0.005		mg/L	0.005	11/23/1994	jvs	776	632
Chromium (Cr)	200 ICP A	0.079		mg/L	0.010	11/23/1994	jvs	776	629
Copper (Cu)	200 ICP A	0.027		mg/L	0.010	11/23/1994	jvs	776	630
Lead (Pb)	200 GFAA A	0.006		mg/L	0.003	11/29/1994	mps	776	477
Mercury (Hg)	200 CVAA A	<0.0002		mg/L	0.0002	11/23/1994	jad		481
Molybdenum (Mo)	200 ICP A	<0.010		mg/L	0.010	11/23/1994	jvs	776	628
Nickel (Ni)	200 ICP A	0.731		mg/L	0.020	11/23/1994	jvs	776	628
Zinc (Zn)	200 ICP A	0.311		mg/L	0.010	11/23/1994	jvs	776	628

Gumm

Request for Information
Diamond Alkali Superfund Site
Passaic River Study Area

Frederick Gumm Chemical Company Inc.
538 Forest Street
Kearny, NJ 07006

Question 1)

The Frederick Gumm Chemical Company has been operating at this address since 1936.

Question 2)

a) The is facility of the Frederick Gumm Chemical Company does not currently have, and has not had in the past any permits issued pursuant to RCRA, however, we do have the following EPA Identification Number: **NJD002175636**.

b) The only permit that has been held by this facility, pursuant to water pollution control, is a permit to discharge from the Passaic Valley Sewerage Commission. This permit Number is **15404092**.

Question 3)

See original Request Form for item checked. Additional breakdown follows:

Acids: Sulfuric Acid
Nitric Acid
Phosphoric Acid
Formic Acid
Citric Acid
Acetic Acid
Glycolic Acid
Hydrochloric Acid

Polyaromatic Hydrocarbons: Stoddard Solvent
Hi Flash Solvent

AFB000021

FREDERICK GUMM CHEMICAL COMPANY, INC.
538 Forest Street, Kearny, New Jersey 07032 • 1-201-991-4171
Fax: 201-991-5855

ATTACHMENT A

REQUEST FOR INFORMATION

Background

The United States Environmental Protection Agency ("EPA") is investigating the release of hazardous substances into the Passaic River. EPA has information indicating that hazardous substances from your facility located at 538 Forest Street in Kearny, New Jersey may have been discharged into the Passaic River.

Please provide the information requested below, including copies of all available documentation that supports your answers.

1) How long has your company operated at the facility designated above? If your company no longer operates at this facility, during what years did your company operate at the facility?

2) a) Does your company have or has it in the past had a permit or permits issued pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq.? If "yes", please provide the years that your company held such a permit and its EPA Identification Number.

b) Does your company have or has it in the past had a permit or permits issued pursuant to the Federal Water Pollution Control Act, 33 U.S.C. § 1251, et seq.? If "yes", please provide the years that your company held such a permit.

3) Did your company receive, utilize, manufacture, discharge, release, store or dispose of any materials containing the following substances:

	Yes	No
2,3,7,8 tetrachlorodibenzo-p-dioxin or other dioxin compounds		X
Acetonitrile		X
Acetylene		X
Acids	X	
If "yes", please specify compounds		
Benzene		X
Bromodichloromethane		X
Bromoform		X
Chloroform		X
Cyclohexane		X
Cyclohexanone	X	
Dichloromethane		X
Diethanolamine	X	
Ethyl benzene		X
Formaldehyde	X	
Methoxyethanol		X

AFB000027

	Yes	No
Methylene chloride	X	
Polyaromatic Hydrocarbons	X	
If "yes", please list specific compounds.		
Potassium bichromate	X	
Potassium flouride	X	
Potassium nitrate	X	
Sodium arsenite	X	
Sodium bichromate	X	
Sodium bisulfate	X	
Sodium nitrate	X	
Sodium nitrite	X	
Sodium phosphate	X	
Tetrasodium pyrophosphate	X	
Thio-carbamide	X	X
Toluene	X	
Xylene	X	
PCBs		X
Antimony	X	
Arsenic	X	
Cadmium	X	
Chromium	X	
Copper	X	
Iron	X	
Lead	X	
Mercury	X	
Molybdenum	X	
Nickel	X	
Silver	X	
Selenium	X	
Zinc	X	
Cyanide	X	

4) a) Provide a description of the manufacturing processes for which all hazardous substances, including, but not limited to, the substances listed in response to item (3), were a product or by-product.

b) During what parts of the manufacturing processes identified in the response to items (4)(a), above, were hazardous substances, including, but not limited to, the substances listed in response to item (3), generated?

i) Describe the chemical composition of these hazardous substances.

AFB000028

Garden State Paper

PASSAIC VALLEY SEWERAGE COMMISSION
NEWARK, NEW JERSEY

HEAVY METALS SOURCE DETERMINATION STUDY

IN COMPLIANCE WITH OCEAN DUMPING PERMIT
NO. II NJ003 INTERIM SECTION 301

Passaic Valley Sewerage Commissioners

JOSEPH M. KEEGAN	- Chairman
BEN W. GORDON	- Vice Chairman
THOMAS J. CIFELLI	- Commissioner
VINCENT CORRADO	- Commissioner
ROBERT J. DAVENPORT	- Commissioner
RICHARD M. GIACOMARRO	- Commissioner
CHARLES A. LAGOS	- Commissioner
CARMINE T. PERRAPATO	- Executive Director
ROCCO D RICCI	- Chief Engineer

PHASE II

APRIL 1980

DRAFT

Elson T. Killam Associates, Inc.

Environmental and Hydraulic Engineers

KLLC13740

PASSAIC VALLEY SEWERAGE COMMISSION - HEAVY METAL SOURCE DETERMINATION
PHASE II INDUSTRIAL CONTRIBUTION
SUB-AREA 7

CONTROL NO.	NAME AND ADDRESS OF INDUSTRY	FLOW MGD	TOTAL CADMIUM LBS/DAY (MG/L)	TOTAL CHROMIUM LBS/DAY (MG/L)	TOTAL COPPER LBS/DAY (MG/L)	TOTAL LEAD LBS/DAY (MG/L)	TOTAL NICKEL LBS/DAY (MG/L)	TOTAL ZINC LBS/DAY (MG/L)	TOTAL ARSENIC LBS/DAY (MG/L)	TOTAL MERCURY LBS/DAY (MG/L)
400	ROYCE CHEMICAL 17 CARLTON AVE. EAST RUTHERFORD	0.0490	0.012 < (0.030)	0.002 (0.005)	0.025 (0.061)	0.098 (0.239)	0.043 (0.104)	4.904 < (12.000)	0.000 < (0.001)	0.0000 (0.000)
510	ARTOLIER LIGHTING & SOUND 141 LANZA LANE GARFIELD	0.0660	0.006 < (0.010)	0.003 (0.005)	0.057 (0.103)	0.047 < (0.086)	0.003 (0.005)	0.095 < (0.173)	0.001 < (0.001)	0.0001 (0.000)
520	E. C. ELECTROPLATING INC. 125 CLARK ST. GARFIELD	0.0150	0.008 (0.066)	40.407 (323.000)	0.090 (0.716)	0.115 (0.920)	0.080 (0.642)	0.328 < (2.620)	0.000 < (0.001)	0.0000 (0.000)
530	T. A. FARRELL PLATING CO. 39 ATLANTIC ST. GARFIELD	0.0250	0.135 (0.649)	0.198 (0.950)	0.809 (3.880)	0.045 (0.216)	1.480 (7.100)	1.017 < (4.880)	0.000 (0.001)	0.0001 (0.001)
535	GARDEN STATE PAPER CO. INC. 950 RIVER DR. GARFIELD	6.7450	0.844 (0.015)	6.075 (0.108)	15.582 (0.277)	23.626 (0.420)	5.625 (0.100)	36.846 < (0.655)	0.056 (0.001)	0.2475 (0.004)
540	PRESTO LOCK CO. INC. 100 OUTWATER LANE GARFIELD	0.3840	0.032 (0.010)	14.219 (4.440)	13.066 (4.080)	0.394 (0.123)	19.856 (6.200)	4.772 < (1.490)	0.003 (0.001)	0.0352 (0.011)
550	RENTEX CORP. 51 SCHLEY ST. GARFIELD	0.0490	0.128 (0.314)	0.740 (1.810)	1.336 (3.270)	2.697 (6.600)	0.368 (0.900)	3.572 < (8.740)	0.000 (0.001)	0.0225 (0.055)
560	TENNECO CHEMICAL INC. 290 RIVER RD. GARFIELD	0.5850	0.078 (0.016)	0.254 (0.052)	0.922 (0.189)	1.922 (0.394)	0.361 (0.074)	2.113 (0.433)	0.005 (0.001)	0.0044 (0.001)
1730	AMERICAN BRAND TEXTILE CORP. 35 8TH ST. PASSAIC	0.0002	0.000 < (0.005)	0.000 (0.005)	0.000 (0.129)	0.000 < (0.161)	0.000 (0.005)	0.001 (0.339)	0.000 (0.001)	0.0000 (0.000)
1740	APPLIKAY TEXTILE PROCESSING CORP. 35 8TH ST. PASSAIC	0.0130	0.001 < (0.010)	0.001 (0.005)	0.282 (2.600)	0.015 (0.142)	0.002 (0.017)	0.094 < (0.868)	0.000 (0.001)	0.0011 (0.010)

KLLC15829

Givaudan-Roure Corp.

Givaudan Corporation
Delawanna Avenue Facility
Clifton, New Jersey

Revised Draft Remedial Investigation Report

Volume I

17 October 1988
Revised September 1991

Prepared for:

Givaudan Corporation
125 Delaware Avenue
Clifton, New Jersey

Prepared by:

Environmental Resources Management, Inc.
855 Springdale Drive
Exton, PA

Table 4-9
Analytical Results of Soil Samples
Collected as Part of the Remedial Investigation
at the Givaudan Corporation Site
March 1988
All results are reported on a dry weight basis

ERM T. R. No.	6554	6553	6552	6551	6550	6549	6548	6547	6546	6545
Sample Location	B-1 (2-3')	B-1 (3-4')	B-1 (4-6')	B-1 (6-8')	B-1 (8-10')	B-1 (10-12')	B-1 (12-14')	B-1 (14-16')	B-1 (16-18')	B-1 (18-20')
Sample Date	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Inorganics	NA	NA		NA	NA	NA	NA	NA	NA	NA
Aluminum			2220 J							
Antimony										
Barium			14.8							
Beryllium			0.15							
Cadmium			0.33							
Calcium			4350 J							
Chromium			14.4 J							
Cobalt			2.3							
Copper			99.4							
Iron			5980 J							
Magnesium			928 J							
Manganese			57.6 J							
Mercury			75.3							
Nickel			11.5							
Potassium			369 J							
Silver										
Sodium			120 B							
Vanadium			4.2 J							
Zinc			211 J							
Cyanide(total)										
Arsenic			.89 J							
Lead			469							
Selenium										
Thallium										

Qualifiers.
J - This result should be considered a quantitative estimate.
B - The presence of this compound or constituent is qualitatively questionable since it was detected in a blank at a similar concentration.
ND- none detected
Blank spaces indicated none detected
NA- not analyzed for in this sample.

APPROVED FOR
RELEASE BY
QUALITY ASSURANCE

David R. Blye 9-20-88
QA/QC MANAGER DATE

Table 4-9
Analytical Results of Soil Samples
Collected as Part of the Remedial Investigation
at the Givaudan Corporation Site
March 1988
All results are reported on a dry weight basis

ERM T. R. No.	6518	6517	6516	6515	6514	6513	6512	6511
Sample Location	B-7 (1-2')	B-7 (2-3')	B-7(3-4')	B-7 (4-6')	B-7 (6-8')	B-7 (8-10')	B-7 (10-12')	B-7 (18-20')
Sample Date	3/8/88	3/8/88	3/8/88	3/8/88	3/8/88	3/8/88	3/8/88	3/8/88
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Inorganics	NA	NA	NA	NA	NA	NA	NA	
Aluminum								4060
Antimony								
Barium								14.7
Beryllium								0.25
Cadmium								
Calcium								464 J
Chromium								5.3
Cobalt								3.4
Copper								4.8
Iron								6620 J
Magnesium								1300 J
Manganese								236 J
Mercury								
Nickel								6.1 J
Potassium								431 J
Silver								
Sodium								101 B
Vanadium								5.1
Zinc								13.3 J
Cyanide(total)								
Arsenic								.62 J
Lead								3.4 J
Selenium								
Thallium								

Qualifiers:
J - This result should be considered a quantitative estimate.
B - The presence of this compound or constituent is qualitatively questionable since it was detected in a blank at a similar concentration.
ND- none detected
Blank spaces indicated none detected
NA- not analyzed for in this sample.

APPROVED FOR RELEASE BY QUALITY ASSURANCE

David R. Blye 9-20-88

QA/QC MANAGER DATE

Table 4-9
Analytical Results of Soil Samples
Collected as Part of the Remedial Investigation
at the Givaudan Corporation Site
March 1988
All results are reported on a dry weight basis

ERM T. R. No. Sample Location Sample Date	6522 B-6 (1-2') 3/8/88	6521 B-6 (4-6') 3/8/88	6520 B-6 (18-20') 3/8/88	6519 B-6 (16-18') 3/8/88
	ug/kg	ug/kg	ug/kg	ug/kg
Inorganics	NA		NA	
Aluminum		4360 J		5080 J
Antimony				
Barium		39.4		21.8
Beryllium		0.37		
Cadmium				
Calcium		940		486
Chromium		8.5		8.1
Cobalt		4.2		4.1
Copper		4.5		6.6
Iron		9230 J		10800 J
Magnesium		1510		1530
Manganese		363 J		334 J
Mercury		0.05		
Nickel		8.3		8.3
Potassium		597		628
Silver				
Sodium		126 B		81.9 B
Vanadium		8.2		7.6
Zinc		15.4 J		32.9 J
Cyanide(total)				
Arsenic		1.7 J		.97 J
Lead		4.9		3.9
Selenium				
Thallium				

Qualifiers:
J - This result should be considered a quantitative estimate.
B - The presence of this compound or constituent is qualitatively questionable since it was detected in a blank at a similar concentration.
ND- none detected
Blank spaces indicated none detected
NA- not analyzed for in this sample.

APPROVED FOR RELEASE BY QUALITY ASSURANCE
David R. Dye 9-20-88
QA/QC MANAGER: DATE

Table 4-9
Analytical Results of Soil Samples
Collected as Part of the Remedial Investigation
at the Givaudan Corporation Site
March 1988
All results are reported on a dry weight basis

ERM T. R. No.	6528	6527	6526	6525	6524	6523
Sample Location	B-5 (1-2')	B-5 (2-3')	B-5 (4-6')	B-5 (6-8')	B-5 (8-10')	B-5 (12-14')
Sample Date	3/8/88	3/8/88	3/8/88	3/8/88	3/8/88	3/8/88
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Inorganics	NA	NA		NA	NA	NA
Aluminum			11300 J			
Antimony						
Barium			75.2			
Beryllium			0.5			
Cadmium			0.37			
Calcium			954			
Chromium			19.9			
Cobalt			6.4			
Copper			58.3			
Iron			17900 J			
Magnesium			1830			
Manganese			760 J			
Mercury			1.1			
Nickel			31.1			
Potassium			765			
Silver						
Sodium			117 B			
Vanadium			18.2			
Zinc			127 J			
Cyanide(total)						
Arsenic			2.9 J			
Lead			204			
Selenium						
Thallium						

Qualifiers:
J - This result should be considered a quantitative estimate.
B - The presence of this compound or constituent is qualitatively questionable since it was detected in a blank at a similar concentration.
ND- none detected
Blank spaces indicated none detected
NA- not analyzed for in this sample.

APPROVED FOR RELEASE BY QUALITY ASSURANCE

David R. Blye 9-20-88

QA/QC MANAGER DATE

Table 4-9
Analytical Results of Soil Samples
Collected as Part of the Remedial Investigation
at the Givaudan Corporation Site
March 1988
All results are reported on a dry weight basis

ERM T. R. No. Sample Location Sample Date	6543 B-3 (4-6') 3/7/88	6542 B-3 (14-16') 3/7/88	6541 B-4 (2-3') 3/7/88	6540 B-4 (3-4') 3/7/88	6539 B-4 (4-6') 3/7/88
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Inorganics		NA	NA	NA	
Aluminum	3840 J				7610 J
Antimony					
Barium	12.9				31.3
Beryllium	0.28				0.35
Cadmium					
Calcium	1790 J				534 J
Chromium	39.8 J				10.3 J
Cobalt	3.3				4.0
Copper	25.5				10.4
Iron	12000 J				11800 J
Magnesium	1480 J				1860 J
Manganese	180 J				253 J
Mercury	0.05				
Nickel	7.5				9.6
Potassium	745 J				633 J
Silver					
Sodium	132 B				80.1 B
Vanadium	25 J				13.2 J
Zinc	398 J				22.8 J
Cyanide(total)					
Arsenic	1.06 J				2.3 J
Lead	14.4				7.8
Selenium					
Thallium					

Qualifiers:
J - This result should be considered a quantitative estimate.
B - The presence of this compound or constituent is qualitatively questionable since it was detected in a blank at a similar concentration.
ND - none detected
Blank spaces indicated none detected
NA - not analyzed for in this sample.

APPROVED FOR RELEASE BY QUALITY ASSURANCE

David R. Blye 9-20-88
QA/QC MANAGER DATE

Table 4-9
Analytical Results of Soil Samples
Collected as Part of the Remedial Investigation
at the Givaudan Corporation Site
March 1988
All results are reported on a dry weight basis

ERM T. R. No.	6538	6537	6536	6535	6534	6533	6532	6531	6530	6529
Sample Location	B-2 (0-1')	B-2 (1-2')	B-2 (2-3')	B-2 (4-6')	B-2 (6-8')	B-2 (8-10')	B-2 (10-12')	B-2 (12-14')	B-2 (16-18')	B-2 (18-20')
Sample Date	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88	3/7/88
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Inorganics	NA	NA	NA		NA	NA	NA	NA	NA	NA
Aluminum				3630 J						
Antimony										
Barium				34.2						
Beryllium				0.31						
Cadmium										
Calcium				622 J						
Chromium				12.5 J						
Cobalt				3.2						
Copper				18.4						
Iron				10700 J						
Magnesium				1150 J						
Manganese				90.8 J						
Mercury										
Nickel				7						
Potassium				641 J						
Silver										
Sodium				139 B						
Vanadium				8.1 J						
Zinc				18.0 J						
Cyanide(total)										
Arsenic				0.8 J						
Lead				8.7						
Selenium										
Thallium										

Qualifiers:
J - This result should be considered a quantitative estimate.
B - The presence of this compound or constituent is qualitatively questionable since it was detected in a blank at a similar concentration.
ND none detected
Blank spaces indicated none detected
NA not analyzed for in this sample.

APPROVED FOR
RELEASE BY
QUALITY ASSURANCE

David L. Blye 9-20-88
QA/QC MANAGER DATE

Table 4-10
Analytical Results of Ground Water Samples
Collected as Part of the Remedial Investigation
at the Givaudan Corporation Site
June 1988
all results in ug/l

ERM T. R. No.	9202	9196	9181	9179	9203	9206	9195	9193	9185	9186
Sample Location	MW-3D	MW-5D	MW-6D	MW-7D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D	Blind Dup. of MW-12D
Sample Date	6/10/88	6/9/88	6/6/88	6/14/88	6/10/88	6/14/88	6/9/88	6/9/88	6/9/88	6/9/88
Inorganics										
Aluminum		24 B				31.2				39.6
Antimony										
Barium	36.4	31.8	126	39.9	21.2	284	60.9	52.7	45.8	48.2
Beryllium										
Cadmium										
Calcium	45800 J	272000	128000	162000 J	55900 J	35300 J	119000	72500	66400	70000
Chromium	22 B									
Cobalt							10.4			
Copper	31.9	10.6 B		4.4 B	4.1 B	4.5 B	11.8 B	18 B	5.2 B	40.6
Iron	72.6 B	11800 J	2460 J	9070	46.4 B	1360	568 J	2650 J	19.8 B	66.8 J
Magnesium	29500	74800	31400	42000	21200	9080	58500	73900	19200	20100
Manganese	45.2	833 J	1700 J	2170	67	506	591 J	250 J	702 J	737 J
Mercury		0.3 B	0.2 B	0.3 B		0.2 B		0.2 B	0.2 B	0.2 B
Nickel	27.6 B	176	21.3 B	13.5 B	11.4 B		14.3			14.2
Potassium	1200	2340	11700	16700	5260	12000	3260	3010	2610	2700
Silver										
Sodium	9840 J	174000	181000	171000 J	18500 J	44600 J	90400	39800	31200	31300
Vanadium	5.4	19.2	15.2	12			11	9.8	6.4	7.1
Zinc	31.4 B	52 J	42.8 J	1140	31.4 B	33 B	38.2 B	28.6 B	16 B	64.7 J
Cyanide(total)										
Arsenic		24.6 S	3.8							
Lead		1.1 B			4.6 B	0.64 B	3.4 B	1.6 B		2.3 B
Selenium										
Thallium										

Qualifiers:
"B" - This result is qualitatively questionable because the constituent was detected in method and/or travel blanks at similar concentrations.
"J" - This result is an estimated concentration.
"S" - This indicates that the concentation was determined by method of standard additions.
Blank spaces - indicate the constituent was not detected.

APPROVED FOR RELEASE BY QUALITY ASSURANCE

David R. Cluge 9-20-88
QA/QC MANAGER DATE

Table 4-10
Analytical Results of Ground Water Samples
Collected as Part of the Remedial Investigation
at the Givaudan Corporation Site
June 1988
all results in ug/l

ERM T. R. No.	9192	9180	9198	9199	9200	9189	9190	9188	9187
Sample Location	MW-5S	MW-6S	MW-B-6S	MW-8S	MW-9S	MW-10S	MW-10SA	MW-11S	MW-12S
Sample Date	6/9/88	6/6/88	6/10/88	6/10/88	6/10/88	6/7/88	6/7/88	6/7/88	6/7/88
Inorganics									
Aluminum	40 B		483	40.2	29	172 B	27.4 B		39.3 B
Antimony									
Barium	379	18	56.4	136	117	64.7	168	133	52
Beryllium									
Cadmium									
Calcium	211000	195000	87400 J	46800 J	61300 J	172000	85300	103000	25800
Chromium	205	51.5							
Cobalt		7.8	9.3						8.6
Copper	44	7.2 B	29	17.9 B	25.4	12.4 B	14 B	4.2 B	17 B
Iron	80500 J	86300 J	606	11200	1740	198 J	3790 J	786 J	652 J
Magnesium	31600	33200	17000	8540	10100	38800	12700	5670	5300
Manganese	5450 J	23400 J	51.6	679	2150	3040 J	2870 J	1100 J	8310 J
Mercury	0.2 B	0.3 B		0.3 B	0.2 B		0.2 B	0.2 B	0.2 B
Nickel	21.3 B	26.5 B	33.2 B			10.8 B	19.8 B		34 B
Potassium	21400	8850	4090	1770	13000	5850	8400	3000	2020
Silver	3.4				307				
Sodium	269000	137000	37700 J	113000 J	126000 J	73300	94300	40300	24500
Vanadium	79.7	93.6	5.7	12.9	3.8	11.1	7.4	9.2	3.4
Zinc	302 J	36.6 B	65.6 B	103 B	56.6 B	39.3 B	53 J	25.1 B	39.8 B
Cyanide(total)					16				
Arsenic	9	6.2					7.8	5.9	
Lead	13 BS		6.8 B	6.9 B	4.7 B			2.8 B	3.2 B
Selenium									1.9 B
Thallium									

Qualifiers:
"B" - This result is qualitatively questionable because the constituent was detected in method and/or travel blanks at similar concentrations.
"J" - This result is an estimated concentration.
"S" -This indicates that the concentation was determined by method of standard additions.
Blank spaces- indicate the constituent was not detected.

APPROVED FOR RELEASE BY QUALITY ASSURANCE

David R. Blye 9-20-88

QA/QC MANAGER DATE

Givaudan-Roure Corporation

Remedial Investigation Report for Soils

5 September 1996

Revised 13 December 1996

Environmental Resources Management, Inc.
855 Springdale Drive
Exton, Pennsylvania 19341

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T 2
Exceedances of NJ. RDCSCC/IGWSCC
ERM-FAST Analytical Results
Phase II Remedial Investigation
Givaudan-Roure Corporation
Clifton, New Jersey

Group	Parameter	Area	Units	Soil Cleanup Criteria (1)	Sample ID	Laboratory/FAST	Concentration	Q
METALS								
	Thallium Lead	Miscellaneous Boring Miscellaneous Boring	mg/Kg mg/Kg	2 400	MSB-11DS200 (0-2') MSB-11DS200 (0-2')	ERM-FAST ERM-FAST	15 470	
	Thallium	Miscellaneous Boring	mg/Kg	2	MSB-12DS200 (0-2')	ERM-FAST	14	
	Barium	Ramdom Soil Boring	mg/Kg	700	RSB-01 (0-2')	ERM-FAST	790	
	Barium	Ramdom Soil Boring	mg/Kg	700	RSB-02 (0-2')	ERM-FAST	870	
	Barium	Ramdom Soil Boring	mg/Kg	700	RSB-02 (10-12')	ERM-FAST	770	
	Antimony Barium	Ramdom Soil Boring Ramdom Soil Boring	mg/Kg mg/Kg	14 700	RSB-03 (0-2') RSB-03 (0-2')	ERM-FAST ERM-FAST	23 860	
	Barium	Ramdom Soil Boring	mg/Kg	700	RSB-04 (0-2')	ERM-FAST	920	
	Barium	Ramdom Soil Boring	mg/Kg	700	RSB-05 (0-2')	ERM-FAST	860	
	Barium	Ramdom Soil Boring	mg/Kg	700	RSB-06 (0-2')	ERM-FAST	710	
	Barium	Ramdom Soil Boring	mg/Kg	700	RSB-07 (0-2')	ERM-FAST	790	
	Barium	Ramdom Soil Boring	mg/Kg	700	RSB-07 (10-12')	ERM-FAST	870	
	Barium	Ramdom Soil Boring	mg/Kg	700	RSB-08 (0-2')	ERM-FAST	800	
	Arsenic Thallium Lead	Ramdom Soil Boring Ramdom Soil Boring Ramdom Soil Boring	mg/Kg mg/Kg mg/Kg	20 2 400	RSB-11 (10-12') RSB-11 (10-12') RSB-11 (10-12')	ERM-FAST ERM-FAST ERM-FAST	32 11 440	
	Mercury	Ramdom Soil Boring	mg/Kg	14	RSB-12 (0-2')	ERM-FAST	22	

1 - More Stringent of NJDEP Residential Direct Contact Soil Cleanup Criterion or Impact to Ground Water Soil Cleanup Criterion.

TABLE 4-3
EXCEEDANCES OF NJDEP RDCSCC/IGWSCC
CORE LABORATORIES ANALYTICAL RESULTS
PHASE II REMEDIAL INVESTIGATION
GIVAUDAN-ROURE CORPORATION
CLIFTON, NEW JERSEY
REPORT DATE 09/06/96

GROUP	PARAMETER	AREA	UNITS	NEW JERSEY SOIL CRITERIA (1)	SAMPLE	--	CONCENTRATION	Q
A.VOA	CHLOROFORM	CHEMICAL SEWER	UG/KG	1,000.00	CSB-19 35.5-37.5	GSAI	1,100.00	J
	TOLUENE	CHEMICAL SEWER	UG/KG	500,000.00	CSB-19 35.5-37.5	GSAI	840,000.00	
					CSB-21 36-38	GSAI	1,000,000.00	
	XYLENE (TOTAL)	CHEMICAL SEWER	UG/KG	10,000.00	CSB-21 36-38	GSAI	10,000.00	
		FIXED SOIL BORING	UG/KG	10,000.00	FSB-04 25-27	GSAI	19,000.00	
B.SVOA	BENZO(A)ANTHRACENE	CHEMICAL SEWER	UG/KG	900.00	CSB-18 10-12	GSAI	1,000.00	
		WAREHOUSE	UG/KG	900.00	WA-13 00-02	GSAI	1,200.00	
	BENZO(A)PYRENE	CHEMICAL SEWER	UG/KG	660.00	CSB-18 10-12	GSAI	920.00	
		WAREHOUSE	UG/KG	660.00	WA-13 00-02	GSAI	1,600.00	
	BENZO(B)FLUORANTHENE	CHEMICAL SEWER	UG/KG	900.00	CSB-18 10-12	GSAI	2,000.00	
	BENZO(K)FLUORANTHENE	FIXED SOIL BORING	UG/KG	900.00	FSB-04A 00-02	GSAI	1,200.00	
		WAREHOUSE	UG/KG	900.00	WA-13 00-02	GSAI	3,900.00	
	DIBENZ(A,H)ANTHRACENE	WAREHOUSE	UG/KG	660.00	WA-13 00-02	GSAI	690.00	
	INDENO(1,2,3-CD)PYRENE	WAREHOUSE	UG/KG	900.00	WA-13 00-02	GSAI	1,900.00	
	NAPHTHALENE	CHEMICAL SEWER	UG/KG	10,000.00	CSB-19 35.5-37.5	GSAI	22,000.00	
					CSB-21 36-38	GSAI	29,000.00	
E.METALS	ARSENIC	FIXED SOIL BORING	MG/KG	20.00	FSB-06A 10-12	GSAI	21.20	
	COPPER	CHEMICAL SEWER	MG/KG	600.00	CSB-08 10-12	GSAI	765.00	
	LEAD	CHEMICAL SEWER	MG/KG	400.00	CSB-01 00-02	GSAI	943.00	
					CSB-08 10-12	GSAI	1,680.00	
		FIXED SOIL BORING	MG/KG	400.00	FSB-04 10-12	GSAI	1,680.00	
		MISCELLANEOUS BORING	MG/KG	400.00	MSB-11DS200 00-02	GSAI	628.00	
	MERCURY	CHEMICAL SEWER	MG/KG	14.00	CSB-08 10-12	GSAI	39.50	
	NICKEL	CHEMICAL SEWER	MG/KG	250.00	CSB-08 10-12	GSAI	386.00	
	ZINC	CHEMICAL SEWER	MG/KG	1,500.00	CSB-08 10-12	GSAI	1,720.00	

(1) MORE STRINGENT OF NJDEP RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA OR IMPACT TO GROUND WATER SOIL CLEANUP CRITERIA.

INTERIM REPORT

BBF000055

Givaudan Roure

Interim Ground Water Report
Clifton, New Jersey

February 2000

22321.30.01

Volume I
Appendix A-F

Environmental Resources Management
855 Springdale Drive
Exton, Pennsylvania 19341

Appendix E
September 1998 Ground Water
Analytical Results

September 1998 Grou... Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-09S (Dissolved) 9/11/98	MW-09S 9/11/98	MW-100 (Dissolved) 9/21/98	MW-100 9/21/98	MW-10D (Dissolved) 9/15/98	MW-10D 9/15/98
Metals							
Aluminum	mg/l	0.0951 B	3.45	0.079 U	0.411	0.079 U	0.195 B
Antimony	mg/l	0.004 U	0.0055 B	0.004 U	0.0124 B	0.004 U	0.0085 B
Arsenic	mg/l	0.0058 U	0.0065 U	0.0058 U	0.0065 U	0.0058 U	0.0065 U
Barium	mg/l	0.235	0.225	0.0522 B	0.0741 B	0.0134 B	0.0241 B
Beryllium	mg/l	0.00025 U	0.00028 U	0.0004 B	0.0023 B	0.0005 B	0.0021 B
Cadmium	mg/l	0.00095 U	0.0098	0.00095 U	0.0011 U	0.00095 U	0.0011 U
Calcium	mg/l	91	92.4	108	110	6.96	11.9
Chromium	mg/l	0.0047 B	0.0351	0.0013 B	0.0062 B	0.0032 B	0.0045 B
Cobalt	mg/l	0.00085 U	0.0026 B	0.001 B	0.0054 B	0.0017 B	0.0102 B
Copper	mg/l	0.0061 B	0.0664	0.002 U	0.0023 U	0.002 U	0.0036 B
Iron	mg/l	3.59	10.2	0.0173 U	0.726	0.106	9.61
Lead	mg/l	0.004 U	0.0802	0.004 U	0.0044 U	0.004 U	0.0044 U
Magnesium	mg/l	8.01	9.58	14.4	14.2	27.9	19.1
Manganese	mg/l	1.98	2.12	0.0063 B	0.114	0.016	0.113
Mercury	mg/l	0.00007 U	0.00028	0.00007 U	0.00007 U	0.00007 U	0.00007 U
Nickel	mg/l	0.0363 B	0.0498	0.0028 U	0.0052 B	0.0665	0.0579
Potassium	mg/l	13.3	12.2	2.59 B	2.51 B	40.6	46
Selenium	mg/l	0.0173	0.0056 U	0.005 U	0.0075	0.0258	0.0056 U
Silver	mg/l	0.0012 B	0.00083 U	0.00075 U	0.002 B	0.00075 U	0.00083 U
Sodium	mg/l	407	375	45.6	48	173	188
Thallium	mg/l	0.0052 U	0.0057 U	0.0052 U	0.0057 U	0.0052 U	0.0057 U
Vanadium	mg/l	0.0455 B	0.0629	0.0012 U	0.0025 B	0.0012 U	0.0022 B
Zinc	mg/l	0.242	0.611	0.0024 U	0.0151 B	0.0057 B	0.0229

Description of Data Qualifiers is provided on page 157.
NA: Not Analyzed

September 1998 Ground Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-10S (Dissolved) 9/15/98	MW-10S 9/15/98	MW-10SA (Dissolved) 9/15/98	MW-10SA 9/15/98	MW-11D (Dissolved) 9/16/98
Metals						
Aluminum	mg/l	0.079 U	4.13	0.079 U	2.2	0.079 U
Antimony	mg/l	0.004 U	0.0113 B	0.004 U	0.005 B	0.004 U
Arsenic	mg/l	0.0058 U	0.0145	0.0058 U	0.0065 U	0.0058 U
Barium	mg/l	0.0477 B	0.114 B	0.102 B	0.223	0.0469 B
Beryllium	mg/l	0.0007 B	0.002 B	0.00025 U	0.00028 U	0.0004 B
Cadmium	mg/l	0.00095 U	0.0046 B	0.00095 U	0.0011 U	0.00095 U
Calcium	mg/l	199	230	40.4	68.8	78.7
Chromium	mg/l	0.002 B	0.0621	0.0007 B	0.0131	0.00069 U
Cobalt	mg/l	0.0072 B	0.0248 B	0.00085 U	0.0023 B	0.0358 B
Copper	mg/l	0.002 U	0.15	0.0025 B	0.0086 B	0.002 U
Iron	mg/l	0.539	66.8	0.0311 B	5.78	0.121
Lead	mg/l	0.004 U	0.0722	0.004 U	0.0068	0.004 U
Magnesium	mg/l	42.4	47.4	3.43 B	5.04	57.5
Manganese	mg/l	2.65	3.66	0.082	0.61	0.532
Mercury	mg/l	0.00012 B	0.00015 B	0.00007 U	0.00007 U	0.00014 B
Nickel	mg/l	0.0283 B	0.0833	0.0028 U	0.0106 B	0.0577
Potassium	mg/l	10.2	11.2	2.4 B	3.61 B	5.87
Selenium	mg/l	0.0081	0.0056 U	0.0136	0.0056 U	0.005
Silver	mg/l	0.0009 B	0.00083 U	0.0011 B	0.001 B	0.001 B
Sodium	mg/l	102	108	61.7	65	56.7
Thallium	mg/l	0.0052 U	0.0057 U	0.0052 U	0.0057 U	0.0052 U
Vanadium	mg/l	0.0012 U	0.0145 B	0.0012 U	0.0089 B	0.0015 B
Zinc	mg/l	0.0024 U	0.0976	0.0041 B	0.0298	0.0048 B

Description of Data Qualifiers is provided on page 157.
NA: Not Analyzed

September 1998 Grou... Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-11D 9/16/98	MW-11S (Dissolved) 9/16/98	MW-11S 9/16/98	MW-12D (Dissolved) 9/17/98	MW-12D 9/17/98	MW-12I (Dissolved) 9/17/98
Metals							
Aluminum	mg/l	0.0878 U	0.079 U	0.26	0.079 U	0.132 B	0.2 U
Antimony	mg/l	0.0088 B	0.004 U	0.0103 B	0.004 U	0.0066 B	0.06 U
Arsenic	mg/l	0.0065 U	0.0058 U	0.0131	0.0058 U	0.0065 U	0.01 U
Barium	mg/l	0.0547 B	0.0823 B	0.111 B	0.0618 B	0.0843 B	0.169 B
Beryllium	mg/l	0.0027 B	0.0005 B	0.0027 B	0.0003 B	0.0017 B	0.005 U
Cadmium	mg/l	0.0011 U	0.00095 U	0.0011 U	0.00095 U	0.0011 U	0.005 U
Calcium	mg/l	76	91.2	90.9	26.1	28	51.5
Chromium	mg/l	0.0062 B	0.001 B	0.0042 B	0.0007 B	0.005 B	0.01 U
Cobalt	mg/l	0.0391 B	0.00085 U	0.0051 B	0.001 B	0.0054 B	0.05 U
Copper	mg/l	0.0176 B	0.002 U	0.0023 U	0.002 U	0.0029 B	0.025 U
Iron	mg/l	7.93	1.17	5.43	0.0173 U	0.22	0.041 B
Lead	mg/l	0.0044 U	0.004 U	0.0044 U	0.004 U	0.0044 U	0.003 U
Magnesium	mg/l	56.8	5.93	6.28	5.63	9.99	17
Manganese	mg/l	0.676	0.87	1.05	0.0073 B	0.0868	0.248
Mercury	mg/l	0.00007 U	0.00012 B	0.00007 U	0.00007 U	0.00007 U	0.00012 B
Nickel	mg/l	0.0646	0.0028 U	0.0032 B	0.0028 U	0.0093 B	0.04 U
Potassium	mg/l	5.49	2.5 B	2.59 B	47.8	55.6	4.37 B
Selenium	mg/l	0.0056 U	0.005 U	0.0056 U	0.005 U	0.0056 U	0.008
Silver	mg/l	0.00083 U	0.00075 U	0.0013 B	0.00075 U	0.0014 B	0.01 U
Sodium	mg/l	58.5	34.5	35.1	41.2	60	38.2
Thallium	mg/l	0.0057 U	0.0052 U	0.0057 U	0.0052 U	0.0057 U	0.01 U
Vanadium	mg/l	0.0032 B	0.0012 U	0.0023 B	0.0013 B	0.0026 B	0.05 U
Zinc	mg/l	0.0296	0.0024 U	0.026	0.0024 U	0.0095 B	0.028

Description of Data Qualifiers is provided on page 157.
NA: Not Analyzed

September 1998 Gr[illegible] Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-15D (Dissolved) DUP 9/16/98	MW-15D (Dissolved) 9/16/98	MW-15D DUP 9/16/98	MW-15D 9/16/98	MW-15I (Dissolved) 9/15/98
Metals						
Aluminum	mg/l	0.079 U	0.079 U	0.209	0.22	0.079 U
Antimony	mg/l	0.004 U	0.004 U	0.0091 B	0.0095 B	0.004 U
Arsenic	mg/l	0.0058 U	0.0058 U	0.0065 U	0.0065 U	0.0058 U
Barium	mg/l	0.0368 B	0.0373 B	0.048 B	0.0461 B	0.0495 B
Beryllium	mg/l	0.0005 B	0.0006 B	0.0025 B	0.0025 B	0.00025 U
Cadmium	mg/l	0.00095 U	0.00095 U	0.0011 U	0.0011 U	0.00095 U
Calcium	mg/l	74.8	74.9	72.5	70.3	31.9
Chromium	mg/l	0.00069 U	0.00069 U	0.0069 B	0.0071 B	0.0009 B
Cobalt	mg/l	0.0513	0.0514	0.0564	0.0547	0.0113 B
Copper	mg/l	0.002 U	0.002 U	0.0298	0.0324	0.0077 B
Iron	mg/l	0.668	1.05	30.8	31.4	0.0309 B
Lead	mg/l	0.004 U	0.004 U	0.008	0.0062	0.004 U
Magnesium	mg/l	35.9	36	36	34.8	16.6
Manganese	mg/l	0.893	0.891	1.19	1.16	0.157
Mercury	mg/l	0.00013 B	0.00014 B	0.00007 U	0.00007 U	0.00007 U
Nickel	mg/l	0.0491	0.0495	0.0622	0.0604	0.0199 B
Potassium	mg/l	14.1	14.2	13.4	12.8	42.4
Selenium	mg/l	0.005 U	0.0068	0.0056 U	0.0056 U	0.0119
Silver	mg/l	0.00075 U	0.00075 U	0.00083 U	0.00083 U	0.0008 B
Sodium	mg/l	98	95.3	94.3	92.9	67.9
Thallium	mg/l	0.0052 U	0.0052 U	0.0057 U	0.0057 U	0.0052 U
Vanadium	mg/l	0.0012 U	0.0013 B	0.0047 B	0.0046 B	0.0012 U
Zinc	mg/l	0.0804	0.0893	0.399	0.391	0.0184 B

Description of Data Qualifiers is provided on page 157.
NA: Not Analyzed

September 1998 Ground Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-15I DUP (Dissolved) 9/18/98	MW-15I 9/15/98	MW-15S (Dissolved) 9/16/98	MW-15S DUP (Dissolved) 9/16/98	MW-15S DUP 9/16/98
Metals						
Aluminum	mg/l	0.0946 B	0.126 B	0.079 U	0.079 U	7.46
Antimony	mg/l	0.004 U	0.005 B	0.004 U	0.004 U	0.0235 B
Arsenic	mg/l	0.0058 U	0.0065 U	0.0067 B	0.0072 B	0.0489
Barium	mg/l	0.0609 B	0.115 B	0.0791 B	0.0769 B	0.155 B
Beryllium	mg/l	0.00025 U	0.00028 U	0.0003 B	0.0003 B	0.0019 B
Cadmium	mg/l	0.00095 U	0.0011 U	0.00095 U	0.00095 U	0.0085
Calcium	mg/l	79	66.1	2.39 B	2.38 B	2.69 B
Chromium	mg/l	0.00069 U	0.00077 U	0.0075 B	0.0074 B	0.546
Cobalt	mg/l	0.00085 U	0.0096 B	0.00085 U	0.00085 U	0.0102 B
Copper	mg/l	0.002 U	0.0093 B	0.0021 B	0.0032 B	2.56
Iron	mg/l	1.8	0.901	0.911	0.884	3.26
Lead	mg/l	0.004 U	0.0034	0.004 U	0.004 U	0.0208
Magnesium	mg/l	22.7	17	0.309 B	0.312 B	0.75 B
Manganese	mg/l	1.09	0.546	0.0659	0.0665	0.0795
Mercury	mg/l	0.00012 B	0.00007 U	0.00012 B	0.00012 B	0.00015 B
Nickel	mg/l	0.0208 B	0.0179 B	0.0028 U	0.0028 U	0.0144 B
Potassium	mg/l	26	42.5	1.24 B	1.25 B	2.75 B
Selenium	mg/l	0.0255	0.0056 U	0.0497	0.0214	0.0056 U
Silver	mg/l	0.00075 U	0.00083 U	0.00075 U	0.00075 U	0.0008 B
Sodium	mg/l	137	72.8	23.4	23.4	25.4
Thallium	mg/l	0.0052 U	0.0057 U	0.0052 U	0.0052 U	0.0057 U
Vanadium	mg/l	0.0012 U	0.0013 U	0.0034 B	0.0032 B	0.013 B
Zinc	mg/l	0.0024 U	0.426	0.0024 U	0.0024 U	1.1

Description of Data Qualifiers is provided on page 157.
NA: Not Analyzed

September 1998 Ground Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-15S 9/16/98	MW-16D (Dissolved) DUP 9/14/98	MW-16D (Dissolved) 9/14/98	MW-16D DUP 9/14/98	MW-16D 9/14/98
Metals						
Aluminum	mg/l	5.51	0.079 U	0.079 U	1.58	1.47
Antimony	mg/l	0.0187 B	0.004 U	0.004 U	0.0093 B	0.0096 B
Arsenic	mg/l	0.0506	0.0058 U	0.0058 U	0.0065 U	0.0065 U
Barium	mg/l	0.136 B	0.146 B	0.145 B	0.199 B	0.188 B
Beryllium	mg/l	0.0021 B	0.00025 U	0.00025 U	0.0007 B	0.0006 B
Cadmium	mg/l	0.0081	0.00095 U	0.00095 U	0.0011 U	0.0011 U
Calcium	mg/l	2.43 B	77.7	77.6	85.9	86.3
Chromium	mg/l	0.528	0.00069 U	0.00069 U	0.0217	0.0202
Cobalt	mg/l	0.01 B	0.0162 B	0.0159 B	0.018 B	0.018 B
Copper	mg/l	2.91	0.002 U	0.002 U	0.169	0.164
Iron	mg/l	2.2	0.34	0.509	18.7	19.2
Lead	mg/l	0.0237	0.0034	0.0046	1.27	1.21
Magnesium	mg/l	0.415 B	21.6	21.6	23.7	23.7
Manganese	mg/l	0.0674	0.581	0.569	3.3	3.2
Mercury	mg/l	0.00016 B	0.00007 U	0.00007 U	0.00007 U	0.00007 U
Nickel	mg/l	0.0146 B	0.0381 B	0.0381 B	0.0465	0.0467
Potassium	mg/l	1.62 B	21.6	20.7	19.4	19.6
Selenium	mg/l	0.0056 U	0.005 U	0.005 U	0.0056 U	0.0056 U
Silver	mg/l	0.0009 B	0.00075 U	0.00075 U	0.00083 U	0.00083 U
Sodium	mg/l	24.1	141	141	120	120
Thallium	mg/l	0.0057 U	0.0052 U	0.0052 U	0.0057 U	0.0057 U
Vanadium	mg/l	0.0098 B	0.0012 U	0.0012 U	0.0073 B	0.0072 B
Zinc	mg/l	1.18	0.629	0.586	17.9	17.9

Description of Data Qualifiers is provided on page 157.
NA: Not Analyzed

September 1998 Groun... Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-16S 9/14/98	MW-17D (Dissolved) 9/22/98	MW-17D 9/22/98	MW-17I (Dissolved) 9/18/98	MW-17I 9/18/98	MW-17S (Dissolved) 9/22/98
Metals							
Aluminum	mg/l	4.31	0.2 U	0.179 B	0.079 U	3.76	0.2 U
Antimony	mg/l	0.0211 B	0.06 U	0.0044 U	0.004 U	0.0044 U	0.06 U
Arsenic	mg/l	0.0235	0.01 U	0.0065 U	0.0058 U	0.0065 U	0.01 U
Barium	mg/l	0.0922 B	0.042 B	0.0444 B	0.185 B	0.262	0.098 B
Beryllium	mg/l	0.00028 U	0.005 U	0.00028 U	0.00025 U	0.00028 U	0.005 U
Cadmium	mg/l	0.0011 U	0.005 U	0.0011 B	0.00095 U	0.0014 B	0.005 U
Calcium	mg/l	2.34 B	94.8	94.7	86.3	164	79.3
Chromium	mg/l	0.908	0.0008 B	0.0021 B	0.00069 U	0.0055 B	0.01 U
Cobalt	mg/l	0.0012 B	0.059	0.0578	0.0314 B	0.0344 B	0.05 U
Copper	mg/l	0.0313	0.077	0.0777	0.0695	0.0826	0.025 U
Iron	mg/l	21.1	0.782	9.52	0.0246 B	8.3	0.1 U
Lead	mg/l	0.0311	0.003 U	0.0044 U	0.004 U	0.0059	0.003 U
Magnesium	mg/l	0.648 B	36.4	36	31.1	42.7	7.57
Manganese	mg/l	0.0295	1.41	1.48	0.819	2.06	0.124
Mercury	mg/l	0.00007 U	0.0002 U	0.00007 U	0.00026	0.00007 U	0.0002 U
Nickel	mg/l	0.0035 B	0.103	0.105	0.0783	0.0837	0.04 U
Potassium	mg/l	1.32 B	6.91	6.56	4.94 B	5.67	2.94 B
Selenium	mg/l	0.0056 U	0.039	0.0056 U	0.0285	0.0056 U	0.005 U
Silver	mg/l	0.00083 U	0.01 U	0.00083 U	0.00075 U	0.00083 U	0.01 U
Sodium	mg/l	21.4	141	0.0195 U	79.8	82.5	22.8
Thallium	mg/l	0.0057 U	0.01 U	0.0057 U	0.0052 U	0.0057 U	0.01 U
Vanadium	mg/l	0.0073 B	0.05 U	0.0013 U	0.0012 U	0.0077 B	0.05 U
Zinc	mg/l	0.0027 U	0.022	0.0156 B	0.0067 B	0.0773	0.011 B

Description of Data Qualifiers is provided on page 157.
NA: Not Analyzed

September 1998 Ground Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-17S 9/22/98	MW-18D (Dissolved) 9/17/98	MW-18D 9/17/98	MW-18I (Dissolved) 9/17/98	MW-18I 9/17/98	MW-18S (Dissolved) 9/22/98
Metals							
Aluminum	mg/l	1.02	0.2 U	0.0878 U	0.079 U	7.54	0.2 U
Antimony	mg/l	0.0044 U	0.06 U	0.0044 U	0.004 U	0.0044 U	0.06 U
Arsenic	mg/l	0.0065 U	0.01 U	0.0065 U	0.0058 U	0.0065 U	0.01 U
Barium	mg/l	0.112 B	0.047 B	0.0544 B	0.257	0.372	0.13 B
Beryllium	mg/l	0.00028 U	0.005 U	0.00028 U	0.00025 U	0.00028 U	0.005 U
Cadmium	mg/l	0.0011 U	0.005 U	0.0026 B	0.00095 U	0.0029 B	0.005 U
Calcium	mg/l	79	73.2	74.8	87.7	432	70.6
Chromium	mg/l	0.0011 B	0.01 U	0.00077 U	0.00069 U	0.0111	0.01 U
Cobalt	mg/l	0.00094 U	0.021 B	0.0251 B	0.0232 B	0.035 B	0.05 U
Copper	mg/l	0.0023 U	0.025 U	0.0071 B	0.0093 B	0.0213 B	0.025 U
Iron	mg/l	1.29	0.398	47.8	0.052 B	16.7	0.1 U
Lead	mg/l	0.0044 U	0.003 U	0.0043	0.004 U	0.0154	0.003 U
Magnesium	mg/l	7.68	66.5	63.8	29.3	66.9	7.72
Manganese	mg/l	0.305	0.462	0.772	0.654	6.25	0.229
Mercury	mg/l	0.00007 U	0.00013 B	0.00007 U	0.00007 U	0.00007 U	0.0002 U
Nickel	mg/l	0.0031 U	0.042	0.0454	0.0261 B	0.043	0.04 U
Potassium	mg/l	3.15 B	5.58	5.2	6.33	8.8	3.71 B
Selenium	mg/l	0.0056 U	0.029	0.0056 U	0.0246	0.0056 U	0.015
Silver	mg/l	0.00083 U	0.01 U	0.00083 U	0.00075 U	0.00083 U	0.01 U
Sodium	mg/l	22.4	46.3	52.8	87.1	90.1	29.8
Thallium	mg/l	0.0057 U	0.01 U	0.0057 U	0.0052 U	0.0079 B	0.01 U
Vanadium	mg/l	0.0013 U	0.05 U	0.0024 B	0.0012 U	0.0161 B	0.05 U
Zinc	mg/l	0.02	0.01 B	0.0198 B	0.0837	0.083	0.017 B

Description of Data Qualifiers is provided on page 157.
NA: Not Analyzed

September 1998 Grou... /ater Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

Data Qualifiers:

B: Indicates that the analyte is found in the associated blank as well as in the sample.(Organic)

B: The reported value is less than the CRDL but greater than the Instrument Detection Limit(IDL). (Inorganic)

U: Indicates the compound was analyzed for but not detected.

D: Indicates the compound was analyzed at a secondary dilution factor.

J: Indicates an estimated value.

Description of Data Qualifiers is provided on page 157.

NA: Not Analyzed

INTERIM REPORT

BBF000058

Givaudan Roure

Interim Ground Water Report
Clifton, New Jersey

February 2000

22321.30.01

Volume II
Appendix G-N

Environmental Resources Management
855 Springdale Drive
Exton, Pennsylvania 19341

Appendix I
July/August 1999 Ground Water
Analytical Results

July August 1999 Gr... Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-09S 7/15/99	MW-10D 7/15/99	MW-10D 7/28/99	MW-10S 7/15/99	MW-11D 7/13/99	MW-12D 7/14/99	MW-12D 7/29/99	MW-12I 7/20/99	MW-12S 7/14/99	MW-12S 7/28/99
Free carbon dioxide	mg/l	NA	NA	8.0 B	NA	NA	NA	10.0 U	NA	NA	8.0 B
Hydroxide	mg/l	NA	NA	1.0 U	NA	NA	NA	70.3	NA	NA	1.0 U
Iron +2	mg/l	NA	NA	0.10 U	NA	NA	NA	0.10 U	NA	NA	0.10 U
Methane	mg/l	NA	NA	5.0 U	NA	NA	NA	5.0 U	NA	NA	5.0 U
Nitrate Nitrogen	mg/l	NA	NA	0.045	NA	NA	NA	0.16	NA	NA	0.88
Sulfate	mg/l	NA	NA	123	NA	NA	NA	74.6	NA	NA	15.8
Sulfide	mg/l	NA	NA	1.0 U	NA	NA	NA	1.0 U	NA	NA	1.0 U
Total alkalinity	mg/l	NA	NA	518	NA	NA	NA	87.3	NA	NA	43.2
Total Organic Carbon	mg/l	NA	NA	18.9	NA	NA	NA	4.3	NA	NA	1.8
Metals											
Aluminum	mg/l	1.7	0.033 B	NA	0.085 B	0.065 B	0.52	NA	3.5	0.58	NA
Antimony	mg/l	0.0043 U	0.0049 B	NA	0.0041 B	0.0037 U	0.0043 U	NA	0.0043 U	0.0042 B	NA
Arsenic	mg/l	0.0060 U	0.0046 B	NA	0.0056 B	0.0050 U	0.011	NA	0.0088 B	0.0045 U	NA
Barium	mg/l	0.22	0.065 B	NA	0.070 B	0.038 B	0.11 B	NA	0.20 B	0.061 B	NA
Beryllium	mg/l	0.0001 U	0.0002 U	NA	0.0002 U	0.0003 B	0.0001 U	NA	0.0001 U	0.0002 U	NA
Cadmium	mg/l	0.0009 B	0.0001 U	NA	0.0001 U	0.0001 U	0.0002 U	NA	0.0002 U	0.0001 U	NA
Calcium	mg/l	92.7	114	NA	49.9	96.9	53.4	NA	206	8.9	NA
Chromium	mg/l	0.021	0.0006 U	NA	0.0006 U	0.0020 B	0.0007 U	NA	0.017	0.0028 B	NA
Cobalt	mg/l	0.0012 U	0.13	NA	0.0004 U	0.046 B	0.0012 U	NA	0.0054 B	0.011 B	NA
Copper	mg/l	0.033	0.0011 U	NA	0.0011 U	0.11	0.038	NA	0.045	0.0011 U	NA
Iron	mg/l	8.5	1.4	NA	1.1	0.88	0.49	NA	14.6	1.0	NA
Lead	mg/l	0.064	0.0046	NA	0.0039 U	0.0044 U	0.0044 U	NA	0.011	0.0039 U	NA
Magnesium	mg/l	9.2	60.3	NA	3.0 B	41.1	43.9	NA	38.4	2.2 B	NA
Manganese	mg/l	1.8	0.80	NA	0.080	1.0	0.14	NA	2.2	0.55	NA
Mercury	mg/l	0.0002	0.0000 U	NA	0.0000 U	0.0000 U	0.0000 U	NA	0.0000 B	0.0000 U	NA
Nickel	mg/l	0.035 B	0.16	NA	0.0007 U	0.080	0.0084 B	NA	0.027 B	0.089	NA
Potassium	mg/l	9.5	3.8 B	NA	2.9 B	7.5	2.4 B	NA	2.9 B	2.0 B	NA
Selenium	mg/l	0.0023 U	0.0026 U	NA	0.0032 B	0.01 U	0.0026 U	NA	0.0023 U	0.0026 U	NA
Silver	mg/l	0.0008 U	0.0020 B	NA	0.0007 B	0.0005 U	0.0007 B	NA	0.0017 B	0.0005 U	NA

Description of Data Qualifiers is provided on page 84.
NA: Not Analyzed

July August 1999 Ground Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-14D 7/29/99	MW-14D 7/30/99	MW-14S 7/20/99	MW-14S 7/30/99	MW-15D 7/15/99	MW-15I 7/14/99	MW-15S 7/21/99	MW-15S 7/29/99	MW-16D 7/15/99	MW-16D 7/29/99
Free carbon dioxide	/l	NA	1.0 B	NA	25.0	NA	NA	NA	22.0 B	NA	3.0 B
Hydroxide	/l	NA	1.0 U	NA	1.0 U	NA	NA	NA	1.0 U	NA	1.0 U
Iron +2	/l	NA	0.10 U	NA	27.4	NA	NA	NA	0.10 U	NA	0.10 U
Methane	/l	NA	5.0 U	NA	5.0 U	NA	NA	NA	5.0 U	NA	5.0 U
Nitrate Nitrogen	/l	NA	0.059	NA	0.036	NA	NA	NA	0.072	NA	0.072
Sulfate	/l	NA	256	NA	945	NA	NA	NA	183	NA	132
Sulfide	/l	NA	0.80 B	NA	1.0 U	NA	NA	NA	1.0 U	NA	1.0 U
Total alkalinity	/l	NA	63.9	NA	1.0 U	NA	NA	NA	1.0 U	NA	392
Total Organic Carbon	/l	NA	13.8	NA	13.4	NA	NA	NA	23.9	NA	12.5
Metals											
Aluminum	/l	7.7	NA	6.9	NA	0.47	6.0	11.4	NA	0.23	NA
Antimony	/l	0.0043 U	NA	0.0082 B	NA	0.0047 B	0.0059 B	0.012 B	NA	0.0054 B	NA
Arsenic	/l	0.014	NA	0.014	NA	0.0045 U	0.0070 B	0.034	NA	0.0079 B	NA
Barium	/l	0.11 B	NA	0.030 B	NA	0.082 B	0.12 B	0.11 B	NA	0.077 B	NA
Beryllium	/l	0.0001 U	NA	0.0001 U	NA	0.0002 U	0.0002 U	0.0001 U	NA	0.0002 U	NA
Cadmium	mg/l	0.0002 B	NA	0.0002 U	NA	0.0001 U	0.0002 B	0.0048 B	NA	0.0001 U	NA
Calcium	mg/l	103	NA	48.9	NA	92.1	75.4	11.8	NA	83.4	NA
Chromium	mg/l	0.042	NA	1.4	NA	0.0006 U	0.0078 B	1.3	NA	0.0013 B	NA
Cobalt	mg/l	0.014 B	NA	0.035 B	NA	0.062	0.030 B	0.0009 B	NA	0.013 B	NA
Copper	mg/l	0.10	NA	2.4	NA	0.031	0.075	9.4	NA	0.076	NA
Iron	mg/l	76.1	NA	58.3	NA	9.1	11.5	77.3	NA	5.0	NA
Lead	mg/l	0.14	NA	0.088	NA	0.0039 U	0.021	0.045	NA	0.55	NA
Magnesium	mg/l	29.0	NA	9.1	NA	45.0	18.0	1.6 B	NA	23.0	NA
Manganese	mg/l	1.1	NA	1.5	NA	1.3	0.86	0.44	NA	1.7	NA
Mercury	mg/l	0.0011	NA	0.0001 B	NA	0.0000 U	0.0000 U	0.0002	NA	0.0000 U	NA
Nickel	mg/l	0.020 B	NA	0.18	NA	0.064	0.031 B	0.019 B	NA	0.044	NA
Potassium	mg/l	12.9	NA	7.3	NA	9.6	7.0	1.4 B	NA	19.4	NA
Selenium	mg/l	0.0023 U	NA	0.0023 U	NA	0.0026 U	0.0026 U	0.0023 U	NA	0.0026 U	NA
Silver	mg/l	0.0008 U	NA	0.0008 U	NA	0.0018 B	0.0015 B	0.0008 U	NA	0.0027 B	NA

Description of Data Qualifiers is provided on page 84.
NA: Not Analyzed

July/August 1999 Gro[illegible] Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-16I	MW-16I	MW-16S	MW-16S	MW-17D DUP	MW-17D	MW-17I DUP	MW-17I	MW-17S
		7/13/99	7/29/99	7/14/99	7/27/99	7/19/99	7/19/99	7/19/99	7/19/99	7/20/99
Free carbon dioxide	mg/l	NA	0.50 B	NA	7.0 B	NA	NA	NA	NA	NA
Hydroxide	mg/l	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA
Iron +2	mg/l	NA	0.10 U	NA	0.10 U	NA	NA	NA	NA	NA
Methane	mg/l	NA	5.0 U	NA	5.0 U	NA	NA	NA	NA	NA
Nitrate Nitrogen	mg/l	NA	0.074	NA	0.029 B	NA	NA	NA	NA	NA
Sulfate	mg/l	NA	70.0	NA	35.4	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	NA
Total alkalinity	mg/l	NA	129	NA	30.1	NA	NA	NA	NA	NA
Total Organic Carbon	mg/l	NA	2.8	NA	9.0	NA	NA	NA	NA	NA
Metals										
Aluminum	mg/l	0.038 B	NA	0.13 B	NA	0.056 B	0.061 B	2.2	3.1	0.15 B
Antimony	mg/l	0.0037 U	NA	0.0043 U	NA	0.0043 U	0.0043 U	0.0043 U	0.0043 U	0.0043 U
Arsenic	mg/l	0.0050 U	NA	0.0050 U	NA	0.0050 U	0.0050 U	0.013	0.0087 B	0.0050 U
Barium	mg/l	0.045 B	NA	0.076 B	NA	0.047 B	0.043 B	0.20 B	0.20 B	0.11 B
Beryllium	mg/l	0.0002 U	NA	0.0001 U	NA	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Cadmium	mg/l	0.0001 U	NA	0.0002 U	NA	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Calcium	mg/l	79.4	NA	9.1	NA	58.4	54.7	101	90.3	85.5
Chromium	mg/l	0.093	NA	0.019	NA	0.0007 U	0.0007 U	0.013	0.016	0.0021 B
Cobalt	mg/l	0.0005 U	NA	0.0012 U	NA	0.0022 B	0.0012 U	0.016 B	0.015 B	0.0012 U
Copper	mg/l	0.0049 B	NA	0.0038 B	NA	0.024 B	0.023 B	0.048	0.048	0.02 U
Iron	mg/l	0.028 B	NA	4.7	NA	19.3	19.1	3.7	3.2	0.19
Lead	mg/l	0.0044 U	NA	0.0044 U	NA	0.0044 U	0.0044 U	0.0052	0.0031	0.0044 U
Magnesium	mg/l	24.5	NA	1.4 B	NA	38.5	39.0	24.5	24.7	8.8
Manganese	mg/l	0.0066 B	NA	0.045	NA	0.54	0.50	0.97	0.98	0.29
Mercury	mg/l	0.0001 B	NA	0.0000 U	NA	0.0000 B	0.0000 B	0.0000 B	0.0000 B	0.0000 B
Nickel	mg/l	0.0007 U	NA	0.0049 U	NA	0.089	0.090	0.046	0.046	0.0049 U
Potassium	mg/l	1.7 B	NA	0.92 B	NA	8.0	8.1	4.1 B	4.6 B	3.1 B
Selenium	mg/l	0.01 U	NA	0.0026 U	NA	0.0023 U	0.01 U	0.01 U	0.0023 U	0.0023 U
Silver	mg/l	0.0005 U	NA	0.0008 U	NA	0.0008 U	0.0008 U	0.0011 B	0.0023 B	0.0007 B

Description of Data Qualifiers is provided on page 84.
NA: Not Analyzed

July August 1999 Ground Water Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		MW-18D	MW-18I	MW-18S	MW-19S	MW-20S	MW-21S	MW-22	MW-23S	MW-23S	MW-24D
		7/1 /99	7/20/99	7/12/99	7/19/99	7/21/99	7/14/99	7/20/99	7/13/99	7/27/99	7/20/99
Free carbon dioxide	g/l	NA	NA	NA	NA	NA	NA	NA	NA	1.0 B	NA
Hydroxide	g/l	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Iron +2	g/l	NA	NA	NA	NA	NA	NA	NA	NA	0.10 U	NA
Methane	g/l	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA
Nitrate Nitrogen	g/l	NA	NA	NA	NA	NA	NA	NA	NA	6.7	NA
Sulfate	g/l	NA	NA	NA	NA	NA	NA	NA	NA	107	NA
Sulfide	g/l	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA
Total alkalinity	g/l	NA	NA	NA	NA	NA	NA	NA	NA	158	NA
Total Organic Carbon	g/l	NA	NA	NA	NA	NA	NA	NA	NA	0.75 B	NA
Metals											
Aluminum	g/l	0.033 B	4.6	2.9	0.081 B	10.1	0.37	0.086 B	0.099 B	NA	0.031 B
Antimony	g/l	0.0043 U	0.0043 U	0.0037 U	0.0043 U	0.0043 U	0.0043 U	0.0043 U	0.0037 U	NA	0.0043 U
Arsenic	g/l	0.0031 B	0.0091 B	0.0050 U	0.0050 U	0.012	0.019	0.0050 U	0.0050 U	NA	0.0050 U
Barium	g/l	0.028 B	0.23	0.18 B	0.62	0.25	0.0093 B	0.018 B	0.048 B	NA	0.0037 B
Beryllium	g/l	0.0001 U	0.0001 U	0.0003 B	0.0001 U	0.0013 B	0.0001 U	0.0001 U	0.0004 B	NA	0.0001 U
Cadmium	g/l	0.0002 U	0.0002 U	0.0001 U	0.0002 U	0.0021 B	0.0002 U	0.0002 U	0.0001 U	NA	0.0002 U
Calcium	g/l	11.9	303	63.6	90.9	23.6	4.2 B	58.3	123	NA	6.7
Chromium	g/l	0.0007 U	0.015	0.011	0.0007 U	0.50	0.0007 B	0.0007 U	0.0079 B	NA	0.0007 U
Cobalt	g/l	0.0012 U	0.010 B	0.0099 B	0.0012 U	0.0012 U	0.0012 U	0.017 B	0.0005 U	NA	0.0012 U
Copper	g/l	0.0014 B	0.069	0.029	0.0013 B	0.027	0.0059 B	0.0048 B	0.0025 B	NA	0.02 U
Iron	g/l	2.2	15.7	5.1	7.5	146	0.41	28.1	0.33	NA	1.1
Lead	g/l	0.0044 U	0.012	0.0047	0.0044 U	0.0074	0.0044 U	0.0044 U	0.0044 U	NA	0.0044 U
Magnesium	g/l	64.4	64.1	17.9	11.4	2.3 B	0.89 B	16.7	3.0 B	NA	46.4
Manganese	g/l	0.032	3.6	0.47	0.62	0.77	0.036	2.1	0.0083 B	NA	0.024
Mercury	g/l	0.0000 U	0.0000 B	0.0000 B	0.0000 B	0.0001 B	0.0000 U	0.0001 B	0.0000 B	NA	0.0007
Nickel	g/l	0.041	0.027 B	0.032 B	0.0049 U	0.0027 B	0.0037 B	0.35	0.0068 B	NA	0.016 B
Potassium	g/l	5.5	2.9 B	18.0	2.7 B	1.8 B	1.7 B	15.7	7.9	NA	92.9
Selenium	g/l	0.0026 U	0.01 U	0.0026 U	0.0023 U	0.0023 U	0.0026 U	0.0023 U	0.01 U	NA	0.0023 U
Silver	g/l	0.0008 U	0.0045 B	0.0005 U	0.0008 U	0.0008 U	0.0008 U	0.0008 U	0.0005 U	NA	0.0008 U

Description of Data Qualifiers is provided on page 84.
NA: Not Analyzed

Appendix K
Area A Sample Analytical Results

Area A Soil Sam[illegible] Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		CP-01 (16.5-17) 11/11/98	CP-01 (25-25.5) 11/11/98	CP-01 (35-35.5) 11/11/98	CP-01 RR 4/16/99	CP-01D (49-49.5) 1/13/99	CP-01D (68-68.5) 1/14/99
Lead	mg/kg	23.0	NA	39.1	6.0	10 U	10 U
Magnesium	mg/kg	173 B	NA	227	766	NA	NA
Manganese	mg/kg	6.2	NA	14.2	47.8	310	290
Mercury	mg/kg	0.04 U	NA	0.04 U	0.021 B	10 U	10 U
Nickel	mg/kg	0.14 U	NA	3.1	4.4	60 U	60 U
Potassium	mg/kg	178 B	NA	173 B	539 B	8100	5800
Selenium	mg/kg	2.7 U	NA	2.8 U	2.1 U	7 U	7 U
Silver	mg/kg	0.11 U	NA	0.12 U	0.09 U	4 U	4 U
Sodium	mg/kg	97.2	NA	95.5	261	NA	NA
Thallium	mg/kg	0.37 U	NA	0.38 U	1.5 U	2 U	2 U
Vanadium	mg/kg	0.06 U	NA	0.06 U	11.4	31	28
Zinc	mg/kg	2.3	NA	234	22.3	20	21

Description of Data Qualifiers is provid[illegible] on page 54.
NA: Not Analyzed

Area A Soil Sample Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		CP-05 (35.5-36) 1/5/99	CP-06 (16.5-17) 1/5/99	CP-06 (26-26.5) 1/5/99	CP-06 (35.5-36) 1/5/99	CP-07A (11-11.5) 2/5/99	CP-07A (16-16.5) 2/5/99
Lead	mg/kg	10 U	26	10 U	10 U	1.8	2.9
Magnesium	mg/kg	NA	NA	NA	NA	420	1070
Manganese	mg/kg	170	30 U	30 U	39	29.9	103
Mercury	mg/kg	10 U	10 U	10 U	10 U	0.043 B	0.056 B
Nickel	mg/kg	60 U	60 U	60 U	60 U	1.8 B	2.8
Potassium	mg/kg	5600	7200	5200	5600	171 B	296 B
Selenium	mg/kg	7 U	7 U	7 U	7 U	1.7 U	1.7 U
Silver	mg/kg	4 U	4 U	4 U	4 U	0.08 U	0.08 U
Sodium	mg/kg	NA	NA	NA	NA	111	89.6
Thallium	mg/kg	2 U	2 U	2 U	2 U	0.46 U	0.45 U
Vanadium	mg/kg	16 U	28	26	39	3.3 B	5.6
Zinc	mg/kg	11 U	17	24	15	5.5	7.4

Description of Data Qualifiers is provided on page 54.
NA: Not Analyzed

Area A Soil Sampling Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		CP-07A (26-26.5) DUP 2/5/99	CP-07A (26-26.5) 2/5/99	CP-07A (35.5-36) 2/5/99	CP-14 (26.5-27) 2/4/99	CP-14 (31-31.5) 2/4/99
Lead	mg/kg	2.3	2.2	2.9	2.1	1.6
Magnesium	mg/kg	464	423	603	296	469
Manganese	mg/kg	20.5	19.9	33.5	16.8	21.0
Mercury	mg/kg	0.0023 B	0.0067 B	0.018 B	0.0084 U	0.0080 U
Nickel	mg/kg	2.9	2.7	3.0	3.4	3.7
Potassium	mg/kg	397 B	362 B	407 B	282 B	288 B
Selenium	mg/kg	1.9 U	1.9 U	1.9 U	1.7 U	1.6 U
Silver	mg/kg	0.09 U	0.09 U	0.09 U	0.09 U	0.08 U
Sodium	mg/kg	54.4	49.5	89.3	57.8	54.2
Thallium	mg/kg	0.51 U	0.51 U	0.52 U	0.47 U	0.45 U
Vanadium	mg/kg	6.5	6.0	5.6	5.8	6.6
Zinc	mg/kg	7.9	7.9	9.3	13.7	9.9

Description of Data Qualifiers is provided on page 54.
NA: Not Analyzed

Area A Soil Sam[illegible] Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		CP-15A (11-11.5) 2/8/99	CP-15A (13-13.5) DUP 2/8/99	CP-15A (13-13.5) 2/8/99	CP-15A (16-16.5) 2/8/99	CP-15A (26-26.5) 2/8/99
Lead	mg/kg	4.1	16.7	15.1	3.4	24.7
Magnesium	mg/kg	2110	756	528	787	407
Manganese	mg/kg	188	27.6	18.0	50.9	13.7
Mercury	mg/kg	0.013 B	0.014 B	0.017 B	0.020 B	0.026 B
Nickel	mg/kg	6.7	3.1	2.1	3.0	5.6
Potassium	mg/kg	490 B	365 B	261 B	292 B	235 B
Selenium	mg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.9 U
Silver	mg/kg	0.09 U	0.09 U	0.08 U	0.09 U	0.10 U
Sodium	mg/kg	170	189	162	173	150
Thallium	mg/kg	0.47 U	0.48 U	0.46 U	0.47 U	0.53 U
Vanadium	mg/kg	15.3	7.0	5.5	6.1	2.5 B
Zinc	mg/kg	17.7	23.5	19.2	13.7	230

Description of Data Qualifiers is provided on page 54.
NA: Not Analyzed

Area A Soil Sam[illegible] [illegible]nalytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		CP-[illegible]A (36-36.5) 2/8/99	CP-17 ([illegible]-[illegible].5) 2/8/99	CP-17 (16-16.5) 2/8/99	CP-17 (26-26.5) 2/8/99	CP-17 (36-36.5) 2/8/99	CP-18 (16-16.5) 2/9/99
Lead	[illegible]	4.7	3.7	10.5	119	35.9	2.7
Magnesium	[illegible]	872	777	789	103 B	536	806
Manganese	[illegible]	81.3	50.1	42.3	4.9	34.8	135
Mercury	[illegible]	0.0097 U	0.0081 U	0.0082 U	0.086 B	0.50	0.14 B
Nickel	[illegible]	5.3	3.0	3.2	2.1 B	3.6	3.6
Potassium	[illegible]	455 B	288 B	272 B	237 B	310 B	394 B
Selenium	[illegible]	2.0 U	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U
Silver	[illegible]	0.15 B	0.15 B	0.20 B	0.21 B	0.15 B	0.08 U
Sodium	[illegible]	367	219	56.4	151	221	59.3
Thallium	[illegible]	0.54 U	0.46 U	0.46 U	0.50 U	0.50 U	0.47 U
Vanadium	[illegible]	8.9	4.7	4.1 B	1.1 B	4.5 B	4.1 B
Zinc	[illegible]	12.5	9.3	87.8	332	52.2	10.3

Description of Data Qualifiers is provided on page 54.
NA: Not Analyzed

Area A Soil Sam, Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		CP-18 (26-26.5) DUP 2/9/99	CP-18 (26-26.5) 2/9/99	CP-18 (36.5-37) 2/9/99	TPD-18 (39-39.5) 4/12/99	TPD-18 (40-40.5) 4/12/99
Lead	mg/kg	1.9	2.2	3.0	10 U	10 U
Magnesium	mg/kg	338	372	575	NA	NA
Manganese	mg/kg	15.6	18.0	77.2	44	100
Mercury	mg/kg	0.12 B	0.11 B	0.038 B	10 U	10 U
Nickel	mg/kg	4.8	5.8	3.3	60 U	60 U
Potassium	mg/kg	255 B	279 B	366 B	8100	6300
Selenium	mg/kg	1.8 U	1.9 U	1.9 U	7 U	7 U
Silver	mg/kg	0.09 U	0.09 U	0.10 U	4 U	4 U
Sodium	mg/kg	57.1	57.5	93.9	NA	NA
Thallium	mg/kg	0.50 U	0.51 U	0.53 U	2 U	2 U
Vanadium	mg/kg	4.1 B	5.5	6.6	38	23
Zinc	mg/kg	672	1010	9.9	18	11 U

Data Qualifiers:

B: Indicates that the analyte is found in the associated blank as well as in the sample.(Organic)

B: The reported value is less than the CRDL but greater than the Instrument Detection Limit(IDL). (Inorganic)

U: Indicates the compound was analyzed for but not detected.

D: Indicates the compound was analyzed at a secondary dilution factor.

J: Indicates an estimated value.

Description of Data Qualifiers is provided on page 54.

NA: Not Analyzed

Area A Ground Water Sample Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		CP-01W 11/11/98	CP-02W 11/12/98	CP-04W 1/4/99	CP-05W 1/5/99	CP-06W 1/5/99	CP-07W 1/6/99	CP-12W 2/9/99	CP-13W 2/4/99	CP-14W 2/4/99
Mercury	mg/l	NA	NA	0.0024	0.00012 B	0.00038	0.00054	0.00050 U	0.0001 B	0.0000 B
Nickel	mg/l	NA	NA	0.0801	0.0335	0.136	0.193	0.024	0.19	0.14
Potassium	mg/l	NA	NA	118	67.8	117	185	42.1	29.0	42.1
Selenium	mg/l	NA	NA	0.0119 U	0.0119 U	0.0119 U	0.0119 U	0.015 U	0.02 U	0.02 U
Silver	mg/l	NA	NA	0.00062 U	0.00062 U	0.00062 U	0.0012 B	0.006	0.0085	0.0090
Sodium	mg/l	NA	NA	279	248	402	246	337	106	188
Thallium	mg/l	NA	NA	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.010 U	0.048	0.035
Vanadium	mg/l	NA	NA	0.123	0.0426	0.108	0.137	0.041	0.33	0.25
Zinc	mg/l	NA	NA	1.69	0.208	0.454	1.15	0.083	0.81	0.44

Description of Data Qualifiers is provided on page 10.
NA: Not Analyzed

Area A Ground Water Sample Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		CP-15AW 2/8/99	CP-16W 2/5/99	CP-17W 2/8/99	CP-18W 2/9/99	TPD-05 3/31/99	TPD-17 4/7/99	TPD-18 4/12/99	TPD-20 4/15/99
Mercury	mg/l	0.00051	0.00050 U	0.00050 U	0.00380	0.00031 B	0.00052	0.000032 B	0.00024 B
Nickel	mg/l	0.176	0.114	0.052	0.046	0.279	0.13	0.0038 U	0.0557
Potassium	mg/l	35.1	34	77	71	36.3	6.94	2.35 B	5.59
Selenium	mg/l	0.015 U	0.015 U	0.015 U	0.015 U	0.0179 U	0.0425 U	0.085 U	0.0425 U
Silver	mg/l	0.005 U	0.005 U	0.006	0.005 U	0.0048 B	0.0017 U	0.0034 U	0.0017 U
Sodium	mg/l	140	795	557	179	761	339	41.5	33.9
Thallium	mg/l	0.010 U	0.010 U	0.010 U	0.010 U	0.0254	0.0294 U	0.0587 U	0.0294 U
Vanadium	mg/l	0.169	0.100	0.073	0.096	0.273	0.103	0.0094 B	0.0324 B
Zinc	mg/l	1.25	0.075	0.683	0.777	0.504	0.13	0.0222	0.14

Data Qualifiers:

B: Indicates that the analyte is found in the associated blank as well as in the sample.(Organic)

B: The reported value is less than the CRDL but greater than the Instrument Detection Limit(IDL). (Inorganic)

U: Indicates the compound was analyzed for but not detected.

D: Indicates the compound was analyzed at a secondary dilution factor.

J: Indicates an estimated value.

Description of Data Qualifiers is provided on page 10.

NA: Not Analyzed

Area B Soil Sam[illegible]nalytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-01 (21.5-22) 11/10/98	AB-01 (36.5-37) DUP 11/10/98	AB-01 (36.5-37) 11/10/98	AB-08 (34-34.5) 1/12/99	AB-09 (0-2) 2/10/99	AB-09 (10-10.5) 2/10/99
Lead	mg/Kg	0.19 U	6.4	5.4	10 U	80.8	24.2
Magnesium	mg/kg	982	80.2 B	47.0 B	NA	1150	1100
Manganese	mg/Kg	118	8.2	6.8	30 U	67.1	59.3
Mercury	mg/Kg	0.04 U	0.04 U	0.04 U	10 U	0.040 B	0.028 B
Nickel	mg/Kg	3.2	1.7 B	1.4 B	60 U	6.7	7.0
Potassium	mg/Kg	231 B	205 B	157 B	5700	599	600
Selenium	mg/Kg	2.7 U	2.7 U	2.7 U	7 U	1.7 U	1.7 U
Silver	mg/Kg	0.11 U	0.11 U	0.11 U	4 U	0.09 U	0.09 U
Sodium	mg/kg	44.6	50.4	49.4	NA	49.6	57.8
Thallium	mg/Kg	0.37 U	0.38 U	0.38 U	2 U	0.47 U	0.47 U
Vanadium	mg/Kg	2.1 B	0.06 U	0.06 U	32	6.8	6.7
Zinc	mg/Kg	7.4	1.1 B	0.85 B	11 U	28.5	29.1

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sam[illegible] Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-09 (23-23.5) 2/10/99	AB-09 (27-27.5) 2/10/99	AB-09 (33-33.5) 2/10/99	AB-09 (41.5-42) 2/10/99	AB-10 (11.5-12) 2/11/99	AB-10 (15.5-16) 2/11/99
Lead	mg/Kg	15.7	3.7	5.7	4.0	1.9	2.8
Magnesium	mg/kg	87.3 B	23.8 B	44.3 B	34.7 B	463	149 B
Manganese	mg/Kg	4.6	3.8	5.5	4.4	30.0	6.7
Mercury	mg/Kg	0.020 B	0.014 B	0.027 B	0.0097 U	0.014 B	0.011 B
Nickel	mg/Kg	0.81 B	3.5	7.6	4.3	1.8 B	0.13 U
Potassium	mg/Kg	195 B	110 B	132 B	202 B	151 B	192 B
Selenium	mg/Kg	1.8 U	1.7 U	1.9 U	2.0 U	1.7 U	1.8 U
Silver	mg/Kg	0.09 U	0.08 U	0.10 U	0.10 U	0.08 U	0.09 U
Sodium	mg/kg	189	166	63.0	57.0	31.1	54.1
Thallium	mg/Kg	0.50 U	0.45 U	0.53 U	0.55 U	0.46 U	0.49 U
Vanadium	mg/Kg	2.7 B	1.0 B	1.1 B	4.1 B	3.9 B	1.5 B
Zinc	mg/Kg	0.75 B	1.2 B	0.42 B	7.1	12.5	1.0 B

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sam[illegible] Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-10 (17.5-18) 2/11/99	AB-10 (25-25.5) 2/12/99	AB-10 (33.5-34) 2/12/99	AB-10 (5.5-6) 2/11/99	AB-11 (3-3.5) 2/10/99	AB-11 (31-31.5) DUP 2/10/99
Lead	mg/Kg	12.5	7.2	3.7	51.4	50.8	2.4
Magnesium	mg/kg	243	135 B	25.8 B	853	326	45.9 B
Manganese	mg/Kg	13.8	8.7	3.9	39.6	20.6	4.4
Mercury	mg/Kg	0.012 B	0.11 B	0.11 B	0.032 B	0.014 B	0.033 B
Nickel	mg/Kg	0.46 B	0.16 B	0.13 U	3.1	2.6	0.54 B
Potassium	mg/Kg	292 B	138 B	164 B	536	218 B	171 B
Selenium	mg/Kg	1.8 U	1.7 U	1.7 U	1.7 U	1.9 U	1.9 U
Silver	mg/Kg	0.09 U	0.31 B	0.32 B	0.09 U	0.09 U	0.09 U
Sodium	mg/kg	68.1	33.7	35.1	58.8	70.4	66.1
Thallium	mg/Kg	0.48 U	0.46 U	0.47 U	0.47 U	0.51 U	0.51 U
Vanadium	mg/Kg	1.4 B	0.99 B	1.3 B	8.8	5.0	3.4 B
Zinc	mg/Kg	3.0	0.32 B	0.17 U	11.9	39.9	5.4

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sam, Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-11 (31-31.5) 2/10/99	AB-12 (11-11.5) 2/11/99	AB-12 (2-2.5) 2/11/99	AB-12 (32-32.5) 2/11/99	AB-13 (11-11.5) DUP 2/17/99	AB-13 (11-11.5) 2/17/99
Lead	mg/Kg	2.0	18.5	6.7	2.7	18.5	18.7
Magnesium	mg/kg	26.9 B	812	5970	1200	447	433
Manganese	mg/Kg	3.8	25.6	116	166	16.0	21.2
Mercury	mg/Kg	0.20 B	0.023 B	0.031 B	0.023 B	0.0082 U	0.026 B
Nickel	mg/Kg	0.74 B	2.7	7.9	2.2 B	1.4 B	1.4 B
Potassium	mg/Kg	126 B	382 B	153 B	218 B	266 B	247 B
Selenium	mg/Kg	1.8 U	1.7 U	1.2 B	1.9 U	1.7 U	1.7 U
Silver	mg/Kg	0.09 U	0.08 U	0.09 U	0.09 U	0.08 U	0.08 U
Sodium	mg/kg	79.4	55.7	1360	62.5	90 0.	86.5
Thallium	mg/Kg	0.49 U	0.46 U	0.47 U	0.52 U	0.46 U	0.46 U
Vanadium	mg/Kg	3.0 B	4.7	53.8	8.2	1.2 B	1.4 B
Zinc	mg/Kg	39.0	12.9	48.1	13.7	5.0	5.7

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Samp. . Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-14 (26-26.5) 2/17/99	AB-14 (36.5-37) 2/17/99	AB-14 (38.5-39) 2/17/99	AB-19 (29-30) 2/25/99	AB-19 (38.5-39) 2/25/99	AB-20 (29-30) 3/1/99
Lead	mg/Kg	2.4	4.7	12.7	5.2	7.0	5.7
Magnesium	mg/kg	1670	97.0 B	98.7 B	269	62.1 B	123 B
Manganese	mg/Kg	193	17.4	22.6	9.9	6.1	10.3
Mercury	mg/Kg	0.0081 U	0.015 B	0.0090 U	0.026 B	0.027 B	0.0084 U
Nickel	mg/Kg	4.7	1.8 B	13.8	6.4	7.0	2.5
Potassium	mg/Kg	422 B	433 B	500 B	166 B	176 B	209 B
Selenium	mg/Kg	1.7 U	1.7 U	1.9 U	1.7 U	2.0 U	1.7 U
Silver	mg/Kg	0.08 U	0.09 U	0.09 U	0.08 U	0.10 U	0.09 U
Sodium	mg/kg	52.7	74.8	48.4	42.1	105	56.7
Thallium	mg/Kg	0.46 U	0.48 U	0.51 U	0.46 U	0.55 U	0.47 U
Vanadium	mg/Kg	4.3	1.4 B	0.85 B	1.6 B	0.58 B	0.98 B
Zinc	mg/Kg	11.3	1.1 B	2.1 B	16.0	0.87 B	1.5 B

Area B Soil Sampling Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-20 (38-38.5) 3/1/99	AB-21 (29.5-30) 2/25/99	AB-21 (38.5-39) 2/25/99	AB-22 (30-31) 3/1/99	AB-22 (38.5-39) 3/1/99	AB-23 (29-30) DUP 3/1/99
Lead	mg/Kg	21.5	17.1	9.9	9.4	9.9	8.4
Magnesium	mg/kg	95.9 B	107 B	65.8 B	208 B	179 B	334
Manganese	mg/Kg	16.5	5.4	8.4	8.8	11.2	12.3
Mercury	mg/Kg	0.0091 U	0.025 B	0.021 B	0.0083 U	0.0094 U	0.0090 U
Nickel	mg/Kg	16.0	20.5	8.6	6.1	8.5	1.3 B
Potassium	mg/Kg	331 B	178 B	178 B	193 B	341 B	206 B
Selenium	mg/Kg	1.9 U	1.8 U	1.9 U	1.7 U	1.9 U	1.8 U
Silver	mg/Kg	0.09 U	0.09 U	0.10 U	0.08 U	0.10 U	0.09 U
Sodium	mg/kg	67.1	65.8	70.7	44.7	129	125
Thallium	mg/Kg	0.51 U	0.49 U	0.53 U	0.47 U	0.53 U	0.50 U
Vanadium	mg/Kg	1.1 B	0.70 B	1.0 B	1.2 B	2.1 B	1.4 B
Zinc	mg/Kg	2.4	11.9	1.4 B	35.9	2.6	4.0

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sam, Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-23 (29-30) 3/1/99	AB-23 (38.5-39) 3/1/99	AB-24 (32-33) 3/1/99	AB-24 (38.5-39) 3/1/99	AB-25 (32-33) 3/2/99	AB-25 (40-41) 3/2/99	AB-26 (31-32) 3/2/99
Lead	mg/Kg	11.2	3.2	8.1	17.3	8.9	18.4	7.3
Magnesium	mg/kg	467	36.6 B	288	94.4 B	520	60.0 B	59.8 B
Manganese	mg/Kg	19.5	7.2	12.1	14.8	21.6	7.6	10.3
Mercury	mg/Kg	0.0089 U	0.012 B	0.12 B	0.30 B	0.014 B	0.0096 U	0.0089 U
Nickel	mg/Kg	2.2 B	3.3	10.5	3.7	7.3	6.9	6.3
Potassium	mg/Kg	322 B	152 B	195 B	241 B	236 B	172 B	167 B
Selenium	mg/Kg	1.8 U	1.8 U	1.7 U	2.0 U	1.8 U	2.0 U	1.8 U
Silver	mg/Kg	0.09 U	0.09 U	0.08 U	0.10 U	0.09 U	0.10 U	0.09 U
Sodium	mg/kg	113	78.6	51.7	133	84.9	122	70.4
Thallium	mg/Kg	0.50 U	0.49 U	0.46 U	0.56 U	0.50 U	0.54 U	0.50 U
Vanadium	mg/Kg	1.5 B	1.2 B	2.1 B	2.5 B	2.9 B	1.0 B	0.37 B
Zinc	mg/Kg	5.8	1.4 B	108	2.2 B	28.3	1.6 B	5.0

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sample Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-26 (39-39.5) 3/2/99	AB-27 (30-31) 3/2/99	AB-27 (39-39.5) 3/2/99	AB-28 (33-35) DUP 3/3/99	AB-28 (33-35) 3/3/99	AB-28 (38.5-39) 3/3/99
Lead	mg/Kg	12.5	1.6	2.7	6.6	5.1	2.8
Magnesium	mg/kg	287	48.4 B	455	785	367	669
Manganese	mg/Kg	13.9	3.8	18.6	33.3	16.1	29.8
Mercury	mg/Kg	0.0091 U	0.032 B	0.024 B	0.0093 U	0.0094 U	0.0088 U
Nickel	mg/Kg	14.7	1.8 B	11.6	6.7	8.9	12.9
Potassium	mg/Kg	171 B	144 B	248 B	543 B	224 B	486 B
Selenium	mg/Kg	1.9 U	1.7 U	1.9 U	1.9 U	1.9 U	1.8 U
Silver	mg/Kg	0.09 U	0.09 U	0.09 U	0.10 U	0.10 U	0.09 U
Sodium	mg/kg	101	31.3	88.5	85.2	68.4	91.4
Thallium	mg/Kg	0.51 U	0.48 U	0.52 U	0.52 U	0.53 U	0.50 U
Vanadium	mg/Kg	8.7	0.44 B	12.4	14.2	9.2	9.2
Zinc	mg/Kg	77.9	1.2 B	54.9	49.9	44.7	80.9

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sampling Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-29 (33-34) 3/3/99	AB-29 (38.5-39) 3/3/99	AB-30 (30-31) 3/3/99	AB-30 (38.5-39) 3/3/99	AB-31 (31-32) 3/3/99	AB-31 (38.5-39) 3/3/99
Lead	mg/Kg	2.0	5.3	16.3	2.5	5.1	3.9
Magnesium	mg/kg	447	939	452	375	544	117 B
Manganese	mg/Kg	18.0	40.3	18.9	15.1	32.3	6.6
Mercury	mg/Kg	0.0086 U	0.030 B	0.0090 U	0.0088 U	0.0089 U	0.0092 U
Nickel	mg/Kg	7.3	8.1	38.1	10.2	22.8	5.1
Potassium	mg/Kg	220 B00	496 B	205 B	234 B	296 B	197 B
Selenium	mg/Kg	1.8 U	1.9 U	1.9 U	1.8 U	1.8 U	1.9 U
Silver	mg/Kg	0.09 U	0.10 U	0.09 U	0.09 U	0.09 U	0.09 U
Sodium	mg/kg	66.0	107	84.1	90.1	156	64.4
Thallium	mg/Kg	0.48 U	0.52 U	0.51 U	0.50 U	0.50 U	0.52 U
Vanadium	mg/Kg	6.4	10.1	2.8 B	6.6	4.4 B	1.6 B
Zinc	mg/Kg	43.1	24.7	169	9.1	114	6.0

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sam, nalytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-34 (38.5-39) DUP 3/4/99	AB-34 (38.5-39) 3/4/99	AB-35 (29-30) 3/4/99	AB-35 (38.5-39) 3/4/99	AB-36 (32-33) DUP 3/5/99	AB-36 (32-33) 3/5/99
Lead	mg/Kg	11.1	9.0	38.8	7.3	10.3	11.0
Magnesium	mg/kg	125 B	84.9 B	515	61.9 B	270	284
Manganese	mg/Kg	12.4	10.3	18.9	5.4	24.4	24.4
Mercury	mg/Kg	0.0095 U	0.0094 U	0.0083 U	0.0090 U	0.011 B	0.0082 U
Nickel	mg/Kg	8.0	7.1	12.8	0.80 B	4.2	4.6
Potassium	mg/Kg	395 B	303 B	415 B	387 B	257 B	314 B
Selenium	mg/Kg	1.9 U	1.9 U	1.7 U	1.8 U	1.7 U	1.7 U
Silver	mg/Kg	0.10 U	0.10 U	0.08 U	0.09 U	0.08 U	0.08 U
Sodium	mg/kg	76.3	86.1	51.0	68.7	10.5	35.8
Thallium	mg/Kg	0.53 U	0.53 U	0.47 U	0.50 U	0.46 U	0.46 U
Vanadium	mg/Kg	1.1 B	1.2 B	4.0 B	0.92 B	3.3 B	3.6 B
Zinc	mg/Kg	1.9 B	1.5 B	13.4	0.32 B	12.6	12.5

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sam, Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-36 (39.5-40) 3/5/99	AB-37 (29-30) 3/5/99	AB-37 (39-39.5) 3/5/99	AB-38 (30-31) 3/5/99	AB-38 (40-40.5) 3/5/99	AB-39 (32-33) 3/8/99
Lead	mg/Kg	5.7	1.5	18.7	32.8	16.0	1.5
Magnesium	mg/kg	2770	426	139 B	1060	96.4 B	382
Manganese	mg/Kg	286	18.5	6.0	40.7	7.5	15.2
Mercury	mg/Kg	0.0094 U	0.0084 U	0.012 B	0.011 B	0.018 B	0.020 B
Nickel	mg/Kg	7.8	2.1 B	3.7	6.6	3.7	2.0 B
Potassium	mg/Kg	801	189 B	428 B	323 B	375 B	176 B
Selenium	mg/Kg	1.9 U	1.7 U	1.9 U	1.7 U	1.9 U	1.7 U
Silver	mg/Kg	0.10 U	0.08 U	0.09 U	0.08 U	0.10 U	0.08 U
Sodium	mg/kg	143	90.8	124	100	72.8	64.4
Thallium	mg/Kg	0.53 U	0.47 U	0.52 U	0.46 U	0.53 U	0.46 U
Vanadium	mg/Kg	19.4	2.9 B	1.9 B	13.2	0.79 B	5.3
Zinc	mg/Kg	19.2	11.9	7.8	59.5	0.52 B	7.1

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sam, Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-39 (39-39.5) 3/8/99	AB-40 (30-31) 3/8/99	AB-40 (39.5-40) 3/8/99	AB-41 (33-34) DUP 3/9/99	AB-41 (33-34) 3/9/99	AB-41 (39.5-40) 3/9/99
Lead	mg/Kg	2.2	1.4	14.0	26.4	45.5	7.7
Magnesium	mg/kg	273	1090	59.1 B	987	630	135 B
Manganese	mg/Kg	14.2	224	9.7	59.4	39.0	29.6
Mercury	mg/Kg	0.0093 U	0.0080 U	0.017 B	0.0081 U	0.011 B	0.0091 U
Nickel	mg/Kg	6.9	3.7	32.8	9.2	2.9	5.9
Potassium	mg/Kg	182 B	219 B	296 B	712	307 B	440 B
Selenium	mg/Kg	1.9 U	1.6 U	1.9 U	1.7 U	1.7 U	1.9 U
Silver	mg/Kg	0.10 U	0.08 U	0.10 U	0.08 U	0.08 U	0.09 U
Sodium	mg/kg	55.6	43.0	86.3	76.9	22.2	70.8
Thallium	mg/Kg	0.52 U	0.45 U	0.53 U	0.46 U	0.46 U	0.51 U
Vanadium	mg/Kg	2.6 B	3.1 B	0.66 B	9.5	3.3 B	1.3 B
Zinc	mg/Kg	34.9	9.0	2.6	124	20.1	0.97 B

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sam, Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-42 (35-36) 3/8/99	AB-42 (39.5-40) 3/8/99	AB-43 (34-35) 3/9/99	AB-43 (39.5-40) 3/9/99	AB-44 (34-34.5) DUP 4/13/99	AB-44 (34-34.5) 4/13/99
Lead	mg/Kg	5.3	9.1	11.2	5.3	10 U	10 U
Magnesium	mg/kg	191 B	84.6 B	758	705	NA	NA
Manganese	mg/Kg	25.1	15.6	28.0	85.9	40	30 U
Mercury	mg/Kg	0.0083 U	0.014 B	0.0083 U	0.0087 U	10 U	10 U
Nickel	mg/Kg	0.51 B	1.8 B	3.6	3.1	60 U	60 U
Potassium	mg/Kg	395 B	246 B	372 B	426 B	4500	4800
Selenium	mg/Kg	1.7 U	1.9 U	1.7 U	1.8 U	7 U	7 U
Silver	mg/Kg	0.08 U	0.10 U	0.08 U	0.09 U	4 U	4 U
Sodium	mg/kg	115	67.6	11.6	68.1	NA	NA
Thallium	mg/Kg	0.47 U	0.53 U	0.47 U	0.49 U	2 U	2 U
Vanadium	mg/Kg	3.4 B	0.95 B	4.4	6.1	21	28
Zinc	mg/Kg	2.3	0.91 B	11.3	16.9	11 U	16

Description of Data Qualifiers is provided on page 120.
NA: Not Analyzed

Area B Soil Sam, Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		FBL-03 (5.5-6) 11/9/98	FBL-03 (7-7.5) 11/9/98	FBL-04 (18.5-19) 11/9/98
Lead	mg/Kg	67.5	47.5	0.99 B
Magnesium	mg/kg	1000	759	65.7 B
Manganese	mg/Kg	221	156	5.6
Mercury	mg/Kg	0.29	0.30	0.04 U
Nickel	mg/Kg	8.5	6.3	0.40 B
Potassium	mg/Kg	258 B	273 B	159 B
Selenium	mg/Kg	2.9 U	2.9 U	2.7 U
Silver	mg/Kg	0.12 U	0.12 U	0.11 U
Sodium	mg/kg	42.6	42.6	26.3
Thallium	mg/Kg	0.40 U	0.41 U	0.37 U
Vanadium	mg/Kg	14.3	11.3	0.06 U
Zinc	mg/Kg	60.8	39.2	0.25 U

Data Qualifiers:

B: Indicates that the analyte is found in the associated blank as well as in the sample.(Organic)

B: The reported value is less than the CRDL but greater than the Instrument Detection Limit(IDL). (Inorganic)

U: Indicates the compound was analyzed for but not detected.

D: Indicates the compound was analyzed at a secondary dilution factor.

J: Indicates an estimated value.

Description of Data Qualifiers is provided on page 120.

NA: Not Analyzed

Area B Ground Water Sample Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		25-02 GW 4/12/99	25-07 GW 4/13/99	AB-05W 1/11/99	AB-06W 1/11/99	AB-07W 1/12/99	AB-08W 1/12/99	AB-09W 2/10/99	AB-10W 2/12/99	AB-11W 2/10/99
Indeno(1,2,3-cd)pyrene	ug/l	11 U	10 U	10 U	10 U	10 U	10 U	11.1 U	10 U	11.1 U
Isophorone	ug/l	11 U	10 U	10 U	10 U	5 J	10 U	11.1 U	10 U	11.1 U
N-Nitrosodi-n-propylamine	ug/l	11 U	10 U	10 U	10 U	10 U	10 U	11.1 U	10 U	11.1 U
N-Nitrosodiphenylamine	ug/l	11 U	10 U	10 U	10 U	10 U	10 U	11.1 U	10 U	11.1 U
Naphthalene	ug/l	11 U	10 U	10 U	10 U	3 J	10 U	11.1 U	10 U	11.1 U
Nitrobenzene	ug/l	11 U	10 U	10 U	10 U	10 U	10 U	11.1 U	10 U	11.1 U
Pentachlorophenol	ug/l	56 U	50 U	50 U	50 U	50 U	50 U	55.6 U	50 U	55.6 U
Phenanthrene	ug/l	11 U	10 U	10 U	10 U	10 J	10 U	11.1 U	10 U	11.1 U
Phenol	ug/l	11 U	10 U	10 U	10 U	510	95	11.1 U	10 U	11.1 U
Pyrene	ug/l	11 U	10 U	10 U	10 U	10 U	10 U	11.1 U	10 U	11.1 U
Metals										
Aluminum	mg/l	21.7	12.1	1.1	0.46	35.4	11.9	6.03	10.1	22.0
Antimony	mg/l	0.0165 U	0.0165 U	0.0035 U	0.0035 U	0.011 B	0.0035 U	0.060 U	0.060 U	0.060 U
Arsenic	mg/l	0.0143 U	0.0143 U	0.0045 U	0.0045 U	0.012	0.0045 U	0.010 U	0.012	0.010 U
Barium	mg/l	0.374	0.249	0.58	0.10	0.23	0.35	0.736	1.70	0.811
Beryllium	mg/l	0.0009 U	0.0009 U	0.0003 U	0.0003 U	0.0027 B	0.0003 U	0.005 U	0.005 U	0.005 U
Cadmium	mg/l	0.0022 B	0.00095 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.006	0.005 U	0.011
Calcium	mg/l	82.3	199	532	930	184	345	94	136	364
Chromium	mg/l	1.15	0.0351	0.0006 U	0.0006 U	0.59	0.45	0.168	1.06	0.570
Cobalt	mg/l	0.0363	0.0158	0.0020 B	0.0024 B	0.0062 B	0.0046 B	0.010 U	0.020	0.011
Copper	mg/l	0.0959	0.0566	0.0037 B	0.0026 B	0.0027 B	0.0018 U	0.010 U	0.109	0.010 U
Iron	mg/l	160	28.9	84.1	23.2	134	161	23.1	69.3	68.2
Lead	mg/l	0.106	0.0328	0.0021 U	0.0021 U	0.013	0.016	0.010 U	0.375	0.152
Magnesium	mg/l	15	25	32.2	28.3	17.3	33.6	19	23	37
Manganese	mg/l	4.34	3.41	12.4	8.4	4.4	11.6	1.13	3.82	2.13
Mercury	mg/l	0.00058	0.00026 B	0.0001 B	0.0000 B	0.0000 B	0.0004	0.00050 U	0.00106	0.00278
Nickel	mg/l	0.05	0.0216	0.013 B	0.0035 B	0.022	0.0088 B	0.028	0.031	0.182
Potassium	mg/l	8.47	9.89	18.0	20.4	11.9	13.1	12.9	18.1	35
Selenium	mg/l	0.085 U	0.085 U	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.015 U	0.015 U

Description of Data Qualifiers is provided on page 15.

Area B Ground Water Sample Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-12W 2/11/99	AB-13W 2/17/99	AB-14W 2/17/99	AB-15W 2/19/99	AB-16W 2/19/99	AB-17W 2/18/99	AB-18W 2/11/99	AB-19W 2/25/99	AB-27W 3/2/99
Indeno(1,2,3-cd)pyrene	ug/l	10 U	278 U	11.1 U	10 U	10 U	12.8 U	10 U	10 U	10 U
Isophorone	ug/l	10 U	278 U	11.1 U	10 U	10 U	12.8 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	ug/l	10 U	278 U	11.1 U	10 U	10 U	12.8 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	ug/l	10 U	278 U	11.1 U	10 U	10 U	12.8 U	10 U	10 U	10 U
Naphthalene	ug/l	10 U	278 U	11.1 U	10 U	10 U	12.8 U	10 U	10 U	10 U
Nitrobenzene	ug/l	10 U	278 U	11.1 U	10 U	10 U	12.8 U	10 U	10 U	10 U
Pentachlorophenol	ug/l	50 U	1390 U	55.6 U	50 U	50 U	64.1 U	50 U	50 U	50 U
Phenanthrene	ug/l	10 U	278 U	11.1 U	10 U	10 U	12.8 U	10 U	6 J	10 U
Phenol	ug/l	10 U	278 U	11.1 U	10 U	10 U	12.8 U	10 U	13	10 U
Pyrene	ug/l	10 U	278 U	11.1 U	10 U	10 U	12.8 U	10 U	5 J	10 U
Metals										
Aluminum	mg/l	22.6	17.7	9.12	31.7	37.3	66.3	29.8	92.7	29.3
Antimony	mg/l	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.0037 U	0.0037 U
Arsenic	mg/l	0.010 U	0.028	0.033	0.010 U	0.012	0.018	0.010 U	0.028	0.054
Barium	mg/l	0.293	0.634	0.525	0.513	0.759	0.851	1.49	0.26	1.2
Beryllium	mg/l	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.0039 B	0.0003 U
Cadmium	mg/l	0.005 U	0.006	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.012	0.0075
Calcium	mg/l	1160	198	159	854	930	846	791	143	167
Chromium	mg/l	0.664	0.488	0.220	0.052	0.052	0.083	0.113	2.7	2.4
Cobalt	mg/l	0.036	0.043	0.046	0.047	0.046	0.084	0.032	0.014	0.039
Copper	mg/l	0.082	0.199	0.539	0.147	0.142	0.228	0.065	0.029	0.40
Iron	mg/l	419	125	83.6	60.1	119	116	152	97.9	162
Lead	mg/l	0.094	0.375	0.448	0.041	0.071	0.078	0.153	0.026	0.29
Magnesium	mg/l	76	27	23	103	113	110	43	23.6	30.3
Manganese	mg/l	14.9	2.33	6.46	11.3	11.7	15.0	17.6	3.7	6.8
Mercury	mg/l	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.0008	0.0003 B
Nickel	mg/l	0.062	0.253	0.112	0.211	0.082	0.184	0.055	0.060	0.14
Potassium	mg/l	33.4	21.1	30.3	38.9	45.5	28.1	43.3	12.4	51.5
Selenium	mg/l	0.015 U	0.018	0.015 U	0.015 U	0.022	0.016	0.022	0.02 U	0.02 U

Description of Data Qualifiers is provided on page 15.

Area B Ground Water Sample Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		AB-29W 3/3/99	AB-31W 3/3/99	AB-34W 3/4/99	AB-36W 3/5/99	AB-37W 3/5/99	AB-38W 3/5/99	AB-39W 3/8/99	AB-41W 3/9/99	AB-43W 3/9/99	AB-44 GW 4/13/99
Indeno(1,2,3-cd)pyrene	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	ug/l	10 U	11	16	10 U	12	10 U	10 U	10 U	10 U	10 U
Pyrene	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Metals											
Aluminum	mg/l	26.9	39.4	154	37.8	56.7	34.8	9.1	7.8	8.9	3.93
Antimony	mg/l	0.044 B	0.049 B	0.079	0.064	0.083	0.025 B	0.0062 B	0.0037 U	0.0037 U	0.0165 U
Arsenic	mg/l	0.052	0.012	0.13	0.01 U	0.01 U	0.15	0.01 U	0.015	0.034	0.0143 U
Barium	mg/l	1.2	0.62	2.8	0.59	8.0	1.6	3.9	1.3	0.77	0.416
Beryllium	mg/l	0.0003 U	0.0005 B	0.0015 B	0.0018 B	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0009 U
Cadmium	mg/l	0.012	0.0019 B	0.019	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00095 U
Calcium	mg/l	46.4	143	194	0.03 U	114	182	113	240	186	13.3
Chromium	mg/l	5.3	6.0	10.2	8.2	10.1	2.9	1.3	0.21	0.20	0.121
Cobalt	mg/l	0.26	0.12	0.46	0.050	0.11	0.27	0.015	0.036	0.081	0.0014 U
Copper	mg/l	0.36	0.32	1.1	0.19	2.2	10.8	0.17	0.88	0.52	0.0217
Iron	mg/l	246	180	458	70.4	210	223	90.4	89.6	101	66
Lead	mg/l	0.98	0.44	1.9	0.18	0.62	1.5	0.068	0.34	0.46	0.0737
Magnesium	mg/l	12.7	37.6	50.9	115	41.7	29.2	14.9	27.4	19.1	2.1
Manganese	mg/l	1.8	7.1	8.9	7.8	6.5	3.6	3.3	8.3	4.6	0.502
Mercury	mg/l	0.0006	0.0002 B	0.0079	0.0007	0.0013	0.0010	0.0010	0.0013	0.0018	0.00005 U
Nickel	mg/l	0.83	0.36	1.3	0.15	0.22	1.0	0.094	0.099	0.32	0.073
Potassium	mg/l	11.6	18.8	40.0	41.4	27.1	41.6	10.7	31.5	31.0	3.92 B
Selenium	mg/l	0.026	0.021	0.040	0.02 U	0.020	0.024	0.02 U	0.02 U	0.02 U	0.085 U

Description of Data Qualifiers is provided on page 15.

Appendix M
Area C Sample Analytical Results

Area C Soil Sam. Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		SAP-10 (11-11.5) 9/2/98	SAP-10 (13-13.5) 9/2/98	SAP-10 (14-14.5) 9/2/98	SAP-10 (15-15.5) 9/2/98	SAP-10 (15.5-16) 9/2/98	SAP-10 (17-17.5) 9/2/98
Magnesium	mg/kg	305	49.5 B	35.1 B	31.1 B	22.7 B	25.5 B
Manganese	mg/kg	33.2	13.3	3.1	2.9	2.3	2.4
Mercury	mg/kg	0.052 B	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Nickel	mg/kg	3.8	0.70 B	0.33 B	0.23 B	0.24 B	0.19 B
Potassium	mg/kg	571	236	213 B	228 B	209 B	157 B
Selenium	mg/kg	3.1 U	3.0 U	2.9 U	3.2 U	3.4 U	2.8 U
Silver	mg/kg	0.25 B	0.12 U	0.30 B	0.26 B	0.35 B	0.21 B
Sodium	mg/kg	112 B	67.1 B	45.5 B	45.6 B	57.0 B	20.2 B
Thallium	mg/kg	1.0 U	1.0 U	0.99 U	1.1 U	1.1 U	0.94 U
Vanadium	mg/kg	22.8	4.4 B	1.7 U	1.8 U	1.9 U	1.6 U
Zinc	mg/kg	29.7	3.0	0.27 U	0.29 U	0.32 U	0.26 U

Description of Data Qualifiers is provided on page 24.
NA: Not Analyzed

Area C Soil Sam[illegible] Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		SAP-11 (10-10.5) 9/2/98	SAP-11 (12.5-13) 11/4/98	SAP-11 (12.5-13) 9/2/98	SAP-11 (15-15.5) 11/4/98	SAP-11 (19.5-20) 3/30/99	SAP-11 (26-26.5) 3/30/99
Magnesium	mg/kg	217 B	NA	19.4 B	23.6 B	282	14.3 B
Manganese	mg/kg	52.5	NA	2.7	2.5	18.6	3.9
Mercury	mg/kg	3.1	NA	0.12 B	0.04 U	0.041 B	0.031 B
Nickel	mg/kg	8.3	NA	0.37 B	0.14 U	1.6 B	0.13 U
Potassium	mg/kg	158 B	NA	131 B	98.7 B	124 B	105 B
Selenium	mg/kg	3.5 U	NA	3.0 U	1.3 U	1.7 U	1.7 U
Silver	mg/kg	0.38 B	NA	0.30 B	0.07 U	0.09 U	0.08 U
Sodium	mg/kg	139 B	NA	34.6 B	67.0	67.5	41.4
Thallium	mg/kg	1.2 U	NA	1.0 U	0.42 U	0.47 U	0.47 U
Vanadium	mg/kg	3.2 B	NA	1.7 U	0.07 U	3.1 B	0.28 B
Zinc	mg/kg	25.6	NA	0.62 B	0.48 B	7.6	0.47 B

Description of Data Qualifiers is provided on page 24.
NA: Not Analyzed

Area C Soil Samp. Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		SAP-11 (26.5-27) 11/4/98	SAP-11 (32-32.5) 3/30/99	SAP-56 (0-2) DUP 3/2/99	SAP-56 (0-2) 3/2/99	SAP-56 (0-2) SPLP 3/2/99	SAP-56 (22-24) 3/2/99
Magnesium	mg/kg	NA	33.8 B	1900	1830	NA	37.5
Manganese	mg/kg	NA	3.2	288	295	NA	6.3
Mercury	mg/kg	NA	0.058 B	1.2	1.3	0.00201	0.020
Nickel	mg/kg	NA	0.15 U	141	53.2	NA	0.68
Potassium	mg/kg	NA	214 B	487	496	NA	164
Selenium	mg/kg	NA	2.0 U	1.8 U	1.8 U	0.015 U	1.8 U
Silver	mg/kg	NA	0.10 U	0.70	0.56 B	0.005 U	0.09 U
Sodium	mg/kg	NA	60.5	1100	1000	NA	51.8
Thallium	mg/kg	NA	0.55 U	0.49 U	0.50 U	NA	0.49 U
Vanadium	mg/kg	NA	1.2 B	124	120	NA	7.1
Zinc	mg/kg	NA	0.64 B	827	667	NA	7.6

Description of Data Qualifiers is provided on page 24.
NA: Not Analyzed

Area C Soil Sam, Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		SAP-56 (22-24) SPLP 3/2/99	SAP-56 (34-34.5) 3/2/99	SAP-56 (8-12) 3/2/99	SAP-56 (8-12) SPLP 3/2/99
Magnesium	mg/kg	NA	490	1880	NA
Manganese	mg/kg	NA	20.2	241	NA
Mercury	mg/kg	0.00050 U	0.012	0.65	0.00066
Nickel	mg/kg	NA	30.1	107	NA
Potassium	mg/kg	NA	243	567	NA
Selenium	mg/kg	0.015 U	2.0 U	1.9 U	0.015 U
Silver	mg/kg	0.005 U	0.10 U	0.09 U	0.005 U
Sodium	mg/kg	NA	76.1	504	NA
Thallium	mg/kg	NA	0.69	0.52 U	NA
Vanadium	mg/kg	NA	17.1	6.1	NA
Zinc	mg/kg	NA	71.3	2020	NA

Data Qualifiers:

B: Indicates that the analyte is found in the associated blank as well as in the sample.(Organic)

B: The reported value is less than the CRDL but greater than the Instrument Detection Limit(IDL). (Inorganic)

U: Indicates the compound was analyzed for but not detected.

D: Indicates the compound was analyzed at a secondary dilution factor.

J: Indicates an estimated value.

Description of Data Qualifiers is provided on page 24.

NA: Not Analyzed

Area C Ground Water Sample Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		SAP-56W 3/2/99	MW-16S 10/20/98
Heptachlor	ug/l	5.6 U	0.050 U
Heptachlor epoxide	ug/l	5.6 U	0.050 U
Methoxychlor	ug/l	56 U	0.50 U
Toxaphene	ug/l	110 U	1.0 U
Metals			
Aluminum	mg/l	304	NA
Antimony	mg/l	0.0037 U	NA
Arsenic	mg/l	0.51	NA
Barium	mg/l	1.2	NA
Beryllium	mg/l	0.0054	NA
Cadmium	mg/l	0.029	NA
Calcium	mg/l	137	NA
Chromium	mg/l	61.4	NA
Cobalt	mg/l	0.099	NA
Copper	mg/l	0.92	NA
Iron	mg/l	125	NA
Lead	mg/l	1.2	NA
Magnesium	mg/l	11.5	NA
Manganese	mg/l	1.2	NA
Mercury	mg/l	0.0016	NA
Nickel	mg/l	0.48	NA
Potassium	mg/l	22.2	NA
Selenium	mg/l	0.02 U	NA
Silver	mg/l	0.0054	NA
Sodium	mg/l	76.5	NA
Thallium	mg/l	0.0049 U	NA
Vanadium	mg/l	1.5	NA
Zinc	mg/l	11.8	NA

Description of Data Qualifiers is provided on page 6.
NA: Not Analyzed

Area D Ground Water Sample Analytical Results
Givaudan-Roure Corporation
Clifton, New Jersey

		CP-08W 1/6/99	CP-09W 1/7/99	CP-10W DUP 1/8/99	CP-10W 1/8/99	CP-11W 1/8/99	TB-28 10/21/98	TB-30 10/19/98	TB-31 10/19/98	TB-32 10/20/98
Pyrene	ug/l	10 U	10 U	NA	10 U	10 U	NA	NA	NA	NA
Natural Attenuation										
Bicarbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbonate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Free carbon dioxide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydroxide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron +2	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total alkalinity	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals										
Aluminum	mg/l	155	83.8	23.8	24.3	31.2	NA	NA	NA	NA
Antimony	mg/l	0.0691	0.0131 B	0.0035 U	0.0035 U	0.0035 U	NA	NA	NA	NA
Arsenic	mg/l	0.0726	0.0439	0.0399	0.0393	0.0395	NA	NA	NA	NA
Barium	mg/l	1.14	0.61	1.15	1.15	1.04	NA	NA	NA	NA
Beryllium	mg/l	0.0041 B	0.00036 U	0.00036 U	0.00036 U	0.00036 U	NA	NA	NA	NA
Cadmium	mg/l	0.0003 U	0.0003 U	0.0003 U	0.0003 U	0.0003 U	NA	NA	NA	NA
Calcium	mg/l	256	285	654	532	471	NA	NA	NA	NA
Chromium	mg/l	6.5	0.763	0.0296	0.0325	0.0248	NA	NA	NA	NA
Cobalt	mg/l	0.215	0.0723	0.0316	0.0314	0.0611	NA	NA	NA	NA
Copper	mg/l	0.255	0.11	0.0737	0.0722	0.148	NA	NA	NA	NA
Iron	mg/l	129	90.6	59.9	60.8	94.4	NA	NA	NA	NA
Lead	mg/l	0.0886	0.0738	0.0225	0.0182	0.0516	NA	NA	NA	NA
Magnesium	mg/l	25.3	36.5	33.1	29.8	23.6	NA	NA	NA	NA
Manganese	mg/l	3.2	2.15	12.5	12.7	13.9	NA	NA	NA	NA
Mercury	mg/l	0.00084	0.00027	0.00038	0.00043	0.00025	NA	NA	NA	NA
Nickel	mg/l	1.8	0.315	0.0724	0.0738	0.103	NA	NA	NA	NA

Description of Data Qualifiers is provided on page 15.
NA: Not Analyzed

Goody Products, Inc./H.
Goodman & Sons

Results of Field Investigation and Review of Remedial Options

Exhibit 7b.

Goody Products, Inc.
969 Kearny Turnpike
Kearny, New Jersey

Prepared For:

Goody Products, Inc.
969 Newark Turnpike
Kearny, New Jersey 07032

Prepared By:

Woodward-Clyde Consultants
201 Willowbrook Blvd.
Wayne, New Jersey 07470

June, 1993

92C4246

Volume 1 of 2

AEL000183

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TABLE 3-2

WCC GROUNDWATER SAMPLING RESULTS SUMMARY
COLLECTED FROM SHALLOW PIEZOMETERS
GOODY PRODUCTS
KEARNY, NEW JERSEY
92C4246

Class II-A groundwater	PROPOSED STANDARD	PZ-1 ug/l	PZ-2 ug/l	PZ-3 ug/l	PZ-4S ug/l	PZ-5S ug/l
Inorganics						
Aluminum	–	11200	19100	1840	30600	24100
Arsenic	8	20	16	4.0 B	57.5	7.2 B
Barium	2000	1240	587	147	1320	1670
Beryllium	20	ND	ND	ND	1.9 B	1.6 B
Cadmium	4	ND	ND	ND	6.5 B	5.8 B
Calcium	–	605000	161000	40600	356000	694000
Chromium	100	798	226	99	237	77.8
Cobalt	–	34.8	ND	ND	30.8	41.9
Copper	–	151	112	39.4	160	68.7
Iron	–	31900	33600	4760	35000	28100
Lead	10	404	493	49	732	2030
Magnesium	–	63500	50800	11000	32200	67900
Manganese	–	3360	1780	2060	4020	5590
Mercury	2	116	7.9	1.5	66.4	3.2
Nickel	100	49.4	136	93.3	57.3	32.8 B
Potassium	–	23000	29900	46500	27700	29600
Silver	20	22.7 B	19.2 B	ND	23.0 B	17.9 B
Sodium	–	ND	163000	274000	ND	140000
Vanadium	–	30.7 B	54.6	38.3 B	91.2	49.1 B
Zinc	5000	500	528	136	551	1120
Cyanide	200	ND	ND	ND	ND	10

Notes: ND - Not Detected
B - Compound also detected in the blank sample
Shaded cells indicate exceedances of the NJDEPE proposed standards for groundwater
A volatile organics sample was collected from PZ-2 and PZ-3.
The volatile organic results show one unknown at 16 ppb and 15 ppb, respectively

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TABLE 3-11

WCC TCLP METALS ANALYSIS RESULTS SUMMARY
GOODY PRODUCTS, INC.
KEARNY, NEW JERSEY

92C4246

	Reg Level	GKW-1	GKW-2	GKW-3	GKW-4	GKW-5	GKW-6	GKW-7	GKW-8	GKW-9	GKW-10	GKW-11	GKW-12	GKW-13	GKW-14	GKW-15	GKW-16
date		11/9/92	11/9/92	11/9/92	11/9/92	11/9/92	11/9/92	11/9/92	11/9/92	11/10/92	11/10/92	11/10/92	11/10/92	11/10/92	11/10/92	11/10/92	11/10/92
depth		18 in.	12 in.	12 in.	25 in.	18 in.	12 in.	16 in.	16 in.	17 in.	15 in.	18 in.	19 in.	20 in.	20 in.	11 in.	13 in.
	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
TCLP Metals																	
arsenic	5,000	<51.8	<51.8	<51.8	<51.8	<51.8	<51.8	489 B	<51.8	<52.3	<52.3	<52.3	<52.3	<52.3	<52.3	<54.3	<54.3
barium	100,000	590	770	592	247 B	576	385 B	622	687	343 B	493 B	1,490	947	1,280	1,200	477 B	572 B
cadmium	1,000	10 B	48	8.9 B	20.5 B	8.9 B	121	17.1 B	18.1 B	18.4 B	8.3 B	12 B	24.1 B	16.3 B	14.7 B	331	9.0 B
chromium	5,000	<9.1	<9.1	12.6 B	<9.1	38	<9.1	<9.1	<9.1	<9.2	<9.2	<9.2	14.4 B	29.2 B	16.8 B	24.9 B	<9.8
lead	5,000	94.6 B	939	1,250	6,980	7,250	<81.6	<81.6	<81.6	129 B	481	1,310	678	300 B	329	<94.8	<94.8
mercury	200	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.30	<0.30
selenium	1,000	<79.4	<79.4	<79.4	<79.4	<79.4	<79.4	<79.4	<79.4	<76.2	<76.2	<76.2	<76.2	<76.2	<76.2	<83.4	<83.4
silver	5,000	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4	<6.4	<6.9	<6.9	<6.9	<6.9	<6.9	<6.9	<7.3	<7.3
Reactive cyanide		<0.24	<.27	<0.23	<0.25	<0.24	<0.26	<0.26	<0.26	<0.22	<0.23	<0.24	<0.24	<0.23	<0.23	<0.24	<0.25
Reactive sulfide		<47.7	<54.6	<48.7	<49.8	<49.0	<51.5	<51.5	<52.7	<44.7	<46.4	<47.9	<48.0	<46.3	<46.7	<47.7	<50.1
Flashpoint		>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200
pH		7.06	7.49	8.07	7.55	7.84	7.76	7.47	7.93	8.61	7.68	8.26	8.21	7.68	8.14	8.33	7.54

NOTES: B - Compound also detected in the blank sample

Shaded cells indicate exceedances of the regulatory level.

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TABLE 3-11

WCC TCLP METALS ANALYSIS RESULTS SUMMARY
GOODY PRODUCTS, INC.
KEARNY, NEW JERSEY

92C4246

	Reg Level	B1-F	B1-P	B2-F	B2-P	B3-F	B3-P	PZ-5F	PZ-5P	SED1	SED2	SED3
date:		11/13/92	11/13/92	11/13/92	11/13/92	11/13/92	11/13/92	11/12/92	11/12/92	11/16/92	11/16/92	11/16/92
depth:		4-6 ft.	10-12 ft.	4-6 ft.	12-14 ft.	4-6 ft.	10-12 ft.	4-6 ft.	12-13.5 ft.	0.5-1.5 ft.	2-3 ft.	2-3 ft.
	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
TCLP Metals												
arsenic	5,000	<54.3	<54.3	<54.3	<54.3	<54.3	<54.3	<54.3	75.1 B	199 B	<54.3	<54.3
barium	100,000	714	315 B	756	124 B	866	206 B	922	329 B	846	51.3 B	60.5 B
cadmium	1,000	6.6 B	<5.6	66.9	<5.6	9.2	<5.6	6.6 B	<5.6	122	162	16.4 B
chromium	5,000	<9.8	60.9	<9.8	58.1	69.2	25.5 B	<9.8	55.9	44.5	33.6 B	28.9 B
lead	5,000	371	<94.8	<94.8	<94.8	546	<94.8	3820	<94.8	<94.8	<94.8	<94.8
mercury	200	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	1.4 B	<0.30	<0.30	<0.30	<0.30
selenium	1,000	<83.4	<83.4	<83.4	<83.4	<83.4	<83.4	<83.4	<83.4	<83.4	<83.4	<83.4
silver	5,000	<7.3	<7.3	<7.3	<7.3	<7.3	<7.3	<7.3	<7.3	36.2	<7.3	9.2 B
Reactive cyanide		<0.30	<0.38	<0.24	<1.23	<0.25	<0.70	<0.24	<0.33	<0.23	<0.61	<1.05
Reactive sulfide		<59.1	<75.6	<48.8	<245	<50.5	<139	<47.9	<60.3	<47.8	<123	<210
Flashpoint		>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200
pH		8.97	8.08	8.27	7.73	8.99	7.89	7.64	7.46	9.16	8.22	8.27

NOTES: B - Compound also detected in the blank sample
Shaded cells indicate exceedances of the regulatory level.

filename: sltclpm.xls
by: es
checked:
date: 1/26/93

TABLE 3-14

WCC BACKGROUND SOIL SAMPLING RESULTS SUMMARY
GOODY PRODUCTS, INC.
KEARNY, NEW JERSEY

92C4246

	NJDEPE	B-4	B-5	B-6	B-7	B-8
date:	RESIDENTIAL	12/22/92	12/22/92	12/22/92	12/22/92	12/22/92
depth:	STANDARD	4-6 ft.	10-12 ft.	4-6 ft.	12-14 ft.	4-6 ft.
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TAL Metals						
aluminum	--	9220	13700	9480	4370	7560
arsenic	20	8.8	4.7	1.8	1.4	7.9
barium	600	306	125	76.1	59.3	148
beryllium	2	0.54 B	0.54 B	0.51 B	0.26 B	0.47 B
cadmium	1	0.82 B	0.55 B			0.43 B
calcium	--	17300	3940	3840	8960	10500
chromium	--	104	14.2	29.3	15	15.5
cobalt	--	10.5	5.7	8.5	9.6	8.0
copper	600	65.3	101	78.6	39.6	68.4
iron	--	20700	16400	19700	10800	16500
lead	100	377	228	48.3	102	189
magnesium	--	4380	2760	2360	5440	3450
manganese	--	346	332	506	330	346
mercury	14	3.7	0.28			0.59
nickel	250	21.3	11.2	15	36.2	19.6
potassium	--	2190	528	1220	519	1200
selenium	1		0.24 B		0.55	
silver	40	10.3	7.9	10.5	5.4	7.9
sodium	--	406	229	286	266	443
vanadium	380	33.1	23.2	18.7	15.2	20.9
zinc	1500	217	159	47.4	83.4	167

NOTES: B - Compound also detected in the blank sample
A blank cell indicates the compound was not detected
Shaded cells indicate exceedances of the NJDEPE proposed residential cleanup standards

filename: sltclpm.xls
by: es
checked:
date: 1/26/93

Hartz Mountain Corp.

120-7750

000009

HARTZ

THE HARTZ MOUNTAIN CORPORATION, 700 SOUTH FOURTH ST., HARRISON, N.J. 07029 TEL. 201/481-4600

EXECUTIVE OFFICES

March 12, 1986

Mr. Harold Carscadden
Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey 07105

Dear Mr. Carscadden:

Enclosed please find a completed application for a Sewer Connection Permit for the Hartz Mountain facility located at 700 S. Fourth St., Harrison, New Jersey. This facility is used by our company as its Corporate Headquarters and main computer facility.

The location provides us with space in which we assemble aquarium products and all-glass aquaria, miscellaneous pet products, and Carpet Magic Rug Shampooing Machines. In addition, we manufacture store display racks by forming with mechanical presses, spot welding and painting the metal components necessary for the racks. We then assemble these components into finished store display units. None of the operations described above generate, to the best of our knowledge, any of the chemicals or pollutants listed in Section E, #26 through #31, and, therefore, we have not performed an analysis of the effluent water from our facility. It goes without saying that we are not pre-treating the effluent and, therefore, Section F, Questions 32 through 38, have also been left blank on our application.

The other use to which we put the Harrison location is for Corporate Research and Development. As part of this work, our Research and Development Laboratories handle chemicals which are found in the pet products we manufacture in another location. Our procedures are stringent and require that no water immiscible materials are discarded into the sewer and further require that all water miscible materials are greatly diluted before they are poured into a running water stream. I have indicated on pages 10 through 14 those chemicals which we use and have further indicated them to be "suspected to be absent" from our effluent stream, because our procedures result in dilutions which are so substantial that any

/c

PASSAIC VALLEY SEWERAGE COMMISSIONERS
APPLICATION FOR A SEWER CONNECTION PERMIT

SECTION A

1. Company Name: Hartz Mountain Corporation

2. Permit number if applicable, _____

3. Location: 700 S. Fourth Street

   Harrison, N. J. Zip Code: 07029

4. Mailing Address: Same

   _____ Zip Code: _____

5. Person to contact concerning information provided in this application:

   Name of Contact Official: M. Ammenwerth

   Title: Plant Manager Phone No. (201) 481-4800

   Address: 700 S. Fourth St., Harrison, N. J. Zip Code 07029

6. Number of Employees - Full Time: 770 Part Time: 3

   Number of Work Days Per Year: 251

   Number of Shifts Per Day: 3 (in some areas)

7. If property is owned indicate block and lot numbers:

   Block 133 Lot #1

   Assessed Value: $2,248,400 19 85

8. If property is rented indicate name and address of owner:

   _____

   _____

   Total square feet rented: _____

9. List NJPDES Permit number if applicable, _____ and

   name of receiving body of water entered _____

SECTION E

AMENDMENT OF 7/23/86 1209664

ANALYSIS OF INDUSTRIAL WASTE

Analysis for Industrial Waste must be a composite sample taken for each [illegible]

OUTLET NO. Site #1

Report to the nearest unit: XX except where indicated with (1) Example: 15 mg/l			Report to the nearest hundredth: 0.XX except where indicated Example: 0.36 mg/l		
Code	Parameter	Value	Code	Parameter	Value
0200*	Radioactivity (PL-1)	N/A	1097*	Antimony (Sb)	N/A
0500	Total Solids	230	1002*	Arsenic (As)	N/A
0510	Total Mineral Solids	180	1022*	Boron (B)	N/A
0530	Total Suspended Solids	22	1027*	Cadmium (Cd)	N/A
0552	Mineral Suspended Solids	3	1034*	Chromium Total (Cr)	<0.01
0550 (1)	Emulsified Oil or Grease	14	1042*	Copper (Cu)	N/A
0310	Biochemical Oxygen Demand (BOD)	27	1045*	Iron (Fe)	3.95
			1051*	Lead (Pb)	0.3
0340	Chemical Oxygen Demand (COD)	92	0720	Cyanide (CN)	0.007
			1900	Mercury (Report to 0.XXXX)	<0.000
0680	Total Organic Carbon (TOC)	32.8	1067*	Nickel (Ni)	N/A
			1147*	Selenium (Se)	N/A
0745* (1)	Sulfide	N/A	1077*	Silver (Ag)	N/A
9000 (1)	pH (standard unit range)	7.5	1102*	Tin (Sn)	N/A
0625* (1)	Kjeldahl N as N	N/A	1092*	Zinc (Zn)	N/A
0610* (1)	Ammonia as N	N/A	2730*	Phenol	N/A
0507* (1)	Ortho Phosphates as P	N/A	4053*	Pesticides (Report to 0.XXX)	<1ppt
9998* (2)	TTO (Report to 0.XXX)	N/A			
			9999(2)	TTVO (Report to 0.XXX)	See Below
				Chloroform	50ppt
				Bromodichloromethane	7ppt

The Parameters marked with a (1) must be reported to the nearesth tenth, i.e., 1.6 mg/l. Those Parameters marked with an asterisk (*) need only be analyzed for if reasonably expected to be present in the discharge. (2) See instructions.

1210-4/6-8C

SECTION E

ANALYSIS OF INDUSTRIAL WASTE AMENDMENT OF 7/23/86

Analysis for Industrial Waste must be a composite sample taken for each outlet.

OUTLET NO. Site #3

Report to the nearest unit: XX except where indicated with (1) Example: 15 mg/l			Report to the nearest hundredth: 0.XX except where indicated Example: 0.36 mg/l		
Code	Parameter	Value	Code	Parameter	Value
0200*	Radioactivity (PL-1)	N/A	1097*	Antimony (Sb)	N/A
0500	Total Solids	210	1002*	Arsenic (As)	N/A
0510	Total Mineral Solids	210	1022*	Boron (B)	N/A
0530	Total Suspended Solids	34	1027*	Cadmium (Cd)	N/A
0552	Mineral Suspended Solids	6	1034*	Chromium Total (Cr)	<0.01
0550 (1)	Emulsified Oil or Grease	15	1042*	Copper (Cu)	N/A
0310	Biochemical Oxygen Demand (BOD)	24	1045*	Iron (Fe)	0.76
			1051*	Lead (Pb)	<0.1
0340	Chemical Oxygen Demand (COD)	110	0720	Cyanide (CN)	0.016
			1900	Mercury (Report to 0.XXXX)	<0.002
0680	Total Organic Carbon (TOC)	19.0	1067*	Nickel (Ni)	N/A
			1147*	Selenium (Se)	N/A
0745* (1)	Sulfide	N/A	1077*	Silver (Ag)	N/A
9000 (1)	pH (standard unit range)	7.5	1102*	Tin (Sn)	N/A
0625* (1)	Kjeldahl N as N	N/A	1092*	Zinc (Zn)	N/A
0610* (1)	Ammonia as N	N/A	2730*	Phenol	N/A
0507* (1)	Ortho Phosphates as P	N/A	4053*	Pesticides (Report to 0.XXX)	<1ppb
9998* (2)	TTO (Report to 0.XXX)	N/A			
			9999(2)	TTVO (Report to 0.XXX)	See Below
				Chloroform	70ppb
				Bromodichloromethane	8ppb

The Parameters marked with a (1) must be reported to the nearesth tenth, i.e., 1.6 mg/l. Those Parameters marked with an asterisk (*) need only be analyzed for if reasonably expected to be present in the discharge. (2) See instructions.

LABORATORY INC.
64 Glenwood Ave., East Orange, NJ 07
(201) 678-3787 FAX (201) 678-6779

LABORATORY ANALYSIS REPORT

DATE : APRIL 19, 1991
CLIENT : ENVIRO-TECH, INC

SAMPLE COLLECTED: 4/10/91
SAMPLE RECEIVED: 4/12/91
GENERATOR :

CLIENT ID :		WC-1	WC-2
SAMPLE NUMBER		17125	17126
PARAMETER	MDL	RESULT	RESULT
EP TOX METALS			
ARSENIC	0.01	ND	ND
BARIUM	0.01	0.66	0.85
CADMIUM	0.01	ND	0.06
CHROMIUM	0.01	0.02	0.02
LEAD	0.01	0.07	0.11
MERCURY	0.001	ND	ND
SELENIUM	0.01	ND	ND
SILVER	0.01	ND	ND
pH		9.32	9.20
REACTIVE CYANIDE	1.0	ND	ND
REACTIVE SULFIDE	1.6	ND	ND
TPH	200	9206	9640
% SOLIDS		85.7	88.8
FLASHPOINT		> 140 F	> 140 F
PCB'S			
PCB-1016	0.6	ND	ND
PCB-1221	0.6	ND	ND
PCB-1232	0.6	ND	ND
PCB-1242	0.6	ND	ND
PCB-1248	0.6	ND	ND
PCB-1254	0.6	ND	ND
PCB-1260	0.6	ND	ND

STEPHEN KROEMER
LABORATORY MANAGER

All Results Reported As ppm
MDL = Method Detection Limit
ND = Not Detected Above MDL

NJDEP LABORATORY ID # 07673

W.W.L.'S TOTAL LIABILITY FOR ANY WORK PERFORMED IS LIMITED TO THE COST OF SERVICES RENDERED.

W.A.T.E.R. WORKS
LABORATORY INC.
364 Glenwood Ave., East Orange, NJ 07017
(201) 678-3787 FAX (201) 678-6779

W.A.T.E.R. WORKS LABORATORY INC.
QA/QC DATA

DATE : APRIL 23, 1991
CLIENT : ENVIROTECH, INC.
GENERATOR : WC-1, WC-2

SAMPLE # 17125-26
DATE COLLECTED : 4/10/91
DATE RECEIVED : 4/12/91

	MDL	METHOD BLANK	MATRIX SPIKE % RECY	MATRIX SPIKE DUP % RECY	DATE EXTRAC.	DATE ANALY.
ARSENIC	0.01	< 0.01	76	135	4/12/91	4/16/91
BARIUM	0.01	< 0.01	86	50	4/12/91	4/16/91
CADMIUM	0.01	< 0.01	110	108	4/12/91	4/15/91
CHROMIUM	0.01	< 0.01	124	117	4/12/91	4/15/91
LEAD	0.01	< 0.01	84	82	4/12/91	4/15/91
MERCURY	0.001	< 0.001	124	98	4/12/91	4/16/91
SELENIUM	0.01	< 0.01	90	94	4/12/91	4/16/91
SILVER	0.01	< 0.01	94	90	4/12/91	4/15/91
TPHC	8.0	< 8	67	---	4/15/91	4/15/91
PCB's	0.02	< 0.02	106	172	4/15/91	
PERCENT SOLIDS			101			4/15/91

	MDL	METHOD BLANK	R-1	R-2	DATE EXTRAC.	DATE ANALY.
REACTIVE CN	1.0	< 1.0	< 1.0	< 1.0	4/15/91	4/18/91
REACTIVE S	1.6	< 1.6	< 1.6	< 1.6	4/15/91	4/18/91
pH			9.32	9.27		4/12/91
FLASHPOINT			> 140 F	> 140 F		4/15/91

(1) Results Reported As ppm
MDL = Method Detection Limit
< = Not Detected Above MDL
NA = Not Applicable

W.W.L.'S TOTAL LIABILITY FOR ANY WORK PERFORMED IS LIMITED TO THE COST OF SERVICES RENDERED

PART I

REMEDIAL INVESTIGATION REPORT

HARTZ MOUNTAIN CORPORATION
700 FRANK E. RODGERS BOULEVARD
HARRISON, NEW JERSEY
ISRA CASE # 93126

Prepared for:

HARTZ MOUNTAIN CORPORATION
700 Frank E. Rodgers Boulevard
Harrison, New Jersey

Prepared by:

Metcalf & Eddy, Inc.
P.O. Box 1500
Somerville, New Jersey
08876

June 1994

REMEDIAL INVESTIGATION REPORT

HARTZ MOUNTAIN CORPORATION FACILITY

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ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID SAMPLE DEPTH SAMPLE DATE LAB ID	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	CB-1 12/03/93 E333725	CB-2 12/03/93 E333723	CB-4 12/03/93 E333724	CB-6 12/03/93 E333726	CB-7 12/03/93 E333722	CB-1S(SB) 5.0-5.5' 04/18/94 E410583	CB-2S(SB) 4.5-5.0' 04/18/94 E410584	CB-4S(SB) 5.0-5.5' 04/18/94 E410585
PARAMETER											
METALS (PPM)											
Antimony	14	340	NS	<11	<9.8	<9.8	30	38	<7.1	<6.7	<6.6
Arsenic	20	20	NS	5.3	4.0	2.7	6.2	15	2.2	3.9	1.3
Beryllium	1	1	NS	<0.93	<0.82	<0.82	<0.89	<1.0	0.60	0.97	<0.55
Cadmium	1	100	NS	11	5.0	5.8	25	15	<0.59	<0.56	<0.55
Chromium	NS	NS	NS	160	130	150	180	500	12	24	8.6
Copper	600	600	NS	230	200	200	1200	710	12	21	6.1
Lead	100	600	NS	760	670	830	2400	1300	<12	57	<11
Mercury	14	270	NS	0.54	0.70	0.44	0.77	2.9	<0.11	0.20	<0.10
Nickel	250	2400	NS	99	110	81	110	590	7.4	19	5.1
Selenium	63	3100	NS	<19	<16	<16	<18	<20	<12	<11	<11
Silver	110	4100	NS	<5.6	<4.9	<4.9	130	<6.1	<1.2	<1.1	<1.1
Thallium	2	2	NS	<0.93	<1.6	<0.82	<0.89	<1.0	<1.2	<1.1	<1.1
Zinc	1500	1500	NS	2800	680	900	1600	2300	24	81	15
Corrosivity	N	N	N	8.4 NC	9.2 NC	7.8 NC	8.0 NC	8.8 NC	NA	NA	NA
Cyanide Reactivity	N	N	N	<1.5	<1.5	<1.5	<1.5	<1.5	NA	NA	NA
Cyanide Total	N	N	N	NA	NA	<1.0	NA	NA	NA	NA	NA
Ignitability	N	N	N	>200 F	>200 F	>200 F	>200 F	>200 F	NA	NA	NA
Petroleum Hydrocarbons	N	N	N	6500	9100	2600	17000	11000	NA	NA	NA
Phenolics, Total	N	N	N	NA	NA	<2.5	NA	NA	NA	NA	NA
Total Percent Solids	N	N	N	54 %	61 %	61 %	56 %	49 %	85 %	90 %	91 %
Sulfide Reactivity	N	N	N	170	<50	<50	160	<50	NA	NA	NA
PCBs (PPB)	490	2000	100,000								
Arochlor 1016	NS	NS	NS	320 U	290 U	29 U	310 U	350 U	21 U	19 U	19 U
Arochlor 1221	NS	NS	NS	120 U	100 U	10 U	110 U	130 U	7.4 U	7.0 U	6.9 U
Arochlor 1232	NS	NS	NS	260 U	230 U	23 U	240 U	280 U	16 U	15 U	15 U
Arochlor 1242	NS	NS	NS	180 U	160 U	16 U	170 U	190 U	11 U	11 U	11 U
Arochlor 1248	NS	NS	NS	55000	8800	IND	18000	110000	8.6 U	8.1 U	8.0 U
Arochlor 1254	NS	NS	NS	16000	IND	1500	7200	220 U	13 U	12 U	12 U
Arochlor 1260	NS	NS	NS	2700	3400	25 U	2200	310 U	18 U	17 U	17 U

TABLE 3: BORINGS (AOC2, AOC-10)
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID:			Impact to	B1/S7	B2/S2	B3/S3	B3/S8	B4/S8	B5/S8	B6/S8
SAMPLE DEPTH:	Residential Direct	Non-Residential	GW Soil	13.5–14.0'	2.5–3.0'	4.5–5.0'	14.0–14.5'	14.0–14.5'	14.0–14.5'	15.0–15.5'
SAMPLE DATE:	Contact Soil	Direct Contact Soil	Cleanup	11/22/93	11/22/93	11/22/93	11/22/93	11/22/93	11/22/93	11/22/93
LAB ID	Cleanup Criteria*	Cleanup Criteria*	Criteria	E332876	E332877	E332878	E332879	E332880	E332881	E332882
PARAMETER										
METALS (PPM)										
Antimony	14	340	NS	<6.8	<6.9	<6.8	<7.1	<7.1	<6.8	<6.9
Arsenic	20	20	NS	1.6	6.7	2.1	1.1	0.74	6.4	<0.57
Beryllium	1	1	NS	0.70	<0.57	<0.57	0.69	0.62	0.58	0.58
Cadmium	1	100	NS	<0.57	<0.57	<0.57	<0.59	<0.60	<0.57	<0.57
Chromium	NS	NS	NS	18	9.8	11	14	15	30	14
Copper	600	600	NS	22	45	17	29	15	13	9.8
Lead	100	600	NS	11	110	23	<12	12	<11	<11
Mercury	14	270	NS	<0.11	0.49	0.20	<0.12	<0.12	<0.12	<0.11
Nickel	250	2400	NS	24	12	16	23	20	16	19
Selenium	63	3100	NS	<11	<11	<11	<12	<12	<11	<11
Silver	110	4100	NS	<1.1	<1.1	<1.1	<1.2	<1.2	<1.1	<1.1
Thallium	2	2	NS	<1.1	<0.57	<0.57	<0.59	<0.60	<0.57	<0.57
Zinc	1500	1500	NS	63	61	120	65	51	39	51
Cyanide, Total	1100	21000	NS	NA	<1.0	<1.0	NA	NA	NA	NA
Phenolics, Total			NS	NA	<2.5	<2.5	NA	NA	NA	NA
	NS	NS	NS	<25	NA	NA	<25	<25	<25	<25
Total Percent Solids	NS	NS	NS	88 %	87 %	88 %	85 %	84 %	88 %	87 %
PCBs (PPB)	490	2000	100,000							
Arochlor 1016	NS	NS	NS	20 U	20 U	20 U	21 U	21 U	20 U	20 U
Arochlor 1221	NS	NS	NS	7.1 U	7.1 U	7.1 U	7.4 U	7.5 U	7.2 U	7.2 U
Arochlor 1232	NS	NS	NS	16 U	16 U	16 U	16 U	17 U	16 U	16 U
Arochlor 1242	NS	NS	NS	11 U	11 U	11 U	11 U	11 U	11 U	11 U
Arochlor 1248	NS	NS	NS	8.3 U	230	8.3 U	8.6 U	8.7 U	8.3 U	8.4 U
Arochlor 1254	NS	NS	NS	12 U	140	12 U	13 U	13 U	12 U	12 U
Arochlor 1260	NS	NS	NS	18 U	74	18 U	18 U	18 U	18 U	18 U

TABLE 3: SOIL SAMPLINGS (AOC2, AOC-10)
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID:			Impact to	B7/S2	B8/S6	B9A/S2	B9A/S3	B10/S6	FB	FB	FB
SAMPLE DEPTH:	Residential Direct	Non-Residential	GW Soil	3.5–4.0'	10.5–11.0'	4.5–5.0'	6.0–6.5'	10.0–10.5'			
SAMPLE DATE:	Contact Soil	Direct Contact Soil	Cleanup	12/03/93	11/24/93	12/03/93	12/03/93	11/24/93	11/22/93	11/24/93	12/03/93
LAB ID	Cleanup Criteria*	Cleanup Criteria*	Criteria	E333718	E333108	E333719	E333720	E333107	E332875	E333109	E333721
PARAMETER											
METALS (PPM)											
Antimony	14	340	NS	2.6	<7	0.81	<0.57	<7.4	NA	<5.0	<5.0
Arsenic	20	20	NS	13	4.2	18	3.7	<0.62	NA	<5.0	<5.0
Beryllium	1	1	NS	<0.57	<0.64	<0.56	<0.57	<0.62	NA	<5.0	<5.0
Cadmium	1	100	NS	1.8	<0.64	0.75	<0.57	<0.62	NA	<4.0	<4.0
Chromium	NS	NS	NS	15	13	74	20	5.6	NA	<10	<10
Copper	600	600	NS	89	31	95	46	13	NA	<25	<25
Lead	100	600	NS	210	65	100	74	<12	NA	<3.0	<3.0
Mercury	14	270	NS	1.2	0.32	0.53	0.77	<0.12	NA	<0.20	<0.20
Nickel	250	2400	NS	45	14	88	28	8.8	NA	<40	<40
Selenium	63	3100	NS	<11	<13	<11	<11	<12	NA	<5.0	<10
Silver	110	4100	NS	<3.4	<1.3	<3.4	<3.4	<1.2	NA	<10	<10
Thallium	2	2	NS	<0.57	<0.64	<0.56	<0.57	<0.62	NA	<5.0	<5.0
Zinc	1500	1500	NS	150	76	130	89	24	NA	29	27
Cyanide, Total	1100	21000	NS	NA	<1.0	<1.0	NA	NA	NA	<0.010	<0.010
Phenolics, Total			NS	NA	<2.5	3.9	NA	NA	NA	<0.050	<0.050
Petroleum Hydrocarbons	NS	NS	NS	82	NA	NA	13000	<25	NA	NA	NA
Total Percent Solids	NS	NS	NS	87 %	78 %	89 %	88 %	81 %	NA	0 %	0 %
PCBs (PPB)	490	2000	100,000								
Arochlor 1016	NS	NS	NS	20 U	22 U	20 U	20 U	22 U	NA	0.22 U	0.22 U
Arochlor 1221	NS	NS	NS	7.2 U	8 U	7.1 U	7.2 U	7.7 U	NA	0.19 U	0.19 U
Arochlor 1232	NS	NS	NS	16 U	18 U	16 U	16 U	17 U	NA	0.27 U	0.26 U
Arochlor 1242	NS	NS	NS	11 U	12 U	11 U	11 U	12 U	NA	0.36 U	0.35 U
Arochlor 1248	NS	NS	NS	69	9.3 U	630	1500	9.0 U	NA	0.27 U	0.27 U
Arochlor 1254	NS	NS	NS	12 U	14 U	740	850	13 U	NA	0.079 U	0.078 U
Arochlor 1260	NS	NS	NS	18 U	20 U	330	270	19 U	NA	0.091 U	0.090 U

TABLE 5: FLOOR SUMP SAMPLES (AOC-4)
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID	Residential Direct	Non-Residential	Impact to GW	IS-1	IS-2	FB	IS-3	IS-4	FB
SAMPLE LOCATION	Contact Soil	Direct Contact Soil	Soil Cleanup	Int. Fl.Sump,Bldg.7	Maint.Shop Sump,Bldg 6		Bsmnt Bldg.O	Fmr.Degrer,Bldg.O	
SAMPLE DATE:	Cleanup Criteria*	Cleanup Criteria*	Criteria*	12/06/93	12/06/93	12/06/93	12/07/93	12/07/93	12/07/93
PCBs (PPB)	490	2,000	100,000						
Arochlor 1016	NS	NS	NS	0.50 U	18 U	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1221	NS	NS	NS	0.50 U	6.4 U	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1232	NS	NS	NS	0.50 U	14 U	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1242	NS	NS	NS	0.50 U	9.8 U	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1248	NS	NS	NS	28,000	78,000	0.50 U	15	0.50 U	0.50 U
Arochlor 1254	NS	NS	NS	0.50 U	IND	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1260	NS	NS	NS	0.50 U	4,400	0.50 U	0.50 U	0.50 U	0.50 U
METALS (PPM)									
Antimony	14	340	NS	<17	<6.1	NA	<6.0	<12	<6.0
Arsenic	20	20	NS	<1.4	7.5	NA	<2.3	<2.9	<1.3
Beryllium	1	1	NS	<1.4	0.58	NA	<0.50	<0.50	<0.50
Cadmium	1	100	NS	<1.4	48	NA	3.7	24	<0.50
Chromium	NS	NS	NS	64	190	NA	48	360	1.2
Copper	600	600	NS	25	4100	NA	160	2900	10
Lead	100	600	NS	<29	5700	NA	150	1800	<10
Mercury	14	270	NS	<0.065	0.64	NA	0.19	3.2	<0.15
Nickel	250	2400	NS	15	88	NA	28	650	<4.0
Selenium	63	3100	NS	<29	25	NA	<10	<0.50	<10
Silver	110	4100	NS	<8.7	120	NA	<3.0	15	<3.0
Thallium	2	2	NS	<1.4	<0.51	NA	<2.3	<3.0	<1.2
Zinc	1500	1500	NS	41	2500	NA	510	23	3100
Total Percent Solids	NS	NS	NS	NA	98 %	NA	NA	NA	NA

All samples listed on this table are wipe samples.

U = UNDETECTED AOC = AREA OF CONCERN

NS = NO STANDARD FB = FIELD BLANK

IND = INDETERMINATE DUE TO PRESENCE OF AROCHLOR 1248 PATTERN

NA = NOT ANALYZED

Shaded areas represent detection over the method detection limit and detection over one or more of the cleanup criteria.

TABLE 6: TEST PIT SAMPLES (AOC 6–8)
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY
NOVEMBER 30, 1993

SAMPLE ID SAMPLE DEPTH SAMPLE LOCATION LAB ID	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	CP-1 3.0–3.5' Chip Pit,3'B.G. E333445	CP-2 8.5–9.0' Chip Pit,8.7'B.G. E333446
PARAMETER					
METALS (PPM)					
Antimony	14	340	NS	0.69	<0.59
Arsenic	20	20	NS	8.10	1.4
Beryllium	1	1	NS	<0.55	0.59
Cadmium	1	100	NS	0.81	<0.59
Chromium	NS	NS	NS	38	15
Copper	600	600	NS	86	30
Lead	100	600	NS	78	29
Mercury	14	270	NS	0.40	0.13
Nickel	250	2400	NS	58	16
Selenium	63	3100	NS	<11	<12
Silver	110	4100	NS	<3.3	<3.5
Thallium	2	2	NS	<0.55	<0.59
Zinc	1500	1500	NS	110	58
Cyanide, Total	1100	21000	NS	<1.0	<1.0
Phenolics, Total			NS	<2.5	<2.5
Petroleum Hydrocarbons			NS	NA	NA
Total Percent Solids	NS	NS	NS	91 %	85 %
PCBs (PPB)	490	2000	100,000		
Arochlor 1016	NS	NS	NS	19 U	21 U
Arochlor 1221	NS	NS	NS	6.9 U	7.4 U
Arochlor 1232	NS	NS	NS	15 U	16 U
Arochlor 1242	NS	NS	NS	11 U	11 U
Arochlor 1248	NS	NS	NS	96000	2500
Arochlor 1254	NS	NS	NS	IND	420
Arochlor 1260	NS	NS	NS	17 U	18 U
VOLATILE ORGANICS (PPB)					
Acrolein	NS	NS	NS	220 U	240 U
Acrylonitrile	1,000	5,000	100,000	450 U	480 U
Benzene	3,000	13,000	1,000	37 U	39 U
Bromoform	86,000	370,000	1,000	42 U	45 U
Bromodichloromethane	5,000	22,000	1,000	44 U	48 U
Bromomethane	79,000	1,000,000	1,000	41 U	44 U
Carbon Tetrachloride	2,000	4,000	1,000	46 U	49 U
Chlorobenzene	37,000	680,000	1,000	53 U	57 U
Chloroethane	NS	NS	NS	6300	49 U
2-Chloroethylvinylether	NS	NS	NS	31 U	33 U
Chloroform	19,000	28,000	1,000	42 U	45 U
Chloromethane	520,000	1,000,000	10,000	26 U	28 U
cis-1,2-Dichloropropene	4,000	5,000	1,000	48 U	52 U

TABLE 6: TEST PIT SAMPLE (AOC 6–8)
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY
DECEMBER 4, 1993

SAMPLE ID SAMPLE DEPTH SAMPLE LOCATION LAB ID	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	V-1 7.0–7.5' S.Side,Bldg.1 E333564
PARAMETER				
METALS (PPM)				
Antimony	14	340	NS	0.95
Arsenic	20	20	NS	6.4
Beryllium	1	1	NS	0.67
Cadmium	1	100	NS	1.1
Chromium	NS	NS	NS	36
Copper	600	600	NS	150
Lead	100	600	NS	250
Mercury	14	270	NS	0.28
Nickel	250	2400	NS	73
Selenium	63	3100	NS	<11
Silver	110	4100	NS	<3.4
Thallium	2	2	NS	<0.56
Zinc	1500	1500	NS	230
Petroleum Hydrocarbons	NS	NS	NS	290
Total Percent Solids	NS	NS	NS	89 %
PCBs (PPB)	490	2000	100,000	
Arochlor 1016	NS	NS	NS	20 U
Arochlor 1221	NS	NS	NS	7.1 U
Arochlor 1232	NS	NS	NS	16 U
Arochlor 1242	NS	NS	NS	11 U
Arochlor 1248	NS	NS	NS	8.2 U
Arochlor 1254	NS	NS	NS	12 U
Arochlor 1260	NS	NS	NS	17 U

GW = Groundwater AOC = Area of Concern
NS = No Standard
NA = Not Analyzed
U = Undetected
Shaded areas represent detection over the method detection limit and detection over one or more of the cleanup criteria.

TABLE 8: INTERIOR [illegible]MENT/TUNNEL SAMPLES (AOC-11, AOC-15)
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID			Impact to	TB-1	TC-1	TD-1	TD-2	TD-3	TS-1	TS-2	VS-1	PS-1
SAMPLE LOCATION	Residential Direct	Non-Residential	GW Soil								Steel Vat	Pit
SAMPLE DATE	Contact Soil	Direct Contact Soil	Cleanup	04/18/94	04/18/94	04/18/94	04/18/94	04/18/94	11/30/93	11/30/93	12/07/93	12/07/93
LAB ID	Cleanup Criteria*	Cleanup Criteria*	Criteria	E410487	E410488	E410489	E410490	E410491	E333442	E333443	E334877	E334877
PARAMETER												
METALS (PPM)												
Antimony	14	340	NS	<6.2	<7.1	<10	<10	NA	3.1	0.78	<18	NA
Arsenic	20	20	NS	1.2	22	7.4	5.7	NA	31	13	11	NA
Beryllium	1	1	NS	1.4	<0.59	1.0	0.99	NA	<0.58	<0.58	<1.5	NA
Cadmium	1	100	NS	3.5	150	2.5	2.8	NA	4.3	2.4	3.6	NA
Chromium	NS	NS	NS	84	180	96	150	NA	150	120	870	NA
Copper	600	600	NS	41	390	240	180	NA	140	180	410	NA
Lead	100	600	NS	32	250	100	110	NA	630	180	130	NA
Mercury	14	270	NS	<0.093	0.48	0.25	0.27	NA	0.15	0.18	0.30	NA
Nickel	250	2400	NS	160	360	240	280	NA	670	1600	620	NA
Selenium	63	3100	NS	<10	<12	<17	<17	NA	<12	<12	<29	NA
Silver	110	4100	NS	<1.0	<1.2	<1.7	<1.7	NA	<3.5	<3.5	<8.8	NA
Thallium	2	2	NS	<1.0	<1.2	<1.7	<1.7	NA	<0.58	<0.58	<1.5	NA
Zinc	1500	1500	NS	280	1100	1100	1400	NA	360	280	680	NA
Cyanide, Total			NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total			NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons			NS	200000	1100	2100	3800	NA	54000	28000	900000	600
Total Percent Solids	NS	NS	NS	96 %	85 %	58 %	60 %	NA	86 %	86 %	34 %	NA
PCBs (PPB)	490	2000	100,000									
Arochlor 1016	NS	NS	NS	180 U	21 U	30 U	29 U	0.22 U	2000 U	2000 U	490 U	1.1 U
Arochlor 1221	NS	NS	NS	66 U	7.4 U	11 U	10 U	0.19 U	730 U	730 U	180 U	0.41 U
Arochlor 1232	NS	NS	NS	140 U	16 U	24 U	23 U	0.27 U	1600 U	1600 U	390 U	0.90 U
Arochlor 1242	NS	NS	NS	100 U	11 U	17 U	16 U	0.36 U	1100 U	1100 U	270 U	0.63 U
Arochlor 1248	NS	NS	NS	88000	1900000	480000	430000	0.27 U	270000	170000	28,000	15
Arochlor 1254	NS	NS	NS	110 U	13 U	19 U	18 U	0.079 U	IND	26000	30000	5.6
Arochlor 1260	NS	NS	NS	160 U	18 U	27 U	26 U	0.090 U	13000	7900	49,000	2.5

GW = Groundwater
B.G. = Below Ground
NS = No Standard
NA = Not Analyzed
U = Undetected

AOC = Area of Concern
IND = Indeterminate due to presence of Arochlor 1248 pattern
* = Results report from Dilution #1
Shaded areas represent detection over the method detection limit.
and detection over one or more of the cleanup criteria.

TABLE 9: COMBINED SEWER SYSTEM (AOC-16)
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID SAMPLE LOCATION SAMPLE DATE LAB ID	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	MH-1 Manhole #1 04/18/94 E410582
PARAMETER				
METALS (PPM)				
Antimony	14	340	NS	<11
Arsenic	20	20	NS	18
Beryllium	1	1	NS	1.3
Cadmium	1	100	NS	9.0
Chromium	NS	NS	NS	370
Copper	600	600	NS	1600
Lead	100	600	NS	1500
Mercury	14	270	NS	2.3
Nickel	250	2400	NS	370
Selenium	63	3100	NS	<19
Silver	110	4100	NS	35
Thallium	2	2	NS	<1.9
Zinc	1500	1500	NS	2400
Total Percent Solids	NS	NS	NS	53 %
PCBs (PPB)	490	2000	100,000	
Arochlor 1016	NS	NS	NS	21 U
Arochlor 1221	NS	NS	NS	7.4 U
Arochlor 1232	NS	NS	NS	16 U
Arochlor 1242	NS	NS	NS	11 U
Arochlor 1248	NS	NS	NS	8.6 U
Arochlor 1254	NS	NS	NS	13 U
Arochlor 1260	NS	NS	NS	18 U

GW = Groundwater
NS = No Standard
NA = Not Analyzed
U = Undetected

AOC = Area of Concern
* = Results report from Dilution #1
Shaded areas represent detection over the method detection limit.
Shaded areas and italicized number represent detection over the method detection limit and detection over one or more of the cleanup criteria.

TABLE 11
AVERAGE CONCENTRATION PER AREA OF CONCERN
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

AREA OF CONCERN	AOC-1	AOC-2	AOC-3	AOC-4	AOC-6	AOC-7	AOC-8	AOC-9	AOC-10	AOC-11	AOC-15	AOC-16
ANALYTE												
METALS (PPM)												
Antimony	34											
Arsenic										26.5		
Beryllium										1.2		0.65
Cadmium	13.67			25.2		0.55			0.9	27.8		0.45
Chromium												
Copper	955			3500								800
Lead	1192	55		2550		125			155	25.4		750
Mercury												
Nickel	295			325						728		185
Selenium				60								
Silver	65											
Thallium												
Zinc	2233			1250								1200
PCBs (PPB)	45389.3 U	117.6 U	0.717 U	9948 U		6.52 U	49496 U	1995 U	110.3 U	61396 U	0.102 U	6.79 U
VOLATILE ORGANICS (PPB)												
Acrolein	6 U	4.13 U					115 U		4.33 U		1.1 U	
Acrylonitrile	4.9 U	3.43 U					232.5 U		3.6 U		1.2 U	
Benzene	0.33 U	0.23 U			0.225 U		19 U		0.528 U		0.14 U	
Bromochloromethane					0.31 U							
Bromoform	0.385 U	0.27 U			0.265 U		21.8 U		0.283 U		0.105 U	
Bromodichloromethane	0.45 U	0.315 U					23 U		0.33 U		0.135 U	
Bromomethane	1 U	0.7 U			0.65 U		21.3 U		0.7 U		0.27 U	
2-Butanone					0.345 U							
Carbon Disulfide					0.55 U							
Carbon Tetrachloride	0.55 U	0.378 U			0.37 U		23.8 U		0.395 U		0.06 U	
Chlorobenzene	0.55 U	0.383 U			0.38 U		27.5 U		0.403 U		0.355 U	
Chloroethane	0.75 U	0.5 U			0.05 U		24.5 U		0.525 U		0.355 U	
2-Chloroethylvinylether	0.8 U	0.575 U					16 U		0.6 U		0.26 U	
Chloroform	0.75 U	0.55 U					21.8 U		0.575 U		0.45 U	
Chloromethane	0.8 U	0.575 U			0.55 U		13.5 U		0.6 U		0.375 U	
cis-1,2-Dichloropropene	0.46 U	0.32 U			0.315 U		25 U		0.338 U		0.13 U	
Dibromochloromethane	0.17 U	0.12 U			0.12 U		9.25 U		0.128 U		0.16 U	
1,2-Dichlorobenzene	0.55 U	0.383 U					23.5 U		0.403 U		0.295 U	
1,3-Dichlorobenzene	0.43 U	0.298 U					16.5 U		0.313 U		0.3 U	
1,4-Dichlorobenzene	0.36 U	0.253 U					18.3 U		0.263 U		0.24 U	
1,1-Dichloroethane	0.75 U	0.5 U			0.05 U		26 U		0.525 U		0.195 U	
1,1-Dichloroethene					0.55 U							

VOLUME I

PHASE III
REMEDIAL INVESTIGATION REPORT

HARTZ MOUNTAIN CORPORATION
ISRA CASE #93126

PREPARED FOR:

HARTZ MOUNTAIN CORPORATION
700 FRANK E. RODGERS BOULEVARD
HARRISON, NEW JERSEY

PREPARED BY:

METCALF & EDDY, INC.
P.O. BOX 1500
SOMERVILLE, NEW JERSEY

JUNE 1996

Metcalf & Eddy
An Air & Water Technologies Company

TABLE 3
AVERAGE CONTAMINANT CONCENTRATION PER AREA OF CONCERN
HARTZ MOUNTAIN CORPORATION
HARRISON, NJ

	AOC # 8	AOC # 10	AOC # 16	AOC # 18
IDENTIFICATION	Chip Pit	B9A Area	Combined Sewers	Groundwater
MATRIX	Soil	Soil	Soil	Groundwater
UNITS	mg/Kg	mg/Kg	mg/Kg	ug/L
N – Nitrosodiphenylamine	NA	.07	NA	NA
N – Nitroso – Di – N – Propylamine	NA	.167	NA	NA
Phenanthrene	NA	1.187	NA	NA
Pyrene	NA	.27	NA	NA
1,2,4 – Trichlorobenzene	NA	.127	NA	NA
PCBs				
Arochlor 1016	.011	.01	.0099	.12
Arochlor 1221	.0041	.0037	.033	.095
Arochlor 1232	.0084	.008	.0078	.027
Arochlor 1242	.0058	.0056	.0054	.015
Arochlor 1248	3	.413	.482	.2
Arochlor 1254	.64	.223	.698	.1
Arochlor 1260	.0092	.084	.054	.16
METALS				
Antimony	3.9	2.1	3.1	2.5
Arsenic	2.7	3.4	1.3	4.2
Beryllium	.42	.39	.28	2.5
Cadmium	.31	.49	.27	2.2
Calcium	NA	NA	NA	115,300
Chromium	20.1	20	8.7	17.5
Copper	36.1	60	14	25.8
Iron	NA	NA	NA	10,760
Lead	34.5	88.7	21.1	11
Magnesium	NA	NA	NA	36,700
Mercury	.23	.39	.066	.1
Nickel	21.9	33	9.1	81.8
Potassium	NA	NA	NA	25,200
Selenium	5.5	5.7	5.3	3
Silver	.61	1.1	.57	.62
Sodium	NA	NA	NA	510,400
Thallium	.79	.44	.55	280
Zinc	71.6	99.2	49.1	384
TPHC	1,210	4,584	2,211	.34
General Chemistry				
Alkalinity, Bicarbonate	NA	NA	NA	279
Alkalinity, Carbonate	NA	NA	NA	3.4
Alkalinity, Total	NA	NA	NA	327
Chloride	NA	NA	NA	773
Hardness, Total	NA	NA	NA	481
Solids, Total Dissolved	NA	NA	NA	1,845
Sulfate	NA	NA	NA	105

TABLE 4-1-1
ANALYTICAL SUMMARY OF BASIN CONTENTS & ADJACENT SOIL SAMPLING RESULTS (PHASE I)
STORMWATER CATCHBASINS (AOC-1)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID SAMPLE DEPTH SAMPLE DATE LAB ID	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	CB-1 12/03/93 E333725	CB-2 12/03/93 E333723	CB-4 12/03/93 E333724	CB-6 12/03/93 E333726	CB-7 12/03/93 E333722	CB-1S(SB) 5.0-5.5' 04/18/94 E410583	CB-2S(SB) 4.5-5.0' 04/18/94 E410584	CB-4S(SB) 5.0-5.5' 04/18/94 E410585
PARAMETER											
METALS (PPM)											
Antimony	14	340	NS	<11	<9.8	<9.8	30	38	<7.1	<6.7	<6.6
Arsenic	20	20	NS	5.3	4.0	2.7	6.2	15	2.2	3.9	1.3
Beryllium	1	1	NS	<0.93	<0.82	<0.82	<0.89	<1.0	0.60	0.97	<0.55
Cadmium	1	100	NS	11	5.0	5.8	25	15	<0.59	<0.56	<0.55
Chromium	NS	NS	NS	160	130	150	180	500	12	24	8.6
Copper	600	600	NS	230	200	200	1200	710	12	21	6.1
Lead	100	600	NS	760	670	830	2400	1300	<12	57	<11
Mercury	14	270	NS	0.54	0.70	0.44	0.77	2.9	<0.11	0.20	<0.10
Nickel	250	2400	NS	99	110	81	110	590	7.4	19	5.1
Selenium	63	3100	NS	<19	<16	<16	<18	<20	<12	<11	<11
Silver	110	4100	NS	<5.6	<4.9	<4.9	130	<6.1	<1.2	<1.1	<1.1
Thallium	2	2	NS	<0.93	<1.6	<0.82	<0.89	<1.0	<1.2	<1.1	<1.1
Zinc	1500	1500	NS	2800	680	900	1600	2300	24	81	15
Corrosivity	N	N	N	8.4 NC	9.2 NC	7.8 NC	8.0 NC	8.8 NC	NA	NA	NA
Cyanide Reactivity	N	N	N	<1.5	<1.5	<1.5	<1.5	<1.5	NA	NA	NA
Cyanide Total	N	N	N	NA	NA	<1.0	NA	NA	NA	NA	NA
Ignitability	N	N	N	>200 F	>200 F	>200 F	>200 F	>200 F	NA	NA	NA
Petroleum Hydrocarbons	N	N	N	6500	9100	2600	17000	11000	NA	NA	NA
Phenolics, Total	N	N	N	NA	NA	<2.5	NA	NA	NA	NA	NA
Total Percent Solids	N	N	N	54 %	61 %	61 %	56 %	49 %	85 %	90 %	91 %
Sulfide Reactivity	N	N	N	170	<50	<50	160	<50	NA	NA	NA
PCBs (PPB)	490	2000	100,000								
Arochlor 1016	NS	NS	NS	320 U	290 U	29 U	310 U	350 U	21 U	19 U	19 U
Arochlor 1221	NS	NS	NS	120 U	100 U	10 U	110 U	130 U	7.4 U	7.0 U	6.9 U
Arochlor 1232	NS	NS	NS	260 U	230 U	23 U	240 U	280 U	16 U	15 U	15 U
Arochlor 1242	NS	NS	NS	180 U	160 U	16 U	170 U	190 U	11 U	11 U	11 U
Arochlor 1248	NS	NS	NS	55000	8800	IND	18000	110000	8.6 U	8.1 U	8.0 U
Arochlor 1254	NS	NS	NS	16000	IND	1500	7200	220 U	13 U	12 U	12 U
Arochlor 1260	NS	NS	NS	2700	3400	25 U	2200	310 U	18 U	17 U	17 U

TABLE 4-1-1

ANALYTICAL SUMMARY OF BASIN CONTENTS & ADJACENT SOIL SAMPLING RESULTS (PHASE I)
STORMWATER CATCHBASINS (AOC-1)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID SAMPLE DEPTH SAMPLE DATE LAB ID	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	CB-1 12/03/93 E333725	CB-2 12/03/93 E333723	CB-4 12/03/93 E333724	CB-6 12/03/93 E333726	CB-7 12/03/93 E333722	CB-1S(SB) 5.0-5.6' 04/18/94 E410583	CB-2S(SB) 4.5-5.0' 04/18/94 E410584	CB-4S(SB) 5.0-5.5' 04/18/94 E410585
Dieldrin	42	180	50,000	NA	NA	1.4 U	NA	NA	NA	NA	NA
Endosulfan I	3,000	52,000	50,000	NA	NA	1.5 U	NA	NA	NA	NA	NA
Endosulfan II	Above is total for I & II			NA	NA	1.9 U	NA	NA	NA	NA	NA
Endosulfan Sulfate	NS	NS	NS	NA	NA	6.0 U	NA	NA	NA	NA	NA
Endrin	17,000	310,000	50,000	NA	NA	2.4 U	NA	NA	NA	NA	NA
Endrin Aldehyde	NS	NS	NS	NA	NA	2.2 U	NA	NA	NA	NA	NA
Heptachlor	150	650	500,000	NA	NA	IND	NA	NA	NA	NA	NA
Heptachlor Epoxide	NS	NS	NS	NA	NA	1.5 U	NA	NA	NA	NA	NA
Methoxychlor	280,000	5,200,000	500,000	NA	NA	IND	NA	NA	NA	NA	NA
Toxaphene	100	200	100,000	NA	NA	110 U	NA	NA	NA	NA	NA

GW = Groundwater
J = Indicates an estimated value below the method detection limit
N = Not Applicable/Aanlysis for ID#27 Classification
NS = No Standard
NA = Not Analyzed
U = Undetected
IND = Indeterminate due to presence of Arochlor 1248 pattern
* = Results report from Dilution #1
NC = Non-Corrosive

Shaded areas represent detections above the method detection limit and detection above one or more of the cleanup criteria limits.
SB = Soil Boring
AOC = Area of Concern

TABLE 4-2-1
ANALYTICAL RESULTS SOIL BORING SAMPLES (PHASE I)
FORMER AST PAD (AOC-2)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID:			Impact to	B1/S7	B2/S2	B3/S3	B3/S8	B4/S8	B5/S8	FB
SAMPLE DEPTH:	Residential Direct	Non-Residential	GW Soil	13.5–14.0'	2.5–3.0'	4.5–5.0'	14.0–14.5'	14.0–14.5'	14.0–14.5'	
SAMPLE DATE:	Contact Soil	Direct Contact Soil	Cleanup	11/22/93	11/22/93	11/22/93	11/22/93	11/22/93	11/22/93	11/22/93
LAB ID	Cleanup Criteria*	Cleanup Criteria*	Criteria	E332876	E332877	E332878	E332879	E332880	E332881	E332875
METALS (PPM)										
Antimony	14	340	NS	<6.8	<6.9	<6.8	<7.1	<7.1	<6.8	NA
Arsenic	20	20	NS	1.6	6.7	2.1	1.1	0.74	6.4	NA
Beryllium	1	1	NS	0.70	<0.57	<0.57	0.69	0.62	0.58	NA
Cadmium	1	100	NS	<0.57	<0.57	<0.57	<0.59	<0.60	<0.57	NA
Chromium	NS	NS	NS	18	9.8	11	14	15	30	NA
Copper	600	600	NS	22	45	17	29	15	13	NA
Lead	100	600	NS	11	110	23	<12	12	<11	NA
Mercury	14	270	NS	<0.11	0.49	0.20	<0.12	<0.12	<0.12	NA
Nickel	250	2400	NS	24	12	16	23	20	16	NA
Selenium	63	3100	NS	<11	<11	<11	<12	<12	<11	NA
Silver	110	4100	NS	<1.1	<1.1	<1.1	<1.2	<1.2	<1.1	NA
Thallium	2	2	NS	<1.1	<0.57	<0.57	<0.59	<0.60	<0.57	NA
Zinc	1500	1500	NS	63	61	120	65	51	39	NA
Cyanide, Total	1100	21000	NS	NA	<1.0	<1.0	NA	NA	NA	NA
Phenolics, Total			NS	NA	<2.5	<2.5	NA	NA	NA	NA
Petroleum Hydrocarbons	NS	NS	NS	<25	NA	NA	<25	<25	<25	NA
Total Percent Solids	NS	NS	NS	88 %	87 %	88 %	85 %	84 %	88 %	NA
PCBs (PPB)	490	2000	100,000							
Arochlor 1016	NS	NS	NS	20 U	20 U	20 U	21 U	21 U	20 U	NA
Arochlor 1221	NS	NS	NS	7.1 U	7.1 U	7.1 U	7.4 U	7.5 U	7.2 U	NA
Arochlor 1232	NS	NS	NS	16 U	16 U	16 U	16 U	17 U	16 U	NA
Arochlor 1242	NS	NS	NS	11 U	11 U	11 U	11 U	11 U	11 U	NA
Arochlor 1248	NS	NS	NS	8.3 U	230	8.3 U	8.6 U	8.7 U	8.3 U	NA
Arochlor 1254	NS	NS	NS	12 U	140	12 U	13 U	13 U	12 U	NA
Arochlor 1260	NS	NS	NS	18 U	74	18 U	18 U	18 U	18 U	NA

TABLE 4-4-1
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS (PHASE I)
FLOOR SUMP WIPE SAMPLES (AOC-4)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID SAMPLE LOCATION SAMPLE DATE:	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria*	IS-1 Int. Fl.Sump,Bldg.7 12/06/93	IS-2 Maint.Shop Sump,Bldg.6 12/06/93	FB 12/06/93	IS-3 Bsmnt Bldg.O 12/07/93	IS-4 Fmr.Degrer,Bldg.O 12/07/93	FB 12/07/93
PCBs (PPB)	490	2,000	100,000						
Arochlor 1016	NS	NS	NS	0.50 U	18 U	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1221	NS	NS	NS	0.50 U	6.4 U	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1232	NS	NS	NS	0.50 U	14 U	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1242	NS	NS	NS	0.50 U	9.8 U	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1248	NS	NS	NS	28,000	78,000	0.50 U	15	0.50 U	0.50 U
Arochlor 1254	NS	NS	NS	0.50 U	IND	0.50 U	0.50 U	0.50 U	0.50 U
Arochlor 1260	NS	NS	NS	0.50 U	4,400	0.50 U	0.50 U	0.50 U	0.50 U
METALS (PPM)									
Antimony	14	340	NS	<17	<6.1	NA	<6.0	<12	<6.0
Arsenic	20	20	NS	<1.4	7.5	NA	<2.3	<2.9	<1.3
Beryllium	1	1	NS	<1.4	0.58	NA	<0.50	<0.50	<0.50
Cadmium	1	100	NS	<1.4	48	NA	3.7	24	<0.50
Chromium	NS	NS	NS	64	190	NA	48	360	1.2
Copper	600	600	NS	25	4100	NA	160	2900	10
Lead	100	600	NS	<29	5700	NA	150	1800	<10
Mercury	14	270	NS	<0.065	0.64	NA	0.19	3.2	<0.15
Nickel	250	2400	NS	15	88	NA	28	650	<4.0
Selenium	63	3100	NS	<29	25	NA	<10	<0.50	<10
Silver	110	4100	NS	<8.7	120	NA	<3.0	15	<3.0
Thallium	2	2	NS	<1.4	<0.51	NA	<2.3	<3.0	<1.2
Zinc	1500	1500	NS	41	2500	NA	510	23	3100
Total Percent Solids	NS	NS	NS	NA	98 %	NA	NA	NA	NA

All samples listed on this table are wipe samples

U = UNDETECTED AOC = AREA OF CONCERN

NS = NO STANDARD FB = FIELD BLANK

IND = INDETERMINATE DUE TO PRESENCE OF AROCHLOR 1248 PATTERN

NA = NOT ANALYZED

Shaded areas represent detection over the method detection limit and detection over one or more of the cleanup criteria

TABLE 4-7-1
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS (PHASE I)
OIL VAULT TEST PIT SAMPLES (AOC 7)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY
DECEMBER 4, 1993

SAMPLE ID SAMPLE DEPTH SAMPLE LOCATION LAB ID	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	V-1 7.0-7.5' S.Side,Bldg.1 E333564
PARAMETER				
METALS (PPM)				
Antimony	14	340	NS	0.95
Arsenic	20	20	NS	6.4
Beryllium	1	1	NS	0.67
Cadmium	1	100	NS	1.1
Chromium	NS	NS	NS	36
Copper	600	600	NS	150
Lead	100	600	NS	250
Mercury	14	270	NS	0.28
Nickel	250	2400	NS	73
Selenium	63	3100	NS	<11
Silver	110	4100	NS	<3.4
Thallium	2	2	NS	<0.56
Zinc	1500	1500	NS	230
Petroleum Hydrocarbons	NS	NS	NS	290
Total Percent Solids	NS	NS	NS	89 %
PCBs (PPB)	490	2000	100,000	
Arochlor 1016	NS	NS	NS	20 U
Arochlor 1221	NS	NS	NS	7.1 U
Arochlor 1232	NS	NS	NS	16 U
Arochlor 1242	NS	NS	NS	11 U
Arochlor 1248	NS	NS	NS	8.2 U
Arochlor 1254	NS	NS	NS	12 U
Arochlor 1260	NS	NS	NS	17 U

GW = Groundwater
NS = No Standard
NA = Not Analyzed
U = Undetected

AOC = Area of Concern
Shaded areas represent detection over the method detection limit and detection over one or more of the cleanup criteria.

BEB/TAB472

TABLE 4-7-2
ANALYTICAL SUMMARY OF SOIL SAMPLING (PHASE II) COLLECTED FROM VAULT BORINGS B9-6 AND B9-7 HARTZ MOUNTAIN CORPORATION HARRISON, NEW JERSEY

SAMPLING LOCATION: SAMPLING DATE: ACCUTEST SAMPLE ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	B-9-6 12/05/94 E441622	B-9-7 12/06/94 E441623	FB-1205 12/05/94 E441621
	(ppb)	(ppb)	(ppb)			
PCBs (PPB)	490	2,000	50,000			
AROCHLOR 1016				20 U	21 U	0.24 U
AROCHLOR 1221				7.2 U	7.4 U	0.2 U
AROCHLOR 1232				16 U	16 U	0.055 U
AROCHLOR 1242				11 U	11 U	0.025 U
AROCHLOR 1248				8.4 U	8.6 U	0.41 U
AROCHLOR 1254				12 U	13 U	0.21 U
AROCHLOR 1260				18 U	18 U	0.32 U
METALS (PPM)	(ppm)	(ppm)	(ppm)			
ANTIMONY	14	340	NS	6.9 U	7.1 U	5 U
ARSENIC	20	20	NS	1.1 U	1.7	5 U
BERYLLIUM	1	1	NS	0.57 U	0.59 U	5 U
CADMIUM	1	100	NS	0.57 U	0.59 U	4 U
CHROMIUM	NS	NS	NS	10	15	10 U
COPPER	600	600	NS	16	36	25 U
LEAD	400(4)	600	NS	11 U	12 U	3 U
MERCURY	14	270	NS	0.1 U	0.12 U	0.2 U
NICKEL	250	2400	NS	11	15	40 U
SELENIUM	63	3100	NS	11 U	12 U	5 U
SILVER	110	4100	NS	1.1 U	1.2 U	10 U
THALLIUM	2	2	NS	1.1 U	1.2 U	5 U
ZINC	1500	1500	NS	34	43	20 U
MISC:						
PETROLEUM HYDROCARBONS, BY IR (PPM)	NS	NS	NS	7900	15000	0.5 U
TOTAL PERCENT SOLIDS	NS	NS	NS	87	85	NA

(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.

(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.

(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.

(4) Revised July 20, 1994

ppb = Parts per Billion

ppm = Parts per Million

NS = No Standard

NA = Not analyzed

U = Undetected

[ ] = Shaded area indicates parameter was detected above one or more of the soil quality criteria levels.

TABLE 4-8

ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS (PHASE I)
CHIP PIT AREA TEST PITS (AOC-8)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY
NOVEMBER 30, 1993

SAMPLE ID SAMPLE DEPTH SAMPLE LOCATION LAB ID	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	CP-1 3.0-3.5' Chip Pit,3'B.G. E333445	CP-2 8.5-9.0' Chip Pit,8.7'B.G. E333446
PARAMETER					
METALS (PPM)					
Antimony	14	340	NS	0.69	<0.59
Arsenic	20	20	NS	8.10	1.4
Beryllium	1	1	NS	<0.55	0.59
Cadmium	1	100	NS	0.81	<0.59
Chromium	NS	NS	NS	38	15
Copper	600	600	NS	86	30
Lead	100	600	NS	78	29
Mercury	14	270	NS	0.40	0.13
Nickel	250	2400	NS	58	16
Selenium	63	3100	NS	<11	<12
Silver	110	4100	NS	<3.3	<3.5
Thallium	2	2	NS	<0.55	<0.59
Zinc	1500	1500	NS	110	58
Cyanide, Total	1100	21000	NS	<1.0	<1.0
Phenolics, Total			NS	<2.5	<2.5
Petroleum Hydrocarbons			NS	NA	NA
Total Percent Solids	NS	NS	NS	91 %	85 %
PCBs (PPB)	490	2000	100,000		
Arochlor 1016	NS	NS	NS	19 U	21 U
Arochlor 1221	NS	NS	NS	6.9 U	7.4 U
Arochlor 1232	NS	NS	NS	15 U	16 U
Arochlor 1242	NS	NS	NS	11 U	11 U
Arochlor 1248	NS	NS	NS	96000	2500
Arochlor 1254	NS	NS	NS	IND	420
Arochlor 1260	NS	NS	NS	17 U	18 U
VOLATILE ORGANICS (PPB)					
Acrolein	NS	NS	NS	220 U	240 U
Acrylonitrile	1,000	5,000	100,000	450 U	480 U
Benzene	3,000	13,000	1,000	37 U	39 U
Bromoform	86,000	370,000	1,000	42 U	45 U
Bromodichloromethane	5,000	22,000	1,000	44 U	48 U
Bromomethane	79,000	1,000,000	1,000	41 U	44 U

TABLE 4-8-2
SUMMARY OF ANALYTICAL RESULTS OF SOIL SAMPLING (PHASE II)
CHIP PIT AREA TEST PITS (AOC-8)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLING LOCATION: SAMPLING DATE: ACCUTEST SAMPLE ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	TP-CP1 11/17/94 E439159	TP-CP2 11/17/94 E439162	TP-CP3 11/17/94 E439163	TP-CP4 11/17/94 E439157	TP-CP5 11/18/94 E439165	TP-CP6 11/17/94 E439158	TP-CP7 11/18/94 E439166	TP-CP8 11/17/94 E439160	TP-CP9 11/17/94 E439164	FB111794 11/17/94 E439161
PCBs (PPB)	490	2000	50000										
AROCHLOR 1016				22 U	20 U	19 U	25 U	20 U	19 U	20 U	21 U	19 U	NA
AROCHLOR 1221				7.8 U	7.2 U	7 U	8.9 U	7.2 U	7 U	7.2 U	7.4 U	7 U	NA
AROCHLOR 1232				17 U	16 U	15 U	20 U	16 U	15 U	16 U	16 U	15 U	NA
AROCHLOR 1242				12 U	11 U	11 U	14 U	11 U	11 U	11 U	11 U	11 U	NA
AROCHLOR 1248				2300	150000	11000	8800	6700	31000	27000	150	6600	NA
AROCHLOR 1254				890	42000	3900	5500	2000	11000	11000	91	3000	NA
AROCHLOR 1260				92	3100	340	730	160	790	580	18 U	230	NA
METALS (PPM)													
ANTIMONY	14	340	NS	7.4 U	6.9 U	6.7 U	47	6.8 U	6.7 U	6.8 U	7.1 U	6.7 U	NA
ARSENIC	20	20	NS	8.3	1.4	5.4	27	3.3	2	15	1.8	5.3	NA
BERYLLIUM	1	1	NS	0.62 U	0.67	0.6	0.7 U	0.57 U	0.57	0.57 U	0.94	0.75	NA
CADMIUM	1	100	NS	0.62 U	0.57 U	0.56 U	0.7 U	0.57 U	0.56 U	0.99	0.59 U	0.56 U	NA
CHROMIUM	1	100	NS	56	21	32	53	22	50	130	20	29	NA
COPPER	600	600	NS	49	22	99	120	38	32	570	13	46	NA
LEAD	400	600	NS	43	11 U	52	140	23	11 U	340	12 U	56	NA
MERCURY	14	270	NS	0.12 U	0.089 U	0.18	0.19	0.097 U	1.2	0.25	0.11 U	0.19	NA
NICKEL	250	2400	NS	34	21	120	53	23	26	120	19	47	NA
SELENIUM	63	3100	NS	12 U	11 U	11 U	14 U	11 U	11 U	11 U	12 U	11 U	NA
SILVER	110	4100	NS	1.2 U	1.1 U	1.1 U	1.4 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	NA
THALLIUM	2	2	NS	1.2	1.6	1.4	2.2	1.1 U	1.1 U	1.8	1.2	2.1	NA
ZINC	1500	1500	NS	100	70	140	200	62	58	840	59	100	NA
MISC: (PPM)													
PETROLEUM HYDROCARBONS	NS	NS	NS	260	5100	1600	1900	780	5100	29000	36	4600	NA
TOTAL PERCENT SOLIDS	NS	NS	NS	81 %	87 %	90 %	71 %	88 %	90 %	88 %	85 %	90 %	NA

PPB = Parts per Billion NS = No Standard NA = Not Analyzed

PPM = Parts per Million U = Undetected

TICs = Tentatively Identified Compounds

(1) RDC Criteria are based on NJDEP 3 February 1994 Residential Contact Soil Cleanup Criteria.

(2) NRDC Criteria are based on NJDEP 3 February 1994 Non-Residential Contact Soil Cleanup Criteria.

(3) IGW Criteria are based on NJDEP 3 February 1994 Impact to Groundwater Soil Cleanup Criteria.

TABLE 4-8-3
ANALYTICAL SUMMARY OF POST-EXCAVATION SOIL SAMPLING
COLLECTED FROM THE CHIP PIT AREA OF CONCERN (FORMER TEST PIT -TP-2- PHASE III)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING ID. SAMPLING LOCATION: SAMPLING DEPTH: SAMPLING DATE: ACCUTEST SAMPLE ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	TP7-S2, EAST WALL 5.5 - 6.0' 07/21/95 E5161-16,1	TP-7-S3, SOUTH WALL 5.5 - 6.0' 07/21/95 E5161-17,18	TP-7-S4, WEST WALL 5.5 - 6.0' 07/21/95 E5161-19,20	TP-7-S5, SOUTH WALL 5.5 - 6.0' 07/21/95 E5161-21,22	FB 07/20/95 E5161-11,12	TB 07/20/95 E5161-24
PCBs (MG/KG)	0 49	2	50					(ug/kg)	(ug/kg)
AROCHLOR 1016				0.02 U	0.02 U	0.02 U	0.02 U	0.23 U	NA
AROCHLOR 1221				0.0074 U	0.0072 U	0.0072 U	0.0073 U	0.19 U	NA
AROCHLOR 1232				0.016 U	0.016 U	0.016 U	0.016 U	0.054 U	NA
AROCHLOR 1242				0.011 U	0.011 U	0.011 U	0.011 U	0.025 U	NA
AROCHLOR 1248				7.4	7.4	5.1	6.6	0.4 U	NA
AROCHLOR 1254				0.013 U	0.012 U	0.012 U	0.013 U	0.2 U	NA
AROCHLOR 1260				0.018 U	0.018 U	0.018 U	0.018 U	0.31 U	NA
INORGANICS (MG/KG)									
ANTIMONY	14	340	NS	7.1 U	6.9 U	6.9 U	7 U	5 U	NA
ARSENIC	20	20	NS	4.5	5 2	7.4	4.3	5 U	NA
BERYLLIUM	1	1	NS	0.59 U	0.57 U	0.57 U	0.58 U	5 U	NA
CADMIUM	1	100	NS	0.59 U	0.57 U	0.57 U	0.58 U	4 U	NA
CHROMIUM	NS	NS	NS	56	46	25	49	10 U	NA
COPPER	600	600	NS	76	76	130	67	25 U	NA
LEAD	400(4)	600	NS	91	85	60	60	3 U	NA
MERCURY	14	270	NS	0.5	0.56	0.55	0.62	0.2 U	NA
NICKEL	250	2400	NS	39	37	26	36	40 U	NA
SELENIUM	63	3100	NS	12 U	11 U	11 U	12 U	5 U	NA
SILVER	110	4100	NS	1.2 U	1.1 U	1.1 U	1.2 U	10 U	NA
THALLIUM	2	2	NS	1.2 U	1.1 U	1.1 U	1.2 U	5 U	NA
ZINC	1500	1500	NS	130	130	87	110	33	NA
WET CHEMISTRY OR MISC:									
PETROLEUM HYDROCARBONS (MG/KG)	NS	NS	NS	910	2000	980	700	0 5 U	NA
TOTAL PERCENT SOLIDS (%)	NS	NS	NS	85	87	87	86	NA	NA

NOTES

ug/kg = micrograms per kilograms (parts per billion - PPB)

mg/kg = milligrams per kilogram (parts per million - PPM)

(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.

(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.

(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.

(4) Revised July 20, 1994

Shaded area indicates that detection is above one or more of the criteria levels.

FB = Field Blank, TB = Trip Blank

NS = No Standard

NA = Not Analyzed

U = Undetected

ND = Not Detected

TABLE 4-8-4
ANALYTICAL SUMMARY OF SOIL BORING SAMPLES
TEST PIT 7 AREA (AOC-8)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION:	RESIDENTIAL	NON-RESIDENTIAL	IMPACT TO	TP-7-B1-S1	TP-7-B1-S2	TP-7-B1-S3	TP7-B2-S1	TP7-B3-S1
SAMPLING DEPTH:	DIRECT CONTACT	DIRECT CONTACT	GROUNDWATER	2'-4'	7'-9'	13'-15'	13'-15'	2'-4'
SAMPLING DATE:	SOIL CLEANUP	SOIL CLEANUP	SOIL CLEANUP	09/14/95	09/14/95	09/14/95	09/13/95	09/13/95
ACCUTEST SAMPLE ID:	CRITERIA(1)	CRITERIA (2)	CRITERIA(3)	E6368-1	E6368-2	E6368-3	E6337-9	E6337-5
PCBs (mg/kg)	0.49	2	50					
AROCHLOR 1016				0.019 U	0.022 U	0.02 U	0.021 U	0.019 U
AROCHLOR 1221				0.0069 U	0.0079 U	0.0071 U	0.0075 U	0.007 U
AROCHLOR 1232				0.015 U	0.017 U	0.016 U	0.017 U	0.015 U
AROCHLOR 1242				0.011 U	0.012 U	0.011 U	0.012 U	0.011 U
AROCHLOR 1248				0.054	0.0091 U	0.0082 U	3.8	0.0081 U
AROCHLOR 1254				0.022	0.014 U	0.012 U	1.4	0.051
AROCHLOR 1260				0.017 U	0.019 U	0.017 U	0.018 U	0.017 U
METALS (mg/kg)								
ANTIMONY	14	340	NS	6.7 U	7.5 U	6.8 U	7.2 U	6.7 U
ARSENIC	20	20	NS	1.1 U	1.6	1.2	1.5	1.4
BERYLLIUM	1	1	NS	0.58	0.69	0.57 U	0.6 U	0.56 U
CADMIUM	1	100	NS	0.56 U	0.63 U	0.57 U	0.6 U	0.56 U
CHROMIUM	NS	NS	NS	17	8.9	12	9.3	12
COPPER	600	600	NS	30	11	42	13	17
LEAD	400(4)	600	NS	21	13 U	11 U	12 U	11 U
MERCURY	NS	NS	NS	0.13	0.12 U	0.1 U	0.1 U	0.1 U
NICKEL	14	270	NS	22	16	18	14	18
SELENIUM	250	2400	NS	11 U	13 U	11 U	12 U	11 U
SILVER	110	4100	NS	1.1 U	1.3 U	1.1 U	1.2 U	1.1 U
THALLIUM	2	2	NS	1.1 U	1.3 U	1.1 U	1.2 U	1.1 U
ZINC	1500	1500	NS	69	59	49	64	74
WET CHEMISTRY OR MISC:								
PETROLEUM HYDROCARBONS (mg/kg)	NS	NS	NS	39	25 U	25 U	4200	87
TOTAL PERCENT SOLIDS (%)	NS	NS	NS	90	80	88	83	90

A shaded detection indicates that it is over one or more of the soil cleanup criteria.
FB = Field Blank; TB = Trip Blank
U = Undetected
NS = No Standard NA = Not Analyzed
mg/kg = milligrams per kilogram (parts per million - PPM)
(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.
(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.
(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.
(4) Revised July 20, 1994 B = Indicates analyte is found in associated method blank
J = An estimated value below method detection limit.
N = Presumptive evidence of a compound.

TABLE 4-8-4
ANALYTICAL SUMMARY OF SOIL BORING SAMPLES
TEST PIT 7 AREA (AOC-8)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION:	RESIDENTIAL	NON-RESIDENTIAL	IMPACT TO	TP7-B3-B2	TP7-B3-B3	TP-7-B4-B1	FB-TP7
SAMPLING DEPTH:	DIRECT CONTACT	DIRECT CONTACT	GROUNDWATER	7'-9'	13'-15'	2'-4'	
SAMPLING DATE:	SOIL CLEANUP	SOIL CLEANUP	SOIL CLEANUP	09/13/95	09/13/95	09/14/95	09/13/95
ACCUTEST SAMPLE ID:	CRITERIA(1)	CRITERIA (2)	CRITERIA(3)	E6337-6	E6337-7	E6368-4	E6337-8
PCBs (mg/kg)	0.49	2	50				
AROCHLOR 1016				0.02 U	0.021 U	0.02 U	0.23 U
AROCHLOR 1221				0.0072 U	0.0076 U	0.0072 U	0.19 U
AROCHLOR 1232				0.016 U	0.017 U	0.016 U	0.054 U
AROCHLOR 1242				0.011 U	0.012 U	0.011 U	0.025 U
AROCHLOR 1248				0.0084 U	0.049	2.8	0.4 U
AROCHLOR 1254				0.012 U	0.013 U	0.012 U	0.2 U
AROCHLOR 1260				0.018 U	0.019 U	0.018 U	0.31 U
METALS (mg/kg)							
ANTIMONY	14	340	NS	6.9 U	7.3 U	6.9 U	NA
ARSENIC	20	20	NS	1.1 U	1.6	5.9	NA
BERYLLIUM	1	1	NS	0.57 U	0.61 U	0.57 U	NA
CADMIUM	1	100	NS	0.57 U	0.61 U	0.57 U	NA
CHROMIUM	NS	NS	NS	11	17	30	NA
COPPER	600	600	NS	32	25	78	NA
LEAD	400(4)	600	NS	11 U	12 U	89	NA
MERCURY	NS	NS	NS	0.11 U	0.1 U	0.33	NA
NICKEL	14	270	NS	19	18	48	NA
SELENIUM	250	2400	NS	11 U	12 U	11 U	NA
SILVER	110	4100	NS	1.1 U	1.2 U	1.1 U	NA
THALLIUM	2	2	NS	1.1 U	1.2 U	1.1 U	NA
ZINC	1500	1500	NS	46	46	170	NA
WET CHEMISTRY OR MISC:							
PETROLEUM HYDROCARBONS (mg/kg)	NS	NS	NS	49	51	520	0.5 U
TOTAL PERCENT SOLIDS (%)	NS	NS	NS	87	82	87	NA

A shaded detection indicates that it is over one or more of the soil cleanup criteria.
FB = Field Blank; TB = Trip Blank
U = Undetected
NS = No Standard NA = Not Analyzed
mg/kg = milligrams per kilogram (parts per million - PPM)
(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.
(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.
(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.
(4) Revised July 20, 1994 B = Indicates analyte is found in associated method blank
J = An estimated value below method detection limit.
N = Presumptive evidence of a compound.

ANALYTICAL SUMMARY OF SOIL BORING SAMPLES (PHASE III)
CHIP PIT AREA (AOC-8)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION:	RESIDENTIAL	NON-RESIDENTIAL	IMPACT TO	CPB-1A	CPB-1B	CPB-2A	CPB-2B	CPB-3A	CPB-3B
SAMPLING DEPTH:	DIRECT CONTACT	DIRECT CONTACT	GROUNDWATER	6.0-6.5'	11.5-12.0'	6.0-6.5'	11.5-12.0'	6.0-6.5'	11.5-12.0'
SAMPLING DATE:	SOIL CLEANUP	SOIL CLEANUP	SOIL CLEANUP	07/27/95	07/27/95	07/27/95	07/27/95	07/27/95	07/27/95
ACCUTEST SAMPLE ID:	CRITERIA(1)	CRITERIA (2)	CRITERIA(3)	E5299-5	E5299-6	E5299-3	E5299-4	E5299-1	E5299-2
TRANS-1,2-DICHLOROETHYLENE	1,000	1,000	50	0.0011 U	0.001 U	0.00098 U	0.001 U	0.00099 U	0.001 U
TRANS-1,3-DICHLOROPROPENE	4	5	1	0.00059 U	0.00051 U	0.0005 U	0.00052 U	0.00051 U	0.00051 U
TRICHLOROETHYLENE	23	54	1	0.00067 U	0.00059 U	0.00057 U	0.00059 U	0.00058 U	0.00059 U
TRICHLOROFLUOROMETHANE	NS	NS	NS	0.0014 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U	0.0012 U
VINYL CHLORIDE	2	7	10	0.002 U	0.0017 U	0.0017 U	0.0018 U	0.0017 U	0.0017 U
XYLENES (TOTAL)	410	1,000	10	0.0011 U	0.01	0.0009 U	0.00093 U	0.00092 U	0.00093 U
TICs	NS	NS	NS	0.02	0.06	0.017	0.012	0.012	0.011
PCBs (MG/KG)	0.49	2	50						
AROCHLOR 1016				0.022 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
AROCHLOR 1221				0.0079 U	0.0068 U	0.0067 U	0.0069 U	0.0068 U	0.0068 U
AROCHLOR 1232				0.017 U	0.015 U	0.015 U	0.015 U	0.015 U	0.015 U
AROCHLOR 1242				0.012 U	0.01 U	0.01 U	0.011 U	0.01 U	0.01 U
AROCHLOR 1248				0.0091 U	0.0079 U	0.0077 U	0.008 U	0.0078 U	0.0079 U
AROCHLOR 1254				0.014 U	0.012 U	0.012 U	0.03	0.012 U	0.012 U
AROCHLOR 1260				0.019 U	0.017 U	0.016 U	0.017 U	0.017 U	0.017 U
INORGANICS (MG/KG)									
ANTIMONY	14	340	NS	7.5 U	6.5 U	6.4 U	6.6 U	6.5 U	6.5 U
ARSENIC	20	20	NS	3	1.7	2.4	2.2	1.7	3.7
BERYLLIUM	1	1	NS	0.68	0.54 U	0.53 U	0.66	0.54 U	0.54 U
CADMIUM	1	100	NS	0.63 U	0.54 U	0.53 U	0.55 U	0.54 U	0.54 U
CHROMIUM	NS	NS	NS	14	12	15	16	10	14
COPPER	600	600	NS	15	14	20	16	16	16
LEAD	400(4)	600	NS	13 U	11 U	11 U	11 U	11 U	11 U
MERCURY	14	270	NS	0.12 U	0.1 U	0.096 U	0.096 U	0.1 U	0.096 U
NICKEL	250	2400	NS	16	13	13	17	11	16
SELENIUM	63	3100	NS	13 U	11 U	11 U	11 U	11 U	11 U
SILVER	110	4100	NS	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
THALLIUM	2	2	NS	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
ZINC	1500	1500	NS	41	35	45	45	26	42
WET CHEMISTRY OR MISC (MG/KG):									
PETROLEUM HYDROCARBONS	NS	NS	NS	540	8800	210	25	25 U	25 U
TOTAL PERCENT SOLIDS (%)	NS	NS	NS	80	92	94	91	93	92

TABLE 4-8-7
ANALYTICAL SUMMARY OF POST-EXCAVATION SOIL SAMPLES (PHASE III)
CHIP PIT EXCAVATION (AOC-8)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION:	RESIDENTIAL DIRECT CONTAC SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	CPE-1	CPE-2	CPE-3	CPE-4	CPE-5	CPE-6	CPE-7	FB92295
SAMPLING DEPTH:				14.5'	14.5'	13.0'	15.0'	15.0'	15.0'	15.0'	
SAMPLING DATE:				09/22/95	09/22/95	09/28/95	09/28/95	09/28/95	09/28/95	09/28/95	09/22/95
ACCUTEST SAMPLE ID:				E6565-3	E6565-4	E6738-1	E6738-2	E6738-3	E6738-4	E6738-5	E6565-1
TICs	NS	NS	NS	2.931 JBN	0.943 JBN	1203 J	13 JB	77 JB	339 JB	1900 JB	14 JB
PCBs (mg/kg)	0.49	2	50								(ug/kg)
AROCHLOR 1016				0.023 U	0.022 U	0.021 U	0.02 U	0.024 U	0.02 U	0.022 U	0.23 U
AROCHLOR 1221				0.0084 U	0.0081 U	0.0074 U	0.0074 U	0.0085 U	0.0073 U	0.0078 U	0.19 U
AROCHLOR 1232				0.018 U	0.018 U	0.016 U	0.016 U	0.019 U	0.016 U	0.017 U	0.054 U
AROCHLOR 1242				0.013 U	0.012 U	0.011 U	0.011 U	0.013 U	0.011 U	0.012 U	0.025 U
AROCHLOR 1248				0.19	1.5	1.6	0.051	2.6 *	1.73 *	2.44 *	0.4 U
AROCHLOR 1254				0.066	0.46	0.081	0.013 U	0.629	0.013 U	0.93	0.2 U
AROCHLOR 1260				0.021 U	0.02 U	0.018 U	0.018 U	0.02 U	0.018 U	0.019 U	0.31 U
METALS (mg/kg)											(ug/kg)
ANTIMONY	14	340	NS	8 U	7.7 U	7.1 U	7 U	8 U	7 U	7.4 U	5 U
ARSENIC	20	20	NS	2.2	1.9	4.3	1.2 U	2.8	1.8	1.2 U	5 U
BERYLLIUM	1	1	NS	0.67 U	0.64 U	0.59 U	0.58 U	0.84	0.58 U	0.62 U	5 U
CADMIUM	1	100	NS	0.67 U	0.64 U	0.59 U	0.58 U	0.67 U	0.58 U	0.62 U	4 U
CHROMIUM	NS	NS	NS	14	7.8	15.6	12.4	12.2	12.4	12.5	10 U
COPPER	600	600	NS	11	25	39.6	12.9	12.3	14.5	11.7	25 U
LEAD	400(4)	600	NS	13 U	13 U	41.1	12 U	13 U	12 U	12 U	3 U
MERCURY	14	270	NS	0.11 U	0.12 U	0.28	0.11 U	0.13 U	0.11 U	0.12 U	0.2 U
NICKEL	250	2400	NS	16	9.6	26.7	14.8	33.8	16.5	15.5	40 U
SELENIUM	63	3100	NS	13 U	13 U	12 U	12 U	13 U	12 U	12 U	5 U
SILVER	110	4100	NS	1.3 U	1.3 U	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	10 U
THALLIUM	2	2	NS	1.3 U	1.3 U	1.2 U	3.5 U	4 U	1.2 U	1.2 U	5 U
ZINC	1500	1500	NS	120	29	67.6	39.5	60.6	52.4	46.1	20
WET CHEMISTRY OR MISC:											
PETROLEUM HYDROCARBONS (mg/kg)	NS(5)	NS(5)	NS(5)	140	630	7670	25 U	2220	1050	12600	0.5 U
TOTAL PERCENT SOLIDS (%)	NS	NS	NS	75	78	84.8	85.7	74.6	85.9	80.9	NA

NOTES

mg/kg = milligrams per kilogram (parts per million - PPM)

ug/kg = micrograms per kilograms (parts per billion - PPB)

(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.

(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.

(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.

(4) Revised July 20, 1994

(5) Cleanup criteria for TPHC in soil is 10,000 mg/kg.

Shaded area indicates detection was above one or more of the criteria limits.

NS = No Standard

NA = Not Analyzed

U = Undetected

* = Laboratory Run #2, Dilution Factor of 5

N = Presumptive evidence of a compound

B = Indicates that analyte is found in associated method blank

J = An estimated value below method detection limit.

TABLE 4-10-1
ANALYTICAL SUMMARY OF SOIL SAMPLING RESULTS (PHASE I)
B9 SOIL BORINGS (AOC-10)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID:	Residential	Non-Residential	Impact to	B6/S8	B7/S2	B8/S6	B9A/S2	B9A/S3	B10/S6	FB	FB
SAMPLE DEPTH:	Direct	Direct	GW Soil	15.0–15.5'	3.5–4.0'	10.5–11.0'	4.5–5.0'	6.0–6.5'	10.0–10.5'		
SAMPLE DATE:	Contact Soil	Contact Soil	Cleanup	11/22/93	12/03/93	11/24/93	12/03/93	12/03/93	11/24/93	11/24/93	12/03/93
LAB ID	Cleanup Criteria*	Cleanup Criteria*	Criteria	E332882	E333718	E333108	E333719	E333720	E333107	E333109	E333721
METALS (PPM)											
Antimony	14	340	NS	<6.9	2.6	<7	0.81	<0.57	<7.4	<5.0	<5.0
Arsenic	20	20	NS	<0.57	13	4.2	18	3.7	<0.62	<5.0	<5.0
Beryllium	1	1	NS	0.58	<0.57	<0.64	<0.56	<0.57	<0.62	<5.0	<5.0
Cadmium	1	100	NS	<0.57	1.8	<0.64	0.75	<0.57	<0.62	<4.0	<4.0
Chromium	NS	NS	NS	14	15	13	74	20	5.6	<10	<10
Copper	600	600	NS	9.8	89	31	95	46	13	<25	<25
Lead	100	600	NS	<11	210	65	100	74	<12	<3.0	<3.0
Mercury	14	270	NS	<0.11	1.2	0.32	0.53	0.77	<0.12	<0.20	<0.20
Nickel	250	2400	NS	19	45	14	88	28	8.8	<40	<40
Selenium	63	3100	NS	<11	<11	<13	<11	<11	<12	<5.0	<10
Silver	110	4100	NS	<1.1	<3.4	<1.3	<3.4	<3.4	<1.2	<10	<10
Thallium	2	2	NS	<0.57	<0.57	<0.64	<0.56	<0.57	<0.62	<5.0	<5.0
Zinc	1500	1500	NS	51	150	76	130	89	24	29	27
Cyanide, Total	1100	21000	NS	NA	NA	<1.0	<1.0	NA	NA	<0.010	<0.010
Phenolics, Total	NS	NS	NS	NA	NA	<2.5	3.9	NA	NA	<0.050	<0.050
Petroleum Hydrocarbons	NS	NS	NS	<25	82	NA	NA	13000	<25	NA	NA
Total Percent Solids	NS	NS	NS	87 %	87 %	78 %	89 %	88 %	81 %	0 %	0 %
PCBs (PPB)	490	2000	100,000								
Arochlor 1016	NS	NS	NS	20 U	20 U	22 U	20 U	20 U	22 U	0.22 U	0.22 U
Arochlor 1221	NS	NS	NS	7.2 U	7.2 U	8 U	7.1 U	7.2 U	7.7 U	0.19 U	0.19 U
Arochlor 1232	NS	NS	NS	16 U	16 U	18 U	16 U	16 U	17 U	0.27 U	0.26 U
Arochlor 1242	NS	NS	NS	11 U	11 U	12 U	11 U	11 U	12 U	0.36 U	0.35 U
Arochlor 1248	NS	NS	NS	8.4 U	69	9.3 U	630	1500	9.0 U	0.27 U	0.27 U
Arochlor 1254	NS	NS	NS	12 U	12 U	14 U	740	850	13 U	0.079 U	0.078 U
Arochlor 1260	NS	NS	NS	18 U	18 U	20 U	330	270	19 U	0.091 U	0.090 U

TABLE 4-10-5
ANALYTICAL SUMMARY OF FREE PRODUCT SAMPLE (P
BORING B9 AREA (AOC-10)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION:	B9A-B5A
SAMPLING DEPTH:	4.5'
SAMPLING DATE:	09/26/95
ACCUTEST SAMPLE ID:	E6630-10
METALS (MG/KG)	
ANTIMONY	226
ARSENIC	124
BERYLLIUM	3.5
CADMIUM	33.2
CHROMIUM	3460
COPPER	3350
LEAD	6440
MERCURY	2.2
NICKEL	2880
SELENIUM	69 U
SILVER	44.2
THALLIUM	35 U
ZINC	6140
WET CHEMISTRY OR MISC: (MG/KG)	
PETROLEUM HYDROCARBONS* (1)	99400
SOLIDS, PERCENT (%)	14.4

mg/kg = milligrams per kilogram (parts per million - PPM)
* - Detection limit raised due to low percent solids
NA = Not Analyzed
U = Undetected
(1) Cleanup criteria for TPHC in soil is 10,000 mg/kg.

TABLE

ANALYTICAL SUMMARY OF SEDIMENT SAMPLING RESULTS (PHASE I)
INTERIOR BASEMENT/TUNNEL SAMPLES (AOC-11)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID			Impact to	TB-1	TC-1	TD-1	TD-2	TD-3	TS-1	TS-2
SAMPLE LOCATION	Residential Direct	Non-Residential	GW Soil					(Aqueous)		
SAMPLE DATE	Contact Soil	Direct Contact Soil	Cleanup	04/18/94	04/18/94	04/18/94	04/18/94	04/18/94	11/30/93	11/30/93
LAB ID	Cleanup Criteria*	Cleanup Criteria*	Criteria	E410487	E410488	E410489	E410490	E410491	E333442	E333443
PARAMETER										
METALS (PPM)										
Antimony	14	340	NS	<6.2	<7.1	<10	<10	NA	3.1	0.78
Arsenic	20	20	NS	1.2	22	7.4	5.7	NA	31	13
Beryllium	1	1	NS	1.4	<0.59	1.0	0.99	NA	<0.58	<0.58
Cadmium	1	100	NS	3.5	150	2.5	2.8	NA	4.3	2.4
Chromium	NS	NS	NS	84	180	96	150	NA	150	120
Copper	600	600	NS	41	390	240	180	NA	140	180
Lead	100	600	NS	32	250	100	110	NA	630	180
Mercury	14	270	NS	<0.093	0.48	0.25	0.27	NA	0.15	0.18
Nickel	250	2400	NS	160	360	240	280	NA	670	1600
Selenium	63	3100	NS	<10	<12	<17	<17	NA	<12	<12
Silver	110	4100	NS	<1.0	<1.2	<1.7	<1.7	NA	<3.5	<3.5
Thallium	2	2	NS	<1.0	<1.2	<1.7	<1.7	NA	<0.58	<0.58
Zinc	1500	1500	NS	280	1100	1100	1400	NA	360	280
Cyanide, Total			NS	NA	NA	NA	NA	NA	NA	NA
Phenolics, Total			NS	NA	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons			NS	200000	1100	2100	3800	NA	54000	28000
Total Percent Solids	NS	NS	NS	96 %	85 %	58 %	60 %	NA	86 %	86 %
PCBs (PPM)	0.49	2	100							
Arochlor 1016	NS	NS	NS	0.18 U	0.021 U	0.03 U	0.029 U	0.22 U	2 U	2 U
Arochlor 1221	NS	NS	NS	0.066 U	0.0074 U	0.011 U	0.01 U	0.19 U	0.73 U	0.73 U
Arochlor 1232	NS	NS	NS	0.14 U	0.016 U	0.024 U	0.023 U	0.27 U	1.6 U	1.6 U
Arochlor 1242	NS	NS	NS	0.1 U	0.011 U	0.017 U	0.016 U	0.36 U	1.1 U	1.1 U
Arochlor 1248	NS	NS	NS	88	1900	480	430	0.27 U	270	170
Arochlor 1254	NS	NS	NS	0.11 U	0.013 U	0.019 U	0.018 U	0.079 U	IND	26
Arochlor 1260	NS	NS	NS	0.16 U	0.018 U	0.027 U	0.026 U	0.090 U	13	7.9

GW = Groundwater
B.G. = Below Ground
NS = No Standard
NA = Not Analyzed
U = Undetected

AOC = Area of Concern
IND = Indeterminate due to presence of Arochlor 1248 pattern
* = Results report from Dilution #1
Shaded areas represent detection over the method detection limit.
and detection over one or more of the cleanup criteria.

BEB/HARTZ/TUNLDEF

TABLE 4-11-2
ANALYTICAL RESULTS OF SEDIMENT SAMPLING (PHASE III)
TUNNELS D, E, F (AOC-11)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION: SAMPLING DATE: ACCUTEST SAMPLE ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	TUNNEL D, SS-1 09/23/95 E6584-1	TD596-1(12-18") 05/16/96 E11705-2	TD596-1(18-22") 05/16/96 E11705-3	TUNNEL E-1 09/18/95 E6437-4	TUNNEL F-1 09/18/95 E6437-3
METALS (mg/kg)								
ANTIMONY	14	340	NS	6.5 U	NA	NA	2.9 U	0.51 U
ARSENIC	20	20	NS	1.3	NA	NA	31	1.7
BERYLLIUM	1	1	NS	0.54 U	NA	NA	2.9 U	0.51 U
CADMIUM	1	100	NS	0.54 U	NA	NA	8.5	0.91
CHROMIUM	NS	NS	NS	6.8	NA	NA	89	17
COPPER	600	600	NS	14	NA	NA	460	66
LEAD	400(4)	600	NS	11 U	NA	NA	260	59
MERCURY	14	270	NS	0.1 U	NA	NA	1	0.33
NICKEL	250	2400	NS	7.2	NA	NA	350	110
SELENIUM	63	3100	NS	11 U	NA	NA	2.9 U	0.51 U
SILVER	110	4100	NS	1.1 U	NA	NA	5.7 U	1 U
THALLIUM	2	2	NS	1.1 U	NA	NA	2.9 U	0.51 U
ZINC	1500	1500	NS	11	NA	NA	1100	730
WET CHEMISTRY OR MISC:								
PETROLEUM HYDROCARBONS (mg/kg)	NS	NS	NS	5900	NA	NA	NA	NA
TOTAL PERCENT SOLIDS (%)	NS	NS	NS	93 %	NA	NA	87	99

NOTES

mg/kg = milligrams per kilogram (parts per million - PPM)

(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.

(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.

(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.

(4) Revised July 20, 1994

Shaded area indicates detection was above one or more of the criteria limits.

NS = No Standard

NA = Not Analyzed

U = Undetected

Shaded area indicates detection is above one or more of the criteria levels.

J = An estimated value below method detection limit.

N = Presumptive evidence of a compound.

IND = Indeterminate due to presence of Arochlor 1248 pattern.

TABLE 4-11-2
ANALYTICAL RESULTS OF SEDIMENT SAMPLING (PHASE III)
TUNNELS D, E, F (AOC-11)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	TUNNEL D, SS-1	TUNNEL E-1	TUNNEL F-1
SAMPLING DATE:				09/23/95	09/18/95	09/18/95
ACCUTEST SAMPLE ID:				E6584-1	E6437-4	E6437-3
METALS (mg/kg)						
ANTIMONY	14	340	NS	6.5 U	2.9 U	0.51 U
ARSENIC	20	20	NS	1.3	31	1.7
BERYLLIUM	1	1	NS	0.54 U	2.9 U	0.51 U
CADMIUM	1	100	NS	0.54 U	8.5	0.91
CHROMIUM	NS	NS	NS	6.8	89	17
COPPER	600	600	NS	14	460	66
LEAD	400(4)	600	NS	11 U	260	59
MERCURY	14	270	NS	0.1 U	1	0.33
NICKEL	250	2400	NS	7.2	350	110
SELENIUM	63	3100	NS	11 U	2.9 U	0.51 U
SILVER	110	4100	NS	1.1 U	5.7 U	1 U
THALLIUM	2	2	NS	1.1 U	2.9 U	0.51 U
ZINC	1500	1500	NS	11	1100	730
WET CHEMISTRY OR MISC:						
PETROLEUM HYDROCARBONS (mg/kg	NS	NS	NS	5900	NA	NA
TOTAL PERCENT SOLIDS (%)	NS	NS	NS	93 %	87	99

NOTES

mg/kg = milligrams per kilogram (parts per million - PPM)

(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.

(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.

(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.

(4) Revised July 20, 1994

Shaded area indicates detection was above one or more of the criteria limits.

NS = No Standard

NA = Not Analyzed

U = Undetected

Shaded area indicates detection is above one or more of the criteria levels.

J = An estimated value below method detection limit.

N = Presumptive evidence of a compound.

IND = Indeterminate due to presence of Arochlor 1248 pattern.

B24:HRTZ1122

TABLE 4-12-1
SUMMARY OF ANALYTICAL RESULTS (PHASE II)
FORMER AST PRODUCT PIPING SAMPLES (AOC-13)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

MPLING LOCATION:	Residential Direct Contact Soil Cleanup Criteria (1)	Non-Residential Direct Contact Soil Cleanup Criteria (2)	Impact to Groundwater Soil Cleanup Criteria (3)	PP-1	PP-2	PP-3	PP-4	PP-5	PP-6	PP-7	PP-8	PP-9	PT-1
MPLING DATE:				11/22/94	11/22/94	11/22/94	11/22/94	11/22/94	11/22/94	11/22/94	11/22/94	11/22/94	11/22/94
CCUTEST SAMPLE ID:				B439604	B439605	B439606	B439607	B439737	B439738	B439739	B439740	B439741	B439608
Bs (PPB)	490	2000	50000										
ROCHLOR 1016				4700 U	5900 U	5200 U	5000 U	4900 U	5100 U	5000 U	5000 U	4900 U	21 U
ROCHLOR 1221				1700 U	2100 U	1900 U	1800 U	1800 U	1800 U	1800 U	1800 U	1800 U	7.4 U
ROCHLOR 1232				3700 U	4700 U	4100 U	4000 U	3900 U	4100 U	4000 U	4000 U	3900 U	16 U
ROCHLOR 1242				2600 U	3200 U	2800 U	2700 U	2700 U	2800 U	2800 U	2800 U	2700 U	11 U
ROCHLOR 1248				1900 U	2500 U	2200 U	2100 U	2100 U	2100 U	2100 U	40000	2100 U	1200
ROCHLOR 1254				2800 U	3600 U	3100 U	3000 U	3000 U	3100 U	3100 U	24000	3000 U	810
ROCHLOR 1260				4100 U	5200 U	4500 U	4400 U	4400 U	4500 U	4400 U	16000	4300 U	230
ESEL FUEL (C9-C22)	NS	NS	NS	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH
EL OIL #2 (C11-C22)	NS	NS	NS	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH
EL OIL #4 (C11-C24)	NS	NS	NS	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH
EL OIL #6 (C11-C26)	NS	NS	NS	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH
ASOLINE (C4-C12)	NS	NS	NS	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH
EROSENE (C9-C18)	NS	NS	NS	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH
INERAL SPIRITS (C9-C12)	NS	NS	NS	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH
THER	NS	NS	NS	UNKN(>C12)	UNKN(>C12)	UNKN(>C10)	UNKN(>C)	UNKN(>C10)	UNKN(>C13)	UNKN(>C13)	UNKN(C14)	UNKN(C14)	UNKN(C14)
RPENTINE (C9-C11)	NS	NS	NS	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH	NO MATCH
ETALS (PPB)													
NTIMONY	14000	340000	NS	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	130 U	130 U	130 U	NA
RSENIC	20000	20000	NS	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	130 U	130 U	130 U	NA
ERYLLIUM	1000	1000	NS	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	130 U	130 U	130 U	NA
ADMIUM	1000	100000	NS	4.0 U	4.0 U	4.0 U	4.0 U	100 U	100 U	100 U	100 U	100 U	NA
HROMIUM	1000	100000	NS	10.0 U	10.0 U	10.0 U	10.0 U	250 U	250 U	250 U	250 U	250 U	NA
OPPER	600000	600000	NS	25.0 U	25.0 U	25.0 U	86	630 U	630 U	630 U	630 U	1900	NA
EAD	400000	600000	NS	4.8	390	360	12	160	160	170	240	270	NA
ERCURY	14000	270000	NS	4.0 U	28	7.5	4.0 U	20 U	20 U	20 U	20 U	20 U	NA
CKEL	250000	2400000	NS	40.0 U	40.0 U	40.0 U	40.0 U	1000 U	1000 U	1000 U	1000 U	1000 U	NA
ELENIUM	63000	3100000	NS	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	130 U	130 U	130 U	NA
LVER	110000	4100000	NS	10.0 U	10.0 U	10.0 U	10.0 U	250 U	250 U	250 U	250 U	250 U	NA
HALLIUM	2000	2000	NS	5.0 U	5.0 U	5.0 U	5.0 U	130 U	130 U	130 U	130 U	130 U	NA
NC	1500000	1500000	NS	20.0 U	490	170	67	500 U	780	500 U	1100	680	NA
L9C (PPM)													
TROLEUM HYDROCARBONS	NS	NS	NS	>900000	>900000	160	>900000	>900000	>900000	>900000	>900000	>900000	61000
TROGEN, AMMONIA	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.3
OTAL PERCENT SOLIDS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	85 %

= UNDETECTED NS = No Standard

A = NOT ANALYZED

RDC Criteria are based on NJDEP 3 February 1994 Residential Contact Soil Cleanup Criteria

NRDC Criteria are based on NJDEP 3 February 1994 Non-Residential Contact Soil Cleanup Criteria

IGW Criteria are based on NJDEP 3 February 1994 Impact to Groundwater Soil Cleanup Criteria

TABLE 4-12-2
ANALYTICAL RESULTS OF SOIL SAMPLES (PHASE III)
BUILDING 8 - AST PIPING TRENCH (AOC-13)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION: SAMPLING DEPTH: SAMPLING DATE: ACCUTEST SAMPLE ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	AST-B1-S-1 5.5 - 6' 09/15/95 E6404-2	AST-B2A-S1 8 - 8.5' 09/15/95 E6404-3	AST-B3-S1 5 - 5.5' 09/15/95 E6404-4
PCBs (mg/kg)	0.49	2	50			
AROCHLOR 1016				0.02 U	0.019 U	0.02 U
AROCHLOR 1221				0.0071 U	0.0067 U	0.0071 U
AROCHLOR 1232				0.016 U	0.015 U	0.016 U
AROCHLOR 1242				0.011 U	0.01 U	0.011 U
AROCHLOR 1248				0.0083 U	0.0078 U	0.0082 U
AROCHLOR 1254				0.012 U	0.012 U	0.27
AROCHLOR 1260				0.018 U	0.017 U	0.089
METALS (mg/kg)						
ANTIMONY	14	340	NS	6.8 U	6.5 U	6.7 U
ARSENIC	20	20	NS	2.2	1.1 U	7.9
BERYLLIUM	1	1	NS	0.57 U	0.54 U	0.56 U
CADMIUM	1	100	NS	0.57 U	0.54 U	0.56 U
CHROMIUM	NS	NS	NS	12	8.9	12
COPPER	600	600	NS	22	2.7 U	77
LEAD	400(4)	600	NS	11 U	11 U	1100
MERCURY	14	270	NS	0.11 U	0.098 U	0.45
NICKEL	250	2400	NS	15	10	22
SELENIUM	63	3100	NS	11 U	11 U	11 U
SILVER	110	4100	NS	1.1 U	1.1 U	1.1 U
THALLIUM	2	2	NS	1.1 U	1.1 U	1.1 U
ZINC	1500	1500	NS	42	2.2 U	160
WET CHEMISTRY OR MISC:						
PETROLEUM HYDROCARBONS (mg/kg)	NS(5)	NS(5)	NS(5)	9300	820	16000
TOTAL PERCENT SOLIDS (%)	NS	NS	NS	88	93	89

NOTES

ug/kg = micrograms per kilograms (parts per billion - PPB)

mg/kg = milligrams per kilogram (parts per million - PPM)

(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.

(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.

(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.

(4) Revised July 20, 1994

(5) Cleanup criteria for TPHC in soil is 10,000 mg/kg.

NS = No Standard

U = Undetected

Shaded detection indicates result wass higher that one or more of the soil cleanup criteria.

TABLE 4-13-1
ANALYTICAL SUMMARY OF SAMPLING (PHASE I)
SUBSURFACE PROCESS ROOM PIT SAMPLES (AOC-15)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID SAMPLE LOCATION SAMPLE DATE LAB ID	Residential Direct Contact Soil leanup Criteria	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	P-1 Pit Bldg. 1 04/18/94 E410486	V8-1 Steel Vat 12/07/93 E334877	P8-1 Pit 12/07/93 E334877
METALS (PPM)						
Antimony	14	340	NS	NA	<18	NA
Arsenic	20	20	NS	NA	11	NA
Beryllium	1	1	NS	NA	<1.5	NA
Cadmium	1	100	NS	NA	3.6	NA
Chromium	NS	NS	NS	NA	870	NA
Copper	600	600	NS	NA	410	NA
Lead	100	600	NS	NA	130	NA
Mercury	14	270	NS	NA	0.30	NA
Nickel	250	2400	NS	NA	620	NA
Selenium	63	3100	NS	NA	<29	NA
Silver	110	4100	NS	NA	<8.8	NA
Thallium	2	2	NS	NA	<1.5	NA
Zinc	1500	1500	NS	NA	680	NA
Cyanide, Total	NS	NS	NS	NA	NA	NA
Phenolics, Total	NS	NS	NS	NA	NA	NA
Petroleum Hydrocarbons	NS	NS	NS	NA	900000	600
Total Percent Solids	NS	NS	NS	NA	34 %	NA

GW = Ground Water
NS = No Standard
NA = Not Analyzed
U = Undetected
* = Results report from Dilution #1

8E870/HRTZ88

TABLE 4-14-1
ANALYTICAL SUMMARY OF MANHOLE#1 SEDIMENT SAMPLING (PHASE I)
COMBINED SEWER SYSTEM (AOC-16)
HARTZ MOUNTAIN CORPORATION
HARRISON, NEW JERSEY

SAMPLE ID SAMPLE LOCATION SAMPLE DATE LAB ID	Residential Direct Contact Soil Cleanup Criteria*	Non-Residential Direct Contact Soil Cleanup Criteria*	Impact to GW Soil Cleanup Criteria	MH-1 Manhole #1 04/18/94 E410582
PARAMETER				
METALS (PPM)				
Antimony	14	340	NS	<11
Arsenic	20	20	NS	18
Beryllium	1	1	NS	1.3
Cadmium	1	100	NS	9.0
Chromium	NS	NS	NS	370
Copper	600	600	NS	1600
Lead	100	600	NS	1500
Mercury	14	270	NS	2.3
Nickel	250	2400	NS	370
Selenium	63	3100	NS	<19
Silver	110	4100	NS	35
Thallium	2	2	NS	<1.9
Zinc	1500	1500	NS	2400
Total Percent Solids	NS	NS	NS	53 %
PCBs (PPB)	490	2000	100,000	
Arochlor 1016	NS	NS	NS	21 U
Arochlor 1221	NS	NS	NS	7.4 U
Arochlor 1232	NS	NS	NS	16 U
Arochlor 1242	NS	NS	NS	11 U
Arochlor 1248	NS	NS	NS	8.6 U
Arochlor 1254	NS	NS	NS	13 U
Arochlor 1260	NS	NS	NS	18 U

GW = Groundwater
NS = No Standard
NA = Not Analyzed
U = Undetected

AOC = Area of Concern
* = Results report from Dilution #1
Shaded areas represent detection over the method detection limit.
Shaded areas and italicized number represent detection over the method detection limit and detection over one or more of the cleanup criteria.

TABLE 4-14-3
ANALYTICAL SUMMARY OF SOIL BORINGS (PHASE III) FROM THE COMBINED SEWER SYSTEM (AOC-16) HARTZ MOUNTAIN FACILITY HARRISON, NEW JERSEY

SAMPLING LOCATION: SAMPLING DEPTH: SAMPLING DATE: ACCUTEST SAMPLE ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	CSS-1S 6.0-6.5' 09/12/95 E6337-3	CSS-2S, 7.0-7.5' 09/20/95 E6506-5	CSS-3S 6.0-6.5 09/18/95 E6437-1	CSS-4S 6.0-6.5' 09/25/95 E6630-1	CSS-5S 6.0-6.5' 09/25/95 E6630-3
METALS (mg/kg)								
ANTIMONY	14	340	NS	7.1 U	6.4 U	0.57 U	6.9 U	6.6 U
ARSENIC	20	20	NS	1.2 U	1.1 U	1.5	1.2 U	1.1 U
BERYLLIUM	1	1	NS	0.6 U	0.53 U	0.57 U	0.58 U	0.55 U
CADMIUM	1	100	NS	0.6 U	0.53 U	0.57 U	0.58 U	0.55 U
CHROMIUM	NS	NS	NS	2.1	7.5	13	6.5	3.8
COPPER	600	600	NS	5.3	12.5	13	15.9	4.6
LEAD	400(4)	600	NS	12 U	11 U	6.4	12 U	11 U
MERCURY	14	270	NS	0.094 U	0.088 U	0.093 U	0.11 U	0.11 U
NICKEL	250	2400	NS	4.8 U	10.6	17	8.5	4.4 U
SELENIUM	63	3100	NS	12 U	11 U	0.57 U	12 U	11 U
SILVER	110	4100	NS	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U
THALLIUM	2	2	NS	1.2 U	1.1 U	0.57 U	1.2 U	1.1 U
ZINC	1500	1500	NS	8.6	33.1	45	17.5	9.3
WET CHEMISTRY OR MISC:								
PETROLEUM HYDROCARBONS (mg/	NS	NS	NS	2900	25 U	380	25	25 U
SOLIDS, PERCENT (%)	NS	NS	NS	94	94.3	88	86.6	91

mg/kg = milligrams per kilogram (parts per million - PPM)

(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.

(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.

(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.

(4) Revised July 20, 1994

J = Indicates an estimated value below the Method Detection Limit

NS = No Standard

B = Compound found in associated blank as well as in sample

NA = Not Analyzed

N = Indicates presumptive evidence of a compound.

U = Undetected

TABLE 4-14-3
ANALYTICAL SUMMARY OF SOIL BORINGS (PHASE III)
FROM THE COMBINED SEWER SYSTEM (AOC-16)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION: SAMPLING DEPTH: SAMPLING DATE: ACCUTEST SAMPLE ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	CSS-6S 6.0-6.5' 09/26/95 E6630-7	CSS-7S 6.0-6.5' 09/22/95 E6566-4	CSS-8S, 6-6.5' 09/19/95 E6490-1	CSS-9S, 6.5-7.0' 09/20/95 E6506-1
METALS (mg/kg)							
ANTIMONY	14	340	NS	6.6 U	6.4 U	7.9 U	6.5 U
ARSENIC	20	20	NS	1.1 U	1.1 U	5.7	1.1 U
BERYLLIUM	1	1	NS	0.55 U	0.53 U	0.66 U	0.54 U
CADMIUM	1	100	NS	0.55 U	0.53 U	0.66 U	0.54 U
CHROMIUM	NS	NS	NS	3.6	1.6	25	5.6
COPPER	600	600	NS	5.3	4.8	42	10.8
LEAD	400(4)	600	NS	11 U	11 U	180	11 U
MERCURY	14	270	NS	0.11 U	0.1 U	0.24	0.099 U
NICKEL	250	2400	NS	4.7	4.3 U	11	7.7
SELENIUM	63	3100	NS	11 U	11 U	13 U	11 U
SILVER	110	4100	NS	1.1 U	1.1 U	1.3 U	1.1 U
THALLIUM	2	2	NS	1.1 U	1.1 U	1.3 U	1.1 U
ZINC	1500	1500	NS	18.9	7.7	110	22.3
WET CHEMISTRY OR MISC:							
PETROLEUM HYDROCARBONS (	NS	NS	NS	40.3	25 U	57	108
SOLIDS, PERCENT (%)	NS	NS	NS	90.6	93.8	76	92.6

mg/kg = milligrams per kilogram (parts per million - PPM)
(1) RDC Criteria are based on NJDEP 8 February 1994 Residential Contact Soil Cleanup Criteria.
(2) NRDC Criteria are based on NJDEP 8 February 1994 Non-Residential Contact Soil Cleanup Criteria.
(3) IGW Criteria are based on NJDEP 8 February 1994 Impact to Groundwater Soil Cleanup Criteria.
(4) Revised July 20, 1994
NS = No Standard
NA = Not Analyzed
U = Undetected
J = Indicates an estimated value below the Method Detection Limit
B = Compound found in associated blank as well as in sample
N = Indicates presumptive evidence of a compound.

TABLE 4-16-3
ANALYTICAL SUMMARY OF GROUNDWATER SAMPLING (PHASE III) ROUND II, SHALLOW & INTERMEDIATE WELLS (AOC-18) COLLECTED AT THE HARTZ MOUNTAIN FACILITY HARRISON, NEW JERSEY

SAMPLING LOCATION:	GQC	MW-6I	MW-6S	MW-7I	MW-7S	MW-8I	MW-8S	MW-9I	MW-9S	MW-10I
SAMPLING DATE:		12/28/95	12/28/95	12/28/95	12/28/95	05/20/96	12/29/95	12/29/95	01/02/96	12/29/95
ACCUTEST SAMPLE ID:		E8772-10	E8772-12	E8772-14	E8772-14	E11743-3	E8794-6	E8794-8	E8819-8	E8794-10
PCBs (ug/L)	0.5									
Aroclor 1016		0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Aroclor 1221		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Aroclor 1232		0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U
Aroclor 1242		0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Aroclor 1248		0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Aroclor 1254		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Aroclor 1260		0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
METALS (ug/L)										
Antimony	20	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Arsenic	8	5 U	5 U	5 U	18.9	5 U	5 U	5 U	25.8	5 U
Beryllium	20	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	4	4 U	4 U	4 U	10	4 U	4 U	4 U	4 U	4 U
Calcium	NS	145000	565000	49600	140000	28300	37500	172000	91200	130000
Chromium	100	10 U	21.4	15.8	109	10.4	10 U	10 U	69.8	10 U
Copper	1,000	25 U	34	25 U	238	25 U	25 U	25 U	92.8	25 U
Iron	300	100 U	20900	100 U	115000	556	2910	100 U	49400	100 U
Lead	10	3 U	11.6	3 U	169	10.4	3 U	3 U	24.6	3 U
Magnesium	NS	77400	83200	44000	42300	6650	5080	198000	31200	68300
Mercury	2	0.2 U	0.2 U	0.2 U	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	40 U	40 U	40 U	153	40 U	40 U	40 U	50.1	40 U
Potassium	NS	14400	21400	35200	21400	5360	5640	46900	24700	21600
Selenium	50	5 U	7.2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
Silver	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	50,000	1230000	989000	378000	18500	42800	135000	1610000	165000	520000
Thallium	10	5 U	6.3	5 U	5 U	5 U	250 U	1000 U	2000 U	1000 U
Zinc	5,000	24.3	174	45.6	604	33.6	47.2	35.2	170	20 U
GENERAL CHEMISTRY (mg/L)										
Alkalinity, Bicarbonate	NS	425	431	300	317	60.9	181	505	432	378
Alkalinity, Carbonate	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Alkalinity, Total	NS	426	432	303	319	NA	181	506	433	379
Chloride	250	1770	2160	437	7.4	76.2	272	3350	277	1100
Hardness, Total	250	772	1870	318	579	97.1	110	1390	405	676
Petroleum Hydrocarbons	NN	0.5 U	0.5 U	0.53	0.5 U	0.5 U	0.97	0.76	0.5 U	0.5 U
Solids, Total Dissolved	500	4210	3680	1390	338	230	140	5780	682	2070
Sulfate	250	200	112	116	65.3	33.1	24.6	209	10 U	75.3

(1) - GQC - Groundwater Quality Criteria listed in this table are defined as the higher of Practical Quantitation Levels ("PQL"s) & Groundwater Quality Criteria in accordance with N.J.A.C. 7:9-6.9(c) and in Table 1 of N.J.A.C. 7:9-6

U = Undetected

Shaded area indicated detection exceeds GW Quality Criteria

ug/L = micrograms per Liter

NS = No Standard

J = indicates estimated value

NA = Not Analyzed

TABLE 5-5
MONITORING WELL DEVELOPMENT
AND P-WELL ABANDONMENT WATER SAMPLE (PHASE III)
HARTZ MOUNTAIN FACILITY
HARRISON, NEW JERSEY

SAMPLING LOCATION:		WDTS-1	
SAMPLING DATE:		12/05/95	
ACCUTEST SAMPLE ID:	GQC (1)	E8260-1	
Tetrachloroethylene	1	0.23	U
Toluene	1000	0.5	U
Trichloroethylene	1	1.8	
Vinyl chloride	5	0.39	U
Vinyl Acetate	NS	0.9	U
Xylenes (total)	40	1	U
Total TIC, Volatile	NS	3	
METALS (ug/L)			
Antimony	20	5	U
Arsenic	8	12.3	
Beryllium	20	5	U
Cadmium	4	4	U
Chromium	100	26.8	
Copper	1,000	40.2	
Lead	10	55.2	
Mercury	2	0.26	
Nickel	100	40	U
Selenium	50	5	U
Silver	NS	10	U
Thallium	10	5	U
Zinc	5,000	169	
Petroleum Hydrocarbons	NN	7.8	

ug/L = micrograms per Liter
U = Undetected
NS = No Standard
Shaded detection indicates level above the GQS

NN = None Noticeable
(1)-GQC-Groundwater Quality Criteria listed in this table are defined as the higher of Practical Quantitation Levels ("PQL"s) & Groundwater Quality Criteria in accordance with N.J.A.C. 7:9-6.9(c) and in Table 1 of N.J.A.C. 7:9-6.

PHASE IV REMEDIAL INVESTIGATION REPORT

HARTZ MOUNTAIN CORPORATION
ISRA CASE NO. 93126

VOLUME I
(Text & Appendices A-F)

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DECEMBER 1997

Metcalf & Eddy
An Air & Water Technologies Company

TABLE 6
ANALYTICAL RESULTS - MW-20S BOREHOLE SAMPLE
HARTZ MOUNTAIN CORPORATION FACILITY
HARRISON, NEW JERSEY

BCB91/HMCSOIL.XLS

SAMPLING LOCATION: SAMPLING DEPTH: SAMPLING DATE: ACCUTEST SAMPLE ID:	RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA(1)	NON-RESIDENTIAL DIRECT CONTACT SOIL CLEANUP CRITERIA (2)	IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA(3)	MW-20S 10'-12' 2/13/97 E18609-1	Field Blank (ug/L) 2/13/97 E18609-2
Naphthalene	230,000	4,200,000	100,000	65 U	NA
Nitrobenzene	250,000	2,400,000	10,000	61 U	NA
n-Nitrosodimethylamine	NS	NS	NS	110 U	NA
N-Nitroso-di-n-propylamine	660	660	10,000	69 U	NA
N-Nitrosodiphenylamine	140,000	600,000	100,000	29 U	NA
Phenanthrene	NS	NS	NS	28 U	NA
Pyrene	1,700,000	10,000,000	100,000	24 U	NA
1,2,4-Trichlorobenzene	68,000	1,200,000	100,000	52 U	NA
Total TIC, Semi-Volatile	NS	NS	NS	6780	NA
PCBs (ug/kg)	490	2,000	50,000		
Aroclor 1016				22 U	NA
Aroclor 1221				7.7 U	NA
Aroclor 1232				17 U	NA
Aroclor 1242				12 U	NA
Aroclor 1248				9 U	NA
Aroclor 1254				13 U	NA
Aroclor 1260				19 U	NA
Metals Analysis (mg/kg)					
Antimony	14	340	NS	<7.3	NA
Arsenic	20	20	NS	<1.2	NA
Beryllium	1	1	NS	<0.61	NA
Cadmium	1	100	NS	<0.61	NA
Chromium	NS	NS	NS	3.6	NA
Copper	600	600	NS	56.3	NA
Lead	400	600	NS	<12	NA
Mercury	14	270	NS	<0.12	NA
Nickel	250	2,400	NS	5.9	NA
Selenium	63	3,100	NS	<12	NA
Silver	110	4,100	NS	<1.2	NA
Thallium	2	2	NS	<1.2	NA
Zinc	1,500	1,500	NS	33.2	NA
Total Petroleum Hydrocarbons				<30	NA
Percent (%) Solids	NS	NS	NS	81.7	NA

NOTES

ug/kg = micrograms per kilogram (parts per billion - PPB)

mg/kg = millograms per kilogram (parts per million - PPM)

NA = Not Analyzed

NS = No standard

U = Undetected

(1) RDC Criteria are based on NJDEP 7/11/96 Residential Contact Soil Cleanup Criteria.

(2) NRDC Criteria are based on NJDEP 7/11/96 Non-Residential Contact Soil Cleanup Criteria.

(3) IGW Criteria are based on NJDEP 7/11/96 Impact to Groundwater Soil Cleanup Criteria.